CoreSite Realty Corp Form 424B7 May 11, 2016

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Filed Pursuant to Rule 424(b)(7) Registration No. 333-177052

Prospectus Supplement (To Prospectus dated October 11, 2011)

3,000,000 Shares

CoreSite Realty Corporation

Common Stock

The selling stockholders named in this prospectus supplement are selling 3,000,000 shares of our common stock. We will not receive any proceeds from the sale of the shares by the selling stockholders.

Our common stock is listed on the New York Stock Exchange under the symbol "COR." The last reported sale price of our common stock on the New York Stock Exchange on May 9, 2016 was \$78.12 per share.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 2 of the accompanying prospectus.

The underwriter has agreed to purchase the shares of our common stock from the selling stockholders at a price of \$76.61 per share. The proceeds to the selling stockholders from the sale will be \$229.8 million.

The shares may be offered by the underwriter from time to time to purchasers directly or through agents, or through brokers in brokerage transactions on the New York Stock Exchange, in the over-the-counter market or to dealers in negotiated transactions or in a combination of such methods of sale, at a fixed price or prices, which may be changed, or at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at negotiated prices. See "Underwriting."

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

The underwriter expects to deliver the shares to purchasers on or about May 13, 2016.

J.P. Morgan

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You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized any other person to provide you with additional or different information. If anyone provides you with additional or different information, you should not rely on it. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or a solicitation of an offer to buy any securities other than the registered securities to which they relate, and this prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction where, or to any person to whom, it is unlawful to make such an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

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About this prospectus supplement

You should read this prospectus supplement along with the accompanying prospectus, as well as the information incorporated by reference herein and therein, carefully before you invest in our common stock.

The accompanying prospectus contains information about our securities generally, some of which does not apply to the common stock covered by this prospectus supplement. This prospectus supplement may add, update or change information contained in or incorporated by reference in the accompanying prospectus. If the information in this prospectus supplement is inconsistent with any information contained in or incorporated by reference in the accompanying prospectus, the information in this prospectus supplement will apply and will supersede the inconsistent information contained in or incorporated by reference in the accompanying prospectus.

Unless this prospectus supplement otherwise indicates or the context otherwise requires, all references in this prospectus supplement to "we," "us," "our" and "our company" collectively refer to CoreSite Realty Corporation, a Maryland corporation, CoreSite, L.P., and any of our other subsidiaries. CoreSite, L.P. is a Delaware limited partnership of which CoreSite Realty Corporation is the sole general partner and to which we refer in this prospectus supplement as our operating partnership.

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Selling stockholders

The "selling stockholders" are investment funds affiliated with The Carlyle Group, as identified in the footnotes to the following table. As of the date of this prospectus supplement, the selling stockholders do not hold any shares of our common stock, but rather hold an aggregate of 16,775,390 units representing common limited partnership interests, or common units, in CoreSite, L.P., our operating partnership. Under the limited partnership agreement for our operating partnership, the common units are redeemable for cash or, at our election, exchangeable for shares of our common stock on a one-for-one basis. Prior to the closing of this offering, the selling stockholders have agreed to exercise their right to tender an aggregate of 3,000,000 common units for redemption and we have agreed to acquire such common units in exchange for 3,000,000 shares of our common stock, or the Exchange, which shares are being sold in this offering.

As of May 9, 2016, there were 30,915,524 shares of our common stock outstanding, which includes 563,857 unvested restricted stock awards, and 16,854,847 common units held by limited partners of our operating partnership outstanding, which includes 16,775,390 common units held by the selling stockholders. As of such date, our company held 64.3% of the common units of our operating partnership and the selling stockholders, together with all other limited partners of our operating partnership, held 35.7% of the common units of our operating partnership. As a result of the Exchange, the number of common units held by our company and outstanding shares of our common stock will increase by 3,000,000 and our company will own 70.7% of the common units of our operating partnership. Upon completion of this offering, the selling stockholders will continue to hold an aggregate of 13,775,390 common units that they may elect to redeem at any time in whole or in part. If, immediately upon completion of this offering, the selling stockholders elected to tender for redemption all of their remaining common units and we elected to acquire such units in exchange for shares of our common stock, the selling stockholders would collectively own approximately 28.9% of our issued and outstanding common stock.

The following	table and	footnotes	thereto	indicate	the
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names of the selling stockholders;

maximum number of shares of our common stock issuable to the selling stockholders upon exchange of all of their common units held prior to the Exchange;

number of shares of our common stock offered by the selling stockholders in the offering;

aggregate number of shares of our common stock that will be owned by the selling stockholders after the offering; and

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maximum number of shares of our common stock issuable to the selling stockholders upon exchange of all of their common units held after the Exchange and this offering.

Name	Common stock beneficially owned	Comn issua excha	s offering non stock	Shares of common stock issued upon exchange and C to be sold in thism offering	stock	Comn issua excha	exchange s offering non stock able upon nge of all on units ⁽¹⁾
Investment funds affiliated was The Carlyle Group ⁽²⁾	ith	16,775,390	35.2%	3,000,000		13,775,390	28.9%

- (1) Assumes the selling stockholders tender all of their common units for redemption and we elect to exchange all such tendered units for shares of common stock on a one-for-one basis. The percentage ownership: (i) prior to the Exchange and this offering is based on 30,915,524 shares of our common stock outstanding as of May 9, 2016 and (ii) after the Exchange and this offering is based on 30,915,524 shares of our common stock outstanding as of May 9, 2016 after giving effect to the 3,000,000 shares issued to the selling stockholders in the Exchange and this offering.
- (2) Based on information provided to us by The Carlyle Group. Consists of (i) 4,129,993 common units held by CoreSite CRP III Holdings, LLC; (ii) 836,633 common units held by CoreSite CRP III Holdings (VCOC), LLC; (iii) 2,894,301 common units held by CoreSite CRP IV Holdings, LLC; (iv) 492,892 common units held by CoreSite CRP IV Holdings (VCOC I), LLC; (v) 1,266,850 common units held by CoreSite CRP IV Holdings (VCOC II), LLC; and (vi) 7,154,721 common units held by CoreSite CRP V Holdings, LLC.

Carlyle Group Management L.L.C. is the general partner of The Carlyle Group L.P., which is a publicly traded entity listed on NASDAQ. The Carlyle Group L.P. is the sole shareholder of Carlyle Holdings I GP Inc., which is the managing member of Carlyle Holdings I GP Sub L.L.C., which is the general partner of Carlyle Holdings I L.P., which is the managing member of TC Group, L.L.C., which is the general partner of TC Group Sub L.P., which is the managing member of each of Carlyle Realty III GP, L.L.C., CRP III AIV GP, L.L.C., Carlyle Realty IV GP, L.L.C., CRP IV AIV GP, L.L.C. and Carlyle Realty V GP, L.L.C.

Carlyle Realty III GP, L.L.C. is the general partner of Carlyle Realty III, L.P. which is the manager of CoreSite CRP III Holdings, LLC. CRP III AIV GP, L.L.C. is the general partner of CRP III AIV GP, L.P., which is the general partner of CRQP III AIV, L.P., which is the managing member of CoreSite CRP III Holdings (VCOC), LLC. Carlyle Realty IV GP, L.L.C. is the general partner of Carlyle Realty IV, L.P., which is the manager of CoreSite CRP IV Holdings, LLC. CRP IV AIV GP, L.L.C. is the general partner of CRP IV AIV GP, L.P., which is the general partner of each of CRP IV-A AIV, L.P. and CRQP IV AIV, L.P., which are the managing members of CoreSite CRP IV Holdings (VCOC I), LLC and CoreSite CRP IV Holdings (VCOC II), LLC, respectively. Carlyle Realty V GP, L.L.C. is the general partner of Carlyle Realty V, L.P., which is the manager of CoreSite CRP V Holdings, LLC.

The principal address of each of the foregoing entities is c/o The Carlyle Group, 1001 Pennsylvania Ave NW, Suite 220 South, Washington, DC 20004-2505.

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Supplemental federal income tax considerations

This discussion is a supplement to, and is intended to be read together with, the discussion under the heading "Federal Income Tax Considerations" in the accompanying prospectus. This discussion is for general information only and is not tax advice.

Prospective investors in our common stock should consult their tax advisors regarding the U.S. federal income and other tax consequences to them of the acquisition, ownership and disposition of our common stock offered by this prospectus supplement.

The following discussion is inserted at the beginning of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company" in the accompanying prospectus.

The following information is generally applicable to and modifies the discussion below:

Although we have received private letter rulings from the IRS on certain matters, we have not requested and do not intend to request a ruling from the IRS that we qualify as a REIT, and the statements in this prospectus are not binding on the IRS or any court. We are entitled to rely upon our private letter rulings only to the extent that we did not misstate or omit a material fact in the ruling requests we submitted to the IRS and that we operate in the future in accordance with the facts described in those requests.

We currently hold interests in more than one taxable REIT subsidiary.

The following discussion supersedes the first sentence of the ninth bullet point of the fourth paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company General" in the accompanying prospectus.

Ninth, if we acquire any asset from a corporation that is or has been a C corporation in a transaction in which our initial basis in the asset is less than the fair market value of the asset at the time we acquire the asset, and we subsequently recognize gain on the disposition of the asset during the five-year period beginning on the date on which we acquired the asset, then we will be required to pay tax at the highest regular corporate tax rate on this gain to the extent of the excess of (1) the fair market value of the asset over (2) our adjusted basis in the asset, in each case determined as of the date on which we acquired the asset.

The following discussion supersedes the eleventh bullet point of the fourth paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company General" in the accompanying prospectus.

Eleventh, we will be required to pay a 100% tax on any "redetermined rents," "redetermined deductions," "excess interest" or (for taxable years beginning after December 31, 2015) "redetermined TRS service income." See "Penalty Tax." In general, redetermined rents are rents from real property that are overstated as a result of services furnished to any of our customers by a taxable REIT subsidiary of ours. Redetermined deductions and excess interest generally represent amounts that are deducted by a taxable REIT subsidiary of ours for amounts paid to us that are in excess of the amounts that would have been deducted based on arm's length negotiations. Redetermined TRS service income generally represents income of a taxable REIT subsidiary that is understated as a result of services provided to us or on our behalf.

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The following discussion is inserted as a new bullet point after the twelfth bullet point in the fourth paragraph in the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company General" in the accompanying prospectus.

Thirteenth, if we fail to comply with the requirement to send annual letters to our stockholders requesting information regarding the actual ownership of our stock and the failure is not due to reasonable cause or due to willful neglect, we will be subject to a \$25,000 penalty, or if the failure is intentional, a \$50,000 penalty.

The following discussion supersedes the fourth sentence of the sixth paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Income Tests" in the accompanying prospectus.

The term "hedging transaction," as used above, generally means (A) any transaction we enter into in the normal course of our business primarily to manage risk of (1) interest rate changes or fluctuations with respect to borrowings made or to be made by us to acquire or carry real estate assets, or (2) currency fluctuations with respect to an item of qualifying income under the 75% or 95% gross income test and (B) for taxable years beginning after December 31, 2015, new transactions entered into to hedge the income or loss from prior hedging transactions, where the property or indebtedness which was the subject of the prior hedging transaction was extinguished or disposed of.

The following discussion supersedes the first and second sentences of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Penalty Tax" in the accompanying prospectus.

Any redetermined rents, redetermined deductions, excess interest or (for taxable years beginning after December 31, 2015) redetermined TRS service income we generate will be subject to a 100% penalty tax. In general, redetermined rents are rents from real property that are overstated as a result of any services furnished to any of our customers by a taxable REIT subsidiary of ours, redetermined deductions and excess interest represent any amounts that are deducted by a taxable REIT subsidiary of ours for amounts paid to us that are in excess of the amounts that would have been deducted based on arm's length negotiations, and redetermined TRS service income is income of a taxable REIT subsidiary that is understated as a result of services provided to us or on our behalf.

The following sentence should be inserted at the end of the first paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Asset Tests" in the accompanying prospectus.

For taxable years beginning after December 31, 2015, the term "real estate assets" also includes debt instruments of publicly offered REITs, personal property securing a mortgage secured by both real property and personal property if the fair market value of such personal property does not exceed 15% of the total fair market value of all such property, and personal property leased in connection with a lease of real property for which the rent attributable to personal property is not greater than 15% of the total rent received under the lease.

The following discussion supersedes the fourth paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Asset Tests" in the accompanying prospectus.

Fourth, not more than 25% (20% for taxable years beginning after December 31, 2017) of the value of our total assets may be represented by the securities of one or more taxable REIT subsidiaries. Our operating partnership currently owns 100% of the securities of two corporations that have elected, together with us, to be treated as our taxable REIT subsidiaries. So long as each of these corporations qualifies as our

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taxable REIT subsidiary, we will not be subject to the 5% asset test, the 10% voting securities limitation or the 10% value limitation with respect to our ownership of their securities. We may acquire securities in other taxable REIT subsidiaries in the future. We believe that the aggregate value of our taxable REIT subsidiaries and our other securities (other than those securities includable in the 75% asset test) has not exceeded, and in the future will not exceed, 25% (20% for taxable years beginning after December 31, 2017) of the aggregate value of our gross assets. No independent appraisals have been obtained to support these conclusions. In addition, there can be no assurance that the IRS will not disagree with our determinations of value.

The following new paragraph should be inserted after the fourth paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Asset Tests" in the accompanying prospectus.

Fifth, for taxable years beginning after December 31, 2015, not more than 25% of the value of our total assets may be represented by debt instruments of publicly offered REITs to the extent those debt instruments would not be real estate assets but for the inclusion of debt instruments of publicly offered REITs in the meaning of real estate assets effective for taxable years beginning after December 31, 2015, as described above.

The following discussion supersedes the third paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Annual Distribution Requirements" in the accompanying prospectus.

In addition, if we dispose of any asset we acquired from a corporation which is or has been a C corporation in a transaction in which our basis in the asset is determined by reference to the basis of the asset in the hands of that C corporation, within the five-year period following our acquisition of such asset, we would be required to distribute at least 90% of the after-tax gain, if any, we recognized on the disposition of the asset, to the extent that gain does not exceed the excess of (a) the fair market value of the asset over (b) our adjusted basis in the asset, in each case, on the date we acquired the asset.

The following discussion supersedes the fifth sentence of the fourth paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Annual Distribution Requirements" in the accompanying prospectus.

In order to be taken into account for purposes of our distribution requirement, the amount distributed, except as provided below, must not be preferential i.e., every stockholder of the class of stock to which a distribution is made must be treated the same as every other stockholder of that class, and no class of stock may be treated other than according to its dividend rights as a class. This preferential limitation will not apply to distributions made in our taxable years beginning after December 31, 2014, provided we qualify as a "publicly offered REIT." We believe that we are, and currently expect we will continue to be, a "publicly offered REIT."

The following discussion supersedes the first paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Tax Aspects of Our Operating Partnership, the Subsidiary Partnerships and the Limited Liability Companies Allocations of Income, Gain, Loss and Deduction" in the accompanying prospectus.

The net income and loss of our operating partnership are allocated in accordance with the terms of the partnership agreement. In general, the net income and net loss of our operating partnership are allocated to the holders of partnership units in such a manner that, to the extent possible, the capital account of each holder, as adjusted in accordance with certain applicable Treasury Regulations, is equal to the amount

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that would be distributed to such holder in a hypothetical liquidation of the operating partnership. Therefore, as a result of the preference to which the preferred partnership units are entitled in distributions, net income may be disproportionately allocated to the holders of preferred partnership units, including us, and net loss may be disproportionately allocated to the holders of common partnership units. In some cases losses may also be disproportionately allocated to partners who have guaranteed debt of our operating partnership.

The following discussion should be inserted after the third paragraph of the discussion under the heading "Federal Income Tax Considerations Taxation of Our Company Tax Aspects of Our Operating Partnership, the Subsidiary Partnerships and the Limited Liability Companies Tax Allocations with Respect to the Properties" in the accompanying prospectus.

Partnership Audit Rules. The recently enacted Bipartisan Budget Act of 2015 changes the rules applicable to U.S. federal income tax audits of partnerships. Under the new rules (which are generally effective for taxable years beginning after December 31, 2017), among other changes and subject to certain exceptions, any audit adjustment to items of income, gain, loss, deduction, or credit of a partnership (and any partner's distributive share thereof) is determined, and taxes, interest, or penalties attributable thereto are assessed and collected, at the partnership level. Although it is uncertain how these new rules will be implemented, it is possible that they could result in partnerships in which we directly or indirectly invest being required to pay additional taxes, interest and penalties as a result of an audit adjustment, and we, as a direct or indirect partner of these partnerships, could be required to bear the economic burden of those taxes, interest, and penalties even though we, as a REIT, may not otherwise have been required to pay additional corporate-level taxes as a result of the related audit adjustment. The changes created by these new rules depend in many respects on the promulgation of future regulations or other guidance by the U.S. Treasury.

The following discussion supersedes the first sentence of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Taxable U.S. Stockholders Capital Gain Dividends" in the accompanying prospectus.

Dividends that we properly designate as capital gain dividends will be taxable to our taxable U.S. stockholders as a gain from the sale or disposition of a capital asset held for more than one year, to the extent that such gain does not exceed our actual net capital gain for the taxable year and, for taxable years beginning after December 31, 2015, may not exceed our dividends paid for the taxable year, including dividends paid the following year that are treated as paid in the current year.

The following discussion supersedes the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Taxable U.S. Stockholders Tax Rates" in the accompanying prospectus.

The maximum tax rate for non-corporate taxpayers for (1) long-term capital gains, including certain capital gain dividends," is generally 20% (although depending on the characteristics of the assets which produced these gains and on designations which we may make, certain capital gain dividends may be taxed at a 25% rate) and (2) "qualified dividend income" is generally 20%. In general, dividends payable by REITs are not eligible for the reduced tax rate on qualified dividend income, except to the extent that certain holding period requirements have been met and the REIT's dividends are attributable to dividends received from taxable corporations (such as its taxable REIT subsidiaries) or to income that was subject to tax at the corporate/REIT level (for example, if the REIT distributed taxable income that it retained and paid tax on in the prior taxable year). In addition, U.S. holders that are corporations may be required to treat up to 20% of some capital gain dividends as ordinary income.

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The following discussion supersedes the second sentence of the third paragraph of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Distributions Generally" in the accompanying prospectus.

To the extent that such distributions exceed the non-U.S. stockholder's adjusted basis in such stock, they will generally give rise to gain from the sale or exchange of such stock, the treatment of which is described below. However, recent legislation may cause such excess distributions to be treated as dividend income for certain non-U.S. holders.

The following discussion supersedes the third, fourth, and fifth sentences of the second paragraph of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Capital Gain Dividends and Distributions Attributable to a Sale or Exchange of U.S. Real Property Interests" in the accompanying prospectus.

We also will be required to withhold and to remit to the IRS 35% (or 20% to the extent provided in Treasury Regulations) of any distribution to non-U.S. stockholders that is designated as a capital gain dividend or, if greater, 35% of any distribution to non-U.S. stockholders that could have been designated as a capital gain dividend. The amount withheld is creditable against the non-U.S. stockholder's federal income tax liability. However, any distribution with respect to any class of stock that is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market located in the United States is not subject to FIRPTA, and therefore, not subject to the 35% U.S. withholding tax described above, if the non-U.S. stockholder did not own more than 10% of such class of stock at any time during the one-year period ending on the date of the distribution.

The following discussion should be inserted at the end of the second paragraph of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Capital Gain Dividends and Distributions Attributable to a Sale or Exchange of U.S. Real Property Interests" in the accompanying prospectus.

In addition, distributions to certain non-U.S. publicly traded shareholders that meet certain record-keeping and other requirements ("qualified shareholders") are exempt from FIRPTA, except to the extent owners of such qualified shareholders that are not also qualified shareholders own, actually or constructively, more than 10% of our stock. Furthermore, distributions to "qualified foreign pension funds" or entities all of the interests of which are held by "qualified foreign pension funds" are exempt from FIRPTA. Non-U.S. holders should consult their tax advisors regarding the application of these rules.

The following discussion supersedes the second numbered clause of the third paragraph of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Sale of Our Common Stock" in the accompanying prospectus.

(2) such non-U.S. stockholder owned, actually and constructively, 10% or less of such class of our stock through the five-year period ending on the date of the sale or exchange.

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The following discussion should be inserted as a new paragraph after the second numbered clause of the third paragraph of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Sale of Our Common Stock" in the accompanying prospectus.

In addition, dispositions of our stock by qualified shareholders are exempt from FIRPTA, except to the extent owners of such qualified shareholders that are not also qualified shareholders own, actually or constructively, more than 10% of our stock. Furthermore, dispositions of our stock by "qualified foreign pension funds" or entities all of the interests of which are held by "qualified foreign pension funds" are exempt from FIRPTA. Non-U.S. holders should consult their tax advisors regarding the application of these rules.

The following discussion supersedes the last sentence of the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Sale of Our Common Stock" in the accompanying prospectus.

In addition, if the sale, exchange or other taxable disposition of our stock were subject to taxation under FIRPTA, and if shares of the relevant class of our stock were not "regularly traded" on an established securities market, the purchaser of such stock would generally be required to withhold and remit to the IRS 15% of the purchase price.

The following discussion supersedes the discussion under the heading "Federal Income Tax Considerations Federal Income Tax Considerations for Holders of Our Common Stock Taxation of Non-U.S. Stockholders Foreign Accounts" in the accompanying prospectus.

Withholding taxes may be imposed under Sections 1471 through 1474 of the Code (commonly referred to as the Foreign Account Tax Compliance Act, or FATCA) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our stock paid to a "foreign financial institution" or a "non-financial foreign entity" (each as defined in the Code), unless (1) in the case of a foreign financial institution, the foreign financial institution undertakes certain diligence and reporting obligations, (2) in the case of a non-financial foreign entity, the non-financial foreign entity either certifies it does not have any "substantial United States owners" (as defined in the Code) or furnishes identifying information regarding each substantial United States owner or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements referred to in clause (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain "specified United States persons" or "United States-owned foreign entities" (each as defined in the Code), annually report certain information about such accounts and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Non-U.S. entities located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules. Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our stock regardless of when they are made and will apply to payments of gross proceeds from the sale or other disposition of our stock on or after January 1, 2019. Prospective investors should consult their tax advisors regarding these rules.

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Underwriting

Subject to the terms and conditions set forth in the underwriting agreement, dated May 9, 2016, among us, our operating partnership, the selling stockholders and J.P. Morgan Securities LLC, as underwriter, the selling stockholders have agreed to sell to the underwriter, and the underwriter has agreed to purchase from the selling stockholders, the entire number of shares of common stock offered by this prospectus supplement.

The underwriting agreement provides that the obligations of the underwriter are subject to certain conditions precedent such as the receipt by the underwriter of officers' certificates and legal opinions and approval of certain legal matters by its counsel. The underwriting agreement provides that the underwriter will purchase all of the shares of common stock if any of them are purchased.

We and the selling stockholders have agreed to indemnify the underwriter and certain of its controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriter may be required to make in respect of those liabilities.

The underwriter has advised us that, following the completion of this offering, it currently intends to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriter is not obligated to do so, and the underwriter may discontinue any market-making activities at any time without notice in its sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriter is offering the shares of common stock subject to its acceptance of the shares of common stock from the selling stockholders and subject to prior sale. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commission and expenses

The underwriter may receive from purchasers of the shares normal brokerage commissions in amounts agreed with such purchasers. The underwriter proposes to offer the shares of common stock from time to time for sale in one or more transactions on the New York Stock Exchange, in the over-the-counter market, through negotiated transactions or otherwise at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices, subject to receipt and acceptance by it and subject to its right to reject any order in whole or in part. The underwriter may effect such transactions by selling shares of common stock to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriter and/or purchasers of shares of common stock for whom it may act as agent or to whom it may sell as principal. The difference between the price at which the underwriter purchases shares and the price at which the underwriter resells such shares may be deemed underwriting compensation.

The underwriter has agreed to purchase 3,000,000 shares of our common stock from the selling stockholders at a price of \$76.61 per share, resulting in the selling shareholders receiving total proceeds of \$229.8 million. We will not receive any proceeds from the offering.

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$170,000.

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Listing

Our common stock is listed on New York Stock Exchange under the trading symbol "COR."

No sales of similar securities

We, our operating partnership, the selling stockholders, our executive officers and certain of our directors have agreed with the underwriter not to sell, transfer, pledge or otherwise dispose of or hedge any common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through the date 60 days after the date of this prospectus supplement, except with the prior written consent of the underwriter. The transfer restrictions described in the preceding sentence are subject to a number of exceptions, including, but not limited to:

in the case of us, the issuance of shares of common stock or other securities in connection with the acquisitions, provided that (i) the aggregate amount of such shares for all such acquisitions does not exceed 5% of the number of shares of common stock outstanding on the closing date of this offering on a fully diluted basis or (ii) such consideration will be paid following the expiration of the 60-day restricted period;

in the case of officers and directors, transfers of shares pursuant to existing 10b5-1 trading plans and by certain of our executive officers and directors in an aggregate amount not to exceed, together with all other shares transferred by our executive officers and directors subject to a "lock-up" in connection with this offering, 125,000 shares (excluding transfers of shares in reliance upon any other exception); and

in the case of selling stockholders, to limited partners, members or securityholders of the selling stockholders or to the selling stockholders' affiliates or to any investment fund or other entity controlled (directly or indirectly) or managed by the selling stockholders, provided that, in the case, any such transferee agrees in writing to the same transfer restrictions.

Stabilization

The underwriter has advised us that it may engage in short sale transactions or stabilizing transactions in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market.

None of us, the selling stockholders or the underwriter makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriter is not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

Electronic distribution

A prospectus in electronic format may be made available by e-mail or on the web site or through online services maintained by the underwriter or its affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriter may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriter on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriter's web site and any information contained in any other web site maintained by the underwriter is not part of this

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prospectus, has not been approved and/or endorsed by us or the underwriter and should not be relied upon by investors.

Other activities and relationships

The underwriter and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriter and certain of its affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriter and certain its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us or our affiliates. If the underwriter or its affiliates have a lending relationship with us, it routinely hedges its credit exposure to us consistent with its customary risk management policies. The underwriter and its affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the common stock offered hereby. Any such short positions could adversely affect future trading prices of the common stock offered hereby. The underwriter and certain of its affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Notice to prospective investors in Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission, or ASIC, in relation to the offering. This prospectus supplement and the accompanying prospectus does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001, or the Corporations Act, and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons, or the Exempt Investors, who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

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This prospectus supplement and the accompanying prospectus contain general information only and do not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this prospectus supplement and the accompanying prospectus is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Notice to prospective investors in Canada

Resale restrictions

The distribution of the shares in Canada is being made on a private placement basis exempt from the requirement that we and the selling shareholders prepare and file a prospectus with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the shares in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

Representations of Canadian purchasers

By purchasing the shares in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us, the selling shareholders and the dealer from whom the purchase confirmation is received that:

the purchaser is entitled under applicable provincial securities laws to purchase the shares without the benefit of a prospectus qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106 *Prospectus Exemptions*,

the purchaser is a "permitted client" as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations,

where required by law, the purchaser is purchasing as principal and not as agent, and

the purchaser has reviewed the text above under Resale Restrictions.

Conflicts of interest

Canadian purchasers are hereby notified that the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105 *Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

Statutory rights of action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the offering memorandum (including any amendment thereto) such as this prospectus supplement and the accompanying prospectus contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

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Enforcement of legal rights

All of our directors and officers as well as the experts named herein and the selling shareholders may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Notice to prospective investors in the Dubai International Financial Centre

This prospectus supplement and the accompanying prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or the DFSA. This prospectus supplement and the accompanying prospectus are intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for this prospectus supplement or the accompanying prospectus. The shares to which this prospectus supplement and the accompanying prospectus relate may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus supplement and the accompanying prospectus you should consult an authorized financial advisor.

Notice to prospective investors in the European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), no offer of shares which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus may be made to the public in that Relevant Member State other than:

to any legal entity which is a qualified investor as defined in the Prospectus Directive;

to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the underwriter for this offering; or

in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares shall require the Company or the underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or a prospectus supplement pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that it is a "qualified investor" within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriter has been obtained to each such proposed offer or resale.

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The Company, the underwriter and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

This prospectus supplement and the accompanying prospectus have been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of the shares. Accordingly any person making or intending to make an offer in a Relevant Member State of which shares are the subject of the offering contemplated in this prospectus supplement and the accompanying prospectus may only do so in circumstances in which no obligation arises for the Company or the underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or a prospectus supplement pursuant to Article 16 of the Prospectus Directive, in each case in relation to such offer. Neither the Company nor the underwriter has authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the Company or the underwriter to publish or supplement a prospectus for such offer.

For the purpose of the above provisions, the expression "an offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State. The expression "Prospectus Directive" means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU) and includes any relevant implementing measure in the Relevant Member State.

Notice to prospective investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Notice to prospective investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons (i) who have professional experience in matters relating to investments and qualifying as investment professionals under Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "Order"), (ii) who are persons falling within Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Order and/or (iii) who are persons to whom this prospectus supplement and the accompanying prospectus may otherwise be lawfully communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). This document must not be acted on or relied on in the United Kingdom by persons who are not relevant persons. In the United Kingdom, this prospectus supplement and the accompanying prospectus, the shares and any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons.

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The communication of this prospectus supplement and the accompanying prospectus to any person in the United Kingdom who is not a relevant person is unauthorized and may contravene the Financial Services and Markets Act 2000.

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Incorporation of certain information by reference

The Securities and Exchange Commission allows us to "incorporate by reference" the information we file with the Securities and Exchange Commission, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus. The incorporated documents contain significant information about us, our business and our finances. Any statement contained in a document that is incorporated by reference in this prospectus supplement and the accompanying prospectus is automatically updated and superseded if information contained in this prospectus supplement and the accompanying prospectus, or information that we later file with the Securities and Exchange Commission, modifies or replaces this information. We incorporate by reference the following documents we filed with the Securities and Exchange Commission:

our Annual Report on Form 10-K for the year ended December 31, 2015, filed with the Securities and Exchange Commission on February 12, 2016;

our Definitive Proxy Statement on Schedule 14A, filed with the Securities and Exchange Commission on March 31, 2016, as supplemented on April 26, 2016;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2016, filed with the SEC on April 29, 2016;

our Current Reports on Form 8-K, filed with the SEC on April 27, 2015, February 3, 2016 and May 9, 2016;

the description of our common stock included in our registration statement on Form 8-A filed with the SEC on September 21, 2010; and

all documents filed by us with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and prior to the termination of the offering of the underlying securities.

To the extent that any information contained in any current report on Form 8-K, or any exhibit thereto, was furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom a prospectus is delivered, on written or oral request of that person, a copy of any or all of the documents we are incorporating by reference into this prospectus, other than exhibits to those documents unless those exhibits are specifically incorporated by reference into those documents. A request should be addressed in writing to CoreSite Realty Corporation, at 1001 17th Street, Suite 500, Denver, CO 80202 or by telephone at (866) 777-2673.

Legal matters

Certain legal matters of Maryland law will be passed upon for us by Venable LLP, Baltimore, Maryland. Certain legal matters will be passed upon for us and the selling stockholders by Latham & Watkins LLP, Washington, District of Columbia. Certain legal matters will be passed upon for the underwriter by Mayer Brown LLP, New York, New York.

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Experts

The consolidated balance sheets of CoreSite Realty Corporation as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive income, equity and cash flows for each of the years in the three-year period ended December 31, 2015, the related financial statement schedule, Schedule III Real Estate and Accumulated Depreciation, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2015, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

PROSPECTUS

26,165,000 Shares

CoreSite Realty Corporation

Common Stock

This prospectus relates to the possible issuance of up to 26,165,000 shares of our common stock in exchange for units representing common limited partnership interests, or partnership units, in CoreSite, L.P., our operating partnership, upon any redemption by one or more of the limited partners pursuant to their contractual rights, and the possible resale from time to time of some or all of such shares of common stock by the selling stockholders named in this prospectus. We will not receive any cash proceeds from any issuance of the shares of our common stock covered by this prospectus to the selling stockholders or from any resale of such shares by the selling stockholders, but we have agreed to pay certain registration expenses relating to such shares of our common stock. We will, however, acquire partnership units from any redeeming unitholders, which will consequently increase our percentage ownership interest in CoreSite, L.P.

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