

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to Be Registered(2)(3)	Proposed Maximum Aggregate Offering Price(3)(4)	Amount of Registration Fee
Debt Securities			
Common Stock, no par value			
Preferred Stock, no par value			
Warrants			
Subscription Rights			
Securities Purchase Contracts			
Units(1)			
Total	—	\$200,000,000(5)	\$1,660(5)(6)

- (1) Each unit consists of one or more shares of common stock, shares of preferred stock, debt securities, warrants, subscription rights, securities purchase contracts or any combination of the foregoing.
- (2) Includes an indeterminate aggregate principal amount and number of securities of each identified class of securities up to a proposed aggregate offering price of \$200,000,000, which may be offered by the registrant from time to time in unspecified numbers and at indeterminate prices, and as may be issued upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable anti-dilution provisions. This registration statement also covers delayed delivery contracts that may be issued by the registrant under which the party purchasing such contracts may be required to purchase any securities that may be offered hereunder. Such contracts may be issued together with the specific securities to which they relate. Securities registered hereunder to be sold by the registrant may be sold either separately or as units comprised of more than one type of security registered hereunder. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), the securities being registered hereunder include such indeterminate number of shares of common stock as may be issuable with respect to the securities being registered hereunder as a result of stock splits, stock dividends or similar transactions.
- (3) Pursuant to General Instruction II.D of Form S-3, the table lists each of the classes of securities being registered and the aggregate proceeds to be raised but does not specify by each class information as to the amount to be registered, proposed maximum offering price per unit, and proposed maximum aggregate offering price.
- (4) If applicable, includes consideration to be received by the registrant for registered securities that are issuable upon exercise, conversion or exchange of other registered securities or that are issued in units.
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.
- (6) On June 2, 2015, the Registrant previously filed a Registration Statement on Form S-3 (File No. 333-204652), which was declared effective on June 16, 2015, and paid a filing fee of \$23,240 (the "Prior Registration Statement"). The Registrant did not sell any of the aggregate of \$200,000,000 of securities pursuant to the Prior Registration Statement. Pursuant to Rule 457(p) under the Securities Act, the Registrant hereby applies all of the previously paid filing fee, \$23,240, against amounts due herewith.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

[Table of Contents](#)

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities nor a solicitation of an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to completion, dated September 14, 2018

PROSPECTUS



ROCKWELL MEDICAL, INC.

**DEBT SECURITIES
COMMON STOCK
PREFERRED STOCK
WARRANTS
SUBSCRIPTION RIGHTS
SECURITIES PURCHASE CONTRACTS
UNITS**

We may offer and sell from time to time up to \$200 million of any combination of the securities described in this prospectus, from time to time, in one or more offerings, in amounts, at prices and on terms determined at the times of offerings.

This prospectus describes the general manner in which our securities may be offered using this prospectus. We will provide specific terms of the securities, including the offering prices, in one or more supplements to this prospectus. The supplements may also add, update or change information contained in this prospectus. You should read this prospectus and the prospectus supplement relating to the specific issue of securities carefully before you invest.

We may offer the securities for sale directly to the purchasers or through one or more underwriters, dealers and agents to be designated at a future date. The supplements to this prospectus will provide the specific terms of the plan of distribution.

Our common stock is listed on the Nasdaq Global Market and traded under the symbol "RMTI." The last reported sale price of the common stock on September 13, 2018 was \$4.12 per share. Each prospectus supplement will indicate if the securities offered thereby will be listed on any securities exchange.

Investing in our securities involves risk. Please read carefully the section entitled "Risk Factors" on Page 4 of this prospectus and any similar section contained in the applicable prospectus supplement and/or other offering material concerning factors you should consider before investing in our securities which may be offered hereby.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2018.

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS	1
CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS	1
OUR COMPANY	3
RISK FACTORS	4
USE OF PROCEEDS	5
DILUTION	6
SECURITIES TO BE OFFERED	7
RATIO OF EARNINGS TO FIXED CHARGES	8
DESCRIPTION OF DEBT SECURITIES	9
DESCRIPTION OF CAPITAL STOCK	20
DESCRIPTION OF WARRANTS	22
DESCRIPTION OF SUBSCRIPTION RIGHTS	24
DESCRIPTION OF SECURITIES PURCHASE CONTRACTS	25
DESCRIPTION OF UNITS	26
PLAN OF DISTRIBUTION	27
WHERE YOU CAN FIND MORE INFORMATION	30
LEGAL MATTERS	31
EXPERTS	31

ABOUT THIS PROSPECTUS

Unless the context otherwise requires, references in this prospectus to "Rockwell," "we," "us," "our" and "ours" refer to Rockwell Medical, Inc., and include its consolidated subsidiaries where the context so requires.

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. Under this shelf registration process, we may, from time to time, sell the securities described in this prospectus, in one or more offerings, up to the maximum aggregate dollar amount \$200,000,000. This prospectus provides you with a general description of the securities that we may offer. Each time we offer securities, we will provide a prospectus supplement and/or other offering material that will contain specific information about the terms of that offering. The prospectus supplement and/or other offering material may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement and any other offering material together with the additional information described under the heading "Where You Can Find More Information."

You should rely only on the information contained or incorporated by reference in this prospectus and in any prospectus supplement or other offering material. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making offers to sell the securities in any jurisdiction in which an offer is not authorized or in which the person making that offer is not qualified to do so or to anyone to whom it is unlawful to make an offer. You should not assume that the information contained in this prospectus or any prospectus supplement or any other offering material, or the information we previously filed with the SEC that we incorporate by reference in this prospectus or any prospectus supplement, is accurate as of any date other than its respective date. Our business, financial condition, results of operations and prospects may have changed since those dates.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

We make forward-looking statements in this registration statement and may make such statements in future filings with the Securities and Exchange Commission, or SEC. We may also make forward-looking statements in our press releases or other public or shareholder communications. Our forward-looking statements are subject to risks and uncertainties and include information about our expectations and possible or assumed future results of our operations. When we use words such as "may," "might," "will," "should," "believe," "expect," "anticipate," "estimate," "continue," "could," "plan," "potential," "predict," "forecast," "project," "intend," or similar expressions, or make statements regarding our intent, belief, or current expectations, we are making forward-looking statements.

These forward-looking statements are neither promises nor guarantees of future performance due to a variety of risks and uncertainties, many of which are beyond our control, which could cause actual results to differ materially from those indicated by these forward-looking statements, including, without limitation, risks relating to:

- the timing and commercial success of the commercial launch of our proprietary products and new business strategy;
- the timing and success of obtaining Medicare and other third-party reimbursement approval for our products, including Triferic;
- the timing and success of filing of applications for new regulatory approvals in the United States and abroad, including for our planned intravenous formulation of Triferic;
- our liquidity and capital resources;

[Table of Contents](#)

- future results of operations and the financial condition of the Company;
- our dependence on key employees and our ability to integrate new members of our management team;
- the timing and success of clinical studies of the Company's drug candidates, including planned studies of Triferic in China and a pediatric study of Triferic;
- the manufacture of our products in compliance with the FDA's current Good Manufacturing Practices;
- the ability to maintain compliance with SEC and Nasdaq rules; and
- other risks more fully discussed in the "Risk Factors" section in this prospectus, the section of any accompanying prospectus supplement entitled "Risk Factors" and the risk factors and cautionary statements described in other documents that we file from time to time with the SEC, specifically under "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q.

We claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995 for all of our forward-looking statements. While we believe that our forward-looking statements are reasonable, you should not place undue reliance on any such forward-looking statements, which are based on information available to us on the date of this report or, if made elsewhere, as of the date made. Because these forward-looking statements are based on estimates and assumptions that are subject to significant business, economic and competitive uncertainties, many of which are beyond our control or are subject to change, actual results could be materially different. See "Risk Factors" in this prospectus for more information. You should consider these factors and other cautionary statements made in this prospectus and in the documents we incorporate by reference as being applicable to all related forward-looking statements wherever they appear in this prospectus and in the documents incorporated by reference.

Other factors not currently anticipated may also materially and adversely affect our results of operations, cash flows and financial position. We do not undertake any obligation to update or alter any statements whether as a result of new information, future events or otherwise, except as required by law.

OUR COMPANY

We are a specialty pharmaceutical company targeting end-stage renal disease ("ESRD") and chronic kidney disease with products for the treatment of iron deficiency, secondary hyperparathyroidism and hemodialysis (also referred to as "dialysis").

We are currently marketing and developing unique, proprietary renal drug therapies. These renal drug therapies support disease management initiatives to improve the quality of life and care of dialysis patients and are designed to deliver safe and effective therapy, while decreasing drug administration costs and improving patient convenience and outcome. We have also obtained licenses for certain dialysis related drugs which we are developing and planning to market in major markets globally either directly or through license partners.

We are also a manufacturer of hemodialysis concentrates/dialysates to dialysis providers and distributors in the United States and abroad. We manufacture, sell and distribute hemodialysis concentrates and other ancillary medical products and supplies used in the treatment of patients with ESRD. We also supply dialysis concentrates to distributors serving a number of foreign countries, primarily in the Americas and the Pacific Rim. The majority of our sales occur in the United States.

We are regulated by the United States Food and Drug Administration ("FDA") under the Federal Drug and Cosmetics Act, as well as by other federal, state and local agencies. We hold several FDA product approvals including both drugs and medical devices.

We are a Michigan corporation and our corporate headquarters are located at 30142 Wixom Road, Wixom, Michigan 48393. Our telephone number is (248) 960-9009 and our Internet website address is www.rockwellmed.com. We do not incorporate the information on our website into this prospectus, and you should not consider it part of this prospectus.

RISK FACTORS

Investing in our securities involves risks. Before making an investment decision, you should carefully consider the risks and other information we include or incorporate by reference in this prospectus and any prospectus supplement. In particular, you should consider the risk factors described under the heading "Risk Factors" in our most recent Annual Report on Form 10-K and in Item 1A of our Quarterly Report on Form 10-Q for the period ended June 30, 2018 under the heading "Risk Factors," as may be revised or supplemented by our subsequent Quarterly Reports on Form 10-Q or Current Reports of Form 8-K, each of which are on file with the SEC and are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. In addition to those risk factors, there may be additional risks and uncertainties of which are not currently known to us or that we currently deem immaterial. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. Additional risk factors may be included in a prospectus supplement relating to a particular offering of securities.

USE OF PROCEEDS

Except as may be otherwise set forth in the applicable prospectus supplement accompanying this prospectus, the net proceeds from the sale of the securities will be used for general corporate purposes, including potentially expanding existing businesses, acquiring businesses and investing in other business opportunities. Pending such use, we may temporarily invest the net proceeds in short-term investments.

DILUTION

We will set forth in a prospectus supplement the following information regarding any material dilution of the equity interests of investors purchasing securities in an offering under this prospectus:

- the net tangible book value per share of our equity securities before and after the offering;
- the amount of the increase in such net tangible book value per share attributable to the cash payments made by purchasers in the offering; and
- the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

SECURITIES TO BE OFFERED

We may offer, from time to time and in one or more offerings, debt securities, shares of common stock, shares of preferred stock, warrants, subscription rights, securities purchase contracts and units. Set forth herein and below is a general description of the securities that we may offer hereunder. We will set forth in the applicable prospectus supplement a specific description of the securities that may be offered under this prospectus. The terms of the offering of securities, the initial offering price and the net proceeds will be contained in the prospectus supplement and/or other offering material relating to such offering.

RATIO OF EARNINGS TO FIXED CHARGES

As of the date of this prospectus and for the previous five fiscal years, we had no fixed charges and no shares of preferred stock for which we are required to make dividend payments. Accordingly, we have no ratio of earnings to fixed charges and no ratio of earnings to combined fixed charges and preferred stock dividends, to illustrate for these periods. To the extent applicable at the time of filing, we will provide any ratios of earnings to fixed charges in the applicable prospectus supplement or in a document that we file with the SEC and incorporate by reference in the future.

DESCRIPTION OF DEBT SECURITIES

The following description of the terms of the debt securities sets forth general terms that may apply to the debt securities and provisions of the indenture that will govern the debt securities, and is not complete. We will describe the particular terms of any debt securities in the prospectus supplement relating to those debt securities.

The debt securities will be our senior debt securities and will be issued under an indenture between us and a trustee, a form of which is incorporated by reference into this prospectus and attached as an exhibit to the registration statement of which this prospectus is a part. See "Where You Can Find More Information." We refer to this indenture as the "indenture."

The following is a summary of some provisions of the indenture. The following summary does not purport to be complete, and is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture, including the definitions of specified terms used in the indenture, and the debt securities. We encourage you to read the indenture and the debt securities because they, and not this description, set forth your rights as a holder of our debt securities. We will describe the particular terms of any debt securities in the prospectus supplement relating to those debt securities. Parenthetical section references under this heading are references to sections in the indenture unless we indicate otherwise.

General Terms

The indenture does not limit the amount of debt securities that we may issue. (Section 301). The indenture provides that debt securities may be issued up to the principal amount authorized by us from time to time. The debt securities will be unsecured and will have the same rank as all of our other unsecured debt. None of our subsidiaries, if any, will have any obligations with respect to the debt securities. Therefore, our rights and the rights of our creditors, including holders of senior debt securities and subordinated debt securities, to participate in the assets of any subsidiary will be subject to the prior claims of the creditors of any such subsidiaries.

We may issue the debt securities in one or more separate series of senior debt securities. (Section 301). The prospectus supplement relating to the particular series of debt securities being offered will specify the particular amounts, prices and terms of those debt securities. These terms may include:

- the title of the debt securities and the series in which the debt securities will be included;
- the authorized denominations and aggregate principal amount of the debt securities;
- the date or dates on which the principal and premium, if any, are payable;
- the rate or rates per annum at which the debt securities will bear interest, if there is any interest, or the method or methods of calculating interest and the date from which interest will accrue;
- the place or places where the principal of and any premium and interest on the debt securities will be payable;
- the dates on which the interest will be payable and the corresponding record dates;
- the period or periods within which, the price or prices at which, and the terms and conditions on which, the debt securities may be redeemed, in whole or in part, at our option;
- whether the debt securities of the series will be issued in whole or in part;
- whether the debt securities of the series will be issued in the form of a global security and, if so, the name of the applicable depository and global exchange agent;

[Table of Contents](#)

- any obligation to redeem, repay or purchase debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder;
- the portion of the principal amount of the debt securities payable upon declaration of the acceleration of the maturity of the debt securities;
- the person to whom any interest on any debt security will be payable if other than the person in whose name the debt security is registered on the applicable record date;
- any events of default, covenants or warranties applicable to the debt securities;
- the currency, currencies or composite currency of denomination of the debt securities;
- the currency, currencies or composite currencies in which payments on the debt securities will be payable and whether the holder may elect payment to be made in a different currency;
- whether and under what conditions we will pay additional amounts to holders of the debt securities;
- the terms and conditions of any conversion or exchange provisions in respect of the debt securities;
- the terms pursuant to which our obligation under the indenture may be terminated through the deposit of money or government obligations;
- whether the debt securities of the series will be subordinated in right of payment to senior indebtedness; and
- any other specific terms of the debt securities not inconsistent with the indenture. (Section 301).

Unless otherwise specified in the applicable prospectus supplement, the debt securities will not be listed on any securities exchange.

Unless the applicable prospectus supplement specifies otherwise, we will issue the debt securities in fully registered form without coupons. If we issue debt securities of any series in bearer form, the applicable prospectus supplement will describe the special restrictions and considerations, including special offering restrictions and special federal income tax considerations, applicable to those debt securities and to payment on and transfer and exchange of those debt securities.

U.S. Federal Income Tax Considerations

We may issue the debt securities as original issue discount securities, bearing no interest or bearing interest at a rate, which, at the time of issuance, is below market rates, to be sold at a substantial discount below their principal amount. We will describe some special U.S. federal income tax and other considerations applicable to any debt securities that are issued as original issue discount securities in the applicable prospectus supplement. We encourage you to consult with your own tax and financial advisors on these important matters.

Payment, Registration, Transfer and Exchange

Subject to any applicable laws or regulations, we will make payments on the debt securities at a designated office or agency, unless the applicable prospectus supplement otherwise sets forth. At our option, however, we may also make interest payments on the debt securities in registered form:

- by checks mailed to the persons entitled to interest payments at their registered addresses; or
- by wire transfer to an account maintained by the person entitled to interest payments as specified in the security register.

[Table of Contents](#)

Unless the applicable prospectus supplement otherwise indicates, we will pay any installment of interest on debt securities in registered form to the person in whose name the debt security is registered at the close of business on the regular record date for that installment of interest. (Section 307). If a holder wishes to receive payment by wire transfer, the holder should provide the paying agent with written wire transfer instructions at least 15 days prior to the payment date.

Unless the applicable prospectus supplement otherwise sets forth, debt securities issued in registered form will be transferable or exchangeable at the agency we may designate from time to time. Debt securities may be transferred or exchanged without service charge, other than any tax or other governmental charge imposed in connection with the transfer or exchange. (Section 305).

Book-Entry Procedures

The applicable prospectus supplement for each series of debt securities will state whether those debt securities will be subject to the following provisions.

Unless debt securities in physical form are issued, we will issue the debt securities in whole or in part in the form of one or more global certificates, which we refer to as global securities, in denominations of \$1,000 or any integral multiple of \$1,000. We will deposit the global securities with or on behalf of The Depository Trust Company, which we refer to as DTC, and registered in the name of Cede & Co., as nominee of DTC. Beneficial interests in the global securities may be held through the Euroclear System ("Euroclear") and Clearstream Banking, S.A. ("Clearstream") (as indirect participants in DTC).

We have provided the following descriptions of the operations and procedures of DTC, Euroclear and Clearstream solely as a matter of convenience. These operations and procedures are solely within the control of DTC, Euroclear and Clearstream and are subject to change by them from time to time. Neither we, any underwriter nor the trustee take any responsibility for these operations or procedures, and you are urged to contact DTC, Euroclear or Clearstream directly to discuss these matters.

DTC has advised us that:

- DTC is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "clearing agency" registered under Section 17A of the Exchange Act;
- DTC holds securities that its direct participants deposit with DTC and facilitates the settlement among direct participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in direct participants' accounts, thereby eliminating the need for physical movement of securities certificates;
- direct participants include securities brokers and dealers, trust companies, clearing corporations and other organizations;
- DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, which is owned by the users of its regulated subsidiaries;
- access to the DTC system is also available to indirect participants such as securities brokers and dealers, banks and trust companies that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly; and
- the rules applicable to DTC and its direct and indirect participants are on file with the SEC.

[Table of Contents](#)

We expect that under procedures established by DTC:

- upon deposit of the global securities with DTC or its custodian, DTC will credit on its internal system the accounts of direct participants designated by the underwriters with portions of the principal amounts of the global securities; and
- ownership of the debt securities will be shown on, and the transfer of ownership of the debt securities will be effected only through, records maintained by DTC or its nominee, with respect to interests of direct participants, and the records of direct and indirect participants, with respect to interests of persons other than participants.

Investors in the global securities who are participants in DTC's system may hold their interests therein directly through DTC. Investors in the global notes who are not participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) which are participants in such system. Euroclear and Clearstream may hold interests in the global securities on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositories, which are Euroclear Bank S.A./N.V., as operator of Euroclear, and Citibank, N.A., as depository of Clearstream. All interests in a securities, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC. Those interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such systems.

The laws of some jurisdictions require that purchasers of securities take physical delivery of those securities in the form of a certificate. For that reason, it may not be possible to transfer interests in a global security to those persons. In addition, because DTC can act only on behalf of its participants, who in turn act on behalf of persons who hold interests through participants, the ability of a person having an interest in a global security to pledge or transfer that interest to persons or entities that do not participate in DTC's system, or otherwise to take actions in respect of that interest, may be affected by the lack of a physical definitive security in respect of that interest.

So long as DTC or its nominee is the registered owner of a global security, DTC or that nominee will be considered the sole owner or holder of the debt securities represented by that global security for all purposes under the indenture and under the debt securities. Except as described below, owners of beneficial interests in a global security will not be entitled to have debt securities represented by that global security registered in their names, will not receive or be entitled to receive the debt securities in the form of a physical certificate and will not be considered the owners or holders of the debt securities under the indenture or under the debt securities, and may not be entitled to give the trustee directions, instructions or approvals. For that reason, each holder owning a beneficial interest in a global security must rely on DTC's procedures and, if that holder is not a direct or indirect participant in DTC, on the procedures of the DTC participant through which that holder owns its interest, to exercise any rights of a holder of debt securities under the indenture or the global security.

Neither we nor the trustee will have any responsibility or liability for any aspect of DTC's records relating to the debt securities or relating to payments made by DTC on account of the debt securities, or any responsibility to maintain, supervise or review any of DTC's records relating to the debt securities.

We will make payments on the debt securities represented by the global securities to DTC or its nominee, as the registered owner of the debt securities. We expect that when DTC or its nominee receives any payment on the debt securities represented by a global security, DTC will credit participants' accounts with payments in amounts proportionate to their beneficial interests in the global security as shown in DTC's records. We also expect that payments by DTC's participants to owners of beneficial interests in the global security held through those participants will be governed by standing instructions and customary practice as is now the case with securities held for the accounts of

[Table of Contents](#)

customers registered in the names of nominees for such customers. DTC's participants will be responsible for those payments.

Payments on the debt securities represented by the global securities will be made in immediately available funds. Transfers between participants in DTC will be made in accordance with DTC's rules and will be settled in immediately available funds.

Transfers between participants in DTC will be effected in accordance with DTC's procedures, and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Cross-market transfers between the participants in DTC, on the one hand, and Euroclear or Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by its depository; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (European time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its respective depository to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant global security in DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear participants and Clearstream participants may not deliver instructions directly to the depositories for Euroclear or Clearstream.

DTC has advised us that it will take any action permitted to be taken by a holder of notes only at the direction of one or more participants to whose account DTC has credited the interests in the global securities and only in respect of such portion of the aggregate principal amount of the notes as to which such participant or participants has or have given such direction. However, if there is an event of default under the notes, DTC reserves the right to exchange the global securities for certificated notes, and to distribute such notes to its participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the global securities among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. None of the trustee, us or any of their or our respective agents will have any responsibility for the performance by DTC, Euroclear or Clearstream or their respective direct or indirect participants of their respective obligations under the rules and procedures governing their operations.

Physical certificates will be issued to holders of a global security, or their nominees, if:

- DTC advises the trustee in writing that DTC is no longer willing, able or eligible to discharge properly its responsibilities as depository and we are unable to locate a qualified successor; or
- we decide in our sole discretion to terminate the book-entry system through DTC. (Section 305).

In such event, the trustee will notify all holders of debt securities through DTC participants of the availability of such physical debt securities. Upon surrender by DTC of a definitive global note representing the debt securities and receipt of instructions for reregistration, the trustee will reissue the debt securities in physical form to holders or their nominees. (Section 305).

Debt securities in physical form will be freely transferable and exchangeable at the office of the trustee upon compliance with the requirements set forth in the indenture.

No service charge will be imposed for any registration of transfer or exchange, but payment of a sum sufficient to cover any tax or other governmental charge may be required. (Section 305).

Same Day Settlement and Payment

We will make payments in respect of the notes represented by the global securities (including principal, premium, if any, and interest) by wire transfer of immediately available funds to the accounts specified by the global securities holder. We will make all payments of principal, interest and premium, if any, with respect to certificated notes by wire transfer of immediately available funds to the accounts specified by the holders of the certificated notes or, if no such account is specified, by mailing a check to each such holder's registered address. The notes represented by the global securities are expected to be eligible to trade in DTC's Same-Day Funds Settlement System, and any permitted secondary market trading activity in such notes will, therefore, be required by DTC to be settled in immediately available funds. We expect that secondary trading in any certificated notes will also be settled in immediately available funds.

Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a global security from a participant in DTC will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a business day for Euroclear and Clearstream) immediately following the settlement date of DTC. DTC has advised us that cash received in Euroclear or Clearstream as a result of sales of interests in a global securities by or through a Euroclear or Clearstream participant to a participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Consolidation, Merger or Sale by the Company

The indenture generally permits a consolidation or merger between us and another U.S. legal entity. It also permits the sale or transfer by us of all or substantially all of our property and assets to another legal entity. These transactions are permitted if:

- (A) we are the continuing or surviving legal entity, or (B) the resulting or acquiring legal entity, if other than us, assumes all of our responsibilities and liabilities under the indenture, including the payment of all amounts due on the debt securities and performance of the covenants in the indenture;
- immediately after the transaction, no event of default exists. (Section 801); and
- the trustee shall have received an officer's certificate and an opinion stating such consolidation, merger, conveyance, transfer or lease and, if applicable, the corresponding supplemental indenture, are in compliance with the base indenture.

Even though the indenture contains the provisions described above, we are not required by the indenture to comply with those provisions if we sell all of our property and assets to another U.S. legal entity if, immediately after the sale, that legal entity is one of our wholly-owned subsidiaries. (Section 801).

If we consolidate or merge with or into any other legal entity or sell all or substantially all of our assets according to the terms and conditions of the indenture, the resulting or acquiring legal entity will be substituted for us in the indenture with the same effect as if it had been an original party to the indenture. As a result, the successor legal entity may exercise our rights and powers under the indenture, in our name or in its own name and we will be released from all our liabilities and obligations under the indenture and under the debt securities. (Section 801).

Events of Default, Notice and Certain Rights on Default

Unless otherwise stated in the applicable prospectus supplement, an "event of default," when used with respect to any series of debt securities, means any of the following:

- failure to pay interest on any debt security of that series for 30 days after the payment is due;
- failure to pay the principal of or any premium on any debt security of that series when due;
- failure to deposit any sinking fund payment on debt securities of that series when due;
- failure to perform any other covenant in the indenture that applies to debt securities of that series for 90 days after we have received written notice of the failure to perform in the manner specified in the indenture;
- an event of default under any debt by the company or any significant subsidiary of the company (including a default with respect to any series of debt securities) that results in debt of an outstanding principal amount greater than \$75,000,000 becoming or being declared due and payable;
- certain events in bankruptcy, insolvency or reorganization; or
- any other event of default that may be specified for the debt securities of that series when that series is created. (Section 502).

If an event of default for any series of debt securities occurs and continues, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the series may declare the entire principal of all the debt securities of that series to be due and payable immediately. If a declaration occurs, the holders of a majority of the aggregate principal amount of the outstanding debt securities of that series can, subject to certain conditions, rescind the declaration. (Section 502).

The prospectus supplement relating to each series of debt securities which are original issue discount securities will describe the particular provisions that relate to the acceleration of maturity of a portion of the principal amount of that series when an event of default occurs and continues.

An event of default for a particular series of debt securities does not necessarily constitute an event of default for any other series of debt securities issued under the indenture.

The indenture requires us to furnish an officer's certificate to the trustee each year as to the knowledge of our principal executive, financial or accounting officer of our compliance with all conditions and covenants under the indenture. (Section 1008). The trustee will transmit by mail to the holders of debt securities of a series notice of any default.

Other than its duties in the case of a default, the trustee will not be obligated to exercise any of its rights or powers under an indenture at the request, order or direction of any holders, unless the holders offer the trustee indemnification satisfactory to the trustee. (Section 603). If indemnification satisfactory to the trustee is provided, then, subject to certain other rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series may, with respect to the debt securities of that series, direct the time, method and place of:

- conducting any proceeding for any remedy available to the trustee; or
- exercising any trust or power conferred upon the trustee. (Section 512).

[Table of Contents](#)

The holder of a debt security of any series will have the right to begin any proceeding with respect to the indenture or for any remedy only if:

- the holder has previously given the trustee written notice of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request of, and offered reasonable indemnification to, the trustee to begin the proceeding;
- the trustee has not started the proceeding within 60 days after receiving the request; and
- the trustee has not received directions inconsistent with the request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series during those 60 days. (Section 507).

The holders of not less than a majority in aggregate principal amount of any series of debt securities, by notice to the trustee for that series, may waive, on behalf of the holders of all debt securities of that series, any past default or event of default with respect to that series and its consequences. (Section 513). A default or event of default in the payment of the principal of, or premium or interest on, any debt security and certain other defaults may not, however, be waived. (Sections 508 and 513).

Modification of the Indenture

We, as well as the trustee for a series of debt securities, may enter into one or more supplemental indentures, without the consent of, or notice to, the holders of any of the debt securities, in order to:

- evidence the succession of another corporation to us and the assumption of our covenants by a successor;
- add to our covenants or surrender any of our rights or powers;
- add additional events of default for any series;
- change or eliminate any restrictions on the payment of principal of (or premium, if any, on) debt securities, provided such action will not adversely affect the interest of holders of any series of debt securities in any material respect;
- permit or facilitate the issuance of debt securities in uncertificated form, provided such action will not adversely affect the interests of holders of any series of debt securities in any material respect;
- secure the debt securities;
- establish the form or terms of debt securities not yet issued;
- evidence and provide for successor trustees;
- add, change or eliminate any provision affecting registration as to principal of debt securities;
- change or eliminate provisions or add any other provisions that are required or desirable in accordance with any amendments to the Trust Indenture Act of 1939, which we refer to in this prospectus as the Trust Indenture Act, on the condition that this action does not adversely affect the interests of any holder of debt securities of any series issued under the indenture in any material respect;
- comply with requirements of the SEC in order to maintain the qualification of the indenture under the Trust Indenture Act;

[Table of Contents](#)

- provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- make any change that would provide additional rights or benefits to holders of debt securities or any series, or that does not adversely affect the legal rights of such holders under the indenture;
- supplement any provisions of the indenture to facilitate defeasance and discharge of any series of debt securities, provided such action will not adversely affect the interest of the holders of debt securities of such series or any other series;
- conform text of the indenture or any debt securities to the description thereof in any prospectus supplement;
- cure any ambiguity or correct any mistake; or
- to make any other provision with respect to the indenture, provided that such actions will not adversely affect the interests of the holders, as determined in good faith by the board of directors of the company. (Section 901).

In addition, with the consent of the holders of not less than a majority in aggregate principal amount of the outstanding debt securities of all series affected by the supplemental indenture, we and the trustee may execute supplemental indentures adding any provisions to or changing or eliminating any of the provisions of the indenture or any supplemental indenture or modifying the rights of the holders of debt securities of that series. No such supplemental indenture may, however, without the consent of the holder of each debt security that is affected:

- change the time for payment of principal or interest on any debt security;
- reduce the principal of, or any installment of principal of, or interest on, any debt security;
- reduce the amount of premium, if any, payable upon the redemption of any debt security;
- change any obligation of the company to pay additional amounts;
- reduce the amount of principal payable upon acceleration of the maturity of an original issue discount debt security;
- impair the right to institute suit for the enforcement of any payment on or for any debt security;
- reduce the percentage in principal amount of the outstanding debt securities of any series the consent of whose holders is required for modification or amendment of the indenture or for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults;
- modify the provisions relating to waiver of some defaults or any of the foregoing provisions;
- change the currency of payment;
- adversely affect the right to repayment of debt securities of any series at the option of the holders of those debt securities; or
- change the place of payment. (Section 902).

Any supplemental indenture will be filed with the SEC as an exhibit to:

- a post-effective amendment to the registration statement of which this prospectus is a part;
- an annual report on Form 10-K;
- a quarterly report on Form 10-Q; or
- a current report on Form 8-K.

Defeasance and Covenant Defeasance

When we use the term defeasance, we mean discharge from some or all of our obligations under the indenture. If we deposit with the trustee sufficient cash or government obligations to pay the principal, interest, any premium and any mandatory sinking fund or analogous payments due to the stated maturity or a redemption date of the debt securities of a particular series, then at our option:

- we will be discharged from our obligations for the debt securities of that series, the holders of the debt securities of the affected series will no longer be entitled to the benefits of the indenture, except for registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities, and those holders may look only to the deposited funds or obligations for payment, which is referred to as "defeasance"; or
- we will no longer be under any obligation to comply with certain covenants under the indenture as it relates to that series, and some events of default will no longer apply to us, which is referred to as "covenant defeasance." (Sections 403 and 1501).

Unless the applicable prospectus supplement specifies otherwise and except as described below, the conditions to both defeasance and covenant defeasance are as follows:

- it must not result in a breach or violation of, or constitute a default or event of default under, the indenture, or result in a breach or violation of, or constitute a default under, any other of our material agreements or instruments;
- certain bankruptcy-related defaults or events of default with respect to us must not have occurred and be occurring during the period commencing on the date of the deposit of the trust funds to defease the debt securities and ending on the 91st day after that date;
- we must deliver to the trustee an officer's certificate and an opinion of counsel addressing compliance with the conditions of the defeasance or covenant defeasance; and
- we must comply with any additional conditions to the defeasance or covenant defeasance that the indenture may impose on us. (Sections 403 and 1501).

In the event that government obligations deposited with the trustee for the defeasance of such debt securities decrease in value or default subsequent to their being deposited, we will have no further obligation, and the holders of the debt securities will have no additional recourse against us, for any decrease in value or default. If indicated in the prospectus supplement, in addition to obligations of the United States or an agency or instrumentality of the United States, government obligations may include obligations of the government or an agency or instrumentality of the government issuing the currency in which debt securities of such series are payable.

We may exercise our defeasance option for the debt securities even if we have already exercised our covenant defeasance option. If we exercise our defeasance option, payment of the debt securities may not be accelerated because of default or an event of default. If we exercise our covenant defeasance option, payment of the debt securities may not be accelerated because of default or an event of default with respect to the covenants to which the covenant defeasance is applicable. If, however, acceleration occurs, the realizable value at the acceleration date of the money and government obligations in the defeasance trust could be less than the principal and interest then due on the debt securities, because the required deposit in the defeasance trust is based on scheduled cash flow rather than market value, which will vary depending on interest rates and other factors.

Conversion and Exchange Rights

The debt securities of any series may be convertible into or exchangeable for other securities of our company or another issuer or property or cash on the terms and subject to the conditions set forth in the applicable prospectus supplement. (Section 301).

Governing Law

The indenture and the debt securities will be governed by, and construed under, the laws of the State of New York without regard to conflicts of laws principles thereof.

Regarding the Trustee

We may from time to time maintain lines of credit, and have other customary banking relationships, with the trustee under the indenture.

The indenture and provisions of the Trust Indenture Act that are incorporated by reference therein contain limitations on the rights of the trustee, should it become one of our creditors, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claim as security or otherwise. The trustee is permitted to engage in other transactions with us or any of our affiliates; provided, however, that if it acquires any conflicting interest (as defined under the Trust Indenture Act), it must eliminate such conflict or resign.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock summarizes general terms and provisions that apply to our capital stock and provisions of our restated articles of incorporation and amended and restated bylaws. This description is only a summary. For more detailed information, you should refer to our restated articles of incorporation and amended and restated bylaws filed as exhibits to the registration statement, of which this prospectus is a part and incorporated by reference into this prospectus. See "Where You Can Find More Information."

General

Our authorized capital stock consists of 120,000,000 shares of common stock, no par value per share, and 2,000,000 shares of preferred stock, no par value per share. As of September 13, 2018, 51,435,224 shares of our common stock were outstanding. As of the date of this prospectus, no shares of our preferred stock were outstanding.

Common Stock

Holders of our common stock are entitled to one vote for each share held of record on all matters on which shareholders are generally entitled to vote. The majority of votes cast by the holders of shares entitled to vote on an action at a meeting at which a quorum is present is generally required to take shareholder action, unless a greater vote is required. Directors are elected by a plurality of the votes cast at any election, but the election of a director-nominee in an uncontested election requires a majority vote under our Principles of Corporate Governance. There is no cumulative voting of shares.

Holders of our common stock are entitled to receive dividends when, as and if declared by our board of directors out of funds legally available for the payment of dividends. Upon the liquidation, dissolution or winding up of the Company, holders of common stock are entitled to share pro rata in any assets available for distribution to shareholders after payment of all obligations of the Company and after provision has been made with respect to each class of stock, if any, having preference over the common stock. Holders of common stock do not have cumulative voting rights or preemptive, subscription or conversion rights and shares of common stock are not redeemable. The shares of common stock presently outstanding are duly authorized, validly issued, fully paid and non-assessable. There will be a prospectus supplement relating to any offering of common stock offered by this prospectus.

Preferred Stock

Our board of directors is authorized to issue from time to time up to 2 million shares of preferred stock without shareholder approval. Our board of directors has the discretion to determine the rights, preferences and limitations, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences. It is not possible to state the actual effect of the issuance of any shares of preferred stock on the rights of the holders of common stock until our board of directors determines the specific rights associated with the preferred stock. The effects of issuing preferred stock could include one or more of the following:

- decreasing the amount of earnings and assets available for distribution to holders of common stock;
- restricting dividends on the common stock;
- diluting the voting power of the common stock;
- impairing the liquidation rights of the common stock; or
- delaying, deferring or preventing changes in our control or management.

[Table of Contents](#)

As of the date of this prospectus, there were no shares of preferred stock outstanding.

Anti-Takeover Effects of Michigan Law and Our Certificate of Incorporation and Bylaws

The directors of the Company serve staggered three-year terms. Directors may not be removed without cause. The restated articles of incorporation also set the minimum and maximum number of directors constituting the entire board at three and fifteen, respectively, with the exact number to be determined by the board from time to time.

Our restated articles of incorporation and amended and restated bylaws contain provisions that could have the effect of delaying, deterring or preventing a merger, tender offer or other takeover attempt. Our restated articles of incorporation authorize the board to issue up to 120 million shares of common stock (less shares already outstanding or reserved for issuance) and up to two million shares of preferred stock without shareholder approval. In addition, the restated articles of incorporation provide that shareholder action without a meeting requires the unanimous consent of the shareholders, unless the applicable action has been approved by the Board prior to execution of the shareholder consent. Our amended and restated bylaws permit incumbent directors to fill any vacancies on the board of directors, however occurring, whether by an increase in the number of directors, death, resignation, retirement, disqualification, removal from office or otherwise, unless filled by proper action of the shareholders. Furthermore, our amended and restated bylaws require shareholders to give advance notice of director nominations and proposals to be presented at meetings of shareholders.

These provisions may delay shareholder actions with respect to business combinations and the election of new members to our board of directors. As such, the provisions could discourage open market purchases of our common stock because a shareholder who desires to participate in a business combination or elect a new director may consider them disadvantageous.

Subject to certain exceptions, Chapter 7A of the Michigan Business Corporation Act prohibits a corporation from engaging in any business combination with an interested shareholder (generally defined as a shareholder who beneficially owns 10% or more of the voting power of the Company) unless approved by (1) 90% of the votes of each class of stock entitled to vote and (2) two-thirds of the votes of each class of stock entitled to be cast by the shareholders other than the interested shareholder. We are currently not subject to Chapter 7A but may opt in at any time by resolution of our board of directors.

Nasdaq Global Market Listing

Our common stock is listed on the Nasdaq Global Market under the symbol "RMTI."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

DESCRIPTION OF WARRANTS

We may issue other warrants in the future for the purchase of debt securities, common stock, preferred stock, units or other securities. Warrants may be issued independently or together with debt securities, common stock, preferred stock or units offered by any prospectus supplement and/or other offering material and may be attached to or separate from any such offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent, provided that we may also act as warrant agent and enter into warrant agreements directly with the purchasers of securities offered pursuant to this prospectus. In each case, the terms of the warrants will be set forth in the prospectus supplement and/or other offering material relating to the particular issue of warrants. The warrant agent, if any, will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders of warrants or beneficial owners of warrants.

The following summary of certain provisions of the warrants we may issue in the future does not purport to be complete and is subject to, and is qualified in its entirety by reference to, all provisions of the warrant agreements.

Reference is made to the prospectus supplement and/or other offering material relating to the particular issue of warrants offered pursuant to such prospectus supplement and/or other offering material for the terms of and information relating to such warrants, including, where applicable:

- the designation, aggregate principal amount, currencies, denominations and terms of the series of debt securities purchasable upon exercise of warrants to purchase debt securities and the price at which such debt securities may be purchased upon such exercise;
- the number of shares of common stock or preferred stock purchasable upon the exercise of warrants and the price at which such number of shares of common stock or preferred stock may be purchased upon such exercise;
- the designation and number of units of other securities purchasable upon the exercise of warrants to purchase other securities and the price at which such number of units of such other securities may be purchased upon such exercise;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- U.S. federal income tax consequences applicable to such warrants;
- the amount of warrants outstanding as of the most recent practicable date; and
- any other terms of such warrants.

Warrants will be issued in registered form only. The exercise price for warrants will be subject to adjustment in accordance with the applicable prospectus supplement and/or other offering material.

Each warrant will entitle the holder thereof to purchase such principal amount of debt securities or such number of shares of common stock, preferred stock, units or other securities at such exercise price as shall in each case be set forth in, or calculable from, the prospectus supplement and/or other offering material relating to the warrants, which exercise price may be subject to adjustment upon the occurrence of certain events as set forth in such prospectus supplement and/or other offering material. After the close of business on the expiration date, or such later date to which such expiration date may be extended by us, unexercised warrants will become void. The place or places where, and the manner in which, warrants may be exercised shall be specified in the prospectus supplement and/or other offering material relating to such warrants.

[Table of Contents](#)

Prior to the exercise of any warrants to purchase debt securities, common stock, preferred stock, units or other securities, holders of such warrants will not have any of the rights of holders of the underlying securities, as the case may be, purchasable upon such exercise, including the right to receive payments of principal of, premium, if any, or interest, if any, on the debt securities purchasable upon such exercise or to enforce covenants in the applicable indenture, or to receive payments of dividends, if any, on the common stock purchasable upon such exercise, or to exercise any applicable right to vote.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase debt securities, common stock, preferred stock, warrants, units or other securities described in this prospectus or any combination thereof. These subscription rights may be issued independently or together with any other security offered by us and may or may not be transferable by the shareholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other investors pursuant to which the underwriters or other investors may be required to purchase any securities remaining unsubscribed for after such offering.

To the extent appropriate, the applicable prospectus supplement will describe the specific terms of the subscription rights to purchase shares of our securities offered thereby, including the following:

- the date of determining the shareholders entitled to the rights distribution;
- the price, if any, for the subscription rights;
- the exercise price payable for the debt securities, common stock, preferred stock, warrants, units or other securities upon the exercise of the subscription right;
- the number of subscription rights issued to each shareholder;
- the amount of debt securities, common stock, preferred stock, warrants, units or other securities that may be purchased per each subscription right;
- any provisions for adjustment of the amount of securities receivable upon exercise of the subscription rights or of the exercise price of the subscription rights;
- the extent to which the subscription rights are transferable;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities;
- the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of subscription rights;
- any applicable federal income tax considerations; and
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the transferability, exchange and exercise of the subscription rights.

DESCRIPTION OF SECURITIES PURCHASE CONTRACTS

We may issue securities purchase contracts, which consist of contracts obligating holders to purchase from us, and obligating us to sell to the holders, a specified number of shares of common stock, preferred stock, warrants, units, debt securities or other securities at a future date or dates, which we refer to in this prospectus as "securities purchase contracts." The terms and conditions for any purchase and sale rights or obligations, as well as the price per share of the underlying securities (if applicable) and the number or value of the underlying securities, may be fixed at the time the securities purchase contracts are issued or may be determined by reference to a specific formula set forth in the securities purchase contracts.

The securities purchase contracts may be issued separately or as part of units, other securities or debt obligations of third parties, including U.S. treasury securities, securing the holders' obligations to purchase the securities under the securities purchase contracts. The securities purchase contracts may require holders to secure their obligations under the securities purchase contracts in a specified manner. The securities purchase contracts also may require us to make periodic payments to the holders thereof or vice versa, and those payments may be unsecured or refunded on some basis.

The securities purchase contracts, and, if applicable, collateral or depositary arrangements, relating to the securities purchase contracts, will be filed with the SEC in connection with the offering of securities purchase contracts. The prospectus supplement and/or other offering material relating to a particular issue of securities purchase contracts will describe the terms of those securities purchase contracts, including the following:

- if applicable, a discussion of material U.S. federal income tax considerations; and
- any other information we think is important about the securities purchase contracts.

DESCRIPTION OF UNITS

As specified in the applicable prospectus supplement, we may issue units consisting of one or more shares of common stock, shares of preferred stock, debt securities, warrants, subscription rights and securities purchase contracts, or any combination of the foregoing.

The applicable prospectus supplement will specify the following terms of the units:

- the terms of the underlying securities comprising the units, including whether and under what circumstances the underlying securities may be traded separate of the units;
- a description of the terms of any unit agreement governing the units (if any);
- if appropriate, a discussion of material U.S. federal income tax considerations; and
- a description of the provisions for the payment, settlement, transfer or exchange of the units.

PLAN OF DISTRIBUTION

We may sell securities in any one or more of the following ways from time to time: (i) through agents; (ii) to or through underwriters; (iii) through brokers or dealers; (iv) directly to purchasers, including through a specific bidding, auction or other process; (v) upon the exercise of subscription rights that may be distributed to our shareholders; or (vi) through a combination of any of these methods of sale. The applicable prospectus supplement and/or other offering material will contain the terms of the transaction, name or names of any underwriters, dealers, agents and the respective amounts of securities underwritten or purchased by them, the initial public offering price of the securities, and the applicable agent's commission, dealer's purchase price or underwriter's discount. Any dealers and agents participating in the distribution of the securities may be deemed to be underwriters, and compensation received by them on resale of the securities may be deemed to be underwriting discounts.

Any initial offering price, dealer purchase price, discount or commission may be changed from time to time.

The securities may be distributed from time to time in one or more transactions, at negotiated prices, at a fixed price or fixed prices (that may be subject to change), at market prices prevailing at the time of sale, at various prices determined at the time of sale or at prices related to prevailing market prices.

Offers to purchase securities may be solicited directly by us or by agents designated by us from time to time. Any such agent may be deemed to be an underwriter, as that term is defined in the Securities Act, of the securities so offered and sold.

If underwriters are utilized in the sale of any securities in respect of which this prospectus is being delivered, such securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at fixed public offering prices or at varying prices determined by the underwriters at the time of sale. Securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more underwriters. If any underwriter or underwriters are utilized in the sale of securities, unless otherwise indicated in the applicable prospectus supplement and/or other offering material, the obligations of the underwriters are subject to certain conditions precedent, and that the underwriters will be obligated to purchase all such securities if any are purchased.

If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale. Transactions through brokers or dealers may include block trades in which brokers or dealers will attempt to sell shares as agent but may position and resell as principal to facilitate the transaction or in crosses, in which the same broker or dealer acts as agent on both sides of the trade. Any such dealer may be deemed to be an underwriter, as such term is defined in the Securities Act, of the securities so offered and sold.

Offers to purchase securities may be solicited directly by us and the sale thereof may be made directly to institutional investors or others, who may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale thereof.

If so indicated in the applicable prospectus supplement and/or other offering material, we may authorize agents and underwriters to solicit offers by certain institutions to purchase securities at the public offering price set forth in the applicable prospectus supplement and/or other offering material pursuant to delayed delivery contracts providing for payment and delivery on the date or dates stated in the applicable prospectus supplement and/or other offering material. Such delayed delivery contracts will be subject only to those conditions set forth in the applicable prospectus supplement and/or other offering material.

[Table of Contents](#)

Agents, underwriters and dealers may be entitled under relevant agreements to indemnification against certain liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which such agents, underwriters and dealers may be required to make in respect thereof. The terms and conditions of any indemnification or contribution will be described in the applicable prospectus supplement and/or other offering material.

We may also sell shares of our common stock through various arrangements involving mandatorily or optionally exchangeable securities, and this prospectus may be delivered in connection with those sales.

We may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. To the extent that we make sales through one or more underwriters or agents in at-the-market offerings, we will do so pursuant to the terms of a sales agency financing agreement or other at-the-market offering arrangement between us and the underwriters or agents. If we engage in at-the-market sales pursuant to any such agreement or arrangement, we will issue and sell our securities through one or more underwriters or agents, which may act on an agency basis or a principal basis. During the term of any such agreement or arrangement, we may sell securities on a daily basis in exchange transactions or otherwise as we agree with the underwriters or agents. Any such agreement or arrangement will provide that any securities sold will be sold at prices related to the then-prevailing market prices for our securities. Therefore, exact figures regarding proceeds that will be raised or commissions to be paid cannot be determined at this time. Pursuant to the terms of the agreement or arrangement, we may agree to sell, and the relevant underwriters or agents may agree to solicit offers to purchase blocks of our common stock. The terms of any such agreement or arrangement will be set forth in more detail in the applicable prospectus supplement.

We may enter into derivative, sale or forward sale transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement and/or other offering material indicates, in connection with those transactions, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement and/or other offering material, including in short sale transactions and by issuing securities not covered by this prospectus but convertible into, or exchangeable for or representing beneficial interests in such securities covered by this prospectus, or the return of which is derived in whole or in part from the value of such securities. The third parties may use securities received under derivative, sale or forward sale transactions, or securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those transactions to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment) and/or other offering material.

Underwriters, broker-dealers or agents may receive compensation in the form of commissions, discounts or concessions from us. Underwriters, broker-dealers or agents may also receive compensation from the purchasers of shares for whom they act as agents or to whom they sell as principals, or both. Compensation as to a particular underwriter, broker-dealer or agent might be in excess of customary commissions and will be in amounts to be negotiated in connection with transactions involving shares. In effecting sales, broker-dealers may arrange for other broker-dealers to participate in the resales.

Each series of securities will be a new issue and, other than the common stock, which is listed on the Nasdaq Global Market, will have no established trading market. We may elect to list any series of securities on an exchange, and in the case of the common stock, on any additional exchange, but, unless otherwise specified in the applicable prospectus supplement and/or other offering material, we shall not be obligated to do so. No assurance can be given as to the liquidity of the trading market for any of the securities.

[Table of Contents](#)

Agents, underwriters and dealers may engage in transactions with, or perform services for us and our respective subsidiaries in the ordinary course of business.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. An underwriter may carry out these transactions on the Nasdaq Global Market, in the over-the-counter market or otherwise.

The place and time of delivery for securities will be set forth in the accompanying prospectus supplement and/or other offering material for such securities.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We also filed a registration statement on Form S-3, including exhibits, under the Securities Act with respect to the securities offered by this prospectus. This prospectus is a part of that registration statement, but does not contain all of the information included in the registration statement or the exhibits. You may read and copy the registration statement and any other document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington D.C. 20549. You can call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. You can also find our public filings with the SEC on the internet at a web site maintained by the SEC located at www.sec.gov.

We are "incorporating by reference" specified documents that we file with the SEC, which means:

- incorporated documents are considered part of this prospectus;
- we are disclosing important information to you by referring you to those documents; and
- information we file with the SEC will automatically update and supersede information contained in this prospectus.

We incorporate by reference the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the registration statement on Form S-3 filed under the Securities Act with respect to securities offered by this prospectus and prior to the effectiveness of such registration statement and (ii) after the date of this prospectus and before the end of the offering of the securities pursuant to this prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2017;
- our Quarterly Report on Form 10-Q (as amended) for the quarter ended March 31, 2018 and our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018;
- our Definitive Proxy Statement on Schedule 14A filed April 30, 2018 and the Supplement to the Definitive Proxy Statement on Schedule 14A filed June 7, 2018;
- our Current Reports on Form 8-K filed March 21, 2018; April 19, 2018; May 23, 2018; May 25, 2018; June 7, 2018; June 19, 2018; June 21, 2018; June 21, 2018; June 27, 2018; July 13, 2018; July 25, 2018; July 30, 2018; August 3, 2018; August 7, 2018; August 8, 2018; August 14, 2018; and September 4, 2018; and
- the description of our common stock contained in or incorporated into our Registration Statement on Form 8-A filed with the SEC on January 23, 1998, including any amendment or reports filed for the purpose of updating such description.

Information in this prospectus supersedes related information in the documents listed above, and information in subsequently filed documents supersedes related information in both this prospectus and the incorporated documents.

We will provide, without charge to you, upon written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, other than exhibits to those documents, unless the exhibits are specifically incorporated by reference in those documents. Requests should be directed to our principal executive offices at:

Rockwell Medical, Inc.
30142 Wixom Road
Wixom, Michigan 48393
(248) 960-9009
Attention: David Kull, Secretary

You can also find these filings on our website at www.rockwellmed.com. We are not incorporating the information on our website other than these filings into this prospectus.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by Foley & Lardner LLP. The validity of the securities offered by this prospectus will be passed upon for any underwriters or agents by counsel named in the applicable prospectus supplement. The opinions of Foley & Lardner LLP and counsel for any underwriters or agents may be conditioned upon and may be subject to assumptions regarding future action required to be taken by us and any underwriters, dealers or agents in connection with the issuance of any securities. The opinions of Foley & Lardner LLP and counsel for any underwriters or agents may be subject to other conditions and assumptions, as indicated in the prospectus supplement.

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K for the year ended December 31, 2017, and the effectiveness of the Company's internal control over financial reporting as of December 31, 2017, have been audited by Plante & Moran, PLLC, independent auditors, as stated in their reports which are incorporated in this prospectus by reference, and have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the securities being registered hereby are currently anticipated as follows (all amounts are estimated except the SEC registration fee):

	Amount to be paid
SEC Registration Fee(1)	\$ 1,660
Accounting Fees and Expenses	*
Legal Fees and Expenses	*
Miscellaneous Expenses (including any applicable listing fees, printing fees, and transfer agent fees and expenses)	*
Total	\$ *

(1) As noted on the cover page of this Registration Statement under the title "Calculation of Registration Fee", the Company offset all of the previously paid filing fee of \$23,240 paid under the Company's previous Registration Statement filed on June 2, 2015 against the filing fee for this Registration Statement.

* These fees and expenses depend on the securities offered and the number of issuances, and accordingly cannot be estimated at this time and will be reflect in the applicable prospectus supplement.

Item 15. Indemnification of Directors and Officers.

Michigan Business Corporation Act. The Michigan Business Corporation Act, as amended (the "MBCA"), authorizes a Michigan corporation under specified circumstances to indemnify its directors and officers (including reimbursement for expenses incurred). The MBCA also permits Michigan corporations to limit the personal liability of directors for a breach of their fiduciary duty. Michigan law allows a corporation to provide in its articles of incorporation that a director of the corporation will not be personally liable to the corporation or its shareholders for monetary damages for breach of fiduciary duty as a director, except for liability for specified acts.

Section 567 of the MBCA authorizes the Company to purchase and maintain insurance on behalf of a person who is or was a director, officer, employee or agent of us or who serves at the request of us as a director, officer, partner, trustee, employee or agent of another enterprise, whether or not the Company would have the power to indemnify him or her under its Amended and Restated Bylaws or the laws of the State of Michigan.

Restated Articles of Incorporation. As permitted by the MBCA, the Company's Restated Articles of Incorporation provides that no director of the Company shall be personally liable to the Company or its shareholders for or with respect to any acts or omissions in the performance of his or her fiduciary duties as a director of the Company. The provisions of the Company's Restated Articles of Incorporation limit director liability to the maximum extent currently permitted by Michigan law.

Amended and Restated Bylaws. The Company's Amended and Restated Bylaws provide that the Company shall indemnify its directors and executive officers to the fullest extent authorized or permitted by the MBCA; provided, however, that the Company may modify the extent of such indemnification by individual contracts with its executive officers and directors; and, provided further,

[Table of Contents](#)

that the indemnified person is required to repay any advances made by the Company if it is ultimately determined that he or she did not meet the standard of conduct, if any, required by the MBCA for the indemnification of the person under the circumstances.

Indemnification Agreements. The Company has entered into director and officer's indemnification agreements with each of our current directors and executive officers which, in certain respects, are broader than the specific indemnification and advancement provisions contained in the Company's Amended and Restated Bylaws. Specifically, such indemnification agreements provide the Company's directors and officers with specific contractual assurances of such persons' rights to indemnification and advancement of expenses to protect against litigation risks and expenses.

Insurance. The Company maintains a policy of directors' and officers' liability insurance that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

Item 16. Exhibits.

The exhibits listed in the following Exhibit Index are filed as part of this Registration Statement.

EXHIBIT INDEX

EXHIBIT NUMBER	DESCRIPTION
1.1	Form of Underwriting Agreement.*
4.1	Restated Articles of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on May 8, 2013).
4.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed on March 13, 2018).
4.3	Form of Indenture.
4.4	Form of Debt Securities.*
4.5	Form of Certificate of Designations.*
4.5	Form of Warrant.*
4.6	Form of Warrant Agreement.*
4.7	Form of Securities Purchase Contract.*
4.8	Form of Unit Agreement.*
5	Opinion of Foley & Lardner LLP (including consent of counsel).
23.1	Consent of Plante & Moran, PLLC.
23.2	Consent of Foley & Lardner LLP (included in Exhibit 5 filed herewith).
24	Powers of Attorney (included on the signature page to this Registration Statement).
25	Form T-1 Statement of Eligibility and Qualification under the Trust Indenture Act of 1939.**

* If required, to be filed by amendment or under subsequent Current Report on Form 8-K.

** To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939 and Rule 5b-3 thereunder.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that paragraphs (i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) If the registrant is relying on Rule 430B:
 - A. Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - B. Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date

[Table of Contents](#)

an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; *provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of its annual reports pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions,

[Table of Contents](#)

or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question as to whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

- (j) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.

[Table of Contents](#)

Signature

Title

/s/ MARK H. RAVICH

Mark H. Ravich

Director

/s/ ROBIN L. SMITH

Robin L. Smith

Director

ROCKWELL MEDICAL, INC.

TO

[],

Trustee

FORM OF INDENTURE

Dated as of []

Debt Securities

ROCKWELL MEDICAL, INC.

**Reconciliation and tie between Trust Indenture Act of 1939 and
Indenture, dated as of []**

ss.310(a)(1)	609
(a)(2)	609
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	609
(b)	608, 610
(c)	Not Applicable
ss.311(a)	613
(b)	613
ss.312(a)	701, 702(a)
(b)	702(b)
(c)	702(c)
ss.313(a)	703(a)
(b)	703(a)
(c)	703(a)
(d)	703(b)
ss.314(a)	704, 1006
(b)	Not Applicable
(c)(1)	102
(c)(2)	102
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	102
ss.315(a)	601
(b)	602
(c)	601
(d)	601
(e)	514
ss.316(a)	101
(a)(1)(A)	104(h), 502, 512
(a)(1)(B)	104(h), 513
(a)(2)	Not Applicable
(b)	508
(c)	104(h)
ss.317(a)(1)	503
(a)(2)	504
(b)	1003
ss.318(a)	107
(c)	107

**Note: This reconciliation and tie shall not, for any
purpose, be deemed to be part of the Indenture.**

TABLE OF CONTENTS

	<u>Page</u>
ARTICLE ONE Definitions and Other Provisions of General Application	1
Section 101. Definitions	1
Section 102. Compliance Certificates and Opinions	7
Section 103. Form of Documents Delivered to Trustee	8
Section 104. Acts of Holders	8
Section 105. Notices, etc., to Trustee and Company	10
Section 106. Notice to Holders; Waiver	11
Section 107. Conflict with Trust Indenture Act	11
Section 108. Effect of Headings and Table of Contents	11
Section 109. Successors and Assigns	11
Section 110. Separability Clause	12
Section 111. Benefits of Indenture	12
Section 112. Governing Law; Waiver of Jury Trial	12
Section 113. Legal Holidays	12
Section 114. Exemption from Individual Liability	12
Section 115. Counterparts	13
Section 116. Rules by Trustee, Paying Agent and Security Registrar	13
ARTICLE TWO Debt Security Forms	13
Section 201. Forms Generally	13
Section 202. Form of Trustee's Certificate of Authentication	13
Section 203. Debt Securities in Global Form	14
ARTICLE THREE The Debt Securities	14
Section 301. Amount Unlimited; Issuance in Series	14
Section 302. Denominations	17
Section 303. Execution, Authentication, Delivery and Dating	17
Section 304. Temporary Debt Securities	20
Section 305. Registration; Registration of Transfer and Exchange	21
Section 306. Mutilated, Destroyed, Lost and Stolen Debt Securities	23
Section 307. Payment of Interest; Interest Rights Preserved	24
Section 308. Persons Deemed Owners	25
Section 309. Cancellation	25
Section 310. Computation of Interest	26
Section 311. Judgments	26
Section 312. CUSIP Numbers	26
ARTICLE FOUR Satisfaction and Discharge	27
Section 401. Satisfaction and Discharge of Indenture	27
Section 402. Application of Trust Money and Government Obligations	28

Section 403.	Satisfaction, Discharge and Defeasance of Debt Securities of any Series	28
ARTICLE FIVE Remedies		30
Section 501.	Events of Default	30
Section 502.	Acceleration of Maturity; Rescission and Annulment	32
Section 503.	Collection of Indebtedness and Suits for Enforcement by Trustee	33
Section 504.	Trustee May File Proofs of Claim	33
Section 505.	Trustee May Enforce Claims without Possession of Debt Securities	34
Section 506.	Application of Money Collected	34
Section 507.	Limitation on Suits	35
Section 508.	Unconditional Right of Holders to Receive Principal, Premium and Interest	36
Section 509.	Restoration of Rights and Remedies	36
Section 510.	Rights and Remedies Cumulative	36
Section 511.	Delay or Omission Not Waiver	36
Section 512.	Control by Holders of Debt Securities	36
Section 513.	Waiver of Past Defaults	37
Section 514.	Undertaking for Costs	37
Section 515.	Waiver of Stay or Extension Laws	38
ARTICLE SIX The Trustee		38
Section 601.	Certain Duties and Responsibilities	38
Section 602.	Notice of Default	39
Section 603.	Certain Rights of Trustee	39
Section 604.	Not Responsible for Recitals or Issuance of Debt Securities	41
Section 605.	May Hold Debt Securities	41
Section 606.	Money Held in Trust	41
Section 607.	Compensation and Reimbursement	41
Section 608.	Disqualification; Conflicting Interests	42
Section 609.	Corporate Trustee Required; Eligibility	42
Section 610.	Resignation and Removal; Appointment of Successor	43
Section 611.	Acceptance of Appointment by Successor	45
Section 612.	Merger, Conversion, Consolidation or Succession to Business	46
Section 613.	Preferential Collection of Claims Against Company	46
Section 614.	Authenticating Agent	46
ARTICLE SEVEN Holders' Lists and Reports By Trustee and Company		47
Section 701.	Company to Furnish Trustee Names and Addresses of Holders	47
Section 702.	Preservation of Information; Communications to Holders	48
Section 703.	Reports by Trustee	48
Section 704.	Reports by Company	48

ARTICLE EIGHT Consolidation, Merger, Conveyance, Transfer or Lease	49
Section 801. Company May Consolidate, etc. Only on Certain Terms	49
Section 802. Successor Corporation Substituted	49
Section 803. Conveyance or Transfer to a Wholly-owned Subsidiary	50
ARTICLE NINE Supplemental Indentures	50
Section 901. Supplemental Indentures without Consent of Holders	50
Section 902. Supplemental Indentures with Consent of Holders	52
Section 903. Execution of Supplemental Indentures	53
Section 904. Effect of Supplemental Indentures	53
Section 905. Conformity with Trust Indenture Act	53
Section 906. Reference in Debt Securities to Supplemental Indentures	53
ARTICLE TEN Covenants	54
Section 1001. Payment of Principal, Premium and Interest	54
Section 1002. Maintenance of Office or Agency	54
Section 1003. Money for Debt Securities Payments to Be Held in Trust	54
Section 1004. Corporate Existence	55
Section 1005. Payment of Additional Amounts	56
Section 1006. Officer's Certificate as to Compliance	56
ARTICLE ELEVEN Redemption of Debt Securities	57
Section 1101. Applicability of Article	57
Section 1102. Election to Redeem; Notice to Trustee	57
Section 1103. Selection by Trustee of Debt Securities to be Redeemed	57
Section 1104. Notice of Redemption	58
Section 1105. Deposit of Redemption Price	59
Section 1106. Debt Securities Payable on Redemption Date	59
Section 1107. Debt Securities Redeemed in Part	59
Section 1108. Open Market Purchases	60
ARTICLE TWELVE Sinking Funds	60
Section 1201. Applicability of Article	60
Section 1202. Satisfaction of Sinking Fund Payments with Debt Securities	60
Section 1203. Redemption of Debt Securities for Sinking Fund	61
ARTICLE THIRTEEN Repayment at the Option of Holders	61
Section 1301. Applicability of Article	61
Section 1302. Repayment of Debt Securities	61
Section 1303. Exercise of Option; Notice	61
Section 1304. Election of Repayment by Remarketing Entities	62
Section 1305. Securities Payable on the Repayment Date	62

Section 1401.	Termination of Company's Obligations	62
Section 1402.	Repayment to Company	63
Section 1403.	Indemnity for Government Obligations	64

INDENTURE (the "Indenture") dated as of [], between **ROCKWELL MEDICAL, INC.**, a Michigan corporation (hereinafter called the "Company"), and [], a [] (hereinafter called the "Trustee").

RECITALS OF THE COMPANY

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its debentures, notes, bonds and other evidences of indebtedness (herein called the "Debt Securities").

All things necessary have been done to make this Indenture a valid agreement of the Company, in accordance with its terms.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Debt Securities of any series created and issued on or after the date hereof by the Holders thereof, it is mutually covenanted and agreed, for the benefit of all Holders of such Debt Securities or of any such series, as follows:

ARTICLE ONE

Definitions and Other Provisions of General Application

Section 101. Definitions.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

- (1) the terms defined in this Article have the meanings assigned to them in this Article, and include the plural as well as the singular;
- (2) all other terms used herein which are defined in the Trust Indenture Act or by Commission rule or regulation under the Trust Indenture Act, either directly or by reference therein, as in force at the date as of which this instrument was executed, except as provided in Section 905, have the meanings assigned to them therein;
- (3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with GAAP; and
- (4) the words "herein", "hereof" and "hereunder" and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

Certain terms, used principally in Article Six, are defined in that Article.

"Act" when used with respect to any Holder has the meaning specified in Section 104.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control” when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities by contract or otherwise, and the terms “controlling” and “controlled” have meanings correlative to the foregoing.

“Authenticating Agent” means any Person authorized by the Trustee to act on behalf of the Trustee to authenticate Debt Securities.

“Board of Directors” means either the board of directors of the Company, or the executive or any other committee of that board duly authorized to act in respect hereof.

“Board Resolution” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee. Where any provision of this Indenture refers to action to be taken pursuant to a Board Resolution (including the establishment of any series of the Debt Securities and the forms and terms thereof), such action may be taken by any committee of the Board of the Company or any officer or employee of the Company authorized to take such action by a Board Resolution.

“Business Day”, when used with respect to any Place of Payment, means any day which is not a Saturday or Sunday and which is not a legal holiday or a day on which banking institutions or trust companies in that Place of Payment are authorized or obligated by law or executive order to close.

“Commission” means the Securities and Exchange Commission, as from time to time constituted, created under the Securities Exchange Act of 1934, or if at any time after the execution of this instrument such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties on such date.

“Company” means the Person named as the “Company” in the first paragraph of this instrument until a successor Person shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor Person.

“Company Request” and “Company Order” mean, respectively, except as otherwise provided in this Indenture, a written request or order signed in the name of the Company by the Chairman of the Board, a Vice Chairman of the Board, the President, a Vice President (any references to a Vice President of the Company herein shall be deemed to include any Vice President of the Company whether or not designated by a number or word or words added before or after the title “Vice President”), the Treasurer, an Assistant Treasurer, the Controller, an Assistant Controller, the Secretary or an Assistant Secretary of the Company or by another officer of the Company duly authorized to sign by a Board Resolution, and delivered to the Trustee.

“Corporate Trust Office” means the principal office of the Trustee at which at any particular time its corporate trust business shall be administered, which office at the date of original execution of this Indenture is located at [], or such other address as the Trustee may

designate from time to time by notice to the Holders and the Company, or the principal corporate trust office of any successor Trustee (or such other address as such successor Trustee may designate from time to time by notice to the Holders and the Company).

The term “corporation” includes corporations, associations, limited liability companies, partnerships, business trusts and other legal entities other than individuals.

“Debt” means notes, bonds, debentures or other similar evidences of indebtedness for money borrowed.

“Debt Securities” has the meaning stated in the first recital of this Indenture and more particularly means any Debt Securities authenticated and delivered under this Indenture.

“Defaulted Interest” has the meaning specified in Section 307.

“Depository” means, with respect to the Debt Securities of any series issuable or issued in the form of a Global Security, the Person designated as Depository by the Company pursuant to Section 301 until a successor Depository shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Depository” shall mean or include each person who is then a Depository hereunder, and if at any time there is more than one such Person, “Depository” as used with respect to the Debt Securities of any such series shall mean the Depository with respect to the Debt Securities of that series.

“Designated Currency” has the meaning specified in Section 311.

“Dollar” or “\$” means the coin or currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

“Euro” means the single currency of the European Monetary Union as defined under EC Regulation 1103/97 adopted under Article 235 of the EU Treaty and under EC Regulation 974/98 adopted under Article 1091(4) of the EU Treaty or under any successor European legislation from time to time.

“Event of Default” has the meaning specified in Section 501.

“Exchange Rate” shall have the meaning specified as contemplated in Section 301.

“Exchange Rate Agent” shall have the meaning specified as contemplated in Section 301.

“Foreign Currency” means a currency issued by the government of any country other than the United States of America.

“GAAP” means generally accepted accounting principles as in effect in the United States from time to time.

“Global Exchange Agent” has the meaning specified in Section 304.

“Global Exchange Date” has the meaning specified in Section 304.

“Global Security” means a Debt Security issued to evidence all or part of a series of Debt Securities in accordance with Section 303.

“Government Obligations” means, in respect of any series of Debt Securities, securities of (i) the government which issued the currency in which Debt Securities of such series are denominated and/or in which interest is payable on the Debt Securities of such series or (ii) government agencies backed by the full faith and credit of such government.

“Holder”, with respect to a Debt Security, means a Person in whose name such Debt Security is registered in the Security Register.

“Indenture” means this instrument as originally executed or as it may from time to time be supplemented, amended or restated by or pursuant to one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and, unless the context otherwise requires, shall include the terms of a particular series of Debt Securities established as contemplated by Section 301.

The term “interest”, when used with respect to an Original Issue Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

“Interest Payment Date”, with respect to any Debt Security, means the Stated Maturity of an installment of interest on such Debt Security.

“Maturity”, when used with respect to any Debt Security, means the date on which the principal of such Debt Security becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption, repayment at the option of the Holder or otherwise.

“Officers’ Certificate” means a certificate signed by the Chairman of the Board, a Vice Chairman of the Board, the President or a Vice President, and by the Treasurer, an Assistant Treasurer, the Controller, an Assistant Controller, the Secretary or an Assistant Secretary of the Company, and delivered to the Trustee.

“Opinion of Counsel” means a written opinion of counsel, who may (except as otherwise expressly provided in this Indenture) be an employee of or counsel for the Company, or who may be other counsel, which is delivered to the Trustee.

“Original Issue Discount Security” means any Debt Security which provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 502.

“Outstanding”, when used with respect to Debt Securities means, as of the date of determination, all Debt Securities theretofore authenticated and delivered under this Indenture, except:

- (i) Debt Securities theretofore cancelled by the Trustee or delivered to the Trustee for cancellation;

(ii) Debt Securities or portions thereof for whose payment or redemption money or Government Obligations in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Debt Securities; provided, however, that if such Debt Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made; and

(iii) Debt Securities in exchange for or in lieu of which other Debt Securities have been authenticated and delivered, or which have been paid, pursuant to this Indenture; provided, however, that in determining whether the Holders of the requisite principal amount of Debt Securities Outstanding have given any request, demand, authorization, direction, notice, consent or waiver hereunder, Debt Securities owned by the Company or any other obligor upon the Debt Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon such request, demand, authorization, direction, notice, consent or waiver, only Debt Securities which a Responsible Officer of the Trustee actually knows to be so owned shall be so disregarded. Debt Securities so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right so to act with respect to such Debt Securities and that the pledgee is not the Company or any other obligor upon the Debt Securities or any Affiliate of the Company or of such other obligor.

“Paying Agent” means any Person authorized by the Company to pay the principal of (and premium, if any) or interest on any Debt Securities on behalf of the Company.

“Person” means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“Place of Payment”, when used with respect to the Debt Securities of any series means any place where the principal of (and premium, if any) and interest on the Debt Securities of that series are payable as specified as contemplated by Section 301.

“Predecessor Security” of any particular Debt Security means every previous Debt Security evidencing all or a portion of the same debt as that evidenced by such particular Debt Security; and, for the purposes of this definition, any Debt Security authenticated and delivered under Section 306 in lieu of a lost, destroyed or stolen Debt Security shall be deemed to evidence the same debt as the lost, destroyed or stolen Debt Security.

“Redemption Date”, when used with respect to any Debt Security to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

“Redemption Price”, when used with respect to any Debt Security to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture.

“Regular Record Date” for the interest payable on any Interest Payment Date on the Debt Securities of any series means the date specified for that purpose as contemplated by Section 301.

“Remarketing Entity”, when used with respect to Debt Securities of any series which are repayable at the option of the Holders thereof before their Stated Maturity, means any person designated by the Company to purchase any such Debt Securities.

“Repayment Date”, when used with respect to any Debt Security to be repaid upon exercise of an option for repayment by the Holder, means the date fixed for such repayment pursuant to this Indenture.

“Repayment Price”, when used with respect to any Debt Security to be repaid upon exercise of an option for repayment by the Holder, means the price at which it is to be repaid pursuant to this Indenture.

“Responsible Officer” when used with respect to the Trustee, means any officer within the corporate trust department of the Trustee, including any vice president, assistant vice president, assistant secretary, assistant treasurer, trust officer or any other officer of the Trustee who customarily performs functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such person’s knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

“Security Register” and “Security Registrar” have the respective meanings specified in Section 305.

“Significant Subsidiary” means any Subsidiary that, at the time of determination, would be a “significant subsidiary” as defined in Article 1, Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act of 1933, as amended, as such Regulation is in effect on the date of this Indenture.

“Special Record Date” for the payment of any Defaulted Interest means a date fixed by the Trustee pursuant to Section 307.

“Stated Maturity”, when used with respect to any Debt Security or any installment of interest thereon, means the date specified in such Debt Security as the fixed date on which the principal of such Debt Security or such installment is due and payable.

“Subsidiary” means any corporation more than 50% of the outstanding shares of Voting Stock, except for directors’ qualifying shares, of which shall at the time be owned, directly or indirectly, by the Company or by one or more of the Subsidiaries, or by the Company and one or more other Subsidiaries.

“Trust Indenture Act” means the Trust Indenture Act of 1939 as in force at the date as of which this instrument was executed, except as provided in Section 905.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, “Trustee” as used with respect to the Debt Securities of any series shall mean the Trustee with respect to Debt Securities of that series.

“United States” means the United States of America (including the District of Columbia) and its possessions.

“United States Alien” means any Person who, for United States Federal income tax purposes, is a foreign corporation, a nonresident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States Federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

“Voting Stock”, as applied to the stock (or the equivalent thereof) of any corporation, means stock (or the equivalent thereof) of any class or classes, however designated, entitled in the ordinary course to vote in an election of directors of such corporation, other than stock (or such equivalent) having such power only by reason of the happening of a contingency.

“Wholly-owned Subsidiary” means any Subsidiary all the outstanding capital stock of which, other than directors’ qualifying shares, is owned by the Company and its other Wholly-owned Subsidiaries.

Section 102. Compliance Certificates and Opinions.

Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee, if so requested by the Trustee, an Officers’ Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture shall include:

- (1) a statement that each individual signing such certificate or opinion has read such covenant or condition and the definitions herein relating thereto;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(3) a statement that, in the opinion of each such individual, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

Section 103. Form of Documents Delivered to Trustee.

In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, counsel, unless such officer knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to the matters upon which his or her certificate or opinion is based is erroneous. Any such certificate or Opinion of Counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information with respect to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinions or representations with respect to such matters is erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

Section 104. Acts of Holders.

(1) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by an agent duly appointed in writing. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee, and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments and so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or the holding by any Person of a Debt Security, shall be sufficient for any purpose of this Indenture and (subject to Section 601) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section.

(2) The fact and date of the execution by any Person of any such instrument or writing may be proved in any manner which the Trustee deems sufficient.

(3) The ownership of Debt Securities shall be proved by the Security Register.

(4) The fact and date of execution of any such instrument or writing and the authority of the Person executing the same may also be proved in any other manner which the Trustee deems sufficient; and the Trustee may in any instance require further proof with respect to any of the matters referred to in this Section.

(5) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Debt Security shall bind every future holder of the same Debt Security and the Holder of every Debt Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, suffered or omitted by the Trustee or the Company in reliance thereon, whether or not notation of such action is made upon such Debt Security.

(6) For purposes of determining the principal amount of Outstanding Debt Securities of any series the Holders of which are required, requested or permitted to give any request, demand, authorization, direction, notice, consent, waiver or take any other Act under this Indenture, (i) each Original Issue Discount Security shall be deemed to have the principal amount determined by the Trustee that could be declared to be due and payable pursuant to the terms of such Original Issue Discount Security as of the date there is delivered to the Trustee and, where it is hereby expressly required, to the Company, such Act by Holders of the required aggregate principal amount of the Outstanding Debt Securities of such series and (ii) each Debt Security denominated in a Foreign Currency or composite currency shall be deemed to have the principal amount determined by the Exchange Rate Agent by converting the principal amount of such Debt Security in the currency in which such Debt Security is denominated into Dollars at the Exchange Rate as of the date such Act is delivered to the Trustee and, where it is hereby expressly required, to the Company, by Holders of the required aggregate principal amount of the Outstanding Debt Securities of such series.

(7) The Company may set any day as a record date for the purpose of determining the Holders of Outstanding Debt Securities of any series entitled to give, make or take any request, demand, authorization, direction, notice, consent, waiver or other action provided or permitted by this Indenture to be given, made or taken by Holders of Debt Securities of such series, provided that the Company may not set a record date for, and the provisions of this paragraph shall not apply with respect to, the giving or making of any notice, declaration, request or direction referred to in the next paragraph. If any record date is set pursuant to this paragraph, the Holders of Outstanding Debt Securities of the relevant series on such record date, and no other Holders, shall be entitled to take the relevant action, whether or not such Holders remain Holders after such record date; provided that no such action shall be effective hereunder unless taken on or prior to the applicable Expiration Date (as defined below) by Holders of the requisite principal amount of Outstanding Debt Securities of such series on such record date. Nothing in this paragraph shall be construed to prevent the Company from setting a new record date for any action for which a record date has previously been set pursuant to this paragraph (whereupon the record date previously set shall automatically and with no action by any Person be cancelled and of no effect), and nothing in this paragraph shall be construed to render ineffective any action taken by Holders of the requisite principal amount of Outstanding Debt Securities of the relevant series on the date such action is taken. Promptly after any record date

is set pursuant to this paragraph, the Company, at its own expense, shall cause notice of such record date, the proposed action by Holders and the applicable Expiration Date to be given to the Trustee in writing and to each Holder of Debt Securities of the relevant series in the manner set forth in Section 106.

The Trustee may set any day as a record date for the purpose of determining the Holders of Outstanding Debt Securities of any series entitled to join in the giving or making of (i) any notice of an Event of Default, (ii) any declaration of acceleration referred to in Section 502, (iii) any request to institute proceedings referred to in Section 507(2), or (iv) any direction referred to in Section 512, in each case with respect to Debt Securities of such series. If any record date is set pursuant to this paragraph, the Holders of Outstanding Debt Securities of such series on such record date, and no other Holders, shall be entitled to join in such notice, declaration, request or direction, whether or not such Holders remain Holders after such record date; provided that no such action shall be effective hereunder unless taken on or prior to the applicable Expiration Date by Holders of the requisite principal amount of Outstanding Debt Securities of such series on such record date. Nothing in this paragraph shall be construed to prevent the Trustee from setting a new record date for any action for which a record date has previously been set pursuant to this paragraph (whereupon the record date previously set shall automatically and with no action by any Person be cancelled and of no effect), and nothing in this paragraph shall be construed to render ineffective any action taken by Holders of the requisite principal amount of Outstanding Debt Securities of the relevant series on the date such action is taken. Promptly after any record date is set pursuant to this paragraph, the Trustee, at the Company's expense, shall cause notice of such record date, the proposed action by Holders and the applicable Expiration Date to be given to the Company in writing and to each Holder of Debt Securities of the relevant series in the manner set forth in Section 106.

With respect to any record date set pursuant to this Section, the party hereto which sets such record dates may designate any day as the "Expiration Date" and from time to time may change the Expiration Date to any earlier or later day; provided that no such change shall be effective unless notice of the proposed new Expiration Date is given to the other party hereto in writing, and to each Holder of Debt Securities of the relevant series in the manner set forth in Section 106, on or prior to the existing Expiration Date. If an Expiration Date is not designated with respect to any record date set pursuant to this Section, the party hereto which set such record date shall be deemed to have initially designated the 180th day after such record date as the Expiration Date with respect thereto, subject to its right to change the Expiration Date as provided in this paragraph.

Section 105. Notices, etc., to Trustee and Company.

Any request, demand, authorization, direction, notice, consent, waiver or other Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with,

(1) the Trustee by any Holder or by the Company shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided), if made, given, furnished or filed in writing (which may be via original or facsimile, with original to follow promptly thereafter) to or with the Trustee at its Corporate Trust Office, or

10

(2) the Company by the Trustee or by any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to the Company addressed to the attention of its Secretary at the address of its principal office specified in the first paragraph of this instrument or at any other address previously furnished in writing to the Trustee by the Company.

Section 106. Notice to Holders: Waiver.

Except as otherwise expressly provided herein, where this Indenture provides for notice to Holders of any event, such notice shall be sufficiently given to Holders of Debt Securities if in writing and mailed, first-class postage prepaid, to each Holder of a Debt Security affected by such event, at such Holder's address as it appears in the Security Register, not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice.

In case, by reason of the suspension of or irregularities in regular mail service or for any other reason, it shall be impossible or impracticable to mail notice of any event to Holders of Debt Securities when said notice is required to be given pursuant to any provision of this Indenture or of the Debt Securities, then any manner of giving such notice as shall be satisfactory to the Trustee shall be deemed to be a sufficient giving of such notice. In any case where notice to Holders of Debt Securities is to be given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder of a Debt Security shall affect the sufficiency of such notice with respect to other Holders of Debt Securities.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

Any request, demand, authorization, direction, notice, consent, election, waiver or other Act required or permitted under this Indenture shall be in the English language.

Section 107. Conflict with Trust Indenture Act.

If any provision hereof limits, qualifies or conflicts with another provision hereof which is required to be included in this Indenture by any of the provisions of the Trust Indenture Act, such required provision shall control.

Section 108. Effect of Headings and Table of Contents.

The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 109. Successors and Assigns.

All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

11

Section 110. Separability Clause.

In case any provision in this Indenture or in the Debt Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 111. Benefits of Indenture.

Nothing in this Indenture or in the Debt Securities, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder, any Paying Agent and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 112. Governing Law; Waiver of Jury Trial.

This Indenture and the Debt Securities shall be governed by and construed in accordance with the laws of the State of New York. Each of the Company and the Trustee hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Indenture, the Debt Securities or the transaction contemplated hereby.

Section 113. Legal Holidays.

In any case where any Interest Payment Date, Redemption Date, Repayment Date or Stated Maturity of any Debt Security shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or of the Debt Securities) payment of interest or principal (and premium, if any) need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date, Redemption Date, Repayment Date or at the Stated Maturity, and no interest shall accrue on the amount so payable for the period from and after such Interest Payment Date, Redemption Date, Repayment Date or Stated Maturity, as the case may be.

Section 114. Exemption from Individual Liability.

No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Debt Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, as such, past, present or future, of the Company or of any successor corporation, either directly or through the Company, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations of the Company, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors, as such, of the Company or of any successor corporation, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Debt Securities or implied therefrom; and that any and all such personal liability, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director, as such, because of the creation of the indebtedness

hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any of the Debt Securities or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issue of such Debt Securities.

Section 115. Counterparts.

This Indenture may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same Indenture.

Section 116. Rules by Trustee, Paying Agent and Security Registrar.

The Trustee may make reasonable rules for action by, or a meeting of, Holders. The Security Registrar and the Paying Agent may make reasonable rules for their functions.

ARTICLE TWO

Debt Security Forms

Section 201. Forms Generally.

The Debt Securities of each series shall be in substantially the form (including temporary or permanent global form) as shall be established in or pursuant to a Board Resolution or in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture, and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon, as may be required to comply with the rules of any securities exchange, or as may, consistently herewith, be determined by the officers executing such Debt Securities, as evidenced by their signatures on the Debt Securities. If the form of Debt Securities of any series (including any such Global Security) is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Company Order contemplated by Section 303 for the authentication and delivery of such Debt Securities.

The definitive Debt Securities shall be printed, lithographed or engraved on steel engraved borders or may be produced in any other manner, all as determined by the officers executing such Debt Securities, as evidenced by the execution of such Debt Securities.

Section 202. Form of Trustee's Certificate of Authentication.

This is one of the Debt Securities, of the series designated herein, described in the within-mentioned Indenture.

[]
as Trustee

Dated: _____

By _____
Authorized Signatory

Section 203. Debt Securities in Global Form.

If Debt Securities of a series are issuable in whole or in part in global form, as specified as contemplated by Section 301, then, notwithstanding clause (10) of Section 301 and the provisions of Section 302, such Global Security shall represent such of the outstanding Debt Securities of such series as shall be specified therein and may provide that it shall represent the aggregate amount of Outstanding Debt Securities from time to time endorsed thereon and that the aggregate amount of Outstanding Debt Securities represented thereby may from time to time be reduced to reflect exchanges. Any endorsement of a Global Security to reflect the amount, or any increase or decrease in the amount, of Outstanding Debt Securities represented thereby shall be made in such manner and upon instructions given by such Person or Persons as shall be specified therein or in the Company Order to be delivered to the Trustee pursuant to Section 303 or Section 304.

The provisions of the last sentence of Section 303(g) shall apply to any Debt Securities represented by a Debt Security in global form if such Debt Security was never issued and sold by the Company and the Company delivers to the Trustee the Debt Security in global form together with written instructions (which need not comply with Section 102 and need not be accompanied by an Opinion of Counsel) with respect to the reduction in the principal amount of Debt Securities represented thereby, together with the written statement contemplated by the last sentence of Section 303(g).

ARTICLE THREE

The Debt Securities

Section 301. Amount Unlimited: Issuance in Series.

The aggregate principal amount of Debt Securities that may be authenticated and delivered under this Indenture is unlimited.

The Debt Securities may be issued in one or more series. There shall be established in or pursuant to a Board Resolution, and set forth in an Officers' Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Debt Securities of any series:

- (1) the title of the Debt Securities of the series (which shall distinguish the Debt Securities of the series from all other Debt Securities);
- (2) the limit, if any, upon the aggregate principal amount of the Debt Securities of the series that may be authenticated and delivered under this Indenture (except for Debt Securities authenticated and delivered upon registration of transfer of, or in exchange for,

or in lieu of, other Debt Securities of the series pursuant to Section 304, 305, 306, 906, 1107 or 1303 and except for any Debt Securities which, pursuant to Section 303, are deemed never to have been authenticated and delivered hereunder);

- (3) the date or dates on which the principal and premium, if any, of the Debt Securities of the series are payable;
- (4) the rate or rates, if any, at which the Debt Securities of the series shall bear interest, or the method or methods by which such rate or rates may be determined, the date or dates from which such interest shall accrue, the Interest Payment Dates on which such interest shall be payable, the Regular Record Date for the interest payable on any Debt Security on any Interest Payment Date and the circumstances, if any, in which the Company may defer interest payments;
- (5) the place or places where, subject to the provisions of Section 1002, the principal of (and premium, if any) and interest on Debt Securities of the series shall be payable, any Debt Securities of the series may be surrendered for registration of transfer, Debt Securities of the series may be surrendered for exchange and notices and demands to or upon the Company in respect of the Debt Securities of the series and this Indenture may be served;
- (6) if applicable, the period or periods within which or the date or dates on which, the price or prices at which and the terms and conditions upon which Debt Securities of the series may be redeemed, in whole or in part, at the option of the Company;
- (7) the obligation, if any, of the Company to redeem, repay or purchase Debt Securities of the series pursuant to any sinking fund or analogous provisions or at the option of a Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which Debt Securities of the series shall be redeemed, repaid or purchased, in whole or in part, pursuant to such obligation;
- (8) whether the Debt Securities of the series shall be issued in whole or in part in the form of a Global Security or Securities and, in such case, the Depositary and Global Exchange Agent for such Global Security or Securities, whether such global form shall be permanent or temporary and, if applicable, the Global Exchange Date;
- (9) if Debt Securities of the series are to be issuable initially in the form of a temporary Global Security, the circumstances under which the temporary Global Security can be exchanged for definitive Debt Securities and whether the definitive Debt Securities will be in global form and whether interest in respect of any portion of such Global Security payable in respect of an Interest Payment Date prior to the Global Exchange Date shall be paid to any clearing organization with respect to a portion of such Global Security held for its account and, in such event, the terms and conditions (including any certification requirements) upon which any such interest payment received by a clearing organization will be credited to the Persons entitled to interest payable on such Interest Payment Date if other than as provided in this Article Three;
- (10) whether, and under what conditions, additional amounts will be payable to Holders of Debt Securities of the series pursuant to Section 1005;

(11) the denominations in which any Debt Securities of the series shall be issuable, if other than denominations of \$1,000 and any integral multiple thereof;

(12) if other than the principal amount thereof, the portion of the principal amount of Debt Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 502;

(13) the Person to whom any interest on any Debt Security will be payable if other than the Person in whose name the Debt Security is registered on the Regular Record Date;

(14) the currency or currencies of denomination of the Debt Securities of any series, which may be in Dollars, any Foreign Currency or any composite currency, including but not limited to the Euro, and, if any such currency of denomination is a composite currency other than the Euro, the agency or organization, if any, responsible for overseeing such composite currency;

(15) the currency or currencies in which payment of the principal of (and premium, if any) and interest on the Debt Securities will be made, any other currency or currencies in which payment of the principal of (and premium, if any) or the interest on Debt Securities, at the election of each of the Holders thereof, may also be payable and the periods within which and the terms and conditions upon which such election is to be made, and the Exchange Rate and Exchange Rate Agent;

(16) if the amount of payments of principal of (and premium, if any) or interest on the Debt Securities of the series may be determined with reference to an index, the manner in which such amounts shall be determined;

(17) if payments of principal of (and premium, if any) or interest on the Debt Securities of the series are to be made in a Foreign Currency other than the currency in which such Debt Securities are denominated, the manner in which the Exchange Rate with respect to such payments shall be determined;

(18) any Events of Default with respect to Debt Securities of such series, if not set forth herein and any Events of Default set forth herein that shall not apply to the Debt Securities of such series;

(19) any other covenant or warranty included for the benefit of the Debt Securities of the series in addition to (and not inconsistent with) those set forth herein for the benefit of Debt Securities of all series, or any other covenant or warranty included for the benefit of Debt Securities of the series in lieu of any covenant or warranty set forth herein for the benefit of Debt Securities of all series, or any provision that any covenant or warranty set forth herein for the benefit of Debt Securities of all series shall not be for the benefit of Debt Securities of such series, or any combination of such covenants, warranties or provisions;

(20) the terms and conditions, if any, pursuant to which the Company's obligations under this Indenture may be terminated through the deposit of money or Government Obligations as provided in Articles Four and Fifteen;

(21) the Person or Persons who shall be Security Registrar for the Debt Securities of such series if other than the Trustee, and the place or places where the Security Register for such series shall be maintained and the Person or Persons who will be the initial Paying Agent or Agents, if other than the Trustee;

(22) if the Debt Securities of the series are convertible or exchangeable for any securities of any Person (including the Company), the terms and conditions upon which such Debt Securities will be convertible or exchangeable;

(23) whether or not the Debt Securities of the series will be subordinated in right of payment to senior indebtedness and the terms of any such subordination; and

(24) any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture).

All Debt Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to such Board Resolution and set forth in such Officers' Certificate or in any such indenture supplemental hereto.

Debt Securities of any particular series may be issued at various times, with different dates on which the principal or any installment of principal is payable, with different rates of interest, if any, or different methods by which rates of interest may be determined, with different dates on which such interest may be payable and with different Redemption or Repayment Dates and may be denominated in different currencies or payable in different currencies.

If any of the terms of a series of Debt Securities are established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by the Secretary or an Assistant Secretary of the Company and delivered to the Trustee at or prior to the delivery of the Officers' Certificate setting forth the terms of the series.

Section 302. Denominations.

Debt Securities of each series shall be issuable in such form and denominations as shall be specified in the form of Debt Security for such series approved or established pursuant to Section 201 or in the Officers' Certificate delivered pursuant to Section 301. In the absence of any specification with respect to the Debt Securities of any series, the Debt Securities of such series shall be issuable in denominations of \$1,000 and any integral multiple thereof.

Section 303. Execution, Authentication, Delivery and Dating.

(1) The signature of any officer on the Debt Securities may be manual or facsimile. Debt Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Debt Securities of any series or did not hold such offices at the date of such Debt Securities.

(2) At any time and from time to time after the execution and delivery of this Indenture, Debt Securities of any series may be executed by the Company and delivered to the Trustee for authentication, and, except as otherwise provided in this Article Three, shall thereupon be authenticated and delivered by the Trustee upon Company Order, without any further action by the Company.

To the extent authorized in or pursuant to a Board Resolution and set forth in an Officers' Certificate, or established in one or more indentures supplemental hereto, such written Company Order may be given by any one officer or employee of the Company, may be electronically transmitted, and may provide instructions as to registration of holders, principal amounts, rates of interest, maturity dates and other matters contemplated by such Board Resolution and Officers' Certificate or supplemental indenture to be so instructed in respect thereof. Before authorizing and delivering the first Debt Securities of any series (and upon request of the Trustee thereafter), the Company shall deliver to the Trustee (i) the certificates called for under Sections 201 and 301 hereof and (ii) an Opinion of Counsel described in the next sentence.

In authenticating such Debt Securities, and accepting the additional responsibilities under this Indenture in relation to any such Debt Securities, the Trustee shall be entitled to receive, prior to the initial authentication of such Debt Securities, and (subject to Section 601) shall be fully protected in relying upon:

(A) a Board Resolution relating thereto and, if applicable, an appropriate record of any action taken pursuant to such resolution certified by the Secretary or an Assistant Secretary of the Company;

(B) an executed supplemental indenture, if any, relating thereto;

(C) an Officers' Certificate setting forth the form and terms of the Debt Securities of such series pursuant to Sections 201 and 301 and stating that all conditions precedent provided for in this Indenture relating to the issuance of such Debt Securities have been complied with; and

(D) an Opinion of Counsel stating

(i) that the form of such Debt Securities has been established in or pursuant to a Board Resolution or by a supplemental indenture as permitted by Section 201 in conformity with the provisions of this Indenture;

(ii) that the terms of such Debt Securities have been established in or pursuant to a Board Resolution or by a supplemental indenture as permitted by Section 301 in conformity with the provisions of this Indenture; and

(iii) that such Debt Securities, when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute valid and binding obligations of the Company, enforceable in accordance with their terms, subject, as to enforcement of remedies, to applicable bankruptcy, reorganization, insolvency, moratorium or other laws affecting creditors' rights generally and the application of general principles of equity and except further as enforcement

thereof may be limited by (i) requirements that a claim with respect to any Debt Securities denominated other than in Dollars (or a Foreign Currency or currency unit judgment in respect of such claim) be converted into Dollars at a rate of exchange prevailing on a date determined pursuant to applicable law or (ii) governmental authority to limit, delay or prohibit the making of payments in Foreign Currencies or currency units or payments outside the United States.

(3) If the Company shall establish pursuant to Section 301 that the Debt Securities of a series are to be issued in whole or in part in the form of one or more Global Securities, then the Company shall execute and the Trustee shall, in accordance with this Section and the Company Order with respect to such series, authenticate and deliver one or more Global Securities in permanent or temporary form that (i) shall represent and shall be denominated in an aggregate amount equal to the aggregate principal amount of the Outstanding Debt Securities of such series to be represented by one or more Global Securities, (ii) shall be registered in the name of the Depository for such Global Security or Securities or the nominee of such Depository and (iii) shall be delivered by the Trustee to such Depository or pursuant to such Depository's instructions.

(4) The Trustee shall have the right to decline to authenticate and deliver any Debt Securities under this Section 303 if the issuance of such Debt Securities will adversely affect the Trustee's own rights, duties or immunities under the Debt Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

(5) If all the Debt Securities of any series are not to be issued at onetime, it shall not be necessary to deliver an Opinion of Counsel at the time of issuance of each Debt Security, but such Opinion of Counsel, with appropriate modifications, may instead be delivered at or prior to the time of the first issuance of Debt Securities of such series.

(6) Each Debt Security shall be dated the date of its authentication.

(7) No Debt Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose, unless there appears on such Debt Security a certificate of authentication substantially in the form provided for herein executed by the Trustee, and such certificate upon any Debt Security shall be conclusive evidence, and the only evidence, that such Debt Security has been duly authenticated and delivered hereunder. Notwithstanding the foregoing, if any Debt Security or portion thereof shall have been duly authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Debt Security to the Trustee for cancellation as provided in Section 309 together with a written statement (which need not comply with Section 102 and need not be accompanied by an Opinion of Counsel) stating that such Debt Security or portion thereof has never been issued and sold by the Company, for all purposes of this Indenture such Debt Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

(8) Each Depository designated pursuant to Section 301 for a Global Security in registered form must, at the time of its designation and at all times while it serves as Depository, be a clearing agency registered under the Securities Exchange Act of 1934 and any other applicable statute or regulation.

Section 304. Temporary Debt Securities.

(1) Pending the preparation of definitive Debt Securities of any series, the Company may execute, and upon receipt of documents required by Sections 301 and 303, together with a Company Order, the Trustee shall authenticate and deliver, temporary Debt Securities which are printed, typewritten or otherwise produced, in any denomination, substantially of the tenor and terms of the definitive Debt Securities in lieu of which they are issued in registered form, and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Debt Securities may determine, as evidenced by their signatures on such Debt Securities.

(2) Unless otherwise provided pursuant to Section 301:

(A) Except in the case of temporary Debt Securities in global form, if temporary Debt Securities of any series are issued, the Company will cause definitive Debt Securities of such series to be prepared without unreasonable delay. After the preparation of definitive Debt Securities of such series, the related temporary Debt Securities shall be exchangeable for such definitive Debt Securities upon surrender of the temporary Debt Securities of such series at the office or agency of the Company in the Place of Payment for such series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Debt Securities of any series, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of definitive Debt Securities of the same series of like tenor and terms and of authorized denominations.

(B) If Debt Securities of any series are issued in temporary global form, any such temporary Global Security shall, unless otherwise provided pursuant to Section 301, be delivered to the Depository for credit to the respective accounts of the beneficial owners of such Debt Securities (or to such other accounts as they may direct).

(C) Without unnecessary delay but in any event not later than the date specified in, or determined pursuant to the terms of, any such temporary Global Security (the "Global Exchange Date"), the Company shall deliver definitive Debt Securities to the Trustee or the agent appointed by the Company pursuant to Section 301 to effect the exchange of the temporary Global Security for definitive Debt Securities (the "Global Exchange Agent"), in an aggregate principal amount equal to the principal amount of such temporary Global Security, executed by the Company. On or after the Global Exchange Date, such temporary Global Security shall be surrendered by the Depository to the Global Exchange Agent, to be exchanged, in whole or from time to time in part, for definitive Debt Securities without charge and the Trustee or the Global Exchange Agent, if authorized by the Trustee pursuant to Section 614, shall authenticate and deliver, in exchange for each portion of such temporary Global Security, an equal aggregate principal amount of definitive Debt Securities of the same series of authorized denominations and of like tenor and terms as the portion of such temporary Global Security to be exchanged. Upon any exchange of a part of such temporary Global Security for definitive Debt Securities, the portion of the principal amount and any interest thereon so exchanged shall be endorsed by the Global Exchange Agent on a schedule to such temporary Global Security, whereupon the principal amount and interest payable with respect to such temporary Global Security shall be reduced for all purposes by the amount so exchanged and

20

endorsed. The definitive Debt Securities to be delivered in exchange for any such temporary Global Security shall be in registered form or global registered form, or any combination thereof, as specified as contemplated by Section 301, and, if any combination thereof is so specified, as requested by the beneficial owner thereof.

(D) The interest of a beneficial owner of Debt Securities of a series in a temporary Global Security shall be exchanged for definitive Debt Securities of the same series and of like tenor and terms following the Global Exchange Date upon request by the account holder. Unless otherwise specified in such temporary Global Security, any such exchange shall be made free of charge to the beneficial owners of such temporary Global Security, except that a Person receiving definitive Debt Securities must bear the cost of insurance, postage, transportation and the like in the event that such Person does not take delivery of such definitive Debt Securities in person at the offices of Global Exchange Agent.

(E) Until exchanged in full as hereinabove provided, the temporary Debt Securities of any series shall in all respects be entitled to the same benefits under this Indenture as definitive Debt Securities of the same series and of like tenor and terms authenticated and delivered hereunder.

Section 305. Registration; Registration of Transfer and Exchange.

The Company shall cause to be kept at one of the offices or agencies to be maintained by the Company in accordance with the provisions of this Section 305 and Section 1002, with respect to the Debt Securities of each series, a register (herein sometimes referred to as the "Security Register") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Debt Securities and of transfers of Debt Securities. Pursuant to Section 301, the Company shall appoint, with respect to Debt Securities of each series, a "Security Registrar" for the purpose of registering such Debt Securities and transfers and exchanges of such Debt Securities as herein provided.

Upon surrender for registration of transfer of any Debt Security of any series at the office or agency of the Company maintained for such purpose, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Debt Securities of the same series of any authorized denomination or denominations, of like tenor and terms and aggregate principal amount.

At the option of the Holder, Debt Securities of any series may be exchanged for other Debt Securities of the same series of any authorized form and denomination, of like tenor and terms and aggregate principal amount, upon surrender of the Debt Securities to be exchanged at such office or agency.

Whenever any Debt Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Debt Securities which the Holder making the exchange is entitled to receive.

If at any time the Depository for the Debt Securities of a series notifies the Company that it is unwilling or unable to continue as Depository for the Debt Securities of such series or if at any time the Depository for the Debt Securities of such series shall no longer be eligible under

21

Section 303(h), the Company shall appoint a successor Depositary with respect to the Debt Securities of such series. If a successor Depositary for the Debt Securities of such series is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such ineligibility, the Company's election pursuant to Section 301(9) shall no longer be effective with respect to the Debt Securities of such series and the Company will execute, and the Trustee, upon receipt of a Company Order for the authentication and delivery of definitive Debt Securities of such series, will authenticate and deliver, Debt Securities of such series in definitive form in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such series in exchange for such Global Security or Securities. Neither the Trustee nor any agent shall have any responsibility for any actions taken or not taken by the Depositary.

The Company may at any time and in its sole discretion determine that the Debt Securities of any series issued in the form of one or more Global Securities shall no longer be represented by such Global Security or Securities. In such event the Company will execute, and the Trustee, upon receipt of a Company Order for the authentication and delivery of definitive Debt Securities of such series, will authenticate and deliver, Debt Securities of such series in definitive form and in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such series in exchange for such Global Security or Securities.

If specified by the Company pursuant to Section 301 with respect to a series of Debt Securities, the Depositary for such series of Debt Securities may surrender a Global Security for such series of Debt Securities in exchange in whole or in part for Debt Securities of such series of like tenor and terms and in definitive form on such terms as are acceptable to the Company and such Depositary. Thereupon, the Company shall execute, and the Trustee shall authenticate and deliver, without charge to any Holder,

(1) to each Person specified by such Depositary a new Debt Security or Securities of the same series, of like tenor and terms and of any authorized denominations as requested by such person in aggregate principal amount equal to and in exchange for such Person's beneficial interest in the Global Security; and

(2) to such Depositary a new Global Security of like tenor and terms and in a denomination equal to the difference, if any, between the principal amount of the surrendered Global Security and the aggregate principal amount of Debt Securities delivered to Holders thereof.

In any exchange provided for in any of the preceding paragraphs, the Company will execute and the Trustee will authenticate and deliver Debt Securities in definitive registered form in authorized denominations.

Upon the exchange of a Global Security for Debt Securities in definitive form, such Global Security shall be cancelled by the Trustee. Debt Securities issued in exchange for a Global Security pursuant to this Section shall be registered in such names and in such authorized denominations as the Depositary for such Global Security, pursuant to instructions from its direct

or indirect participants or otherwise, shall instruct the Trustee. The Trustee shall deliver such Debt Securities to the persons in whose names such Debt Securities are so registered.

All Debt Securities issued upon any registration of transfer or exchange of Debt Securities shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture, as the Debt Securities surrendered upon such registration of transfer or exchange.

Every Debt Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company, the Security Registrar or the Trustee) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company, the Security Registrar and the Trustee duly executed, by the Holder thereof or such Holder's attorney duly authorized in writing.

No charge to any Holder shall be made for any registration of transfer or exchange of Debt Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any transfer, registration of transfer or exchange of Debt Securities, other than exchanges expressly provided in this Indenture to be made at the Company's own expense or without expense or without charge to the Holders.

The Company shall not be required (i) to issue, register the transfer of or exchange Debt Securities of any particular series to be redeemed for a period of fifteen days preceding the mailing of the relevant notice of redemption of Debt Securities of such series selected for redemption under Section 1103 and ending at the close of business on the day of such mailing, or (ii) to register the transfer of or exchange any Debt Security so selected for redemption in whole or in part, except the unredeemed portion of such Debt Security being redeemed in part.

Section 306. Mutilated, Destroyed, Lost and Stolen Debt Securities.

If (i) any mutilated Debt Security is surrendered to the Trustee, or (ii) the Company and the Trustee receive evidence to their satisfaction of the destruction, loss or theft of any Debt Security, and there is delivered to the Company and the Trustee such security or indemnity as may be required by them to save each of them harmless, then, in the absence of notice to the Company and the Trustee that such Debt Security has been acquired by a bona fide purchaser, the Company shall execute and upon its written request the Trustee shall authenticate and deliver, in exchange for any such mutilated Debt Security or in lieu of any such destroyed, lost or stolen Debt Security, a new Debt Security of like tenor and terms and principal amount, bearing a number not contemporaneously outstanding.

In case any such mutilated, destroyed, lost or stolen Debt Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Debt Security, pay such Debt Security.

Upon the issuance of any new Debt Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee and printing expenses) connected therewith.

Every new Debt Security of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Debt Security shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Debt Security shall be at any time enforceable by anyone, and any such new Debt Security shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Debt Securities of that series duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Debt Securities.

Section 307. Payment of Interest; Interest Rights Preserved.

Interest on any Debt Security which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Debt Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest. At the option of the Company, payment of interest on any Debt Security may be made by check in the currency designated for such payment pursuant to the terms of such Debt Security mailed to the address of the Person entitled thereto as such address shall appear in the Security Register or by wire transfer to an account in such currency designated by such Person in writing not later than fifteen days prior to the date of such payment.

Any interest on any Debt Security of any series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called "Defaulted Interest") shall forthwith cease to be payable to the registered Holder on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in Clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Debt Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Debt Security of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money and/or Government Obligations the payments of principal and interest on which when due (and without reinvestment) will provide money in such amounts as will (together with any money irrevocably deposited in trust with the Trustee, without investment) be equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money and/or Government Obligations when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this Clause provided. Thereupon the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date. Unless the Trustee is acting as the Security Registrar, promptly after such Special Record Date, the Company shall furnish the Trustee with a list, or shall make arrangements

satisfactory to the Trustee with respect thereto, of the names and addresses of, and principal amounts of Debt Securities of such series held by, the Holders appearing on the Security Register at the close of business on such Special Record Date. In the name and at the expense of the Company, the Trustee shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder of Debt Securities of such series at such Holder's address as it appears in the Security Register, not less than 10 days prior to such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Persons in whose names the Debt Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following Clause (2).

(2) The Company may make payment of any Defaulted Interest on the Debt Securities of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Debt Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this Clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section, each Debt Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Debt Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Debt Security.

Section 308. Persons Deemed Owners.

Prior to due presentment of a Debt Security for registration of transfer, the Company, the Trustee and any agent of the Company or of the Trustee may treat the Person in whose name such Debt Security is registered as the owner of such Debt Security for the purpose of receiving payment of principal of (and premium, if any) and (subject to Section 307) interest on such Debt Security and for all other purposes whatsoever, whether or not such Debt Security be overdue, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Section 309. Cancellation.

Unless otherwise provided with respect to a series of Debt Securities, all Debt Securities surrendered for payment, redemption, repayment, transfer, exchange or credit against any sinking fund payment pursuant to this Indenture shall, if surrendered to the Company or any agent of the Company, be delivered to the Trustee and shall be promptly cancelled by it. The Company may at any time deliver to the Trustee for cancellation any Debt Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner

whatsoever, and all Debt Securities so delivered shall be promptly cancelled by the Trustee. No Debt Securities shall be authenticated in lieu of or in exchange for any Debt Securities cancelled as provided in this Section, except as expressly permitted by this Indenture. All cancelled Debt Securities held by the Trustee shall be disposed of by the Trustee in accordance with its customary procedures.

Section 310. Computation of Interest.

Except as otherwise specified as contemplated by Section 301 for Debt Securities of any series, interest on the Debt Securities of each series shall be computed on the basis of a 360-day year of twelve 30-day months.

Section 311. Judgments.

The Company agrees that, to the fullest extent possible under applicable law and except as may otherwise be specified as contemplated in Section 301, (a) the obligation, if any, of the Company to pay the principal of (and premium, if any) and interest on the Debt Securities of any series in a Foreign Currency, composite currency or Dollars (the "Designated Currency") as may be specified pursuant to Section 301 is of the essence, and judgments in respect of such Debt Securities shall be given in the Designated Currency; (b) the obligation of the Company to make payments in the Designated Currency of the principal of (and premium, if any) and interest on such Debt Securities shall, notwithstanding any payment in any other currency (whether pursuant to a judgment or otherwise), be discharged only to the extent of the amount in the Designated Currency that the Holder receiving such payment may, in accordance with normal banking procedures, purchase with the sum paid in such other currency (after any premium and cost of exchange) in the country of issue of the Designated Currency in the case of Foreign Currency or Dollars or in the international banking community in the case of a composite currency on the Business Day immediately following the day on which such Holder receives such payment; (c) if the amount in the Designated Currency that may be so purchased for any reason falls short of the amount originally due, the Company shall pay such additional amounts as may be necessary to compensate for such shortfall; and (d) any obligation of the Company not discharged by such payment shall be due as a separate and independent obligation and, until discharged as provided herein, shall continue in full force and effect.

Section 312. CUSIP Numbers.

The Company in issuing the Debt Securities may use "CUSIP" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" numbers in notices of redemption as a convenience to Holders; provided that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Debt Securities or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Debt Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee in writing of any change in the "CUSIP" numbers.

ARTICLE FOUR

Satisfaction and Discharge

Section 401. Satisfaction and Discharge of Indenture.

This Indenture shall upon Company Request cease to be of further effect (except as to any surviving rights of registration of transfer or exchange of Debt Securities herein expressly provided for and rights to receive payments of principal and interest thereon and any right to receive additional amounts, as provided in Section 1005) and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture when

(1) either

(A) all Debt Securities theretofore authenticated and delivered (other than (i) Debt Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 306 and (ii) Debt Securities for whose payment money and/or Government Obligations have theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 1003) have been delivered to the Trustee cancelled or for cancellation; or

(B) all such Debt Securities not theretofore delivered to the Trustee for cancellation

(i) have become due and payable, or

(ii) will become due and payable at their Stated Maturity within one year, or

(iii) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company, and the Company, in the case of (B)(i), (B)(ii) or (B)(iii) above, has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust for the purpose money and/or Government Obligations the payments of principal and interest on which when due (and without reinvestment) will provide money in such amounts as will (together with any money irrevocably deposited in trust with the Trustee, without investment) be sufficient to pay and discharge the entire indebtedness on such Debt Securities of such series for principal (and premium, if any) and interest, and any mandatory sinking fund, repayment or analogous payments thereon, on the scheduled due dates therefor to the date of such deposit (in the case of Debt Securities which have become due and payable) or to the Stated Maturity or Redemption Date, if any, and all Repayment Dates (in the case of Debt Securities repayable at the option of the Holders thereof); provided, however, that in the event a petition for relief under any applicable Federal or state bankruptcy, insolvency, reorganization or other similar law is filed with respect to the Company within 91 days after the deposit, the obligations of the Company under the Indenture with respect to the Debt Securities of such series shall not be deemed terminated or discharged, and in such event the Trustee shall be required to return the deposited money and Government Obligations then held by the Trustee to the Company;

(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 607 and, if money or Government Obligations shall have been deposited with the Trustee pursuant to Subclause (B) of Clause (1) of this Section, the obligations of the Trustee under Section 402 and the last paragraph of Section 1003 shall survive.

Section 402. Application of Trust Money and Government Obligations.

(1) Subject to the provisions of the last paragraph of Section 1003, all money and Government Obligations deposited with the Trustee pursuant to Section 401, 403 or 1501 shall be held in trust and such money and the principal and interest received on such Government Obligations shall be applied by it, in accordance with the provisions of the Debt Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal (and premium, if any) and interest for whose payment such money or Government Obligations have been deposited with the Trustee.

(2) The Trustee shall deliver or pay to the Company from time to time upon Company Request any Government Obligations or money held by it as provided in Section 403 or 1501 which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, are then in excess of the amount thereof which then would have been required to be deposited for the purpose for which such Government Obligations or money were deposited or received.

(3) The Trustee shall deliver to the Company from time to time upon Company Request any Government Obligations held by it as provided in Section 403 or 1501, provided that the Company in substitution therefor simultaneously delivers to the Trustee, money or other Government Obligations which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee, would then be sufficient to satisfy the Company's payment obligations in respect of the Debt Securities in the manner contemplated by Section 403 or 1501.

Section 403. Satisfaction, Discharge and Defeasance of Debt Securities of any Series.

If this Section 403 is specified, as contemplated by Section 301, to be applicable to Debt Securities of any series, then, notwithstanding Section 401, (i) the Company shall be deemed to have paid and discharged the entire indebtedness on all the Outstanding Debt Securities of any such series; (ii) the provisions of this Indenture as it relates to such Outstanding Debt Securities shall no longer be in effect (except as to (A) the rights of Holders of Debt Securities to receive, from the trust fund described in subparagraph (1) below, payment of (x) the principal of (and premium, if any) and any installment of principal of (and premium, if any) or interest on such Debt Securities on the Stated Maturity of such principal (and premium, if any) or installment of

principal (and premium, if any) or interest or (y) any mandatory sinking fund, repayment or analogous payments applicable to the Debt Securities of that series on that day on which such payments are due and payable in accordance with the terms of this Indenture and of such Debt Securities, (B) the Company's obligations with respect to such Debt Securities under Sections 304, 305, 306, 1002, 1003 and 1005, and (C) the rights, powers, trusts, duties and immunities of the Trustee hereunder, including those under Section 607 hereof); and (iii) the Trustee, at the expense of the Company, shall, upon Company Order, execute proper instruments acknowledging satisfaction and discharge of such indebtedness, when

(1) either

(A) with respect to all Outstanding Debt Securities of such series, with reference to this Section 403, the Company has deposited or caused to be deposited with the Trustee irrevocably, as trust funds in trust, money and/or Government Obligations the payments of principal and interest on which when due (and without reinvestment) will provide money in such amounts as will (together with any money irrevocably deposited in trust with the Trustee, without investment) be sufficient to pay and discharge (i) the principal of (and premium, if any) and interest on the Outstanding Debt Securities of that series on the Stated Maturity of such principal or interest or, if such series may be redeemed by the Company prior to the Stated Maturity thereof and the Company shall have given irrevocable instructions to the Trustee to effect such redemption, at the date fixed for such redemption pursuant to Article Eleven, and (ii) any mandatory sinking fund payments or analogous payments applicable to Debt Securities of such series on the date on which such payments are due and payable in accordance with the terms of this Indenture and of such Debt Securities; or

(B) the Company has properly fulfilled such other means of satisfaction and discharge as is specified, as contemplated by Section 301, to be applicable to the Debt Securities of such series;

(2) Company has paid or caused to be paid all sums payable with respect to the Outstanding Debt Securities of such series;

(3) such deposit will not result in a breach of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(4) no Event of Default or event which, with the giving of notice or lapse of time, or both, would become an Event of Default pursuant to Section 501(1), (2), (3), (6) or (7) with respect to the Debt Securities of such series shall have occurred and be continuing on the date of such deposit and no Event of Default under Section 501(6) or Section 501(7) or event which, with the giving of notice or lapse of time, or both, would become an Event of Default under Section 501(6) or Section 501(7) shall have occurred and be continuing on the 91st day after such date; provided, however, that should that condition fail to be satisfied on or before such 91st day, the Trustee shall promptly, upon satisfactory receipt of evidence of such failure, return such deposit to the Company;

(5) if the Debt Securities of that series are then listed on any domestic or foreign securities exchange, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that such deposit, defeasance and discharge will not cause such Debt Securities to be delisted; and

(6) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of the entire indebtedness of all Outstanding Debt Securities have been complied with.

Any deposits with the Trustee referred to in Section 403(1)(A) above shall be irrevocable and shall be made under the terms of an escrow or trust agreement in form and substance satisfactory to the Trustee. If any Outstanding Debt Securities of such series are to be redeemed prior to their Stated Maturity, whether pursuant to any optional redemption provisions or in accordance with any mandatory sinking fund requirement, the applicable escrow or trust agreement shall provide therefor and the Company shall make such arrangements as are satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company.

Upon the satisfaction of the conditions set forth in this Section 403 with respect to all the Outstanding Debt Securities of any series, the terms and conditions of such series, including the terms and conditions with respect thereto set forth in this Indenture, shall no longer be binding upon, or applicable to, the Company; provided that the Company shall not be discharged from any payment obligations in respect of Debt Securities of such series which are deemed not to be Outstanding under clause (iii) of the definition thereof if such obligations continue to be valid obligations of the Company under applicable law.

Notwithstanding the cessation, termination and discharge of all obligations, covenants and agreements (except as provided above in this Section 403) of the Company under this Indenture with respect to any series of Debt Securities, the obligations of the Company to the Trustee under Section 607, and the obligations of the Trustee under Section 402 and the last paragraph of Section 1003, shall survive with respect to such series of Debt Securities.

ARTICLE FIVE

Remedies

Section 501. Events of Default.

“Event of Default”, wherever used herein with respect to Debt Securities of any series, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law, pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) default in the payment of any interest upon any Debt Security of such series when it becomes due and payable, and continuance of such default for a period of 30 days; or

30

(2) default in the payment of the principal of (or premium, if any, on) any Debt Security of such series at its Maturity; or

(3) default in the deposit of any sinking fund payment, when and as due by the terms of a Debt Security of such series; or

(4) default in the performance, or breach, of any covenant or warranty of the Company in this Indenture (other than a covenant or warranty a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of Debt Securities of a series other than such series), and continuance of such default or breach for a period of 90 days after there has been given by registered or certified mail, to the Company by the Trustee, or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Debt Securities of such series, a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a “Notice of Default” hereunder; or

(5) an event of default under any Debt by the Company or any Significant Subsidiary (including a default with respect to Debt Securities of any series other than that series), whether such Debt now exists or shall hereafter be created, which default shall have resulted in such Debt in an outstanding principal amount in excess of \$50,000,000 becoming or being declared due and payable prior to the date on which it would otherwise have become due and payable, without such acceleration having been rescinded or annulled, or such Debt having been discharged, within a period of 30 days after there shall have been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such event of default and requiring the Company to cause such acceleration to be rescinded or annulled or cause such Debt to be discharged and stating that such notice is a “Notice of Default” hereunder; or

(6) the entry by a court having jurisdiction in the premises of (A) a decree or order for relief in respect of the Company or any Significant Subsidiary in an involuntary case or proceeding under any applicable Federal or state bankruptcy, insolvency, reorganization or other similar law or (B) a decree or order adjudging the Company or any Significant Subsidiary a bankrupt or insolvent, or approving as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company or any Significant Subsidiary under any applicable Federal or State law, or appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or of any Significant Subsidiary or of any substantial part of the Company's or any Significant Subsidiary's property, or ordering the winding up or liquidation of the Company's or any Significant Subsidiary's affairs, and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 90 consecutive days; or

(7) the commencement by the Company or any Significant Subsidiary of a voluntary case or proceeding under any applicable Federal or state bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree or order for relief in respect of the Company or any Significant Subsidiary in an involuntary case or proceeding under any

applicable Federal or state bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable Federal or State law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or similar official of the Company or of any Significant Subsidiary or of any substantial part of the Company's or any Significant Subsidiary's property, or the making by it of an assignment for the benefit of creditors generally, or the admission by it in writing of its inability to pay its debts generally as they become due, or the taking of corporate action by the Company or any Significant Subsidiary authorizing any such action; or

(8) any other Event of Default, if any, provided with respect to Debt Securities of such series specified as contemplated by Section 301.

Section 502. Acceleration of Maturity; Rescission and Annulment.

If an Event of Default with respect to Debt Securities of any series at the time Outstanding occurs and is continuing, then and in every such case the Trustee or the Holders of not less than 25% in principal amount of Outstanding Debt Securities of such series may declare the principal amount (or, if the Debt Securities of such series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of such series) of and all accrued but unpaid interest on all the Debt Securities of such series to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by such Holders), and upon any such declaration such principal amount (or specified amount) shall become immediately due and payable. Upon payment of such amount, all obligations of the Company in respect of the payment of principal of the Debt Securities of such series shall terminate.

At any time after such a declaration of acceleration with respect to Debt Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the Outstanding Debt Securities of such series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if

- (1) the Company has paid or deposited with the Trustee a sum sufficient to pay
 - (A) all overdue installments of interest on all Debt Securities of such series,
 - (B) the principal of (and premium, if any, on) any Debt Securities of such series which have become due otherwise than by such declaration of acceleration and interest thereon at the rate or rates prescribed therefor in such Debt Securities,
 - (C) to the extent that payment of such interest is lawful, interest upon overdue installments of interest at the rate or rates prescribed therefor in such Debt Securities, and

(D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(2) all Events of Default with respect to Debt Securities of such series, other than the non-payment of the principal of Debt Securities of such series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 513.

No such rescission shall affect any subsequent default or impair any right consequent thereon.

Section 503. Collection of Indebtedness and Suits for Enforcement by Trustee.

The Company covenants that if:

(1) default is made in the payment of any installment of interest on any Debt Security when such interest becomes due and payable and such default continues for a period of 30 days, or

(2) default is made in the payment of the principal of (or premium, if any, on) any Debt Security at the Maturity thereof, the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Debt Securities, the amount then due and payable on such Debt Securities for principal (and premium, if any) and interest and, to the extent that payment of such interest shall be legally enforceable, interest upon the overdue principal (and premium, if any) and upon overdue installments of interest, at the rate or rates prescribed therefor in such Debt Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, and may prosecute such proceeding to judgment or final decree, and may enforce the same against the Company or any other obligor upon such Debt Securities and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Debt Securities, wherever situated.

If an Event of Default with respect to Debt Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Debt Securities of such series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 504. Trustee May File Proofs of Claim.

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceedings, or any voluntary or involuntary case under the Federal bankruptcy laws as now or hereafter constituted,

relative to the Company or any other obligor upon the Debt Securities of a particular series or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of such Debt Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceedings or otherwise,

(1) to file and prove a claim for the whole amount of principal (and premium, if any) and interest owing and unpaid in respect of the Debt Securities of such series and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(2) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any receiver, assignee, trustee, custodian, liquidator, sequestrator or other similar official in any such proceeding is hereby authorized by each Holder to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 607.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Debt Securities or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 505. Trustee May Enforce Claims without Possession of Debt Securities.

All rights of action and claims under this Indenture or the Debt Securities may be prosecuted and enforced by the Trustee without the possession of any of the Debt Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name, as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Debt Securities in respect of which such judgment has been recovered.

Section 506. Application of Money Collected.

Any money collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal (and premium, if any) or interest, upon presentation of the Debt Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee under Section 607;

SECOND: To the payment of the amounts then due and unpaid for principal of (and premium, if any) and interest on the Debt Securities, in respect of which or for the benefit of which such money has been collected ratably, without preference or priority of any kind, according to the amounts due and payable on such Debt Securities for principal (and premium, if any) and interest, respectively. The Holders of each series of Debt Securities denominated in Euro, any other composite currency or a Foreign Currency shall be entitled to receive a ratable portion of the amount determined by the Exchange Rate Agent by converting the principal amount Outstanding of such series of Debt Securities and matured but unpaid interest on such series of Debt Securities in the currency in which such series of Debt Securities is denominated into Dollars at the Exchange Rate as of the date of declaration of acceleration of the Maturity of the Debt Securities; and

THIRD: The balance, if any, to the Company.

Section 507. Limitation on Suits.

No Holder of any Debt Securities of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

- (1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Debt Securities of such series;
- (2) the Holders of not less than 25% in principal amount of the Outstanding Debt Securities of such series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;
- (3) such Holder or Holders have offered to the Trustee indemnity satisfactory to the Trustee against the costs, expenses and liabilities to be incurred in compliance with such request;
- (4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding;
and
- (5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Debt Securities of such series; it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other such Holders (it being understood that the Trustee does not have an affirmative duty to ascertain whether or not such actions or forbearances are unduly prejudicial to such Holders), or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all of such Holders.

Section 508. Unconditional Right of Holders to Receive Principal, Premium and Interest.

Notwithstanding any other provision in this Indenture, the Holder of any Debt Security shall have the right which is absolute and unconditional to receive payment of the principal of (and premium, if any) and (subject to Section 307) interest on such Debt Security on the respective Stated Maturity or Maturities expressed in such Debt Security (or, in the case of redemption or repayment, on the Redemption Date or the Repayment Date, as the case may be) and to institute suit for the enforcement of any such payment, and such right shall not be impaired without the consent of such Holder.

Section 509. Restoration of Rights and Remedies.

If the Trustee or any Holder has instituted any proceedings to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case the Company, the Trustee and the Holders shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder, and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 510. Rights and Remedies Cumulative.

Except as otherwise provided in Section 306, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 511. Delay or Omission Not Waiver.

No delay or omission of the Trustee or of any Holder of any Debt Security to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 512. Control by Holders of Debt Securities.

The Holders of a majority in principal amount of the Outstanding Debt Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Debt Securities of such series, provided, that

- (1) such direction shall not be in conflict with any rule of law or with this Indenture;

(2) subject to the provisions of Section 601, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Responsible Officer or Responsible Officers of the Trustee, determine that the proceedings so directed would be unjustly prejudicial to the Holders of Debt Securities of such series not joining in any such direction; and

(3) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction.

Section 513. Waiver of Past Defaults.

The Holders of not less than a majority in principal amount of the Outstanding Debt Securities of any series may on behalf of the Holders of all the Debt Securities of any such series waive any past default hereunder with respect to such series and its consequences, except a default

(1) in the payment of the principal of (or premium, if any) or interest on any Debt Security of such series, or

(2) in respect of a covenant or provision hereof which under Article Nine cannot be modified or amended without the consent of the Holder of each Outstanding Debt Security of such series affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

Section 514. Undertaking for Costs.

All parties to this Indenture agree, and each Holder of any Debt Security by such Holder's acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having a due regard to the merits and good faith of the claims or defenses made by such party litigant, but the provisions of this Section shall not apply to any suit instituted by the Company or the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 25% in principal amount of the Outstanding Debt Securities of any series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Debt Security on or after the respective Stated Maturity or Maturities expressed in such Debt Security (or, in the case of redemption or repayment, on or after the Redemption Date or Repayment Date, as the case may be).

Section 515. Waiver of Stay or Extension Laws.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law whenever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefits or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

ARTICLE SIX

The Trustee

Section 601. Certain Duties and Responsibilities.

(1) Except during the continuance of an Event of Default,

(A) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(B) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein).

(2) In case an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent person would exercise or use under the circumstances in the conduct of his or her own affairs.

(3) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that

(A) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(B) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(C) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in principal amount of the Outstanding Securities of any series, determined as provided in Sections 101, 104 and 512, relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Debt Securities of such series; and

(D) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

Section 602. Notice of Default.

If a default occurs hereunder with respect to Debt Securities of any series the Trustee shall transmit by mail to all Holders of Debt Securities of such series notice of such default as and to the extent provided by the Trust Indenture Act; provided, however, that in the case of any default of the character specified in Section 501(4) with respect to Debt Securities of such series no such notice to Holders shall be given until at least 30 days after the occurrence thereof. For the purpose of this Section, the term “default” means any event which is, or after notice or lapse of time or both would become, an Event of Default with respect to Debt Securities of such series.

Section 603. Certain Rights of Trustee.

Except as otherwise provided in Section 601:

(1) the Trustee may conclusively rely and shall be protected in acting or refraining from acting upon any signature, resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(2) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order and any resolution of the Board of Directors shall be sufficiently evidenced by a Board Resolution;

(3) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, conclusively rely upon an Officers' Certificate;

(4) the Trustee may consult with counsel of its selection and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(5) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders of Debt Securities of such series pursuant to this Indenture, unless such Holders shall have offered to the Trustee security or indemnity satisfactory to the Trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney, other than any such books or records containing information as to the affairs of the customers of the Company or any of its subsidiaries; provided that the Trustee may examine such books and records relating to customers to the extent that such books and records contain information as to any payments made to such customers in their capacity as Holders of Debt Securities; provided, further, that the Trustee shall treat all information regarding the Company which it receives pursuant to this Indenture and its duties hereunder as confidential and shall not disclose such information unless necessary in order to fulfill its duties under this Indenture or the Trust Indenture Act;

(7) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder; no Exchange Rate Agent, Global Exchange Agent, Depositary or Paying Agent shall be deemed an agent of the Trustee and the Trustee shall not be responsible for any act or omission by any of them;

(8) the Trustee shall not be liable for any action taken, suffered, or omitted to be taken by it in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(9) in no event shall the Trustee be responsible or liable for special, indirect, or consequential loss or damage of any kind whatsoever (including, but not limited to, loss of profit) irrespective of whether the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action;

(10) the Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Debt Securities and this Indenture;

(11) the rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed to act hereunder; and

40

(12) the Trustee may request that the Company deliver an Officers' Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officers' Certificate may be signed by any person authorized to sign an Officers' Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

Section 604. Not Responsible for Recitals or Issuance of Debt Securities.

The recitals contained herein and in the Debt Securities, except the Trustee's certificates of authentication, and the information in any registration statement, including all attachments thereto, except information provided by the Trustee therein, shall be taken as the statements of the Company, and the Trustee assumes no responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Debt Securities of any series. The Trustee shall not be accountable for the use or application by the Company of any Debt Securities or the proceeds thereof.

Section 605. May Hold Debt Securities.

The Trustee, any Paying Agent, the Security Registrar or any other agent of the Company or the Trustee, in its individual or any other capacity, may become the owner or pledgee of Debt Securities and, subject to Sections 608 and 613, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Paying Agent, Security Registrar or such agent.

Section 606. Money Held in Trust.

Money held by the Trustee or any Paying Agent in trust hereunder need not be segregated from other funds except to the extent required by law. Neither the Trustee nor any Paying Agent shall be under any liability for interest on any money received by it hereunder except as otherwise agreed with the Company.

Section 607. Compensation and Reimbursement.

The Company agrees

(1) to pay to the Trustee from time to time compensation for all services rendered by it hereunder which shall have from time to time been separately agreed to by the Company and the Trustee in writing (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and

(3) to indemnify each of the Trustee or any predecessor Trustee and their agents for, and to hold them harmless against, any and all

of the Trustee), arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim (whether asserted by the Company, or any Holder or any other Person) or liability in connection with the exercise or performance of any of its powers or duties hereunder, or in connection with enforcing the provisions of this Section, except to the extent that such loss, damage, claim, liability or expense is due to its own negligence or bad faith.

The Trustee shall promptly notify the Company of any claim for which it may seek indemnification pursuant to the provisions of this Indenture. The Company shall be entitled to participate in, and to the extent that it shall wish, to assume the defense of such claim, with counsel satisfactory to the Trustee (and the Trustee shall cooperate in the defense thereof), and after notice from the Company to the Trustee of the Company's election so to assume the defense thereof, the Company shall not be liable to the Trustee under this Indenture for any legal or other expenses subsequently incurred by the Trustee in connection with the defense thereof other than reasonable costs of investigation; provided, however, that the Trustee may only employ separate counsel at the expense of the Company if in the judgment of the Trustee (i) a conflict of interest exists by reason of common representation or (ii) there are legal defenses available to the Trustee that are different from or are in addition to those available to the Company or if all parties commonly represented do not agree as to the action (or inaction) of counsel. The Company shall not be obligated under any settlement agreement relating to any claim under this Indenture to which it has not agreed in writing.

As security for the performance of the obligations of the Company under this Section the Trustee shall have a claim prior to the Debt Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of (and premium, if any) or interest on particular Debt Securities.

The provisions of this Section 607 shall survive the resignation or removal of the Trustee and the termination of this Indenture.

Section 608. Disqualification; Conflicting Interests.

If the Trustee has or shall acquire any conflicting interest within the meaning of the Trust Indenture Act, the Trustee shall either eliminate such interest or resign, to the extent and in the manner provided by, and subject to the provisions of, the Trust Indenture Act and this Indenture. To the extent permitted by such Act, the Trustee shall not be deemed to have a conflicting interest with respect to Debt Securities of any series by virtue of being a trustee under this Indenture with respect to any particular series of Debt Securities.

Section 609. Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee hereunder which shall be a corporation that is eligible pursuant to the Trust Indenture Act to act as such and organized and doing business under the laws of the United States, any State thereof or the District of Columbia, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus of at least \$50,000,000, and subject to supervision or examination by Federal or State authority; provided, however, that if Section 310(a) of the Trust Indenture Act or the rules and regulations of the

Commission under the Trust Indenture Act at any time permit a corporation organized and doing business under the laws of any other jurisdiction to serve as trustee of an indenture qualified under the Trust Indenture Act, this Section 609 shall be automatically amended to permit a corporation organized and doing business under the laws of any such other jurisdiction to serve as Trustee hereunder. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

Section 610. Resignation and Removal; Appointment of Successor.

- (1) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee under Section 611.
- (2) The Trustee may resign at any time with respect to the Debt Securities of one or more series by giving written notice thereof to the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee may, at the expense of the Company, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Debt Securities of such series.
- (3) The Trustee may be removed at any time with respect to the Debt Securities of any series by the Company or by Act of the Holders of a majority in principal amount of the Outstanding Debt Securities of such series, delivered to the Trustee and to the Company.
- (4) If at any time:
 - (A) the Trustee shall fail to comply with Section 608 with respect to the Debt Securities of any series after written request therefor by the Company or by any Holder who has been a bona fide Holder of a Debt Security of such series for at least six months, or
 - (B) the Trustee shall cease to be eligible under Section 609 with respect to any series of Debt Securities and shall fail to resign after written request therefor by the Company or by any such Holder, or
 - (C) the Trustee shall become incapable of acting with respect to any series of Debt Securities or a decree or order for relief by a court having jurisdiction in the premises shall have been entered in respect of the Trustee in an involuntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or State bankruptcy, insolvency or similar law; or a decree or order by a court having jurisdiction in the premises shall have been entered for the appointment of a receiver, custodian, liquidator, assignee, trustee, sequestrator or other similar official of the Trustee or of its property or affairs,

or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation, winding up or liquidation, or

(D) the Trustee shall commence a voluntary case under the Federal bankruptcy laws, as now or hereafter constituted, or any other applicable Federal or State bankruptcy, insolvency or similar law or shall consent to the appointment of or taking possession by a receiver, custodian, liquidator, assignee, trustee, sequestrator or other similar official of the Trustee or its property or affairs, or shall make an assignment for the benefit of creditors, or shall admit in writing its inability to pay its debts generally as they become due, or shall take corporate action in furtherance of any such action, then, in any such case, (i) the Company by a Board Resolution may remove the Trustee with respect to such series at any time or (ii) subject to Section 514, any Holder who has been a bona fide Holder of a Debt Security of any series for at least six months may, on behalf of such Holder and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee for the Debt Securities of such series and the appointment of a successor Trustee. In addition, the Company may remove the Trustee if the Company shall determine by a Board Resolution that the services provided by the Trustee hereunder may be obtained at a substantially lower cost to the Company. If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 30 days after the giving of such notice of removal, the Trustee that is to be removed may, at the expense of the Company, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Debt Securities of such series.

(5) If the Trustee shall resign, be removed or become incapable of acting with respect to any series of Debt Securities, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Debt Securities of one or more series, the Company, by a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Debt Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Debt Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Debt Securities of any particular series) and shall comply with the applicable requirements of Section 611. If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Debt Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Debt Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment, become the successor Trustee with respect to the Debt Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Debt Securities of any series shall have been so appointed by the Company or the Holders and accepted appointment in the manner hereinafter provided, any Holder who has been a bona fide Holder of a Debt Security of such series for at least six months may, subject to Section 514, on behalf of such Holder and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Debt Securities of such series.

(6) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Debt Securities of any series and each appointment of a successor Trustee with respect to the Debt Securities of any series by mailing written notice of such event by first-class mail, postage prepaid, to the Holders of Debt Securities of such series as their

names and addresses appear in the Security Register. Each notice shall include the name of the successor Trustee with respect to the Debt Securities of such series and the address of its Corporate Trust Office.

Section 611. Acceptance of Appointment by Successor.

(1) In the case of an appointment hereunder of a successor Trustee with respect to all Debt Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges due under Section 607 hereof, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee, and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

(2) In the case of the appointment hereunder of a successor Trustee with respect to the Debt Securities of one or more (but not all) series, the Company, the retiring Trustee upon payment of its charges and each successor Trustee with respect to the Debt Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (1) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Debt Securities of that or those series to which the appointment of such successor Trustee relates, (2) if the retiring Trustee is not retiring with respect to all Debt Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Debt Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (3) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture, the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Debt Securities of that or those series to which the appointment of such successor Trustee relates; but, on the request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Debt Securities of that or those series to which the appointment of such successor Trustee relates.

(3) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor

Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(4) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article.

Section 612. Merger, Conversion, Consolidation or Succession to Business.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article, without the executing or filing of any paper or any further act on the part of any of the parties hereto. In case any Debt Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion, consolidation or sale to such authenticating Trustee may adopt such authentication and deliver the Debt Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Debt Securities. In case any Debt Securities shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Debt Securities, in either its own name or that of its predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee.

Section 613. Preferential Collection of Claims Against Company.

If and when the Trustee shall be or shall become a creditor, directly or indirectly, secured or unsecured, of the Company (or any other obligor upon the Debt Securities), the Trustee shall be subject to the provisions of the Trust Indenture Act regarding collection of claims against the Company (or any such other obligor).

Section 614. Authenticating Agent.

The Trustee shall upon Company Request appoint one or more Authenticating Agents (including, without limitation, the Company or any Affiliate thereof) with respect to one or more series of Debt Securities which shall be authorized on behalf of the Trustee in authenticating Debt Securities of such series in connection with the issue, delivery, registration of transfer, exchange, partial redemption or repayment of such Debt Securities. Wherever reference is made in this Indenture to the authentication of Debt Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent must be acceptable to the Company and must be a corporation organized and doing business under the laws of the United States or of any State or the District of Columbia, having a combined capital and surplus of at least \$50,000,000, authorized under such laws to do a trust business and subject to supervision or examination by Federal or State authorities.

Any corporation succeeding to the corporate agency business of an authenticating agent shall continue to be an authenticating agent without the execution or filing of any paper or any further act on the part of the Trustee or such authenticating agent.

An authenticating agent may at any time resign with respect to one or more series of Debt Securities by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time terminate the agency of any authenticating agent with respect to one or more series of Debt Securities by giving written notice of termination to such authenticating agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time an authenticating agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor authenticating agent. Any successor authenticating agent upon acceptance of its appointment hereunder shall become vested with all rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an authenticating agent herein. No successor authenticating agent shall be appointed unless eligible under the provisions of this Section.

The Company agrees to pay to each authenticating agent from time to time compensation for its services under this Section.

The provisions of Sections 104, 111, 306, 309, 603, 604 and 605 shall be applicable to any authenticating agent.

Pursuant to each appointment made under this Section, the Debt Securities of each series covered by such appointment may have endorsed thereon, in lieu of the Trustee's certificate of authentication, an alternate certificate of authentication in substantially the following form:

This is one of the Debt Securities, of the series designated herein, described in the within-mentioned Indenture.

[]

By _____
As Authenticating Agent for the Trustee

Dated: By _____
Authorized Signatory

ARTICLE SEVEN

Holders' Lists and Reports By Trustee and Company

Section 701. Company to Furnish Trustee Names and Addresses of Holders.

If the Trustee is not the Security Registrar with respect to a series of Debt Securities, or to the extent otherwise required under the Trust Indenture Act, the Company shall furnish to the Trustee, in writing at least five (5) Business Days before each Interest Payment Date with respect to such series of Debt Securities and at such other times as the Trustee may request in writing, a

list in such form and as of such date as the Trustee may reasonably require of the names and addresses of Holders of such series.

Section 702. Preservation of Information: Communications to Holders.

- (1) The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders of Debt Securities contained in the most recent list furnished to the Trustee as provided in Section 701 and the names and addresses of Holders of Debt Securities received by the Trustee in its capacity as Paying Agent or Security Registrar, if so acting. The Trustee may destroy any list furnished to it as provided in Section 701 upon receipt of a new list so furnished.
- (2) The rights of Holders to communicate with other Holders with respect to their rights under this Indenture or under the Debt Securities, and the corresponding rights and privileges of the Trustee, shall be as provided by the Trust Indenture Act.
- (3) Every Holder of Debt Securities, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company nor the Trustee shall be held accountable by reason of any disclosure of information as to the names and addresses of the Holders made pursuant to the Trust Indenture Act.

Section 703. Reports by Trustee.

- (1) The Trustee shall transmit to Holders such reports concerning the Trustee and its actions under this Indenture as may be required pursuant to the Trust Indenture Act at the times and in the manner provided pursuant thereto. If required by Section 313(a) of the Trust Indenture Act, the Trustee shall, within sixty days after the date specified in a supplemental indenture with respect to any issuance of Debt Securities under this Indenture deliver to Holders a brief report, dated as of such specified date, which complies with the provisions of such Section 313(a).
- (2) A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange, if any, upon which any Debt Securities of such series are listed, with the Commission and also with the Company. The Company will notify the Trustee when any series of Debt Securities are listed on any stock exchange and any delisting thereof.

Section 704. Reports by Company.

The Company shall file with the Trustee and the Commission, and transmit to Holders such information, documents and other reports, and such summaries thereof, as may be required pursuant to the Trust Indenture Act at the time and in the manner pursuant to such Act; provided that such information, documents or reports required to be filed with the Commission pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 shall be filed with the Trustee within 15 days after the same is so filed with the Commission (it being understood that any such information, document or report filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval (or EDGAR) system or any successor thereto shall be

deemed to be filed with the Trustee, it being understood that the Trustee shall have no responsibility whatsoever to determine whether such filing has occurred).

Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers' Certificates).

ARTICLE EIGHT

Consolidation, Merger, Conveyance, Transfer or Lease

Section 801. Company May Consolidate, etc. Only on Certain Terms.

The Company shall not consolidate with or merge with or into any other corporation or convey, transfer (excluding any transfer solely as collateral for security purposes) or lease its properties and assets substantially as an entirety to any Person, unless:

(1) either (a) the Company shall be the continuing or surviving corporation or (b) in case the Company shall consolidate with or merge into another corporation and not be the continuing or surviving corporation or convey, transfer or lease its properties and assets substantially as an entirety to any Person, the corporation formed by such consolidation or into which the Company is merged or the Person which acquires by conveyance or transfer, or which leases, the properties and assets of the Company substantially as an entirety shall be a corporation organized and existing under the laws of the United States of America, any political subdivision thereof or any State thereof and shall expressly assume, by an indenture supplemental hereto, executed and delivered to the Trustee, in form satisfactory to the Trustee, the due and punctual payment of the principal of (and premium, if any) and interest (including all additional amounts, if any, payable pursuant to Section 1005) on all the Debt Securities and the performance of every covenant of this Indenture on the part of the Company to be performed or observed;

(2) immediately after giving effect to such transaction, no Event of Default shall have occurred and be continuing; and

(3) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel each stating that such consolidation, merger, conveyance, transfer or lease and such supplemental indenture (as applicable) comply with this Article and that all conditions precedent herein provided for relating to such transaction have been met.

Section 802. Successor Corporation Substituted.

Upon any consolidation with or merger into any other corporation, or any conveyance, transfer or lease of the properties and assets of the Company substantially as an entirety in accordance with Section 801, the successor corporation formed by such consolidation or into which the Company is merged or to which such conveyance, transfer or lease is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company

under this Indenture with the same effect as if such successor had been named as the Company herein, and thereafter, except in the case of a lease, the Company (which term for this purpose shall mean the Person named as the "Company" in the first paragraph of this instrument or any successor corporation which shall theretofore have become such in the manner presented in this Article) shall be relieved of all obligations and covenants under this Indenture and the Debt Securities.

Section 803. Conveyance or Transfer to a Wholly-owned Subsidiary.

Notwithstanding the provisions of Sections 801 and 802, and without any requirement of complying with any of such provisions, the Company may convey or transfer its properties and assets substantially as an entirety to another corporation organized and existing under the laws of the United States of America or any State or the District of Columbia which is lawfully entitled to acquire the same; provided, however, that immediately after giving effect to such conveyance or transfer and to the receipt of the consideration therefore such other corporation shall be a Whollyowned Subsidiary of the Company and prior to such conveyance or transfer there shall have been filed with the Trustee an Officers' Certificate to the effect that the requirements of this Section 803 will be complied with in connection with such conveyance or transfer.

ARTICLE NINE

Supplemental Indentures

Section 901. Supplemental Indentures without Consent of Holders.

Without the consent of or notice to any Holders, the Company, when authorized by a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

- (1) to evidence the succession of another corporation to the Company, and the assumption by such successor of the covenants of the Company herein and in the Debt Securities contained; or
- (2) to add to the covenants of the Company, for the benefit of the Holders of all or any series of Debt Securities (and if such covenants are to be for the benefit of less than all series of Debt Securities, stating that such covenants are expressly being included solely for the benefit of such series), to convey, transfer, assign, mortgage or pledge any property to or with the Trustee, or to surrender any right or power herein conferred upon the Company; or
- (3) to add any additional Events of Default (and if such Events of Default are to be applicable to less than all series of Debt Securities, stating that such Events of Default are expressly being included solely to be applicable to such series); or
- (4) to change or eliminate any restrictions on the payment of principal of (or premium, if any, on) Debt Securities or to permit or facilitate the issuance of Debt Securities in uncertificated form, provided any such action shall not adversely affect the interests of the Holders of Debt Securities of any series in any material respect; or

50

- (5) to change or eliminate any of the provisions of this Indenture, provided that any such change or elimination (a) shall become effective only when there is no Debt Security Outstanding of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provisions or (b) shall not apply to any Debt Security Outstanding; or
- (6) to establish the form or terms of Debt Securities of any series as permitted by Sections 201 and 301; or
- (7) to secure the Debt Securities; or
- (8) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Debt Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 611(b); or
- (9) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture which shall not be inconsistent with any provision of this Indenture, provided such other provisions shall not adversely affect the interests of the Holders of Debt Securities of any series in any material respect; or
- (10) to add to or change or eliminate any provision of this Indenture as shall be necessary or desirable in accordance with any amendments to the Trust Indenture Act, provided such action shall not adversely affect the interest of Holders of Debt Securities of any series in any material respect; or
- (11) to provide for uncertificated Debt Securities in addition to or in place of certificated Debt Securities; or
- (12) to comply with requirements of the Commission in order to maintain the qualification of this Indenture under the Trust Indenture Act; or
- (13) to make any change that would provide any additional rights or benefits to the Holders of Debt Securities of any series or that does not adversely affect the legal rights under this Indenture of any such Holder;
- (14) to supplement any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the defeasance and discharge of any series of Debt Securities pursuant to this Indenture; provided, however, that any such action shall not adversely affect the interest of the Holders of Debt Securities of such series or any other series of Debt Securities; or

(15) to conform the text of this Indenture or any Debt Securities to the description thereof in any prospectus or prospectus supplement of the Company with respect to the offer and sale of Debt Securities of any series, to the extent that such provision is inconsistent

with a provision of this Indenture or the Debt Securities, as provided in an Officers' Certificate; or

(16) to make any other provisions with respect to matters or questions arising under this Indenture, provided that such actions pursuant to this clause (18) shall not adversely affect the interests of the Holders, as determined in good faith by the Board of Directors of the Company.

Section 902. Supplemental Indentures with Consent of Holders.

With the consent of the Holders of not less than a majority in principal amount of the Outstanding Debt Securities of all series affected by such supplemental indenture, acting together as a class, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of modifying in any manner the rights under this Indenture of the Holders of such Debt Securities of such series; provided, however, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Debt Security affected thereby,

(1) change the Stated Maturity of the principal or any installment of principal of, or any installment of interest on, any Debt Security, or reduce the principal amount thereof or the interest thereon or any premium payable upon redemption or repayment thereof, or change any obligation of the Company to pay additional amounts pursuant to Section 1005 (except as contemplated by Section 801(1) and permitted by Section 901(1)), or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 502, or change the coin or currency in which any Debt Security or the interest thereon is payable, or change the Place of Payment with respect to any Debt Security, or adversely affect the right to repayment of any Debt Security of any series of Debt Securities at the option of the Holders of such Debt Security, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption or repayment, on or after the Redemption Date or Repayment Date, as the case may be), or

(2) reduce the percentage in principal amount of the Outstanding Debt Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or

(3) modify any of the provisions of this Section or Section 513, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Debt Security affected thereby; provided, however, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to "the Trustee" and concomitant changes in this Section, or the deletion of this proviso, in accordance with the requirements of Section 611(b) and 901(8).

A supplemental indenture which changes or eliminates any covenant or other provision of this Indenture which has expressly been included solely for the benefit of one or more particular series of Debt Securities, or which modifies the rights of the Holders of Debt Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Debt Securities of any other series.

It shall not be necessary for any Act of Holders of the Debt Securities under this Section to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

Section 903. Execution of Supplemental Indentures.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 601) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Section 904. Effect of Supplemental Indentures.

Upon the execution of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Debt Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

Section 905. Conformity with Trust Indenture Act.

Every supplemental indenture executed pursuant to this Article shall conform to the requirements of the Trust Indenture Act as then in effect.

Section 906. Reference in Debt Securities to Supplemental Indentures.

Debt Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Debt Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Debt Securities of such series.

ARTICLE TEN

Covenants

Section 1001. Payment of Principal, Premium and Interest.

The Company covenants and agrees for the benefit of each series of Debt Securities that it will duly and punctually pay the principal of (and premium, if any) and interest on the Debt Securities in accordance with the terms of the Debt Securities and this Indenture.

Section 1002. Maintenance of Office or Agency.

The Company will maintain in each Place of Payment for any series of Debt Securities an office or agency where Debt Securities may be presented or surrendered for payment, where Debt Securities may be surrendered for registration of transfer or exchange and where notices and demands to or upon the Company in respect of the Debt Securities and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of any such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices or demands may be made or served at the Corporate Trust Office, and the Company hereby appoints the Trustee its agent to receive all presentations, surrenders, notices and demands.

The Company may also from time to time designate one or more other offices or agencies (in or outside of such Place of Payment) where the Debt Securities of one or more series (subject to the preceding paragraph) may be presented or surrendered for any or all such purposes, and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in each Place of Payment for any series of Debt Securities for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and any change in the location of any such other office or agency.

Section 1003. Money for Debt Securities Payments to Be Held in Trust.

If the Company shall at any time act as its own Paying Agent with respect to any series of Debt Securities, it will, on or before each due date of the principal of (and premium, if any) or interest on any of the Debt Securities of such series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal (and premium, if any) or interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided, and will promptly notify the Trustee of its action or failure so to act.

Whenever the Company shall have one or more Paying Agents with respect to any series of Debt Securities, it will, on or before each due date of the principal of (and premium, if any) or interest on any of the Debt Securities of such series, deposit with a Paying Agent a sum sufficient to pay the principal (and premium, if any) or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

The Company will cause each Paying Agent with respect to any series of Debt Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will

- (1) hold all sums held by it for the payment of the principal of (and premium, if any) or interest on Debt Securities of such series in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;
- (2) give the Trustee notice of any default by the Company (or any other obligor upon the Debt Securities of such series) in the making of any payment of principal of (and premium, if any) or interest on the Debt Securities of such series; and
- (3) at any time during the continuance of any such default, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent.

The Company may at any time, for the purpose of terminating its obligations under this Indenture with respect to Debt Securities of any series or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Any principal and interest received on the Government Obligations deposited with the Trustee or any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of (and premium, if any) or interest on any Debt Security of any series and remaining unclaimed for two years after such principal (and premium, if any) or interest has become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Debt Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money (including the principal and interest received on Government Obligations deposited with the Trustee), and all liability of the Company as trustee thereof, shall thereupon cease.

Section 1004. Corporate Existence.

Subject to Article Eight, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence, rights (charter and statutory) and franchises, provided, however, that the Company shall not be required to preserve any such right or franchise if, in the judgment of the Company, the preservation thereof is no longer desirable in the conduct of the business of the Company and its Subsidiaries, taken as a whole, and the loss thereof is not disadvantageous in any material respect to the Holders. For the avoidance of doubt, this Section shall not prohibit or restrict the Company from converting into a different form of legal entity.

Section 1005. Payment of Additional Amounts.

If the Debt Securities of a series expressly provide for the payment of additional amounts, the Company will pay to the Holder of any Debt Security of any series additional amounts upon the terms and subject to the conditions provided therein. Whenever in this Indenture there is mentioned, in any context, the payment of the principal of (or premium, if any) or interest on, or in respect of, any Debt Security of any series or the net proceeds received from the sale or exchange of any Debt Security of any series, such mention shall be deemed to include mention of the payment of additional amounts provided for in the terms of such Debt Securities and this Section to the extent that, in such context, additional amounts are, were or would be payable in respect thereof pursuant to the provisions of this Section and express mention of the payment of additional amounts (if applicable) in any provisions hereof shall not be construed as excluding additional amounts in those provisions hereof where such express mention is not made.

If the Debt Securities of a series provide for the payment of additional amounts, at least 10 days prior to the first Interest Payment Date with respect to that series of Debt Securities (or if the Debt Securities of that series will not bear interest prior to Maturity, the first day on which a payment of principal (and premium, if any) is made), and at least 10 days prior to each date of payment of principal (and premium, if any) or interest if there has been any change with respect to the matters set forth in the belowmentioned Officers' Certificate, the Company will furnish the Trustee and the Company's principal Paying Agent or Paying Agents, if other than the Trustee, with an Officers' Certificate instructing the Trustee and such Paying Agent or Paying Agents whether such payment of principal of (and premium, if any) or interest on the Debt Securities of that series shall be made to Holders of Debt Securities of that series who are United States Aliens without withholding for or on account of any tax, assessment or other governmental charge described in the Debt Securities of that series. If any such withholding shall be required, then such Officers' Certificate shall specify by country the amount, if any, required to be withheld on such payments to such Holders of Debt Securities and the Company will pay to the Trustee or such Paying Agent the additional amounts, if any, required by the terms of such Debt Securities and the first paragraph of this Section. The Company covenants to indemnify the Trustee and any Paying Agent for, and to hold them harmless against, any loss, liability or expense reasonably incurred without negligence or bad faith on their part arising out of or in connection with actions taken or omitted by any of them in reliance on any Officers' Certificate furnished pursuant to this Section.

Section 1006. Officer's Certificate as to Compliance.

The Company shall deliver to the Trustee not more than 120 days after the end of each fiscal year of the Company (beginning with the fiscal year ending []) a brief certificate from the principal executive, financial or accounting officer of the Company as to his or her knowledge of the Company's compliance with all conditions and covenants under this Indenture (such compliance to be determined without regard to any period of grace or requirement of notice provided under this Indenture), and, if he or she has knowledge of any default, specifying each such default of which the signer has knowledge and the nature thereof.

ARTICLE ELEVEN

Redemption of Debt Securities

Section 1101. Applicability of Article.

Debt Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 301 for Debt Securities of any series) in accordance with this Article.

Section 1102. Election to Redeem; Notice to Trustee.

The election of the Company to redeem any Debt Securities shall be evidenced by a Board Resolution. In case of any redemption at the election of the Company of less than all of the Debt Securities of any series, the Company shall, at least 45 days prior to the Redemption Date fixed by the Company (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee in writing of such Redemption Date and of the principal amount and the tenor and terms of the Debt Securities of any series to be redeemed. In the case of any redemption of Debt Securities prior to the expiration of any restriction on such redemption provided in the terms of such Debt Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officers' Certificate evidencing compliance with such restriction.

Section 1103. Selection by Trustee of Debt Securities to be Redeemed.

Except as otherwise specified as contemplated by Section 301 for Debt Securities of any series, if less than all the Debt Securities of any series with like tenor and terms are to be redeemed, the particular Debt Securities to be redeemed shall be selected not more than 60 days prior to the Redemption Date by the Trustee, from the Outstanding Debt Securities of such series with like tenor and terms not previously called for redemption, by such method as the Trustee shall deem fair and appropriate and which may provide for the selection for redemption of portions (equal to the minimum authorized denomination for Debt Securities of such series or any integral multiple thereof which is also an authorized denomination) of the principal amount of Debt Securities (if issued in more than one authorized denomination) of such series of a denomination larger than the minimum authorized denomination for Debt Securities of such series.

The Trustee shall promptly notify the Company in writing of the Debt Securities selected for redemption and, in the case of any Debt Securities selected for partial redemption, the principal amount thereof to be redeemed.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Debt Securities shall relate, in the case of any Debt Security redeemed or to be redeemed only in part, to the portion of the principal amount of such Debt Security which has been or is to be redeemed.

Section 1104. Notice of Redemption.

Notice of redemption shall be given in the manner provided in Section 106 not less than 30 nor more than 60 days prior to the Redemption Date, to each Holder of Debt Securities to be redeemed. Notwithstanding the foregoing, redemption notices may be given more than 60 days prior to a Redemption Date if such notice is issued in connection with a defeasance of the Debt Securities or a satisfaction and discharge of this Indenture. Notice of any redemption may, at the Company's discretion, be subject to one or more conditions precedent. The Trustee shall give notice of redemption in the Company's name and at the Company's expense; provided, however, that the Company shall deliver to the Trustee, at least 45 days prior to the Redemption Date (unless a shorter notice shall be satisfactory to the Trustee), an Officers' Certificate requesting that the Trustee give such notice at the Company's expense and setting forth the information to be stated in such notice as provided in the following items.

All notices of redemption shall state:

- (1) the Redemption Date,
- (2) the Redemption Price,
- (3) if less than all Outstanding Debt Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amounts) of the particular Debt Securities to be redeemed,
- (4) that on the Redemption Date the Redemption Price will become due and payable upon each such Debt Security to be redeemed, and that interest thereon shall cease to accrue on and after said date,
- (5) in case any Debt Securities are to be redeemed in part only, the notice which relates to such Debt Securities shall state that on and after the Redemption Date, upon surrender of such Debt Securities, the Holder will receive, without charge, a new Debt Security or Debt Securities of authorized denominations for the principal amount thereof remaining unredeemed;
- (6) the Place or Places of Payment where such Debt Securities are to be surrendered for payment of the Redemption Price,
- (7) that the redemption is for a sinking fund, if such is the case,
- (8) the CUSIP, ISIN or Common Code number, if any, and that no representation is made as to the accuracy or correctness of the CUSIP, ISIN or Common Code number, if any, listed in such notice or printed on the Debt Securities, and
- (9) the section of this Indenture and the paragraph of the Debt Securities, as applicable, pursuant to which the Debt Securities are to be redeemed.

Notice of redemption of Debt Securities to be redeemed at the election of the Company shall be given by the Company, or, at the Company's request, by the Trustee in the name and at the expense of the Company.

Section 1105. Deposit of Redemption Price.

On or prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 1003) an amount of money and/or Government Obligations the payments of principal and interest on which when due (and without reinvestment) will provide money on or prior to the Redemption Date in such amounts as will (together with any money irrevocably deposited in trust with the Trustee, without investment) be sufficient to pay the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Debt Securities or portions thereof which are to be redeemed on that date.

Section 1106. Debt Securities Payable on Redemption Date.

Notice of redemption having been given as aforesaid, unless the notice of redemption is subject to one or more conditions precedent which have not been satisfied, the Debt Securities to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Debt Securities shall cease to bear interest and, except to the extent provided below, shall be void. Upon surrender of any such Debt Security for redemption in accordance with said notice, such Debt Security shall be paid by the Company at the Redemption Price, together with accrued interest to the Redemption Date; provided, however, that installments of interest on Debt Securities whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Debt Securities, or one or more Predecessor Securities, registered as such on the relevant Record Dates according to their terms and the provisions of Section 307.

If any Debt Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal (and premium, if any) shall, until paid, bear interest from the Redemption Date at the rate prescribed therefor in the Debt Security.

Section 1107. Debt Securities Redeemed in Part.

Any Debt Security which is to be redeemed only in part shall be surrendered at a Place of Payment therefor (with, if the Company, the Security Registrar or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company, the Security Registrar and the Trustee duly executed by, the Holder thereof or such Holder's attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Debt Security without service charge, a new Debt Security or Debt Securities of the same series and of like tenor and terms, of any authorized denominations as requested by such Holder in an aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Debt Security so surrendered.

Section 1108. Open Market Purchases.

In addition to the foregoing, the Company may at any time and from time to time purchase Debt Securities of a series in the open market or otherwise, subject to compliance with all applicable securities laws.

ARTICLE TWELVE

Sinking Funds

Section 1201. Applicability of Article.

The provisions of this Article shall be applicable to any sinking fund for the retirement of Debt Securities of a series except as otherwise specified as contemplated by Section 301 for Debt Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Debt Securities of any series is herein referred to as a “mandatory sinking fund payment”, and any payment in excess of such minimum amount provided for by the terms of Debt Securities of any series is herein referred to an “optional sinking fund payment”. If provided for by the terms of Debt Securities of any series, the amount of any sinking fund payment may be subject to reduction as provided in Section 1202. Each sinking fund payment shall be applied to the redemption of Debt Securities of any series as provided for by the terms of Debt Securities of such series.

Section 1202. Satisfaction of Sinking Fund Payments with Debt Securities.

The Company (1) may deliver Outstanding Debt Securities of a series (other than any previously called for redemption) and (2) may apply as a credit Debt Securities of a series which have been redeemed either at the election of the Company pursuant to the terms of such Debt Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Debt Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Debt Securities of such series required to be made pursuant to the terms of such Debt Securities as provided for by the terms of such series; provided that such Debt Securities have not been previously so credited. Such Debt Securities shall be received and credited for such purpose by the Trustee at the Redemption Price specified in such Debt Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly. If as a result of the delivery or credit of Debt Securities in lieu of cash payments pursuant to this Section 1202, the principal amount of Debt Securities to be redeemed in order to exhaust the aforesaid cash payment shall be less than \$100,000, the Trustee need not call Debt Securities for redemption, except upon Company Request, and such cash payment shall be held by the Trustee or a Paying Agent and applied to the next succeeding sinking fund payment, provided, however, that the Trustee or such Paying Agent shall at the request of the Company from time to time pay over and deliver to the Company any cash payment so being held by the Trustee or such Paying Agent upon delivery by the Company to the Trustee of Debt Securities purchased by the Company having an unpaid principal amount equal to the cash payment requested to be released to the Company.

Section 1203. Redemption of Debt Securities for Sinking Fund.

Not less than 45 days prior to each sinking fund payment date for any series of Debt Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officers' Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, which is to be satisfied by payment of cash, the portion thereof, if any, which is to be satisfied by crediting Debt Securities of that series pursuant to Section 1202 and the basis for any such credit and, prior to or concurrently with the delivery of such Officers' Certificate, will also deliver to the Trustee any Debt Securities to be so credited and not theretofore delivered to the Trustee. Not less than 30 days (unless a shorter period shall be satisfactory to the Trustee) before each such sinking fund payment date the Trustee shall select the Debt Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 1103 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 1104. Such notice having been duly given, the redemption of such Debt Securities shall be made upon the terms and in the manner stated in Sections 1105, 1106 and 1107.

ARTICLE THIRTEEN

Repayment at the Option of Holders

Section 1301. Applicability of Article.

Debt Securities of any series which are repayable at the option of the Holders thereof before their Stated Maturity shall be repaid in accordance with their terms and (except as otherwise specified pursuant to Section 301 for Debt Securities of such series) in accordance with this Article.

Section 1302. Repayment of Debt Securities.

Each Debt Security which is subject to repayment in whole or in part at the option of the Holder thereof on a Repayment Date shall be repaid at the applicable Repayment Price together with interest accrued to such Repayment Date as specified pursuant to Section 301.

Section 1303. Exercise of Option; Notice.

Each Holder desiring to exercise such Holder's option for repayment shall, as conditions to such repayment, surrender the Debt Security to be repaid in whole or in part together with written notice of the exercise of such option at any office or agency of the Company in a Place of Payment, not less than 30 nor more than 45 days prior to the Repayment Date. Such notice, which shall be irrevocable, shall specify the principal amount of such Debt Security to be repaid, which shall be equal to the minimum authorized denomination for such Debt Security or an integral multiple thereof, and shall identify the Debt Security to be repaid and, in the case of a partial repayment of the Debt Security, shall specify the denomination or denominations of the Debt Security or Debt Securities of the same series to be issued to the Holder for the portion of the principal of the Debt Security surrendered which is not to be repaid.

The Company shall execute and the Trustee shall authenticate and deliver without service charge to the Holder of any Debt Security so surrendered a new Debt Security or Debt Securities of the same series, of any authorized denomination specified in the foregoing notice, in an aggregate principal amount equal to any portion of the principal of the Debt Security so surrendered which is not to be repaid.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the repayment of Debt Securities shall relate, in the case of any Debt Security repaid or to be repaid only in part, to the portion of the principal of such Debt Security which has been or is to be repaid.

Section 1304. Election of Repayment by Remarketing Entities.

The Company may elect, with respect to Debt Securities of any series which are repayable at the option of the Holders thereof before their Stated Maturity, at any time prior to any Repayment Date to designate one or more Remarketing Entities to purchase, at a price equal to the Repayment Price, Debt Securities of such series from the Holders thereof who give notice and surrender their Debt Securities in accordance with Section 1303.

Section 1305. Securities Payable on the Repayment Date.

Notice of exercise of the option of repayment having been given and the Debt Securities so to be repaid having been surrendered as aforesaid, such Debt Securities shall, unless purchased in accordance with Section 1304, on the Repayment Date become due and payable at the price therein specified and from and after the Repayment Date such Debt Securities shall cease to bear interest and shall be paid on the Repayment Date, unless the Company shall default in the payment of such price in which case the Company shall continue to be obligated for the principal amount of such Debt Securities and shall be obligated to pay interest on such principal amount at the rate borne by such Debt Securities from time to time until payment in full of such principal amount.

ARTICLE FOURTEEN

Defeasance

Section 1401. Termination of Company's Obligations.

If this Section 1401 is specified, as contemplated by Section 301, to be applicable to any series of Debt Securities and if the Company deposits irrevocably in trust with the Trustee money and/or Government Obligations the payments of principal and interest on which when due (and without reinvestment) will provide money in such amounts as will (together with any money irrevocably deposited in trust with the Trustee, without investment) be sufficient to pay the principal of (and premium, if any) and any installment of principal of (and premium, if any) or interest when due on the Debt Securities of such series on the Stated Maturity of such principal or interest or, if such series may be redeemed by the Company prior to the Stated Maturity thereof and the Company shall have given irrevocable instructions to the Trustee to effect such redemption, at the date fixed for such redemption pursuant to Article Eleven, and any mandatory sinking fund, repayment or analogous payments thereon on the scheduled due dates

therefor, the Company's obligations under Sections 801 and 803 and any other covenant determined pursuant to Section 301 to be subject to this Section shall terminate and Sections 501(4) (with respect to Sections 801 and 803), 501(5), 501(6), 501(7) and 501(8) (if specified as contemplated by Section 301) shall be deemed not to be an Event of Default, in each case with respect to the Debt Securities of the series for which such deposit was made; provided, however, that (i) no Event of Default with respect to the Debt Securities of such series under Section 501(6) or 501(7) or event that with notice or lapse of time or both would constitute such an Event of Default shall have occurred and be continuing on the 91st day after such date, (ii) such deposit will not result in a breach of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound, and (iii) such termination shall not relieve the Company of its obligations under the Debt Securities of such series and this Indenture to pay when due the principal of (and premium, if any) and interest and additional amounts on such Debt Securities if such amounts are not paid (or payment is not provided for) when due from the money and Government Obligations (and the proceeds thereof) so deposited.

It shall be a condition to the deposit of cash and/or Government Obligations and the termination of the Company's obligations pursuant to the provisions of this Section with respect to the Debt Securities of any series under Sections 801 and 803 and any other covenant determined pursuant to Section 301 to be subject to this Section and the inapplicability of the Events of Default contained in Sections 501(4), 501(5), 501(6), 501(7) and 501(8) to the extent set forth above pursuant to the provisions of this Section with respect to Debt Securities of any series that the Company deliver to the Trustee (i) an Officers' Certificate to the effect that under the laws in effect on the date such money and/or Government Obligations are deposited with the Trustee, the amount thereof will be sufficient, after payment of all Federal, state and local taxes in respect thereof payable by the Trustee, to pay principal (and premium, if any) and interest when due on the Debt Securities of such series; and (ii) an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the defeasance contemplated in this Section have been complied with.

After a deposit as provided herein, the Trustee shall, upon Company Request, acknowledge in writing the discharge of the Company's obligations pursuant to the provisions of this Section with respect to the Debt Securities of such series under Sections 801 and 803 and any other covenant determined pursuant to Section 301 to be subject to this Section and the inapplicability of the Events of Default contained in Sections 501(4), 501(5), 501(6), 501(7) and 501(8) to the extent set forth above.

Section 1402. Repayment to Company.

The Trustee and any Paying Agent shall promptly pay to the Company upon Company Request any money or Government Obligations not required for the payment of the principal of (and premium, if any) and interest on the Debt Securities of any series for which money or Government Obligations have been deposited pursuant to Section 1401 held by them at any time.

The Trustee and any Paying Agent shall promptly pay to the Company upon Company Request any money held by them for the payment of principal (and premium, if any) and interest that remains unclaimed for two years after the Maturity of the Debt Securities for which a deposit has been made pursuant to Section 1401. After such payment to the Company, the

Holders of the Debt Securities of such series shall thereafter, as unsecured general creditors, look only to the Company for the payment thereof.

Section 1403. Indemnity for Government Obligations.

The Company shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the deposited Government Obligations or the principal or interest received on such Government Obligations.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, all as of the day and year first above written.

ROCKWELL MEDICAL, INC.

By _____
Name:
Title:

[]

By _____
Name:
Title:



ATTORNEYS AT LAW

777 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202-5306
414.271.2400 TEL
414.297.4900 FAX
WWW.FOLEY.COM

WRITER'S DIRECT LINE
414.297.5662
sbarth@foley.com EMAIL

CLIENT/MATTER NUMBER
114317-0103

September 14, 2018

Rockwell Medical, Inc.
30142 Wixom Road
Wixom, Michigan 48393

Ladies and Gentlemen:

We have acted as securities counsel for Rockwell Medical, Inc., a Michigan corporation (the "Company"), in connection with the preparation of a Registration Statement on Form S-3 (the "Registration Statement"), including the prospectus constituting a part thereof (the "Prospectus"), to be filed with the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the potential issuance and sale by the Company from time to time of up to \$200,000,000 aggregate amount of any of the following: (i) shares of the Company's common stock, no par value (the "Common Stock"); (ii) shares of the Company's preferred stock, no par value (the "Preferred Stock"); (iii) contracts (the "Securities Purchase Contracts") that obligate holders to purchase from the Company, and the Company to sell to these holders, shares of the Common Stock or other securities at a future date; (iv) units (the "Units") consisting of one or more shares of Common Stock, shares of Preferred Stock, Debt Securities, Warrants, Rights, Securities Purchase Contracts or any combination of the foregoing; (v) debt securities of the Company (the "Debt Securities"); (vi) subscription rights (the "Rights") to purchase Debt Securities, Common Stock, Preferred Stock or other securities of the Company (or any combination thereof); and (vii) warrants (the "Warrants") to purchase Common Stock, Preferred Stock, Debt Securities, Units or other securities of the Company. The Common Stock, the Preferred Stock, the Securities Purchase Contracts, the Units, the Debt Securities, the Rights and the Warrants are referred to herein collectively as the "Securities." The Prospectus provides that it will be supplemented in the future by one or more supplements to such Prospectus and/or other offering material in connection with the Company's specific proposed offering of any of such Securities (each, a "Prospectus Supplement").

As securities counsel to the Company in connection with the proposed potential issuance and sale of the above referenced Securities, we have examined: (i) the Registration Statement, including the Prospectus, and the exhibits (including those incorporated by reference) constituting a part of the Registration Statement; (ii) the Company's Restated Articles of Incorporation and Amended and Restated Bylaws, each as amended to date; (iii) the Form of Indenture, filed as an exhibit to the Registration Statement; (iv) certain resolutions of the Board of Directors of the Company relating to the registration of the Securities; and (v) such other proceedings, documents and records as we have deemed necessary or appropriate to enable us to render this opinion.

AUSTIN	DETROIT	MEXICO CITY	SACRAMENTO	TAMPA
BOSTON	HOUSTON	MIAMI	SAN DIEGO	WASHINGTON, D.C.
CHICAGO	JACKSONVILLE	MILWAUKEE	SAN FRANCISCO	BRUSSELS
DALLAS	LOS ANGELES	NEW YORK	SILICON VALLEY	TOKYO
DENVER	MADISON	ORLANDO	TALLAHASSEE	

In our examination of the above-referenced documents, we have assumed the genuineness of all signatures, the authenticity of all documents, certificates and instruments submitted to us as originals and the conformity with the originals of all documents submitted to us as copies. We have also assumed that (i) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective and will comply with all applicable laws; (ii) a Prospectus Supplement, if required, will have been prepared and filed with the SEC describing the Securities offered thereby; (iii) all Securities will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and any applicable Prospectus Supplement; (iv) any indenture (including the Form of Indenture) providing for the issuance of Debt Securities, together with any supplemental indenture or officer's certificate setting forth the terms of a series of Debt Securities to be issued under the indenture, will each be duly authorized, executed and delivered by the parties thereto in substantially the form reviewed by us; (v) a Form T-1 will be filed with the SEC with respect to the trustee executing any indenture or any supplemental indenture to such indenture; (vi) a definitive purchase, underwriting, placement, dealer or similar agreement with respect to any Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto; (vii) any Securities issuable upon conversion, exchange or exercise of any Security being offered will have been duly authorized, created and, if appropriate, reserved for issuance upon such conversion, exchange or exercise; and (viii) with respect to shares of Common Stock or Preferred Stock offered, there will be sufficient shares of Common Stock or Preferred Stock authorized under the Company's Restated Articles of Incorporation, as amended, and not otherwise reserved for issuance.

Based upon and subject to the foregoing and the other matters set forth herein, and having regard for such legal considerations as we deem relevant, we are of the opinion that:

1. The Company validly exists as a corporation under the laws of the State of Michigan.
2. All requisite actions necessary to make the shares of Common Stock subsequently offered by the Company under the Registration Statement validly issued, fully paid and non-assessable shall have been taken when:
 - a. The Company's Board of Directors, or a committee thereof duly authorized by the Board of Directors, has adopted appropriate resolutions to authorize the issuance and sale of the Common Stock; and
 - b. Such shares of Common Stock have been issued and sold by the Company for the consideration contemplated by, and otherwise in conformity with, the Registration Statement, as supplemented by a Prospectus Supplement with respect to such issuance and sale, and the acts, proceedings and documents referred to above.

3. All requisite actions necessary to make the shares of Preferred Stock subsequently offered by the Company under the Registration Statement validly issued, fully paid and non-assessable shall have been taken when:
 - a. The Company's Board of Directors, or a committee thereof duly authorized by the Board of Directors, has adopted appropriate resolutions to establish the voting powers, designations, preferences and relative, participating, optional or other special rights, if any, or the qualifications, limitations or restrictions, if any, and other terms of such shares as set forth in or contemplated by the Registration Statement, the exhibits thereto and any Prospectus Supplement relating to such Preferred Stock, and to authorize the issuance and sale of such shares of Preferred Stock;
 - b. Certificate of Amendment to the Company's Restated Articles of Incorporation, as amended, with respect to any such established voting powers, designations, preferences and relative, participating, optional or other special rights, if any, or the qualifications, limitations or restrictions, if any, and other terms of such shares have been filed with the Michigan Department of Licensing and Regulatory Affairs in the form and manner required by law; and
 - c. Such shares of Preferred Stock have been issued and sold by the Company for the consideration contemplated by, and otherwise in conformity with, the Registration Statement, as supplemented by a Prospectus Supplement with respect to such issuance and sale, and the acts, proceedings and documents referred to above.
4. All requisite actions necessary to make the Securities Purchase Contracts and Units subsequently offered by the Company under the Registration Statement valid, legal and binding obligations of the Company, subject to (i) bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium and other similar laws of general application affecting the rights and remedies of creditors and (ii) general principles of equity, regardless of whether applied in a proceeding in equity or at law, shall have been taken when:
 - a. The Company's Board of Directors, or a committee thereof or one or more officers of the Company, in each case duly authorized by the Board of Directors, has taken action to approve and establish the terms and form of such Securities Purchase Contracts and the documents, including any agreements, evidencing and used in connection with the issuance and sale of such Units, and to authorize the issuance and sale of such Securities Purchase Contracts and Units;
 - b. The terms of such Securities Purchase Contracts and Units and of their issuance and sale have been established so as not to violate any applicable law or result in a default under

or breach of any agreement or instrument binding upon the Company and so as to comply with any requirements or restrictions imposed by any court or governmental entity having jurisdiction over the Company;

- c. Such Securities Purchase Contracts and Units have been duly executed and delivered in accordance with their respective terms and provisions, as applicable; and
 - d. Such Securities Purchase Contracts and Units have been sold by the Company for the consideration contemplated by, and otherwise in conformity with, the Registration Statement, as supplemented by a Prospectus Supplement with respect to such issuance and sale, and the acts, proceedings and documents referred to above.
5. All requisite actions necessary to make the Debt Securities subsequently offered by the Company under the Registration Statement valid, legal and binding obligations of the Company, subject to (i) bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium and other similar laws of general application affecting the rights and remedies of creditors and (ii) general principles of equity, regardless of whether applied in a proceeding in equity or at law, shall have been taken when:
- a. The Company's Board of Directors, or a committee thereof or one or more officers of the Company, in each case duly authorized by the Board of Directors, has taken action to establish the terms of such Debt Securities and to authorize the issuance and sale of such Debt Securities;
 - b. The terms of such Debt Securities and of their issuance and sale by the Company have been established in conformity with the underlying indenture so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and so as to comply with any requirements or restrictions imposed by any court or governmental entity having jurisdiction over the Company;
 - c. Such Debt Securities have been duly executed, authenticated and delivered in accordance with the terms and provisions of the underlying indenture; and
 - d. Such Debt Securities have been issued and sold by the Company for the consideration contemplated by, and otherwise in conformity with, the Registration Statement, as supplemented by a Prospectus Supplement with respect to such issuance and sale, and the acts, proceedings and documents referred to above.
6. All requisite actions necessary to make the Rights subsequently offered by the Company under the Registration Statement valid, legal and binding obligations of the Company, subject

to (i) bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium and other similar laws of general application affecting the rights and remedies of creditors and (ii) general principles of equity, regardless of whether applied in a proceeding in equity or at law, shall have been taken when:

- a. The Company's Board of Directors, or a committee thereof or one or more officers of the Company, in each case duly authorized by the Board of Directors, has taken action to establish the terms of such Rights and to authorize the issuance and sale of such Rights;
 - b. The terms of such Rights and of their issuance and sale have been established so as not to violate any applicable law or result in a default or breach of any agreement or instrument binding upon the Company and so as to comply with any requirements or restrictions imposed by any court or governmental entity having jurisdiction over the Company; and
 - c. Such Rights have been issued and sold by the Company for the consideration contemplated by, and otherwise in conformity with, the Registration Statement, as supplemented by a Prospectus Supplement with respect to such issuance and sale, and the acts, proceedings and documents referred to above.
7. All requisite actions necessary to make the Warrants subsequently offered by the Company under the Registration Statement will be valid, legal and binding obligations of the Company, subject to (i) bankruptcy, insolvency, reorganization, fraudulent transfer, fraudulent conveyance, moratorium and other similar laws of general application affecting the rights and remedies of creditors and (ii) general principles of equity, regardless of whether applied in a proceeding in equity or at law, shall have been taken when:
- a. The Company's Board of Directors, or a committee thereof or one or more officers of the Company, in each case duly authorized by the Board of Directors, has taken action to approve and establish the terms and form of the Warrants and the documents, including any warrant agreements, evidencing and used in connection with the issuance and sale of the Warrants, and to authorize the issuance and sale of such Warrants;
 - b. The terms of such Warrants and of their issuance and sale by the Company have been established so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and so as to comply with any requirements or restrictions imposed by any court or governmental entity having jurisdiction over the Company;
 - c. Any such warrant agreements have been duly executed and delivered;

- d. Such Warrants have been duly executed and delivered in accordance with the terms and provisions of any applicable warrant agreement; and
- e. Such Warrants have been issued and sold by the Company for the consideration contemplated by, and otherwise in conformity with, the Registration Statement, as supplemented by a Prospectus Supplement with respect to such issuance and sale, and the acts, proceedings and documents referred to above.

We express no opinion as to the laws of any jurisdiction other than the States of Michigan and New York and the federal laws of the United States.

We hereby consent to the reference to our firm under the caption "Legal Matters" in the Prospectus which is filed as part of the Registration Statement, and to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not admit that we are "experts" within the meaning of Section 11 of the Securities Act or within the category of persons whose consent is required by Section 7 of the Securities Act.

Very truly yours,

/s/ Foley & Lardner LLP

Foley & Lardner LLP



Exhibit 23.1

Plante & Moran, PLLC
Suite 300
19176 Hall Road
Clinton Township, MI 48038
Tel: 586.416.4900
Fax: 586.416.4901
plantemoran.com

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMS

We consent to the incorporation by reference in this Registration Statement of Rockwell Medical, Inc. on Form S-3 of our reports dated March 15, 2018 on the consolidated financial statements and schedule of Rockwell Medical, Inc. and Subsidiaries as of December 31, 2017 and 2016 and for each of the years in the three-year period ended December 31, 2017 and on the effectiveness of the Company's internal control over financial reporting as of December 31, 2017, appearing in the Annual Report on Form 10-K of Rockwell Medical, Inc. for the year ended December 31, 2017 and to the reference to us under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ PLANTE & MORAN, PLLC

Clinton Township, Michigan
September 13, 2018
