UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): July 17, 2013

Merrimack Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware001-3540904-3210530(State or Other Jurisdiction
of Incorporation(Commission
File Number)(IRS Employer
Identification No.)

One Kendall Square, Suite B7201 Cambridge, MA (Address of Principal Executive Offices)

02139 (Zip Code)

Registrant's telephone number, including area code: **(617) 441-1000**

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01. Entry into a Material Definitive Agreement.

 $Completion\ of\ Concurrent\ Public\ Offerings\ of\ Common\ Stock\ and\ Convertible\ Senior\ Notes$

On July 17, 2013, Merrimack Pharmaceuticals, Inc. (the "Company") completed its registered underwritten public offering (the "Common Stock Offering") of 5,750,000 shares of the Company's common stock (the "Shares") pursuant to an underwriting agreement with J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated acting as representatives of the several underwriters named therein (collectively, the "Equity Underwriters"), and its concurrent registered underwritten public offering (the "Convertible Notes Offering") of \$125,000,000 in aggregate principal amount of the Company's 4.50% convertible senior notes due 2020 (the "Notes") pursuant to an underwriting agreement with J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated acting as representatives of the several underwriters named therein (collectively, the "Note Underwriters").

The Shares sold in the Common Stock Offering include 750,000 shares of the Company's common stock sold to the Equity Underwriters pursuant to an option to purchase additional shares of Common Stock, which was exercised in full on July 12, 2013. In connection with the Convertible Notes Offering, the Company granted the Note Underwriters an option, exercisable for 30 days, to purchase up to an additional \$18,750,000 in aggregate principal amount of the Notes, solely to cover over-allotments.

The Shares and the Notes (and the shares of the Company's common stock issuable upon conversion of the Notes) have been registered pursuant to the Registration Statement on Form S-3 (File No. 333-186369) (the "Registration Statement") filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Act"), including the prospectus supplements filed by the Company with the Commission pursuant to Rule 424(b)(5) under the Act, in each case, dated July 11, 2013 (each, a "Prospectus Supplement" and together, the "Prospectus Supplements") to the prospectus contained in the Registration Statement.

The Company estimates that the net proceeds from the Common Stock Offering, including the net proceeds from the exercise in full of the option to purchase additional shares of common stock and after deducting underwriting discounts and commissions and estimated offering expenses payable by the Company, are approximately \$26.8 million. The Company estimates that the net proceeds from the Convertible Notes Offering, after deducting underwriting

discounts and commissions and estimated offering expenses payable by the Company, are approximately \$120.6 million (and, if the Note Underwriters exercise their over-allotment option in full, the Company estimates that it will receive additional net proceeds of approximately \$18.2 million).

The Company expects to use the net proceeds from the Common Stock Offering and the Convertible Notes Offering to complete the clinical development of, seek marketing approval for and fund pre-approval commercial efforts for MM-398 for the treatment of patients with metastatic pancreatic cancer whose cancer has progressed on treatment with the chemotherapy drug gemcitabine, to partially fund the clinical development of other clinical stage product candidates (including MM-398 for indications other than pancreatic cancer), to fund pre-clinical and research and development efforts and for other general corporate purposes.

Base Indenture and Supplemental Indenture

The Company issued the Notes under an indenture dated as of July 17, 2013 (the "Base Indenture") between the Company and Wells Fargo Bank, National Association, as trustee (the "Trustee"), as supplemented by the supplemental indenture dated as of July 17, 2013, between the Company and the Trustee (the "Supplemental Indenture" and, together with the Base Indenture, the "Indenture").

The Notes bear interest at a rate of 4.50% per year, payable semiannually in arrears on January 15 and July 15 of each year, beginning on January 15, 2014. The Notes are general unsecured senior obligations of the Company and rank (i) senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the Notes, (ii) equal in right of payment to any of the Company's unsecured indebtedness that is not so subordinated; (iii) effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and (iv) structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's subsidiaries.

The Notes will mature on July 15, 2020 (the "Maturity Date"), unless earlier repurchased by the Company or converted at the option of holders. Holders may convert their Notes at their option at any time prior to the close of business on the business day immediately preceding April 15, 2020 only under the following circumstances: (1) during any calendar quarter commencing after September 30, 2013 (and only during such calendar quarter), if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price (as defined in the Notes) per \$1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of

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the last reported sale price of the Company's common stock and the conversion rate on each such trading day; or (3) upon the occurrence of specified corporate events set forth in the Indenture. On or after April 15, 2020 until the close of business on the business day immediately preceding the Maturity Date, holders may convert their Notes at any time, regardless of the foregoing circumstances. Upon any conversion of Notes that occurs while the Company's indebtedness to Hercules Technology Growth Capital, Inc. ("Hercules"), under the Loan and Security Agreement dated November 8, 2012 between the Company and Hercules, remains outstanding, the Notes will be settled in shares of the Company's common stock. Following the repayment and satisfaction in full of the Company's obligations to Hercules under the Loan and Security Agreement, upon any conversion of the Notes, the Notes may be settled, at the Company's election, in cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, as described in the Prospectus Supplement relating to the Notes.

The initial conversion rate of the Notes is 160.0000 shares of common stock per \$1,000 principal amount of Notes, which is equivalent to an initial conversion price of \$6.25 per share of common stock. The initial conversion price represents a premium of 25% over the public offering price per share of \$5.00 in the Common Stock Offering. The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the Maturity Date, the Company will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event in certain circumstances.

Upon the occurrence of a fundamental change (as defined in the Indenture) involving the Company, holders of the Notes may require the Company to repurchase all or a portion of their Notes for cash at a price equal to 100% of the principal amount of the Notes to be purchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The Indenture contains customary terms and covenants and events of default. If an event of default (as defined therein) occurs and is continuing, the Trustee by written notice to the Company, or the holders of at least 25% in aggregate principal amount of the Notes then outstanding by written notice to the Company and the Trustee, may, and the Trustee at the request of such holders shall, declare 100% of the principal of and accrued and unpaid interest on all the Notes to be due and payable. In the case of an event of default arising out of certain events of bankruptcy, insolvency or reorganization involving the Company or a significant subsidiary (as set forth in the Indenture), 100% of the principal of and accrued and unpaid interest on the Notes will automatically become due and payable.

The above descriptions of the Base Indenture, the Supplemental Indenture and the Notes are qualified in their entirety by reference to the Base Indenture and the Supplemental Indenture (including the form of Note attached thereto), copies of which are filed as Exhibit 4.1 and Exhibit 4.2, respectively, to this Current Report on Form 8-K and incorporated herein by reference.

Item 2.03. Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The information required by this Item 2.03 relating to the Notes and the Indenture is contained in Item 1.01 above and is incorporated herein by reference.

Item 8.01. Other Events.

On July 17, 2013, the Company announced the concurrent closing of its Common Stock Offering and its Convertible Notes Offering. The full text of the press release issued in connection with the announcement is filed as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

SIGNATURE

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

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ Jeffrey A. Munsie
Jeffrey A. Munsie Date: July 18, 2013

Vice President and General Counsel

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EXHIBIT INDEX

Exhibit No.	Description		
4.1	Indenture, dated as of July 17, 2013, between Merrimack Pharmaceuticals, Inc. and Wells Fargo Bank, National Association, as trustee		
4.2	First Supplemental Indenture, dated as of July 17, 2013, between Merrimack Pharmaceuticals, Inc. and Wells Fargo Bank, National Association, as trustee		
99.1	Press release issued by Merrimack Pharmaceuticals, Inc. on July 17, 2013		
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MERRIMACK PHARMACEUTICALS, INC.

and

WELLS FARGO BANK, NATIONAL ASSOCIATION

Trustee

INDENTURE

Dated as of July 17, 2013

SENIOR DEBT SECURITIES

CROSS-REFERENCE TABLE(1)

Section of Trust Indenture Act	Section of
of 1939, as amended	Indenture
310(a)	6.09
310(b)	6.08
	6.10
310(c)	Inapplicable
311(a)	6.13
311(b)	6.13
311(c)	Inapplicable
312(a)	4.01
	4.04
312(b)	4.04(c)
312(c)	4.04(c)
313(a)	4.03
313(b)	4.03
313(c)	4.03
313(d)	4.03
314(a)	4.02(a)
314(b)	Inapplicable
314(c)	2.04
	8.04
	9.01(c)
	10.01(b)
	11.05
314(d)	Inapplicable
314(e)	11.05
314(f)	Inapplicable
315(a)	6.01
	6.02
315(b)	5.11
315(c)	6.01
315(d)	6.01
	6.02
315(e)	5.12
316(a)	5.09
	5.10
	7.04
316(b)	5.06
	5.10
316(c)	7.02
317(a)	5.04
317(b)	3.04
318(a)	11.07

⁽¹⁾ This Cross-Reference Table does not constitute part of the Indenture and shall not have any bearing on the interpretation of any of its terms or provisions.

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THIS INDENTURE, dated as of July 17, 2013, between Merrimack Pharmaceuticals, Inc., a Delaware corporation (the "Issuer"), and Wells Fargo Bank, National Association, a national banking association, as trustee (the "Trustee"),

WITNESSETH:

WHEREAS, the Issuer may from time to time duly authorize the issue of its unsecured debentures, notes or other evidences of indebtedness to be issued in one or more series (the "Securities") up to such principal amount or amounts as may from time to time be authorized in accordance with the terms of this Indenture;

WHEREAS, the Issuer has duly authorized the execution and delivery of this Indenture to provide, among other things, for the authentication, delivery and administration of the Securities; and

WHEREAS, all things necessary to make this Indenture a valid indenture and agreement according to its terms have been done;

NOW, THEREFORE:

ARTICLE 9

Section 9.01

Section 9.02

CONSOLIDATION, MERGER, SALE OR CONVEYANCE

Successor Issuer Substituted

Issuer May Consolidate, Etc., on Certain Terms

In consideration of the premises and the purchases of the Securities by the holders thereof, the Issuer and the Trustee mutually covenant and agree for the equal and proportionate benefit of the respective holders from time to time of the Securities as follows:

ARTICLE 1 DEFINITIONS

Section 1.01 *Certain Terms Defined*. The following terms (except as otherwise expressly provided or unless the context otherwise clearly requires) for all purposes of this Indenture and of any indenture supplemental hereto shall have the respective meanings specified in this Section. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939 or the definitions of which in the Securities Act of 1933 are referred to in the Trust Indenture Act of 1939, including terms defined therein by reference to the Securities Act of 1933 (except as herein otherwise expressly provided or unless the context otherwise clearly requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of this Indenture. All accounting terms used herein and not expressly defined shall have the meanings assigned to such terms in accordance with generally accepted accounting principles, and the term "generally accepted accounting principles" means such accounting principles as are generally accepted in the United States at the time of any computation. 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. The terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular.

- "Board Resolution" means a copy of one or more resolutions, certified by the secretary or an assistant secretary of the Issuer to have been duly adopted by the Board of Directors and to be in full force and effect, and delivered to the Trustee.
- "Business Day" means, with respect to any Security, a day that in the city (or in any of the cities, if more than one) in which amounts are payable, as specified in the form of such Security, is not a day on which banking institutions are authorized or required by law or regulation to close or be closed.
- "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 and delivery of this Indenture such Commission is not existing and performing the duties now assigned to it under the Trust Indenture Act of 1939, then the body performing such duties on such date.
- "Common Stock" means shares of common stock, par value \$0.01 per share, of the Issuer as the same exists at the date of execution and delivery of this Indenture or as such stock may be reconstituted from time to time.
- "Corporate Trust Office" means the office of the Trustee at which any time its corporate trust business in relation to this Indenture shall be administered, which at the date hereof is Wells Fargo Bank, National Association, Corporate Trust Services, 150 East 42nd Street, 40th Floor, New York, New York, 10017, Attention: Corporate Trust Services Administration.
- "Debt" of any Person means any debt for money borrowed which is created, assumed, incurred or guaranteed in any manner by such Person or for which such Person is otherwise responsible or liable, and shall expressly include any such guaranty thereof by such Person. For the purpose of computing the amount of the Debt of any Person there shall be excluded all Debt of such Person for the payment or redemption or satisfaction of which money or securities (or evidences of such Debt, if permitted under the terms of the instrument creating such Debt) in the necessary amount shall have been deposited in trust with the proper depositary, whether upon or prior to the maturity or the date fixed for redemption of such Debt; and, in any instance where Debt is so excluded, for the purpose of computing the assets of such Person there shall be excluded the money, securities or evidences of Debt deposited by such Person in trust for the purpose of paying or satisfying such Debt.
- "Depositary" means, with respect to the Securities of any series issuable or issued in the form of one or more Global Securities, the Person designated as Depositary by the Issuer pursuant to Section 2.04 until a successor Depositary shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "Depositary" shall mean or include each Person who is then a Depositary hereunder, and if at any time there is more than one such Person, "Depositary" as used with respect to the Securities of any such series shall mean the Depositary with respect to the Global Securities of that series.

"Dollar" means the currency of the United States of America as at the time of payment is legal tender for the payment of public and private debts.

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- "Event of Default" means any event or condition specified as such in Section 5.01.
- "Foreign Currency" means a currency issued by the government of a country other than the United States.
- "Global Security", means a Security evidencing all or a part of a series of Securities, issued to the Depositary for such series in accordance with Section 2.04, and bearing the legend prescribed in Section 2.04.
- "Holder", "holder of Securities", "Securityholder" or other similar terms mean the Person in whose name such Security is registered in the Security register kept by the Issuer for that purpose in accordance with the terms hereof.
- "**Indenture**" means this instrument as originally executed and delivered or, if amended or supplemented as herein provided, as so amended or supplemented or both, and shall include the forms and terms of particular series of Securities established as contemplated hereunder.
- "interest", unless the context otherwise requires, refers to interest, and when used with respect to non-interest bearing Securities, refers to interest payable after maturity, if any.
 - "Issuer" means Merrimack Pharmaceuticals, Inc., a Delaware corporation, and, subject to Article 9, its successors and assigns.
- "Issuer Order" means a written statement, request or order of the Issuer signed in its name by the chairman of the Board of Directors, the president or any vice president of the Issuer.
 - "Notice of Default" shall have the meaning set forth in Section 5.01(c).
- "Officer's Certificate" means a certificate signed by the chairman of the Board of Directors, the president, any vice president, the treasurer, the secretary or any assistant secretary of the Issuer and delivered to the Trustee. Each such certificate shall comply with Section 314 of the Trust Indenture Act of 1939 and, except to the extent provided herein, shall include the statements provided for in Section 11.05.
- "Opinion of Counsel" means an opinion in writing signed by the general corporate counsel or such other legal counsel who may be an employee of or counsel to the Issuer and who shall be satisfactory to the Trustee. Each such opinion shall comply with Section 314 of the Trust Indenture Act of 1939 and shall include the statements provided for in Section 11.05, if and to the extent required hereby.
- "original issue date" of any Security (or portion thereof) means the earlier of (a) the date of such Security or (b) the date of any Security (or portion thereof) for which such Security was issued (directly or indirectly) on registration of transfer, exchange or substitution.

"Outstanding", when used with reference to Securities, shall, subject to the provisions of Section 7.04, mean, as of any particular time, all Securities authenticated and delivered by the Trustee under this Indenture, except

- (a) Securities theretofore cancelled by the Trustee or delivered to the Trustee for cancellation;
- (b) Securities, or portions thereof, for the payment or redemption of which cash or U.S. Government Obligations (as provided for in Section 10.01 (a) and Section 10.01(b)) in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Issuer) or shall have been set aside, segregated and held in trust by the Issuer for the Holders of such Securities (if the Issuer shall act as its own paying agent); *provided*, that if such Securities, or portions thereof, are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as herein provided, or provision satisfactory to the Trustee shall have been made for giving such notice; and
- (c) Securities in substitution for which other Securities shall have been authenticated and delivered, or which shall have been paid, pursuant to the terms of Section 2.09 (except with respect to any such Security as to which proof satisfactory to the Trustee is presented that such Security is held by a Person in whose hands such Security is a legal, valid and binding obligation of the Issuer), Securities converted into Common Stock pursuant hereto and Securities not deemed outstanding pursuant to Section 12.02.

In determining whether the Holders of the requisite principal amount of Outstanding Securities of any or all series have given any request, demand, authorization, direction, notice, consent or waiver hereunder, the principal amount of an Original Issue Discount Security that shall be deemed to be Outstanding for such purposes shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon a declaration of acceleration of the maturity thereof pursuant to Section 5.01.

"**Person**" means any individual, corporation, partnership, limited partnership, limited liability company, joint venture, association, joint stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"principal" whenever used with reference to the Securities or any Security or any portion thereof, shall be deemed to include "and premium, if any".

"record date" shall have the meaning set forth in Section 2.07.

"Responsible Officer", when used with respect to the Trustee, means any officer within the Corporate Trust Office of the Trustee (or any successor group of the Trustee) or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject and in each case who shall have direct responsibility for the administration of this Indenture.

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"Security" or "Securities" has the meaning stated in the first recital of this Indenture, or, as the case may be, Securities that have been authenticated and delivered under this Indenture.

"Security Registrar" shall have the meaning set forth in Section 4.01(b).

"**Subsidiary**" means a corporation of which stock having a majority of the voting power under ordinary circumstances is owned, directly or indirectly, by the Issuer or by one or more subsidiaries of the Issuer, or by the Issuer and one or more subsidiaries of the Issuer.

"**Trust Indenture Act of 1939**" (except as otherwise provided in Sections 8.01 and 8.02) means the Trust Indenture Act of 1939 as in force at the date as of which this Indenture was originally executed.

"Trustee" means the Person identified as "Trustee" in the first paragraph hereof and, subject to the provisions of Article 6, shall also include any successor trustee. "Trustee" shall also 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 Securities of any series shall mean the trustee with respect to the Securities of such series.

"U.S. Government Obligation" means (a) a direct obligation of the United States of America, backed by its full faith and credit, or (b) an obligation of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States of America.

"vice president", when used with respect to the Issuer, means any vice president, whether or not designated by a number or a word or words added before or after the title of "vice president".

"Yield to Maturity" means the yield to maturity on a series of securities, calculated at the time of issuance of such series, or, if applicable, at the most recent redetermination of interest on such series, and calculated in accordance with accepted financial practice.

ARTICLE 2 SECURITIES

Section 2.01 *Forms Generally.* The Securities of each series shall be substantially in such form (not inconsistent with this Indenture) as shall be established by or pursuant to one or more Board Resolutions (as set forth in a Board Resolution or, to the extent established pursuant to (rather than set forth in) a Board Resolution, an Officer's Certificate detailing such establishment) or in one or more indentures supplemental hereto, in each case with such

The definitive 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 Securities as evidenced by their execution of such Securities.

Section 2.02 *Form of Trustee's Certificate of Authentication.* The Trustee's certificate of authentication on all Securities shall be in substantially the following form:

This is one of the Securities of the series designated herein and referred to in the within-mentioned Indenture.

as Tr	rustee			
By:				
	Authorized Officer			

Section 2.03 *Amount Unlimited*; *Issuable in Series*. The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

The Securities may be issued in one or more series. The terms of a series of Securities shall be established prior to the initial issuance thereof in or pursuant to one or more Board Resolutions, or, to the extent established pursuant to (rather than set forth in) a Board Resolution, in an Officer's Certificate detailing such establishment and/or established in one or more indentures supplemental hereto. The terms of such series reflected in such Board Resolution, Officer's Certificate, or supplemental indenture may include the following or any additional or different terms:

- (a) the designation of the Securities of the series (which may be part of a series of Securities previously issued);
- (b) the terms and conditions, if applicable, upon which conversion or exchange of the Securities into Common Stock will be effected, including the initial conversion or exchange price or rate and any adjustments thereto, the conversion or exchange period and other provisions in addition to or in lieu of those described herein;
- (c) any limit upon the aggregate principal amount of the Securities of the series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 2.08, 2.09, 2.11, 8.05 or 12.03);
 - (d) if other than Dollars, the Foreign Currency in which the Securities of that series are denominated;
 - (e) any date on which the principal of the Securities of the series is payable and the right, if any, to extend such date or dates;

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- (f) the rate or rates at which the Securities of the series shall bear interest, if any, the record date or dates for the determination of holders to whom interest is payable, the date or dates from which such interest shall accrue and on which such interest shall be payable and/or the method by which such rate or rates or date or dates shall be determined, and the right, if any, to extend the interest payment periods and the duration of that extension;
- (g) the place or places where the principal of and any interest on Securities of the series shall be payable (if other than as provided in Section 3.02);
- (h) the price or prices at which, the period or periods within which and the terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Issuer, pursuant to any sinking fund or otherwise;
- (i) the obligation, if any, of the Issuer to redeem, purchase or repay Securities of the series pursuant to any mandatory redemption, sinking fund or analogous provisions or at the option of a Holder thereof and the price or prices at which and the period or periods within which and any terms and conditions upon which Securities of the series shall be redeemed, purchased or repaid, in whole or in part, pursuant to such obligation;
- (j) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which Securities of the series shall be issuable;
- (k) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- (l) if other than the currency in which the Securities of that series are denominated, the currency in which payment of the principal of or interest on the Securities of such series shall be payable;

- (m) if the principal of or interest on the Securities of the series is to be payable, at the election of the Issuer or a Holder thereof, in a currency other than that in which the Securities are denominated, the period or periods within which, and the terms and conditions upon which, such election may be made;
- (n) if the amount of payments of principal of and interest on the Securities of the series may be determined with reference to an index based on a currency other than that in which the Securities of the series are denominated, or by reference to one or more currency exchange rates, securities or baskets of securities, commodity prices or indices, the manner in which such amounts shall be determined;
 - (o) if Sections 10.01(b) or 10.01(c) are inapplicable to Securities of such series;
- (p) whether and under what circumstances the Issuer will pay additional amounts on the Securities of any series in respect of any tax, assessment or governmental

charge withheld or deducted and, if so, whether the Issuer will have the option to redeem such Securities rather than pay such additional amounts;

- (q) if the Securities of such series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, then the form and terms of such certificates, documents or conditions;
- (r) any trustees, authenticating or paying agents, transfer agents or registrars or any other agents with respect to the Securities of such series;
- (s) any other events of default or covenants with respect to the Securities of such series in addition to or in lieu of those contained in this Indenture;
- (t) if the Securities of the series may be issued in exchange for surrendered Securities of another series, or for other securities of the Issuer, pursuant to the terms of such Securities or securities or of any agreement entered into by the Issuer, the ratio of the principal amount of the Securities of the series to be issued to the principal amount of the Securities or securities to be surrendered in exchange, and any other material terms of the exchange; and
 - (u) any other terms of the series.

The Issuer may from time to time, without notice to or the consent of the holders of any series of Securities, create and issue further Securities of any such series ranking equally with the Securities of such series in all respects (or in all respects other than (1) the payment of interest accruing prior to the issue date of such further Securities or (2) the first payment of interest following the issue date of such further Securities). Such further Securities may be consolidated and form a single series with the Securities of such series and have the same terms as to status, redemption or otherwise as the Securities of such series.

- Section 2.04 *Authentication and Delivery of Securities.* The Issuer may deliver Securities of any series executed by the Issuer to the Trustee for authentication together with the applicable documents referred to below in this Section, and the Trustee shall thereupon authenticate and deliver such Securities to or upon the order of the Issuer (contained in the Issuer Order referred to below in this Section) or pursuant to such procedures acceptable to the Trustee and to such recipients as may be specified from time to time by an Issuer Order. The maturity date, original issue date, interest rate and any other terms of the Securities of such series shall be determined by or pursuant to such Issuer Order and procedures. If provided for in such procedures, such Issuer Order may authorize authentication and delivery pursuant to oral instructions from the Issuer or its duly authorized agent, which instructions shall be promptly confirmed in writing. In authenticating such Securities and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive, and (subject to Section 6.01) shall be fully protected in relying upon:
 - (a) an Issuer Order requesting such authentication and setting forth delivery instructions if the Securities are not to be delivered to the Issuer;

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- (b) any Board Resolution, Officer's Certificate and/or executed supplemental indenture referred to in Sections 2.01 and 2.03 by or pursuant to which the forms and terms of the Securities were established;
- (c) an Officer's Certificate setting forth the form or forms and terms of the Securities stating that the form or forms and terms of the Securities have been established pursuant to Sections 2.01 and 2.03 and comply with this Indenture, and covering such other matters as the Trustee may reasonably request; and
 - (d) an Opinion of Counsel to the effect that:
 - (i) the form or forms and terms of such Securities have been established pursuant to Sections 2.01 and 2.03 and comply with this Indenture,
 - (ii) the authentication and delivery of such Securities by the Trustee are authorized under the provisions of this Indenture,
 - (iii) such Securities when authenticated and delivered by the Trustee and issued by the Issuer in the manner and subject to any conditions specified in such Opinion of Counsel, will constitute valid and binding obligations of the Issuer, and
 - (iv) all laws and requirements in respect of the execution and delivery by the Issuer of the Securities have been complied with,

and covering such other matters as the Trustee may reasonably request.

The Trustee shall have the right to decline to authenticate and deliver any Securities under this Section if the Trustee, being advised by counsel, determines that such action may not lawfully be taken by the Issuer or if the Trustee in good faith by its board of directors or board of trustees, executive committee, or a trust committee of directors or trustees or Responsible Officers shall determine that such action would expose the Trustee to personal liability to existing Holders or would affect the Trustee's own rights, duties or immunities under the Securities, this Indenture or otherwise.

The Issuer shall execute and the Trustee shall, in accordance with this Section with respect to the Securities of a series, authenticate and deliver one or more Global Securities that (i) shall represent and shall be denominated in an amount equal to the aggregate principal amount of all of the Securities of such series issued and not yet cancelled, (ii) shall be registered in the name of the Depositary for such Global Security or Securities or the nominee of such Depositary, (iii) shall be delivered by the Trustee to such Depositary or pursuant to such Depositary's instructions and (iv) shall bear a legend substantially to the following effect: "Unless and until it is exchanged in whole or in part for Securities in definitive registered form, this Security may not be transferred except as a whole by the Depositary to the nominee of the Depositary or by a nominee of the Depositary or another nominee of the Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such successor Depositary."

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Each Depositary designated pursuant to this Section must, at the time of its designation and at all times while it serves as Depositary, be a clearing agency registered under the Securities Exchange Act of 1934 and any other applicable statute or regulation.

Section 2.05 *Execution of Securities*. The Securities shall be signed on behalf of the Issuer by the chairman of its Board of Directors, any vice chairman of its Board of Directors, its chief executive officer, its principal financial officer, its president, any vice president or its treasurer. Such signatures may be the manual or facsimile signatures of the present or any future such officers. Typographical and other minor errors or defects in any such reproduction of any such signature shall not affect the validity or enforceability of any Security that has been duly authenticated and delivered by the Trustee.

In case any officer of the Issuer who shall have signed any of the Securities shall cease to be such officer before the Security so signed shall be authenticated and delivered by the Trustee or disposed of by the Issuer, such Security nevertheless may be authenticated and delivered or disposed of as though the person who signed such Security had not ceased to be such officer of the Issuer; and any Security may be signed on behalf of the Issuer by such persons as, at the actual date of the execution of such Security, shall be the proper officers of the Issuer, although at the date of the execution and delivery of this Indenture any such person was not such an officer.

Section 2.06 *Certificate of Authentication.* Only such Securities as shall bear thereon a certificate of authentication substantially in the form hereinbefore recited, executed by the Trustee by the manual signature of one of its authorized officers, shall be entitled to the benefits of this Indenture or be valid or obligatory for any purpose. The execution of such certificate by the Trustee upon any Security executed by the Issuer shall be conclusive evidence that the Security so authenticated has been duly authenticated and delivered hereunder and that the Holder is entitled to the benefits of this Indenture.

Section 2.07 *Denomination and Date of Securities; Payments of Interest.* The Securities of each series shall be issuable in denominations established as contemplated by Section 2.03 or, if not so established, in denominations of \$1,000 and any integral multiple thereof. The Securities of each series shall be numbered, lettered or otherwise distinguished in such manner or in accordance with such plan as the officers of the Issuer executing the same may determine with the approval of the Trustee, as evidenced by the execution and authentication thereof. Unless otherwise indicated in a Board Resolution, Officer's Certificate or supplemental indenture for a particular series, interest will be calculated on the basis of a 360-day year of twelve 30-day months.

Each Security shall be dated the date of its authentication. The Securities of each series shall bear interest, if any, from the date, and such interest shall be payable on the dates, established as contemplated by Section 2.03.

The Person in whose name any Security of any series is registered at the close of business on any record date applicable to a particular series with respect to any interest payment date for such series shall be entitled to receive the interest, if any, payable on such interest payment date notwithstanding any transfer, exchange or conversion of such Security subsequent to the record

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date and prior to such interest payment date, except if and to the extent the Issuer shall default in the payment of the interest due on such interest payment date for such series, in which case such defaulted interest shall be paid to the Persons in whose names Outstanding Securities for such series are registered at the close of business on a subsequent record date (which shall be not less than five Business Days prior to the date of payment of such defaulted interest) established by notice given by mail by or on behalf of the Issuer to the Holders of Securities not less than 15 days preceding such subsequent record date. The term "record date" as used with respect to any interest payment date (except a date for payment of defaulted interest) for the Securities of any series shall mean the date specified as such in the terms of the Securities of such series established as contemplated by Section 2.03, or, if no such date is so established, if such interest payment date is the first day of a calendar month, the 15th day of the immediately preceding calendar month or, if such interest payment date is the 15th day of a calendar month, the first day of such calendar month, whether or not such record date is a Business Day.

Section 2.08 *Registration, Transfer and Exchange.* The Issuer will keep at each office or agency to be maintained for the purpose as provided in Section 3.02 for each series of Securities a register or registers in which, subject to such reasonable regulations as it may prescribe, it will provide for the registration of Securities of such series and the registration of transfer of Securities of such series. Such register shall be in written form in the English language or in any other form capable of being converted into such form within a reasonable time. At all reasonable times such register or registers shall be open for inspection by the Trustee.

Upon due presentation for registration of transfer of any Security of any series at any such office or agency to be maintained for the purpose as provided in Section 3.02, the Issuer shall execute and the Trustee shall authenticate and deliver in the name of the transferee or transferees a new Security or Securities of the same series, maturity date, interest rate and original issue date in authorized denominations for a like aggregate principal amount.

At the option of the Holder thereof, Securities of any series (except a Global Security) may be exchanged for a Security or Securities of such series having authorized denominations and an equal aggregate principal amount, upon surrender of such Securities to be exchanged at the agency of the Issuer that shall be maintained for such purpose in accordance with Section 3.02 and upon payment, if the Issuer shall so require, of the charges hereinafter provided. Whenever any Securities are so surrendered for exchange, the Issuer shall execute, and the Trustee shall authenticate and deliver, the Securities which the Holder making the exchange is entitled to receive. All Securities surrendered upon any exchange or transfer provided for in this Indenture shall be promptly cancelled and disposed of by the Trustee and the Trustee will deliver a certificate of disposition thereof to the Issuer.

All Securities presented for registration of transfer, exchange, redemption or payment shall (if so required by the Issuer or the Trustee) be duly endorsed by, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Issuer and the Trustee duly executed by, the Holder or his or her attorney duly authorized in writing.

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The Issuer may require payment of a sum sufficient to cover any stamp or other tax or other governmental charge that may be imposed in connection with any exchange or registration of transfer of Securities. No service charge shall be made for any such transaction.

The Issuer shall not be required to exchange or register a transfer of (a) any Securities of any series for a period of 15 days immediately preceding the first mailing of notice of redemption of Securities of such series to be redeemed or (b) any Securities selected, called or being called for redemption, in whole or in part, except, in the case of any Security to be redeemed in part, the portion thereof not so to be redeemed.

Notwithstanding any other provision of this Section 2.08, unless and until it is exchanged in whole or in part for Securities in definitive registered form, a Global Security representing all or a portion of the Securities of a series may not be transferred except as a whole by the Depositary for such series to a nominee of such Depositary or by a nominee of such Depositary or another nominee of such Depositary or by such Depositary or any such nominee to a successor Depositary for such series or a nominee of such successor Depositary.

If at any time the Depositary for the Securities of a series notifies the Issuer that it is unwilling or unable to continue as Depositary for the Securities of such series or if at any time the Depositary for the Securities of a series shall no longer be eligible under Section 2.04, the Issuer shall appoint a successor Depositary with respect to the Securities of such series. If a successor Depositary for the Securities of such series is not appointed by the Issuer within 90 days after the Issuer receives such notice or becomes aware of such ineligibility, the Issuer's determination pursuant to Section 2.03 that the Securities of such series be represented by a Global Security shall no longer be effective and the Issuer will execute, and the Trustee, upon receipt of an Officer's Certificate for the authentication and delivery of definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing the Securities of such series, in exchange for such Global Security or Securities.

The Issuer may at any time and in its sole discretion determine that the Securities of any series issued in the form of one or more Global Securities shall no longer be represented by a Global Security or Securities. In such event the Issuer will execute, and the Trustee, upon receipt of an Officer's Certificate for the authentication and delivery of definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form, in any authorized denominations, 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.

The Depositary for such Global Security may surrender such Global Security in exchange in whole or in part for Securities of the same series in definitive registered form in accordance with the two preceding paragraphs or on such other terms as are acceptable to the Issuer and such Depositary. Thereupon, the Issuer shall execute, and the Trustee shall authenticate and deliver, without service charge,

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- (i) to the Person specified by such Depositary a new Security or Securities of the same series, of any authorized denominations as requested by such Person, in an aggregate principal amount equal to and in exchange for such Person's beneficial interest in the Global Security; and
- (ii) to such Depositary a new Global Security in a denomination equal to the difference, if any, between the principal amount of the surrendered Global Security and the aggregate principal amount of Securities authenticated and delivered pursuant to clause (i) above.

Upon the exchange of a Global Security for Securities in definitive registered form, in authorized denominations, such Global Security shall be cancelled by the Trustee. Securities in definitive registered form issued in exchange for a Global Security pursuant to this Section 2.08 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 Securities to or as directed by the Persons in whose names such Securities are so registered.

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

Section 2.09 *Mutilated, Defaced, Destroyed, Lost and Stolen Securities.* In case any temporary or definitive Security shall become mutilated, defaced or be destroyed, lost or stolen, the Issuer in its discretion may execute, and upon the written request of any officer of the Issuer, the Trustee shall authenticate and deliver a new Security of the same series, maturity date, interest rate and original issue date, bearing a number or other distinguishing symbol not contemporaneously outstanding, in exchange and substitution for the mutilated or defaced Security, or in lieu of and substitution for the Security so destroyed, lost or stolen. In every case the applicant for a substitute Security shall furnish to the Issuer and to the Trustee and any agent of the Issuer or the Trustee such security or indemnity as may be required by them to indemnify and defend and to save each of them harmless and, in every case of destruction, loss or theft, evidence to their satisfaction of the destruction, loss or theft of such Security and of the ownership thereof and in the case of mutilation or defacement shall surrender the Security to the Trustee.

Upon the issuance of any substitute Security, the Issuer 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) connected therewith. In case any Security which has matured or is about to mature or has been called for redemption in full, or is being surrendered for conversion in full, shall become mutilated or defaced or be destroyed, lost or stolen, the Issuer may, instead of issuing a substitute Security (with the Holder's consent, in the case of convertible Securities), pay or authorize the payment of the same or convert, or authorize conversion of the same (without surrender thereof except in the case of a mutilated or defaced Security), if the applicant for such payment shall furnish to the Issuer and to the Trustee and any agent of the Issuer or the Trustee such security or indemnity as any of them may require to save each of them harmless, and, in every case of destruction, loss or

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theft, the applicant shall also furnish to the Issuer and the Trustee and any agent of the Issuer or the Trustee evidence to their satisfaction of the destruction, loss or theft of such Security and of the ownership thereof.

Every substitute Security of any series issued pursuant to the provisions of this Section by virtue of the fact that any such Security is destroyed, lost or stolen shall constitute an additional contractual obligation of the Issuer, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone and shall be entitled to all the benefits of (but shall be subject to all the limitations of rights set forth in) this Indenture equally and proportionately with any and all other Securities of such series duly authenticated and delivered hereunder. All Securities shall be held and owned upon the express condition that, to the extent permitted by law, the foregoing provisions are exclusive with respect to the replacement or payment or conversion of mutilated, defaced or destroyed, lost or stolen Securities and shall preclude any and all other rights or remedies notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement or payment of negotiable instruments or other securities without their surrender.

Section 2.10 *Cancellation of Securities; Destruction Thereof.* All Securities surrendered for exchange for Securities of the same series or for payment, redemption, registration of transfer, conversion or for credit against any payment in respect of a sinking or analogous fund, if surrendered to the Issuer or any agent of the Issuer or the Trustee, shall be delivered to the Trustee for cancellation or, if surrendered to the Trustee, shall be cancelled by it; and no Securities shall be issued in lieu thereof except as expressly permitted by any of the provisions of this Indenture. The Trustee shall cancel such Securities in accordance with its customary procedures. If the Issuer shall acquire any of the Securities, such acquisition shall not operate as a redemption or satisfaction of the Debt represented by such Securities unless and until the same are delivered to the Trustee for cancellation.

Section 2.11 *Temporary Securities*. Pending the preparation of definitive Securities for any series, the Issuer may execute and the Trustee shall authenticate and deliver temporary Securities for such series (printed, lithographed, typewritten or otherwise reproduced, in each case in form satisfactory to the Trustee). Temporary Securities of any series shall be issuable in any authorized denomination, and substantially in the form of the definitive Securities of such series but with such omissions, insertions and variations as may be appropriate for temporary Securities, all as may be determined by the Issuer with the concurrence of the Trustee as evidenced by the execution and authentication thereof. Temporary Securities may contain such reference to any provisions of this Indenture as may be appropriate. Every temporary Security shall be executed by the Issuer and be authenticated by the Trustee upon the same conditions and in substantially the same manner, and with like effect, as the definitive Securities. Without unreasonable delay the Issuer shall execute and shall furnish definitive Securities of such series and thereupon temporary Securities of such series may be surrendered in exchange therefor without charge at each office or agency to be maintained by the Issuer for that purpose pursuant to Section 3.02 and the Trustee shall authenticate and deliver in exchange for such temporary Securities of such series an equal aggregate principal amount of definitive Securities of the same series having authorized denominations. Until so exchanged, the temporary Securities of any series shall be entitled to the same benefits under this Indenture as definitive Securities of such series, unless the benefits of the temporary Securities are limited pursuant to Section 2.03.

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ARTICLE 3 COVENANTS OF THE ISSUER

Section 3.01 *Payment of Principal and Interest.* The Issuer covenants and agrees for the benefit of each series of Securities that it will duly and punctually pay or cause to be paid the principal of, and interest on, each of the Securities of such series (together with any additional amounts payable pursuant to the terms of such Securities) at the place or places, at the respective times and in the manner provided in such Securities and in this Indenture. The interest on Securities (together with any additional amounts payable pursuant to the terms of such Securities) shall be payable only to or upon the written order of the Holders thereof and at the option of the Issuer may be paid by mailing checks for such interest payable to or upon the written order of such Holders at their last addresses as they appear on the Security register of the Issuer.

Section 3.02 *Offices for Payments, Etc.* The Issuer will maintain (i) in the Borough of Manhattan, The City of New York, an agency where the Securities of each series may be presented for payment, an agency where the Securities of each series may be presented for exchange and conversion, if applicable, as provided in this Indenture and an agency where the Securities of each series may be presented for registration of transfer as in this Indenture provided and (ii) such further agencies in such places as may be determined for the Securities of such series pursuant to Section 2.03.

The Issuer will maintain in the Borough of Manhattan, The City of New York, an agency where notices and demands to or upon the Issuer in respect of the Securities of any series or this Indenture may be served.

The Issuer will give to the Trustee written notice of the location of each such agency and of any change of location thereof. In case the Issuer shall fail to maintain any agency required by this Section to be located in Borough of Manhattan, The City of New York, or shall fail to give such notice of the location or of any change in the location of any of the above agencies, presentations and demands may be made and notices may be served at the Corporate Trust Office of the Trustee.

The Issuer may from time to time designate one or more additional agencies where the Securities of a series may be presented for payment, where the Securities of that series may be presented for exchange or conversion, if applicable, as provided in this Indenture and pursuant to Section 2.03 and where the Securities of that series may be presented for registration of transfer as in this Indenture provided, and the Issuer may from time to time rescind any such designation, as the Issuer may deem desirable or expedient; *provided*, *however*, that no such designation or rescission shall in any manner relieve the Issuer of its obligation to maintain the agencies provided for in this Section. The Issuer will give to the Trustee prompt written notice of any such designation or rescission thereof.

Section 3.04 *Paying Agents*. Whenever the Issuer shall appoint a paying agent other than the Trustee with respect to the Securities of any series, it will cause such paying agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section,

- (a) that it will hold all sums received by it as such agent for the payment of the principal of or interest on the Securities of such series (whether such sums have been paid to it by the Issuer or by any other obligor on the Securities of such series) in trust for the benefit of the Holders of the Securities of such series or of the Trustee,
- (b) that it will give the Trustee notice of any failure by the Issuer (or by any other obligor on the Securities of such series) to make any payment of the principal of or interest on the Securities of such series when the same shall be due and payable, and
- (c) that at any time during the continuance of any such failure, upon the written request of the Trustee, it will forthwith pay to the Trustee all sums so held in trust by such paying agent.

The Issuer will, on or prior to each due date of the principal of or interest on the Securities of such series, deposit with the paying agent a sum sufficient to pay such principal or interest so becoming due, and (unless such paying agent is the Trustee) the Issuer will promptly notify the Trustee of any failure to take such action.

If the Issuer shall act as its own paying agent with respect to the Securities of any series, it will, on or before each due date of the principal of or interest on the Securities of such series, set aside, segregate and hold in trust for the benefit of the Holders of the Securities of such series a sum sufficient to pay such principal or interest so becoming due. The Issuer will promptly notify the Trustee of any failure to take such action.

Anything in this Section to the contrary notwithstanding, but subject to Section 10.01, the Issuer may at any time, for the purpose of obtaining a satisfaction and discharge with respect to one or more or all series of Securities hereunder, or for any other reason, pay or cause to be paid to the Trustee all sums held in trust for any such series by the Issuer or any paying agent hereunder, as required by this Section, such sums to be held by the Trustee upon the trusts herein contained.

Anything in this Section to the contrary notwithstanding, the agreement to hold sums in trust as provided in this Section is subject to the provisions of Sections 10.03 and 10.04.

Section 3.05 Written Statement to Trustee. So long as any Securities are Outstanding hereunder, the Issuer will deliver to the Trustee, within 120 days after the end of each fiscal year of the Issuer ending after the date hereof, a written statement covering the previous fiscal year, signed by two of its officers (which need not comply with Section 11.05), stating that in the course of the performance of their duties as officers of the Issuer they would normally have knowledge of any default by the Issuer in the performance or fulfillment of any covenant, agreement or condition contained in this Indenture, stating whether or not they have knowledge of any such default and, if so, specifying each such default of which the signers have knowledge and the nature thereof.

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ARTICLE 4 SECURITYHOLDERS LISTS AND REPORTS BY THE ISSUER AND THE TRUSTEE

- Section 4.01 *Issuer to Furnish Trustee Information as to Names and Addresses of Securityholders.* The Issuer covenants and agrees that it will furnish or cause to be furnished to the Trustee a list in such form as the Trustee may reasonably require of the names and addresses of the Holders of the Securities of each series pursuant to Section 312 of the Trust Indenture Act of 1939:
 - (a) semiannually and not more than 15 days after each record date for the payment of interest on such Securities, as hereinabove specified, as of such record date and on dates to be determined pursuant to Section 2.03 for non-interest bearing Securities in each year, and
 - (b) at such other times as the Trustee may request in writing, within 30 days after receipt by the Issuer of any such request as of a date not more than 15 days prior to the time such information is furnished, *provided*, that, if and so long as the Trustee shall be the Security registrar (the "Security Registrar") for such series, such list shall not be required to be furnished.

Section 4.02 Reports by the Issuer.

- (a) The Issuer covenants to comply with Section 314(a) of the Trust Indenture Act insofar as it relates to information, documentations, and other reports which the Issuer may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act). Any such document or report that the Issuer files with the Commission via the Commission's EDGAR system shall be deemed to be filed with the Trustee for purposes of this Section 4.02(a) at the time such documents are filed via the EDGAR system.
- (b) Delivery of the reports and documents described in subsection (a) above 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 Issuer's compliance with any of its covenants hereunder (as to which the Trustee is entitled to conclusively rely on an Officer's Certificate) or under the Securities. The Trustee shall not be obligated to monitor or confirm, on a continuing basis or otherwise, the Issuer's compliance with any of its covenants under the Indenture or with respect to any reports or other documents filed with EDGAR under the Indenture.

Section 4.04 *Preservation of Information; Communication with Securityholders.* (a) The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the holders of Securities contained in the most recent list furnished to it as provided in Section 4.01 and as to the names and addresses of holders of Securities received by the Trustee in its capacity as Security Registrar (if acting in such capacity).

- (b) The Trustee may destroy any list furnished to it as provided in Section 4.01 upon receipt of a new list so furnished.
- (c) Securityholders may communicate as provided in Section 312(b) of the Trust Indenture Act with other Securityholders with respect to their rights under this Indenture or under the Securities. The Issuer, the Trustee, the Security Registrar and any other Person shall have the protection of Section 312(c) of the Trust Indenture Act.

ARTICLE 5 REMEDIES OF THE TRUSTEE AND SECURITYHOLDERS ON EVENT OF DEFAULT

Section 5.01 Event of Default Defined; Acceleration of Maturity; Waiver of Default. "Event of Default", with respect to Securities of any series wherever used herein, means each one of the following events which shall have occurred and be continuing (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

- (a) default in the payment of any installment of interest upon any of the Securities of such series as and when the same shall become due and payable, and continuance of such default for a period of 90 days (or such other period as may be established for the Securities of such series as contemplated by Section 2.03); or
- (b) default in the payment of all or any part of the principal on any of the Securities of such series as and when the same shall become due and payable either at maturity, upon redemption, by declaration or otherwise (and, if established for the Securities of such series as contemplated by Section 2.03, the continuance of such default for a specified period); or
- (c) default in the performance, or breach, of any covenant or agreement of the Issuer in respect of the Securities of such series (other than a covenant or agreement in respect of the Securities of such series a default in the performance or breach of which is elsewhere in this Section specifically dealt with), 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 Issuer by the Trustee or to the Issuer and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of all series affected thereby, 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
- (d) a court having jurisdiction in the premises shall enter a decree or order for relief in respect of the Issuer in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or appointing a receiver,

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liquidator, assignee, custodian, trustee or sequestrator (or similar official) of the Issuer or for all or substantially all of its property and assets or ordering the winding up or liquidation of its affairs, and such decree or order shall remain unstayed and in effect for a period of 90 consecutive days; or

- (e) the Issuer shall commence a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or consent to the entry of an order for relief in an involuntary case under any such law, or consent to the appointment of or taking possession by a receiver, liquidator, assignee, custodian, trustee or sequestrator (or similar official) of the Issuer or for any substantial part of its property and assets, or make any general assignment for the benefit of creditors; or
 - (f) any other Event of Default provided for in such series of Securities.

If an Event of Default described in clauses (a), (b), (c) or (f) occurs and is continuing, then, and in each and every such case, unless the principal of all of the Securities of such series shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding hereunder (each such series voting as a separate class) by notice in writing to the Issuer (and also to the Trustee if given by Securityholders), may declare the entire principal (or, if the 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 all Securities of such series and the interest accrued thereon, if any, to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable. If an Event of Default described in clauses (d) or (e) occurs and is continuing, then and in each and every such case, the entire principal (or, if any Securities are Original Issue Discount Securities, such portion of the principal as may be specified in the terms thereof) of all the Securities then Outstanding and interest accrued thereon, if any, shall become immediately due and payable.

The foregoing provisions, however, are subject to the condition that if, at any time after the principal of the Securities of any series shall have been so declared due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered as hereinafter provided, the Issuer shall pay or shall deposit with the Trustee a sum sufficient to pay all matured installments of interest upon all the Securities of such series and the principal of any and all Securities of such series which shall have become due otherwise than by acceleration (with interest upon such principal and,

to the extent that payment of such interest is enforceable under applicable law, on overdue installments of interest, at the same rate as the rate of interest specified in the Securities of such series to the date of such payment or deposit) and such amount as shall be sufficient to cover reasonable compensation to the Trustee, its agents, attorneys and counsel, and all other expenses and liabilities incurred, and all advances made, by the Trustee except as a result of negligence or bad faith, and if any and all Events of Default under the Indenture with respect to such series, other than the non-payment of the principal of Securities of such series which shall have become due by acceleration, shall have been cured, waived or otherwise remedied as provided herein—then and in every such case the Holders of a majority in aggregate principal amount of all the Securities of such series then Outstanding, by written notice to the Issuer and to the Trustee, may waive all defaults with respect to such series and rescind and annul such declaration and its consequences, but no such waiver or rescission

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and annulment shall extend to or shall affect any subsequent default or shall impair any right consequent thereon.

Unless otherwise indicated in the Board Resolution, Officer's Certificate or supplemental indenture for a series of Original Issue Discount Securities, for all purposes under this Indenture, if a portion of the principal of any Original Issue Discount Securities shall have been accelerated and declared due and payable pursuant to the provisions hereof, then, from and after such declaration, unless such declaration has been rescinded and annulled, the principal amount of such Original Issue Discount Securities shall be deemed, for all purposes hereunder, to be such portion of the principal thereof as shall be due and payable as a result of such acceleration, and payment of such portion of the principal thereof as shall be due and payable as a result of such acceleration, together with interest, if any, thereon and all other amounts owing thereunder, shall constitute payment in full of such Original Issue Discount Securities.

Section 5.02 *Collection of Debt by Trustee; Trustee May Prove Debt.* The Issuer covenants that (a) in case default shall be made in the payment of any installment of interest on any of the Securities of any series when such interest shall have become due and payable, and such default shall have continued for a period of 30 days or (b) in case default shall be made in the payment of all or any part of the principal of any of the Securities of any series when the same shall have become due and payable, whether upon maturity of the Securities of such series or upon any redemption or by declaration or otherwise—then, upon demand of the Trustee, the Issuer will pay to the Trustee for the benefit of the Holders of the Securities of such series the whole amount that then shall have become due and payable on all Securities of such series for principal or interest, as the case may be (with interest to the date of such payment upon the overdue principal and, to the extent that payment of such interest is enforceable under applicable law, on overdue installments of interest at the same rate as the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) specified in the Securities of such series); and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including reasonable compensation to the Trustee and each predecessor trustee, their respective agents, attorneys and counsel, and any expenses and liabilities incurred, and all advances made, by the Trustee and each predecessor trustee except as a result of its negligence or bad faith.

In case the Issuer shall fail forthwith to pay such amounts upon such demand, the Trustee, in its own name and as trustee of an express trust, shall be entitled and empowered to institute any action or proceedings at law or in equity for the collection of the sums so due and unpaid, and may prosecute any such action or proceedings to judgment or final decree, and may enforce any such judgment or final decree against the Issuer or other obligor upon such Securities and collect in the manner provided by law out of the property of the Issuer or other obligor upon such Securities, wherever situated, the moneys adjudged or decreed to be payable.

In case there shall be pending proceedings relative to the Issuer or any other obligor upon the Securities under Title 11 of the United States Code or any other applicable Federal or state bankruptcy, insolvency or other similar law, or in case a receiver, assignee or trustee in bankruptcy or reorganization, liquidator, sequestrator or similar official shall have been appointed for or taken possession of the Issuer or its property or such other obligor or its property, or in case of any other comparable judicial proceedings relative to the Issuer or other

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obligor upon the Securities of any series, or to the creditors or property of the Issuer or such other obligor, the Trustee, irrespective of whether the principal of any 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 pursuant to the provisions of this Section, shall be entitled and empowered, by intervention in such proceedings or otherwise:

- to file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Trustee and the Holders allowed in any judicial proceedings relative to the Company, its creditors or its property and serve on a creditors committee, and any Custodian in any such judicial proceeding is hereby authorized by each Holder to make 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 its counsel, and any other amounts due the Trustee under Section 6.06. To the extent that the payment of any such compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.06 hereof out of the estate in any such proceeding, shall be denied for any reason, payment of the same shall be secured by a lien on, and shall be paid out of, any and all distributions, dividends, money, securities and other properties that the Holders may be entitled to receive in such proceeding whether in liquidation or under any plan of reorganization or arrangement or otherwise; and
- (ii) to collect and receive any moneys or other property payable or deliverable on any such claims, and to distribute all amounts received with respect to the claims of the Securityholders and of the Trustee on their behalf; and any trustee, receiver or liquidator, custodian or other similar official is hereby authorized by each of the Securityholders to make payments to the Trustee, and, in the event that the Trustee shall consent to the making of payments directly to the Securityholders, to pay to the Trustee such amounts as shall be sufficient to cover reasonable compensation to the Trustee, each predecessor trustee and their respective agents, attorneys and counsel, and all other expenses and liabilities incurred, and all advances made, by the Trustee and each predecessor trustee except as a result of negligence or bad faith and all other amounts due to the Trustee or any predecessor trustee pursuant to Section 6.06.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or vote for or accept or adopt on behalf of any Securityholder any plan of reorganization, arrangement, adjustment or composition affecting the Securities of any series or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Securityholder in any such proceeding except, as aforesaid, to vote for the election of a trustee in bankruptcy or similar person.

thereto, and any such action or proceedings instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment, subject to the payment of the expenses, disbursements and compensation of the Trustee, each predecessor trustee and their respective agents and attorneys, shall be for the ratable benefit of the Holders of the Securities in respect of which such action was taken.

In any proceedings brought by the Trustee (and also any proceedings involving the interpretation of any provision of this Indenture to which the Trustee shall be a party), the Trustee shall be held to represent all the Holders of the Securities in respect to which such action was taken, and it shall not be necessary to make any Holders of such Securities parties to any such proceedings.

Section 5.03 Application of Proceeds. Any moneys or property collected by the Trustee pursuant to this Article in respect of any series shall be applied in the following order at the date or dates fixed by the Trustee and, in case of the distribution of such moneys on account of principal or interest, upon presentation of the several Securities in respect of which monies have been collected and stamping (or otherwise noting) thereon the payment, or issuing Securities of such series in reduced principal amounts in exchange for the presented Securities of like series if only partially paid, or upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due to the Trustee or any predecessor trustee pursuant to Section 6.06;

SECOND: In case the principal of the Securities of such series in respect of which moneys have been collected shall not have become and be then due and payable, to the payment of interest on the Securities of such series in default in the order of the maturity of the installments of such interest, with interest (to the extent that such interest has been collected by the Trustee) upon the overdue installments of interest, to the extent permitted by applicable law, at the same rate as the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) specified in such Securities, such payments to be made ratably to the Persons entitled thereto, without discrimination or preference;

THIRD: In case the principal of the Securities of such series in respect of which moneys have been collected shall have become and shall be then due and payable, to the payment of the whole amount then owing and unpaid upon all the Securities of such series for principal and interest, with interest upon the overdue principal, and (to the extent that such interest has been collected by the Trustee) upon overdue installments of interest, to the extent permitted by applicable law, at the same rate as the rate of interest or Yield to Maturity (in the case of Original Issue Discount Securities) specified in the Securities of such series; and in case such moneys shall be insufficient to pay in full the whole amount so due and unpaid upon the Securities of such series, then to the payment of such principal and interest or Yield to Maturity, without preference or priority of principal over interest or Yield to Maturity, or of interest or Yield to Maturity over principal, or of any installment of interest over any other installment of interest, or of any Security of such series over any other Security of such series, ratably to the aggregate of such principal and accrued and unpaid interest or Yield to Maturity; and

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FOURTH: To the payment of the remainder, if any, to the Issuer or any other Person lawfully entitled thereto.

Section 5.04 *Suits for Enforcement.* In case an Event of Default has occurred, has not been waived and is continuing, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, either at law or in equity or in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in this Indenture or in aid of the exercise of any power granted in this Indenture or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law.

Section 5.05 *Restoration of Rights on Abandonment of Proceedings.* In case the Trustee shall have proceeded to enforce any right under this Indenture and such proceedings shall have been discontinued or abandoned for any reason, or shall have been determined adversely to the Trustee, then and in every such case (subject to any determination in such proceeding) the Issuer and the Trustee shall be restored respectively to their former positions and rights hereunder, and all rights, remedies and powers of the Issuer, the Trustee and the Securityholders shall continue as though no such proceedings had been taken.

Section 5.06 *Limitations on Suits by Securityholders*. No Holder of any Security of any series shall have any right by virtue or by availing of any provision of this Indenture to institute any action or proceeding at law or in equity or in bankruptcy or otherwise upon or under or with respect to this Indenture, or for the appointment of a trustee, receiver, liquidator, custodian or other similar official or for any other remedy hereunder, unless such Holder previously shall have given to the Trustee written notice of default and of the continuance thereof, as hereinbefore provided, and unless also the Holders of not less than 25% in aggregate principal amount of the Securities of such series then Outstanding shall have made written request upon the Trustee to institute such action or proceedings in its own name as trustee hereunder and shall have offered to the Trustee such security or indemnity as it may reasonably require against the costs, expenses and liabilities that might be incurred by taking or not taking such action and the Trustee for 60 days after its receipt of such notice, request and offer of indemnity shall have failed to institute any such action or proceeding and no direction inconsistent with such written request shall have been given to the Trustee pursuant to Section 5.09; it being understood and intended, and being expressly covenanted by the Holder of every Security with every other Holder and the Trustee, that no one or more Holders of Securities of any series shall have any right in any manner whatever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of any other such Holder of Securities, or to obtain or seek to obtain priority over or preference to any other such Holder or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all Holders of Securities of the applicable series. For the protection and enforcement of the provisions of this Section, each and eve

Section 5.07 *Unconditional Right of Securityholders to Institute Certain Suits*. Notwithstanding any other provision in this Indenture and any provision of any Security, the right of any Holder of any Security to receive payment of the principal of and interest on such Security on or after the respective due dates expressed in such Security in accordance with the

terms hereof and thereof, or to institute suit for the enforcement of any such payment on or after such respective dates, or for the enforcement of such conversion right, shall not be impaired or affected without the consent of such Holder; it being understood and intended, and being expressly covenanted by the Holder of every Security with every other Holder and the Trustee, that no one or more Holders of Securities of any series shall have any right in any manner whatever by virtue or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of any other such Holder of Securities, or to obtain or seek to obtain priority over or preference to any other such Holder or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all Holders of Securities of the applicable series. For the protection and enforcement of the provisions of this Section, each and every Securityholder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Section 5.08 *Powers and Remedies Cumulative; Delay or Omission Not Waiver of Default.* Except as provided in Section 5.06, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders of Securities 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.

No delay or omission of the Trustee or of any Holder of Securities to exercise any right or power accruing upon any Event of Default occurring and continuing as aforesaid shall impair any such right or power or shall be construed to be a waiver of any such Event of Default or an acquiescence therein; and, subject to Section 5.06, every power and remedy given by this Indenture or by law to the Trustee or to the Holders of Securities may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Holders of Securities.

Section 5.09 *Control by Holders of Securities*. The Holders of a majority in aggregate principal amount of the Securities of each series affected (with each series voting as a separate class) at the time Outstanding 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 Securities of such series by this Indenture; *provided*, that such direction shall not be otherwise than in accordance with law and the provisions of this Indenture and provided, further, that (subject to the provisions of Section 6.01) the Trustee shall have the right to decline to follow any such direction if the Trustee, being advised by counsel, shall determine that the action or proceeding so directed may not lawfully be taken or if the Trustee in good faith by its board of directors, the executive committee, or a trust committee of directors or Responsible Officers of the Trustee shall determine that the action or proceedings so directed would involve the Trustee in personal liability or if the Trustee in good faith shall so determine that the actions or forbearances specified in or pursuant to such direction would be unduly prejudicial to the interests of Holders of the Securities of all series so affected not joining in the giving of said direction, it being understood that (subject to Section 6.01) the Trustee shall have no duty to ascertain whether or not such actions or forbearances are unduly prejudicial to such Holders.

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Nothing in this Indenture shall impair the right of the Trustee in its discretion to take any action deemed proper by the Trustee and which is not inconsistent with such direction or directions by Securityholders.

Section 5.10 Waiver of Past Defaults. Prior to the declaration of the acceleration of the maturity of the Securities of any series as provided in Section 5.01, the Holders of a majority in aggregate principal amount of the Securities of such series at the time Outstanding, by notice to the Trustee, may on behalf of the Holders of all the Securities of such series waive any existing default in the performance of any of the covenants contained herein or established pursuant to Section 2.03 with respect to such series and its consequences, except a default in the payment of the principal of, or interest on, any of the Securities of that series as and when the same shall become due by the terms of such Securities. In the case of any such waiver, the Issuer, the Trustee and the Holders of the Securities of such series shall be restored to their former positions and rights hereunder, respectively, such default shall cease to exist and be deemed to have been cured and not to have occurred, and any Event of Default arising therefrom shall be deemed to have been cured, and not to have occurred for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

Section 5.11 *Trustee to Give Notice of Default*. The Trustee shall, within 90 days after the occurrence of a default with respect to the Securities of any series, give notice of all defaults with respect to that series known to the Trustee to all Holders of Securities of such series in the manner and to the extent provided in Section 4.03, unless in each case such defaults shall have been cured before the mailing or publication of such notice (the term "**defaults**" for the purpose of this Section being hereby defined to mean any event or condition which is, or with notice or lapse of time or both would become, an Event of Default); *provided*, that, except in the case of default in the payment of the principal of or interest on any of the Securities of such series, or in the payment of any sinking fund installment on such series, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee, or a trust committee of directors or trustees and/or Responsible Officers of the Trustee in good faith determines that the withholding of such notice is in the interests of the Securityholders of such series.

Section 5.12 *Right of Court to Require Filing of Undertaking to Pay Costs.* All parties to this Indenture agree, and each Holder of any Security by his or her 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 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 Trustee, to any suit instituted by any Securityholder or group of Securityholders of any series holding in the aggregate more than 10% in aggregate principal amount of the Securities of such series, or to any suit instituted by any Securityholder for the enforcement of the payment of the principal of or interest on any Security of such series, on or after the respective due dates expressed in such Security or established pursuant to this Indenture.

ARTICLE 6 CONCERNING THE TRUSTEE

Section 6.01 *Duties and Responsibilities of the Trustee; During Default; Prior to Default.* With respect to the Holders of any series of Securities issued hereunder, the Trustee, prior to the occurrence of an Event of Default with respect to the Securities of a particular series and after the curing or waiving of all Events of Default which may have occurred with respect to such series, undertakes to perform such duties and only such duties as are specifically set forth in this Indenture. In case an Event of Default with respect to the Securities of a series has occurred (which has not been cured or waived) and known by a Responsible Officer, 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.

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.

Section 6.02 *Certain Rights of the Trustee.* In furtherance of and subject to the Trust Indenture Act of 1939 and subject to Section 6.01:

- (a) in the absence of bad faith on the part of the Trustee, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any statements, certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but, in the case of any such statements, 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;
- (b) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer or Responsible Officers of the Trustee, 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 pursuant to Section 5.09 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;
- (d) none of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers if there shall be reasonable ground for believing that the repayment of such funds or adequate indemnity against such liability is not reasonably assured to it;
- (e) the Trustee may rely and shall be protected in acting or refraining from acting upon any resolution, Officer's Certificate or any other certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, debenture, note, security or other paper or document believed by it to be genuine and to have been signed

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or presented by the proper party or parties, and the Trustee need not investigate any fact or matter stated in any such resolution, Officer's Certificate or any other certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, debenture, note, security or other paper or document:

- (f) any request, direction, order or demand of the Issuer mentioned herein shall be sufficiently evidenced by an Officer's Certificate (unless other evidence in respect thereof be herein specifically prescribed); and any resolution of the Board of Directors may be evidenced to the Trustee by a copy thereof certified by the secretary or an assistant secretary of the Issuer;
- (g) the Trustee may consult with counsel and any advice or Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted to be taken by it hereunder in good faith and in accordance with such advice or Opinion of Counsel;
- (h) the Trustee shall be under no obligation to exercise any of the trusts or powers vested in it by this Indenture at the request, order or direction of any of the Securityholders pursuant to the provisions of this Indenture, unless such Securityholders shall have offered to the Trustee security or indemnity reasonably satisfactory to the Trustee against the costs, expenses and liabilities which might be incurred therein or thereby;
- (i) the Trustee shall not be liable for any action taken or omitted by it in good faith and believed by it to be authorized or within the discretion, rights or powers conferred upon it by this Indenture;
- (j) prior to the occurrence of an Event of Default hereunder and after the curing or waiving of all Events of Default, 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, consent, order, approval, appraisal, bond, debenture, note, security, or other paper or document unless requested in writing so to do by the Holders of not less than a majority in aggregate principal amount of the Securities of all series affected then Outstanding; *provided*, that, if the payment within a reasonable time to the Trustee of the costs, expenses or liabilities likely to be incurred by it in the making of such investigation is, in the opinion of the Trustee, not reasonably assured to the Trustee by the security afforded to it by the terms of this Indenture, the Trustee may require reasonable indemnity against such expenses or liabilities as a condition to proceeding; the reasonable expenses of every such investigation shall be paid by the Issuer or, if paid by the Trustee or any predecessor trustee, shall be repaid by the Issuer upon demand;
- (k) 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 not regularly in its employ and the Trustee shall not be responsible for any misconduct or negligence on the part of any such agent or attorney appointed with due care by it hereunder;

- (l) in no event shall the Trustee be responsible or liable for special, indirect, punitive 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, other than any such loss or damage caused by the Trustee's willful misconduct or gross negligence;
- (m) 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;
- (n) 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;
- (o) the Trustee may request that the Issuer deliver a certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture (i.e., an Incumbency Certificate); and
 - (p) the Trustee shall not be required to give any bond or surety in respect of the performance of its powers and duties hereunder.
- Section 6.03 *Trustee Not Responsible for Recitals, Disposition of Securities or Application of Proceeds Thereof.* The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Issuer, and the Trustee assumes no responsibility for the correctness of the same. The Trustee makes no representation as to the validity or sufficiency of this Indenture or of the Securities. The Trustee shall not be accountable for the use or application by the Issuer of any of the Securities or of the proceeds thereof.
- Section 6.04 *Trustee and Agents May Hold Securities; Collections, Etc.* The Trustee or any agent of the Issuer or the Trustee, in its individual or any other capacity, may become the owner or pledgee of Securities with the same rights it would have if it were not the Trustee or such agent and may otherwise deal with the Issuer and receive, collect, hold and retain collections from the Issuer with the same rights it would have if it were not the Trustee or such agent.
- Section 6.05 *Moneys Held by Trustee*. Subject to the provisions of Section 10.04 hereof, all moneys received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received, but need not be segregated from other funds except to the extent required by mandatory provisions of law. Neither the Trustee nor any agent of the Issuer or the Trustee shall be under any liability for interest on any moneys received by it hereunder.
- Section 6.06 *Compensation and Indemnification of Trustee and Its Prior Claim.* The Issuer covenants and agrees to pay to the Trustee from time to time, and the Trustee shall be entitled to, such reasonable compensation (which shall not be limited by any provision of law in

regard to the compensation of a trustee of an express trust) as the Issuer and the Trustee may from time to time agree in writing and, except as otherwise expressly provided herein, the Issuer covenants and agrees to pay or reimburse the Trustee and each predecessor trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by or on behalf of it in accordance with any of the provisions of this Indenture (including the reasonable compensation and the expenses and disbursements of its counsel and of all agents and other persons not regularly in its employ) except any such expense, disbursement or advance as may arise from its negligence or bad faith. The Issuer also covenants to indemnify the Trustee and each predecessor trustee for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of this Indenture or the trusts hereunder and its duties hereunder, including the costs and expenses of defending itself against or investigating any claim of liability in the premises. The obligations of the Issuer under this Section to compensate and indemnify the Trustee and each predecessor trustee and to pay or reimburse the Trustee and each predecessor trustee for expenses, disbursements and advances shall constitute additional indebtedness hereunder and shall survive the satisfaction and discharge of this Indenture. Such additional indebtedness shall be a senior claim to that of the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the benefit of the Holders of particular Securities, and the Securities are hereby subordinated to such senior claim.

Section 6.07 *Right of Trustee to Rely on Officer's Certificate, Etc.* Subject to Sections 6.01 and 6.02, whenever in the administration of the trusts of this Indenture the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or suffering or omitting any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of negligence or bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officer's Certificate delivered to the Trustee, and such certificate, in the absence of negligence or bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken, suffered or omitted by it under the provisions of this Indenture upon the faith thereof.

Section 6.08 *Disqualification; Conflicting Interests.* If the Trustee has or shall acquire any "conflicting interest" within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Issuer shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act.

- Section 6.09 *Persons Eligible for Appointment as Trustee.* The Trustee for each series of Securities hereunder shall at all times be a corporation having a combined capital and surplus of at least \$50,000,000 and shall be eligible in accordance with the provisions of Section 310(a) of the Trust Indenture Act of 1939. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of a Federal, State or District of Columbia 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.
- Section 6.10 *Resignation and Removal; Appointment of Successor Trustee.* (a) The Trustee, or any trustee or trustees hereafter appointed, may at any time resign with respect to one or more or all series of Securities by giving written notice of resignation to the Issuer and by

mailing notice of such resignation to the Holders of then Outstanding Securities of each series affected at their addresses as they shall appear on the Security register. Upon receiving such notice of resignation, the Issuer shall promptly appoint a successor trustee or trustees with respect to the applicable series by written instrument in duplicate, executed by authority of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee or trustees. If no successor trustee shall have been so appointed with respect to any series and have accepted appointment within 30 days after the mailing of such notice of resignation, the resigning trustee may petition any court of competent jurisdiction for the appointment of a successor trustee, or any Securityholder who has been a bona fide Holder of a Security or Securities of the applicable series for at least six months may, on behalf of himself or herself and all others similarly situated, petition any such court for the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

- (b) In case at any time any of the following shall occur:
- (i) the Trustee shall fail to comply with the provisions of Section 310(b) of the Trust Indenture Act of 1939 with respect to any series of Securities after written request therefor by the Issuer or by any Securityholder who has been a bona fide Holder of a Security or Securities of such series for at least six months; or
- (ii) the Trustee shall cease to be eligible in accordance with the provisions of Section 310(a) of the Trust Indenture Act of 1939 and shall fail to resign after written request therefor by the Issuer or by any Securityholder; or
- (iii) the Trustee shall become incapable of acting with respect to any series of Securities, or shall be adjudged bankrupt or insolvent, or a receiver or liquidator of the Trustee or of its property shall be appointed, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, (A) the Issuer may remove the Trustee with respect to the applicable series of Securities and appoint a successor trustee for such series by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or, (B) subject to Section 315(e) of the Trust Indenture Act of 1939, any Securityholder who has been a bona fide Holder of a Security or Securities of such series for at least six months may on behalf of himself or herself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee with respect to such series. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The Holders of a majority in aggregate principal amount of the Securities of each series at the time Outstanding may at any time remove the Trustee with respect to Securities of such series and, with the consent of the Issuer, appoint a successor trustee

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with respect to the Securities of such series by delivering to the Trustee so removed, to the successor trustee so appointed and to the Issuer the evidence provided for in Section 7.01 of the action in that regard taken by the Securityholders.

- (d) Any resignation or removal of the Trustee with respect to any series and any appointment of a successor trustee with respect to such series pursuant to any of the provisions of this Section 6.10 shall become effective upon acceptance of appointment by the successor trustee as provided in Section 6.11.
- Section 6.11 Acceptance of Appointment by Successor Trustee. Any successor trustee appointed as provided in Section 6.10 shall execute and deliver to the Issuer and to its predecessor trustee an instrument accepting such appointment hereunder, and thereupon the resignation or removal of the predecessor trustee with respect to all or any applicable series shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all rights, powers, duties and obligations with respect to such series of its predecessor hereunder, with like effect as if originally named as trustee for such series hereunder; but, nevertheless, on the written request of the Issuer or of the successor trustee, upon payment of its charges then unpaid, the trustee ceasing to act shall, subject to Section 10.04, pay over to the successor trustee all moneys at the time held by it hereunder and shall execute and deliver an instrument transferring to such successor trustee all such rights, powers, duties and obligations. Upon request of any such successor trustee, the Issuer shall execute any and all instruments in writing for more fully and certainly vesting in and confirming to such successor trustee all such rights and powers. Any trustee ceasing to act shall, nevertheless, retain a prior claim upon all property or funds held or collected by such trustee to secure any amounts then due it pursuant to the provisions of Section 6.06.

If a successor trustee is appointed with respect to the Securities of one or more (but not all) series, the Issuer, the predecessor trustee and each successor trustee with respect to the Securities of any applicable series shall execute and deliver an indenture supplemental hereto which shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the predecessor trustee with respect to the Securities of any series as to which the predecessor trustee is not retiring shall continue to be vested in the predecessor trustee, and 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 under separate indentures.

No successor trustee with respect to any series of Securities shall accept appointment as provided in this Section 6.11 unless at the time of such acceptance such successor trustee shall be qualified under the provisions of Section 310(b) of the Trust Indenture Act of 1939 and eligible under the provisions of Section 310(a) of the Trust Indenture Act of 1939.

Upon acceptance of appointment by any successor trustee as provided in this Section 6.11, the Issuer shall mail notice thereof to the Holders of Securities of each series affected, by mailing such notice to such Holders at their addresses as they shall appear on the Security register. If the acceptance of appointment is substantially contemporaneous with the resignation,

then the notice called for by the preceding sentence may be combined with the notice called for by Section 6.10. If the Issuer fails to mail such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be given at the expense of the Issuer.

Section 6.12 *Merger, Conversion, Consolidation or Succession to Business of Trustee.* 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 the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder; *provided*, that such corporation shall be qualified under the provisions of Section 310(b) of the Trust Indenture Act of 1939 and eligible under the provisions of Section 310(a) of the Trust Indenture Act of 1939, without the execution or filing of any paper or any further act on the part of any of the parties hereto, anything herein to the contrary notwithstanding.

In case, at the time such successor to the Trustee shall succeed to the trusts created by this Indenture, any of the Securities of any series shall have been authenticated but not delivered, any such successor to the Trustee may adopt the certificate of authentication of any predecessor trustee and deliver such Securities so authenticated; and, in case at that time any of the Securities of any series shall not have been authenticated, any successor to the Trustee may authenticate such Securities either in the name of any predecessor hereunder or in the name of the successor trustee; and in all such cases such certificate shall have the full force which it is anywhere in the Securities of such series or in this Indenture provided that the certificate of the Trustee shall have; *provided*, that the right to adopt the certificate of authentication of any predecessor trustee or to authenticate Securities of any series in the name of any predecessor trustee shall apply only to its successor or successors by merger, conversion or consolidation.

Section 6.13 *Preferential Collection of Claims Against the Issuer*. The Trustee shall comply with Section 311(a) of the Trust Indenture Act, excluding any creditor relationship described in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent included therein.

ARTICLE 7 CONCERNING THE SECURITYHOLDERS

Section 7.01 Evidence of Action Taken by Securityholders. Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by a specified percentage in principal amount of the Securityholders of any or all series may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such specified percentage of Securityholders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee. Proof of execution of any instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Sections 6.01 and 6.02) conclusive in favor of the Trustee and the Issuer, if made in the manner provided in this Article.

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Section 7.02 *Proof of Execution of Instruments and of Holding of Securities.* Subject to Sections 6.01 and 6.02, the execution of any instrument by a Holder or his agent or proxy may be proved in accordance with such reasonable rules and regulations as may be prescribed by the Trustee or in such manner as shall be satisfactory to the Trustee. The holding of Securities shall be proved by the Security register or by a certificate of the registrar thereof. The Issuer may set a record date for purposes of determining the identity of Holders of any series entitled to vote or consent to any action referred to in Section 7.01, which record date may be set at any time or from time to time by notice to the Trustee, for any date or dates (in the case of any adjournment or reconsideration) not more than 60 days nor less than five days prior to the proposed date of such vote or consent, and thereafter, notwithstanding any other provisions hereof, only Holders of such series of record on such record date shall be entitled to so vote or give such consent or revoke such vote or consent. Notice of such record date may be given before or after any request for any action referred to in Section 7.01 is made by the Issuer.

Section 7.03 *Holders to Be Treated as Owners*. The Issuer, the Trustee and any agent of the Issuer or of the Trustee may deem and treat the Person in whose name any Security shall be registered upon the Security register for such series as the absolute owner of such Security (whether or not such Security shall be overdue and notwithstanding any notation of ownership or other writing thereon) for the purpose of receiving payment of or on account of the principal of, and, subject to the provisions of this Indenture, interest on, such Security and for all other purposes; and neither the Issuer nor the Trustee nor any agent of the Issuer or the Trustee shall be affected by any notice to the contrary. All such payments so made to any such Person, or upon his or her order, shall be valid, and, to the extent of the sum or sums so paid, effectual to satisfy and discharge the liability for moneys payable.

Section 7.04 Securities Owned by Issuer Deemed Not Outstanding. In determining whether the Holders of the requisite aggregate principal amount of Outstanding Securities of any or all series have concurred in any direction, consent or waiver under this Indenture, Securities which are owned by the Issuer or any other obligor on the Securities with respect to which such determination is being made or by any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer or any other obligor on the Securities with respect to which such determination is being made shall be disregarded and deemed not to be Outstanding for the purpose of any such determination, except that, for the purpose of determining whether the Trustee shall be protected in relying on any such direction, consent or waiver, only Securities which the Trustee knows are so owned shall be so disregarded. 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 Securities and that the pledgee is not the Issuer or any other obligor upon the Securities or any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer or any other obligor on the Securities. In case of a dispute as to such right, the advice of counsel shall be full protection in respect of any decision made by the Trustee in accordance with such advice.

Section 7.05 *Right of Revocation of Action Taken.* At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 7.01, of the taking of any action by the Holders of the percentage in aggregate principal amount of the Securities of any or all series, as the case may be, specified in this Indenture in connection with such action, any Holder of a

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Security the serial number of which is shown by the evidence to be included among the serial numbers of the Securities the Holders of which have consented to such action may, by filing written notice at the Corporate Trust Office and upon proof of holding as provided in this Article, revoke such action so far as concerns such Security. Except as aforesaid, any such action taken by the Holder of any Security shall be conclusive and binding upon such Holder and upon all future Holders and owners of such Security and of any Securities issued in exchange or substitution therefor or on registration of transfer thereof, irrespective of whether or not any notation in regard thereto is made upon any such Security. Any action taken by the Holders of the percentage in aggregate

principal amount of the Securities of any or all series, as the case may be, specified in this Indenture in connection with such action shall be conclusively binding upon the Issuer, the Trustee and the Holders of all the Securities affected by such action.

ARTICLE 8 SUPPLEMENTAL INDENTURES

Section 8.01 *Supplemental Indentures Without Consent of Securityholders.* The Issuer, when authorized by a resolution of its Board of Directors, and the Trustee may from time to time and at any time, without the consent of any of the Securityholders, enter into an indenture or indentures supplemental hereto in form satisfactory to the Trustee for one or more of the following purposes:

- (a) to convey, transfer, assign, mortgage or pledge to the Trustee as security for the Securities of one or more series any property or assets;
- (b) to evidence the succession of a corporation, limited liability company, partnership or trust to the Issuer, or successive successions, and the assumption by such successor of the covenants, agreements and obligations of the Issuer pursuant to Article 9;
- to add to the covenants of the Issuer such further covenants, restrictions, conditions or provisions as its Board of Directors and the Trustee shall consider to be for the protection of the Holders of Securities, and to make the occurrence, or the occurrence and continuance, of a default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Indenture as herein set forth; *provided*, that in respect of any such additional covenant, restriction, condition or provision such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Trustee upon such an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such series to waive such an Event of Default;
- (d) to cure any ambiguity, defect or inconsistency, or to conform this Indenture or any supplemental indenture to the description of the Securities set forth in any prospectus or prospectus supplement related to such series of Securities;

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- (e) to provide for or add guarantors for the Securities of one or more series;
- (f) to establish the form or terms of Securities of any series as permitted by Sections 2.01 and 2.03;
- (g) to evidence and provide for the acceptance of appointment hereunder by a successor trustee with respect to the 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 6.11;
- (h) to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms, purposes of issue, authentication and delivery of any series of Securities, as herein set forth;
 - (i) to make any change to the Securities of any series so long as no Securities of such series are Outstanding; and
 - (j) to make any other change that does not adversely affect the interests of the Holders of the Securities in any material respect.

The Trustee shall join with the Issuer in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations which may be therein contained and to accept the conveyance, transfer, assignment, mortgage or pledge of any property thereunder, but the Trustee 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.

Any supplemental indenture authorized by the provisions of this Section may be executed without the consent of the Holders of any of the Securities at the time Outstanding, notwithstanding any of the provisions of Section 8.02.

Section 8.02 Supplemental Indentures With Consent of Securityholders. With the consent (evidenced as provided in Article 7) of the Holders of not less than a majority in aggregate principal amount of the Securities at the time Outstanding of one or more series affected by such supplemental indenture (voting as separate series), the Issuer, when authorized by a resolution of the Board of Directors, and the Trustee may, from time to time and at any time, 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 any supplemental indenture or of modifying in any manner the rights of the Holders of the Securities of each such consenting series; provided, that no such supplemental indenture shall, without the consent of the Holder of each Security so affected, (a) extend the final maturity of any Security, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any amount payable on redemption thereof, or make the principal thereof (including any amount in respect of original issue discount) or interest thereon payable in any currency other than that provided in the Securities or in accordance with the terms thereof, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon an acceleration of the maturity thereof pursuant to Section 5.01 or the

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amount thereof provable in bankruptcy pursuant to Section 5.02, or waive a default in the payment of principal of any Security or interest thereon or change a provision related to the waiver of past defaults or changes or impair the right of any Securityholder to institute suit for the payment or conversion thereof or, if the Securities provide therefor, any right of repayment at the option of the Securityholder, or (b) modify any of the provisions of this section except to increase any required percentage or to provide that certain other provisions cannot be modified or waived without the consent of the Holder of each Security so affected, or (c) reduce the aforesaid percentage of Securities of any series, the consent of the Holders of which is required for any such supplemental

indenture or the consent of Holders of which is required for any modification, amendment or waiver of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences provided for in this Indenture.

A supplemental indenture which changes or eliminates any covenant, Event of Default or other provision of this Indenture (1) that has been expressly included solely for the benefit of one or more particular series of Securities, if any, or (2) which modifies the rights of Holders of Securities of one or more series with respect to any covenant, Event of Default or provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series with respect to which such covenant, Event of Default or other provision has not be modified.

Upon the request of the Issuer, accompanied by a Board Resolution authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Securityholders as aforesaid and other documents, if any, required by Section 7.01, the Trustee shall join with the Issuer in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

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

Promptly after the execution by the Issuer and the Trustee of any supplemental indenture pursuant to the provisions of this Section, the Issuer shall give a notice thereof to the Holders of then Outstanding Securities of each series affected thereby, by mailing a notice thereof by first-class mail to such Holders at their addresses as they shall appear on the Security register, and in each case such notice shall set forth in general terms the substance of such supplemental indenture. Any failure of the Issuer to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture.

Section 8.03 *Effect of Supplemental Indenture.* Upon the execution of any supplemental indenture pursuant to the provisions hereof, this Indenture shall be and be deemed to be modified and amended in accordance therewith and the respective rights, limitations of rights, obligations, duties and immunities under this Indenture of the Trustee, the Issuer and the Holders of Securities of each series affected thereby shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments, and all the

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terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 8.04 *Documents to Be Given to Trustee.* The Trustee, subject to the provisions of Sections 6.01 and 6.02, shall receive an Officer's Certificate and an Opinion of Counsel as conclusive evidence that any supplemental indenture executed pursuant to this Article 8 complies with the applicable provisions of this Indenture and is a legal, valid and binding obligation of the Issuer.

Section 8.05 Notation on Securities in Respect of Supplemental Indentures. Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to the provisions of this Article may bear a notation in form approved by the Trustee for such series as to any matter provided for by such supplemental indenture or as to any action taken by Securityholders. If the Issuer or the Trustee shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may be prepared by the Issuer, authenticated by the Trustee and delivered in exchange for the Securities of such series then Outstanding.

ARTICLE 9 CONSOLIDATION, MERGER, SALE OR CONVEYANCE

Section 9.01 *Issuer May Consolidate, Etc., on Certain Terms.* The Issuer shall not consolidate with or merge into any other Person (in a transaction in which the Issuer is not the surviving corporation) or convey, transfer or lease its properties and assets substantially as an entirety to any Person, unless (a) the Person formed by such consolidation or into which the Issuer is merged or the Person which acquires by conveyance or transfer, or which leases, the properties and assets of the Issuer substantially as an entirety (i) shall be a corporation, limited liability company, partnership or trust, (ii) shall be organized and validly existing under the laws of the United States of America, any State thereof or the District of Columbia and (iii) 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 interest on all the Securities and the performance or observance of every covenant of this Indenture on the part of the Issuer to be performed, by supplemental indenture satisfactory in form to the Trustee, executed and delivered to the Trustee, by the Person formed by such consolidation or into which the Issuer shall have been merged or by the Person which shall have acquired the Issuer's assets; (b) immediately after giving effect to such transaction and treating any indebtedness which becomes an obligation of the Issuer or any Subsidiary as a result of such transaction as having been incurred by the Issuer or such Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have happened and be continuing; and (c) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental i

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The conditions of (a)(ii) above shall not apply in the case of a corporation or entity not organized under the laws of the United States of America, any State thereof or the District of Columbia which shall agree, in form satisfactory to the Trustee, (i) to subject itself to the jurisdiction of the United States district court for the Southern District of New York and (ii) to indemnify and hold harmless the holders of all Securities against (A) any tax, assessment or governmental charge imposed on such holders by a jurisdiction other than the United States or any political subdivision or taxing authority thereof or therein with respect to, and withheld on the making of, any payment of principal or interest on such Securities and which would not have been so imposed and withheld had such consolidation, merger, sale or conveyance not been made and (B) any tax, assessment or governmental charge imposed on or relating to, and any costs or expenses involved in, such consolidation, merger, sale or conveyance.

The restrictions in this Section 9.01 shall not apply to (i) the merger or consolidation of the Issuer with one of its affiliates, if the Board of Directors determines in good faith that the purpose of such transaction is principally to change the Issuer's State of incorporation or convert the Issuer's form of organization to another form, or (ii) the merger of the Issuer with or into a single direct or indirect wholly owned Subsidiary.

Nothing contained in this Article shall apply to, limit or impose any requirements upon the consolidation or merger of any Person into the Issuer where the Issuer is the survivor of such transaction, or the acquisition by the Issuer, by purchase or otherwise, of all or any part of the property of any other Person (whether or not affiliated with the Issuer).

Section 9.02 *Successor Issuer Substituted.* Upon any consolidation of the Issuer with, or merger of the Issuer into, any other Person or any conveyance, transfer or lease of the properties and assets of the Issuer substantially as an entirety in accordance with Section 9.01, the successor Person formed by such consolidation or into which the Issuer 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 Issuer under this Indenture with the same effect as if such successor Person had been named as the Issuer herein, and thereafter, except in the case of a lease, the predecessor Person shall be relieved of all obligations and covenants under this Indenture and the Securities.

In case of any such consolidation, merger, sale, lease or conveyance, such changes in phraseology and form (but not in substance) may be made in the Securities thereafter to be issued as may be appropriate.

ARTICLE 10 SATISFACTION AND DISCHARGE OF INDENTURE; DEFEASANCE; UNCLAIMED MONEYS

Section 10.01 Satisfaction and Discharge of Indenture; Defeasance. (a) If at any time

(i) the Issuer shall have paid or caused to be paid the principal of and interest on all the Securities of any series Outstanding hereunder (other than Securities of such series which have been destroyed, lost or stolen and which have

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been replaced or paid as provided in Section 2.09) as and when the same shall have become due and payable, or

- (ii) the Issuer shall have delivered to the Trustee for cancellation all Securities of any series theretofore authenticated (other than any Securities of such series which shall have been destroyed, lost or stolen and which shall have been replaced or paid as provided in Section 2.09) or
- (iii) in the case of any series of Securities the exact amount (including the currency of payment) of principal of and interest due on which on the dates referred to in clause (B) below can be determined at the time of making the deposit referred to in such clause,
 - (A) all the Securities of such series not theretofore delivered to the Trustee for cancellation shall have become due and payable, or are by their terms to become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption, and
 - (B) the Issuer shall have irrevocably deposited or caused to be deposited with the Trustee as trust funds the entire amount in cash (other than moneys repaid by the Trustee or any paying agent to the Issuer in accordance with Section 10.04) or, in the case of any series of Securities the payments on which may only be made in Dollars, U.S. Government Obligations maturing as to principal and interest in such amounts and at such times as will insure the availability of cash sufficient to pay on any subsequent interest payment date all interest due on such interest payment date on the Securities of such series and to pay at maturity or upon redemption all Securities of such series (in each case other than any Securities of such series which shall have been destroyed, lost or stolen and which shall have been replaced or paid as provided in Section 2.09) not theretofore delivered to the Trustee for cancellation, including principal and interest due or to become due to such date of maturity, as the case may be,

and if, in any such case (i), (ii) or (iii), the Issuer shall also pay or cause to be paid all other sums payable hereunder by the Issuer, including amounts due the Trustee pursuant to Section 6.06, with respect to Securities of such series, then this Indenture shall cease to be of further effect with respect to Securities of such series (except as to (1) rights of registration of transfer, conversion and exchange of Securities of such series and the Issuer's right of optional redemption, (2) substitution of mutilated, defaced, destroyed, lost or stolen Securities, (3) rights of Holders of Securities to receive, solely from the trust fund described in Section 10.01(a)(iii)(B), payments of principal thereof and interest thereon, upon the original stated due dates therefor (but not upon acceleration) and remaining rights of the Holders to receive, solely from the trust fund described in Section 10.01(a)(iii)(B), sinking fund payments, if any, (4) the rights (including the Trustee's rights under Section 10.05) and immunities of the Trustee hereunder and the Trustee's obligations under Sections 10.02 and 10.04 and (5) the obligations

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of the Issuer under Section 3.02), and the Trustee, on demand of the Issuer accompanied by an Officer's Certificate and an Opinion of Counsel which complies with Section 11.05 and at the cost and expense of the Issuer, shall execute proper instruments acknowledging such satisfaction of and discharging this Indenture with respect to such series. The Issuer agrees to reimburse the Trustee for any costs or expenses thereafter reasonably and properly incurred and to compensate the Trustee for any services thereafter reasonably and properly rendered by the Trustee in connection with this Indenture or the Securities of such series.

(b) The following subsection shall apply to the Securities of each series unless specifically otherwise provided in a Board Resolution, Officer's Certificate or indenture supplemental hereto provided pursuant to Section 2.03. In addition to the right to discharge of the Indenture pursuant to subsection (a) above, the Issuer, at its option and at any time, by written notice by an officer delivered to the Trustee, may elect to have all of its obligations discharged with all Outstanding Securities of a series ("**Legal Defeasance**"), such discharge to be effective on the date that the conditions set forth in clauses (i) through (iv) and (vi) of Section 10.01(d) are satisfied, and thereafter the Issuer shall be deemed to have paid and discharged the entire Debt on all the Securities of

such a series, and satisfied all its other obligations under such Securities and this Indenture insofar as such Securities are concerned and this Indenture shall cease to be of further effect with respect to Securities of such series (except as to (1) rights of registration of transfer, conversion and exchange of Securities of such series, (2) substitution of apparently mutilated, defaced, destroyed, lost or stolen Securities, (3) rights of Holders of Securities to receive, solely from the trust fund described in Section 10.01(d)(i), payments of principal thereof and interest thereon, upon the original stated due dates therefor (but not upon acceleration) and remaining rights of the Holders to receive, solely from the trust fund described in Section 10.01(d)(i), sinking fund payments, if any, (4) the rights (including the Trustee's rights under Section 10.05) and immunities of the Trustee hereunder and the Trustee's obligations with respect to the Securities of such series under Sections 10.02 and 10.04 and (5) the obligations of the Issuer under Section 3.02).

(c) The following subsection shall apply to the Securities of each series unless specifically otherwise provided in a Board Resolution, Officer's Certificate or indenture supplemental hereto provided pursuant to Section 2.03. In addition to the right to discharge of the Indenture pursuant to subsection (a) and to Legal Defeasance pursuant to subsection (b), above, the Issuer, at its option and at any time, by written notice executed by an officer delivered to the Trustee, may elect to have its obligations under any covenant contained in this Indenture or in the Board Resolution or supplemental indenture relating to such series pursuant to Section 2.03 discharged with respect to all Outstanding Securities of a series, this Indenture and any indentures supplemental to this Indenture with respect to such series ("Covenant Defeasance"), such discharge to be effective on the date the conditions set forth in clauses (i) through (iii) and (v) through (vi) of Section 10.01(d) are satisfied, and such Securities shall thereafter be deemed to be not "Outstanding" for the purposes of any direction, waiver, consent or declaration of Securityholders (and the consequences of any thereof) in connection with such covenants, but shall continue to be "Outstanding" for all other purposes under this Indenture. For this purpose, such Covenant Defeasance means that, with respect to the Outstanding Securities of a series, the Issuer may omit to comply with and shall have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of reference in any such covenant

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to any other provision herein or in any other document and such omission to comply shall not constitute an Event of Default under Section 5.01(c) or otherwise, but except as specified in this Section 10.01(c), the remainder of the Issuer's obligations under the Securities of such series, this Indenture, and any indentures supplemental to this Indenture with respect to such series shall be unaffected thereby.

- (d) The following shall be the conditions to the application of Legal Defeasance under subsection (b) or Covenant Defeasance under subsection (c) to the Securities of the applicable series:
 - (i) the Issuer irrevocably deposits or causes to be deposited in trust with the Trustee or, at the option of the Trustee, with a trustee satisfactory to the Trustee and the Company under the terms of an irrevocable trust agreement in form and substance satisfactory to the Trustee, cash or U.S. Government Obligations that will generate cash sufficient to pay principal of and interest on the Outstanding Securities of such series to maturity or redemption, as the case may be, and to pay all other amounts payable by it hereunder, provided that (A) the trustee of the irrevocable trust, if any, shall have been irrevocably instructed to pay such funds or the proceeds of such U.S. Government Obligations to the Trustee and (B) the Trustee shall have been irrevocably instructed to apply such funds or the proceeds of such U.S. Government Obligations to (x) the principal and interest on all Securities of such series on the date that such principal or interest is due and payable and (y) any mandatory sinking fund payments on the day on which such payments are due and payable in accordance with the terms of the Indenture and the Securities of such series, and the Issuer shall also pay or cause to be paid all other amounts payable hereunder with respect to such series;
 - (ii) the Issuer delivers to the Trustee an Officer's Certificate stating that all conditions precedent specified herein relating to Legal Defeasance or Covenant Defeasance, as the case may be, have been complied with, and an Opinion of Counsel to the same effect;
 - (iii) no Event of Default under subsection (a), (b), (d) or (e) of Section 5.01 shall have occurred and be continuing, and no event which with notice or lapse of time or both would become such an Event of Default shall have occurred and be continuing, on the date of such deposit;
 - (iv) in the event of an election for Legal Defeasance under subsection (b), the Issuer shall have delivered to the Trustee an Opinion of Counsel stating that (A) the Issuer has received from, or there has been published by, the Internal Revenue Service a ruling or (B) since the date of this instrument, there has been a change in the applicable Federal income tax law, in either case (A) or (B) to the effect that, and based thereon such opinion shall confirm that, the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit, defeasance and discharge to be effected with respect to such Securities and will be subject to Federal income tax on the same amounts, in the

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same manner and at the same times as would be the case if such deposit, defeasance and discharge were not to occur;

- (v) in the event of an election for Covenant Defeasance under subsection (c), the Issuer shall have delivered to the Trustee an Opinion of Counsel to the effect that the Holders of such Securities will not recognize gain or loss for Federal income tax purposes as a result of the deposit and Covenant Defeasance to be effected with respect to such Securities and will be subject to Federal income tax on the same amount, in the same manner and at the same times as would be the case if such deposit and Covenant Defeasance were not to occur; and
- (vi) notwithstanding any other provisions of this subsection (d), such defeasance shall be effected in compliance with any additional or substitute terms, conditions or limitations which may be imposed on the Issuer pursuant to Section 2.03.

After such irrevocable deposit made pursuant to this Section 10.01(d) and satisfaction of the other conditions set forth in this subsection (d), the Trustee upon request shall execute proper instruments acknowledging the discharge of the Issuer's obligations pursuant to this Section 10.01.

Section 10.02 *Application by Trustee of Funds Deposited for Payment of Securities.* Subject to Section 10.04, all moneys deposited with the Trustee (or other trustee) pursuant to Section 10.01 shall be held in trust and applied by it to the payment, either directly or through any paying agent

(including the Issuer acting as its own paying agent), to the Holders of the particular Securities of such series for the payment or redemption of which such moneys have been deposited with the Trustee, of all sums due and to become due thereon for principal and interest; but such money need not be segregated from other funds except to the extent required by law.

Section 10.03 Repayment of Moneys Held by Paying Agent. In connection with the satisfaction and discharge of this Indenture with respect to Securities of any series, all moneys then held by any paying agent under the provisions of this Indenture with respect to such series of Securities shall, upon demand of the Issuer, be repaid to it or paid to the Trustee and thereupon such paying agent shall be released from all further liability with respect to such moneys.

Section 10.04 Return of Moneys Held by Trustee and Paying Agent Unclaimed for Two Years. Any moneys deposited with or paid to the Trustee or any paying agent for the payment of the principal of, interest on or additional amounts in respect of any Security of any series and not applied but remaining unclaimed for two years after the date upon which such principal, interest or additional amount shall have become due and payable, shall be repaid to the Issuer by the Trustee for such series or such paying agent, and the Holder of the Securities of such series shall thereafter look only to the Issuer for any payment which such Holder may be entitled to collect, and all liability of the Trustee or any paying agent with respect to such moneys shall thereupon cease.

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Section 10.05 *Indemnity for U.S. Government Obligations*. The Issuer shall pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the U.S. Government Obligations deposited pursuant to Section 10.01 or the principal or interest received in respect of such obligations.

ARTICLE 11 MISCELLANEOUS PROVISIONS

Section 11.01 *No Recourse.* No recourse under or upon any obligation, covenant or agreement of this Indenture, or of any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, past, present or future as such, of the Issuer or of any predecessor or successor corporation, either directly or through the Issuer or any such predecessor or successor corporation, 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, 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 Issuer or of any predecessor or 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 Securities or implied therefrom; and that 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 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 issuance of such Securities.

Section 11.02 Provisions of Indenture for the Sole Benefit of Parties and Holders of Securities. Nothing in this Indenture or in the Securities, expressed or implied, shall give or be construed to give to any person, firm or corporation, other than the parties hereto and their successors and the Holders of the Securities any legal or equitable right, remedy or claim under this Indenture or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto and their successors and of the Holders of the Securities.

Section 11.03 *Successors and Assigns of Issuer Bound by Indenture.* All the covenants, stipulations, promises and agreements contained in this Indenture by or on behalf of the Issuer shall bind its successors and assigns, whether so expressed or not.

Section 11.04 Notices and Demands on Issuer, Trustee and Holders of Securities. Any notice or demand which by any provision of this Indenture is required or permitted to be given or served by the Trustee or by the Holders of Securities to or on the Issuer may be given or served by being deposited postage prepaid, first-class mail, overnight courier or electronic transmission in PDF format (except as otherwise specifically provided herein) addressed (until another address of the Issuer is filed by the Issuer with the Trustee) to Merrimack Pharmaceuticals, Inc., One Kendall Square, Suite B7201, Cambridge, Massachusetts 02139, Attn: Chief Financial

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Officer, e-mail: bsullivan@merrimackpharma.com. Any notice, direction, request or demand by the Issuer or any Holder of Securities to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or made at Wells Fargo Bank, National Association, Corporate Trust Services, 150 East 42nd Street, 40th Floor, New York, New York, 10017, Attention: Corporate Trust Services Administration.

Where this Indenture provides for notice to Holders of Securities, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Holder entitled thereto, at his or her last address as it appears in the Security register. In case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice of any event to Holders of Securities when said notice is required to be given pursuant to any provision of this Indenture or of the 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 case, by reason of the suspension of or irregularities in regular mail service, it shall be impracticable to mail notice to the Issuer when such notice is required to be given pursuant to any provision of this Indenture, 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.

Neither the failure to give notice, nor any defect in any notice so given, to any particular Holder of a Security shall affect the sufficiency of such notice with respect to other Holders of Securities given as provided above.

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.

Section 11.05 Officer's Certificates and Opinions of Counsel; Statements to Be Contained Therein. Upon any application or demand by the Issuer to the Trustee to take any action under any of the provisions of this Indenture, the Issuer shall furnish to the Trustee an Officer's Certificate stating that all conditions precedent 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 have been complied with, except that in the case of any such application or demand as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or demand, no additional certificate or opinion need be furnished.

Each certificate or opinion provided for in this Indenture and delivered to the Trustee with respect to compliance with a condition or covenant provided for in this Indenture shall include (a) a statement that the person making such certificate or opinion has read such covenant or condition, (b) 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, (c) a statement that, in the opinion of such person, 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

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not such covenant or condition has been complied with and (d) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

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

Any certificate, statement or opinion of an officer of the Issuer or of counsel may be based, insofar as it relates to accounting matters, upon a certificate or opinion of or representations by an accountant or firm of accountants in the employ of the Issuer, unless such officer or counsel, as the case may be, knows that the certificate or opinion or representations with respect to the accounting matters upon which his or her certificate, statement or opinion may be based as aforesaid are erroneous, or in the exercise of reasonable care should know that the same are erroneous.

Any certificate or opinion of any independent firm of public accountants filed with and directed to the Trustee shall contain a statement that such firm is independent.

Section 11.06 *Payments Due on Saturdays, Sundays and Holidays.* If the date of maturity of interest on or principal of the Securities of any series or the date fixed for redemption or repayment of any such Security, or the last day on which a Holder has the right to convert any Security, shall not be a Business Day, then payment of interest or principal, or any conversion, need not be made on such date, but may be made on the next succeeding Business Day with the same force and effect as if made on the date of maturity or the date fixed for redemption or on such last day for conversion, and no interest shall accrue for the period after such date.

Section 11.07 *Conflict of Any Provision of Indenture With Trust Indenture Act of 1939.* If and to the extent that any provision of this Indenture limits, qualifies or conflicts with another provision included in this Indenture by operation of Sections 310 to 317, inclusive, of the Trust Indenture Act of 1939, such incorporated provision shall control.

Section 11.08 *New York Law to Govern.* This Indenture and each Security shall be governed by, and construed in accordance with, the internal laws of the State of New York (without regard to the conflicts of laws provisions thereof).

Section 11.09 *Counterparts*. This Indenture may be executed in any number of counterparts, each of which shall be an original; but such counterparts shall together constitute but one and the same instrument. The exchange of copies of the Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of the

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Indenture as to the parties hereto and may be used in lieu of the original Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

- Section 11.10 *Effect of Headings*. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.
- Section 11.11 *Actions by Successor*. Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board of directors or its equivalent, committee or officer of the Issuer shall and may be done and performed with like force and effect by the corresponding board, committee or officer of any corporation that shall at the time be the lawful successor of the Issuer.
- Section 11.12 Severability. In case any one or more of the provisions contained in this Indenture or in the Securities of any series shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Indenture or of such Securities, but this Indenture and such Securities shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein or therein.
- Section 11.13 *Force Majeure.* In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of

war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 11.14 *Calculations*. Except as otherwise provided herein, the Issuer shall be responsible for making all calculations called for under the Securities. The Issuer shall make all these calculations in good faith and, absent manifest error, the Issuer's calculations shall be final and binding on Holders of Securities. The Issuer shall provide a schedule of its calculations to each of the Trustee and any conversion agent, if applicable, and each of the Trustee and any such conversion agent is entitled to rely conclusively upon the accuracy of the Issuer's calculations without independent verification. The Trustee will forward the Issuer's calculations to any Holder of Securities upon the request of that Holder at the sole cost and expense of the Issuer.

ARTICLE 12 REDEMPTION OF SECURITIES AND SINKING FUNDS

Section 12.01 *Applicability of Article.* The provisions of this Article shall be applicable to the Securities of any series which are redeemable before their maturity or to any sinking fund for the retirement of Securities of a series, except as otherwise specified, as contemplated by Section 2.03 for Securities of such series.

Section 12.02 *Notice of Redemption; Partial Redemptions.* Notice of redemption to the Holders of Securities of any series to be redeemed as a whole or in part at the option of the Issuer

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shall be given by mailing notice of such redemption by first class mail, postage prepaid, at least 30 days and not more than 60 days prior to the date fixed for redemption to such Holders of Securities of such series at their last addresses as they shall appear upon the Security register. Any notice which is given in the manner herein provided shall be conclusively presumed to have been duly given, whether or not the Holder receives the notice. Failure to give notice or any defect in the notice to the Holder of any Security of a series designated for redemption as a whole or in part shall not affect the validity of the proceedings for the redemption of any other Security of such series.

The notice of redemption to each such Holder shall specify the principal amount of each Security of such series held by such Holder to be redeemed, the date fixed for redemption, the redemption price, the place or places of payment, that payment will be made upon presentation and surrender of such Securities, that such redemption is pursuant to the mandatory or optional sinking fund, or both, if such be the case, that interest accrued to the date fixed for redemption will be paid as specified in such notice and that on and after said date interest thereon or on the portions thereof to be redeemed will cease to accrue and shall also specify, if applicable, the conversion price then in effect and the date on which the right to convert such Securities or the portions thereof to be redeemed will expire. In case any Security of a series is to be redeemed in part only, the notice of redemption shall state the portion of the principal amount thereof to be redeemed and shall state that on and after the date fixed for redemption, upon surrender of such Security, a new Security or Securities of such series in principal amount equal to the unredeemed portion thereof will be issued.

The notice of redemption of Securities of any series to be redeemed at the option of the Issuer shall be given by the Issuer or, at the Issuer's request, by the Trustee in the name and at the expense of the Issuer.

On or before the redemption date specified in the notice of redemption given as provided in this Section, the Issuer will deposit with the Trustee or with one or more paying agents (or, if the Issuer is acting as its own paying agent, set aside, segregate and hold in trust as provided in Section 3.04) an amount of money sufficient to redeem on the redemption date all the Securities of such series so called for redemption (other than those Securities theretofore surrendered for conversion into Common Stock in accordance with their terms) at the appropriate redemption price, together with accrued interest to the date fixed for redemption. If any Security called for redemption is converted pursuant hereto and in accordance with the terms thereof, any money deposited with the Trustee or any paying agent or so segregated and held in trust for the redemption of such Security shall be paid to the Issuer upon the Issuer's request, or, if then held by the Issuer, shall be discharged from such trust. The Issuer will deliver to the Trustee at least 10 days prior to the date the notice required to be delivered to the Holders is to be sent (unless a shorter time period shall be acceptable to the Trustee) an Officer's Certificate (which need not comply with Section 11.05) stating the aggregate principal amount of Securities to be redeemed. In case of a redemption at the election of the Issuer prior to the expiration of any restriction on such redemption, the Issuer shall deliver to the Trustee, prior to the giving of any notice of redemption to Holders pursuant to this Section, an Officer's Certificate stating that such restriction has been complied with.

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If less than all the Securities of a series are to be redeemed, the Trustee shall select, in such manner as it shall deem appropriate and fair or in accordance with the applicable procedures of the Depository, Securities of such series to be redeemed in whole or in part. Securities may be redeemed in part in multiples equal to the minimum authorized denomination for Securities of such series or any multiple thereof. The Trustee shall promptly notify the Issuer in writing of the Securities of such series selected for redemption and, in the case of any Securities of such series 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 Securities of any series shall relate, in the case of any Security redeemed or to be redeemed only in part, to the portion of the principal amount of such Security which has been or is to be redeemed. If any Security selected for partial redemption is surrendered for conversion after such selection, the converted portion of such Security shall be deemed (so far as may be possible) to be the portion selected for redemption.

Section 12.03 *Payment of Securities Called for Redemption.* If notice of redemption has been given as above provided, the Securities or portions of Securities specified in such notice shall become due and payable on the date and at the place stated in such notice at the applicable redemption price, together with interest accrued to the date fixed for redemption, and on and after said date (unless the Issuer shall default in the payment of such Securities at the redemption price, together with interest accrued to said date) interest on the Securities or portions of Securities so called for redemption shall cease to accrue, and such Securities shall cease from and after the date fixed for redemption to be convertible into Common Stock (to the extent otherwise convertible in accordance with their terms), if applicable, and cease to be entitled to any benefit or security under this Indenture, and except as provided in the paragraph below, the Holders thereof shall have no right in respect of such Securities except the right to receive the redemption price thereof and unpaid interest to the date fixed for redemption. On presentation and surrender of such Securities at a place of payment specified in said notice, said Securities or the specified portions thereof shall be paid and redeemed by the Issuer at the applicable redemption price, together with interest accrued thereon to the date fixed for

redemption; *provided*, that payment of interest becoming due on or prior to the date fixed for redemption shall be payable to the Holders of such Securities registered as such on the relevant record date subject to the terms and provisions of Sections 2.03 and 2.07 hereof.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal shall, until paid or duly provided for, bear interest from the date fixed for redemption at the rate of interest or Yield to Maturity (in the case of an Original Issue Discount Security) borne by such Security and, if applicable, such Security shall remain convertible into Common Stock until the principal of such Security shall have been paid or duly provided for.

Upon presentation of any Security redeemed in part only, the Issuer shall execute and the Trustee shall authenticate and deliver to or on the order of the Holder thereof, at the expense of the Issuer, a new Security or Securities of such series, of authorized denominations, in principal amount equal to the unredeemed portion of the Security so presented.

Section 12.04 *Exclusion of Certain Securities from Eligibility for Selection for Redemption.* Securities shall be excluded from eligibility for selection for redemption if they are

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identified by registration and certificate number in an Officer's Certificate delivered to the Trustee at least 40 days prior to the last date on which notice of redemption may be given as being owned of record and beneficially by, and not pledged or hypothecated by either (a) the Issuer or (b) an entity specifically identified in such written statement as directly or indirectly controlling or controlled by or under direct or indirect common control with the Issuer.

Section 12.05 *Mandatory and Optional Sinking Funds*. The minimum amount of any sinking fund payment provided for by the terms of the 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 the Securities of any series is herein referred to as an "**optional sinking fund payment**". The date on which a sinking fund payment is to be made is herein referred to as the "**sinking fund payment date**".

In lieu of making all or any part of any mandatory sinking fund payment with respect to any series of Securities in cash, the Issuer may at its option (a) deliver to the Trustee Securities of such series theretofore purchased or otherwise acquired (except upon redemption pursuant to the mandatory sinking fund) by the Issuer or receive credit for Securities of such series (not previously so credited) theretofore purchased or otherwise acquired (except as aforesaid) by the Issuer and delivered to the Trustee for cancellation pursuant to Section 2.10 and, if applicable, receive credit for Securities (not previously so credited) converted into Common Stock and so delivered to the Trustee for cancellation, (b) receive credit for optional sinking fund payments (not previously so credited) made pursuant to this Section, or (c) receive credit for Securities of such series (not previously so credited) redeemed by the Issuer through any optional redemption provision contained in the terms of such series. Securities so delivered or credited shall be received or credited by the Trustee at the sinking fund redemption price specified in such Securities.

On or before the 60th day next preceding each sinking fund payment date for any series, the Issuer will deliver to the Trustee an Officer's Certificate (which need not contain the statements required by Section 11.05) (a) specifying the portion of the mandatory sinking fund payment to be satisfied by payment of cash and the portion to be satisfied by credit of Securities of such series and the basis for such credit, (b) stating that none of the Securities of such series for which credit will be taken has theretofore been so credited, (c) stating that no defaults in the payment of interest or Events of Default with respect to such series have occurred (which have not been waived or cured) and are continuing and (d) stating whether or not the Issuer intends to exercise its right to make an optional sinking fund payment with respect to such series and, if so, specifying the amount of such optional sinking fund payment which the Issuer intends to pay on or before the next succeeding sinking fund payment date. Any Securities of such series to be credited and required to be delivered to the Trustee in order for the Issuer to be entitled to credit therefor as aforesaid which have not theretofore been delivered to the Trustee shall be delivered for cancellation pursuant to Section 2.10 to the Trustee with such Officer's Certificate (or reasonably promptly thereafter if acceptable to the Trustee). Such Officer's Certificate shall be irrevocable and upon its receipt by the Trustee the Issuer shall become unconditionally obligated to make all the cash payments or payments therein referred to, if any, on or before the next succeeding sinking fund payment date. Failure of the Issuer, on or before any such 60th day, to deliver such Officer's Certificate and Securities specified in this paragraph, if any, shall not constitute a default but shall constitute, on and as of such date, the irrevocable election of the

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Issuer that the mandatory sinking fund payment for such series due on the next succeeding sinking fund payment date shall be paid entirely in cash without the option to deliver or credit Securities of such series in respect thereof.

If the sinking fund payment or payments (mandatory or optional or both) to be made in cash on the next succeeding sinking fund payment date plus any unused balance of any preceding sinking fund payments made in cash shall exceed \$50,000 (or the equivalent thereof in any Foreign Currency or a lesser sum in Dollars or in any Foreign Currency if the Issuer shall so request) with respect to the Securities of any particular series, such cash shall be applied on the next succeeding sinking fund payment date to the redemption of Securities of such series at the sinking fund redemption price together with accrued interest to the date fixed for redemption. If such amount shall be \$50,000 (or the equivalent thereof in any Foreign Currency) or less and the Issuer makes no such request then it shall be carried over until a sum in excess of \$50,000 (or the equivalent thereof in any Foreign Currency) is available, which delay in accordance with this paragraph shall not be a default or breach of the obligation to make such payment. The Trustee shall select, in the manner provided in Section 12.02, for redemption on such sinking fund payment date a sufficient principal amount of Securities of such series to which such cash may be applied, as nearly as may be, and shall (if requested in writing by the Issuer) inform the Issuer of the serial numbers of the Securities of such series (or portions thereof) so selected. The Trustee, in the name and at the expense of the Issuer (or the Issuer, if it shall so request the Trustee in writing), shall cause notice of redemption of the Securities of such series to be given in substantially the manner provided in Section 12.02 (and with the effect provided in Section 12.03) for the redemption of Securities of such series in part at the option of the Issuer. The amount of any sinking fund payments not so applied or allocated to the redemption of Securities of such series shall be added to the next cash sinking fund payment for such series and, together with such payment, shall be applied in accordance with the provisions of this Section. Any and all sinking fund moneys held on the stated maturity date of the Securities of any particular series (or earlier, if such maturity is accelerated), which are not held for the payment or redemption of particular Securities of such series, shall be applied, together with other moneys, if necessary, sufficient for the purpose, to the payment of the principal of, and interest on, the Securities of such series at maturity. The Issuer's obligation to make a mandatory or optional sinking fund payment shall automatically be reduced by an amount equal to the sinking fund redemption price allocable to any Securities or portions thereof called for redemption pursuant to the preceding paragraph on any sinking fund payment date and

converted into Common Stock in accordance with the terms of such Securities; *provided that*, if the Trustee is not the conversion agent for the Securities, the Issuer or such conversion agent shall give the Trustee written notice on or prior to the date fixed for redemption of the principal amount of Securities or portions thereof so converted.

On or before each sinking fund payment date, the Issuer shall pay to the Trustee in cash or shall otherwise provide for the payment of all interest accrued to the date fixed for redemption on Securities to be redeemed on such sinking fund payment date.

The Trustee shall not redeem or cause to be redeemed any Securities of a series with sinking fund moneys or give any notice of redemption of Securities for such series by operation of the sinking fund during the continuance of a default in payment of interest on such Securities or of any Event of Default except that, where the mailing of notice of redemption of any

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Securities shall theretofore have been made, the Trustee shall redeem or cause to be redeemed such Securities, provided that it shall have received from the Issuer a sum sufficient for such redemption. Except as aforesaid, any moneys in the sinking fund for such series at the time when any such default or Event of Default shall occur, and any moneys thereafter paid into the sinking fund, shall, during the continuance of such default or Event of Default, be deemed to have been collected under Article 5 and held for the payment of all such Securities. In case such Event of Default shall have been waived as provided in Section 5.10, or the default cured on or before the 60th day preceding the sinking fund payment date in any year, such moneys shall thereafter be applied on such sinking fund payment date in accordance with this Section to the redemption of such Securities.

[Signature pages follow]

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

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ Robert J. Mulroy

Name: Robert J. Mulroy

Title: President and Chief Executive Officer

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Trustee

By: /s/ Yana Kislenko

Name: Yana Kislenko Title: Vice President

[Signature Page to Base Indenture]

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MERRIMACK PHARMACEUTICALS, INC.

AND

WELLS FARGO BANK, NATIONAL ASSOCIATION,

as Trustee

FIRST SUPPLEMENTAL INDENTURE

Dated as of July 17, 2013

4.50% Convertible Senior Notes due 2020

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FIRST SUPPLEMENTAL INDENTURE dated as of July 17, 2013 between MERRIMACK PHARMACEUTICALS, INC., a Delaware corporation, as issuer (the "Issuer," as more fully set forth in Section 2.01) and WELLS FARGO BANK, NATIONAL ASSOCIATION, a national banking association, as trustee (the "Trustee," as more fully set forth in Section 2.01).

WITNESSETH:

WHEREAS, the Issuer and the Trustee executed and delivered an Indenture, dated as of July 17, 2013 (the "Base Indenture" and as supplemented by this First Supplemental Indenture and as may be further supplemented or amended with respect to the Notes, the "Indenture"), to provide for the issuance by the Issuer from time to time of its senior unsecured debentures, notes or other evidences of indebtedness (the "Securities");

WHEREAS, Section 2.01, Section 2.03 and Section 8.01 of the Base Indenture provide that the Issuer, 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 to the Base Indenture, without the consent of any Holders, to, among other things, establish the form or terms of Securities of any series as permitted by the Base Indenture;

WHEREAS, for its lawful corporate purposes, the Issuer has duly authorized the issuance of its 4.50% Convertible Senior Notes due 2020 (the "Notes"), initially in an aggregate principal amount not to exceed \$125,000,000 (as increased by an amount equal to the aggregate principal amount of any additional Notes purchased by the Underwriters pursuant to the exercise of their over-allotment option as set forth in the Underwriting Agreement), and in order to provide the terms and conditions upon which the Notes are to be authenticated, issued and delivered, the Issuer has duly authorized the execution and delivery of this First Supplemental Indenture; and

WHEREAS, the Issuer desires to issue \$125,000,000 (as increased by an amount equal to the aggregate principal amount of any additional Notes purchased by the Underwriters pursuant to the exercise of their over-allotment option as set forth in the Underwriting Agreement) aggregate principal amount of the Notes as of the date hereof;

WHEREAS, the Issuer desires to establish the form and terms of the Notes;

WHEREAS, all things necessary to make this First Supplemental Indenture a legal and binding supplement to the Base Indenture in accordance with its terms and the terms of the Base Indenture have been done;

WHEREAS, the Form of Note, the certificate of authentication to be borne by each Note, the Form of Notice of Conversion, the Form of Fundamental Change Repurchase Notice and the Form of Assignment and Transfer to be borne by the Notes are to be substantially in the forms hereinafter provided; and

WHEREAS, all acts and things necessary to make the Notes, when executed by the Issuer and authenticated and delivered by the Trustee or a duly authorized authenticating agent, as in the Indenture provided, the valid, binding and legal obligations of the Issuer have been done and performed, and the execution of the Indenture and the issuance of the Notes have in all respects been duly authorized.

WHEREAS, the Issuer has complied with all conditions precedent provided for in the Indenture relating to this First Supplemental Indenture; and

WHEREAS, the Issuer has requested that the Trustee execute and deliver this First Supplemental Indenture.

NOW, THEREFORE:

In order to declare the terms and conditions upon which the Notes are, and are to be, authenticated, issued and delivered, and in consideration of the premises and of the purchase and acceptance of the Notes by the Holders thereof, the Issuer covenants and agrees with the Trustee for the equal and proportionate benefit of the respective Holders from time to time of the Notes, as follows:

ARTICLE 1 SCOPE OF FIRST SUPPLEMENTAL INDENTURE

Section 1.01. *Scope*. This First Supplemental Indenture constitutes a supplement to the Base Indenture and an integral part of the Indenture and shall be read together with the Base Indenture as though all the provisions thereof are contained in one instrument. Except as expressly amended by this First Supplemental Indenture, the terms and provisions of the Base Indenture shall remain in full force and effect. Notwithstanding the foregoing, this First Supplemental Indenture shall only apply to the Notes. For all purposes under the Base Indenture, the Notes shall constitute a single series of Securities. With respect to the Notes, if the terms of the Base Indenture are inconsistent with the terms of this First Supplemental Indenture, then the terms of this First Supplemental Indenture shall control.

ARTICLE 2 DEFINITIONS

Section 2.01. *Definitions and Other Provisions of General Application*. For all purposes of this First Supplemental Indenture unless otherwise specified herein:

- (a) all terms used in this First Supplemental Indenture that are not otherwise defined herein shall have the meanings they are given in the Base Indenture;
- (b) the provisions of general application stated in Section 1.01 of the Base Indenture shall apply to this First Supplemental Indenture, except that the words "herein," "hereof," "hereto" and "hereunder" and other words of similar import refer to this First Supplemental

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Indenture as a whole and not to the Base Indenture or any particular Article, Section or other subdivision of the Base Indenture or this First Supplemental Indenture;

- (c) Section 1.01 of the Base Indenture is amended and supplemented, solely with respect to the Notes, by inserting the following additional defined terms in their appropriate alphabetical positions and deleting any defined terms therein that are also defined in this Section 2.01:
 - "Additional Interest" means all amounts, if any, payable pursuant to Section 6.04.
 - "Additional Shares" shall have the meaning specified in Section 14.03(a).
- "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 or cause the direction of 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.
- "Bid Solicitation Agent" means the Person appointed by the Issuer to solicit bids for the Trading Price of the Notes in accordance with Section 14.01(b)(i). The Trustee shall initially act as the Bid Solicitation Agent.
- "Capital Stock" means, for any entity, any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) stock issued by that entity.
 - "Cash Settlement" shall have the meaning specified in Section 14.02(a).
 - "Clause A Distribution" shall have the meaning specified in Section 14.04(c).
 - "Clause B Distribution" shall have the meaning specified in Section 14.04(c).
 - "Clause C Distribution" shall have the meaning specified in Section 14.04(c).
 - "close of business" means 5:00 p.m. (New York City time).
 - "Combination Settlement" shall have the meaning specified in Section 14.02(a).
- "Common Equity" of any Person means Capital Stock of such Person that is generally entitled (a) to vote in the election of directors of such Person or (b) if such Person is not a corporation, to vote or otherwise participate in the selection of the governing body, partners, managers or others that will control the management or policies of such Person.
- "Common Stock" means the common stock of the Issuer, par value \$0.01 per share, at the date of this First Supplemental Indenture, subject to Section 14.07.

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- "Conversion Agent" shall have the meaning specified in Section 5.02.
- "Conversion Date" shall have the meaning specified in Section 14.02(c).
- "Conversion Obligation" shall have the meaning specified in Section 14.01(a).

- "Conversion Price" means as of any date, \$1,000, divided by the Conversion Rate as of such date.
- "Conversion Rate" shall have the meaning specified in Section 14.01(a).
- "Custodian" means the Trustee, as custodian for The Depository Trust Company, with respect to the Global Securities, or any successor entity thereto.
- "Daily Conversion Value" means, for each of the 20 consecutive Trading Days during the Observation Period, 5% of the product of (a) the Conversion Rate on such Trading Day and (b) the Daily VWAP for such Trading Day.
 - "Daily Measurement Value" means the Specified Dollar Amount (if any), divided by 20.
 - "Daily Settlement Amount," for each of the 20 consecutive Trading Days during the Observation Period, shall consist of:
 - (a) cash in an amount equal to the lesser of (i) the Daily Measurement Value and (ii) the Daily Conversion Value on such Trading Day; and
 - (b) if the Daily Conversion Value on such Trading Day exceeds the Daily Measurement Value, a number of shares of Common Stock equal to (i) the difference between the Daily Conversion Value and the Daily Measurement Value, *divided by* (ii) the Daily VWAP for such Trading Day.
- "Daily VWAP" means, for each of the 20 consecutive Trading Days during the relevant Observation Period, the per share volume-weighted average price as displayed under the heading "Bloomberg VWAP" on Bloomberg page "MACK <equity> AQR" (or its equivalent successor if such page is not available) in respect of the period from the scheduled open of trading until the scheduled close of trading of the primary trading session on such Trading Day (or if such volume-weighted average price is unavailable, the market value of one share of the Common Stock on such Trading Day determined, using a volume-weighted average method, by a nationally recognized independent investment banking firm retained for this purpose by the Issuer). The "Daily VWAP" shall be determined without regard to after-hours trading or any other trading outside of the regular trading session trading hours.
- "**Default**" means any event that is, or after notice or passage of time, or both, would be, an Event of Default. Solely for purposes of the Notes, references to "default" in the Base Indenture shall be deemed instead to be references to "Default" as such term is defined in this First Supplemental Indenture.

- "**Defaulted Amounts**" means any amounts on any Note (including, without limitation, the Fundamental Change Repurchase Price, principal and interest) that are payable but are not punctually paid or duly provided for.
- "**Definitive Agreement**" means, for purposes of Section 14.01(b)(iii), any agreement that provides for obligations that are material to and enforceable against the Issuer, or rights that are material to the Issuer and enforceable by the Issuer against one or more other parties to the agreement, in each case, (x) whether or not subject to conditions and (y) that would be required to be publicly disclosed on Form 8-K (or otherwise under the Exchange Act), under the rules of any exchange on which the Issuer's securities are then listed or otherwise.
 - "Distributed Property" shall have the meaning specified in Section 14.04(c).
- "Effective Date" shall have the meaning specified in Section 14.03(c), except that, as used in Section 14.04, "Effective Date" means the first date on which shares of the Common Stock trade on the applicable exchange or in the applicable market, regular way, reflecting the relevant share split or share combination, as applicable.
 - "Event of Default" shall have the meaning specified in Section 6.01.
- **"Ex-Dividend Date"** means the first date on which shares of the Common Stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from the Issuer or, if applicable, from the seller of Common Stock on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market.
 - "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.
- "Form of Fundamental Change Repurchase Notice" means the "Form of Fundamental Change Repurchase Notice" attached as Attachment 2 to the Form of Note attached hereto as Exhibit A.
 - "Form of Note" means the "Form of Note" attached hereto as Exhibit A.
- **"Form of Notice of Conversion"** means the "Form of Notice of Conversion" attached as Attachment 1 to the Form of Note attached hereto as Exhibit A.
 - "Fundamental Change" shall be deemed to have occurred at the time after the Notes are originally issued if any of the following occurs:
 - (a) a "person" or "group" within the meaning of Section 13(d) of the Exchange Act, other than the Issuer, its Subsidiaries and the employee benefit plans of the Issuer and its Subsidiaries, files a Schedule 13D or Schedule TO (or any successor schedule, form or report) pursuant to the Exchange Act disclosing that such person or group, as the case may be, has become the direct or indirect "beneficial owner," as defined in Rule 13d-3 under the Exchange Act, of the Issuer's Common Equity representing more than 50% of the voting power of the Issuer's Common Equity;

- (b) the consummation of (A) any recapitalization, reclassification or change of the Common Stock (other than changes resulting from a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets; (B) any share exchange, consolidation or merger of the Issuer pursuant to which the Common Stock will be converted into cash, securities or other property or assets; or (C) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Issuer and its Subsidiaries, taken as a whole, to any Person other than one of the Issuer's Subsidiaries; *provided*, *however*, that a transaction described in clause (B) in which the holders of all classes of the Issuer's Common Equity immediately prior to such transaction own, directly or indirectly, more than 50% of the voting power of the continuing or surviving corporation or transferee or the parent thereof immediately after such transaction in substantially the same proportions as such ownership immediately prior to such transaction shall not be a Fundamental Change pursuant to this clause (b);
 - (c) the stockholders of the Issuer approve any plan or proposal for the liquidation or dissolution of the Issuer; or
- (d) the Common Stock (or other common stock underlying the Notes) ceases to be listed or quoted on any of The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors);

provided, however, that a transaction or transactions described in clause (b) above shall not constitute a Fundamental Change if at least 90% of the consideration received or to be received by the common stockholders of the Issuer, excluding cash payments for fractional shares and cash payments made in respect of dissenters' appraisal rights, in connection with such transaction or transactions consists of shares of common stock that are listed or quoted on any of The New York Stock Exchange, The NASDAQ Global Select Market or The NASDAQ Global Market (or any of their respective successors) or will be so listed or quoted when issued or exchanged in connection with such transaction or transactions and as a result of such transaction or transactions the Notes become convertible into such consideration, excluding cash payments for fractional shares and cash payments made in respect of dissenters' appraisal rights (subject to the provisions of Section 14.02(a)).

"Fundamental Change Issuer Notice" shall have the meaning specified in Section 15.01(c).

"Fundamental Change Repurchase Date" shall have the meaning specified in Section 15.01(a).

"Fundamental Change Repurchase Notice" shall have the meaning specified in Section 15.01(b)(i).

"Fundamental Change Repurchase Price" shall have the meaning specified in Section 15.01(a).

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"Hercules Loan and Security Agreement" means that certain Loan and Security Agreement dated as of November 8, 2012 by and between the Issuer and Hercules Technology Growth Capital, Inc., as such agreement may be amended from time to time.

"Hercules Notice" shall have the meaning specified in Section 14.02(a).

"Indenture" shall have the meaning specified in the first paragraph of the recitals of this First Supplemental Indenture.

"Interest Payment Date" means each January 15 and July 15 of each year, beginning on January 15, 2014.

"Issuer" shall have the meaning specified in the first paragraph of this First Supplemental Indenture, and subject to the provisions of Article 11, shall include its successors and assigns.

"Last Reported Sale Price" of the Common Stock on any date means the closing sale price per share (or if no closing sale price is reported, the average of the bid and ask prices or, if more than one in either case, the average of the average bid and the average ask prices) on that date as reported in composite transactions for the principal U.S. national or regional securities exchange on which the Common Stock is traded. If the Common Stock is not listed for trading on a U.S. national or regional securities exchange on the relevant date, the "Last Reported Sale Price" shall be the last quoted bid price for the Common Stock in the over-the-counter market on the relevant date as reported by OTC Markets Group Inc. or a similar organization. If the Common Stock is not so quoted, the "Last Reported Sale Price" shall be the average of the mid-point of the last bid and ask prices for the Common Stock on the relevant date from each of at least three nationally recognized independent investment banking firms selected by the Issuer for this purpose.

"Make-Whole Fundamental Change" means any transaction or event that constitutes a Fundamental Change (as defined above and determined after giving effect to any exceptions to or exclusions from such definition, but without regard to the *proviso* in clause (b) of the definition of Fundamental Change).

"Market Disruption Event" means, for the purposes of determining amounts due upon conversion (a) a failure by the primary U.S. national or regional securities exchange or market on which the Common Stock is listed or admitted for trading to open for trading during its regular trading session or (b) the occurrence or existence prior to 1:00 p.m., New York City time, on any Scheduled Trading Day for the Common Stock for more than one half-hour period in the aggregate during regular trading hours of any suspension or limitation imposed on trading (by reason of movements in price exceeding limits permitted by the relevant stock exchange or otherwise) in the Common Stock or in any options contracts or future contracts relating to the Common Stock.

"Maturity Date" means July 15, 2020.

"Measurement Period" shall have the meaning specified in Section 14.01(b)(i).

- "Merger Event" shall have the meaning specified in Section 14.07(a).
- "Note" or "Notes" shall have the meaning specified in the third paragraph of the recitals of this First Supplemental Indenture.
- "**Notice of Conversion**" shall have the meaning specified in Section 14.02(b).
- "Observation Period" with respect to any Note surrendered for conversion means: (i) if the relevant Conversion Date occurs prior to April 15, 2020, the 20 consecutive Trading Day period beginning on, and including, the second Trading Day immediately succeeding such Conversion Date; and (ii) if the relevant Conversion Date occurs on or after April 15, 2020, the 20 consecutive Trading Days beginning on, and including, the 22nd Scheduled Trading Day immediately preceding the Maturity Date.
 - "open of business" means 9:00 a.m. (New York City time).
- "outstanding," when used with reference to Notes, shall, subject to the provisions of Section 7.04 of the Base Indenture, mean, as of any particular time, all Notes authenticated and delivered by the Trustee under the Indenture, except:
 - (a) Notes theretofore canceled by the Trustee or delivered to the Trustee for cancellation;
 - (b) Notes, or portions thereof, that have become due and payable and in respect of which monies in the necessary amount shall have been deposited in trust with the Trustee or with any paying agent (other than the Issuer) or shall have been set aside and segregated in trust by the Issuer (if the Issuer shall act as its own paying agent);
 - (c) Notes that have been paid pursuant to Section 2.09 of the Base Indenture or Notes in lieu of which, or in substitution for which, other Notes shall have been authenticated and delivered pursuant to the terms of Section 2.09 of the Base Indenture;
 - (d) Notes converted pursuant to Article 14 and required to be cancelled pursuant to Section 2.10 of the Base Indenture; and
 - (e) Notes repurchased by the Issuer pursuant to the penultimate sentence of Section 3.10(b) (other than Notes repurchased pursuant to cash-settled swaps or other derivatives).

The definition of "Outstanding" in the Base Indenture shall not apply to the Notes, and, solely for purposes of the Notes, references to "Outstanding" in the Base Indenture shall be deemed instead to be references to "outstanding" as such term is defined in this First Supplemental Indenture.

"Physical Settlement" shall have the meaning specified in Section 14.02(a).

"**Predecessor Security**" of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and,

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for the purposes of this definition, any Security authenticated and delivered under Section 2.09 of the Base Indenture in lieu of or in exchange for a mutilated, lost, destroyed or stolen Security shall be deemed to evidence the same debt as the mutilated, lost, destroyed or stolen Security that it replaces.

"principal" of a Note means the stated principal amount of (including the Fundamental Change Repurchase Price, if any) such Note. The definition of "principal" in the Base Indenture shall not apply to the Notes, and, solely for purposes of the Notes, references to "principal" in the Base Indenture shall be deemed instead to be references to "principal" as such term is defined in this First Supplemental Indenture.

"Prospectus Supplement" means the preliminary prospectus supplement dated July 10, 2013, as supplemented by the related pricing term sheet dated July 11, 2013, relating to the offering and sale of the Notes.

"Record Date" means, with respect to any dividend, distribution or other transaction or event in which the holders of Common Stock (or other applicable security) have the right to receive any cash, securities or other property or in which the Common Stock (or such other security) is exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of holders of the Common Stock (or such other security) entitled to receive such cash, securities or other property (whether such date is fixed by the Board of Directors, by statute, by contract or otherwise). The definition of "record date" in the Base Indenture shall not apply to the Notes, and, solely for purposes of the Notes, references to "record date" in the Base Indenture shall be deemed instead to be references to "Regular Record Date" as such term is defined in this First Supplemental Indenture.

"Reference Property" shall have the meaning specified in Section 14.07(a).

- "Regular Record Date," with respect to any Interest Payment Date, means the January 1 or July 1 (whether or not such day is a Business Day) immediately preceding the applicable January 15 or July 15 Interest Payment Date, respectively.
- "Scheduled Trading Day" means a day that is scheduled to be a Trading Day on the principal U.S. national or regional securities exchange or market on which the Common Stock is listed or admitted for trading. If the Common Stock is not so listed or admitted for trading, "Scheduled Trading Day" means a Business Day.
 - "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.
 - "Settlement Amount" has the meaning specified in Section 14.02(a)(iv).
- "Settlement Method" means, with respect to any conversion of Notes, Physical Settlement, Cash Settlement or Combination Settlement, as elected (or deemed to have been elected) by the Issuer.
 - "Settlement Notice" has the meaning specified in Section 14.02(a)(iii).

"**Significant Subsidiary**" means a Subsidiary of the Issuer that meets the definition of "significant subsidiary" in Article 1, Rule 1-02 of Regulation S-X under the Exchange Act.

"Specified Dollar Amount" means the maximum cash amount per \$1,000 principal amount of Notes to be received upon conversion as specified in the Settlement Notice related to any converted Notes.

"Spin-Off" shall have the meaning specified in Section 14.04(c).

"Stock Price" shall have the meaning specified in Section 14.03(c).

"Successor Company" shall have the meaning specified in Section 11.02(a).

"Trading Day" means a day on which (i) trading in the Common Stock (or other security for which a closing sale price must be determined) generally occurs on The NASDAQ Global Market or, if the Common Stock (or such other security) is not then listed on The NASDAQ Global Market, on the principal other U.S. national or regional securities exchange on which the Common Stock (or such other security) is then listed or, if the Common Stock (or such other security) is not then listed on a U.S. national or regional securities exchange, on the principal other market on which the Common Stock (or such other security) is then traded and (ii) a Last Reported Sale Price for the Common Stock (or such other security) is available on such securities exchange or market; provided that if the Common Stock (or such other security) is not so listed or traded, "Trading Day" means a Business Day; and provided further that, for purposes of determining amounts due upon conversion only, "Trading Day" means a day on which (x) there is no Market Disruption Event and (y) trading in the Common Stock generally occurs on The NASDAQ Global Market or, if the Common Stock is not then listed on The NASDAQ Global Market, on the principal other U.S. national or regional securities exchange on which the Common Stock is then listed or admitted for trading, except that if the Common Stock is not so listed or admitted for trading, "Trading Day" means a Business Day.

"Trading Price" of the Notes on any date of determination means the average of the secondary market bid quotations obtained by the Bid Solicitation Agent for \$1,000,000 principal amount of Notes at approximately 3:30 p.m., New York City time, on such determination date from three independent nationally recognized securities dealers the Issuer selects for this purpose; provided that if three such bids cannot reasonably be obtained by the Bid Solicitation Agent but two such bids are obtained, then the average of the two bids shall be used, and if only one such bid can reasonably be obtained by the Bid Solicitation Agent, that one bid shall be used. If the Bid Solicitation Agent cannot reasonably obtain at least one bid for \$1,000,000 principal amount of Notes from a nationally recognized securities dealer on any determination date, then the Trading Price per \$1,000 principal amount of Notes on such determination date shall be deemed to be less than 98% of the product of the Last Reported Sale Price of the Common Stock on such determination date and the Conversion Rate on such determination date.

"Trigger Event" shall have the meaning specified in Section 14.04(c).

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"Underwriters" means J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Cowen & Company, LLC.

"Underwriting Agreement" means that certain Underwriting Agreement, dated as of July 11, 2013, among the Issuer and the Underwriters.

"unit of Reference Property" shall have the meaning specified in Section 14.07(a).

"Valuation Period" shall have the meaning specified in Section 14.04(c).

Section 2.02. *References to Interest*. Unless the context otherwise requires, any reference to interest on, or in respect of, any Note in the Indenture shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to Section 6.04. Unless the context otherwise requires, any express mention of Additional Interest in any provision of the Indenture shall not be construed as excluding Additional Interest in those provisions of the Indenture where such express mention is not made.

$\label{eq:article 3} \text{ISSUE, DESCRIPTION, EXECUTION, REGISTRATION AND EXCHANGE OF NOTES}$

Section 3.01. *Designation and Amount*. The Notes shall be designated as the "4.50% Convertible Senior Notes due 2020." The aggregate principal amount of Notes that may be authenticated and delivered under the Indenture is initially limited to \$125,000,000 (as increased by an amount equal to the aggregate principal amount of any additional Notes purchased by the Underwriters pursuant to the exercise of their over-allotment option as set forth in the Underwriting Agreement), subject to Section 3.10 and except for Notes authenticated and delivered upon registration or transfer of, or in exchange for, or in lieu of other Notes pursuant to Section 2.08, Section 2.09, Section 2.11 and Section 8.05 of the Base Indenture and (as amended, if applicable, by) Section 3.05, Section 14.02 and Section 15.03.

Section 3.02. *Form of Notes*. The Notes and the Trustee's certificate of authentication to be borne by such Notes shall be substantially in the respective forms set forth in Exhibit A, the terms and provisions of which shall constitute, and are hereby expressly incorporated in and made a part of the Indenture. To the extent applicable, the Issuer and the Trustee, by their execution and delivery of the Indenture, expressly agree to such terms and provisions and to be bound thereby.

Any Note evidenced by a Global Security may be endorsed with or have incorporated in the text thereof such legends or recitals or changes not inconsistent with the provisions of the Indenture as may be required by the Custodian or the Depositary, or as may be required to comply with any applicable law or any regulation thereunder or with the rules and regulations of any securities exchange or automated quotation system upon which the Notes may be

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Any of the Notes may have such letters, numbers or other marks of identification and such notations, legends or endorsements as the officers executing the same may approve (execution thereof to be conclusive evidence of such approval) and as are not inconsistent with the provisions of the Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any securities exchange or automated quotation system on which the Notes may be listed or designated for issuance, or to conform to usage or to indicate any special limitations or restrictions to which any particular Notes are subject.

Each Note evidenced by a Global Security shall represent such principal amount of the outstanding Notes as shall be specified therein and shall provide that it shall represent the aggregate principal amount of outstanding Notes from time to time endorsed thereon and that the aggregate principal amount of outstanding Notes represented thereby may from time to time be increased or reduced to reflect repurchases, cancellations, conversions, transfers or exchanges permitted hereby. Any endorsement of a Note evidenced by a Global Security to reflect the amount of any increase or decrease in the amount of outstanding Notes represented thereby shall be made by the Trustee or the Custodian, at the direction of the Trustee, in such manner and upon instructions given by the Holder of such Notes in accordance with the Indenture. Payment of principal (including the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, a Note evidenced by a Global Security shall be made to the Holder of such Note on the date of payment, unless a record date or other means of determining Holders eligible to receive payment is provided for herein.

Section 3.03. *Date and Denomination of Notes; Payments of Interest and Defaulted Amounts*. (a) The Notes shall be issuable in registered form without coupons in denominations of \$1,000 principal amount and integral multiples thereof. Each Note shall be dated the date of its authentication and shall bear interest from the date specified on the face of such Note. Accrued interest on the Notes shall be computed on the basis of a 360-day year composed of twelve 30-day months and, for partial months, on the basis of actual days elapsed over a 30-day month.

(b) The Person in whose name any Note (or its Predecessor Note) is registered on the Security register at the close of business on any Regular Record Date with respect to any Interest Payment Date shall be entitled to receive the interest payable on such Interest Payment Date. Interest shall be payable at the office or agency of the Issuer maintained by the Issuer for such purposes in the Borough of Manhattan, The City of New York, which shall initially be the Corporate Trust Office. The Issuer shall pay interest (i) on any Notes evidenced by definitive Securities (A) to Holders holding such Securities having an aggregate principal amount of \$5,000,000 or less, by check mailed to the Holders of these Notes at their address as it appears in the Security register and (B) to Holders holding such Securities having an aggregate principal amount of more than \$5,000,000, either by check mailed to each Holder or, upon application by such a Holder to the Security Registrar not later than the relevant Regular Record Date, by wire transfer in immediately available funds to that Holder's account within the United States, which application shall remain in effect until the Holder notifies, in writing, the Security Registrar to the contrary or (ii) on any Note evidenced by a Global Security held by the Depositary by wire transfer of immediately available funds to the Depositary or its nominee.

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- Any Defaulted Amounts shall forthwith cease to be payable to the Holder on the relevant payment date but shall accrue interest per annum at the rate borne by the Notes *plus* one percent (1%), subject to the enforceability thereof under applicable law, from, and including, such relevant payment date, and such Defaulted Amounts together with such interest thereon shall be paid by the Issuer to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered at the close of business on a special record date for the payment of such Defaulted Amounts, which shall be fixed in the following manner. The Issuer shall notify the Trustee in writing of the amount of the Defaulted Amounts proposed to be paid on each Note and the date of the proposed payment (which shall be not less than 25 days after the receipt by the Trustee of such notice, unless the Trustee shall consent to an earlier date), and at the same time the Issuer shall deposit with the Trustee an amount of money equal to the aggregate amount to be paid in respect of such Defaulted Amounts or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Amounts as in this clause provided. Thereupon the Issuer shall fix a special record date for the payment of such Defaulted Amounts 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 Issuer shall promptly notify the Trustee (but in no event less than two days before the notice is required to be sent to the Holders) of such special record date and the Trustee, in the name and at the expense of the Issuer, shall cause notice of the proposed payment of such Defaulted Amounts and the special record date therefor to be sent either by mail, first-class postage prepaid, or pursuant to the applicable procedures of the Depositary to each Holder at its 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 Amounts and the special record date therefor having been so sent, such Defaulted Amounts shall be paid to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered at the close of business on such special record date.
 - (d) The third paragraph of Section 2.07 of the Base Indenture shall not apply to the Notes.

Section 3.04. [Reserved].

Section 3.05. *Exchange and Registration of Transfer of Notes; Restrictions on Transfer; Depositary.* (a) (i) The Trustee is hereby initially appointed the "**Security Registrar**" for the purpose of registering Notes and transfers of Notes as provided in the Indenture.

- (ii) Solely for purposes of the Notes, the fourth paragraph of Section 2.08 of the Base Indenture is hereby amended by inserting the parenthetical "(including for any repurchase or conversion of Notes)" immediately after the word "payment" therein.
- (iii) The fifth and sixth paragraphs of Section 2.08 of the Base Indenture shall not apply to the Notes. No service charge shall be imposed by the Issuer, the Trustee, the Security Registrar or the paying agent for any exchange or registration of transfer of Notes, but the Issuer may require a Holder to pay a sum sufficient to cover any documentary, stamp or similar issue or transfer tax required in connection therewith as a result of the name of the Holder of new Notes

issued upon such exchange or registration of transfer being different from the name of the Holder of the old Notes surrendered for exchange or registration of transfer.

None of the Issuer, the Trustee or the Security Registrar shall be required to exchange or register a transfer of (x) any Notes surrendered for conversion or, if a portion of any Note is surrendered for conversion, such portion thereof surrendered for conversion or (y) any Notes, or a portion of any Note, surrendered for repurchase (and not withdrawn) in accordance with Article 15.

- (iv) The ninth paragraph of Section 2.08 of the Base Indenture shall not apply to the Notes.
- (b) The seventh paragraph of Section 2.08 of the Base Indenture shall not apply to the Notes. Instead, the provisions contained in this paragraph shall apply to the Notes. Notwithstanding any other provisions of the Indenture (other than the provisions set forth in this Section 3.05(b)), a Note evidenced by a Global Security may not be transferred as a whole or in part except (i) by the Depositary to a nominee of the Depositary or by a nominee of the Depositary or another nominee of the Depositary or any such nominee to a successor Depositary or a nominee of such successor Depositary and (ii) for transfers of portions of a Note evidenced by a Global Security in certificated form made upon request of a member of, or a participant in, the Depositary (for itself or on behalf of a beneficial owner) by written notice given to the Trustee by or on behalf of the Depositary in accordance with customary procedures of the Depositary and in compliance with this Section 3.05(b).

The Issuer initially appoints The Depository Trust Company to act as Depositary with respect to each Note evidenced by a Global Security. Initially, each Note evidenced by a Global Security shall be issued to the Depositary, registered in the name of Cede & Co., as the nominee of the Depositary, and deposited with the Trustee as custodian for Cede & Co.

The tenth paragraph of Section 2.08 of the Base Indenture shall not apply to the Notes. In addition to the provisions set forth in the eighth paragraph of Section 2.08 of the Base Indenture, solely for purposes of the Notes, if an Event of Default with respect to the Notes has occurred and is continuing and a beneficial owner of any Note requests that its beneficial interest therein be issued as a physical, certificated Security in such beneficial owner's name, the Issuer shall execute, and the Trustee, upon receipt of an Officer's Certificate for the authentication and delivery of definitive Securities, shall authenticate and deliver a Security in definitive registered form to such beneficial owner in a principal amount equal to the principal amount of such Note corresponding to such beneficial owner's beneficial interest.

At such time as all interests in a Note evidenced by a Global Security have been converted, canceled, repurchased or transferred, such Note evidenced by a Global Security shall be, upon receipt thereof, canceled by the Trustee in accordance with its customary procedures. At any time prior to such cancellation, if any interest in a Note evidenced by a Global Security is exchanged for one or more Notes evidenced by definitive Securities, converted, canceled, repurchased or transferred to a transferree who receives definitive Securities therefor or any Note evidenced by a definitive Security is exchanged or transferred for part of such Global Security, the principal amount of such Note evidenced by a Global Security shall, in accordance with the

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Trustee's customary procedures and instructions existing between the Depositary and the Custodian, be appropriately reduced or increased, as the case may be, and an endorsement shall be made on such Global Security, by the Trustee or the Custodian, at the direction of the Trustee, to reflect such reduction or increase.

None of the Issuer, the Trustee or any agent of the Issuer or the Trustee shall have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Note evidenced by a Global Security or maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

(c) Any Note or Common Stock issued upon the conversion or exchange of a Note that is repurchased or owned by any Affiliate of the Issuer (or any Person who was an Affiliate of the Issuer at any time during the three months preceding) may not be resold by such Affiliate (or such Person, as the case may be) unless resold in a transaction that results in such Note or Common Stock, as the case may be, no longer being a "restricted security" (as defined under Rule 144 under the Securities Act) in the hands of the purchaser thereof. The Issuer shall cause any Note that is repurchased or owned by it to be surrendered to the Trustee for cancellation in accordance with Section 2.10 of the Base Indenture as amended by Section 3.08.

Section 3.06. *Mutilated, Destroyed, Lost or Stolen Notes*. The first sentence of the second paragraph of Section 2.09 of the Base Indenture shall not apply to the Notes. Instead, the provisions contained in this paragraph shall apply to the Notes. No service charge shall be imposed by the Issuer, the Trustee, the Security Registrar or the paying agent upon the issuance of any substitute Security in accordance with Section 2.09 of the Base Indenture, but the Issuer may require a Holder to pay a sum sufficient to cover any documentary, stamp or similar issue or transfer tax required in connection therewith as a result of the name of the Holder of the new substitute Security being different from the name of the Holder of the old Security that became mutilated or was destroyed, lost or stolen.

Solely for purposes of the Notes, the phrase "called for redemption in full" in the second sentence of the second paragraph of Section 2.09 of the Base Indenture shall be deemed to be replaced with the phrase "surrendered for required repurchase".

Solely for purposes of the Notes, the third paragraph of Section 2.09 of the Base Indenture is hereby amended by inserting the words "or repurchase" immediately following the word "conversion" in the second sentence thereof.

Section 3.07. [Reserved].

Section 3.08. *Cancellation of Securities.* Solely for purposes of the Notes, the Section 2.10 of the Base Indenture is hereby amended by (x) inserting the words "required repurchase," immediately prior to the word "conversion" in the first sentence thereof and (y) deleting in their entirety the second and third sentences thereof.

Section 3.09. *CUSIP Numbers*. The Issuer has issued the Notes with "CUSIP" numbers and will issue any additional Notes with "CUSIP" numbers (if then generally in use). The Trustee shall use "CUSIP" numbers in all notices issued to Holders as a convenience to such

Holders (unless not used in connection with any additional Notes issued pursuant to this First Supplemental Indenture); *provided* that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Notes or on such notice and that reliance may be placed only on the other identification numbers printed on the Notes. The Issuer shall promptly notify the Trustee in writing of any change in the "CUSIP" numbers.

Section 3.10. *Additional Notes; Repurchases.* (a) The final paragraph of Section 2.03 of the Base Indenture shall not apply to the Notes. Solely for purposes of the Notes, the provisions of this Section 3.10 shall supersede in its entirety the final paragraph of Section 2.03 of the Base Indenture, and all references in the Base Indenture to such provisions contained in such paragraph shall, with respect to the Notes, be deemed to be references to the provisions set forth in this Section 3.10.

(b) The Issuer may, without the consent of the Holders and notwithstanding Section 3.01, reopen this First Supplemental Indenture and issue additional Notes hereunder with the same terms as the Notes initially issued hereunder (other than differences in the issue price and interest accrued prior to the issue date of such additional Notes) in an unlimited aggregate principal amount; *provided* that if any such additional Notes are not fungible with the Notes initially issued hereunder for U.S. federal income tax purposes, such additional Notes shall have a separate CUSIP number. Prior to the issuance of any such additional Notes, the Issuer shall deliver to the Trustee an Issuer Order, an Officer's Certificate and an Opinion of Counsel, such Officer's Certificate and Opinion of Counsel to cover such matters, in addition to those required by Section 11.05 of the Base Indenture, as the Trustee shall reasonably request. In addition, the Issuer may, to the extent permitted by law, and directly or indirectly (regardless of whether such Notes are surrendered to the Issuer), repurchase Notes in the open market or otherwise, whether by the Issuer or its Subsidiaries or through a private or public tender or exchange offer or through counterparties to private agreements, including by cash-settled swaps or other derivatives. The Issuer shall cause any Notes so repurchased (other than Notes repurchased pursuant to cash-settled swaps or other derivatives) to be surrendered to the Trustee for cancellation in accordance with Section 2.10 of the Base Indenture (as amended by Section 3.08).

ARTICLE 4 SATISFACTION AND DISCHARGE

Section 4.01. *Applicability of Article 10 of the Base Indenture*. Section 10.01, Section 10.04 and Section 10.05 of the Base Indenture shall not apply to the Notes. Instead, the satisfaction and discharge provisions set forth in this Article 4 shall, with respect to the Notes, supersede in their entirety Section 10.01, Section 10.04 and Section 10.05 of the Base Indenture, and all references in the Base Indenture to such Sections and satisfaction and discharge provisions therein, as the case may be, shall, with respect to the Notes, be deemed to be references to this Article 4 and the satisfaction and discharge provisions set forth in this Article 4.

Section 4.02. *Satisfaction and Discharge*. This First Supplemental Indenture (and the Base Indenture with respect to the Notes) shall upon request of the Issuer contained in an Officer's Certificate cease to be of further effect, and the Trustee, at the expense of the Issuer, shall execute proper instruments acknowledging satisfaction and discharge of the Indenture,

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when (a) (i) all Notes theretofore authenticated and delivered (other than (x) Notes which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 2.09 of the Base Indenture (as amended by Section 3.06) and (y) Notes for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Issuer and thereafter repaid to the Issuer or discharged from such trust, as provided in Section 4.03(c)) have been delivered to the Trustee for cancellation; or (ii) the Issuer has deposited with the Trustee or delivered to Holders, as applicable, after the Notes have become due and payable, whether on the Maturity Date, any Fundamental Change Repurchase Date, upon conversion or otherwise, cash or cash, shares of Common Stock or a combination thereof, as applicable, solely to satisfy the Issuer's Conversion Obligation, sufficient to pay all of the outstanding Notes and all other sums due and payable under the Indenture by the Issuer; and (b) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this First Supplemental Indenture have been complied with. Notwithstanding the satisfaction and discharge of this First Supplemental Indenture with respect to the Notes), the obligations of the Issuer to the Trustee under Section 6.06 of the Base Indenture shall survive with respect to the Notes.

Section 4.03. *Provisions as to Paying Agent.* (a) Solely for purposes of the Notes, Section 10.02 and Section 10.03 of the Base Indenture are hereby amended by inserting the phrase "and shares of Common Stock" after each instance of the word "money" or "moneys" therein.

- (b) Solely for purposes of the Notes, Section 10.02 of the Base Indenture is hereby amended by inserting the phrase ", any consideration due upon conversion" after the word "principal" therein.
- Any money and shares of Common Stock deposited with the Trustee or any paying agent, or then held by the Issuer, in trust for the payment of the principal (including the Fundamental Change Repurchase Price, if applicable) of, accrued and unpaid interest on and the consideration due upon conversion of any Note and remaining unclaimed for two years after such principal (including the Fundamental Change Repurchase Price, if applicable), interest or consideration due upon conversion has become due and payable shall be paid to the Issuer on request of the Issuer contained in an Officer's Certificate, or (if then held by the Issuer) shall be discharged from such trust; and the Holder of such Note shall thereafter, as an unsecured general creditor, look only to the Issuer for payment thereof, and all liability of the Trustee or such paying agent with respect to such trust money and shares of Common Stock, and all liability of the Issuer as trustee thereof, shall thereupon cease; *provided, however*, that the Trustee or such paying agent, before being required to make any such repayment, may at the expense of the Issuer cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in The Borough of Manhattan, The City of New York, notice that such money and shares of Common Stock remain unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money and shares of Common Stock then remaining will be repaid or delivered to the Issuer.

ARTICLE 5 PARTICULAR COVENANTS OF THE ISSUER

Section 5.01. Payment of Principal and Interest. (a) Section 3.01 of the Base Indenture shall not apply to the Notes.

(b) The Issuer covenants and agrees that it will cause to be paid the principal (including the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, each of the Notes at the places, at the respective times and in the manner provided herein and in the Notes.

Section 5.02. Offices for Payments, Etc. Pursuant to Section 2.03 and Section 3.02 of the Base Indenture, the Issuer hereby initially designates the Trustee as the paying agent, Security Registrar, Custodian and Conversion Agent (the "Conversion Agent") and the Corporate Trust Office as the office or agency in the Borough of Manhattan, The City of New York, where Notes may be surrendered for registration of transfer or exchange or for presentation for payment or repurchase or for conversion and where notices and demands to or upon the Issuer in respect of the Notes and the Indenture may be served. The Issuer may change the paying agent, Security Registrar, Custodian or Conversion Agent, in each case, at any time without prior notice to the Holders.

Section 5.03. [Reserved].

Section 5.04. *Paying Agents*. (a) Solely for purposes of the Notes, Section 3.04(c) of the Base Indenture is hereby amended by adding the words "or an Event of Default" immediately following the word "failure" therein.

(b) Solely for purposes of the Notes, the first paragraph immediately following Section 3.04(c) of the Base Indenture is hereby amended by adding the words "11:00 a.m., New York City Time, of" immediately following the words "on or prior to" therein.

Section 5.05. *Existence*. Subject to Article 11, the Issuer shall do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence.

Section 5.06. *Reports*. (a) The Issuer shall file with the Trustee, within 15 days after the same are required to be filed with the Commission, copies of any documents or reports that the Issuer is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act). Any such document or report that the Issuer files with the Commission via the Commission's EDGAR system shall be deemed to be filed with the Trustee for purposes of this Section 5.06(a) at the time such documents are filed via the EDGAR system.

(b) Delivery of the reports and documents described in subsection (a) above 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 Issuer's compliance with any of its covenants hereunder (as to which the Trustee is entitled to conclusively rely on an Officer's Certificate) or under the Notes.

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The Trustee shall not be obligated to monitor or confirm, on a continuing basis or otherwise, the Issuer's compliance with any of its covenants under the Indenture or with respect to any reports or other documents filed with EDGAR under the Indenture.

Section 5.07. *Stay, Extension and Usury Laws*. The Issuer covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law or other law that would prohibit or forgive the Issuer from paying all or any portion of the principal of or interest on the Notes as contemplated herein, wherever enacted, now or at any time hereafter in force, or that may affect the covenants or the performance of the Indenture; and the Issuer (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not, by resort to any such law, 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.

Section 5.08. *Statements as to Defaults*. The Issuer shall deliver to the Trustee, as soon as possible, and in any event within 30 days after the occurrence of any Event of Default or Default, an Officer's Certificate setting forth the details of such Event of Default or Default, its status and the action that the Issuer is taking or proposing to take in respect thereof.

Section 5.09. *Further Instruments and Acts*. Upon request of the Trustee, the Issuer will execute and deliver such further instruments and do such further acts as may be reasonably necessary or proper to carry out more effectively the purposes of the Indenture.

ARTICLE 6 DEFAULTS AND REMEDIES

Section 6.01. *Applicability of Article 5 of the Base Indenture*. (a) Section 5.01 and Section 5.10 of the Base Indenture shall not apply to the Notes. Instead, the Event of Default provisions set forth in this Article 6 shall, with respect to the Notes, supersede in their entirety Section 5.01 and Section 5.10 of the Base Indenture, and all references in the Base Indenture to such Sections and Event of Default provisions therein, as the case may be, shall, with respect to the Notes, be deemed to be references to this Article 6 and the Event of Default provisions set forth in this Article 6.

Section 6.02. Events of Default. Each of the following events shall be an "Event of Default" with respect to the Notes:

- (a) default in any payment of interest on any Note when due and payable, and the default continues for a period of 30 days;
- (b) default in the payment of principal of any Note when due and payable on the Maturity Date, upon any required repurchase, upon declaration of acceleration or otherwise;

- (c) failure by the Issuer for five Business Days to comply with its obligation to convert the Notes in accordance with this First Supplemental Indenture upon exercise of a Holder's conversion right;
- (d) failure by the Issuer to issue a Fundamental Change Issuer Notice in accordance with Section 15.01(c) or notice of a specified corporate event in accordance with Section 14.01(b)(ii) or Section 14.01(b)(iii), in each case when due;
 - (e) failure by the Issuer to comply with its obligations under Article 11;
- (f) failure by the Issuer for 60 days after written notice from the Trustee or the Holders of at least 25% in principal amount of the Notes then outstanding has been received by the Issuer to comply with any of its other agreements contained in the Notes or the Indenture;
- default by the Issuer or any Subsidiary of the Issuer with respect to any mortgage, agreement or other instrument (other than the Notes) under which there may be outstanding, or by which there may be secured or evidenced, any indebtedness for money borrowed in excess of \$20,000,000 (or its foreign currency equivalent) in the aggregate of the Issuer and/or any such Subsidiary, whether such indebtedness now exists or shall hereafter be created (i) resulting in such indebtedness becoming or being declared due and payable without such indebtedness having been discharged or the acceleration of payment of such indebtedness having been cured, rescinded, waived or annulled within 30 days after written notice to the Issuer by the Trustee or Holders of at least 25% in aggregate principal amount of the outstanding Notes or (ii) constituting a failure to pay the principal or interest of any such debt when due and payable after any applicable grace period at its stated maturity, upon required repurchase, upon declaration or otherwise;
- (h) a final judgment for the payment of \$20,000,000 (or its foreign currency equivalent) or more (excluding any amounts covered by insurance) rendered against the Issuer or any Subsidiary of the Issuer, which judgment is not discharged or stayed within 60 days after (i) the date on which the right to appeal thereof has expired if no such appeal has commenced, or (ii) the date on which all rights to appeal have been extinguished;
- (i) the Issuer or any Significant Subsidiary shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to the Issuer or any such Significant Subsidiary or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Issuer or any such Significant Subsidiary or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, or shall make a general assignment for the benefit of creditors; or
- (j) an involuntary case or other proceeding shall be commenced against the Issuer or any Significant Subsidiary seeking liquidation, reorganization or other relief with respect to the Issuer or such Significant Subsidiary or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Issuer or such Significant Subsidiary or any substantial

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part of its property, and such involuntary case or other proceeding shall remain undismissed and unstayed for a period of 60 consecutive days.

Section 6.03. Acceleration; Rescission and Annulment. If one or more Events of Default shall have occurred and be continuing (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body), then, and in each and every such case (other than an Event of Default specified in Section 6.02(i) or Section 6.02(j) with respect to the Issuer or any of its Significant Subsidiaries), unless the principal of all of the Notes shall have already become due and payable, either the Trustee or the Holders of at least 25% in aggregate principal amount of the Notes then outstanding determined in accordance with Section 7.04 of the Base Indenture, by notice in writing to the Issuer (and to the Trustee if given by Holders), may declare 100% of the principal of, and accrued and unpaid interest on, all the Notes to be due and payable immediately, and upon any such declaration the same shall become and shall automatically be immediately due and payable, anything contained in the Indenture or in the Notes to the contrary notwithstanding. If an Event of Default specified in Section 6.02(i) or Section 6.02(j) with respect to the Issuer or any of its Significant Subsidiaries occurs and is continuing, 100% of the principal of, and accrued and unpaid interest, if any, on, all Notes shall become and shall automatically be immediately due and payable.

The immediately preceding paragraph, however, is subject to the conditions that if, at any time after the principal of the Notes shall have been so declared due and payable, and before any judgment or decree for the payment of such monies due shall have been obtained or entered as hereinafter provided, the Issuer shall pay or shall deposit with the Trustee a sum sufficient to pay installments of accrued and unpaid interest upon all Notes and the principal of any and all Notes that shall have become due otherwise than by acceleration (with interest on overdue installments of accrued and unpaid interest to the extent that payment of such interest is enforceable under applicable law, and on such principal at the rate borne by the Notes *plus* one percent (1%) at such time) and amounts due to the Trustee pursuant to Section 6.06 of the Base Indenture, the Holders of a majority in aggregate principal amount of the Notes then outstanding, by written notice to the Issuer and to the Trustee, may waive all Defaults or Events of Default with respect to the Notes and rescind and annul such declaration and its consequences and such Default shall cease to exist, and any Event of Default with respect to the Notes and rescind and annul such declaration and its consequences and such Default shall cease to exist, and any Event of Default with respect to the Notes and rescind and annul of revery purpose of the Indenture so long as (1) such rescission, annulment and/or waiver would not conflict with any judgment or decree of a court of competent jurisdiction and (2) any and all existing Events of Default under the Indenture, other than the nonpayment of the principal of and accrued and unpaid interest, if any, on Notes that shall have become due solely by such acceleration, shall have been cured or waived pursuant to Section 6.06, then and in every such case (except as provided in the immediately succeeding sentence); *provided* that no such waiver, rescission and/or annulment shall extend to or shall affect any Default or Event

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failure to pay or deliver, as the case may be, the consideration due (or deemed to be due) upon conversion of the Notes.

Section 5.06(a), in either case, shall after the occurrence of such an Event of Default consist exclusively of the right to receive Additional Interest on the Notes at a rate equal to 0.25% per annum of the principal amount of the Notes outstanding for each day during the 90-day period on which such Event of Default is continuing beginning on, and including, the date on which such an Event of Default first occurs. If the Issuer so elects, such Additional Interest shall be payable in the same manner and on the same dates as the stated interest payable on the Notes. On the 91st day after such Event of Default (if the Event of Default relating to the Issuer's failure to file is not cured or waived prior to such 91st day), the Notes shall be immediately subject to acceleration as provided in Section 6.03. In the event the Issuer does not elect to pay Additional Interest following an Event of Default in accordance with this Section 6.04 or the Issuer elected to make such payment but does not pay the Additional Interest when due, the Notes shall be immediately subject to acceleration as provided in Section 6.03.

In order to elect to pay Additional Interest as the sole remedy during the first 90 days after the occurrence of any Event of Default described in the immediately preceding paragraph, the Issuer must notify all Holders of the Notes, the Trustee and the paying agent of such election prior to the beginning of such 90-day period. Upon the failure to timely give such notice, the Notes shall be immediately subject to acceleration as provided in Section 6.03.

Section 6.05. *Amendments to Article 5 of the Base Indenture.* Solely for purposes of the Notes:

- (a) Section 5.02 of the Base Indenture is hereby amended by inserting the phrase "*plus* one percent (1%)" immediately following the phrase "specified in the Securities of such series" in the first paragraph thereof.
 - (b) Section 5.03 of the Base Indenture is hereby amended by:
 - (i) inserting the phrase "and any cash due upon conversion" immediately following the phrase "to the payment of interest on" in the second indented subclause thereof,
 - (ii) inserting the phrase "plus one percent (1%)" immediately following the phrase "specified in such Securities" in the second indented subclause thereof;
 - (iii) inserting the phrase "and any cash due upon conversion" immediately following each occurrence of the phrases "for principal and interest", "such principal and interest" and "such principal and accrued and unpaid interest" in the third indented subclause thereof; and

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- (iv) inserting the phrase "plus one percent (1%)" immediately following the phrase "specified in the Securities of such series" in the third indented subclause thereof.
- (c) Section 5.07 of the Base Indenture is hereby amended by (i) inserting the phrase "and the payment or delivery, as the case may be, of the consideration due upon conversion of such Security, in each case," immediately following the phrase "payment of the principal of and interest on" therein and (ii) inserting the phrase "or delivery, as the case may be," immediately following the phrase "any such payment" therein.
- (d) Section 5.11 of the Base Indenture is hereby amended by inserting the phrase "in the payment or delivery of the consideration due upon conversion" immediately prior to the phrase "or in the payment of any sinking fund installment" in the proviso thereto.
- (e) Section 5.12 of the Base Indenture is hereby amended by inserting the phrase "or to any suit for the enforcement of the right to convert any Note in accordance with the provisions of Article 14" immediately prior to the period at the end thereof.

Section 6.06. Waiver of Defaults by Majority of Holders. The Holders of a majority in aggregate principal amount of the Notes at the time outstanding determined in accordance with Section 7.04 of the Base Indenture may on behalf of the Holders of all of the Notes waive any past Default or Event of Default hereunder and its consequences except (i) a default in the payment of accrued and unpaid interest, if any, on, or the principal (including any Fundamental Change Repurchase Price) of, the Notes when due that has not been cured pursuant to the provisions of Section 6.01, (ii) a failure by the Issuer to pay or deliver, as the case may be, the consideration due upon conversion of the Notes or (iii) a default in respect of a covenant or provision hereof which under Article 10 cannot be modified or amended without the consent of each Holder of an outstanding Note affected. Upon any such waiver the Issuer, the Trustee and the Holders of the Notes shall be restored to their former positions and rights hereunder; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon. Whenever any Default or Event of Default hereunder shall have been cured and to be not continuing; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon.

ARTICLE 7 [INTENTIONALLY OMITTED]

ARTICLE 8 CONCERNING THE HOLDERS

Section 8.01. *Holders to Be Treated as Owners*. Solely for purposes of the Notes, Section 7.03 of the Base Indenture is hereby amended by (x) inserting the phrase ", for conversion of such Security" immediately prior to the phrase "and for all other purposes" in the

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first sentence thereof, (y) inserting the phrase "or deliveries" immediately following the phrase "such payments" in the second sentence thereof and (z) inserting the phrase "or delivered" immediately following the phrase "so paid" in the second sentence thereof.

ARTICLE 10 SUPPLEMENTAL INDENTURES

Section 10.01. *Applicability of Article 8, Section 8.01 and Section 8.02 of the Base Indenture.* References in the Base Indenture to any supplemental indenture authorized under Article 8, Section 8.01 or Section 8.02, as the case may be, of the Base Indenture shall be deemed to include any supplemental indenture authorized under Article 10, Section 10.02 or Section 10.03, as the case may be, of this First Supplemental Indenture.

Section 10.02. *Supplemental Indentures Without Consent of Holders.* Section 8.01(b), Section 8.01(d), Section 8.01(h) and Section 8.01(j) of the Base Indenture shall not apply to the Notes. Solely for purposes of the Notes, in addition to the amendments or supplements authorized under Section 8.01 of the Base Indenture (other than Section 8.01(b), Section 8.01(d), Section 8.01(h) and Section 8.01(j) of the Base Indenture as described above), the Issuer, when authorized by a resolution of its Board of Directors, and the Trustee, at the Issuer's expense, may from time to time and at any time, without the consent of any of the Holders, enter into an indenture or indentures supplemental hereto in form satisfactory to the Trustee for one or more of the following purposes:

- (a) to cure any ambiguity, omission, defect or inconsistency that does not adversely affect Holders of the Notes;
- (b) to provide for the assumption by a Successor Company of the obligations of the Issuer under the Indenture pursuant to Article 11;
- (c) to secure the Notes;
- (d) to add to the covenants or Events of Default of the Issuer for the benefit of the Holders or surrender any right or power conferred upon the Issuer;
 - (e) to make any change that does not adversely affect the rights of any Holder;
 - (f) to provide for an increase of the Conversion Rate;
 - (g) to evidence any change in the Trustee;
 - (h) to reflect the issuance of additional Notes as permitted by Section 3.10;

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- (i) to comply with any requirement of the Commission in connection with the qualification of the Indenture under the Trust Indenture Act;
- (j) in connection with any Merger Event, provide that the notes are convertible into Reference Property, subject to the provisions of Section 14.02, and make such related changes to the terms of the Notes to the extent expressly required by Section 14.07; or
 - (k) to conform the provisions of the Indenture or the Notes to the "Description of Notes" section of the Prospectus Supplement.

Section 10.03. *Supplemental Indentures with Consent of Holders*. Solely for purposes of the Notes, in addition to, and notwithstanding, the provisions set forth in Section 8.02 of the Base Indenture, without the consent of each Holder affected thereby, a supplemental indenture hereto may not:

- $\hbox{(a)} \qquad \text{make any change that adversely affects the conversion rights of any Notes;}$
- (b) reduce the Fundamental Change Repurchase Price of any Note or amend or modify in any manner adverse to the Holders the Issuer's obligation to make such payments, whether through an amendment or waiver of provisions in the covenants, definitions or otherwise;
 - (c) make any Note payable in a currency, or at a place of payment, other than that stated in the Note; or
 - (d) change the ranking of the Notes.

ARTICLE 11 CONSOLIDATION, MERGER, SALE, CONVEYANCE AND LEASE

Section 11.01. *Applicability of Article 9 of the Base Indenture.* (a) Article 9 of the Base Indenture shall not apply to the Notes. Instead, the consolidation, merger, sale, conveyance and lease provisions set forth in this Article 11 shall, with respect to the Notes, supersede in their entirety Article 9 of the Base Indenture, and all references in the Base Indenture to Article 9 and the consolidation, merger, sale, conveyance and lease provisions therein shall, with respect to the Notes, be deemed to be references to this Article 11 and the consolidation, merger, sale, conveyance and lease provisions set forth in this Article 11.

Section 11.02. *Issuer May Consolidate, Etc. on Certain Terms.* Subject to the provisions of Section 11.03, the Issuer shall not consolidate with, merge with or into, or sell, convey, transfer or lease all or substantially all of its properties and assets to another Person, unless:

(a) the resulting, surviving or transferee Person (the "Successor Company"), if not the Issuer, shall be a corporation organized and existing under the laws of the United States of America, any State thereof or the District of Columbia, and the Successor Company (if not the Issuer) shall expressly assume, by supplemental indenture all of the obligations of the Issuer under the Notes and the Indenture; and

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(b) immediately after giving effect to such transaction, no Default or Event of Default shall have occurred and be continuing under the Indenture.

For purposes of this Section 11.02, the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of one or more Subsidiaries of the Issuer to another Person, which properties and assets, if held by the Issuer instead of such Subsidiaries, would constitute all or substantially all of the properties and assets of the Issuer on a consolidated basis, shall be deemed to be the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of the Issuer to another Person.

Section 11.03. Successor Corporation to Be Substituted. In case of any such consolidation, merger, sale, conveyance, transfer or lease and upon the assumption by the Successor Company, by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee, of the due and punctual payment of the principal of and accrued and unpaid interest on all of the Notes, the due and punctual delivery or payment, as the case may be, of any consideration due upon conversion of the Notes and the due and punctual performance of all of the covenants and conditions of the Indenture to be performed by the Issuer, such Successor Company (if not the Issuer) shall succeed to and, except in the case of a lease of all or substantially all of the Issuer's properties and assets, shall be substituted for the Issuer, with the same effect as if it had been named herein as the party of the first part. Such Successor Company thereupon may cause to be signed, and may issue either in its own name or in the name of the Issuer any or all of the Notes issuable hereunder which theretofore shall not have been signed by the Issuer and delivered to the Trustee; and, upon the order of such Successor Company instead of the Issuer and subject to all the terms, conditions and limitations in the Indenture prescribed, the Trustee shall authenticate and shall deliver, or cause to be authenticated and delivered, any Notes that previously shall have been signed and delivered by the officers of the Issuer to the Trustee for authentication, and any Notes that such Successor Company thereafter shall cause to be signed and delivered to the Trustee for that purpose. All the Notes so issued shall in all respects have the same legal rank and benefit under the Indenture as the Notes theretofore or thereafter issued in accordance with the terms of the Indenture as though all of such Notes had been issued at the date of the execution hereof. In the event of any such consolidation, merger, sale, conveyance or transfer (but not in the case of a lease), upon compliance with this Article 11 the Person named as the "Issuer" in the first paragraph of this First Supplemental Indenture (or any successor that shall thereafter have become such in the manner prescribed in this Article 11) may be dissolved, wound up and liquidated at any time thereafter and, except in the case of a lease, such Person shall be released from its liabilities as obligor and maker of the Notes and from its obligations under the Indenture and the Notes.

In case of any such consolidation, merger, sale, conveyance, transfer or lease, such changes in phraseology and form (but not in substance) may be made in the Notes thereafter to be issued as may be appropriate.

Section 11.04. *Opinion of Counsel to Be Given to Trustee*. No such consolidation, merger, sale, conveyance, transfer or lease shall be effective unless the Trustee shall receive an Officer's Certificate and an Opinion of Counsel as conclusive evidence that any such consolidation, merger, sale, conveyance, transfer or lease and any such assumption and, if a

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supplemental indenture is required in connection with such transaction, such supplemental indenture, complies with the provisions of this Article 11.

ARTICLE 12
[INTENTIONALLY OMITTED]

ARTICLE 13
[INTENTIONALLY OMITTED]

ARTICLE 14 CONVERSION OF NOTES

Section 14.01. *Conversion Privilege.* (a) Subject to and upon compliance with the provisions of this Article 14, each Holder of a Note shall have the right, at such Holder's option, to convert all or any portion (if the portion to be converted is \$1,000 principal amount or an integral multiple thereof) of such Note (i) subject to satisfaction of the conditions described in Section 14.01(b), at any time prior to the close of business on the Business Day immediately preceding April 15, 2020 under the circumstances and during the periods set forth in Section 14.01(b), and (ii) regardless of the conditions described in Section 14.01(b), on or after April 15, 2020 and prior to the close of business on the Business Day immediately preceding the Maturity Date, in each case, at an initial conversion rate of 160.0000 shares of Common Stock (subject to adjustment as provided in this Article 14, the "Conversion Rate") per \$1,000 principal amount of Notes (subject to, and in accordance with, the settlement provisions of Section 14.02, the "Conversion Obligation").

(b) (i) Prior to the close of business on the Business Day immediately preceding April 15, 2020, a Holder may surrender all or any portion of its Notes for conversion at any time during the five Business Day period immediately after any five consecutive Trading Day period (the "Measurement Period") in which the Trading Price per \$1,000 principal amount of Notes, as determined following a request by a Holder of Notes in accordance with this subsection (b)(i), for each Trading Day of the Measurement Period was less than 98% of the product of the Last Reported Sale Price of the Common Stock on each such Trading Day and the Conversion Rate on each such Trading Day. The Trading Prices shall be determined by the Bid Solicitation Agent pursuant to this subsection (b)(i) and the definition of Trading Price set forth in this First Supplemental Indenture. The Issuer shall provide written notice to the Bid Solicitation Agent of the three independent nationally recognized securities dealers selected by the Issuer pursuant to the definition of Trading Price, along with appropriate contact information for each. The Bid Solicitation Agent shall have no obligation to determine the Trading Price per \$1,000 principal amount of Notes unless the Issuer has requested such determination, and the Issuer shall have no obligation to make such request unless a Holder provides the Issuer with reasonable evidence that the Trading Price per \$1,000 principal amount of Notes on any Trading Day would be less than 98% of the product of the Last Reported Sale Price of the Common Stock on such Trading Day and the Conversion Rate on such Trading Day, at which time the Issuer shall instruct the

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Bid Solicitation Agent to determine the Trading Price per \$1,000 principal amount of Notes beginning on the next Trading Day and on each successive Trading Day until the Trading Price per \$1,000 principal amount of Notes is greater than or equal to 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate. If the Issuer does not instruct the Bid Solicitation Agent to determine the Trading Price per \$1,000 principal amount of Notes when obligated as provided in the preceding sentence, or if the Issuer instructs the Bid Solicitation Agent to obtain bids and the Bid Solicitation Agent fails to make such determination, then, in either case, the Trading Price per \$1,000 principal amount of Notes shall be deemed to be less than 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate on each Trading Day of such failure. If the Trading Price condition set forth above has been met, the Issuer shall so notify in writing the Holders, the Trustee and the Conversion Agent (if other than the

Trustee). If, at any time after the Trading Price condition set forth above has been met and the Trading Price per \$1,000 principal amount of Notes is greater than or equal to 98% of the product of the Last Reported Sale Price of the Common Stock and the Conversion Rate for such date, then the Issuer shall so notify in writing the Holders of the Notes, the Trustee and the Conversion Agent (if other than the Trustee).

- (ii) If, prior to the close of business on the Business Day immediately preceding April 15, 2020, the Issuer elects to:
- (A) issue to all or substantially all holders of the Common Stock any rights, options or warrants entitling them, for a period of not more than 45 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of the Common Stock at a price per share that is less than the average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such issuance; or
- (B) distribute to all or substantially all holders of the Common Stock the Issuer's assets, securities or rights to purchase securities of the Issuer, which distribution has a per share value, as reasonably determined by the Board of Directors, exceeding 10% of the Last Reported Sale Price of the Common Stock on the Trading Day preceding the date of announcement for such distribution,

then, in either case, the Issuer shall notify in writing all Holders of the Notes, the Trustee and the Conversion Agent (if other than the Trustee) at least 30 Scheduled Trading Days prior to the Ex-Dividend Date for such issuance or distribution. Once the Issuer has given such notice, a Holder may surrender all or any portion of its Notes for conversion at any time until the earlier of (1) the close of business on the Business Day immediately preceding the Ex-Dividend Date for such issuance or distribution and (2) the Issuer's announcement that such issuance or distribution will not take place, in each case, even if the Notes are not otherwise convertible at such time.

Holders shall not have the right to convert their Notes pursuant to this Section 14.01(b)(ii) if Holders are entitled to participate (solely as a result of holding the Notes and without having to convert their Notes), at the same time and upon the same terms as holders of the Common Stock, in such transaction as if they held a number of shares of Common Stock equal to the Conversion Rate, *multiplied by* the principal amount (expressed in thousands) of Notes held by such Holder.

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- If a transaction or event that constitutes a Fundamental Change or a Make-Whole Fundamental Change that does not constitute a Fundamental Change occurs prior to the close of business on the Business Day immediately preceding April 15, 2020, regardless of whether a Holder has the right to require the Issuer to repurchase the Notes pursuant to Section 15.01, or if the Issuer is a party to a consolidation, merger, binding share exchange, or transfer or lease of all or substantially all of its assets, in each case, pursuant to which the Common Stock would be converted into cash, securities or other assets, all or any portion of a Holder's Notes may be surrendered for conversion at any time from or after the date that is 30 Scheduled Trading Days prior to the anticipated effective date of the transaction (or, if later, the Business Day after the Issuer gives notice of such transaction) until 35 Trading Days after the actual effective date of such transaction or, if such transaction also constitutes a Fundamental Change, until the related Fundamental Change Repurchase Date. The Issuer shall notify Holders, the Trustee and the Conversion Agent (if other than the Trustee) (i) as promptly as practicable following the date the Issuer publicly announces such transaction but in no event, except as provided below, less than 30 Scheduled Trading Days prior to the anticipated effective date of such transaction or (ii) if the Issuer does not have knowledge of such transaction or, in the case of any merger, consolidation, binding share exchange or transfer or lease of all or substantially all of the Issuer's assets, the Issuer has not entered into a Definitive Agreement with respect to such transaction to which it is a party, in each case, at least 30 Scheduled Trading Days prior to the anticipated effective date of such transaction, within one Business Day of the date upon which the Issuer receives notice, or otherwise becomes aware, of or (in the case of any merger, consolidation, binding share exchange or transfer or lease of all or substantially all of the Issuer's assets) enters into a Definitive Agreement with respect to such transaction, but in no event later than the actual effective date of such transaction.
- (iv) Prior to the close of business on the Business Day immediately preceding April 15, 2020, a Holder may surrender all or any portion of its Notes for conversion at any time during any calendar quarter commencing after September 30, 2013 (and only during such calendar quarter), if the Last Reported Sale Price of the Common Stock for at least 20 Trading Days (whether or not consecutive) during the period of 30 consecutive Trading Days ending on the last Trading Day of the immediately preceding calendar quarter is greater than or equal to 130% of the Conversion Price on each applicable Trading Day. The Conversion Agent, on behalf of the Issuer, shall determine at the beginning of each calendar quarter commencing after September 30, 2013 whether the Notes may be surrendered for conversion in accordance with this clause (iv) and shall notify the Issuer and the Trustee if the Notes become convertible in accordance with this clause (iv). If the Notes may be surrendered for conversion pursuant to this clause (iv), the Issuer shall so notify the Holders.

Section 14.02. Conversion Procedure; Settlement Upon Conversion.

(a) Subject to this Section 14.02, Section 14.03(b) and Section 14.07(a), upon conversion of any Note, the Issuer shall pay or deliver, as the case may be, to the converting Holder, in respect of each \$1,000 principal amount of Notes being converted, cash ("Cash Settlement"), shares of Common Stock, together with cash, if applicable, in lieu of delivering

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any fractional share of Common Stock in accordance with subsection (j) of this Section 14.02 ("**Physical Settlement**") or a combination of cash and shares of Common Stock, together with cash, if applicable, in lieu of delivering any fractional share of Common Stock in accordance with subsection (j) of this Section 14.02 ("**Combination Settlement**"), at its election, subject to the immediately succeeding paragraph, as set forth in this Section 14.02.

Notwithstanding the immediately preceding paragraph, for any conversions of Notes for which the relevant Conversion Date occurs prior to the date on which the Issuer notifies Holders, the Trustee and the Conversion Agent (if other than the Trustee) that the Hercules Loan and Security Agreement has been repaid in full or is no longer outstanding or that the restriction on payments of cash (other than cash in lieu of any fractional share) thereunder upon conversion of the Notes does not otherwise apply (the "Hercules Notice"), the Issuer shall not be permitted to deliver a Settlement Notice and elect a Settlement Method as described below under Section 14.02(a)(iii), and the Issuer shall be deemed to have elected Physical Settlement in respect of each such

conversion of Notes. Following delivery of the Hercules Notice, the settlement provisions set forth in this Section 14.02 shall apply, and the Issuer may elect a Settlement Method subject to the other conditions set forth in this Section 14.02.

- (i) All conversions for which the relevant Conversion Date occurs on or after April 15, 2020 shall be settled using the same Settlement Method.
- (ii) For conversions for which the relevant Conversion Date occurs prior to April 15, 2020, the Issuer shall use the same Settlement Method for all conversions with the same Conversion Date, but (subject to the second introductory paragraph to this Section 14.02(a) above) the Issuer shall not have any obligation to use the same Settlement Method with respect to conversions with different Conversion Dates.
- (iii) If, in respect of any Conversion Date that occurs on or after the date of delivery of the Hercules Notice (or the period described in the third immediately succeeding set of parentheses, as the case may be), the Issuer elects to deliver a notice (the "Settlement Notice") of the relevant Settlement Method in respect of such Conversion Date (or such period, as the case may be), the Issuer, through the Trustee, shall deliver such Settlement Notice to converting Holders no later than the close of business on the Trading Day immediately following the relevant Conversion Date (or, in the case of any conversions for which the relevant Conversion Date occurs on or after April 15, 2020, no later than April 15, 2020). If the Issuer does not elect a Settlement Method for any conversions of Notes for which the relevant Conversion Date occurs on or after the date of delivery of the Hercules Notice and prior to the deadline set forth in the immediately preceding sentence, the Issuer shall no longer have the right to elect Cash Settlement or Physical Settlement and the Issuer shall be deemed to have elected Combination Settlement in respect of its Conversion Obligation, and the Specified Dollar Amount per \$1,000 principal amount of Notes shall be equal to \$1,000. Such Settlement Notice shall indicate the Specified Dollar Amount per \$1,000 principal amount of Notes. If the Issuer validly delivers a Settlement Notice electing Combination Settlement in respect of its Conversion Obligation for any conversions of Notes for which the relevant Conversion Date occurs

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on or after the date of delivery of the Hercules Notice but does not indicate a Specified Dollar Amount per \$1,000 principal amount of Notes in such Settlement Notice, the Specified Dollar Amount per \$1,000 principal amount of Notes shall be deemed to be \$1,000.

- (iv) The cash, shares of Common Stock or combination of cash and shares of Common Stock in respect of any conversion of Notes (the "Settlement Amount") shall be computed as follows:
 - (A) if the Issuer elects (or is deemed to have elected) to satisfy its Conversion Obligation in respect of such conversion by Physical Settlement, the Issuer shall deliver to the converting Holder in respect of each \$1,000 principal amount of Notes being converted a number of shares of Common Stock equal to the Conversion Rate in effect on the Conversion Date (and cash in lieu of any fractional share in accordance with Section 14.02(j));
 - (B) if the Issuer elects to satisfy its Conversion Obligation in respect of such conversion by Cash Settlement, the Issuer shall pay to the converting Holder in respect of each \$1,000 principal amount of Notes being converted cash in an amount equal to the sum of the Daily Conversion Values for each of the 20 consecutive Trading Days during the related Observation Period; and
 - (C) if the Issuer elects (or is deemed to have elected) to satisfy its Conversion Obligation in respect of such conversion by Combination Settlement, the Issuer shall pay or deliver, as the case may be, in respect of each \$1,000 principal amount of Notes being converted, a Settlement Amount equal to the sum of the Daily Settlement Amounts for each of the 20 consecutive Trading Days during the related Observation Period.
- (v) The Daily Settlement Amounts (if applicable) and the Daily Conversion Values (if applicable) shall be determined by the Issuer promptly following the last day of the Observation Period. Promptly after such determination of the Daily Settlement Amounts or the Daily Conversion Values, as the case may be, and the amount of cash payable in lieu of delivering any fractional share of Common Stock, the Issuer shall notify the Trustee and the Conversion Agent (if other than the Trustee) of the Daily Settlement Amounts or the Daily Conversion Values, as the case may be, and the amount of cash payable in lieu of delivering fractional shares of Common Stock. The Trustee and the Conversion Agent (if other than the Trustee) shall have no responsibility for any such determination.
- (b) Subject to Section 14.02(e), before any Holder of a Note shall be entitled to convert a Note as set forth above, such Holder shall (i) in the case of a Note evidenced by a Global Security, comply with the procedures of the Depositary in effect at that time and, if required, pay funds equal to interest payable on the next Interest Payment Date as set forth in Section 14.02(h) and (ii) in the case of a Note evidenced by a definitive Security (1) complete, manually sign and deliver an irrevocable notice to the Conversion Agent as set forth in the Form of Notice of Conversion (or a facsimile thereof) (a "Notice of Conversion") at the office of the Conversion

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Agent and state in writing therein the principal amount of Notes to be converted and the name or names (with addresses) in which such Holder wishes the certificate or certificates for any shares of Common Stock to be delivered upon settlement of the Conversion Obligation to be registered, (2) surrender such Notes, duly endorsed to the Issuer or in blank (and accompanied by appropriate endorsement and transfer documents), at the office of the Conversion Agent, (3) if required, furnish appropriate endorsements and transfer documents and (4) if required, pay funds equal to interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in Section 14.02(h). The Trustee (and if different, the Conversion Agent) shall notify the Issuer of any conversion pursuant to this Article 14 on the Conversion Date for such conversion. No Notice of Conversion with respect to any Notes may be surrendered by a Holder thereof if such Holder has also delivered a Fundamental Change Repurchase Notice to the Issuer in respect of such Notes and has not validly withdrawn such Fundamental Change Repurchase Notice in accordance with Section 15.02.

If more than one Note shall be surrendered for conversion at one time by the same Holder, the Conversion Obligation with respect to such Notes shall be computed on the basis of the aggregate principal amount of the Notes (or specified portions thereof to the extent permitted thereby) so surrendered.

- (c) A Note shall be deemed to have been converted immediately prior to the close of business on the date (the "Conversion Date") that the Holder has complied with the requirements set forth in subsection (b) above. The Issuer shall pay or deliver, as the case may be, the consideration due in respect of the Conversion Obligation on the third Business Day immediately following the relevant Conversion Date, if the Issuer elects (or is deemed to have elected) Physical Settlement, or on the third Business Day immediately following the last Trading Day of the Observation Period, in the case of any other Settlement Method (except as provided for in Section 14.03(b) or Section 14.07(a)). If any shares of Common Stock are due to converting Holders, the Issuer shall issue or cause to be issued, and deliver to the Conversion Agent or to such Holder, or such Holder's nominee or nominees, certificates or a book-entry transfer through the Depositary for the full number of shares of Common Stock to which such Holder shall be entitled in satisfaction of the Issuer's Conversion Obligation.
- (d) In case any Note shall be surrendered for partial conversion, the Issuer shall execute and the Trustee shall authenticate and deliver to or upon the written order of the Holder of the Note so surrendered a new Note or Notes in authorized denominations in an aggregate principal amount equal to the unconverted portion of the surrendered Note, without payment of any service charge by the converting Holder but, if required by the Issuer or Trustee, with payment of a sum sufficient to cover any documentary, stamp or similar issue or transfer tax or similar governmental charge required by law or that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such conversion being different from the name of the Holder of the old Notes surrendered for such conversion.
- (e) If a Holder submits a Note for conversion, the Issuer shall pay any documentary, stamp or similar issue or transfer tax due on the issue of any shares of Common Stock upon conversion, unless the tax is due because the Holder requests such shares to be issued in a name other than the Holder's name, in which case the Holder shall pay that tax. The Conversion Agent may refuse to deliver the certificates representing the shares of Common Stock being

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issued in a name other than the Holder's name until the Trustee receives a sum sufficient to pay any tax that is due by such Holder in accordance with the immediately preceding sentence.

- (f) Except as provided in Section 14.04, no adjustment shall be made for dividends on any shares of Common Stock issued upon the conversion of any Note as provided in this Article 14.
- (g) Upon the conversion of an interest in a Note evidenced by a Global Security, the Trustee, or the Custodian at the direction of the Trustee, shall make a notation on such Global Security as to the reduction in the principal amount represented thereby. The Issuer shall notify the Trustee in writing of any conversion of Notes effected through any Conversion Agent other than the Trustee.
- (h) Upon conversion, a Holder shall not receive any separate cash payment for accrued and unpaid interest, if any, except as set forth below. The Issuer's settlement of the full Conversion Obligation shall be deemed to satisfy in full its obligation to pay the principal amount of the Note and accrued and unpaid interest, if any, to, but not including, the relevant Conversion Date shall be deemed to be paid in full rather than cancelled, extinguished or forfeited. Upon a conversion of Notes into a combination of cash and shares of Common Stock, accrued and unpaid interest will be deemed to be paid first out of the cash paid upon such conversion. Notwithstanding the foregoing, if Notes are converted after the close of business on a Regular Record Date, Holders of such Notes as of the close of business on such Regular Record Date will receive the full amount of interest payable on such Notes on the corresponding Interest Payment Date notwithstanding the conversion. Notes surrendered for conversion during the period from the close of business on any Regular Record Date to the open of business on the immediately following Interest Payment Date must be accompanied by funds equal to the amount of interest payable on the Notes so converted; provided that no such payment shall be required (1) for conversions following the Regular Record Date immediately preceding the Maturity Date; (2) if the Issuer has specified a Fundamental Change Repurchase Date that is after a Regular Record Date and on or prior to the Business Day immediately following the corresponding Interest Payment Date; or (3) to the extent of any Defaulted Amounts, if any Defaulted Amounts exists at the time of conversion with respect to such Note. Therefore, for the avoidance of doubt, all Holders of record on the Regular Record Date immediately preceding the Maturity Date shall receive the full interest payment due on the Maturity Date regardless of whether their Notes have been converted following such Regular Record Date.
- (i) The Person in whose name the certificate for any shares of Common Stock delivered upon conversion is registered shall be treated as a stockholder of record as of the close of business on the relevant Conversion Date (if the Issuer elects (or is deemed to have elected) to satisfy the related Conversion Obligation by Physical Settlement) or the last Trading Day of the relevant Observation Period (if the Issuer elects (or is deemed to have elected) to satisfy the related Conversion Obligation by Combination Settlement), as the case may be. Upon a conversion of Notes, such Person shall no longer be a Holder of such Notes surrendered for conversion.

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(j) The Issuer shall not issue any fractional share of Common Stock upon conversion of the Notes and shall instead pay cash in lieu of delivering any fractional share of Common Stock issuable upon conversion based on the Daily VWAP for the relevant Conversion Date (in the case of Physical Settlement) or based on the Daily VWAP for the last Trading Day of the relevant Observation Period (in the case of Combination Settlement). For each Note surrendered for conversion, if the Issuer has elected (or is deemed to have elected) Combination Settlement, the full number of shares that shall be issued upon conversion thereof shall be computed on the basis of the aggregate Daily Settlement Amounts for the relevant Observation Period and any fractional shares remaining after such computation shall be paid in cash.

Section 14.03. Increased Conversion Rate Applicable to Certain Notes Surrendered in Connection with Make-Whole Fundamental Changes. (a) If a Make-Whole Fundamental Change occurs or becomes effective prior to the Maturity Date and a Holder elects to convert its Notes in connection with such Make-Whole Fundamental Change, the Issuer shall, solely under the circumstances described below, increase the Conversion Rate for the Notes so surrendered for conversion by a number of additional shares of Common Stock (the "Additional Shares"), as described below. A conversion of Notes shall be deemed for these purposes to be "in connection with" such Make-Whole Fundamental Change if the relevant Notice of Conversion is received by the Conversion Agent from, and including, the Effective Date of the Make-Whole Fundamental Change up to, and including, the Business Day immediately prior to the related Fundamental Change Repurchase Date (or, in the case of a Make-Whole Fundamental Change that would have been a Fundamental Change but for the proviso in clause (b) of the definition thereof, the 35th Trading Day immediately following the Effective Date of such Make-Whole Fundamental Change).

- (b) Upon surrender of Notes for conversion in connection with a Make-Whole Fundamental Change pursuant to Section 14.01(b)(iii), the Issuer shall, at its option, satisfy the related Conversion Obligation by Physical Settlement, Cash Settlement or Combination Settlement in accordance with, and subject to, Section 14.02; provided, however, that if, at the effective time of a Make-Whole Fundamental Change described in clause (b) of the definition of Fundamental Change, the Reference Property following such Make-Whole Fundamental Change is composed entirely of cash, for any conversion of Notes following the Effective Date of such Make-Whole Fundamental Change, the Conversion Obligation shall be calculated based solely on the Stock Price for the transaction and shall be deemed to be an amount of cash per \$1,000 principal amount of converted Notes equal to the Conversion Rate (including any adjustment for Additional Shares), multiplied by such Stock Price. In such event, the Conversion Obligation shall be paid to Holders in cash on the third Business Day following the Conversion Date. The Issuer shall notify the Holders of Notes of the Effective Date of any Make-Whole Fundamental Change and issue a press release announcing such Effective Date no later than five Business Days after such Effective Date.
- (c) The number of Additional Shares, if any, by which the Conversion Rate shall be increased shall be determined by reference to the table below, based on the date on which the Make-Whole Fundamental Change occurs or becomes effective (the "Effective Date") and the price (the "Stock Price") paid (or deemed to be paid) per share of the Common Stock in the Make-Whole Fundamental Change. If the holders of the Common Stock receive in exchange for their Common Stock only cash in a Make-Whole Fundamental Change described in clause (b) of

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the definition of Fundamental Change, the Stock Price shall be the cash amount paid per share. Otherwise, the Stock Price shall be the average of the Last Reported Sale Prices of the Common Stock over the five Trading Day period ending on, and including, the Trading Day immediately preceding the Effective Date of the Make-Whole Fundamental Change. The Board of Directors shall make appropriate adjustments to the Stock Price, in its good faith determination, to account for any adjustment to the Conversion Rate that becomes effective, or any event requiring an adjustment to the Conversion Rate where the Ex-Dividend Date of the event occurs, during such five consecutive Trading Day period.

- (d) The Stock Prices set forth in the column headings of the table below shall be adjusted as of any date on which the Conversion Rate of the Notes is otherwise adjusted. The adjusted Stock Prices shall equal the Stock Prices applicable immediately prior to such adjustment, *multiplied by* a fraction, the numerator of which is the Conversion Rate immediately prior to such adjustment giving rise to the Stock Price adjustment and the denominator of which is the Conversion Rate as so adjusted. The number of Additional Shares set forth in the table below shall be adjusted in the same manner and at the same time as the Conversion Rate as set forth in Section 14.04.
- (e) The following table sets forth the number of Additional Shares by which the Conversion Rate shall be increased per \$1,000 principal amount of Notes pursuant to this Section 14.03 for each Stock Price and Effective Date set forth below:

	Stock Price											
Effective Date	\$5.00	\$5.50	\$6.25	\$6.75	\$7.50	\$10.00	\$12.50	\$15.00	\$17.50	\$20.00	\$22.50	\$25.00
July 17, 2013	40.0000	34.4551	27.5747	24.0824	19.9587	11.6378	7.2779	4.6677	2.9915	1.8758	1.1015	0.5984
July 15, 2014	40.0000	33.8735	26.7581	23.2095	19.0833	10.9868	6.8537	4.3975	2.8197	1.7666	1.0544	0.5760
July 15, 2015	40.0000	33.0858	25.6486	22.0228	17.8924	10.1041	6.2817	4.0353	2.5905	1.6214	0.9629	0.5192
July 15, 2016	40.0000	32.1509	24.2259	20.4738	16.3207	8.9376	5.5330	3.5662	2.2974	1.4391	0.8520	0.4532
July 15, 2017	40.0000	30.7585	22.1770	18.2681	14.1129	7.3576	4.5384	2.9466	1.9101	1.1976	0.7043	0.3654
July 15, 2018	40.0000	28.6175	19.1323	15.0483	10.9775	5.2828	3.2759	2.1635	1.4190	0.8918	0.5189	0.2570
July 15, 2019	40.0000	25.2840	14.3154	10.0714	6.3924	2.7172	1.7589	1.1964	0.7992	0.5053	0.2892	0.1278
July 15, 2020	40.0000	21.8181	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact Stock Prices and Effective Dates may not be set forth in the table above, in which case:

- (i) if the Stock Price is between two Stock Prices in the table above or the Effective Date is between two Effective Dates in the table, the number of Additional Shares shall be determined by a straight-line interpolation between the number of Additional Shares set forth for the higher and lower Stock Prices and the earlier and later Effective Dates, as applicable, based on a 365-day year;
- (ii) if the Stock Price is greater than \$25.00 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above pursuant to subsection (d) above), no Additional Shares shall be added to the Conversion Rate; and
- (iii) if the Stock Price is less than \$5.00 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above

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pursuant to subsection (d) above), no Additional Shares shall be added to the Conversion Rate.

Notwithstanding the foregoing, in no event shall the Conversion Rate per \$1,000 principal amount of Notes exceed 200.0000 shares of Common Stock, subject to adjustment in the same manner as the Conversion Rate pursuant to Section 14.04.

(f) Despite the occurrence of a Make-Whole Fundamental Change, nothing in this Section 14.03 shall prevent an adjustment to the Conversion Rate pursuant to Section 14.04 to the extent applicable.

Section 14.04. *Adjustment of Conversion Rate*. The Conversion Rate shall be adjusted from time to time by the Issuer if any of the following events occurs, except that the Issuer shall not make any adjustments to the Conversion Rate if Holders of the Notes participate (other than in the case of (x) a share split or share combination or (y) a tender or exchange offer), at the same time and upon the same terms as holders of the Common Stock and solely as a result of holding the Notes, in any of the transactions described in this Section 14.04, without having to convert their Notes, as if they held a number of shares of Common Stock equal to the Conversion Rate, *multiplied by* the principal amount (expressed in thousands) of Notes held by such Holder.

(a) If the Issuer exclusively issues shares of Common Stock as a dividend or distribution on shares of the Common Stock, or if the Issuer effects a share split or share combination, the Conversion Rate shall be adjusted based on the following formula:

$$CR' = CR_0 \times \frac{OS'}{OS_0}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date of such dividend or distribution, or immediately prior to the open of business on the Effective Date of such share split or share combination, as applicable;

CR' = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date or Effective Date;

OS₀ = the number of shares of Common Stock outstanding immediately prior to the open of business on such Ex-Dividend Date or Effective Date;

OS' = the number of shares of Common Stock outstanding immediately after giving effect to such dividend, distribution, share split or share combination.

Any adjustment made under this Section 14.04(a) shall become effective immediately after the open of business on the Ex-Dividend Date for such dividend or distribution, or immediately after the open of business on the Effective Date for such share split or share combination, as applicable. If any dividend or distribution of the type described in this Section 14.04(a) is

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declared but not so paid or made, the Conversion Rate shall be immediately readjusted, effective as of the date the Board of Directors determines not to pay such dividend or distribution, to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

(b) If the Issuer issues to all or substantially all holders of the Common Stock any rights, options or warrants entitling them, for a period of not more than 45 calendar days after the announcement date of such issuance, to subscribe for or purchase shares of the Common Stock at a price per share that is less than the average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such issuance, the Conversion Rate shall be increased based on the following formula:

$$CR' = CR_0 \times \frac{OS_0 + X}{OS_0 + Y}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such issuance;

CR' = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date;

OS₀ = the number of shares of Common Stock outstanding immediately prior to the open of business on such Ex-Dividend Date;

X = the total number of shares of Common Stock issuable pursuant to such rights, options or warrants; and

Y = the number of shares of Common Stock equal to the aggregate price payable to exercise such rights, options or warrants, *divided by* the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of the issuance of such rights, options or warrants.

Any increase made under this Section 14.04(b) shall be made successively whenever any such rights, options or warrants are issued and shall become effective immediately after the open of business on the Ex-Dividend Date for such issuance. To the extent that such rights, options or warrants expire without delivery of some or all of the underlying shares of Common Stock, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of shares of Common Stock actually delivered. If such rights, options or warrants are not so issued, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such announcement with respect to the issuance of the rights, options or warrants had not occurred.

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For purposes of this Section 14.04(b) and for the purpose of Section 14.01(b)(ii)(A), in determining whether any rights, options or warrants entitle the holders to subscribe for or purchase shares of the Common Stock at less than such average of the Last Reported Sale Prices of the Common Stock for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement for such issuance, and in determining the aggregate offering price of such shares of Common Stock, there shall be taken into account any consideration received by the Issuer for such rights, options or warrants and any amount payable on exercise or conversion thereof, the value of such consideration, if other than cash, to be determined by the Board of Directors.

(c) If the Issuer distributes shares of its Capital Stock, evidences of its indebtedness, other assets or property of the Issuer or rights, options or warrants to acquire its Capital Stock or other securities, to all or substantially all holders of the Common Stock, excluding (i) dividends, distributions or issuances as to which an adjustment was effected pursuant to Section 14.04(a) or Section 14.04(b), (ii) dividends or distributions paid exclusively in cash as to which an adjustment was effected pursuant to Section 14.04(d), and (iii) Spin-Offs as to which the specific provisions set forth below in this Section 14.04(c) shall apply (any of such shares of Capital Stock, evidences of indebtedness, other assets or property or rights, options or warrants to acquire Capital Stock or other securities, the "**Distributed Property**"), then the Conversion Rate shall be increased based on the following formula:

$$CR' = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

FMV

CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such distribution;

CR' = the Conversion Rate in effect immediately after the open of business on such Ex-Dividend Date;

SP₀ = the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution; and

the fair market value (as determined by the Board of Directors) of the Distributed Property with respect to each outstanding share of the Common Stock on the Ex-Dividend Date for such distribution.

Any increase made under the portion of this Section 14.04(c) above shall become effective immediately after the open of business on the Ex-Dividend Date for such distribution. If such distribution is not so paid or made, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such distribution had not been declared. Notwithstanding the foregoing, if "FMV" (as defined above) is equal to or greater than "SP₀" (as defined above), in lieu of the foregoing increase, each Holder of a Note shall receive, in respect of each \$1,000 principal amount thereof, at the same time and upon the same terms as holders of the Common

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Stock receive the Distributed Property, the amount and kind of Distributed Property such Holder would have received if such Holder owned a number of shares of Common Stock equal to the Conversion Rate in effect on the Ex-Dividend Date for the distribution. If the Board of Directors determines the "FMV" (as defined above) of any distribution for purposes of this Section 14.04(c) by reference to the actual or when-issued trading market for any securities, it shall in doing so consider the prices in such market over the same period used in computing the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution.

With respect to an adjustment pursuant to this Section 14.04(c) where there has been a payment of a dividend or other distribution on the Common Stock of shares of Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit of the Issuer, that are, or, when issued, will be, listed or admitted for trading on a U.S. national securities exchange (a "**Spin-Off**"), the Conversion Rate shall instead be increased based on the following formula:

$$CR' = CR_0 \times \frac{FMV_0 + MP_0}{MP_0}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the end of the Valuation Period;

CR' = the Conversion Rate in effect immediately after the end of the Valuation Period;

FMV₀ = the average of the Last Reported Sale Prices of the Capital Stock or similar equity interest distributed to holders of the Common Stock applicable to one share of the Common Stock (determined by reference to the definition of Last Reported Sale Price as set forth in Section 2.01 as if references therein to Common Stock were to such Capital Stock or similar equity interest) over the 10 consecutive Trading Day period beginning on, and including, the fifth Trading Day immediately following the Ex-Dividend Date of the Spin-Off (the "Valuation Period"); and

 MP_0 = the average of the Last Reported Sale Prices of the Common Stock over the Valuation Period.

The adjustment to the Conversion Rate under the preceding paragraph shall occur on the last Trading Day of the Valuation Period; *provided* that in respect of any conversion of Notes during the Valuation Period, references in the portion of this Section 14.04(c) related to Spin-Offs with respect to 10 Trading Days shall be deemed to be replaced with such lesser number of Trading Days as have elapsed between the Ex-Dividend Date of such Spin-Off and the Conversion Date in determining the Conversion Rate. If the Ex-Dividend Date of the Spin-Off is after the 10th Trading Day immediately preceding, and including, the end of any Observation Period in respect of a conversion of Notes, references in the preceding paragraph to 10 Trading Days will be deemed to be replaced, solely in respect of that conversion of Notes, with such lesser number of Trading Days as have elapsed from, and including, the Ex-Dividend Date for the Spin-Off to, and including, the last Trading Day of such Observation Period.

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For purposes of this Section 14.04(c) (and subject in all respect to Section 14.11), rights, options or warrants distributed by the Issuer to all holders of the Common Stock entitling them to subscribe for or purchase shares of the Issuer's Capital Stock, including Common Stock (either initially or under certain circumstances), which rights, options or warrants, until the occurrence of a specified event or events ("**Trigger Event**"): (i) are deemed to be transferred with such shares of the Common Stock; (ii) are not exercisable; and (iii) are also issued in respect of future issuances of the Common Stock, shall be deemed not to have been distributed for purposes of this Section 14.04(c) (and no adjustment to the Conversion Rate under this Section 14.04(c) will be required) until the occurrence of the earliest Trigger Event, whereupon such rights, options or warrants shall be deemed to have been distributed and an

appropriate adjustment (if any is required) to the Conversion Rate shall be made under this Section 14.04(c). If any such right, option or warrant, including any such existing rights, options or warrants distributed prior to the date of this First Supplemental Indenture, are subject to events, upon the occurrence of which such rights, options or warrants become exercisable to purchase different securities, evidences of indebtedness or other assets, then the date of the occurrence of any and each such event shall be deemed to be the date of distribution and Ex-Dividend Date with respect to new rights, options or warrants with such rights (in which case the existing rights, options or warrants shall be deemed to terminate and expire on such date without exercise by any of the holders thereof). In addition, in the event of any distribution (or deemed distribution) of rights, options or warrants, or any Trigger Event or other event (of the type described in the immediately preceding sentence) with respect thereto that was counted for purposes of calculating a distribution amount for which an adjustment to the Conversion Rate under this Section 14.04(c) was made, (1) in the case of any such rights, options or warrants that shall all have been redeemed or purchased without exercise by any holders thereof, upon such final redemption or purchase (x) the Conversion Rate shall be readjusted as if such rights, options or warrants had not been issued and (y) the Conversion Rate shall then again be readjusted to give effect to such distribution, deemed distribution or Trigger Event, as the case may be, as though it were a cash distribution, equal to the per share redemption or purchase price received by a holder or holders of Common Stock with respect to such rights, options or warrants (assuming such holder had retained such rights, options or warrants that shall have expired or been terminated without exercise by any holders thereof, the Conversion Rate shall be readjusted as if such rights, options and warrants had not b

For purposes of Section 14.04(a), Section 14.04(b) and this Section 14.04(c), if any dividend or distribution to which this Section 14.04(c) is applicable also includes one or both of:

- (A) a dividend or distribution of shares of Common Stock to which Section 14.04(a) is applicable (the "Clause A Distribution"); or
- (B) a dividend or distribution of rights, options or warrants to which Section 14.04(b) is applicable (the "Clause B Distribution"),

then, in either case, (1) such dividend or distribution, other than the Clause A Distribution and the Clause B Distribution, shall be deemed to be a dividend or distribution to which this Section 14.04(c) is applicable (the "Clause C Distribution") and any Conversion Rate adjustment required by this Section 14.04(c) with respect to such Clause C Distribution shall then be made,

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and (2) the Clause A Distribution and Clause B Distribution shall be deemed to immediately follow the Clause C Distribution and any Conversion Rate adjustment required by Section 14.04(a) and Section 14.04(b) with respect thereto shall then be made, except that, if determined by the Issuer (I) the "Ex-Dividend Date" of the Clause A Distribution and the Clause B Distribution shall be deemed to be the Ex-Dividend Date of the Clause C Distribution and (II) any shares of Common Stock included in the Clause A Distribution or Clause B Distribution shall be deemed not to be "outstanding immediately prior to the open of business on such Ex-Dividend Date or Effective Date" within the meaning of Section 14.04(a) or "outstanding immediately prior to the open of business on such Ex-Dividend Date" within the meaning of Section 14.04(b).

(d) If any cash dividend or distribution is made to all or substantially all holders of the Common Stock, the Conversion Rate shall be adjusted based on the following formula:

$$CR' = CR_0 \times \frac{SP_0}{SP_0 - C}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the open of business on the Ex-Dividend Date for such dividend or distribution;

CR' = the Conversion Rate in effect immediately after the open of business on the Ex-Dividend Date for such dividend or distribution;

SP₀ = the Last Reported Sale Price of the Common Stock on the Trading Day immediately preceding the Ex-Dividend Date for such dividend or distribution; and

C = the amount in cash per share the Issuer distributes to all or substantially all holders of the Common Stock.

Any increase pursuant to this Section 14.04(d) shall become effective immediately after the open of business on the Ex-Dividend Date for such dividend or distribution. If such dividend or distribution is not so paid, the Conversion Rate shall be decreased, effective as of the date the Board of Directors determines not to make or pay such dividend or distribution, to be the Conversion Rate that would then be in effect if such dividend or distribution had not been declared. Notwithstanding the foregoing, if "C" (as defined above) is equal to or greater than "SP₀" (as defined above), in lieu of the foregoing increase, each Holder of a Note shall receive, for each \$1,000 principal amount of Notes, at the same time and upon the same terms as holders of shares of the Common Stock, the amount of cash that such Holder would have received if such Holder owned a number of shares of Common Stock equal to the Conversion Rate on the Ex-Dividend Date for such cash dividend or distribution.

(e) If the Issuer or any of its Subsidiaries make a payment in respect of a tender or exchange offer for the Common Stock, to the extent that the cash and value of any other consideration included in the payment per share of the Common Stock exceeds the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period

$$CR' = CR_0 \times \frac{AC + (SP' \times OS')}{OS_0 \times SP'}$$

where,

CR₀ = the Conversion Rate in effect immediately prior to the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires;

CR' = the Conversion Rate in effect immediately after the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires;

AC = the aggregate value of all cash and any other consideration (as determined by the Board of Directors) paid or payable for shares of Common Stock purchased in such tender or exchange offer;

OS₀ = the number of shares of Common Stock outstanding immediately prior to the date such tender or exchange offer expires (prior to giving effect to the purchase of all shares of Common Stock accepted for purchase or exchange in such tender or exchange offer);

OS' = the number of shares of Common Stock outstanding immediately after the date such tender or exchange offer expires (after giving effect to the purchase of all shares of Common Stock accepted for purchase or exchange in such tender or exchange offer); and

SP' = the average of the Last Reported Sale Prices of the Common Stock over the 10 consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the date such tender or exchange offer expires.

The adjustment to the Conversion Rate under this Section 14.04(e) shall occur at the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires; provided that in respect of any conversion of Notes within the 10 Trading Days immediately following, and including, the expiration date of any tender or exchange offer, references in this Section 14.04(e) with respect to 10 Trading Days shall be deemed replaced with such lesser number of Trading Days as have elapsed between the date that such tender or exchange offer expires and the Conversion Date in determining the Conversion Rate. In addition, if the Trading Day next succeeding the date such tender or exchange offer expires is after the 10th Trading Day immediately preceding, and including, the end of any Observation Period in respect of a conversion of Notes, references in the preceding paragraph to 10 Trading Days shall be deemed to be replaced, solely in respect of that conversion of Notes, with such lesser number of Trading Days as have elapsed from, and

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including, the Trading Day next succeeding the date such tender or exchange offer expires to, and including, the last Trading Day of such Observation Period.

- (f) Notwithstanding this Section 14.04 or any other provision of the Indenture or the Notes, if a Conversion Rate adjustment becomes effective on any Ex-Dividend Date, and a Holder that has converted its Notes on or after such Ex-Dividend Date and on or prior to the related Record Date would be treated as the record holder of the shares of Common Stock as of the related Conversion Date as described under Section 14.02(i) based on an adjusted Conversion Rate for such Ex-Dividend Date, then, notwithstanding the Conversion Rate adjustment provisions in this Section 14.04, the Conversion Rate adjustment relating to such Ex-Dividend Date shall not be made for such converting Holder. Instead, such Holder shall be treated as if such Holder were the record owner of the shares of Common Stock on an unadjusted basis and participate in the related dividend, distribution or other event giving rise to such adjustment.
- (g) Except as stated herein, the Issuer shall not adjust the Conversion Rate for the issuance of shares of the Common Stock or any securities convertible into or exchangeable for shares of the Common Stock or the right to purchase shares of the Common Stock or such convertible or exchangeable securities.
- (h) In addition to those adjustments required by clauses (a), (b), (c), (d) and (e) of this Section 14.04, and to the extent permitted by applicable law and subject to the applicable rules of any exchange on which any of the Issuer's securities are then listed, the Issuer from time to time may increase the Conversion Rate by any amount for a period of at least 20 Business Days if the Board of Directors determines that such increase would be in the Issuer's best interest. In addition, to the extent permitted by applicable law and subject to the applicable rules of any exchange on which any of the Issuer's securities are then listed, the Issuer may (but is not required to) increase the Conversion Rate to avoid or diminish any income tax to holders of Common Stock or rights to purchase Common Stock in connection with a dividend or distribution of shares of Common Stock (or rights to acquire shares of Common Stock) or similar event. Whenever the Conversion Rate is increased pursuant to either of the preceding two sentences, the Issuer shall mail to the Holder of each Note at its last address appearing on the Security register a notice of the increase at least 15 days prior to the date the increased Conversion Rate takes effect, and such notice shall state the increased Conversion Rate and the period during which it will be in effect.
 - (i) Notwithstanding anything to the contrary in this Article 14, the Conversion Rate shall not be adjusted:
 - (i) upon the issuance of any shares of Common Stock pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on the Issuer's securities and the investment of additional optional amounts in shares of Common Stock under any plan;
 - (ii) upon the issuance of any shares of Common Stock or options or rights to purchase those shares pursuant to any present or future employee, director or consultant benefit plan or program of or assumed by the Issuer or any of the Issuer's Subsidiaries;

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- (iv) solely for a change in the par value of the Common Stock; or
- (v) for accrued and unpaid interest, if any.
- (j) All calculations and other determinations under this Article 14 shall be made by the Issuer and shall be made to the nearest one-ten thousandth (1/10,000th) of a share. Notwithstanding anything in this Section 14.04 to the contrary, the Issuer shall not be required to adjust the Conversion Rate unless the adjustment would result in a change of at least 1% of such Conversion Rate. However, the Issuer shall carry forward any adjustments that are less than 1% of such Conversion Rate and take them into account when determining subsequent adjustments. In addition, the Issuer shall make any carried-forward adjustments not otherwise effected (i) on each anniversary of the first issue date of the Notes, (ii) upon any conversion of the Notes, (iii) on the Effective Date of any Fundamental Change or Make-Whole Fundamental Change, (iv) on each Trading Day during any Observation Period and (v) on the Maturity Date.
- (k) Whenever the Conversion Rate is adjusted as herein provided, the Issuer shall promptly file with the Trustee (and the Conversion Agent if not the Trustee) an Officer's Certificate setting forth the Conversion Rate after such adjustment and setting forth a brief statement of the facts requiring such adjustment. Unless and until a Responsible Officer of the Trustee shall have received such Officer's Certificate, the Trustee shall not be deemed to have knowledge of any adjustment of the Conversion Rate and may assume without inquiry that the last Conversion Rate of which it has knowledge is still in effect. Promptly after delivery of such certificate, the Issuer shall prepare a notice of such adjustment of the Conversion Rate setting forth the adjusted Conversion Rate and the date on which each adjustment becomes effective and shall mail such notice of such adjustment of the Conversion Rate to each Holder at its last address appearing on the Security register. Failure to deliver such notice shall not affect the legality or validity of any such adjustment.
- (l) For purposes of this Section 14.04, the number of shares of Common Stock at any time outstanding shall not include shares of Common Stock held in the treasury of the Issuer so long as the Issuer does not pay any dividend or make any distribution on shares of Common Stock held in the treasury of the Issuer, but shall include shares of Common Stock issuable in respect of scrip certificates issued in lieu of fractions of shares of Common Stock.

Section 14.05. *Adjustments of Prices*. Whenever any provision of this First Supplemental Indenture requires the Issuer to calculate the Last Reported Sale Prices, the Daily VWAPs, the Daily Conversion Values or the Daily Settlement Amounts over a span of multiple days (including an Observation Period and the period for determining the Stock Price for purposes of a Make-Whole Fundamental Change), the Board of Directors shall make appropriate adjustments to each to account for any adjustment to the Conversion Rate that becomes effective, or any event requiring an adjustment to the Conversion Rate where the Ex-Dividend Date of the event occurs, at any time during the period when the Last Reported Sale Prices, the Daily VWAPs, the Daily Conversion Values or the Daily Settlement Amounts are to be calculated.

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Section 14.06. *Shares to Be Fully Paid.* The Issuer shall provide, free from preemptive rights, out of its authorized but unissued shares or shares held in treasury, sufficient shares of Common Stock to provide for conversion of the Notes from time to time as such Notes are presented for conversion (assuming that at the time of computation of such number of shares, all such Notes would be converted by a single Holder and that Physical Settlement is applicable).

Section 14.07. Effect of Recapitalizations, Reclassifications and Changes of the Common Stock.

- (a) In the case of:
- (i) any recapitalization, reclassification or change of the Common Stock (other than changes resulting from a subdivision or combination),
 - (ii) any consolidation, merger or combination involving the Issuer,
- (iii) any sale, lease or other transfer to a third party of the consolidated assets of the Issuer and the Issuer's Subsidiaries substantially as an entirety or
 - (iv) any statutory share exchange,

in each case, as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, other property or assets (including cash or any combination thereof) (any such event, a "Merger Event"), then, at and after the effective time of such Merger Event, the right to convert each \$1,000 principal amount of Notes shall be changed into a right to convert such principal amount of Notes into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Common Stock equal to the Conversion Rate immediately prior to such Merger Event would have owned or been entitled to receive (the "Reference Property," with each "unit of Reference Property" meaning the kind and amount of Reference Property that a holder of one share of Common Stock is entitled to receive) upon such Merger Event and, prior to or at the effective time of such Merger Event, the Issuer or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture permitted under Section 10.02(b) providing for such change in the right to convert each \$1,000 principal amount of Notes; provided, however, that at and after the effective time of the Merger Event (A) the Issuer shall continue to have the right to determine the form of consideration to be paid or delivered, as the case may be, upon conversion of Notes in accordance with, and subject to, Section 14.02 and (B) (I) any amount payable in cash upon conversion of the Notes in accordance with Section 14.02 shall instead be deliverable in the amount and type of Reference Property that a holder of that number of shares of Common Stock would have been entitled to receive in such Merger Event and (III) the Daily VWAP shall be calculated based on the value of a unit of Reference Property.

If the Merger Event causes the Common Stock to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election), then (i) the Reference Property into which the Notes will be convertible

shall be deemed to be (x) the weighted average of the types and amounts of consideration received by the holders of Common Stock that affirmatively make such an election or (y) if no holders of Common Stock affirmatively make such an election, the types and amounts of consideration actually received by the holders of Common Stock, and (ii) the unit of Reference Property for purposes of the immediately preceding paragraph shall refer to the consideration referred to in clause (i) attributable to one share of Common Stock. If the holders of the Common Stock receive only cash in such Merger Event, then for all conversions for which the relevant Conversion Date occurs after the effective date of such Merger Event (A) the consideration due upon conversion of each \$1,000 principal amount of Notes shall be solely cash in an amount equal to the Conversion Rate in effect on the Conversion Date (as may be increased by any Additional Shares pursuant to Section 14.03), *multiplied by* the price paid per share of Common Stock in such Merger Event and (B) the Issuer shall satisfy the Conversion Obligation by paying cash to converting Holders on the third Business Day immediately following the relevant Conversion Date. The Issuer shall notify Holders, the Trustee and the Conversion Agent (if other than the Trustee) of such weighted average as soon as practicable after such determination is made.

Such supplemental indenture described in the second immediately preceding paragraph shall provide for adjustments that shall be as nearly equivalent as is possible to the adjustments provided for in this Article 14. If, in the case of any Merger Event, the Reference Property includes shares of stock, securities or other property or assets (including cash or any combination thereof) of a Person other than the successor or purchasing corporation, as the case may be, in such Merger Event, then such supplemental indenture shall also be executed by such other Person and shall contain such additional provisions to protect the interests of the Holders of the Notes as the Board of Directors shall reasonably consider necessary by reason of the foregoing.

- (b) When the Issuer executes a supplemental indenture pursuant to subsection (a) of this Section 14.07, the Issuer shall promptly file with the Trustee an Officer's Certificate briefly stating the reasons therefor, the kind or amount of cash, securities or property or asset that will comprise a unit of Reference Property after any such Merger Event, any adjustment to be made with respect thereto and that all conditions precedent have been complied with, and shall promptly mail notice thereof to all Holders. The Issuer shall cause notice of the execution of such supplemental indenture to be mailed to each Holder, at its address appearing on the Security register provided for in the Indenture, within 20 days after execution thereof. Failure to deliver such notice shall not affect the legality or validity of such supplemental indenture.
- (c) The Issuer shall not become a party to any Merger Event unless its terms are consistent with this Section 14.07. None of the foregoing provisions shall affect the right of a holder of Notes to convert its Notes into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, as set forth in Section 14.01 and Section 14.02 prior to the effective date of such Merger Event.
 - (d) The above provisions of this Section 14.07 shall similarly apply to successive Merger Events.

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Section 14.08. *Certain Covenants.* (a) The Issuer covenants that all shares of Common Stock issued upon conversion of Notes will be fully paid and non-assessable by the Issuer and free from all taxes, liens and charges with respect to the issue thereof.

- (b) The Issuer covenants that, if any shares of Common Stock to be provided for the purpose of conversion of Notes hereunder require registration with or approval of any governmental authority under any federal or state law before such shares of Common Stock may be validly issued upon conversion, the Issuer will, to the extent then permitted by the rules and interpretations of the Commission, secure such registration or approval, as the case may be.
- (c) The Issuer further covenants that if at any time the Common Stock shall be listed on any national securities exchange or automated quotation system the Issuer will list and keep listed, so long as the Common Stock shall be so listed on such exchange or automated quotation system, any Common Stock issuable upon conversion of the Notes.

Section 14.09. Responsibility of Trustee. The Trustee and any other Conversion Agent shall not at any time be under any duty or responsibility to any Holder to determine the Conversion Rate (or any adjustment thereto) or whether any facts exist that may require any adjustment (including any increase) of the Conversion Rate, or with respect to the nature or extent or calculation of any such adjustment when made, or with respect to the method employed, or herein or in any supplemental indenture provided to be employed, in making the same. The Trustee and any other Conversion Agent shall not be accountable with respect to the validity or value (or the kind or amount) of any shares of Common Stock, or of any securities, property or cash that may at any time be issued or delivered upon the conversion of any Note; and the Trustee and any other Conversion Agent make no representations with respect thereto. Neither the Trustee nor any Conversion Agent shall be responsible for any failure of the Issuer to issue, transfer or deliver any shares of Common Stock or stock certificates or other securities or property or cash upon the surrender of any Note for the purpose of conversion or to comply with any of the duties, responsibilities or covenants of the Issuer contained in this Article 14. Without limiting the generality of the foregoing, neither the Trustee nor any Conversion Agent shall be under any responsibility to determine the correctness of any provisions contained in any supplemental indenture entered into pursuant to Section 14.07 relating either to the kind or amount of shares of stock or securities or property (including cash) receivable by Holders upon the conversion of their Notes after any event referred to in such Section 14.07 or to any adjustment to be made with respect thereto, but, subject to the provisions of Section 6.02 of the Base Indenture, may accept (without any independent investigation) as conclusive evidence of the correctness of any such provisions, and shall be protected in relying upon, the Officer's Certificate (which the Issuer shall be obligated to file with the Trustee prior to the execution of any such supplemental indenture) with respect thereto. Neither the Trustee nor the Conversion Agent shall be responsible for determining whether any event contemplated by Section 14.01(b) has occurred that makes the Notes eligible for conversion or no longer eligible therefor until the Issuer has delivered to the Trustee and the Conversion Agent the notices referred to in Section 14.01(b) with respect to the commencement or termination of such conversion rights, on which notices the Trustee and the Conversion Agent may conclusively rely, and the Issuer agrees to deliver such notices to the Trustee and the Conversion Agent immediately after the occurrence of any such event or at such other times as shall be provided for in Section 14.01(b).

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Section 14.10. Notice to Holders Prior to Certain Actions. In case of any:

- (a) Merger Event; or
- (b) voluntary or involuntary dissolution, liquidation or winding-up of the Issuer or any of its Subsidiaries;

then, in each case (unless notice of such event is otherwise required pursuant to another provision of the Indenture), the Issuer shall cause to be filed with the Trustee and the Conversion Agent (if other than the Trustee) and to be mailed to each Holder at its address appearing on the Security register, as promptly as possible but in any event at least 20 days prior to the applicable date hereinafter specified, a notice stating (i) the date on which a record is to be taken for the purpose of such action by the Issuer or one of its Subsidiaries or, if a record is not to be taken, the date as of which the holders of Common Stock of record are to be determined for the purposes of such action by the Issuer or one of its Subsidiaries, or (ii) the date on which such Merger Event, dissolution, liquidation or winding-up is expected to become effective or occur, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their Common Stock for securities or other property deliverable upon such Merger Event, dissolution, liquidation or winding-up. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such action by the Issuer or one of its Subsidiaries, Merger Event, dissolution, liquidation or winding-up.

Section 14.11. Stockholder Rights Plans. If the Issuer has a stockholder rights plan in effect upon conversion of the Notes, each share of Common Stock, if any, issued upon such conversion shall be entitled to receive the appropriate number of rights, if any, and the certificates representing the Common Stock issued upon such conversion shall bear such legends, if any, in each case as may be provided by the terms of any such stockholder rights plan, as the same may be amended from time to time. However, if, prior to any conversion of Notes, the rights have separated from the shares of Common Stock in accordance with the provisions of the applicable stockholder rights plan so that the Holders would not be entitled to receive any rights in respect of Common Stock, if any, issuable upon conversion of the Notes, the Conversion Rate shall be adjusted at the time of separation as if the Issuer distributed to all or substantially all holders of the Common Stock Distributed Property as provided in Section 14.04(c), subject to readjustment in the event of the expiration, termination or redemption of such rights.

ARTICLE 15 REPURCHASE OF NOTES AT OPTION OF HOLDERS

Section 15.01. *Repurchase at Option of Holders Upon a Fundamental Change.* (a) If a Fundamental Change occurs at any time, each Holder shall have the right, at such Holder's option, to require the Issuer to repurchase for cash all of such Holder's Notes, or any portion thereof that is equal to \$1,000 or an integral multiple of \$1,000, on the date (the "**Fundamental Change Repurchase Date**") specified by the Issuer that is not less than 20 calendar days or more than 35 calendar days following the date of the Fundamental Change Issuer Notice at a repurchase price equal to 100% of the principal amount thereof, *plus* accrued and unpaid interest thereon to, but excluding, the Fundamental Change Repurchase Date (the "**Fundamental**")

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Change Repurchase Price"), unless the Fundamental Change Repurchase Date falls after a Regular Record Date but on or prior to the Interest Payment Date to which such Regular Record Date relates, in which case the Issuer shall instead pay the full amount of accrued and unpaid interest to Holders of record as of such Regular Record Date, and the Fundamental Change Repurchase Price shall be equal to 100% of the principal amount of Notes to be repurchased pursuant to this Article 15.

- (b) Repurchases of Notes under this Section 15.01 shall be made, at the option of the Holder thereof, upon:
- (i) delivery to the paying agent by a Holder of a duly completed notice (the "**Fundamental Change Repurchase Notice**") in the form set forth in Attachment 2 to the Form of Note attached hereto as Exhibit A, if the Notes are evidenced by definitive Securities, or in compliance with the Depositary's procedures for surrendering interests in Notes evidenced by Global Securities, if the Notes are evidenced Global Securities, in each case on or before the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date; and
- (ii) delivery of the Notes, if the Notes are evidenced by definitive Securities, to the paying agent concurrently with or at any time after delivery of the Fundamental Change Repurchase Notice (together with all necessary endorsements for transfer) at the Corporate Trust Office of the paying agent, or book-entry transfer of the Notes, if the Notes are evidenced by Global Securities, in compliance with the procedures of the Depositary, in each case such delivery being a condition to receipt by the Holder of the Fundamental Change Repurchase Price therefor.

The Fundamental Change Repurchase Notice in respect of any Notes to be repurchased shall state:

- (i) in the case of Notes evidenced by definitive Securities, the certificate numbers of the Notes to be delivered for repurchase;
- (ii) the portion of the principal amount of Notes to be repurchased, which must be \$1,000 or an integral multiple thereof; and
- (iii) that the Notes are to be repurchased by the Issuer pursuant to the applicable provisions of the Notes and the Indenture;

provided, *however*, that if the Notes are evidenced by Global Securities, the Fundamental Change Repurchase Notice must comply with appropriate Depositary procedures.

Notwithstanding anything herein to the contrary, any Holder delivering to the paying agent the Fundamental Change Repurchase Notice contemplated by this Section 15.01 shall have the right to withdraw, in whole or in part, such Fundamental Change Repurchase Notice at any time prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date by delivery of a written notice of withdrawal to the paying agent in accordance with Section 15.02.

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The paying agent shall promptly notify the Issuer of the receipt by it of any Fundamental Change Repurchase Notice or written notice of withdrawal thereof.

(c) On or before the 20th calendar day after the occurrence of the effective date of a Fundamental Change, the Issuer shall provide to all Holders of Notes and the Trustee and the paying agent (in the case of a paying agent other than the Trustee) a written notice (the "Fundamental Change Issuer Notice") of the occurrence of the effective date of the Fundamental Change and of the repurchase right at the option of the Holders arising as a result thereof.

In the case of Notes evidenced by definitive Securities, such notice shall be by first class mail or, in the case of Notes evidenced by Global Securities, such notice shall be delivered in accordance with the applicable procedures of the Depositary. Simultaneously with providing such notice, the Issuer shall publish a notice containing the information set forth in the Fundamental Change Issuer Notice in a newspaper of general circulation in The City of New York or publish such information on the Issuer's website or through such other public medium as the Issuer may use at that time. Each Fundamental Change Issuer Notice shall specify:

- (i) the events causing the Fundamental Change;
- (ii) the date of the Fundamental Change;
- (iii) the last date on which a Holder may exercise the repurchase right pursuant to this Article 15;
- (iv) the Fundamental Change Repurchase Price;
- (v) the Fundamental Change Repurchase Date;
- (vi) the name and address of the paying agent and the Conversion Agent, if applicable;
- (vii) if applicable, the Conversion Rate and any adjustments to the Conversion Rate;
- (viii) if applicable, that the Notes with respect to which a Fundamental Change Repurchase Notice has been delivered by a Holder may be converted only if the Holder withdraws the Fundamental Change Repurchase Notice in accordance with the terms of the Indenture; and
 - (ix) the procedures that Holders must follow to require the Issuer to repurchase their Notes.

No failure of the Issuer to give the foregoing notices and no defect therein shall limit the Holders' repurchase rights or affect the validity of the proceedings for the repurchase of the Notes pursuant to this Section 15.01.

At the Issuer's request, the Trustee shall give such notice in the Issuer's name and at the Issuer's expense; *provided*, *however*, that, in all cases, the text of such Fundamental Change Issuer Notice shall be prepared by the Issuer.

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(d) Notwithstanding the foregoing, no Notes may be repurchased by the Issuer on any date at the option of the Holders upon a Fundamental Change if the principal amount of the Notes has been accelerated, and such acceleration has not been rescinded, on or prior to such date (except in the case of an acceleration resulting from a Default by the Issuer in the payment of the Fundamental Change Repurchase Price with respect to such Notes). The paying agent will promptly return to the respective Holders thereof any Notes evidenced by definitive Securities held by it during the acceleration of the Notes (except in the case of an acceleration resulting from a Default by the Issuer in the payment of the Fundamental Change Repurchase Price with respect to such Notes), or any instructions for book-entry transfer of the Notes in compliance with the procedures of the Depositary shall be deemed to have been cancelled, and, upon such return or cancellation, as the case may be, the Fundamental Change Repurchase Notice with respect thereto shall be deemed to have been withdrawn.

Section 15.02. *Withdrawal of Fundamental Change Repurchase Notice*. (a) A Fundamental Change Repurchase Notice may be withdrawn (in whole or in part) by means of a written notice of withdrawal delivered to the Corporate Trust Office of the paying agent in accordance with this Section 15.02 at any time prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date, specifying:

- (i) the principal amount of the Notes with respect to which such notice of withdrawal is being submitted,
- (ii) if definitive Securities have been issued, the certificate number of the Note in respect of which such notice of withdrawal is being submitted, and
- (iii) the principal amount, if any, of such Note that remains subject to the original Fundamental Change Repurchase Notice, which portion must be in principal amounts of \$1,000 or an integral multiple of \$1,000;

provided, however, that if the Notes are evidenced by Global Securities, the notice must comply with appropriate procedures of the Depositary.

Section 15.03. Deposit of Fundamental Change Repurchase Price. (a) The Issuer will deposit with the Trustee (or other paying agent appointed by the Issuer, or if the Issuer is acting as its own paying agent, set aside, segregate and hold in trust as provided in Section 5.04) on or prior to 11:00 a.m., New York City time, on the Fundamental Change Repurchase Date an amount of money sufficient to repurchase all of the Notes to be repurchased at the appropriate Fundamental Change Repurchase Price. Subject to receipt of funds and/or Notes by the Trustee (or other paying agent appointed by the Issuer), payment for Notes surrendered for repurchase (and not withdrawn prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date) will be made on the later of (i) the Fundamental Change Repurchase Date (provided the Holder has satisfied the conditions in Section 15.01) and (ii) the time of book-entry transfer or the delivery of such Note to the Trustee (or other paying agent appointed by the Issuer) by the Holder thereof in the manner required by Section 15.01 by mailing checks for the amount payable to the Holders of such Notes entitled thereto as they shall appear in the Security register; provided, however, that payments to the Depositary shall be made by wire transfer of immediately available funds to the account of the Depositary or its nominee.

- (b) If by 11:00 a.m. New York City time, on the Fundamental Change Repurchase Date, the Trustee (or other paying agent appointed by the Issuer) holds money sufficient to make payment on all the Notes or portions thereof that are to be repurchased on such Fundamental Change Repurchase Date, then, with respect to the Notes that have been properly surrendered for repurchase and have not been validly withdrawn, (i) such Notes will cease to be outstanding, (ii) interest will cease to accrue on such Notes (whether or not book-entry transfer of the Notes has been made or the Notes have been delivered to the Trustee or paying agent) and (iii) all other rights of the Holders of such Notes will terminate (other than the right to receive the Fundamental Change Repurchase Price).
- (c) Upon surrender of a Note that is to be repurchased in part pursuant to Section 15.01, the Issuer shall execute and the Trustee shall authenticate and deliver to the Holder a new Note in an authorized denomination equal in principal amount to the unrepurchased portion of the Note surrendered.

Section 15.04. *Covenant to Comply with Applicable Laws Upon Repurchase of Notes.* In connection with any repurchase offer, the Issuer will, if required:

- (a) comply with the provisions of Rule 13e-4, Rule 14e-1 and any other tender offer rules under the Exchange Act;
- (b) file a Schedule TO or any other required schedule under the Exchange Act; and
- (c) otherwise comply with all federal and state securities laws in connection with any offer by the Issuer to repurchase the Notes;

in each case, so as to permit the rights and obligations under this Article 15 to be exercised in the time and in the manner specified in this Article 15.

ARTICLE 16 NO OPTIONAL REDEMPTION

Section 16.01. *No Redemption; Applicability of Article 12 of the Base Indenture.* Article 12 of the Base Indenture shall not apply to the Notes. The Notes shall not be redeemable by the Issuer prior to the Maturity Date, and no sinking fund is provided for the Notes.

ARTICLE 17 MISCELLANEOUS PROVISIONS

Section 17.01. Jurisdiction.

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The Issuer irrevocably consents and agrees, for the benefit of the Holders from time to time of the Notes and the Trustee, that any legal action, suit or proceeding against it with respect to obligations, liabilities or any other matter arising out of or in connection with the Indenture or the Notes may be brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and, until amounts due and to become due in respect of the Notes have been paid, hereby irrevocably consents and submits to the non-exclusive jurisdiction of each such court *in personam*, generally and unconditionally with respect to any action, suit or proceeding for itself in respect of its properties, assets and revenues.

The Issuer irrevocably and unconditionally waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of venue of any of the aforesaid actions, suits or proceedings arising out of or in connection with the Indenture brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum.

Section 17.02. *No Security Interest Created.* Nothing in the Indenture or in the Notes, expressed or implied, shall be construed to constitute a security interest under the Uniform Commercial Code or similar legislation, as now or hereafter enacted and in effect, in any jurisdiction.

Section 17.03. *Table of Contents, Headings, Etc.* The table of contents and the titles and headings of the articles and sections of this First Supplemental Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof. The Trustee shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this First Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made solely by the Issuer.

Section 17.04. *Authenticating Agent.* The Trustee may appoint an authenticating agent that shall be authorized to act on its behalf and subject to its direction in the authentication and delivery of Notes in connection with the original issuance thereof and transfers and exchanges of Notes hereunder, including under Section 2.04, Section 2.08, Section 2.09, Section 2.11 and Section 8.05 of the Base Indenture and Section 15.03 as fully to all intents and purposes as though the authenticating agent had been expressly authorized by the Indenture and those Sections to authenticate and deliver Notes. For all purposes of the Indenture, the authentication and delivery of Notes by the authenticating agent shall be deemed to be authentication and delivery of such Notes "by the Trustee" and a certificate of authentication executed on behalf of the Trustee by an authenticating agent shall be deemed to satisfy any requirement hereunder or in the Notes for the Trustee's certificate of authentication. Such authenticating agent shall at all times be a Person eligible to serve as trustee hereunder pursuant to Section 6.09 of the Base Indenture.

Any corporation or other entity into which any authenticating agent may be merged or converted or with which it may be consolidated, or any corporation or other entity resulting from

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eligible under this Section 17.04, without the execution or filing of any paper or any further act on the part of the parties hereto or the authenticating agent or such successor corporation or other entity.

Any authenticating agent may at any time resign by giving written notice of resignation to the Trustee and to the Issuer. The Trustee may at any time terminate the agency of any authenticating agent by giving written notice of termination to such authenticating agent and to the Issuer. Upon receiving such a notice of resignation or upon such a termination, or in case at any time any authenticating agent shall cease to be eligible under this Section, the Trustee may appoint a successor authenticating agent (which may be the Trustee), shall give written notice of such appointment to the Issuer and shall mail notice of such appointment to all Holders as the names and addresses of such Holders appear on the Security register.

The Issuer agrees to pay to the authenticating agent from time to time reasonable compensation for its services although the Issuer may terminate the authenticating agent, if it determines such agent's fees to be unreasonable.

The provisions of Section 6.03, Section 6.04, Section 6.07, and Section 7.03 (as amended by Section 8.01 of this First Supplemental Indenture) of the Base Indenture and this Section 17.04 shall be applicable to any authenticating agent.

If an authenticating agent is appointed pursuant to this Section 17.04, the Notes may have endorsed thereon, in addition to the Trustee's certificate of authentication, an alternative certificate of authentication in the following form:

as Authenticating Agent	,		
By: Authorized Officer			

Section 17.05. *Execution in Counterparts*. In addition to the provisions set forth in Section 11.09 of the Base Indenture, the exchange of copies of the Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of the Indenture as to the parties hereto and may be used in lieu of the original Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

Section 17.06. Waiver of Jury Trial. EACH OF THE ISSUER 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 THE INDENTURE, THE NOTES OR THE TRANSACTIONS CONTEMPLATED HEREBY.

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Section 17.07. *Force Majeure.* In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 17.08. *Calculations*. Except as otherwise provided herein, the Issuer shall be responsible for making all calculations called for under the Notes. These calculations include, but are not limited to, determinations of the Last Reported Sale Prices of the Common Stock, the Daily VWAPs, the Daily Conversion Values, the Daily Settlement Amounts, accrued interest payable on the Notes and the Conversion Rate of the Notes. The Issuer shall make all these calculations in good faith and, absent manifest error, the Issuer's calculations shall be final and binding on Holders of Notes. The Issuer shall provide a schedule of its calculations to each of the Trustee and the Conversion Agent, and each of the Trustee and Conversion Agent is entitled to rely conclusively upon the accuracy of the Issuer's calculations without independent verification. The Trustee will forward the Issuer's calculations to any Holder of Notes upon the request of that Holder at the sole cost and expense of the Issuer.

Section 17.09. *USA PATRIOT Act*. The parties hereto acknowledge that in accordance with Section 326 of the USA PATRIOT Act, the Trustee, like all financial institutions and in order to help fight the funding of terrorism and money laundering, is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens an account with the Trustee. The parties to the Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the USA PATRIOT Act.

[Remainder of page intentionally left blank]

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IN WITNESS WHEREOF, the parties hereto have caused this First Supplemental Indenture to be duly executed as of the date first written above.

MERRIMACK PHARMACEUTICALS, INC.

By: /s/ Robert J. Mulroy

Name: Robert J. Mulroy

Title: President and Chief Executive Officer

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Trustee

By: /s/ Yana Kislenko

Name: Yana Kislenko

Title: Vice President

EXHIBIT A

[FORM OF FACE OF NOTE]

[INCLUDE FOLLOWING LEGEND IF A GLOBAL SECURITY]

[UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE REGISTERED FORM, THIS SECURITY MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO THE NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY.]

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Merrimack Pharmaceuticals, Inc.

4.50% Convertible Senior Note due 2020

No. [] [Initially](1) \$[]

CUSIP No. 590328AA8

Merrimack Pharmaceuticals, Inc., a corporation duly organized and validly existing under the laws of the State of Delaware (the "Issuer," which term includes any successor corporation or other entity under the Indenture referred to on the reverse hereof), for value received hereby promises to pay to [CEDE & CO.](2) [](3), or registered assigns, the principal sum [as set forth in the "Schedule of Exchanges of Notes" attached hereto](4) [of \$[]](5), which amount, taken together with the principal amounts of all other outstanding Notes, shall not, unless permitted by the Indenture, exceed \$125,000,000 in aggregate at any time (or \$143,750,000 if the Underwriters exercise their over-allotment option in full as set forth in the Underwriting Agreement), in accordance with the rules and procedures of the Depositary, on July 15, 2020, and interest thereon as set forth below.

This Note shall bear interest on the outstanding principal balance hereof at the rate of 4.50% per year from July 17, 2013, or from the most recent date to which interest had been paid or provided for to, but excluding, the next scheduled Interest Payment Date until July 15, 2020. Interest is payable semi-annually in arrears on each January 15 and July 15, commencing on January 15, 2014, to Holders of record at the close of business on the preceding January 1 and July 1 (whether or not such day is a Business Day), respectively.

Any Defaulted Amounts shall accrue interest per annum on the outstanding principal balance hereof at the rate borne by the Notes *plus* one percent (1%), subject to the enforceability thereof under applicable law, from, and including, the relevant payment date to, but excluding, the date on which such Defaulted Amounts shall have been paid by the Issuer, at its election, in accordance with Section 3.03(c) of the Indenture.

The Issuer shall pay the principal of and interest on this Note, if and so long as such Note is evidenced by a Global Security, in immediately available funds to the Depositary or its nominee, as the case may be, as the registered Holder of such Note. As provided in and subject to the provisions of the Indenture, the Issuer shall pay the principal of any Notes (other than Notes that are evidenced by Global Securities) at the office or agency designated by the Issuer for that purpose. The Issuer has initially designated the Trustee as its paying agent and Security Registrar in respect of the Notes and its agency in the Borough of Manhattan, The City of New York, as a place where Notes may be presented for payment or for registration of transfer and exchange.

- (1) Include if a Global Security.
- (2) Include if a Global Security.
- (3) Include if a definitive Security.
- (4) Include if a Global Security.
- (5) Include if a definitive Security.

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Reference is made to the further provisions of this Note set forth on the reverse hereof, including, without limitation, provisions giving the Holder of this Note the right to convert this Note into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, on the terms and subject to the limitations set forth in the Indenture. Such further provisions shall for all purposes have the same effect as though fully set forth at this place.

This Note will be governed by, and construed in accordance with, the internal laws of the State of New York (without regard to the conflicts of laws provisions thereof).

In the case of any conflict between this Note and the Indenture, the provisions of the Indenture shall control and govern.

This Note shall not be valid or become obligatory for any purpose until the certificate of authentication hereon shall have been signed manually by the Trustee or a duly authorized authenticating agent under the Indenture.

IN WITNESS WHEREOF, the Issuer has caused this Note to be duly executed.

	MERRIMACK PHARMACEUTICALS, INC.
	By: Name: Title:
Dated:	
TRUSTEE'S CERTIFICATE OF AUTHENTICATION	
WELLS FARGO BANK, NATIONAL ASSOCIATION as Trustee	
By: Authorized Officer	_
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[FORM OF REVERSE OF NOTE]

Merrimack Pharmaceuticals, Inc. 4.50% Convertible Senior Note due 2020

This Note is one of a duly authorized issue of Notes of the Issuer, designated as its 4.50% Convertible Senior Notes due 2020 (the "Notes"), limited to the aggregate principal amount of \$125,000,000 (as increased by an amount equal to the aggregate principal amount of any additional Notes purchased by the Underwriters pursuant to the exercise of their option to purchase additional Notes as set forth in the Underwriting Agreement) all issued or to be issued under and pursuant to the First Supplemental Indenture dated as of July 17, 2013 (the "First Supplemental Indenture"), between the Issuer and Wells Fargo Bank, National Association (the "Trustee"), which amends and supplements the Indenture dated as of July 17, 2013 between the Issuer and the Trustee (the "Base Indenture" and, as amended and supplemented by the First Supplemental Indenture and from time to time with respect to the Notes, the "Indenture") to which Indenture and all indentures supplemental thereto reference is hereby made for a description of the rights, limitations of rights, obligations, duties and immunities thereunder of the Trustee, the Issuer and the Holders of the Notes. Additional Notes may be issued in an unlimited aggregate principal amount, subject to certain conditions specified in the Indenture. Capitalized terms used in this Note and not defined in this Note shall have the respective meanings set forth in the Indenture.

In case certain Events of Default shall have occurred and be continuing, the principal of, and interest on, all Notes may be declared, by either the Trustee or Holders of at least 25% in aggregate principal amount of Notes then outstanding, and upon said declaration shall become, due and payable, in the manner, with the effect and subject to the conditions and certain exceptions set forth in the Indenture.

Subject to the terms and conditions of the Indenture, the Issuer will make all payments and deliveries in respect of the Fundamental Change Repurchase Price on the Fundamental Change Repurchase Date and the principal amount on the Maturity Date, as the case may be, to the Holder who surrenders a Note to a paying agent to collect such payments in respect of the Note. The Issuer will pay cash amounts in money of the United States that at the time of payment is legal tender for payment of public and private debts.

The Indenture contains provisions permitting the Issuer and the Trustee in certain circumstances, without the consent of the Holders of the Notes, and in certain other circumstances, with the consent of the Holders of not less than a majority in aggregate principal amount of the Notes at the time outstanding, evidenced as in the Indenture provided, to execute supplemental indentures modifying the terms of the Indenture and the Notes as described therein. It is also provided in the Indenture that, subject to certain exceptions, the Holders of a majority in aggregate principal amount of the Notes at the time outstanding may on behalf of the Holders of all of the Notes waive any past Default or Event of Default under the Indenture and its consequences.

No reference herein to the Indenture and no provision of this Note or of the Indenture shall alter or impair the obligation of the Issuer, which is absolute and unconditional, to pay or

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deliver, as the case may be, the principal (including the Fundamental Change Repurchase Price, if applicable) of, accrued and unpaid interest on, and the consideration due upon conversion of, this Note at the place, at the respective times, at the rate and in the lawful money herein prescribed.

The Notes are issuable in registered form without coupons in denominations of \$1,000 principal amount and integral multiples thereof. At the office or agency of the Issuer referred to on the face hereof, and in the manner and subject to the limitations provided in the Indenture, Notes may be exchanged for a like aggregate principal amount of Notes of other authorized denominations, without payment of any service charge but, if required by the Issuer or Trustee,

with payment of a sum sufficient to cover any transfer or similar tax that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such exchange of Notes being different from the name of the Holder of the old Notes surrendered for such exchange.

The Notes are not subject to redemption through the operation of any sinking fund or otherwise.

Upon the occurrence of a Fundamental Change, the Holder has the right, at such Holder's option, to require the Issuer to repurchase for cash all of such Holder's Notes or any portion thereof (in principal amounts of \$1,000 or integral multiples thereof) on the Fundamental Change Repurchase Date at a price equal to the Fundamental Change Repurchase Price.

Subject to the provisions of the Indenture, the Holder hereof has the right, at its option, during certain periods and upon the occurrence of certain conditions specified in the Indenture, prior to the close of business on the Business Day immediately preceding the Maturity Date, to convert any Notes or portion thereof that is \$1,000 or an integral multiple thereof, into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, at the Conversion Rate specified in the Indenture, as adjusted from time to time as provided in the Indenture.

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ABBREVIATIONS

The following abbreviations, when used in the inscription of the face of this Note, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM = as tenants in common

UNIF GIFT MIN ACT = Uniform Gifts to Minors Act

CUST = Custodian

Date of exchange

TEN ENT = as tenants by the entireties

JT TEN = joint tenants with right of survivorship and not as tenants in common

Additional abbreviations may also be used though not in the above list.

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SCHEDULE A(6)

SCHEDULE OF EXCHANGES OF NOTES

Merrimack Pharmaceuticals, Inc. 4.50% Convertible Senior Notes due 2020

The initial principal amount of this Global Security is have been made:

DOLLARS (\$[

]). The following increases or decreases in this Global Security

have been made:

Amount of decrease in principal amount of this Global Security Amount of increase in principal amount of this Global Security Principal amount of this Global Security following such decrease or increase Signature of authorized signatory of Trustee or Custodian

(6) Include if a Global Security.

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ATTACHMENT 1

[FORM OF NOTICE OF CONVERSION]

To: Merrimack Pharmaceuticals, Inc.

The undersigned registered owner of this Note hereby exercises the option to convert this Note, or the portion hereof (that is \$1,000 principal amount or an integral multiple thereof) below designated, into cash, shares of Common Stock or a combination of cash and shares of Common Stock, as applicable, at the election of the Issuer, in accordance with the terms, and subject to certain limitations, of the Indenture referred to in this Note, and directs that any cash payable and any shares of Common Stock issuable and deliverable upon such conversion, together with any cash for any fractional share, and any Notes representing any unconverted principal amount hereof, be issued and delivered to the registered Holder hereof unless a different name has been indicated below. If any shares of Common Stock or any portion of this Note not converted are to be issued in the name of a Person other than the undersigned, the undersigned will pay all documentary, stamp or similar issue or transfer taxes, if any in accordance with Section 14.02(d) and Section 14.02(e) of the

Indenture. Any amount required to be paid to the undersigned on account of it shall have the meanings ascribed to such terms in the Indenture.	nterest accompanies this Note. Capitalized terms used herein but not defined
Dated:	
	Signature(s)
Signature Guarantee	
Signature(s) must be guaranteed by an eligible Guarantor Institution (banks, stock brokers, savings and loan associations and credit unions) with membership in an approved signature guarantee medallion program pursuant to Securities and Exchange Commission Rule 17Ad-15 if shares of Common Stock are to be issued, or Notes are to be delivered, other than to and in the name of the registered holder.	
	1
Fill in for registration of shares if to be issued, and Notes if to be delivered, other than to and in the name of the registered holder:	
(Name)	
(Street Address)	
(City, State and Zip Code) Please print name and address	
	Principal amount to be converted (if less than all): \$,000
	NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.
	Social Security or Other Taxpayer Identification Number
	2
	ATTACHMENT
[FORM OF FUNDAMENTAL C	HANGE REPURCHASE NOTICE]
To: Merrimack Pharmaceuticals, Inc.	
the occurrence of a Fundamental Change with respect to the Issuer and specify Issuer to pay to the registered holder hereof in accordance with Section 15.01 Note, or the portion thereof (that is \$1,000 principal amount or an integral mul Repurchase Date does not fall during the period after a Regular Record Date a	of the Indenture referred to in this Note (1) the entire principal amount of this
In the case of Notes evidenced by definitive Securities, the certificate	numbers of the Notes to be repurchased are as set forth below:
Dated:	
	Signature(s)

Social Security or Other Taxpayer Identification Number

Principal amount to be repaid (if less than all): \$,000

NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.



July 17, 2013

Merrimack Closes Concurrent Sale of 5,750,000 Shares of Common Stock and \$125,000,000 Aggregate Principal Amount of Convertible Senior Notes

CAMBRIDGE, Mass., July 17, 2013 (GLOBE NEWSWIRE) — Merrimack Pharmaceuticals, Inc. (NASDAQ: MACK) today announced the closing of its sale of 5,750,000 shares of its common stock at a price to the public of \$5.00 per share and \$125,000,000 aggregate principal amount of its 4.50% convertible senior notes due 2020 (the "Notes") in concurrent underwritten public offerings pursuant to Merrimack's effective Registration Statement on Form S-3 (File No. 333-186369) (the "Registration Statement") and a related prospectus filed with the Securities and Exchange Commission (the "SEC"). The total number of shares of common stock sold reflects the full exercise by the underwriters of their option to purchase an additional 750,000 shares of common stock. Merrimack has granted the underwriters in the Notes offering an option, exercisable for 30 days, to purchase up to an additional \$18.75 million in aggregate principal amount of Notes.

The Notes bear interest at a rate of 4.50% per year, payable semiannually on January 15 and July 15 of each year, beginning January 15, 2014. Interest accrues from July 17, 2013. The Notes mature on July 15, 2020. The Notes are convertible, under certain circumstances and during certain periods, at the option of the holder, based on an initial conversion rate of 160.0000 shares of common stock per \$1,000 principal amount of Notes, which is equivalent to an initial conversion price of \$6.25 per share of common stock, subject to adjustment in certain circumstances. The initial conversion price represents a conversion premium of 25% over the public offering price in the common stock offering. Following certain corporate events that occur prior to the maturity date, Merrimack will increase the conversion rate for a holder who elects to convert its Notes in connection with such a corporate event in certain circumstances. Upon any conversion of the Notes that occurs while Merrimack's indebtedness to Hercules Technology Growth Capital, Inc. ("Hercules"), under the Loan and Security Agreement dated November 8, 2012 between Merrimack and Hercules, remains outstanding, the Notes will be settled in shares of Merrimack's common stock. Following the repayment and satisfaction in full of Merrimack's obligations to Hercules under the Loan and Security Agreement, upon any conversion of the Notes, the Notes may be settled, at Merrimack's election, in cash, shares of Merrimack's common stock or a combination of cash and shares of Merrimack's common stock.

J. P. Morgan Securities LLC and BofA Merrill Lynch acted as joint book-running managers of these offerings. Cowen and Company, LLC acted as lead manager of the common stock offering and co-manager of the Notes offering. Oppenheimer & Co. Inc., Guggenheim Securities and Brean Capital, LLC acted as co-managers of the common stock offering. Interested parties may read the prospectus supplement and the accompanying prospectus for the offerings and the other documents Merrimack has filed with the SEC, which are incorporated by reference in the prospectus supplements and the accompanying prospectus and provide more complete information about Merrimack and these offerings. Copies of the prospectus supplements and the accompanying prospectus relating to each offering may be obtained from J.P. Morgan Securities LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, telephone (toll-free): 1-866-803-9204 or BofA Merrill Lynch, 222 Broadway, New York, NY 10038, Attention: Prospectus Department, e-mail: dg.prospectus_requests@baml.com. Electronic copies of the prospectus supplements may be obtained by visiting EDGAR on the SEC's website at http://www.sec.gov/.

About Merrimack

Merrimack is a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines paired with companion diagnostics for the treatment of cancer. Merrimack applies its systems biology-based approach to biomedical research throughout the research and development process. Merrimack currently has six oncology therapeutics in clinical development.

Forward-looking statements

To the extent that statements contained in this press release are not descriptions of historical facts, they are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include any statements about Merrimack's strategy, future operations, future financial position and future expectations and plans and prospects for Merrimack, and any other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions. Such forward-looking statements involve substantial risks and uncertainties that could cause Merrimack's clinical development programs, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Merrimack undertakes no obligation to update or revise any forward-looking statements. Forward-looking statements should not be relied upon as representing Merrimack's views as of any date subsequent to the date hereof. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to Merrimack's business in general, see the "Risk Factors" section of Merrimack's Quarterly Report on Form 10-Q filed with the SEC on May 13, 2013 and other reports Merrimack files with the SEC.

Investor & Media Contact: Kathleen Petrozzelli Gallagher, Corporate Communications, Merrimack, 617-441-1043, kgallagher@merrimackpharma.com