UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2020
or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ______ to ______
Commission File Number 001-16441

CROWN CASTLE INTERNATIONAL CORP.
(Exact name of registrant as specified in its charter)

Delaware	**76-0470458**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

1220 Augusta Drive, Suite 600, Houston, Texas 77057-2261
(Address of principal executive offices) (Zip Code)
(713) 570-3000
(Registrant's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act	Trading Symbols	Name of Each Exchange on Which Registered
Common Stock, $0.01 par value	CCI	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: NONE.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of a "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $69.4 billion as of June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, based on the New York Stock Exchange closing price on that day of $167.35 per share.

Applicable Only to Corporate Registrants

As of February 17, 2021, there were 431,311,859 shares of common stock outstanding.

Documents Incorporated by Reference

The information required to be furnished pursuant to Part III of this Form 10-K will be set forth in, and incorporated by reference from, the registrant's definitive proxy statement for the annual meeting of stockholders ("2021 Proxy Statement"), which will be filed with the Securities and Exchange Commission not later than 120 days after the end of the fiscal year ended December 31, 2020.

CROWN CASTLE INTERNATIONAL CORP.

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Cautionary Language Regarding Forward-Looking Statements

This Annual Report on Form 10-K ("2020 Form 10-K") contains forward-looking statements that are based on our management's expectations as of the filing date of this report with the Securities and Exchange Commission ("SEC"). Statements that are not historical facts are hereby identified as forward-looking statements. In addition, words such as "estimate," "anticipate," "project," "plan," "intend," "believe," "expect," "likely," "predicted," "positioned," "continue," "target," "seek," "focus" and any variations of these words and similar expressions are intended to identify forward-looking statements. Such statements include plans, projections and estimates contained in *"Item 1. Business," "Item 3. Legal Proceedings," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations"* ("MD&A"), and *"Item 7A. Quantitative and Qualitative Disclosures About Market Risk"* herein. Such forward-looking statements include (1) benefits and opportunities stemming from our strategy, strategic position, business model and capabilities, (2) the strength and growth potential of the U.S. market for shared communications infrastructure investment, (3) expectations regarding anticipated growth in the wireless industry, and consumption of and demand for data, including growth in, and factors driving, consumption and demand, (4) potential benefits of our communications infrastructure (on an individual and collective basis) and expectations regarding demand therefore, including potential benefits and continuity of and factors driving such demand, (5) competitive factors affecting our business, (6) expectations regarding construction and acquisition of communications infrastructure, (7) focus on workforce diversity and inclusion, (8) the utilization of our net operating loss carryforwards ("NOLs"), (9) expectations regarding wireless carriers' network investments, (10) expectations regarding continued adoption and increase in usage of high-bandwidth applications by organizations, (11) expected benefits of spectrum auctions, (12) expected use of net proceeds from issuances under the commercial paper program ("CP Program"), (13) our full year 2021 outlook and the anticipated growth in our financial results, including future revenues, and the expectations regarding our 2021 capital expenditures, as well as the factors impacting our financial results and the levels of capital expenditures, (14) expectations regarding our capital structure and the credit markets, our availability and cost of capital, capital allocation, our leverage ratio and interest coverage targets, our ability to service our debt and comply with debt covenants, future of LIBOR and any replacement rate thereto, level of available commitment we intend to maintain under our debt instruments, and the plans for and the benefits of any future refinancings, (15) the utility of certain financial measures, including non-GAAP financial measures, (16) expectations related to our ability to remain qualified as a real estate investment trust ("REIT") and the advantages, benefits or impact of, or opportunities created by, our REIT status, (17) adequacy, projected sources and uses of liquidity, (18) expectations related to the impact of tenant consolidation or ownership changes, including the impact from the merger of T-Mobile and Sprint, (19) expectations regarding non-renewals of tenant contracts, (20) our dividend policy and the timing, amount, growth or tax characterization of our dividends, (21) the potential effects of the restatement of our previously issued consolidated financial statements, including any litigation stemming therefrom, (22) the potential impact of the novel coronavirus (COVID-19) pandemic, (23) the potential impact on our business from unforeseen events, (24) the outcome of outstanding litigation and (25) the intended use of net proceeds from our February 2021 issuance of senior unsecured notes. All future dividends are subject to declaration by our board of directors.

Such forward-looking statements should, therefore, be considered in light of various risks, uncertainties and assumptions, including prevailing market conditions, risk factors described under *"Item 1A. Risk Factors"* herein and other factors. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those expected.

Our filings with the SEC are available through the SEC website at www.sec.gov or through our investor relations website at investor.crowncastle.com. We use our investor relations website to disclose information about us that may be deemed to be material. We encourage investors, the media and others interested in us to visit our investor relations website from time to time to review up-to-date information or to sign up for e-mail alerts to be notified when new or updated information is posted on the site.

Interpretation and Other Information

As used herein, the term "including," and any variation thereof, means "including without limitation." The use of the word "or" herein is not exclusive. Unless this 2020 Form 10-K indicates otherwise or the context otherwise requires, the terms, "we," "our," "our company," "the company" or "us" as used in this 2020 Form 10-K refer to Crown Castle International Corp. and its predecessor (organized in 1995), as applicable, each a Delaware corporation (together, "CCIC"), and their subsidiaries. Additionally, unless the context suggests otherwise, references to "U.S." are to the United States of America and Puerto Rico, collectively.

On November 19, 2020 the SEC adopted amendments to Items 301, 302 and 303 of Regulation S-K, which became effective on February 10, 2021. Although mandatory compliance is not required until our fiscal year ending December 31, 2021, early adoption is permitted, and we have elected to early adopt amended Items 301, 302 and 303 of Regulation S-K in this 2020 Form 10-K.

PART I

Item 1. *Business*

Overview

We own, operate and lease shared communications infrastructure that is geographically dispersed throughout the U.S., including approximately (1) 40,000 towers and other structures, such as rooftops (collectively, "towers"), and (2) 80,000 route miles of fiber primarily supporting small cell networks ("small cells") and fiber solutions. We refer to our towers, fiber and small cells assets collectively as "communications infrastructure," and to our customers on our communications infrastructure as "tenants." Our operating segments consist of (1) Towers and (2) Fiber, which includes both small cells and fiber solutions. Our core business is providing access, including space or capacity, to our shared communications infrastructure via long-term contracts in various forms, including lease, license, sublease and service agreements (collectively, "tenant contracts"). We seek to increase our site rental revenues by adding more tenants on our shared communications infrastructure, which we expect to result in significant incremental cash flows due to our low incremental operating costs. We operate as a REIT for U.S. federal income tax purposes. See *"Item 1. Business—REIT Status"* and notes 2 and 9 to our consolidated financial statements.

Over the last two decades, we have assembled a leading portfolio of towers predominately through acquisitions from large wireless carriers or their predecessors. More recently, both through acquisitions and new construction of small cells and fiber, we have extended our communications infrastructure presence by investing significantly in our Fiber segment. Through our product offerings of towers and small cells, we seek to provide a comprehensive solution to enable our wireless tenants to expand coverage and capacity for wireless networks. Furthermore, within our Fiber segment, we seek to generate cash flow growth and stockholder return by deploying our fiber for both small cells' and fiber solutions' tenants.

Approximately 56% and 71% of our towers are located in the 50 and 100 largest U.S. basic trading areas ("BTAs"), respectively. Our towers have a significant presence in each of the top 100 BTAs. We derive approximately 40% of our Towers site rental gross margin from towers located on land that we own, including through fee interests and perpetual easements, and we derive approximately 60% of our Towers site rental gross margin from towers located on land that we lease, sublease, manage or license. The contracts for the land under our towers have an average total remaining life of approximately 36 years (including all renewal terms exercisable at our option), weighted based on Towers site rental gross margin. The majority of our small cells and fiber are located in major metropolitan areas, including a presence within every major U.S. market. The vast majority of our fiber assets are located on public rights-of-way.

Our largest tenants are T-Mobile (which merged with Sprint in April 2020), AT&T and Verizon Wireless, which collectively accounted for approximately 76% of our 2020 consolidated site rental revenues (including revenues previously derived from Sprint). See note 14 to our consolidated financial statements for further information regarding our largest tenants. Site rental revenues represented 91% of our 2020 consolidated net revenues, of which approximately 66% and 34% were from our Towers segment and our Fiber segment, respectively. Within our Fiber segment, 70% and 30% of our 2020 Fiber site rental revenues related to fiber solutions and small cells, respectively. The vast majority of our site rental revenues are of a recurring nature and are derived from long-term tenant contracts with our tenants.

Our site rental revenues derived from wireless tenants typically result from long-term tenant contracts with (1) initial terms of five to 15 years, (2) multiple renewal periods of five to 10 years each, exercisable at the option of the tenant, (3) limited termination rights for our tenants and (4) monthly rental payments with contractual escalations of the rental price and, in some cases, an additional upfront payment. Our site rental revenues derived from our fiber solutions tenants (including from organizations with high-bandwidth and multi-location demands) typically result from tenant contracts with (1) initial terms that generally vary between three to 20 years and (2) a fixed monthly recurring fee and, in some cases, an additional upfront payment. Exclusive of renewals exercisable at the tenants' option, our tenant contracts have a weighted-average remaining life of approximately five years and represent $27 billion of expected future cash inflows.

As part of our effort to provide comprehensive communications infrastructure solutions, as an ancillary business, we also offer certain services primarily relating to our Towers segment, predominately consisting of (1) site development services primarily relating to existing or new tenant equipment installations, including: site acquisition, architectural and engineering, or zoning and permitting (collectively, "site development services") and (2) tenant equipment installation or subsequent augmentations (collectively, "installation services").

Strategy

As a leading provider of shared communications infrastructure in the U.S., our strategy is to create long-term stockholder value via a combination of (1) growing cash flows generated from our existing portfolio of communications infrastructure, (2) returning a meaningful portion of our cash generated by operating activities to our common stockholders in the form of dividends and (3) investing capital efficiently to grow cash flows and long-term dividends per share. Our strategy is based, in part, on our belief that the U.S. is the most attractive market for shared communications infrastructure investment with the greatest long-term growth potential. We measure our efforts to create "long-term stockholder value" by the combined payment of dividends to stockholders and growth in our per-share results. The key elements of our strategy are to:

- *Grow cash flows from our existing communications infrastructure.* We are focused on maximizing the recurring site rental cash flows generated from providing our tenants with long-term access to our shared infrastructure assets, which we believe is the core driver of value for our stockholders. Tenant additions or modifications of existing tenant equipment (collectively, "tenant additions") enable our tenants to expand coverage and capacity in order to meet increasing demand for data while generating high incremental returns for our business. We believe our product offerings of towers and small cells provide a comprehensive solution to our wireless tenants' growing network needs through our shared communications infrastructure model, which is an efficient and cost-effective way to serve our tenants. Additionally, we believe our ability to share our fiber assets across multiple tenants to deploy both small cells and offer fiber solutions allows us to generate cash flows and increase stockholder return.

- *Return cash generated by operating activities to common stockholders in the form of dividends.* We believe that distributing a meaningful portion of our cash generated by operating activities appropriately provides common stockholders with increased certainty for a portion of expected long-term stockholder value while still allowing us to retain sufficient flexibility to invest in our business and deliver growth. We believe this decision reflects the translation of the high-quality, long-term contractual cash flows of our business into stable capital returns to common stockholders.

- *Invest capital efficiently to grow cash flows and long-term dividends per share.* In addition to adding tenants to existing communications infrastructure, we seek to invest our available capital, including the net cash generated by our operating activities and external financing sources, in a manner that will increase long-term stockholder value on a risk-adjusted basis. These investments include constructing and acquiring new communications infrastructure that we expect will generate future cash flow growth and attractive long-term returns by adding tenants to those assets over time. Our historical investments have included the following (in no particular order):

    - construction of towers, fiber and small cells;
    - acquisitions of towers, fiber and small cells;
    - acquisitions of land interests (which primarily relate to land assets under towers);
    - improvements and structural enhancements to our existing communications infrastructure;
    - purchases of shares of our common stock from time to time; and
    - purchases, repayments or redemptions of our debt.

Our strategy to create long-term stockholder value is based on our belief that there will be considerable future demand for our communications infrastructure based on the location of our assets and the rapid growth in the demand for data. We believe that such demand for our communications infrastructure will continue, will result in growth of our cash flows due to tenant additions on our existing communications infrastructure, and will create other growth opportunities for us, such as demand for newly constructed or acquired communications infrastructure, as described above. Further, we seek to augment the long-term value creation associated with growing our recurring site rental cash flows by offering certain ancillary site development and installation services within our Towers segment.

REIT Status

We operate as a REIT for U.S. federal income tax purposes. As a REIT, we are generally entitled to a deduction for dividends that we pay and therefore are not subject to U.S. federal corporate income tax on our net taxable income that is currently distributed to our stockholders. We may be subject to certain federal, state, local and foreign taxes on our income or assets, including (1) taxes on any undistributed income, (2) taxes related to our taxable REIT subsidiaries ("TRSs"), (3) franchise taxes, (4) property taxes and (5) transfer taxes. In addition, we could, under certain circumstances, be required to pay an excise or penalty tax, which could be significant in amount, in order to utilize one or more relief provisions under the Internal Revenue Code of 1986, as amended ("Code"), to maintain qualification for taxation as a REIT.

The Tax Cuts and Jobs Act, which was signed into law in 2017 ("Tax Reform Act"), made substantial changes to the Code. Among the many changes impacting corporations are a significant reduction in the corporate income tax rate, the repeal of the corporate alternative minimum tax for years beginning in 2018 and limitations on the deductibility of interest expense. In addition, under the Tax Reform Act, qualified REIT dividends (within the meaning of Section 199A(e)(3) of the Code) constitute a part of a non-corporate taxpayer's "qualified business income amount" and thus our non-corporate U.S. stockholders may be eligible to take a qualified business income deduction in an amount equal to 20% of such dividends received from us. Without further legislative action, the 20% deduction applicable to qualified REIT dividends will expire on January 1, 2026. The Tax Reform Act has not had a material impact on us.

The vast majority of our assets and revenues are in the REIT. See notes 2 and 9 to our consolidated financial statements. Additionally, we have included in TRSs certain other assets and operations. Those TRS assets and operations will continue to be subject, as applicable, to federal and state corporate income taxes or to foreign taxes in the jurisdictions in which such assets and operations are located.

Our foreign assets and operations (including our tower operations in Puerto Rico) most likely will be subject to foreign income taxes in the jurisdictions in which such assets and operations are located, regardless of whether they are included in a TRS.

To remain qualified and be taxed as a REIT, we will generally be required to annually distribute to our stockholders at least 90% of our REIT taxable income, after the utilization of our NOLs (determined without regard to the dividends paid deduction and excluding net capital gain) (see notes 2 and 9 to our consolidated financial statements). Our quarterly common stock dividend will delay the utilization of our NOLs and may cause certain of the NOLs to expire without utilization. See *"Item 1A. Risk Factors"* for risks associated with our REIT Status.

Industry Overview

Consumer demand for data continues to grow due to increases in data consumption and increased penetration of bandwidth-intensive devices. This increase in data consumption is driven by factors such as growth in (1) mobile entertainment (such as mobile video, mobile applications and social networking), (2) mobile internet usage (supporting web browsing and trends in telehealth, remote working and other remote communications), (3) machine-to-machine applications or the "Internet of Things" (such as connected cars and smart city technologies), and (4) the adoption of other bandwidth-intensive applications (such as cloud services and video communications). As a result, consumer wireless devices are trending toward bandwidth-intensive devices, including smartphones, laptops, tablets, wearables and other emerging and embedded devices, and U.S. wireless carriers are among the first carriers in the world to begin offering commercial 5th Generation ("5G") mobile cellular communications services to further support such growth.

We expect the following anticipated factors to contribute to potential demand for our communications infrastructure:

- consumers' growing wireless data consumption likely resulting in major wireless carriers continuing to upgrade and enhance their networks through the efficient use of both towers and small cells, including in connection with 5G deployments, in an effort to improve network quality and capacity and customer retention or satisfaction;
- prior and future potential spectrum auctioned, licensed or made available by the Federal Communications Commission ("FCC") enabling additional wireless carrier network development;
- next-generation technologies and new uses for wireless communications may potentially result in new entrants or increased demand in the wireless industry, which may include companies involved in the continued evolution and deployment of the Internet of Things;
- the continued adoption of bandwidth-intensive applications could result in demand for high-capacity, multi-location, fiber-based network solutions; and
- increased government initiatives to expand broadband infrastructure to support connectivity throughout the U.S.

The Company

Virtually all of our operations in both our Towers and Fiber operating segments are located in the U.S. For more information about our operating segments, see *"Item 7. MD&A—General Overview"* and note 14 to our consolidated financial statements. Our core business is providing access, including space or capacity, to our shared communications infrastructure via long-term tenant contracts in the U.S. We believe our communications infrastructure is integral to our tenants' networks and organizations. See *"Item 1. Business—Strategy."*

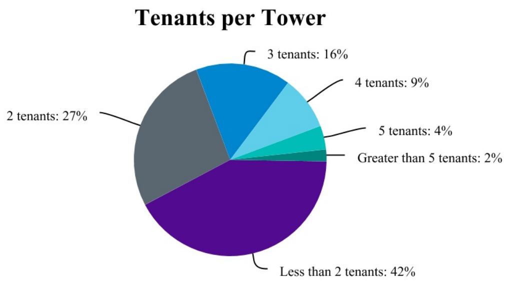
Towers Segment. We believe towers are the most efficient and cost-effective solution for providing coverage and capacity for wireless carrier network deployments. We acquired ownership interests or exclusive rights to the majority of our towers directly or indirectly from the largest U.S. wireless carriers (or their predecessors) through transactions consummated since 1999, including transactions with (1) AT&T in 2013 ("AT&T Acquisition"), (2) T-Mobile in 2012 ("T-Mobile Acquisition"), (3) Global Signal Inc. in 2007 ("Global Signal Acquisition"), which had originally acquired the majority of its towers from Sprint (prior to Sprint's merger with T-Mobile, which was completed in 2020), (4) companies now part of Verizon Wireless in 1999 and 2000 and (5) companies now part of AT&T in 1999 and 2000.

We generally receive monthly rental payments from our Towers tenants pursuant to long-term tenant contracts. Typically, we negotiate initial contract terms of five to 15 years, with multiple renewal periods of five to 10 years each, exercisable at the option of the tenant, and our tenant contracts typically include fixed escalations (which generally exceed expected non-renewals, as discussed below). We strive to negotiate with our existing tenant base for longer contractual terms, which often contain fixed escalation rates.

Our Towers tenant contracts, while amended and re-negotiated over time, have historically led to a long-term relationship with tenants on our towers, resulting in a retention rate generally between 97% and 99% each year. In general, each renewable tenant contract automatically renews at the end of its term unless (1) the tenant provides prior notice of its intent not to renew or (2) the contract is amended or re-negotiated. See note 3 to our consolidated financial statements for a tabular presentation of the minimum rental payments due to us by tenants pursuant to tenant contracts without consideration of tenant renewal options.

The average monthly rental payment from a new tenant added to towers can vary based on (1) aggregate tenant volume, (2) the region in the U.S. where the tower is located, or (3) the amount of space granted to a tenant, which can be influenced by the physical size, weight and shape of the tenant's antenna installation or related equipment. When possible, we seek to receive rental payment increases in connection with tenant contract amendments, pursuant to which our tenants add antennas or other equipment to our towers on which they already have equipment pursuant to preexisting tenant contracts. Our Towers tenant contracts and pricing are not influenced by whether or not we perform the respective site development or installation services. See *"—Services"* below for a further discussion of our tower installation services.

As of December 31, 2020, the average number of tenants (calculated as a unique license together with any related amendments thereto) per tower is approximately 2.1. The following chart sets forth the number of existing tenants per tower as of December 31, 2020 (see *"Item 7. MD&A—Accounting and Reporting Matters—Critical Accounting Policies and Estimates"* for a discussion of our impairment evaluation and our towers with no tenants).



Fiber Segment. Our Fiber segment includes both small cells and fiber solutions.

- Our small cells offload data traffic from towers and bolster our tenants' network capacity where data demand is the greatest and are typically attached to public right-of-way infrastructure, including utility poles and street lights.
- We offer certain fiber solutions to organizations with high-bandwidth and multi-location demands. Our fiber solutions provide essential connectivity resources needed to create integrated networks and support organizations.

Our fiber assets include those we acquired from: (1) NextG Networks, Inc. in 2012 , (2) Quanta Fiber Networks, Inc. in 2015, (3) FPL FiberNet Holdings, LLC and certain other subsidiaries of NextEra Energy, Inc. in 2017, (4) Wilcon Holdings LLC in 2017 and (5) LTS Group Holdings LLC in 2017.

We generally receive monthly recurring payments from our Fiber tenants and, in some cases, receive upfront payments, pursuant to tenant contracts. The average monthly rental payment from a new tenant can vary based on the amount or cost of (1) construction for initial and subsequent tenants, (2) fiber strand requirements and supply, (3) equipment at the site, (4) the region in the U.S. where the fiber is located and (5) any upfront payment received.

Additional site rental information. For both our Towers and Fiber segments, we have existing master agreements with our largest tenants, including T-Mobile, AT&T and Verizon Wireless. Such agreements provide certain terms (including economic terms) that govern underlying contracts (entered into during the term of the master agreements) regarding the right to use our communications infrastructure by such tenants.

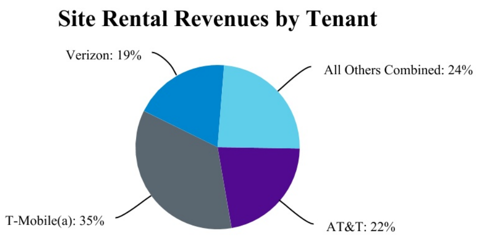
Approximately half of our site rental cost of operations consists of Towers ground lease expenses, and the remainder includes fiber access expenses (primarily leases of fiber assets and other access agreements to facilitate our communications infrastructure), property taxes, repairs and maintenance, employee compensation or related benefit costs, and utilities. Assuming current leasing activity levels, our cash operating expenses generally tend to escalate at approximately the rate of inflation. We seek to add tenants to our existing communications infrastructure assets at a low incremental operating cost, delivering high incremental returns to our business. Once constructed, our communications infrastructure portfolio requires minimal sustaining capital expenditures, including maintenance or other non-discretionary capital expenditures, which are typically approximately 2% of net revenues. See note 13 to our consolidated financial statements for a tabular presentation of the rental payments we owe to landlords pursuant to our operating lease agreements.

Services. As part of our effort to provide comprehensive communications infrastructure solutions, as an ancillary business, we also offer certain services primarily relating to our Towers segment, predominately consisting of (1) site development services and (2) installation services. For 2020, approximately 65% of our services and other revenues related to installation services, and the remainder predominately related to site development services. We seek to grow our service revenues by capitalizing on (1) increased leasing volumes that may result from carrier network upgrades, (2) promoting site development services, (3) expanding the scope of our services, and (4) focusing on tenant service and deployment speed. We have the capability and expertise to install, with the assistance of our network of subcontractors, equipment or antenna systems for our tenants. We do not always provide the installation services or site development services for our tenants on our communications infrastructure as other service providers also provide these services (see also *"—Competition"* below). These activities are typically non-recurring and highly competitive, with several competitors in most markets. Typically, our installation services are billed on a cost-plus profit basis and site development services are billed on a fixed fee basis. The terms and pricing of both site development services and installation services are negotiated separately from our tenant contracts.

Customers. Our Towers customers are primarily comprised of large wireless carriers that operate national networks.

Our Fiber customers generally consist of large wireless carriers and organizations with high-bandwidth and multi-location demands, such as enterprise, government, education, healthcare, wholesale, financial, legal, media and entertainment, content distribution, and energy and utilities customers.

Our three largest tenants are T-Mobile, AT&T and Verizon Wireless. Collectively, these three tenants accounted for approximately 76% of our 2020 site rental revenues (including revenues previously derived from Sprint). See *"Item 1A. Risk Factors"* for risks associated with our dependence on a small number of customers and note 14 to our consolidated financial statements. For 2020, our site rental revenues by tenant were as follows:



(a) Includes revenues previously derived from Sprint. On April 1, 2020, T-Mobile and Sprint announced the completion of their previously disclosed merger.

Sales and Marketing. Our sales organization markets our communications infrastructure with the objective of contracting access with tenants to existing communications infrastructure or to new communications infrastructure prior to construction. We seek to become the critical partner and preferred independent communications infrastructure provider for our tenants and increase tenant satisfaction relative to our peers by leveraging our (1) existing unique communications infrastructure footprint, (2) tenant relationships, (3) process-centric approach, (4) technological tools and (5) construction capabilities and expertise.

Our sales team is organized based on a variety of factors, including tenant type (such as large wireless carriers, vertical customers and organizations), product offering and geography. A team of national account directors maintains our relationships with our largest tenants. These directors work to develop new business opportunities, as well as to ensure that tenants' communications infrastructure needs are efficiently translated into new contracts for our communications infrastructure. Sales personnel in our local offices develop and maintain relationships with our tenants that are expanding their networks, entering new markets, seeking new or additional communication infrastructure offerings, bringing new technologies to market or requiring maintenance or add-on business. In addition to our full-time sales or marketing staff, a number of senior-level employees spend a significant portion of their time on sales and marketing activities and call on existing or prospective tenants.

Competition. We face competition for site rental tenants from various sources, including (1) other independent communications infrastructure owners or operators, including competitors that own, operate, or manage towers, rooftops, broadcast or transmission towers, utility poles, fiber (including non-traditional competitors such as cable providers) or small cells, (2) tenants who elect to self-perform or (3) new alternative deployment methods for communications infrastructure.

Some of our largest competitors in the Towers segment are American Tower Corporation and SBA Communications Corporation. Our Fiber segment business competitors can vary significantly based on geography. Some of the larger competitors in the Fiber segment include other owners of fiber, as well as recent and potential entrants into small cells and the fiber solutions business. We believe that location, existing communications infrastructure footprint, deployment speed, quality of service, expertise, reputation, capacity and price have been and will continue to be the most significant competitive factors affecting our businesses. See *"Item 1A. Risk Factors"* for a discussion of competition in our industry.

Competitors to our services offering can include site acquisition consultants, zoning consultants, real estate firms, right-of-way consulting firms, construction companies, tower owners or managers, radio frequency engineering consultants, our tenants' internal staff or contractors, or telecommunications equipment vendors who can provide turnkey site development services through multiple subcontractors. We believe that our tenants base their decisions on the outsourcing of services on criteria such as a company's experience, record of accomplishment, reputation, price and time for completion of a project.

Human Capital

The people who work for Crown Castle are essential to our ability to execute on our strategy. At January 31, 2021, we employed approximately 4,900 people, all of whom were based in the U.S. Of our total employees, approximately 24% were field workers. From time to time, we also add contingent workers to support our business.

We believe attracting, developing and retaining talented employees is paramount to serving our customers and our communities and creating value for our shareholders. Our B3 values (Be Real, Be Accountable and Be an Owner) shape our culture, drive our decision-making and guide our interactions with one another and our customers. For 2020, our voluntary employee turnover rate was approximately 3.5%. Our 2020 annual employee survey indicated strong employee engagement exceeding U.S. company norms.

We continue to focus on building a more diverse workforce and a more inclusive community to make our company stronger and more innovative. We actively partner with non-profit and community organizations to create a diverse talent pipeline. In addition, our board of directors is currently comprised of 40% female or racially diverse directors, including each of the four most recently appointed directors.

The well-being of our employees is a crucial element of our safety culture, employee engagement and productivity. We offer a competitive total rewards package which includes market-based pay, performance-based annual incentive awards, healthcare and retirement benefits, parental and family leave, holiday and paid time off and tuition assistance. We further invest in our employees' professional growth and development by providing resources and opportunities to hone their skills and expand their subject-matter expertise, which empowers them to advance their careers and enables our business to prosper.

We are not a party to any collective bargaining agreements and have not experienced any strikes or work stoppages. See also *"Item 7. MD&A—General Overview—Coronavirus (COVID-19)"* for information on the measures we have taken with respect to our workforce in light of the global outbreak of the novel coronavirus (COVID-19).

Regulatory and Environmental Matters

We are required to comply with a variety of federal, state and local regulations and laws in the U.S., including FCC and Federal Aviation Administration ("FAA") regulations and those discussed under *"—Environmental"* below. To date, we have not incurred any material fines or penalties or experienced any material adverse effects to our business as a result of any domestic or international regulations, including any environmental regulations. The summary below is based on regulations currently in effect, and such regulations are subject to review or modification by the applicable governmental authority from time to time. If we fail to comply with applicable laws and regulations, we may be fined or even lose our rights to conduct some of our business.

Federal Regulations. Both the FCC and the FAA regulate towers used for wireless communications, radio, or television broadcasting. Such regulations control the siting, construction, modification, lighting, and marking of towers and may, depending on the characteristics of particular towers, require the registration of tower facilities with the FCC and the issuance of determinations confirming no hazard to air traffic. Wireless communications devices operating on towers are separately regulated and independently licensed based upon the particular frequency used. In addition, the FCC and the FAA have developed standards to consider proposals for new or modified tower or antenna structures based upon the height or location, including proximity to airports. Proposals to construct or to modify existing tower or antenna structures above certain heights are reviewed by the FAA to ensure the structure will not present a hazard to aviation, which determination may be conditioned upon compliance with lighting or marking requirements. The FCC requires its licensees to operate communications devices only on towers that comply with FAA rules and are registered with the FCC, if required by its regulations. Where tower lighting is required by FAA regulation, tower owners bear the responsibility of notifying the FAA of any tower lighting outage and ensuring the timely restoration of such outages.

State and Local Regulations. The U.S. Telecommunications Act of 1996 amended the Communications Act of 1934 to preserve state and local zoning authorities' jurisdiction over the siting of communications towers and small cells. The law, however, limits state and local zoning authority by prohibiting actions by such authorities that discriminate between different service providers of wireless communications or prohibit altogether (actually or effectively) the provision of wireless communications. Additionally, the law prohibits state and local restrictions based on the environmental effects of radio frequency emissions to the extent the facilities comply with FCC regulations.

Local regulations include city and other local ordinances (including subdivision and zoning ordinances), approvals for construction, modification and removal of towers and small cells, and restrictive covenants imposed by community developers. These regulations vary greatly, but typically require us to obtain prior approval from local officials. Local zoning authorities may render decisions that prevent the construction or modification of towers or small cells, or place conditions on such construction or modifications that are responsive to community residents' concerns regarding the height, visibility, or other characteristics of such infrastructure. Over the last several years, the FCC has adopted regulations and 28 states have passed legislation intended to expedite and streamline the deployment of wireless networks, including establishing presumptively reasonable timeframes for reviews by local and state governments. Notwithstanding such developments, decisions of local regulatory authorities and utilities in certain jurisdictions may continue to adversely affect deployment timing and cost.

Certain of our subsidiaries hold state authorizations, including authorizations to act as competitive local exchange carriers ("CLECs"), to provide intrastate telecommunication services in addition to FCC authorization to provide domestic interstate telecommunication services. State authorizations may help promote access to public rights-of-way, which is beneficial to the timely deployment of fiber and small cells, and often allow us to deploy such infrastructure in locations where zoning restrictions might otherwise delay, restrict, or prevent building or expanding traditional wireless tower and rooftop sites. See *"Item 1A. Risk Factors"* for additional information regarding rights to our infrastructure.

Environmental. We are required to comply with a variety of federal, state and local environmental laws and regulations protecting environmental quality, including air and water quality, and wildlife. To date, we have not incurred any material fines or penalties or experienced any material adverse effects to our business as a result of any domestic or international environmental regulations or matters. See *"Item 1A. Risk Factors"* for additional information regarding compliance with laws and regulations.

The construction of new towers and small cells or, in some cases, their modification in the U.S. may be subject to environmental review under the National Environmental Policy Act of 1969, as amended ("NEPA"), which requires federal agencies to evaluate the environmental impact of major federal actions. NEPA regulations require applicants to investigate the potential environmental impact of the proposed tower or small cells construction. If the FCC determines that the proposed tower or small cells construction or modification presents a significant environmental impact, the FCC is required to prepare an environmental impact statement, which is subject to public comment. Such determination could significantly delay the FCC's approval of the construction or modification.

Our operations are also subject to federal, state and local laws and regulations relating to the management, use, storage, disposal, emission, or remediation of, or exposure to, hazardous or non-hazardous substances, materials, or wastes. As an owner, lessee, or operator of real property, we are subject to certain environmental laws that impose strict, joint-and-several liability for the cleanup of on-site or off-site contamination relating to existing or historical operations; or we could also be subject to personal injury or property damage claims relating to such contamination. In general, our tenant contracts prohibit our tenants from using or storing any hazardous substances on our communications infrastructure sites in violation of applicable environmental laws and require our tenants to provide notice of certain environmental conditions caused by them.

We are subject to Occupational Safety and Health Administration and similar guidelines regarding employee protection from radio frequency exposure. In recent years, the scientific community has extensively studied low-level radio frequency emissions to determine whether they have any connection to certain negative health effects, such as cancer.

We have compliance programs and monitoring projects designed to promote compliance with applicable environmental laws and regulations. Nevertheless, there can be no assurance that the costs of compliance with existing or future environmental laws will not have a material adverse effect on us.

Available Information

We maintain a website at www.crowncastle.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K (and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended ("Exchange Act")), proxy statements and other information about us are made available, free of charge, through the investor relations section of our website at http://investor.crowncastle.com and at the SEC's website at http://sec.gov as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

In addition, our corporate governance guidelines, business practices, ethics policy and financial code of ethics and the charters of our Audit Committee, Compensation Committee and Nominating & Corporate Governance Committee are available through the investor relations section of our website at http://www.crowncastle.com/investors/corporate-governance, and such information is also available in print to any stockholder who requests it. We intend to post to our website any amendments to or waivers from each of the ethics policy and financial code of ethics applicable to our Chief Executive Officer, Chief Financial Officer and Controller that are required to be disclosed.

Item 1A. ***Risk Factors***

You should carefully consider all of the risks described below, as well as the other information contained in this document, when evaluating your investment in our securities.

Risks Relating to Our Business and Industry

Our business depends on the demand for our communications infrastructure, driven primarily by demand for data, and we may be adversely affected by any slowdown in such demand. Additionally, a reduction in the amount or change in the mix of network investment by our tenants may materially and adversely affect our business (including reducing demand for our communications infrastructure or services).

Tenant demand for our communications infrastructure depends on consumers' and organizations' demand for data. Additionally, the willingness of our tenants to utilize our communications infrastructure, or renew or extend existing tenant contracts on our communications infrastructure, is affected by numerous factors, including:

- availability or capacity of our communications infrastructure or associated land interests;
- location of our communications infrastructure;
- financial condition of our tenants, including their profitability and availability or cost of capital;
- willingness of our tenants to maintain or increase their network investment or changes in their capital allocation strategy;
- need for integrated networks and organizations;
- availability and cost of spectrum for commercial use;
- increased use of network sharing, roaming, joint development, or resale agreements by our tenants;
- mergers or consolidations by and among our tenants;
- changes in, or success of, our tenants' business models;
- governmental regulations and initiatives, including local or state restrictions on the proliferation of communications infrastructure;
- cost of constructing communications infrastructure;
- our market competition, including tenants that may elect to self-perform;
- technological changes, including those (1) affecting the number or type of communications infrastructure needed to provide data to a given geographic area or which may otherwise serve as a substitute or alternative to our communications infrastructure or (2) resulting in the obsolescence or decommissioning of certain existing wireless networks; and
- our ability to efficiently satisfy our tenants' service requirements.

A slowdown in demand for data or our communications infrastructure may negatively impact our growth or otherwise have a material adverse effect on us. If our tenants or potential tenants are unable to raise adequate capital to fund their business plans, as a result of disruptions in the financial and credit markets or otherwise, they may reduce their spending, which could adversely affect our anticipated growth or the demand for our communications infrastructure or services.

The amount, timing, and mix of our tenants' network investment is variable and can be significantly impacted by the various matters described in these risk factors. Changes in tenant network investment typically impact the demand for our communications infrastructure. As a result, changes in tenant plans such as delays in the implementation of new systems, new and emerging technologies (including small cells and fiber solutions), or plans to expand coverage or capacity may reduce demand for our communications infrastructure. Furthermore, the industries in which our tenants operate (particularly those in the wireless industry) could experience a slowdown or slowing growth rates as a result of numerous factors, including a reduction in consumer demand for data or general economic conditions. There can be no assurances that weakness or uncertainty in the economic environment will not adversely impact our tenants or their industries, which may materially and adversely affect our business, including by reducing demand for our communications infrastructure or services. In addition, a slowdown may increase competition for site rental tenants or services. Such an industry slowdown or a reduction in tenant network investment may materially and adversely affect our business.

A substantial portion of our revenues is derived from a small number of tenants, and the loss, consolidation or financial instability of any of such tenants may materially decrease revenues or reduce demand for our communications infrastructure and services.

Our three largest tenants are T-Mobile (which merged with Sprint in April 2020), AT&T and Verizon Wireless. The loss of any one of our largest tenants as a result of consolidation, merger, bankruptcy, insolvency, network sharing, roaming, joint development, resale agreements by our tenants or otherwise may result in (1) a material decrease in our revenues, (2) uncollectible account receivables, (3) an impairment of our deferred site rental receivables, communications infrastructure assets, or intangible assets, or (4) other adverse effects to our business. We cannot guarantee that tenant contracts with our largest tenants will not be terminated or that these tenants will renew their tenant contracts with us. See *"Item 7. MD&A—General Overview—Sprint Cancellation"* for a discussion of the accelerated contractual rental payments received in the fourth quarter of 2020 resulting from T-Mobile's cancellation of small cells contracted with Sprint prior to its merger with T-Mobile. In addition to our three largest tenants, we also derive a portion of our revenues and anticipated future growth from (1) fiber solutions tenants and (2) new entrants offering or contemplating offering wireless services. Such tenants (including those dependent on government funding) may be smaller or have less financial resources than our three largest tenants, may have business models which may not be successful, or may require additional capital.

Consolidation among our tenants will likely result in duplicate or overlapping parts of networks, for example, where they are co-residents on a tower or small cell network, which may result in the termination, non-renewal or re-negotiation of tenant contracts and negatively impact revenues from our communications infrastructure. Due to the long-term nature of our tenant contracts, we generally expect that the impact to our site rental revenues from any termination of our tenant contracts as a result of such potential consolidation would be spread over multiple years. Such consolidation (or potential consolidation) may result in a reduction or slowdown in such tenants' network investment in the aggregate because their expansion plans may be similar. Tenant consolidation could decrease the demand for our communications infrastructure and services, which in turn may result in a reduction in our revenues or cash flows and may trigger a review for impairment of certain long-lived assets.

See *"Item 1. Business—The Company"* and note 14 to our consolidated financial statements for further information regarding our largest tenants.

The expansion or development of our business, including through acquisitions, increased product offerings or other strategic growth opportunities, may cause disruptions in our business, which may have an adverse effect on our business, operations or financial results.

We seek to expand and develop our business, including through acquisitions, increased product offerings (such as small cells and fiber solutions), or other strategic growth opportunities. In the ordinary course of our business, we review, analyze and evaluate various potential transactions or other activities in which we may engage. Such transactions or activities could be a complex, costly, time-consuming process, or cause disruptions in, increase risk or otherwise negatively impact our business. Among other things, such transactions and activities may:

- disrupt our business relationships with our tenants, depending on the nature of or counterparty to such transactions and activities;
- divert capital and the time or attention of management away from other business operations, including as a result of post-transaction integration activities;
- fail to achieve revenue or margin targets, operational synergies or other benefits contemplated;
- increase operational risk or volatility in our business;
- not result in the benefits management had expected to realize from such expansion and development activities, or those benefits may take longer to realize than expected;
- impact our cost structure and result in the need to hire additional employees;
- increase demands on current employees or result in current or prospective employees experiencing uncertainty about their future roles with us, which might adversely affect our ability to retain or attract key employees; or
- result in the need for additional TRSs or contributions of certain assets to TRSs, which are subject to federal and state corporate income taxes.

Our Fiber segment has expanded rapidly, and the Fiber business model contains certain differences from our Towers business model, resulting in different operational risks. If we do not successfully operate our Fiber business model or identify or manage the related operational risks, such operations may produce results that are lower than anticipated.

In recent years, we have allocated a significant amount of capital to our Fiber business, which is a much less mature business for us than our Towers business. Our Fiber segment represented 34% and 33% of our site rental revenues for the years ended December 31, 2020 and 2019, respectively. The business model for our Fiber operations contains certain differences from our business model for our Towers operations, including certain differences relating to tenant base, competition, contract terms (including requirements for service level agreements regarding network performance and maintenance), upfront capital requirements, landlord demographics, deployment and ownership of certain network assets, operational oversight requirements, government regulations, growth rates and applicable laws.

While our Fiber operations have certain risks that are similar to our Towers operations, they also have certain operational risks (including the scalability of processes) that are different from our Towers business, including:

- the use of public rights-of-way and franchise agreements;
- the use of poles and conduits owned solely by, or jointly with, third parties;
- risks relating to overbuilding;
- risks relating to the specific markets in which we choose or plan to operate in;
- risks relating to construction hazards, including boring, trenching, utility and maintenance of traffic hazards;
- construction management and construction-related billings to tenants;
- risks relating to wireless carriers building their own small cell networks, or tenants utilizing their own or alternative fiber assets;
- the risk of failing to optimize the use of our finite supply of fiber strands;
- damage to our assets and the need to maintain, repair, upgrade and periodically replace our assets;
- the risk of failing to properly maintain or operate highly specialized hardware and software;
- network data security risks;
- the risk of new technologies that could enable tenants to realize the same benefits with less utilization of our fiber;
- potential damage to our overall reputation as a communications infrastructure provider; and
- the use of CLEC status.

In addition, the rate at which tenants adopt or prioritize small cells and fiber solutions may be lower or slower than we anticipate or may cease to exist altogether. Our Fiber operations will also expose us to different safety or liability risks or hazards than our Towers business as a result of numerous factors, including those stemming from the deployment, location or nature of the assets involved. There may be risks and challenges associated with small cells and fiber solutions being comparatively new and emerging technologies that are continuing to evolve, and there may be other risks related to small cells and fiber solutions of which we are not yet aware.

Failure to timely, efficiently and safely execute on our construction projects could adversely affect our business.

Our construction projects and related contracts can be long-term, complex in nature, costly and challenging to execute. The quality of our performance on such construction projects depends in large part upon our ability to manage (1) the associated tenant relationship and (2) the project itself by timely deploying and properly managing appropriate internal and external project resources. In connection with our construction projects, we generally bear the risk of cost over-runs, labor availability and productivity, and contractor pricing and performance.

In addition, the construction projects (including modifications of existing infrastructure) can pose certain safety risks, including:

- risks resulting from elevated work, including falling hazards;
- risks of third-party non-compliance with safety regulations, industry best practices or other applicable standards;
- risks associated with utility hazards; and
- risk of potential wildfires, including due to welding, grinding, cutting or other construction activity.

Further, investments in newly constructed communications infrastructure may result in lower initial returns compared to returns on our existing communications infrastructure or us not being able to realize future tenant additions at anticipated levels. Additionally, contracts with our tenants for these projects typically specify delivery dates, performance criteria and penalties for our failure to perform. On occasion, we experience unforeseen delays from municipalities and utility companies that result in longer construction timelines than expected, which impact our ability to timely deliver on our projects. Our failure to manage such tenant relationships, project resources, and project milestones in a timely and efficient manner and appropriately manage safety risks could have a material adverse effect on our business.

New technologies may reduce demand for our communications infrastructure or negatively impact our revenues.

Improvements in the efficiency, architecture, and design of communication networks may reduce the demand for our communications infrastructure. For example, new technologies that may promote network sharing, joint development, backhaul and fronthaul efficiency or resale agreements by our tenants, such as signal combining technologies or network virtualization, may reduce the need for our communications infrastructure. In addition, other technologies, such as WiFi, Distributed Antenna Systems ("DAS"), other small cells, blimps, satellite (such as low earth orbiting) and mesh transmission systems may, in the future, serve as substitutes for, or alternatives to, leasing on communications infrastructure that might otherwise be anticipated or expected had such technologies not existed. In addition, new technologies that enhance the range, efficiency and capacity of communication equipment could reduce demand for our communications infrastructure. Any significant reduction in demand for our communications infrastructure resulting from the new technologies may negatively impact our revenues or otherwise have a material adverse effect on us.

If we fail to retain rights to our communications infrastructure, including the rights to land under our towers and the right-of-way and other agreements related to our small cells and fiber, our business may be adversely affected.

The property interests and other rights to our communications infrastructure, including the land under our towers, are derived from leasehold and sub-leasehold interests, fee interests, easements, licenses, rights-of-way, and franchise and other agreements. A loss of these interests and other rights may interfere with our ability to conduct our business or generate revenues. For various reasons, we may not always have the ability to access, analyze, or verify all information regarding titles or other issues prior to acquiring communications infrastructure. Further, we may not be able to renew ground leases or other agreements on commercially viable terms.

Our ability to retain rights to the land on which our towers are located depends on our ability to purchase such land, by acquiring fee interests and perpetual easements, or renegotiate or extend the terms of the agreements relating to such land. Approximately 10% of our Towers site rental gross margin for the year ended December 31, 2020 was derived from towers where the leases for the land under such towers had final expiration dates of less than 10 years. If we are unable to retain rights to the property on which our communications infrastructure is located, our business may be adversely affected.

As of December 31, 2020, approximately 53% of our towers were leased or subleased or operated and managed under master leases, subleases, or other agreements with AT&T and T-Mobile (including agreements assumed by T-Mobile in connection with its merger with Sprint). We have the option to purchase these towers at the end of their respective lease terms. We have no obligation to exercise such purchase options. We may not have the required available capital to exercise our right to purchase some or all of these towers at the time these options are exercisable. Even if we do have available capital, we may choose not to exercise our right to purchase these towers or some or all of the T-Mobile or AT&T towers for business or other reasons. In the event that we do not exercise these purchase rights, or are otherwise unable to acquire an interest that would allow us to continue to operate these towers after the applicable period, we will lose the cash flows derived from such towers, which may have a material adverse effect on our business. In the event that we decide to exercise these purchase rights, the benefits of the acquisition of these towers may not exceed the costs, which could adversely affect our business. Additional information concerning these towers and the applicable purchase options as of December 31, 2020 is as follows:

- 22% of our towers are leased or subleased or operated and managed under a master prepaid lease or other related agreements with AT&T for a weighted-average initial term of approximately 28 years, weighted on Towers site rental gross margin. We have the option to purchase the leased and subleased towers from AT&T at the end of the respective lease or sublease terms for aggregate option payments of approximately $4.2 billion, which payments, if such option is exercised, would be due between 2032 and 2048.
- 16% of our towers are leased or subleased or operated and managed for an initial period of 32 years (through May 2037) under master leases, subleases or other agreements with T-Mobile (which T-Mobile assumed in connection with its merger with Sprint). We have the option to purchase in 2037 all (but not less than all) of the leased and subleased towers from T-Mobile for approximately $2.3 billion.
- 15% of our towers are leased or subleased or operated and managed under a master prepaid lease or other related agreements with T-Mobile for a weighted-average initial term of approximately 28 years, weighted on Towers site rental gross margin. We have the option to purchase the leased and subleased towers from T-Mobile at the end of the respective lease or sublease terms for aggregate option payments of approximately $2.0 billion, which payments, if such option is exercised, would be due between 2035 and 2049. In addition, through the T-Mobile Acquisition, another 1% of our towers are subject to a lease and sublease or other related arrangements with AT&T. We have the option to purchase these towers that we do not otherwise already own at the end of their respective lease terms for aggregate option payments of up to approximately $405 million, which payments, if such option is exercised, would be due prior to 2032 (less than $10 million would be due before 2025).

Under master lease or master prepaid lease arrangements we have with AT&T and T-Mobile, including agreements assumed by T-Mobile in connection with its merger with Sprint, certain of our subsidiaries lease or sublease, or are otherwise granted the right to manage and operate, towers from bankruptcy remote subsidiaries of such carriers. If one of these bankruptcy remote subsidiaries should become a debtor in a bankruptcy proceeding and is permitted to reject the underlying ground lease, our subsidiaries could lose their interest in the applicable sites. If our subsidiaries were to lose their interest in the applicable sites or if the applicable ground leases were to be terminated, we would lose the cash flow derived from the towers on those sites, which may have a material adverse effect on our business. We have similar bankruptcy risks with respect to sites that we operate under management agreements.

For our small cells and fiber, we must maintain rights-of-way, franchise, pole attachment, conduit use, fiber use and other agreements to operate our assets. For various reasons, we may not always have the ability to maintain these agreements or obtain future agreements to construct, maintain and operate our fiber assets. Access to rights-of-way may depend on our CLEC status, and we cannot be certain that jurisdictions will (1) recognize such CLEC status or (2) not change their laws concerning CLEC access to rights-of-way. If a material portion of these agreements are terminated or are not renewed, we might be forced to abandon our assets, which may adversely impact our business. In order to operate our assets, we must also maintain fiber agreements that we have with public and private entities. There is no assurance that we will be able to renew these agreements on favorable terms, or at all. If we are unable to renew these agreements on favorable terms, we may face increased costs or reduced revenues.

Additionally, in order to expand our communications infrastructure footprint to new locations, we often need to obtain new or additional rights-of-way and other agreements. Our failure to obtain these agreements in a prompt and cost-effective manner may prevent us from expanding our footprint, which may be necessary to meet our contractual obligations to our tenants and could adversely impact our business.

Our services business has historically experienced significant volatility in demand, which reduces the predictability of our results.

The operating results of our services business for any particular period may experience significant fluctuations given its non-recurring nature and should not necessarily be considered indicative of longer-term results for this activity. Our services business is generally driven by demand for our communications infrastructure and may be adversely impacted by various factors, including:

- competition;
- the timing, mix and amount of tenant network investments;
- the rate and volume of tenant deployment plans;
- unforeseen delays or challenges relating to work performed;
- economic weakness or uncertainty;
- our market share; or
- changes in the size, scope, or volume of work performed.

If radio frequency emissions from wireless handsets or equipment on our communications infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues.

The potential connection between radio frequency emissions and certain negative health effects, including some forms of cancer, has been the subject of substantial study by the scientific community in recent years. We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us.

Public perception of possible health risks associated with cellular or other wireless connectivity services and wireless technologies (such as 5G) may slow or diminish the growth of wireless companies and deployment of new wireless technologies, which may in turn slow or diminish our growth. In particular, negative public perception of, and regulations regarding, these perceived health risks may slow or diminish the market acceptance of wireless services and technologies. If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected. We currently do not maintain any significant insurance with respect to these matters.

We may be vulnerable to security breaches or other unforeseen events that could adversely affect our operations, business, and reputation.

Despite existing security measures, certain of our communications infrastructure may be vulnerable to damage, disruptions, or shutdowns due to unauthorized access, computer viruses, cyber-attacks, and other security breaches. An attack attempt or security breach, such as a distributed denial of service attack, could potentially result in (1) interruption or cessation of certain of our services to our tenants, (2) our inability to meet expected levels of service to our tenants, (3) data transmitted over our tenants' networks being compromised or misappropriated, or (4) business or other sensitive data being compromised or misappropriated. We cannot guarantee that our security measures will not be circumvented, resulting in tenant network failures or interruptions that could impact our tenants' network availability and have a material adverse effect on our business, financial condition, or operational results. Additionally, security incidents impacting our tenants, vendors and business partners could result in a material adverse effect on our business. We may be required to expend significant resources to protect against or recover from such threats. If an actual or perceived breach of our security occurs, the market perception of the effectiveness of our security measures could be harmed, and we could lose tenants. Further, the perpetrators of cyber-attacks are not restricted to particular groups or persons. These attacks may be committed by our employees or external actors operating in any geography. In addition, our acquisitions, both past and future, may alter our potential exposure to the risks described above.

Additionally, we could be negatively impacted by other unforeseen events, such as extreme weather events or natural disasters (including as a result of any potential effects of climate change), or acts of vandalism. There is increasing concern that global climate change is occurring and could result in increased frequency of certain types of natural disasters and extreme weather events. We cannot predict with certainty the rate at which climate change is occurring or the potential direct or indirect impacts of climate change to our business. Any such unforeseen events could, among other things, damage or delay deployment of our communication infrastructure, interrupt or delay service to our tenants or could result in legal claims or penalties, disruption in operations, damage to our reputation, negative market perception, or costly response measures, which could adversely affect our business.

While we maintain insurance policies that include coverage in the event of security breaches and other unforeseen events, there can be no assurances that such coverage will be adequate to cover exposure for such incidents.

The impact of coronavirus (COVID-19) and related risks could materially affect our financial position, results of operations and cash flows.

The global outbreak of the novel coronavirus (COVID-19) was declared a pandemic by the World Health Organization and a national emergency by the U.S. government in March 2020 and has adversely affected the U.S. In response, both the public and private sectors have introduced certain policies and initiatives in an effort to reduce the transmission of COVID-19 ("Initiatives"), such as the imposition of travel restrictions; mandates from federal, state and local authorities to close non-essential businesses and avoid large gatherings of people; quarantine or "shelter-in-place;" and the promotion of social distancing and the adoption of work-from-home and online learning by companies and institutions. In addition, the continued spread of COVID-19 and the resulting Initiatives have led to a significant economic downturn, global supply chain disruptions and volatility in the global capital markets.

We have modified, and might further modify, our business practices as a result of the COVID-19 pandemic, the economic and social ramifications of the disease, and the societal and governmental responses in the communities in which we operate. We do not believe that COVID-19 had a material impact on our financial position, results of operations and cash flows for the year ended December 31, 2020. The extent to which the COVID-19 pandemic will affect our financial position, results of operations and cash flows in the future is difficult to predict with certainty and depends on numerous evolving factors, including: the duration, scope and severity of the pandemic; the roll-out of the COVID-19 vaccine and its effectiveness in curbing the spread of the virus; government, social, business and other actions that have been and will be taken in response to the pandemic; and the effect of the pandemic on short- and long-term general economic conditions. Among other things, COVID-19 and the Initiatives could (1) adversely affect the ability of our suppliers and vendors to provide products and services to us; (2) result in decreased demand for our communications infrastructure; (3) make it more difficult for us to serve our tenants, including as a result of delays or suspensions in the issuance of permits or other authorizations needed to conduct our business; and (4) increase our cost of capital and adversely impact our access to capital. Due to factors beyond our knowledge or control, including the duration and severity of COVID-19, as well as third-party actions taken to contain its spread and mitigate its public health effects, at this time we cannot estimate or predict with certainty the impact of COVID-19, the Initiatives or the measures we take in response thereto on our financial position, results of operations and cash flows, particularly over the near- to medium-term, but the impact could be material. See *"Item 7. MD&A—General Overview—Coronavirus (COVID-19)"* for further information.

As a result of competition in our industry, we may find it more difficult to negotiate favorable rates on our new or renewing tenant contracts.

Our growth is dependent on our entering into new tenant contracts (including amendments to tenant contracts upon modification of an existing tower, fiber, or small cell installation), as well as renewing or renegotiating tenant contracts when existing tenant contracts terminate. Competition in our industry may make it more difficult for us to attract new tenants, maintain or increase our gross margins, or maintain or increase our market share. In addition, competition (primarily in our fiber solutions business) may, in certain circumstances, cause us to renegotiate certain existing tenant contracts to avoid early contract terminations. We face competition for site rental tenants and associated contractual rates from various sources, including (1) other independent communications infrastructure owners or operators, including those that own, operate, or manage towers, rooftops, broadcast or transmission towers, utility poles, fiber (including non-traditional competitors such as cable providers) or small cells, or (2) new alternative deployment methods for communications infrastructure.

Our Fiber business generally has different competitors than those in our Towers business, including other owners of fiber, as well as new entrants into small cells and fiber solutions, some of which may have larger networks, greater financial resources or more experience in managing such assets than we have.

New wireless technologies may not deploy or be adopted by tenants as rapidly or in the manner projected.

There can be no assurances that new wireless services or technologies, which may drive demand for our communications infrastructure, will be introduced or deployed as rapidly or in the manner projected by the wireless carriers. In addition, demand or tenant adoption rates for such new technologies may be lower or slower than anticipated for numerous reasons. As a result, growth opportunities or demand for our communications infrastructure arising from such technologies may not be realized at the times or to the extent anticipated.

Risks Related to Our Debt and Equity

Our substantial level of indebtedness could adversely affect our ability to react to changes in our business, and the terms of our debt instruments limit our ability to take a number of actions that our management might otherwise believe to be in our best interests. In addition, if we fail to comply with our covenants, our debt could be accelerated.

We have a substantial amount of indebtedness (approximately $21.2 billion as of February 17, 2021). See *"Item 7. MD&A—Liquidity and Capital Resources"* for a tabular presentation of our contractual debt maturities. As a result of our substantial indebtedness:

- we may be more vulnerable to general adverse economic or industry conditions;
- we may find it more difficult to obtain additional financing to fund discretionary investments or other general corporate requirements or to refinance our existing indebtedness;
- we are or will be required to dedicate a substantial portion of our cash flows from operations to the payment of principal or interest on our debt, thereby reducing the available cash flows to fund other projects, including the discretionary investments discussed in *"Item 1. Business"* and *"Item 7. MD&A—Liquidity and Capital Resources"*;
- we may have limited flexibility in planning for, or reacting to, changes in our business or in the industry;
- we may have a competitive disadvantage relative to other companies in our industry with less debt;
- we may be adversely impacted by changes in interest rates;
- we may be adversely impacted by changes to credit ratings related to our debt instruments;
- we may be required to issue equity securities or securities convertible into equity or sell some of our assets, possibly on unfavorable terms, in order to meet payment obligations;
- we may be limited in our ability to take advantage of strategic business opportunities, including communications infrastructure development or mergers and acquisitions; and
- we could fail to remain qualified for taxation as a REIT due to limitations on our ability to declare and pay dividends to stockholders as a result of restrictive covenants in our debt instruments.

Currently we have debt instruments in place that limit in certain circumstances our ability to incur additional indebtedness, pay dividends, create liens, sell assets, or engage in certain mergers and acquisitions, among other things. In addition, the credit agreement ("Credit Agreement") governing our senior unsecured credit facility, which consists of our senior unsecured term loan A facility and senior unsecured revolving credit facility (collectively, "2016 Credit Facility"), contains financial maintenance covenants. Our ability to comply with these covenants or to satisfy our debt obligations will depend on our future operating performance. If we violate the restrictions in our debt instruments or fail to comply with our financial maintenance covenants, we will be in default under those instruments, which in some cases would cause the maturity of a substantial portion of our long-term indebtedness to be accelerated. Furthermore, if the limits on our ability to pay dividends prevent us from satisfying our REIT distribution requirements, we could fail to remain qualified for taxation as a REIT. If these limits do not jeopardize our qualification for taxation as a REIT but nevertheless prevent us from distributing 100% of our REIT taxable income, we will be subject to federal and state corporate income taxes, and potentially a nondeductible excise tax, on our undistributed taxable income. If our operating subsidiaries were to default on their debt, the trustee could seek to foreclose the collateral securing such debt, in which case we could lose the communications infrastructure and the associated revenues. See *"Item 7. MD&A—Liquidity and Capital Resources—Debt Covenants"* for a further discussion of our debt covenants. See also our risk factor below associated with our previously identified material weakness in internal controls over financial reporting (which has been remediated) for further discussion of risks that may impact our access to capital markets.

CCIC is a holding company that conducts all of its operations through its subsidiaries. Accordingly, CCIC's sources of cash to pay interest or principal on its outstanding indebtedness are distributions relating to its respective ownership interests in its subsidiaries from the net earnings and cash flows generated by such subsidiaries or from proceeds of debt or equity offerings. Earnings and cash flows generated by CCIC's subsidiaries are first applied by such subsidiaries to conduct their operations, including servicing their respective debt obligations, after which any excess cash flows generally may be paid to

CCIC, in the absence of any special conditions, such as a continuing event of default. However, CCIC's subsidiaries are legally distinct from the holding company and, unless they guarantee such debt, have no obligation to pay amounts due on their debt or to make funds available to us for such payment.

We have a substantial amount of indebtedness. In the event we do not repay or refinance such indebtedness, we could face substantial liquidity issues and might be required to issue equity securities or securities convertible into equity securities, or sell some of our assets to meet our debt payment obligations.

We have a substantial amount of indebtedness, which, upon final maturity, we will need to refinance or repay. See *"Item 7. MD&A—Liquidity and Capital Resources"* for a tabular presentation of our contractual debt maturities. There can be no assurances we will be able to refinance our indebtedness (1) on commercially reasonable terms, (2) on terms, including with respect to interest rates, as favorable as our current debt, or (3) at all.

Economic conditions and the credit markets have historically experienced, and may continue to experience, periods of volatility, uncertainty, or weakness that could impact (1) the availability or cost of debt financing, including any refinancing of the obligations described above, (2) our ability to draw the full amount of our $5.0 billion senior unsecured revolving credit facility under our 2016 Credit Facility ("2016 Revolver"), that, as of February 17, 2021, has $5.0 billion of undrawn availability, or (3) our ability to issue the full amount of the $1.0 billion commercial paper notes ("Commercial Paper Notes") under our unsecured commercial paper program ("CP Program"), that, as of February 17, 2021, had $150 million outstanding.

Borrowings under our 2016 Credit Facility generally bear an interest rate based on the London interbank offered rate ("LIBOR") per annum plus a credit spread based on our senior unsecured credit rating. In July 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced that, after 2021, it will stop compelling banks to submit rates for the calculation of LIBOR. Our Credit Agreement contemplates a mechanism for replacing LIBOR with a new benchmark rate (to be agreed upon by us and the administrative agent) for loans made under the 2016 Credit Facility. This mechanism is triggered in the event that LIBOR is no longer published or otherwise available as a benchmark for establishing interest rates for loans. Since the conditions for the implementation of this mechanism have not yet been triggered, we cannot determine with certainty what such replacement rate would be or reasonably predict the potential effect of these changes, other reforms or the establishment of alternative reference rates on our business. The discontinuation, reform or replacement of LIBOR could result in interest rate increases on our 2016 Credit Facility, which could adversely affect our cash flows and operating results.

If we are unable to repay or refinance our debt, we cannot guarantee that we will be able to generate enough cash flows from operations or that we will be able to obtain enough capital to service our debt, fund our planned capital expenditures or pay future dividends. In such an event, we could face substantial liquidity issues and might be required to issue equity securities or securities convertible into equity securities, or sell some of our assets to meet our debt payment obligations. Failure to repay or refinance indebtedness when required could result in a default under such indebtedness. If we incur additional indebtedness, any such indebtedness could exacerbate the risks described above.

Sales or issuances of a substantial number of shares of our common stock or securities convertible into shares of our common stock may adversely affect the market price of our common stock.

Future sales or issuances of common stock or other equity related securities may adversely affect the market price of our common stock, including any shares of our common stock issued to finance capital expenditures, finance acquisitions or repay debt. Our business strategy contemplates access to external financing to fund certain discretionary investments, which may include issuances of common stock or other equity related securities. We maintain an "at-the-market" stock offering program ("2018 ATM Program") through which we may, from time to time, issue and sell shares of our common stock having an aggregate gross sales price of up to $750 million to or through sales agents. As of February 17, 2021, we had approximately $750 million of gross sales of common stock remaining under our 2018 ATM Program. From time to time, we may refresh or implement a new "at-the-market" stock offering program. See note 10 to our consolidated financial statements. As of February 17, 2021, we had approximately 431 million shares of common stock outstanding.

We have reserved 8 million of common stock for issuance in connection with awards granted under our stock compensation plan.

Further, a small number of common stockholders own a significant percentage of our outstanding common stock. If any one of these common stockholders, or any group of our common stockholders, sells a large quantity of shares of our common stock, or the public market perceives that existing common stockholders might sell a large quantity of shares of our common stock, the market price of our common stock may significantly decline.

Certain provisions of our restated certificate of incorporation ("Charter"), amended and restated by-laws ("by-laws") and operative agreements, and domestic and international competition laws may make it more difficult for a third party to acquire control of us or for us to acquire control of a third party, even if such a change in control would be beneficial to our stockholders.

We have a number of anti-takeover devices in place that will hinder takeover attempts or may reduce the market value of our common stock. Our anti-takeover provisions include:

- the authority of the board of directors to issue preferred stock without approval of the holders of our common stock;
- advance notice requirements for director nominations or actions to be taken at annual meetings; and
- a provision that the state courts or, in certain circumstances, the federal courts, in Delaware shall be the sole and exclusive forum for certain actions involving us, our directors, officers, employees and stockholders.

Our by-laws permit special meetings of the stockholders to be called only upon the request of our Chief Executive Officer or a majority of the board of directors, and deny stockholders the ability to call such meetings. Such provisions, as well as the provisions of Section 203 of the Delaware General Corporation Law, may impede a merger, consolidation, takeover, or other business combination or discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

In addition, domestic or international competition laws may prevent or discourage us from acquiring communications infrastructure in certain geographical areas or impede a merger, consolidation, takeover, or other business combination or discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

Risks Relating to Corporate Compliance

The restatement of our previously issued financial statements, the errors that resulted in such restatement, the material weakness that was previously identified in our internal control over financial reporting and the determination that our internal control over financial reporting and disclosure controls and procedures were not effective, could result in loss of investor confidence, shareholder litigation or governmental proceedings or investigations, any of which could cause the market value of our common stock or debt securities to decline or impact our ability to access the capital markets.

As discussed in the "Explanatory Note" and note 2 to our consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2019, we identified and disclosed certain errors and determined that our previously issued consolidated financial statements for fiscal years ended December 31, 2017 and 2018, and each of our unaudited condensed consolidated financial statements and related disclosures for the quarterly and year-to-date periods during such years and for the first three quarters of fiscal year 2019, should be restated. Although the Company has restated these financial statements and the previously identified material weakness in the Company's internal control over financial reporting has been remediated, as a result of these errors and restatement, we were and continue to be subject to a number of additional risks and uncertainties, including unanticipated legal fees, litigation, governmental proceedings or investigations, other losses or damages and loss of investor confidence. Lawsuits naming the Company and some of its officers and directors have been filed, and additional lawsuits naming the Company and its officers and directors may be filed in the future. These lawsuits have resulted in, and may result in further, unanticipated legal costs, regardless of the outcome of the litigation. See note 12 to our consolidated financial statements for more information regarding the litigation. We are currently unable to predict the outcome of any such litigation. See *"Item 9A. Controls and Procedures"* for a discussion of the remediation of previously disclosed material weakness.

If we fail to comply with laws or regulations which regulate our business and which may change at any time, we may be fined or even lose our right to conduct some of our business.

A variety of federal, state, local, and foreign laws and regulations apply to our business, including those discussed in *"Item 1. Business."* Failure to comply with applicable requirements may lead to civil or criminal penalties, require us to assume indemnification obligations or breach contractual provisions. We cannot guarantee that existing or future laws or regulations, including federal, state, local, or foreign tax laws, will not adversely affect our business (including our REIT status), increase delays or result in additional costs. We also may incur additional costs as a result of liabilities under applicable laws and regulations, such as those governing environmental and safety matters. These factors may have a material adverse effect on us.

Risks Relating to Our REIT Status

Future dividend payments to our stockholders will reduce the availability of our cash on hand available to fund future discretionary investments, and may result in a need to incur indebtedness or issue equity securities to fund growth

opportunities. In such event, the then current economic, credit market or equity market conditions will impact the availability or cost of such financing, which may hinder our ability to grow our per share results of operations.

During each of the first three quarters of 2020, we paid a common stock dividend of $1.20 per share, totaling approximately $1.5 billion. In October 2020, our board of directors declared a quarterly common stock dividend of $1.33 per share, which represents an increase of 11% from the quarterly common stock dividend declared during each of the first three quarters of 2020. We currently expect our common stock dividends over the next 12 months to be a cumulative amount of at least $5.32 per share, or an aggregate amount of approximately $2.3 billion. Over time, we expect to increase our dividend per share generally commensurate with our realized growth in cash flows. Any future dividends are subject to declaration by our board of directors. See notes 10 and 17 to our consolidated financial statements.

We operate as a REIT for U.S. federal income tax purposes. To remain qualified and be taxed as a REIT, we will generally be required to annually distribute at least 90% of our REIT taxable income (determined without regard to the dividends paid deduction, excluding net capital gain and after the utilization of any available NOLs) to our stockholders. Our quarterly cash common stock dividend will delay the utilization of our NOLs and may cause certain of the NOLs to expire without utilization. See also *"Item 1. Business—REIT Status"* and *"Item 7. MD&A—General Overview—Common Stock Dividend."*

As discussed in *"Item 1. MD&A—Business—Strategy,"* we seek to invest our available capital, including the net cash generated by our operating activities and external financing sources, in a manner that we believe will increase long-term stockholder value on a risk-adjusted basis. Our historical discretionary investments have included the following (in no particular order): construction of communications infrastructure; acquisitions of communications infrastructure; acquisitions of land interests (which primarily relate to land assets under towers); improvements and structural enhancements to our existing communications infrastructure; purchases of shares of our common stock from time to time; and purchases, repayments or redemptions of our debt. External financing, including debt, equity, and equity-related issuances to fund future discretionary investments either (1) may not be available to us or (2) may not be accessible by us at terms that would result in the investment of the net proceeds raised yielding incremental growth in our per share operating results. As a result, future dividend payments may hinder our ability to grow our per share results of operations or otherwise adversely affect our ability to execute our business plan.

Remaining qualified to be taxed as a REIT involves highly technical and complex provisions of the Code. Failure to remain qualified as a REIT would result in our inability to deduct dividends to stockholders when computing our taxable income, which would reduce our available cash.

As a REIT, we are generally entitled to a deduction for dividends that we pay and therefore are not subject to U.S. federal corporate income tax on our net taxable income that is currently distributed to our common stockholders.

While we intend to operate so that we remain qualified as a REIT, given the highly complex nature of the rules governing REITs, the importance of ongoing factual determinations, the possibility of future changes in our circumstances, and the potential impact of future changes to laws and regulations impacting REITs, no assurance can be given that we will qualify as a REIT for any particular year.

In addition, the present U.S. federal tax treatment of REITs is subject to change, possibly with retroactive effect, by legislative, judicial or administrative action at any time, and any such change might adversely affect our REIT status or benefits. We cannot predict the impact, if any, that such changes, if enacted, might have on our business. However, it is possible that such changes could adversely affect our business, including our REIT status.

If, in any taxable year, we fail to qualify for taxation as a REIT and are not entitled to relief under certain provisions of the Code, then:

- we will not be allowed a deduction for dividends paid to stockholders in computing our taxable income;
- we will be subject to federal and state income tax, including, for applicable years beginning before January 1, 2018, any applicable alternative minimum tax, on our taxable income at regular corporate rates; and
- we would be disqualified from re-electing REIT status for the four taxable years following the year during which we were so disqualified.

Although we may have federal NOLs available to reduce any taxable income, to the extent our federal NOLs have been utilized or are otherwise unavailable, any such corporate tax liability could be substantial, would reduce the amount of cash available for other purposes and might necessitate the borrowing of additional funds or the liquidation of some investments to pay any additional tax liability. Accordingly, funds available for investment would be reduced.

Under the Code, for taxable years beginning in or after 2018, no more than 20% of the value of the assets of a REIT may be represented by securities of one or more TRSs. These limitations may affect our ability to make additional investments in non-REIT qualifying operations or assets, or in any operations held through TRSs. The net income of our TRSs is not required to be distributed to us, and income that is not distributed to us generally will not be subject to the REIT income distribution requirement. However, there may be limitations on our ability to accumulate earnings in our TRSs and the accumulation or reinvestment of significant earnings in our TRSs could result in adverse tax treatment. In particular, if the accumulation of cash in our TRSs causes the fair market value of our securities in our TRSs to exceed current or future limitations of the fair market value of our assets at the end of any quarter, then we may fail to remain qualified as a REIT.

Complying with REIT requirements, including the 90% distribution requirement, may limit our flexibility or cause us to forgo otherwise attractive opportunities, including certain discretionary investments and potential financing alternatives.

To remain qualified and be taxed as a REIT, we are required to satisfy the 90% distribution requirement as described above. We commenced declaring regular quarterly dividends to our common stockholders beginning with the first quarter of 2014. See notes 10 and 17 to our consolidated financial statements. Any such dividends, however, are subject to the determination of and declaration by our board of directors based on then-current and anticipated future conditions, including our earnings, net cash generated by operating activities, capital requirements, financial condition, our relative market capitalization, our existing federal NOLs of approximately $1.5 billion or other factors deemed relevant by our board of directors.

To the extent that we satisfy the 90% distribution requirement, but distribute less than 100% of our REIT taxable income (determined without regard to the dividends paid deduction, excluding net capital gain and after the utilization of any available NOLs), we will be subject to federal corporate income tax on our undistributed taxable income. In addition, we will be subject to a 4% nondeductible excise tax if the actual amount that we pay out to our stockholders for a calendar year is less than a minimum amount specified under the Code.

From time to time, we may generate REIT taxable income greater than our cash flow as a result of differences in timing between the recognition of taxable income and the actual receipt of cash or the effect of nondeductible capital expenditures, the creation of reserves or required debt or amortization payments. If we do not have other funds available in these situations, we could be required to borrow funds on unfavorable terms, sell assets at disadvantageous prices, or distribute amounts that would otherwise be invested in future acquisitions to make distributions sufficient to enable us to pay out enough of our taxable income to satisfy the REIT dividend requirement and to avoid corporate income tax and the 4% excise tax in a particular year. These alternatives could increase our costs or reduce our equity. Thus, compliance with the REIT requirements may hinder our ability to grow, which could adversely affect the value of our common stock. Furthermore, the REIT dividend requirements may increase the financing we need to fund capital expenditures, future growth, or expansion initiatives, which would increase our total leverage.

In addition to satisfying the 90% distribution requirement, to remain qualified as a REIT for tax purposes, we are required to continually satisfy tests concerning, among other things, the sources of our income, the nature and diversification of our assets and the ownership of our capital stock. Compliance with these tests will require us to refrain from certain activities and may hinder our ability to make certain attractive investments, including the purchase of non-qualifying assets, the expansion of non-real estate activities, or investments in the businesses to be conducted by our TRSs, and to that extent, limit our opportunities and our flexibility to change our business strategy. Furthermore, acquisition opportunities in domestic or international markets may be adversely affected if we need or require the target company to comply with some REIT requirements prior to completing any such acquisition. In addition, our status as a REIT may result in investor pressures not to pursue growth opportunities that are not immediately accretive.

Moreover, if we fail to comply with certain asset ownership tests, at the end of any calendar quarter, we must correct the failure within 30 days after the end of the calendar quarter or qualify for certain statutory relief provisions to avoid losing our REIT qualification. As a result, we may be required to liquidate assets in adverse market conditions or forgo otherwise attractive investments. These actions may reduce our income and amounts available for distribution to our stockholders.

REIT related ownership limitations and transfer restrictions may prevent or restrict certain transfers of our capital stock.

In order for us to continue to satisfy the requirements for REIT qualification, our capital stock must be beneficially owned by 100 or more persons during at least 335 days of a taxable year of 12 months or during a proportionate part of a shorter taxable year. Also, not more than 50% of the value of the outstanding shares of our capital stock may be owned, directly or indirectly, by five or fewer "individuals" (as defined in the Code to include certain entities such as private foundations) during the last half of a taxable year. In order to facilitate compliance with the REIT rules, our Charter includes provisions regarding REIT-related ownership limitations and transfer restrictions that generally prohibit any "person" (as defined in our Charter) from beneficially or constructively owning, or being deemed to beneficially or constructively own by virtue of the attribution provisions of the Code, more than (1) 9.8%, by value or number of shares, whichever is more restrictive, of the outstanding shares of our common stock, or (2) 9.8% in aggregate value of the outstanding shares of all classes and series of our capital stock. In addition, our Charter provides for certain other ownership limitations and transfer restrictions. Under applicable constructive ownership rules, any shares of capital stock owned by certain affiliated owners generally would be added together for purposes of the ownership limitations. These ownership limitations and transfer restrictions could have the effect of delaying, deferring or preventing a transaction or a change in control of our company that might involve a premium price for our capital stock or otherwise might be in the best interest of our stockholders.

Certifications

We submitted the Chief Executive Officer certification required by Section 303A.12(a) of the New York Stock Exchange ("NYSE") Listed Company Manual, relating to compliance with the NYSE's corporate governance listing standards, to the NYSE on May 29, 2020 with no qualifications. We have included the certifications of our Chief Executive Officer and Chief Financial Officer required by Section 302 of the Sarbanes-Oxley Act of 2002 and related rules as Exhibits 31.1 and 31.2 to this 2020 Form 10-K.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Communications Infrastructure

We own, lease or manage approximately 40,000 towers geographically dispersed throughout the U.S. Towers are vertical metal structures generally ranging in height from 50 to 300 feet. Our tenants' wireless equipment may be placed on towers, building rooftops and other structures. Our towers are located on tracts of land that support the towers, equipment shelters and, where applicable, guy-wires to stabilize the tower.

Additionally, we own or lease approximately 80,000 route miles of fiber primarily supporting our small cells and fiber solutions. The majority of our fiber assets are located in major metropolitan areas. Our small cells and fiber are typically located outdoors and are often attached to public right-of-way infrastructure, including utility poles or street lights.

See the following for further information regarding our communications infrastructure:

- *"Item 1. Business—Overview"* for information regarding our tower and fiber portfolios.
- *"Item 7. MD&A—Liquidity and Capital Resources—Material Cash Requirements"* for information regarding our lease obligations.
- *"Schedule III - Schedule of Real Estate and Accumulated Depreciation"* for further information on our productive properties.

Approximately 53% of our towers are leased or subleased or operated and managed under master leases, subleases, or other agreements with AT&T and T-Mobile, including agreements assumed by T-Mobile in connection with its merger with Sprint. We have the option to purchase these towers at the end of their respective lease terms. We have no obligation to exercise such purchase options. See note 1 to our consolidated financial statements and *"Item 1A. Risk Factors"* for a further discussion.

Substantially all of our communications infrastructure can accommodate additional tenancy, either as currently constructed or with appropriate modifications. Additionally, if so inclined as a result of a request for a tenant addition, we could generally replace an existing tower with another tower, replace a small cell network antenna with another antenna or overlay additional fiber in order to provide additional coverage or capacity, subject to certain restrictions.

Offices

Our principal corporate headquarters is owned and located in Houston, Texas. In addition, we have offices throughout the U.S. in locations convenient for the management and operation of our communications infrastructure, with significant consideration being given to the amount of our communications infrastructure located in a particular area. We believe that our facilities are suitable and adequate to meet our anticipated needs.

Item 3. ***Legal Proceedings***

We are periodically involved in legal proceedings that arise in the ordinary course of business. Most of these proceedings arising in the ordinary course of business involve disputes with landlords, vendors, collection matters involving bankrupt tenants, zoning or siting matters, construction, condemnation, tax, employment, or wrongful termination matters. While the outcome of these matters cannot be predicted with certainty, management does not expect any pending matters to have a material adverse effect on us.

See the disclosure in notes 9 and 12 to our consolidated financial statements set forth in Part II, Item 8 of this 2020 Form 10-K.

Item 4. ***Mine Safety Disclosures***

N/A

PART II

Item 5. *Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities*

Market Information and Holders

Our common stock is listed and traded on the New York Stock Exchange ("NYSE") under the symbol "CCI."

As of February 17, 2021, there were approximately 480 holders of record of our common stock.

Dividend Policy

We operate as a REIT for U.S. federal income tax purposes. To remain qualified and be taxed as a REIT, we will generally be required to annually distribute to our stockholders at least 90% of our REIT taxable income after the utilization of any available NOLs (determined without regard to the dividends paid deduction and excluding net capital gain). See also *"Item 1. Business—REIT Status" "Item 1A. Risk Factors," "Item 7. MD&A—General Overview—Common Stock Dividend," "Item 7. MD&A—Liquidity and Capital Resources—Financing Activities—Common Stock"* and notes 9 and 10 to our consolidated financial statements.

Over time, we expect to increase our dividend per share generally commensurate with our growth in cash flows. The declaration amount and payment of any future dividends, however, are subject to the determination and approval of our board of directors based on then-current or anticipated future conditions, including our earnings, net cash generated by operating activities, capital requirements, financial condition, our relative market capitalization, our existing NOLs, or other factors deemed relevant by our board of directors. In addition, our ability to pay dividends is limited under certain circumstances by the terms of our debt instruments.

Issuer Purchases of Equity Securities

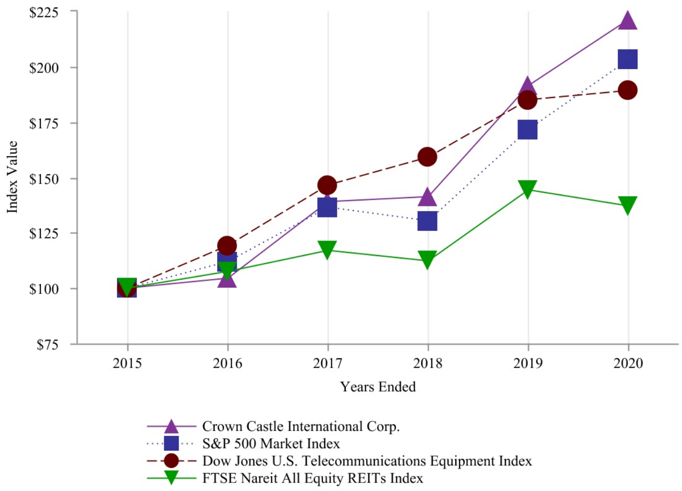
The following table summarizes information with respect to purchases of our equity securities during the fourth quarter of 2020:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
	(In thousands)			
October 1 - October 31, 2020	1	$ 167.36	—	—
November 1 - November 30, 2020	3	161.80	—	—
December 1 - December 31, 2020	1	158.57	—	—
Total	5	$ 162.02	—	—

We paid approximately $1 million in cash to effect these purchases. The shares purchased relate to shares withheld in connection with the payment of withholding taxes upon vesting of restricted stock units.

Performance Graph

The following performance graph is a comparison of the five-year cumulative total stockholder return on our common stock against the cumulative total return of the S&P 500 Market Index, the Dow Jones U.S. Telecommunications Equipment Index and the FTSE NAREIT All Equity REITs Index for the period commencing December 31, 2015 and ending December 31, 2020. The performance graph assumes an initial investment of $100.00 and the reinvestment of all dividends in our common stock and in each of the indices. The performance graph and related text are based on historical data and are not necessarily indicative of future performance.



	Years Ended December 31,					
Company/Index/Market	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Crown Castle International Corp.	$ 100.00	$ 104.52	$ 138.93	$ 141.34	$ 191.47	$ 221.35
S&P 500 Market Index	100.00	111.96	136.40	130.42	171.49	203.04
DJ U.S. Telecommunications Equipment Index	100.00	119.14	146.61	159.12	184.95	189.24
FTSE Nareit All Equity REITs Index	100.00	107.59	116.92	112.19	144.35	136.96

The performance graph above and related text are being furnished solely to accompany this 2020 Form 10-K pursuant to Item 201(e) of Regulation S-K, and are not being filed for purposes of Section 18 of the Exchange Act, and are not to be incorporated by reference into any filing of ours, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Item 6. ***Selected Financial Data***

N/A

Item 7. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

General Overview

Overview

We own, operate and lease shared communications infrastructure. See *"Item 1. Business"* for a further discussion of our business, including our long-term strategy, our REIT status, certain key terms of our tenant contracts and growth trends in the demand for data. Site rental revenues represented 91% of our 2020 consolidated net revenues. The vast majority of our site rental revenues is of a recurring nature and has been contracted for in prior years.

Highlights of Business Fundamentals and Results

- We operate as a REIT for U.S. federal income tax purposes (see *"Item 1. Business—REIT Status"* and notes 2 and 9 to our consolidated financial statements).
- Potential growth resulting from the increasing demand for data
  - We expect existing and potential new tenant demand for our communications infrastructure will result from (1) new technologies, (2) increased usage of mobile entertainment, mobile internet, and machine-to-machine applications, (3) adoption of other emerging and embedded wireless devices (including smartphones, laptops, tablets, wearables and other devices), (4) increasing smartphone penetration, (5) wireless carrier focus on expanding both network quality and capacity, including the use of both towers and small cells, (6) the adoption of other bandwidth-intensive applications (such as cloud services and video communications), (7) the availability of additional spectrum and (8) increased government initiatives to support connectivity throughout the U.S.
  - We expect U.S. wireless carriers will continue to focus on improving network quality and expanding capacity (including through 5G initiatives) by utilizing a combination of towers and small cells. We believe our product offerings of towers and small cells provide a comprehensive solution to our wireless tenants' growing communications infrastructure needs.
  - We expect organizations will continue to increase the usage of high-bandwidth applications that will require the utilization of more fiber infrastructure and fiber solutions, such as those we provide.
  - Within our Fiber segment, we are able to generate growth and returns for our stockholders by deploying our fiber for both small cells and fiber solutions tenants.
  - Tenant additions on our existing communications infrastructure are achieved at a low incremental operating cost, delivering high incremental returns.
    - Substantially all of our communications infrastructure can accommodate additional tenancy, either as currently constructed or with appropriate modifications.
- Returning cash flows provided by operations to stockholders in the form of dividends (see also *"Item 1. Business—Strategy"*)
  - During 2020, we paid common stock dividends totaling approximately $2.1 billion. See *"Item 7. MD&A—General Overview—Common Stock Dividend"* for a discussion of the increase to our quarterly dividend in the fourth quarter of 2020.
  - Investing capital efficiently to grow long-term dividends per share
    - Discretionary capital expenditures of $1.5 billion, predominately resulting from the construction of new communications infrastructure and improvements to existing communications infrastructure in order to support additional tenants.
    - We expect to continue to construct and acquire new communications infrastructure based on our tenants' needs and generate attractive long-term returns by adding additional tenants over time.
- Site rental revenues under long-term tenant contracts
  - Initial terms of five to 15 years for site rental revenues derived from wireless tenants, with contractual escalations and multiple renewal periods of five to 10 years each, exercisable at the option of the tenant.
  - Initial terms that generally vary between three to 20 years for site rental revenues derived from our fiber solutions tenants (including from organizations with high-bandwidth and multi-location demands).
  - Weighted-average remaining term of approximately five years, exclusive of renewals exercisable at the tenants' option, currently representing approximately $27 billion of expected future cash inflows.
- Majority of our revenues from large wireless carriers

- ◦ Approximately 76% of our site rental revenues were derived from T-Mobile (including revenues previously derived from Sprint), AT&T and Verizon Wireless. See also *"Item 1A. Risk Factors"* and note 14 to our consolidated financial statements for a further discussion of our largest customers.
- Majority of land interests under our towers under long-term control
  - ◦ Approximately 90% of our Towers site rental gross margin and approximately 80% of our Towers site rental gross margin is derived from towers located on land that we own or control for greater than 10 and 20 years, respectively. The aforementioned percentages include towers located on land that is owned, including through fee interests and perpetual easements, which represent approximately 40% of our Towers site rental gross margin.
- Majority of our fiber assets are located in major metropolitan areas and are on public rights-of-way.
- Minimal sustaining capital expenditure requirements
  - ◦ Sustaining capital expenditures represented approximately 2% of net revenues.
- Debt portfolio with long-dated maturities extended over multiple years, with the vast majority of such debt having a fixed rate (see notes 7 and 17 to our consolidated financial statements and *"Item 7A. Quantitative and Qualitative Disclosures About Market Risk"* for a further discussion of our debt)
  - ◦ After giving effect to our February 2021 issuance of (1) $1.0 billion aggregate principal amount of 1.050% senior unsecured notes due July 2026, (2) $1.0 billion aggregate principal amount of 2.100% senior unsecured notes due April 2031 and (3) $1.25 billion aggregate principal amount of 2.900% senior unsecured notes due April 2041 (collectively, "February 2021 Senior Notes") and the use of the net proceeds therefrom, 92% of our debt has fixed rate coupons.
- During 2020, we completed several debt transactions to refinance and extend the maturities of certain of our debt. See notes 7 and 17 to our consolidated financial statements and *"Item 7. MD&A—Liquidity and Capital Resources—Financing Activities"* for further discussion of our debt transactions.
  - ◦ As of December 31, 2020, after giving effect to our February 2021 Senior Notes offering and the use of the net proceeds therefrom, our outstanding debt has a weighted average interest rate of 3.2% and weighted average maturity of approximately ten years (assuming anticipated repayment dates where applicable).
  - ◦ Our debt service coverage and leverage ratios are comfortably within their respective financial maintenance covenants. See *"Item 7. MD&A—Liquidity and Capital Resources—Debt Covenants"* for a further discussion of our debt covenants.
- Significant cash flows from operations
  - ◦ Net cash provided by operating activities was $3.1 billion.
  - ◦ In addition to the positive impact of contractual escalators, we expect to grow our core business of providing access to our communications infrastructure as a result of future anticipated additional demand for our communications infrastructure.

Common Stock Dividend

In the aggregate, we paid approximately $2.1 billion in common stock dividends in 2020. During each of the first three quarters of 2020, we paid a quarterly common stock dividend of $1.20 per share, totaling approximately $1.5 billion. In October 2020, our board of directors declared a quarterly common stock cash dividend of $1.33 per share, which represents an increase of approximately 11% from the quarterly common stock dividend declared during each of the first three quarters of 2020. We currently expect our common stock dividends over the next 12 months to be a cumulative amount of at least $5.32 per share, or an aggregate amount of approximately $2.3 billion. Over time, we expect to increase our dividend per share generally commensurate with our growth in cash flows. Any future common stock dividends are subject to declaration by our board of directors. See notes 10 and 17 to our consolidated financial statements.

Outlook Highlights

The following are certain highlights of our 2021 outlook that impact our business fundamentals described above.

- We expect that, when compared to full year 2020, our full year 2021 site rental revenue growth will be positively impacted by tenant additions, as large wireless carriers and fiber solutions tenants continue to focus on meeting the increasing demand for data. See note 3 to our consolidated financial statements.
- We expect to continue to invest a significant amount of our available capital in the form of discretionary capital expenditures for 2021 based on the anticipated returns on such discretionary investments. We expect that our discretionary capital expenditures in 2021 will decrease when compared to 2020 as a result of both (1) the completion of certain fiber expansion projects in 2020, and (2) an expected higher proportion of small cell capital expenditures associated with less capital-intensive tenant additions.
- We also expect sustaining capital expenditures of approximately 2% of net revenues for full year 2021, consistent with historical annual levels.

Sprint Cancellation

During the fourth quarter of 2020, T-Mobile notified us that it was cancelling approximately 5,700 small cell nodes initially contracted with Sprint ("Sprint Cancellation") prior to its merger with T-Mobile. The majority of the cancelled small cells were not yet constructed and, upon completion, would have been located at the same locations as other T-Mobile small cells. The Sprint Cancellation resulted in T-Mobile accelerating payment of all contractual rental obligations associated with the approximately 5,700 small cells as well as the payment of capital costs incurred to date.

We received approximately $308 million from T-Mobile pursuant to the Sprint Cancellation during the fourth quarter of 2020, and recognized receipt of this payment as "Other operating income" on our consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2020.

Additionally, we previously received upfront payments from Sprint for certain small cells subject to the Sprint Cancellation, which we previously recorded as "Deferred revenues" and "Other long-term liabilities" on our consolidated balance sheet. As a result of the Sprint Cancellation, we recognized the unamortized portion of such upfront payments, or approximately $54 million, as "Other operating income" on our consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2020.

Following the Sprint Cancellation, the Company separately evaluated property and equipment previously recorded related to the cancelled small cells. The Company wrote-off property and equipment deemed to have no alternative future use, and as a result, recognized approximately $63 million as "Asset write-down charges" on the Company's consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2020.

See notes 2 and 15 to our consolidated financial statements for further discussion of the Sprint Cancellation.

Coronavirus (COVID-19)

In accordance with the U.S. Department of Homeland Security guidance issued in March 2020 designating telecommunications infrastructure and networks as critical infrastructure, we have continued our operations to ensure viability of communications networks, which are essential to public health and safety. To date, we have taken a variety of measures to ensure the availability of our critical infrastructure, promote the health and safety of our employees, and support the communities in which we operate. These measures include requiring work-from-home arrangements for a large portion of our workforce, imposing travel restrictions for our employees where practicable, canceling physical participation in meetings, events and conferences, forming an internal committee to monitor and implement procedures for the return of our workforce to an office setting, and other modifications to our business practices. We will continue to actively monitor the situation and may take further actions as may be required by governmental authorities or that we determine are in the best interests of our employees, tenants, business partners and stockholders.

We do not believe that COVID-19 had a material impact on our financial position, results of operations and cash flows during the year ended December 31, 2020. Given our access to various sources of liquidity and no near term debt maturities other than Commercial Paper Notes and principal payments on amortizing debt, we currently anticipate that we will be able to maintain sufficient liquidity as we manage through the current environment. See also *"Item 1A. Risk Factors"* and *"Item 7. MD&A—Liquidity and Capital Resources—Liquidity Position."*

Results of Operations

The following discussion of our results of operations for 2020 compared to 2019 should be read in conjunction with *"Item 1. Business," "Item 7. MD&A—Liquidity and Capital Resources"* and our consolidated financial statements. For a discussion of our results of operations and financial condition for 2019 compared to 2018 that is not included in this 2020 Form 10-K, see *"Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations"* in our Annual Report on Form 10-K for the year ended December 31, 2019, which was filed with the SEC on March 10, 2020.

The following discussion of our results of operations is based on our consolidated financial statements prepared in accordance with GAAP, which require us to make estimates and judgments that affect the reported amounts (see *"Item 7. MD&A—Accounting and Reporting Matters—Critical Accounting Policies and Estimates"* and note 2 to our consolidated financial statements). See *"Item 7. MD&A—Accounting and Reporting Matters—Non-GAAP and Segment Financial Measures"* for a discussion of our use of (1) segment site rental gross margin, (2) segment services and other gross margin, (3) segment operating profit, including their respective definitions and (4) Adjusted EBITDA, including its definition and a reconciliation to net income.

Our operating segments consist of (1) Towers and (2) Fiber. See note 14 to our consolidated financial statements for further discussion of our operating segments.

Highlights of our results of operations for 2020, 2019 and 2018 are depicted below:

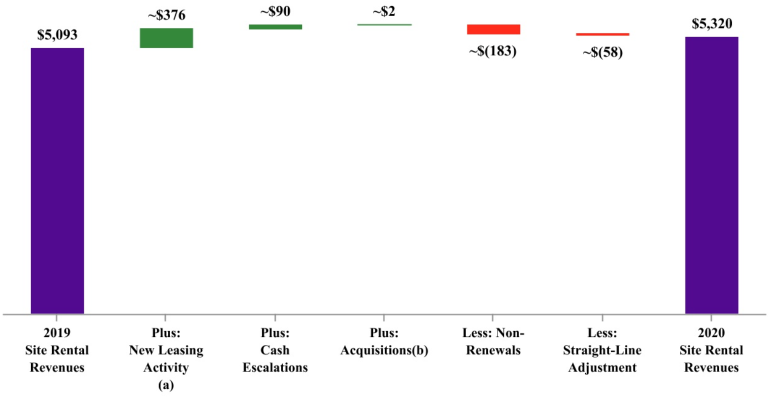
	Years Ended December 31,			Percent Change	
(In millions of dollars)	**2020**	**2019**	**2018**	**2020 vs. 2019**	**2019 vs. 2018**
Site rental revenues:					
Towers site rental revenues	$ 3,497	$ 3,389	$ 3,196	3 %	6 %
Fiber site rental revenues	1,823	1,704	1,600	7 %	7 %
Total site rental revenues	5,320	5,093	4,796	4 %	6 %
Site rental gross margin:					
Towers site rental gross margin[(a)]	2,631	2,525	2,348	4 %	8 %
Fiber site rental gross margin[(a)]	1,203	1,145	1,075	5 %	7 %
Services and other gross margin:					
Towers services and other gross margin[(a)]	71	147	143	(52)%	3 %
Fiber services and other gross margin[(a)]	8	6	5	33 %	20 %
Segment operating profit:					
Towers operating profit[(a)]	2,602	2,576	2,381	1 %	8 %
Fiber operating profit[(a)(b)]	1,387	956	901	45 %	6 %
Net income attributable to CCIC stockholders	1,056	860	622	23 %	38 %
Adjusted EBITDA[(c)]	3,706	3,299	3,091	12 %	7 %

(a) See *"Item 7. MD&A—Accounting and Reporting Matters—Non-GAAP and Segment Financial Measures"* and note 14 to our consolidated financial statements for our definitions of segment site rental gross margin, segment services and other gross margin and segment operating profit.
(b) Fiber operating profit for the year ended December 31, 2020 is inclusive of $362 million of segment other operating income related to the Sprint Cancellation. See *"Item 7. MD&A—General Overview—Sprint Cancellation"* and notes 2 and 15 to our consolidated financial statements for further information regarding the Sprint Cancellation.
(c) See reconciliation of this non-GAAP financial measure to net income (loss) and definition included in *"Item 7. MD&A—Accounting and Reporting Matters—Non-GAAP and Segment Financial Measures."*

2020 and 2019

Total site rental revenues for 2020 grew by $227 million, or 4%, from 2019. This increase was predominately comprised of the factors depicted in the chart below:

(In millions of dollars)



(a) Includes amortization of upfront payments received from long-term tenants and other deferred credits (commonly referred to as prepaid rent).
(b) Represents the contribution from recent acquisitions until the one-year anniversary of the acquisition.

Towers site rental revenues for 2020 were $3.5 billion and increased by $108 million, or 3%, from approximately $3.4 billion during 2019. The increase in Towers site rental revenues was impacted by the following items, inclusive of straight-line accounting: tenant additions across our entire portfolio, renewals or extensions of tenant contracts, escalations and non-renewals of tenants contracts. Tenant additions were influenced by our tenants' ongoing efforts to improve network quality and capacity.

Fiber site rental revenues for 2020 were $1.8 billion and increased by $119 million, or 7%, from $1.7 billion from 2019. The increase in Fiber site rental revenues was predominately impacted by the increased demand for small cells and fiber solutions. Increased demand for small cells was driven by our tenants' network strategy in an effort to provide capacity and relieve network congestion, and increased demand for fiber solutions was driven by increasing demand for data.

The increase in Towers site rental gross margin from 2019 to 2020 was related to the previously-mentioned 3% increase in Towers site rental revenues and relatively fixed costs to operate our towers. The increase in Fiber site rental gross margins was predominately related to the previously-mentioned 7% increase in Fiber site rental revenues.

Towers services and other gross margin for 2020 was $71 million and decreased by $76 million, or 52%, from $147 million during 2019, which is a result of a slowdown of carrier activity and the volume and mix of services and other work. Revenues from our services and other offerings are of a variable nature as these revenues are not under long-term contracts.

Selling, general and administrative expenses for 2020 were $678 million and increased by $64 million, or 10%, from $614 million during 2019. The increase in selling, general and administrative expenses was primarily related to the growth in our business.

Towers operating profit for 2020 increased by $26 million, or 1%, from 2019. The increase in Towers operating profit was primarily related to the growth in our Towers site rental revenues and relatively fixed costs to operate our towers, which was partially offset by the previously-mentioned decrease in Towers services and other gross margin.

Fiber operating profit for 2020 increased by $431 million, or 45%, from 2019. The increase in Fiber operating profit was primarily related to $362 million of operating income recognized from the Sprint Cancellation and the previously-mentioned growth in our Fiber site rental revenues, partially offset by charges incurred related to a reduction in staffing during the fourth quarter of 2020, comprised of employee severance payments and termination benefits. See *"Item 7. MD&A—General Overview—Sprint Cancellation"* and notes 2 and 15 to our consolidated financial statements for further information regarding the Sprint Cancellation. See note 2 to our consolidated financial statements for further information regarding the charges incurred related to the reduction in staffing.

Depreciation, amortization and accretion was approximately $1.6 billion for 2020 and increased by $36 million, or 2%, from 2019. This increase predominately resulted from a corresponding increase in our gross property and equipment due to capital expenditures.

Asset write-down charges for 2020 increased by $55 million from 2019, primarily as a result of the write-off of approximately $63 million in property and equipment which, following the Sprint Cancellation, we deemed to have no alternative future use. See *"Item 7. MD&A—General Overview—Sprint Cancellation"* and notes 2 and 15 to our consolidated financial statements for further information regarding the Sprint Cancellation.

Interest expense and amortization of deferred financing costs were $689 million for 2020 and increased by $6 million, or 1%, from $683 million during 2019. The increase predominately resulted from a corresponding increase in our outstanding indebtedness due to the financing of our discretionary capital expenditures, partially offset by reduction in the variable interest rate on our 2016 Term Loan A and 2016 Revolver due to a lower LIBOR. See note 7 to our consolidated financial statements and *"Item 7A. Quantitative and Qualitative Disclosures About Market Risk"* for a further discussion of our debt.

As a result of repaying certain of our indebtedness in conjunction with our refinancing activities, we incurred losses on retirement of long-term obligations of $95 million and $2 million for the years ended 2020 and 2019, respectively. See note 7 to our consolidated financial statements.

The provisions for income taxes for 2020 and 2019 were $20 million and $21 million, respectively. For both 2020 and 2019, the effective tax rate differs from the federal statutory rate predominately due to our REIT status, including the dividends paid deduction. See *"Item 1. Business—REIT Status," "Item 7. MD&A—Accounting and Reporting Matters—Critical Accounting Policies and Estimates"* and note 9 to our consolidated financial statements.

Net income attributable to CCIC stockholders was $1.1 billion during 2020 compared to $860 million during 2019. The increase was predominately related to the previously-mentioned operating income recognized as a result of the Sprint Cancellation and net growth in both our Towers and Fiber segments, partially offset by (1) the previously-mentioned losses on retirement of long-term obligations, (2) decrease in Towers services activity and (3) increases in expenses, including (a) asset write-down charges, (b) selling, general and administrative expenses and (c) depreciation, amortization and accretion.

Adjusted EBITDA increased $407 million, or 12%, from 2019 to 2020. The increase was predominately related to the previously-mentioned operating income recognized as a result of the Sprint Cancellation and growth in our site rental activities in both Towers and Fiber segments, partially offset by the previously-mentioned decrease in Towers services activity.

Liquidity and Capital Resources

Overview

General. Our core business generates revenues under long-term tenant contracts (see *"Item 1. Business—Overview"* and *"Item 7. MD&A—General Overview—Overview"*) from (1) the largest U.S. wireless carriers and (2) fiber solutions tenants. As a leading provider of shared communications infrastructure in the U.S., our strategy is to create long-term stockholder value via a combination of (1) growing cash flows generated from our portfolio of communications infrastructure, (2) returning a meaningful portion of our cash generated by operating activities to our stockholders in the form of dividends, and (3) investing capital efficiently to grow cash flows and long-term dividends per share. Our strategy is based, in part, on our belief that the U.S. is the most attractive market for shared communications infrastructure investment with the greatest long-term growth potential. We measure our efforts to create "long-term stockholder value" by the combined payment of dividends to stockholders and growth in our per share results. See *"Item 1. Business—Strategy"* for a further discussion of our strategy.

We have engaged, and expect to continue to engage, in discretionary investments that we believe will maximize long-term stockholder value. Our historical discretionary investments include (in no particular order): constructing communications infrastructure, acquiring communications infrastructure, acquiring land interests (which primarily relate to land assets under towers), improving and structurally enhancing our existing communications infrastructure, purchasing shares of our common stock, and purchasing, repaying, or redeeming our debt. We have recently spent, and expect to continue to spend, a significant percentage of our discretionary investments on the construction of small cells and fiber. We seek to fund our discretionary investments with both net cash generated by operating activities and cash available from financing capacity, such as the use of our undrawn availability from the 2016 Revolver, issuances under our CP Program, debt financings and issuances of equity or equity-related securities, including under our 2018 ATM Program.

We seek to maintain a capital structure that we believe drives long-term stockholder value and optimizes our weighted-average cost of capital. We target a leverage ratio of approximately five times Adjusted EBITDA and interest coverage of Adjusted EBITDA to interest expense of approximately three times, subject to various factors, such as the availability and cost of capital and the potential long-term return on our discretionary investments. We may choose to increase or decrease our leverage or coverage from these targets for various periods of time. We have no significant contractual debt maturities until 2023 (other than Commercial Paper Notes that may be outstanding from time to time and principal payments on certain outstanding debt).

We operate as a REIT for U.S. federal income tax purposes. We expect to continue to pay minimal cash income taxes as a result of our REIT status and our NOLs. See *"Item 1. Business—REIT Status" "Item 7. MD&A—General Overview"* and note 9 to our consolidated financial statements.

Liquidity Position. The following is a summary of our capitalization and liquidity position as of December 31, 2020, after giving effect to our February 2021 Senior Notes offering and the use of the net proceeds therefrom. See *"Item 7A. Quantitative and Qualitative Disclosures About Market Risk"* and note 7 to our consolidated financial statements for additional information regarding our debt as well as note 10 to our consolidated financial statements for additional information regarding our 2018 ATM Program.

(In millions of dollars)		
Cash, cash equivalents and restricted cash[(a)]	$	513
Undrawn 2016 Revolver availability[(b)]		4,677
Debt and other long-term obligations (current and non-current)[(c)]		19,557
Total equity		9,316

(a) Inclusive of $5 million included within "Other assets, net" on our consolidated balance sheet.
(b) Availability at any point in time is subject to certain restrictions based on the maintenance of financial covenants contained in the 2016 Credit Facility. At any point in time, we intend to maintain available commitments under our 2016 Revolver in an amount at least equal to the amount of outstanding Commercial Paper Notes. See *"Item 7. MD&A—Liquidity and Capital Resources—Financing Activities"* and *"Item 7. MD&A—Liquidity and Capital Resources—Debt Covenants."*
(c) See *"Item 7. MD&A—Liquidity and Capital Resources—Financing Activities"* and note 7 to our consolidated financial statements for further information regarding the CP Program.

Over the next 12 months:

- Our liquidity sources may include (1) cash on hand, (2) net cash generated by our operating activities, (3) undrawn availability under our 2016 Revolver, (4) issuances under our CP Program, and (5) issuances of equity pursuant to our 2018 ATM Program. Our liquidity uses over the next 12 months are expected to include (1) debt service obligations of $129 million (principal payments), (2) cumulative common stock dividend payments expected to be at least $5.32

per share, or an aggregate amount of approximately $2.3 billion (see *"Item 7. MD&A—General Overview—Common Stock Dividend"*), and (3) capital expenditures. Additionally, amounts available under the CP Program may be repaid and re-issued from time to time. During the next 12 months, while our liquidity uses are expected to exceed our net cash provided by operating activities, we expect that our liquidity sources described above should be sufficient to cover our expected uses. Historically, from time to time, we have accessed the capital markets to issue debt and equity.

- See *"Item 7A. Quantitative and Qualitative Disclosures About Market Risk"* for a tabular presentation of our debt maturities and a discussion of anticipated repayment dates.

Summary Cash Flows Information

	Years Ended December 31,		
(In millions of dollars)	**2020**	**2019**	**2018**
Net increase (decrease) in cash, cash equivalents and restricted cash			
Operating activities	$ 3,055	$ 2,698	$ 2,500
Investing activities	(1,741)	(2,081)	(1,793)
Financing activities	(1,271)	(692)	(733)
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 43	$ (75)	$ (26)

Operating Activities. The increase in net cash provided by operating activities of $357 million for 2020 from 2019 was due primarily to (1) payment received as a result of the Sprint Cancellation and (2) growth in our core business, offset by a net decrease from changes in working capital. Changes in working capital contribute to variability in net cash provided by operating activities, largely due to the timing of advanced payments by us and advanced receipts from tenants. We expect to grow our net cash provided by operating activities in the future (exclusive of changes in working capital) if we realize expected growth in our core business.

Investing Activities. Net cash used for investing activities for 2020 decreased $340 million from 2019 primarily as a result of decreased discretionary capital expenditures in both our Towers and Fiber segment.

Our capital expenditures are categorized as discretionary, integration or sustaining as described below.

- Discretionary capital expenditures are made with respect to activities which we believe exhibit sufficient potential to enhance long-term stockholder value. They primarily consist of expansion or development of communications infrastructure (including capital expenditures related to (1) enhancing communications infrastructure in order to add new tenants for the first time or support subsequent tenant equipment augmentations or (2) modifying the structure of a communications infrastructure asset to accommodate additional tenants) and construction of new communications infrastructure. Discretionary capital expenditures also include purchases of land interests (which primarily relates to land assets under towers as we seek to manage our interests in the land beneath our towers), certain technology-related investments necessary to support and scale future customer demand for our communications infrastructure, and other capital projects. The expansion or development of existing communications infrastructure to accommodate new leasing typically varies based on, among other factors: (1) the type of communications infrastructure, (2) the scope, volume, and mix of work performed on the communications infrastructure, (3) existing capacity prior to installation, or (4) changes in structural engineering regulations and standards. Currently, construction of new communications infrastructure is predominately comprised of the construction of small cells and fiber (including certain construction projects that may take 18 to 36 months to complete). Our decisions regarding discretionary capital expenditures are influenced by the availability and cost of capital and expected returns on alternative uses of cash, such as payments of dividends and investments.

- Integration capital expenditures consist of those capital expenditures made as a result of integrating acquired companies into our business.

- Sustaining capital expenditures consist of those capital expenditures not otherwise categorized as discretionary or integration capital expenditures, such as (1) maintenance capital expenditures on our communications infrastructure assets that enable our tenants' ongoing quiet enjoyment of the communications infrastructure and (2) ordinary corporate capital expenditures.

A summary of our capital expenditures for the last three years is as follows:

(In millions of dollars)	For the Twelve Months Ended											
	December 31, 2020				December 31, 2019				December 31, 2018			
	Towers	Fiber	Other	Total	Towers	Fiber	Other	Total	Towers	Fiber	Other	Total
Discretionary:												
Purchases of land interests	$ 64	$ —	$ —	$ 64	$ 53	$ —	$ —	$ 53	$ 56	$ —	$ —	$
Communications infrastructure improvements and other capital projects[(a)]	257	1,179	38	1,474	452	1,427	—	1,879	349	1,216	—	1,
Sustaining	14	53	19	86	38	46	32	116	35	48	22	
Integration	—	—	—	—	—	—	9	9	—	—	13	
Total	$ 335	$ 1,232	$ 57	$ 1,624	$ 543	$ 1,473	$ 41	$ 2,057	$ 440	$ 1,264	$ 35	$ 1,

(a) Towers segment includes $113 million, $208 million and $128 million of capital expenditures incurred during the twelve months ended December 31, 2020, 2019 and 2018, respectively, in connection with tenant installations and upgrades on our towers.

Capital expenditures decreased from 2019 to 2020 and were primarily impacted by a slowdown in tenant activity in 2020 compared to 2019 as well as the completion of certain large fiber expansion projects during 2020. Our sustaining capital expenditures were approximately 2% of net revenues in 2020, consistent with historical annual levels. See *"Item 7. MD&A—General Overview—Outlook Highlights"* for a discussion of our expectations surrounding 2021 capital expenditures.

Financing Activities. We seek to allocate cash generated by our operations in a manner that will enhance long-term stockholder value, which may include various financing activities such as (in no particular order): (1) paying dividends on our common stock (currently expected to total at least $5.32 per share over the next 12 months, or an aggregate amount of approximately $2.3 billion), (2) purchasing our common stock; or (3) purchasing, repaying, or redeeming our debt. See *"Item 7. MD&A—General Overview—Common Stock Dividend," "Item 7. MD&A—Liquidity and Capital Resources—Overview"* and notes 7, 10 and 17 to our consolidated financial statements.

In 2020, our financing activities predominately related to the following:

- paying an aggregate of $2.1 billion in dividends on our common stock;
- paying an aggregate of $85 million in dividends on our previously outstanding 6.875% Mandatory Convertible Preferred Stock;
- issuing $1.25 billion aggregate principal amount of senior unsecured notes in April 2020, the net proceeds of which we used to repay outstanding indebtedness under the 2016 Revolver; and
- issuing $2.5 billion aggregate principal amount of senior unsecured notes in June 2020, the proceeds of which, together with available cash, we used to redeem all of the previously outstanding 3.400% Senior Notes, 2.250% Senior Notes and 4.875% Senior Notes.

In 2019, our financing activities predominately related to the following:

- paying an aggregate of $1.9 billion in dividends on our common stock;
- paying an aggregate of $113 million in dividends on our previously outstanding 6.875% Mandatory Convertible Preferred Stock;
- issuing $1.0 billion aggregate principal amount of senior unsecured notes in February 2019, the proceeds of which we used to repay a portion of the outstanding indebtedness under the 2016 Revolver;
- establishing a CP Program in April 2019 pursuant to which we may issue short-term, unsecured commercial paper notes. Notes under the CP Program may be issued, repaid and re-issued from time to time, with an aggregate principal amount of Commercial Paper Notes outstanding under the CP Program at any time not to exceed $1.0 billion. The net proceeds of the Commercial Paper Notes are expected to be used for general corporate purposes;
- entering into an amendment to the 2016 Credit Facility in June 2019 to (1) increase our commitments under the 2016 Revolver by $750 million for total commitments of $5.0 billion and (2) extend the maturity of the 2016 Credit Facility from June 2023 to June 2024; and

- issuing $900 million aggregate principal amount of senior unsecured notes in August 2019, the proceeds of which we used to repay outstanding indebtedness under the 2016 Revolver and CP Program.

Incurrences, Purchases and Repayments of Debt. See note 7 to our consolidated financial statements, *"Item 7. MD&A—General Overview" and "Item 7. MD&A—Liquidity and Capital Resources—Overview—Liquidity Position"* for further discussion of our recent issuances, purchases, redemptions and repayments of debt.

Common Stock. See notes 10 and 17 to our consolidated financial statements for further information regarding our common stock as well as dividends declared and paid.

ATM Program. See note 10 to our consolidated financial statements for further information regarding our 2018 ATM Program. As of February 17, 2021, we had approximately $750 million of gross sales of common stock availability remaining on our 2018 ATM Program.

Mandatory Convertible Preferred Stock. In July and August 2020, all of our approximately 2 million shares of 6.875% Mandatory Convertible Preferred Stock then outstanding were converted into approximately 14 million shares of our common stock at a conversion rate (based on the applicable market value of our common stock and subject to certain anti-dilutive adjustments) of 8.8043 shares of common stock for each share of 6.875% Mandatory Convertible Preferred Stock. See note 10 to our consolidated financial statements for further discussion of the dividends declared and paid on our previously outstanding 6.875% Mandatory Convertible Preferred Stock during 2020 and the July and August conversions into shares of our common stock.

Credit Facility. See note 7 to our consolidated financial statements for further information regarding our 2016 Credit Facility. As of February 17, 2021, there was approximately $5.0 billion in availability under the 2016 Revolver.

Commercial Paper Program. See notes 7 and 17 to our consolidated financial statements for further information regarding our CP Program. As of February 17, 2021, the CP Program had $150 million outstanding.

Restricted Cash. Pursuant to the indentures governing certain of our operating companies' debt securities, all rental cash receipts of the issuers of these debt instruments and their subsidiaries are restricted and held by an indenture trustee. The restricted cash in excess of required reserve balances is subsequently released to us in accordance with the terms of the indentures. See also note 2 to our consolidated financial statements.

Material Cash Requirements

The following table summarizes our material cash requirements as of December 31, 2020, after giving effect to our February 2021 Senior Notes offering and the use of the net proceeds therefrom. These material cash requirements relate primarily to our outstanding borrowings or lease obligations for land interests under our towers. The debt maturities reflect contractual maturity dates and do not consider the impact of the principal payments that will commence following the anticipated repayment dates of certain debt (see footnote (b)).

(In millions of dollars)	Years Ending December 31,						
Material Cash Requirements	**2021**	**2022**	**2023**	**2024**	**2025**	**Thereafter**	**Totals**
Debt and other long-term obligations[(a)]	$ 130	$ 154	$ 1,958	$ 1,941	$ 525	$ 15,031	$ 19,739
Interest payments on debt and other long-term obligations[(b)(c)]	603	631	623	574	561	7,239	10,231
Lease obligations[(d)]	546	543	538	532	518	5,842	8,519
Total material cash requirements	$ 1,279	$ 1,328	$ 3,119	$ 3,047	$ 1,604	$ 28,112	$ 38,489

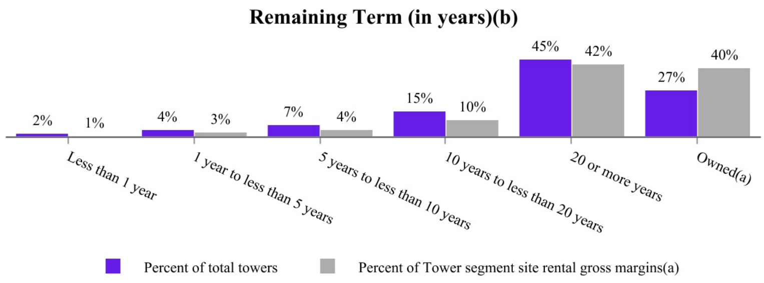
(a) The impact of principal payments that will commence following the anticipated repayment dates of our Tower Revenue Notes is not considered. The Tower Revenue Notes have principal amounts of $300 million, $250 million, $700 million and $750 million, with anticipated repayment dates in 2022, 2023, 2025 and 2028, respectively. See note 7 to our consolidated financial statements for our definition of and additional information regarding the Tower Revenue Notes.

(b) If the Tower Revenue Notes are not repaid in full by the applicable anticipated repayment dates, the applicable interest rate increases by approximately 5% per annum and monthly principal payments commence using the Excess Cash Flow (as defined in the indenture governing the applicable Tower Revenue Notes) of the issuers of the Tower Revenue Notes. The Tower Revenue Notes are presented based on their contractual maturity dates ranging from 2042 to 2048 and include the impact of an assumed 5% increase in interest rate that would occur following the anticipated repayment dates but exclude the impact of monthly principal payments that would commence using Excess Cash Flow (as defined in the indenture governing the applicable Tower Revenue Notes) of the issuers of the Tower Revenue Notes. The full year 2020 Excess Cash Flow (as defined in the indenture governing the applicable Tower Revenue Notes) of the issuers of the Tower Revenue Notes was approximately $815 million. We currently expect to refinance these notes on or prior to the respective anticipated repayment dates.

(c) Interest payments on the variable rate debt are based on estimated rates currently in effect.

(d) Amounts relate primarily to lease obligations for the land on which our towers are located and are based on the assumption that payments will be made for certain renewal periods exercisable at our option that are reasonably certain to be exercised and excludes our contingent payments for operating leases (such as payments based on revenues derived from the communications infrastructure located on the leased asset) as such arrangements are excluded from our operating lease liability. See note 13 to our consolidated financial statements for further discussion of our operating lease obligations. See also the table below summarizing remaining terms to expiration.

The following chart summarizes our rights to the land interests under our towers, including renewal terms exercisable at our option, as of December 31, 2020. As of December 31, 2020, the leases for land interests under our towers had an average remaining life of approximately 36 years, weighted based on Towers site rental gross margin. See *"Item 1A. Risk Factors"* for a discussion of retaining land interests under our towers.



(a) Inclusive of fee interests and perpetual easements.

(b) For the year ended December 31, 2020, without consideration of the term of the tenant contract.

Debt Covenants

Our Credit Agreement contains financial maintenance covenants. We are currently in compliance with these financial maintenance covenants and, based upon our current expectations, we believe we will continue to comply with our financial maintenance covenants. In addition, certain of our debt agreements contain restrictive covenants that place restrictions on us and may limit our ability to, among other things, incur additional debt and liens, purchase our securities, make capital expenditures, dispose of assets, undertake transactions with affiliates, make other investments, pay dividends or distribute excess cash flow. See note 7 to our consolidated financial statements for further discussion of our debt covenants. See also *"Item 1A. Risk Factors"* for a discussion of compliance with our debt covenants. The following are ratios applicable to the financial maintenance covenants under the Credit Agreement as of December 31, 2020.

Borrower / Issuer	Financial Maintenance Covenant[(a)(b)]	Covenant Level Requirement	As of December 31, 2020
CCIC	Total Net Leverage Ratio	≤ 6.50x	5.1x
CCIC	Total Senior Secured Leverage Ratio	≤ 3.50x	0.8x
CCIC	Consolidated Interest Coverage Ratio[(c)]	N/A	N/A

(a) Failure to comply with the financial maintenance covenants would, absent a waiver, result in an event of default under the Credit Agreement.
(b) As defined in the Credit Agreement.
(c) Applicable solely to the extent that the senior unsecured debt rating by any two of S&P, Moody's and Fitch is lower than BBB-, Baa3 or BBB-, respectively. If applicable, the consolidated interest coverage ratio must be greater than or equal to 2.50.

Accounting and Reporting Matters

Critical Accounting Policies and Estimates

Our critical accounting policies and estimates are those that we believe (1) are most important to the portrayal of our financial condition and results of operations or (2) require our most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. In many cases, the accounting treatment of a particular transaction is specifically prescribed by GAAP. In other cases, management is required to exercise judgment in the application of accounting principles with respect to particular transactions. The critical accounting policies and estimates for 2020 are not intended to be a comprehensive list of our accounting policies and estimates. See note 2 to our consolidated financial statements for a summary of our significant accounting policies.

Lease Accounting — Lessee. For our Towers segment, our lessee arrangements primarily consist of ground leases for land under our towers. Ground leases for land are specific to each site and are generally for an initial term of five to 10 years and are renewable (and cancelable after a notice period) at our option. We also enter into term easements and ground leases in which we prepay the entire term. For our Fiber segment, our lessee arrangements primarily include leases of fiber assets to facilitate our small cells and fiber solutions. The majority of our lease agreements have certain termination rights that provide for cancellation after a notice period and multiple renewal options exercisable at our option. We include certain renewal option periods in the lease term when we determine that the options are reasonably certain to be exercised.

For both our Towers and Fiber segments, operating lease expense is recognized on a ratable basis, regardless of whether the payment terms require us to make payments annually, quarterly, monthly, or for the entire term in advance. Certain of our ground lease and fiber lease agreements contain fixed escalation clauses (such as fixed dollar or fixed percentage increases) or inflation-based escalation clauses (such as those tied to the change in consumer price index ("CPI")). If the payment terms include fixed escalator provisions, the effect of such increases is recognized on a straight-line basis. We calculate the straight-line expense over the contract's estimated lease term, including any renewal option periods that we deem reasonably certain to be exercised.

We recognize a right-of-use ("ROU") asset and lease liability for each of our operating leases. ROU assets represent our right to use an underlying asset for the estimated lease term, and lease liabilities represent the present value of our future lease payments. In assessing our leases and determining our lease liability at lease commencement or upon modification, we are not able to readily determine the rate implicit for our lessee arrangements and thus use our incremental borrowing rate on a collateralized basis to determine the present value of our lease payments. Our ROU assets are measured as the balance of the lease liability plus any prepaid or accrued lease payments and any unamortized initial direct costs.

We review the carrying value of our ROU assets for impairment, similar to our other long-lived assets, whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. We could record impairments in the future if there are changes in (1) long-term market conditions, (2) expected future operating results or (3) the utility of the assets that negatively impact the fair value of our ROU assets.

Revenue Recognition. 91% of our total revenue for 2020 consisted of site rental revenues, which are recognized on a ratable basis over the fixed, non-cancelable term of the relevant tenant contract, generally ranging from five to 15 years for site rental revenues derived from wireless tenants and three to 20 years for site rental revenues derived from fiber solutions tenants, regardless of whether the payments from the tenant are received in equal monthly amounts during the life of a tenant contract. Certain of our tenant contracts contain (1) fixed escalation clauses (such as fixed-dollar or fixed-percentage increases) or inflation-based escalation clauses (such as those tied to the change in CPI), (2) multiple renewal periods exercisable at the tenant's option and (3) only limited termination rights at the applicable tenant's option through the current term. If the payment terms call for fixed escalations, upfront payments, or rent-free periods, the revenue is recognized on a straight-line basis over the fixed, non-cancelable term of the tenant contract. When calculating our straight-line rental revenues, we consider all fixed elements of tenant contractual escalation provisions, even if such escalation provisions contain a variable element (such as an escalator tied to an inflation-based index) in addition to a minimum. To the extent we acquire below-market tenant leases for contractual interests with tenants on the acquired communications infrastructure (for example with respect to small cells and fiber), we record the fair value as deferred credits and amortize such deferred credits to site rental revenues over their estimated lease term. Since we recognize revenue on a straight-line basis, a portion of the site rental revenues in a given period represents cash collected or contractually collectible in other periods. Our assets related to straight-line site rental revenues are included in "Other current assets" and "Deferred site rental receivables." Amounts billed or received prior to being earned are deferred and reflected in "Deferred revenues" and "Other long-term liabilities." Amounts to which we have an unconditional right to payment, which are related to both satisfied or partially satisfied performance obligations, are recorded within "Receivables, net" on the consolidated balance sheet.

As part of our effort to provide comprehensive communications infrastructure solutions, as an ancillary business, we also offer certain services primarily relating to our Towers segment, which represented 9% of our total revenues for 2020. Services and other revenue consists predominately of (1) site development services primarily relating to existing or new tenant equipment installations, including: site acquisition, architectural and engineering, or zoning and permitting (collectively, "site development services") and (2) tenant equipment installation or subsequent augmentations (collectively, "installation services"). Upon contract commencement, we assess our services to tenants and identify performance obligations for each promise to provide a distinct service.

We may have multiple performance obligations for site development services, which primarily include: structural analysis, zoning, permitting and construction drawings. For each of the above performance obligations, services revenues are recognized at completion of the applicable performance obligation, which represents the point at which we believe we have transferred goods or services to the tenant. The revenue recognized is based on an allocation of the transaction price among the performance obligations in a respective contract based on estimated standalone selling price.

The transaction price for tower installation services consists of amounts for (1) permanent improvements to our towers that represent a lease component and (2) the performance of the service. Amounts under our tower installation services agreements that represent a lease component are recognized as site rental revenues on a ratable basis over the length of the associated estimated lease term. For the performance of the tower installation service, we have one performance obligation, which is satisfied at the time of the applicable installation or augmentation and recognized as services and other revenues.

Since performance obligations are typically satisfied prior to receiving payment from tenants, the unconditional right to payment is recorded within "Receivables, net" on our consolidated balance sheet.

The vast majority of our services revenues relates to our Towers segment and generally have a duration of one year or less.

Accounting for Acquisitions — General. As described in *"Item 1. Business,"* the majority of our communications infrastructure has been acquired directly or indirectly from the three largest wireless carriers (or their predecessors) through transactions consummated since 1999. We evaluate each of our acquisitions to determine if it should be accounted for as a business combination or as an acquisition of assets. For our business combinations, we allocate the purchase price to the assets acquired and liabilities assumed based on their estimated fair value at the date of acquisition. Any purchase price in excess of the net fair value of the assets acquired and liabilities assumed is allocated to goodwill. See *"Item 7. MD&A—Accounting and Reporting Matters—Accounting for Acquisitions—Valuation"* below.

The determination of the final purchase price allocation could extend over several quarters resulting in the use of preliminary estimates that are subject to adjustment until finalized. Such changes could have a significant impact on our consolidated financial statements.

Accounting for Acquisitions — Leases. With respect to business combinations that include towers that we lease and operate, such as the AT&T and T-Mobile leased and subleased towers (including towers owned by Sprint prior to its merger with T-Mobile), we evaluate such agreements to determine treatment as finance or operating leases. The evaluation of such agreements for finance or operating lease treatment previously included consideration of each of the lease classification criteria under ASC 840-10-25, namely (1) the transfer of ownership provisions, (2) the existence of bargain purchase options, (3) the length of the remaining lease term, and (4) the present value of the minimum lease payments. With respect to the AT&T Acquisition, T-Mobile Acquisition, and the Sprint towers acquired in the Global Signal Acquisition, we determined that the tower leases were finance leases and the underlying land leases were operating leases based upon the lease term criterion, after considering the fragmentation criteria applicable under ASC 840-10-25 to leases involving both land and buildings (i.e., towers). We determined that the fragmentation criteria was met, and the tower leases could be accounted for as finance leases apart from the land leases, which are accounted for as operating leases, since (1) the fair value of the land in the aforementioned business combinations was greater than 25% of the total fair value of the leased property at inception and (2) the tower lease expirations occur beyond 75% of the estimated economic life of the tower assets.

Accounting for Acquisitions — Valuation. As of December 31, 2020, our largest asset was property and equipment, which primarily consists of communications infrastructure, followed by goodwill, operating lease ROU assets and intangible assets. Our identifiable intangible assets predominately relate to the site rental contracts and tenant relationships intangible assets.

The fair value of the vast majority of our assets and liabilities is determined by using either:

(1) discounted cash flow valuation methods (for estimating identifiable intangibles such as site rental contracts and tenant relationships or operating lease right-of-use assets and lease liabilities acquired); or
(2) estimates of replacement costs (for tangible fixed assets such as communications infrastructure).

The purchase price allocation requires subjective estimates that, if incorrectly estimated, could be material to our consolidated financial statements, including the amount of depreciation, amortization and accretion expense. The most important estimates for measurement of tangible fixed assets are (1) the cost to replace the asset with a new asset and (2) the economic useful life after giving effect to age, quality, and condition. The most important estimates for measurement of intangible assets are (1) discount rates and (2) timing and amount of cash flows including estimates regarding tenant renewals and cancellations. The most important estimates for measurement of operating lease ROU assets and lease liabilities acquired are (1) present value of our future lease payments, including whether renewals or extensions should be measured, and (2) favorability or unfavorability to the current market terms. With respect to business combinations that include towers that we lease and operate, such as the AT&T, T-Mobile and Sprint (prior to Sprint's merger with T-Mobile, completed on April 1, 2020) leased and subleased towers, we evaluate such agreements to determine treatment as finance or operating leases and identification of any bargain purchase options.

We record the fair value of obligations to perform certain asset retirement activities, including requirements, pursuant to our ground leases, easements, and leased facility agreements to remove communications infrastructure or remediate the space upon which certain of our communications infrastructure resides. In determining the fair value of these asset retirement obligations we must make several subjective and highly judgmental estimates such as those related to: (1) timing of cash flows; (2) future costs; (3) discount rates; and (4) the probability of enforcement to remove the towers or small cells or remediate the land.

Accounting for Long-Lived Assets — Useful Lives. We are required to make subjective assessments as to the useful lives of our tangible and intangible assets for purposes of determining depreciation, amortization and accretion expense that, if incorrectly estimated, could be material to our consolidated financial statements. Depreciation expense for our property and equipment is computed using the straight-line method over the estimated useful lives of our various classes of tangible assets. The substantial portion of our property and equipment represents the cost of our communications infrastructure, which is generally depreciated with an estimated useful life equal to the shorter of (1) 20 years or (2) the term of the lease (including optional renewals) for the land under our communications infrastructure.

The useful life of our intangible assets is estimated based on the period over which the intangible asset is expected to benefit us and gives consideration to the expected useful life of other assets to which the useful life may relate. We review the expected useful lives of our intangible assets on an ongoing basis and adjust if necessary. Amortization expense for intangible assets is computed using the straight-line method over the estimated useful life of each of the intangible assets. The useful life of the site rental contracts and tenant relationships intangible assets is limited by the maximum depreciable life of the communications infrastructure (20 years), as a result of the interdependency of the communications infrastructure and site rental contracts and tenant relationships. In contrast, the site rental contracts and tenant relationships are estimated to provide economic benefits for several decades because of the low rate of tenant cancellations and high rate of renewals experienced to date. Thus, while site rental contracts and tenant relationships are valued based upon the fair value of the site rental contracts and tenant relationships which includes assumptions regarding both (1) tenants' exercise of optional renewals contained in the acquired leases and (2) renewals of the acquired leases past the contractual term including exercisable options, the site rental contracts are amortized over a period not to exceed 20 years as a result of the useful life being limited by the depreciable life of the communications infrastructure.

Accounting for Long-Lived Assets — Impairment Evaluation. We review the carrying values of property and equipment, intangible assets, or other long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. We utilize the following dual grouping policy for purposes of determining the unit of account for testing impairment of the site rental contracts and tenant relationships:

(1) we pool site rental contracts and tenant relationships intangible assets and property and equipment into portfolio groups; and
(2) we separately pool site rental contracts and tenant relationships by significant tenant or by tenant grouping for individually insignificant tenants, as appropriate.

We first pool site rental contracts and tenant relationships intangible assets and property and equipment into portfolio groups for purposes of determining the unit of account for impairment testing, because we view communications infrastructure as portfolios and communications infrastructure in a given portfolio and its related tenant contracts are not largely independent of the other communications infrastructure in the portfolio. We re-evaluate the appropriateness of the pooled groups at least annually. This use of grouping is based in part on (1) our limitations regarding disposal of communications infrastructure, (2) the interdependencies of communications infrastructure portfolios, and (3) the manner in which communications infrastructure is traded in the marketplace. The vast majority of our site rental contracts and tenant relationships intangible assets and property and equipment are pooled into the U.S. owned communications infrastructure group. Secondly, and separately, we pool site rental contracts and tenant relationships by significant tenant or by tenant grouping for individually insignificant tenants, as appropriate, for purposes of determining the unit of account for impairment testing because we associate the value ascribed to site rental contracts and tenant relationships intangible assets to the underlying contracts and related tenant relationships acquired.

Our determination that an adverse event or change in circumstance has occurred that indicates that the carrying amounts may not be recoverable will generally involve (1) a deterioration in an asset's financial performance compared to historical results, (2) a shortfall in an asset's financial performance compared to forecasted results, or (3) changes affecting the utility and estimated future demands for the asset. When considering the utility of our assets, we consider events that would meaningfully impact (1) our communications infrastructure or (2) our tenant relationships. For example, consideration would be given to events that impact (1) the structural integrity and longevity of our communications infrastructure or (2) our ability to derive benefit from our existing tenant relationships, including events such as tenant's bankruptcy or insolvency or loss of a significant tenant. During 2020, there were no events or circumstances that caused us to review the carrying value of our intangible assets or property and equipment due in part to our assets performing consistently with or better than our expectations.

If the sum of the estimated future cash flows (undiscounted) from an asset, or portfolio group, significant tenant or tenant group (for individually insignificant tenants), as applicable, is less than its carrying amount, an impairment loss may be recognized. If the carrying value were to exceed the undiscounted cash flows, measurement of an impairment loss would be based on the fair value of the asset, which is based on an estimate of discounted future cash flows. The most important estimates for such calculations of undiscounted cash flows are (1) the expected additions of new tenants and equipment on our communications infrastructure and (2) estimates regarding tenant cancellations and renewals of tenant contracts. We could record impairments in the future if changes in long-term market conditions, expected future operating results or the utility of the assets results in changes for our impairment test calculations which negatively impact the fair value of our property and equipment and intangible assets, or if we changed our unit of account in the future.

Approximately 2% of our total towers currently have no tenants. We continue to pay operating expenses on these towers in anticipation of obtaining tenants on these towers in the future, primarily because of the demographics and continuing increase in demand for data in the areas around these individual towers. We estimate, based on current visibility, potential tenants on a majority of these towers. To the extent we do not believe there are long-term prospects of obtaining tenants on an individual asset and all other possible avenues for recovering the carrying value have been exhausted, including sale of the asset, we appropriately reduce the carrying value of such assets to fair value.

Accounting for Goodwill — Impairment Evaluation. We test goodwill for impairment on an annual basis, regardless of whether adverse events or changes in circumstances have occurred. The annual test begins with goodwill and all intangible assets being allocated to applicable reporting units. We then perform a qualitative assessment to determine whether it is "more likely than not" that the fair value of the reporting unit is less than its carrying amount. If we conclude that it is "more likely than not" that the fair value of a reporting unit is less than its carrying amount, we would be required to perform a quantitative goodwill impairment test. If the carrying amount of a reporting unit is greater than its fair value, an impairment loss shall be recognized in an amount equal to such excess, limited to the total amount of goodwill allocated to the reporting unit. Our reporting units are the same as our operating segments (Towers and Fiber). See note 14 to our consolidated financial statements. We performed our most recent annual goodwill impairment test as of October 1, 2020, which resulted in no impairments.

See also note 2 to our consolidated financial statements for a discussion of the recently adopted accounting pronouncement related to goodwill impairment evaluation.

Deferred Income Taxes. We operate as a REIT for U.S. federal income tax purposes. Our REIT taxable income is generally not subject to federal and state income taxes as a result of the deduction for dividends paid and any usage of our remaining NOLs. Accordingly, the only provision or benefit for federal income taxes for the year ended December 31, 2020 relates to TRSs. Furthermore, as a result of the deduction for dividends paid, some or all of our NOLs related to our REIT may expire without utilization. See *"Item 1. Business—REIT Status"* for a discussion of the impact of our REIT status.

Our TRSs will continue to be subject, as applicable, to federal and state income taxes and foreign taxes in the jurisdictions in which such assets and operations are located. Our ability to utilize our NOLs is dependent, in part, upon us having sufficient future earnings to utilize our NOLs before they expire. If market conditions change materially and we determine that we will be unable to generate sufficient taxable income in the future to utilize our NOLs, we would be required to record an additional valuation allowance, which would reduce our earnings. Such adjustments could cause a material effect on our results of operations for the period of the adjustment. The change in our valuation allowance has no effect on our cash flows. For a further discussion of our benefit (provision) for income taxes, see *"Item 7. MD&A—Results of Operations"* and note 9 to our consolidated financial statements.

Accounting Pronouncements

Recently Adopted Accounting Pronouncements. See note 2 to our consolidated financial statements.

Recent Accounting Pronouncements Not Yet Adopted. See note 2 to our consolidated financial statements.

Non-GAAP and Segment Financial Measures

In addition to the non-GAAP financial measures used herein and as discussed in note 14 to our consolidated financial statements, we also provide (1) segment site rental gross margin, (2) segment services and other gross margin, and (3) segment operating profit, which are key measures used by management to evaluate the performance of our operating segments. These segment measures are provided pursuant to GAAP requirements related to segment reporting.

We define segment site rental gross margin as segment site rental revenues less segment site rental cost of operations, which excludes stock-based compensation expense and prepaid lease purchase price adjustments recorded in consolidated site rental cost of operations. We define segment services and other gross margin as segment services and other revenues less segment services and other cost of operations, which excludes stock-based compensation expense recorded in consolidated services and other cost of operations. We define segment operating profit as segment site rental gross margin plus segment services and other gross margin, and segment other operating (income) expense, less selling, general and administrative expenses attributable to the respective segment. All of these measurements of profit or loss are exclusive of depreciation, amortization and accretion, which are shown separately. Additionally, certain costs are shared across segments and are reflected in our segment measures through allocations that management believes to be reasonable.

We use earnings before interest, taxes, depreciation, amortization and accretion, as adjusted ("Adjusted EBITDA"), which is a non-GAAP financial measure, as an indicator of consolidated financial performance. Our measure of Adjusted EBITDA may not be comparable to similarly titled measures of other companies, including companies in the communications infrastructure sector or other REITs, and is not a measure of performance calculated in accordance with GAAP. Adjusted EBITDA should not be considered in isolation or as a substitute for operating income (loss), net income (loss), net cash provided by (used for) operating, investing and financing activities or other income statement or cash flow statement data prepared in accordance with GAAP and should be considered only as a supplement to net income (loss) computed in accordance with GAAP as a measure of our performance. There are material limitations to using a measure such as Adjusted EBITDA, including the difficulty associated with comparing results among more than one company, including our competitors, and the inability to analyze certain significant items, including depreciation and interest expense, that directly affect our net income or loss. Management compensates for these limitations by considering the economic effect of the excluded expense items independently as well as in connection with their analysis of net income (loss).

We define Adjusted EBITDA as net income (loss) plus restructuring charges (credits), asset write-down charges, acquisition and integration costs, depreciation, amortization and accretion, amortization of prepaid lease purchase price adjustments, interest expense and amortization of deferred financing costs, (gains) losses on retirement of long-term obligations, net (gain) loss on interest rate swaps, (gains) losses on foreign currency swaps, impairment of available-for-sale securities, interest income, other (income) expense, (benefit) provision for income taxes, cumulative effect of a change in accounting principle, (income) loss from discontinued operations and stock-based compensation expense. The reconciliation of Adjusted EBITDA to our net income (loss) is set forth below.

	Years Ended December 31,		
(In millions of dollars)	2020	2019	2018
Net income (loss)	$ 1,056	$ 860	$ 622
Adjustments to increase (decrease) net income (loss):			
Asset write-down charges	74	19	26
Acquisition and integration costs	10	13	27
Depreciation, amortization and accretion	1,608	1,572	1,527
Amortization of prepaid lease purchase price adjustments	18	20	20
Interest expense and amortization of deferred financing costs	689	683	642
(Gains) losses on retirement of long-term obligations	95	2	106
Interest income	(2)	(6)	(5)
Other (income) expense	5	(1)	(1)
(Benefit) provision for income taxes	20	21	19
Stock-based compensation expense	133	116	108
Adjusted EBITDA[(a)]	$ 3,706	$ 3,299	$ 3,091

(a) The above reconciliation excludes the items included in our Adjusted EBITDA definition which are not applicable to the periods shown.

We believe Adjusted EBITDA is useful to investors or other interested parties in evaluating our financial performance because:

- it is the primary measure used by our management (1) to evaluate the economic productivity of our operations and (2) for purposes of making decisions about allocating resources to, and assessing the performance of, our operations;
- although specific definitions may vary, it is widely used by investors or other interested parties in evaluation of the communications infrastructure sector and other REITs to measure financial performance without regard to items such as depreciation, amortization and accretion, which can vary depending upon accounting methods and the book value of assets;
- we believe it helps investors and other interested parties meaningfully evaluate and compare the results of our operations (1) from period to period and (2) to our competitors by removing the impact of our capital structure (primarily interest charges from our outstanding debt) and asset base (primarily depreciation, amortization and accretion) from our financial results; and
- it is similar to the measure of current financial performance generally used in our debt covenant calculations.

Our management uses Adjusted EBITDA:

- as a performance goal in employee annual incentive compensation;
- as a measurement of financial performance because it assists us in comparing our financial performance on a consistent basis as it removes the impact of our capital structure (primarily interest charges from our outstanding debt) and asset base (primarily depreciation, amortization and accretion) from our operating results;
- in presentations to our board of directors to enable it to have the same measurement of financial performance used by management;
- for planning purposes, including preparation of our annual operating budget;
- as a valuation measure in strategic analyses in connection with the purchase and sale of assets;
- in determining self-imposed limits on our debt levels, including the evaluation of our leverage ratio and interest coverage ratio; and
- with respect to compliance with our debt covenants, which require us to maintain certain financial ratios that incorporate concepts such as, or similar to, Adjusted EBITDA.

Item 7A. ***Quantitative and Qualitative Disclosures About Market Risk***

Our primary exposures to market risks are related to changes in interest rates, which may adversely affect our results of operations and financial position. We seek to manage exposure to changes in interest rates where economically prudent to do so by utilizing fixed rate debt.

Our interest rate risk as of December 31, 2020 relates primarily to the impact of interest rate movements on the following, after giving effect to our February 2021 Senior Notes offering and the use of the net proceeds therefrom:

- the potential refinancing of our $19.7 billion in existing debt, compared to $18.2 billion in the prior year;
- our $1.5 billion of floating rate debt representing approximately 8% of total debt, compared to 16% in the prior year; and
- potential future borrowings of incremental debt, including borrowings under our 2016 Credit Facility and issuances under the CP Program.

Potential Refinancing of Existing Debt

We have no significant contractual debt maturities (or anticipated repayment dates on our Tower Revenue Notes) over the next 12 months, other than Commercial Paper Notes and principal payments on certain outstanding debt. As of December 31, 2020 and December 31, 2019, we had no interest rate swaps hedging any refinancings. See below for a tabular presentation of our scheduled contractual debt maturities as of December 31, 2020 and a discussion of anticipated repayment dates.

Floating Rate Debt

We manage our exposure to market interest rates on our existing debt by controlling the mix of fixed and floating rate debt. As of December 31, 2020, after giving effect to our February 2021 Senior Notes offering and the use of the net proceeds therefrom, we had $1.5 billion of floating rate debt, none of which had LIBOR floors. As a result, a hypothetical unfavorable fluctuation in market interest rates on our existing debt of 1/8 of a percent point over a 12-month period would increase our interest expense by approximately $2 million. As of December 31, 2019, we had approximately $3.0 billion of floating rate debt, none of which had LIBOR floors. See also *"Item 1A. Risk Factors"* for a discussion of uncertainty related to the continued use of LIBOR.

Potential Future Borrowings of Incremental Debt

We typically do not hedge our exposure to interest rates on potential future borrowings of incremental debt for a substantial period prior to issuance. See *"Item 7. MD&A—Liquidity and Capital Resources"* regarding our liquidity strategy.

The following table provides information about our market risk related to changes in interest rates, after giving effect to our February 2021 Senior Notes offering and the use of the net proceeds therefrom. The future principal payments and weighted-average interest rates are presented as of December 31, 2020. These debt maturities reflect contractual maturity dates, and do not consider the impact of the principal payments that will commence following the anticipated repayment dates of certain debt (see footnotes (b) and (d)). See note 7 to our consolidated financial statements for additional information regarding our debt.

	Future Principal Payments and Interest Rates by the Debt Instruments' Contractual Year of Maturity							
(In millions of dollars)	2021	2022	2023	2024	2025	Thereafter	Total	Fair Value[(a)]
Fixed rate debt[(b)]	$ 42	$ 37	$ 1,783	$ 778	$ 525	$ 15,030	$ 18,195	$ 19,914
Average interest rate[(b)(c)(d)]	4.3 %	4.5 %	3.6 %	3.3 %	1.5 %	4.0 %	3.9 %	
Variable rate debt[(e)]	$ 88	$ 117	$ 176	$ 1,163	$ —	$ —	$ 1,544	$ 1,544
Average interest rate[(e)]	1.3 %	1.3 %	1.5 %	1.8 %	— %	— %	1.7 %	

(a) The fair value of our debt is based on indicative quotes (that is, non-binding quotes) from brokers that require judgment to interpret market information, including implied credit spreads for similar borrowings on recent trades or bid/ask offers. These fair values are not necessarily indicative of the amount, which could be realized in a current market exchange.

(b) The impact of principal payments that will commence following the anticipated repayment dates is not considered. The Tower Revenue Notes have principal amounts of $300 million, $250 million, $700 million and $750 million, with anticipated repayment dates in 2022, 2023, 2025 and 2028, respectively.

(c) The average interest rate represents the weighted-average stated coupon rate (see also footnote (d)).

(d) If the Tower Revenue Notes are not repaid in full by the applicable anticipated repayment dates, the applicable interest rate increases by approximately 5% per annum and monthly principal payments commence using the Excess Cash Flow (as defined in the indenture governing the applicable Tower Revenue Notes) of the issuers of the Tower Revenue Notes. The Tower Revenue Notes are presented based on their contractual maturity dates ranging from 2042 to 2048 and include the impact of an assumed 5% increase in interest rate that would occur following the anticipated repayment dates but exclude the impact of monthly principal payments that would commence using Excess Cash Flow of the issuers of the Tower Revenue Notes The full year 2020 Excess Cash Flow of the issuers of the Tower Revenue Notes was approximately $815 million. We currently expect to refinance these notes on or prior to the respective anticipated repayment dates.

(e) Consists of our senior unsecured term loan A facility ("2016 Term Loan A") and our 2016 Revolver borrowings, each of which matures in 2024.

Item 8. ***Financial Statements and Supplementary Data***

Crown Castle International Corp. and Subsidiaries
Index to Consolidated Financial Statements and Financial Statement Schedules

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Crown Castle International Corp.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Crown Castle International Corp. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of operations and comprehensive income (loss), of equity and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes and financial statement schedules listed in the index appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases on January 1, 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition – Towers

As described in Notes 2 and 14 to the consolidated financial statements, the Company recognized $3,497 million in site rental revenues and $500 million in services and other revenues from its Towers segment for the year ended December 31, 2020. The Company generates site rental revenues from its core business of its Towers segment by providing tenants with access to its shared communications infrastructure via long-term tenant contracts in various forms, including lease, license, sublease and service agreements. Providing such access over the length of the tenant contract term represents the Company’s sole performance obligation under its tenant contracts. Site rental revenues from the Company's tenant contracts are recognized on a straight-line, ratable basis over the fixed, noncancelable term of the relevant tenant contract. The Company also offers certain services primarily relating to its Towers segment, predominately consisting of (i) site development services and (ii) installation services. The transaction price for the Company's tower installation services consists of amounts for (i) permanent improvements to the Company's towers that represent a lease component and (ii) the performance of the service. Amounts under the Company's tower installation service agreements that represent a lease component are recognized as site rental revenues on a straight-line basis over the length of the associated estimated lease term. For the performance of the installation service, the Company has one performance obligation, which is satisfied at the time of the applicable installation or augmentation.

The principal considerations for our determination that performing procedures relating to revenue recognition – Towers is a critical audit matter are the significant auditor subjectivity and effort in performing procedures and evaluating the audit evidence obtained related to customer agreements.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to revenue recognition for Towers. These procedures also included, among others, (i) testing the completeness and accuracy of management’s identification of the contractual terms by examining customer agreements on a test basis, and (ii) testing the appropriateness of the timing and amount of revenue recognized based on contractual terms and estimated lease term for selected agreements.

/s/ PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania
February 22, 2021

We have served as the Company’s auditor since 2011.

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEET
(In millions of dollars, except par values)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 232	$ 196
Restricted cash	144	137
Receivables, net of allowance of $17 and $18, respectively	431	596
Prepaid expenses	95	107
Other current assets	202	168
Total current assets	1,104	1,204
Deferred site rental receivables	1,408	1,424
Property and equipment, net	15,162	14,666
Operating lease right-of-use assets	6,464	6,133
Goodwill	10,078	10,078
Site rental contracts and tenant relationships, net	4,365	4,764
Other intangible assets, net	68	72
Other assets, net	119	116
Total assets	$ 38,768	$ 38,457
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 230	$ 334
Accrued interest	199	169
Deferred revenues	704	657
Other accrued liabilities	378	361
Current maturities of debt and other obligations	129	100
Current portion of operating lease liabilities	329	299
Total current liabilities	1,969	1,920
Debt and other long-term obligations	19,151	18,021
Operating lease liabilities	5,808	5,511
Other long-term liabilities	2,379	2,516
Total liabilities	29,307	27,968
Commitments and contingencies (see note 12)		
CCIC stockholders' equity:		
Common stock, $0.01 par value; 600 shares authorized; shares issued and outstanding: December 31, 2020—431 and December 31, 2019—416	4	4
6.875% Mandatory Convertible Preferred Stock, Series A, $0.01 par value; 20 shares authorized; shares issued and outstanding: December 31, 2020—0 and December 31, 2019—2; aggregate liquidation value: December 31, 2020—$0 and December 31, 2019—$1,650	—	—
Additional paid-in capital	17,933	17,855
Accumulated other comprehensive income (loss)	(4)	(5)
Dividends/distributions in excess of earnings	(8,472)	(7,365)
Total equity	9,461	10,489
Total liabilities and equity	$ 38,768	$ 38,457

See accompanying notes to consolidated financial statements.

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
(In millions of dollars, except per share amounts)

	Years Ended December 31,		
	2020	2019	2018
Net revenues:			
Site rental	$ 5,320	$ 5,093	$ 4,796
Services and other	520	670	574
Net revenues	5,840	5,763	5,370
Operating expenses:			
Costs of operations[(a)]:			
Site rental	1,521	1,462	1,410
Services and other	448	524	434
Selling, general and administrative	678	614	563
Asset write-down charges	74	19	26
Acquisition and integration costs	10	13	27
Depreciation, amortization and accretion	1,608	1,572	1,527
Total operating expenses	4,339	4,204	3,987
Other operating (income) expense (see note 15)	(362)	—	—
Operating income (loss)	1,863	1,559	1,383
Interest expense and amortization of deferred financing costs	(689)	(683)	(642)
Gains (losses) on retirement of long-term obligations	(95)	(2)	(106)
Interest income	2	6	5
Other income (expense)	(5)	1	1
Income (loss) before income taxes	1,076	881	641
Benefit (provision) for income taxes	(20)	(21)	(19)
Net income (loss) attributable to CCIC stockholders	1,056	860	622
Dividends/distributions on preferred stock	(57)	(113)	(113)
Net income (loss) attributable to CCIC common stockholders	$ 999	$ 747	$ 509
Net income (loss)	$ 1,056	$ 860	$ 622
Other comprehensive income (loss):			
Foreign currency translation adjustments	1	—	(1)
Total other comprehensive income (loss)	1	—	(1)
Comprehensive income (loss) attributable to CCIC stockholders	$ 1,057	$ 860	$ 621
Net income (loss) attributable to CCIC common stockholders, per common share:			
Net income (loss) attributable to CCIC common stockholders—basic	$ 2.36	$ 1.80	$ 1.23
Net income (loss) attributable to CCIC common stockholders—diluted	$ 2.35	$ 1.79	$ 1.23
Weighted-average common shares outstanding:			
Basic	423	416	413
Diluted	425	418	415

(a) Exclusive of depreciation, amortization and accretion shown separately.

See accompanying notes to consolidated financial statements.

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF CASH FLOWS
(In millions of dollars)

	Years Ended December 31,		
	2020	2019	2018
Cash flows from operating activities:			
Net income (loss)	$ 1,056	$ 860	$ 622
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:			
Depreciation, amortization and accretion	1,608	1,572	1,527
(Gains) losses on retirement of long-term obligations	95	2	106
Amortization of deferred financing costs and other non-cash interest, net	6	1	7
Stock-based compensation expense	138	117	103
Asset write-down charges	74	19	26
Deferred income tax (benefit) provision	3	2	2
Other non-cash adjustments, net	5	(2)	2
Changes in assets and liabilities, excluding the effects of acquisitions:			
Increase (decrease) in accrued interest	31	21	16
Increase (decrease) in accounts payable	(77)	19	37
Increase (decrease) in other liabilities	(65)	254	271
Decrease (increase) in receivables	166	(96)	(105)
Decrease (increase) in other assets	15	(71)	(114)
Net cash provided by (used for) operating activities	3,055	2,698	2,500
Cash flows from investing activities:			
Capital expenditures	(1,624)	(2,057)	(1,739)
Payments for acquisitions, net of cash acquired	(107)	(17)	(42)
Other investing activities, net	(10)	(7)	(12)
Net cash provided by (used for) investing activities	(1,741)	(2,081)	(1,793)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt	3,733	1,894	2,742
Principal payments on debt and other long-term obligations	(105)	(86)	(105)
Purchases and redemptions of long-term debt	(2,490)	(12)	(2,346)
Borrowings under revolving credit facility	2,430	2,110	1,820
Payments under revolving credit facility	(2,665)	(2,660)	(1,725)
Net issuances (repayments) under commercial paper program	130	155	—
Payments for financing costs	(38)	(24)	(31)
Net proceeds from issuance of common stock	—	—	841
Purchases of common stock	(76)	(44)	(34)
Dividends/distributions paid on common stock	(2,105)	(1,912)	(1,782)
Dividends/distributions paid on preferred stock	(85)	(113)	(113)
Net cash provided by (used for) financing activities	(1,271)	(692)	(733)
Net increase (decrease) in cash, cash equivalents, and restricted cash	43	(75)	(26)
Effect of exchange rate changes on cash	—	—	(1)
Cash, cash equivalents, and restricted cash at beginning of period	338	413	440
Cash, cash equivalents, and restricted cash at end of period	$ 381	$ 338	$ 413

See accompanying notes to consolidated financial statements.

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF EQUITY
(Amounts in millions)

	Common Stock		6.875% Mandatory Convertible Preferred Stock			Accumulated Other Comprehensive Income (Loss) ("AOCI")		
	Shares	($0.01 Par)	Shares	($0.01 Par)	Additional Paid-In Capital	Foreign Currency Translation Adjustments	Dividends/Distributions in Excess of Earnings	Total
Balance, December 31, 2017	406	$ 4	2	—	$ 16,844	$ (4)	$ (4,919)	$ 11,925
Stock-based compensation related activity, net of forfeitures	1	—	—	—	116	—	—	116
Purchases and retirement of common stock	—	—	—	—	(34)	—	—	(34)
Net proceeds from issuance of common stock (see note 10)	8	—	—	—	841	—	—	841
Other comprehensive income (loss)[(a)]	—	—	—	—	—	(1)	—	(1)
Common stock dividends/distributions	—	—	—	—	—	—	(1,785)	(1,785)
Preferred stock dividends/distributions	—	—	—	—	—	—	(113)	(113)
Net income (loss)	—	—	—	—	—	—	622	622
Balance, December 31, 2018	415	$ 4	2	$ —	$ 17,767	$ (5)	$ (6,195)	$ 11,571

(a) See the consolidated statement of operations and comprehensive income (loss) for the components of "total other comprehensive income (loss)."

See accompanying notes to consolidated financial statements.

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF EQUITY
(Amounts in millions)

	Common Stock		6.875% Mandatory Convertible Preferred Stock			AOCI		
	Shares	($0.01 Par)	Shares	($0.01 Par)	Additional Paid-In Capital	Foreign Currency Translation Adjustments	Dividends/Distributions in Excess of Earnings	Total
Balance, December 31, 2018	415	$ 4	2	—	$ 17,767	$ (5)	$ (6,195)	$ 11,571
Stock-based compensation related activity, net of forfeitures	1	—	—	—	132	—	—	132
Purchases and retirement of common stock	—	—	—	—	(44)	—	—	(44)
Common stock dividends/distributions	—	—	—	—	—	—	(1,917)	(1,917)
Preferred stock dividends/distributions	—	—	—	—	—	—	(113)	(113)
Net income (loss)	—	—	—	—	—	—	860	860
Balance, December 31, 2019	416	$ 4	2	$ —	$ 17,855	$ (5)	$ (7,365)	$ 10,489

See accompanying notes to consolidated financial statements.

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF EQUITY
(Amounts in millions)

	Common Stock		6.875% Mandatory Convertible Preferred Stock			AOCI		
	Shares	($0.01 Par)	Shares	($0.01 Par)	Additional Paid-In Capital	Foreign Currency Translation Adjustments	Dividends/Distributions in Excess of Earnings	Total
Balance, December 31, 2019	416	$ 4	2	—	$ 17,855	$ (5)	$ (7,365)	$ 10,489
Stock-based compensation related activity, net of forfeitures	1	—	—	—	154	—	—	154
Purchases and retirement of common stock	—	—	—	—	(76)	—	—	(76)
Other comprehensive income (loss)[(a)]	—	—	—	—	—	1	—	1
Common stock dividends/distributions	—	—	—	—	—	—	(2,106)	(2,106)
Preferred stock dividends/distributions	—	—	—	—	—	—	(57)	(57)
Conversion of preferred stock to common stock (see note 10)	14	—	(2)	—	—	—	—	—
Net income (loss)	—	—	—	—	—	—	1,056	1,056
Balance, December 31, 2020	431	$ 4	—	—	$ 17,933	$ (4)	$ (8,472)	$ 9,461

(a) See the consolidated statement of operations and comprehensive income (loss) for the components of "total other comprehensive income (loss)."

See accompanying notes to consolidated financial statements.

1. Basis of Presentation

The consolidated financial statements include the accounts of Crown Castle International Corp. and its predecessor, as applicable (together, "CCIC"), and their subsidiaries, collectively referred to herein as the "Company." All significant intercompany balances and transactions have been eliminated in consolidation. As used herein, the term "including," and any variation thereof, means "including without limitation." The use of the word "or" herein is not exclusive. Unless the context suggests otherwise, references to "U.S." are to the United States of America and Puerto Rico, collectively.

The Company owns, operates and leases shared communications infrastructure that is geographically dispersed throughout the U.S., including (1) towers and other structures, such as rooftops (collectively, "towers"), and (2) fiber primarily supporting small cell networks ("small cells") and fiber solutions. The Company's towers, fiber and small cells assets are collectively referred to herein as "communications infrastructure," and the Company's customers on its communications infrastructure are referred to herein as "tenants."

The Company's core business is providing access, including space or capacity, to its shared communications infrastructure via long-term contracts in various forms, including lease, license, sublease and service agreements (collectively, "tenant contracts").

The Company's operating segments consist of (1) Towers and (2) Fiber. See note 14.

Approximately 53% of the Company's towers are leased or subleased or operated and managed under master leases, subleases, and other agreements with AT&T and T-Mobile, including agreements assumed by T-Mobile following its merger with Sprint, completed on April 1, 2020. The Company has the option to purchase these towers at the end of their respective lease terms. The Company has no obligation to exercise such purchase options. Additional information concerning these towers is as follows:

- 22% of the Company's towers are leased or subleased or operated and managed under a master prepaid lease or other related agreements with AT&T for a weighted-average initial term of approximately 28 years, weighted on Towers site rental gross margin. The Company has the option to purchase the leased and subleased towers from AT&T at the end of the respective lease or sublease terms for aggregate option payments of approximately $4.2 billion, which payments, if such option is exercised, would be due between 2032 and 2048.

- 16% of the Company's towers are leased or subleased or operated and managed for an initial period of 32 years (through May 2037) under master leases, subleases, or other agreements with T-Mobile (which T-Mobile assumed in connection with its merger with Sprint). The Company has the option to purchase in 2037 all (but not less than all) of such leased and subleased towers from T-Mobile for approximately $2.3 billion.

- 15% of the Company's towers are leased or subleased or operated and managed under a master prepaid lease or other related agreements with T-Mobile for a weighted-average initial term of approximately 28 years, weighted on Towers site rental gross margin. The Company has the option to purchase the leased and subleased towers from T-Mobile at the end of the respective lease or sublease terms for aggregate option payments of approximately $2.0 billion, which payments, if such option is exercised, would be due between 2035 and 2049. In addition, through the acquisition of the rights to approximately 7,100 towers ("T-Mobile Acquisition"), there are another 1% of the Company's towers subject to a lease and sublease or other related arrangements with AT&T. The Company has the option to purchase these towers that it does not otherwise already own at the end of their respective lease terms for aggregate option payments of up to approximately $405 million, which payments, if such option is exercised, would be due prior to 2032 (less than $10 million would be due before 2025).

As part of the Company's effort to provide comprehensive communications infrastructure solutions, as an ancillary business, the Company also offers certain services primarily relating to its Towers segment, predominately consisting of (1) site development services primarily relating to existing or new tenant equipment installations, including: site acquisition, architectural and engineering, or zoning and permitting (collectively, "site development services") and (2) tenant equipment installation or subsequent augmentations (collectively, "installation services").

The Company operates as a REIT for U.S. federal income tax purposes. In addition, the Company has certain taxable REIT subsidiaries ("TRSs"). See note 9.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities as of the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

2. Summary of Significant Accounting Policies

The following is a discussion of the Company's significant accounting policies in effect for the year ended December 31, 2020.

Restricted Cash

Restricted cash represents (1) the cash held in reserve by the indenture trustees pursuant to the indenture governing certain of the Company's debt instruments, (2) cash securing performance obligations such as letters of credit, as well as (3) any other cash whose use is limited by contractual provisions. The restriction of rental cash receipts is a critical feature of certain of the Company's debt instruments, due to the applicable indenture trustee's ability to utilize the restricted cash for the payment of (1) debt service costs, (2) ground rents, (3) real estate or personal property taxes, (4) insurance premiums related to towers, (5) other assessments by governmental authorities and potential environmental remediation costs, or (6) a portion of advance rents from tenants. The restricted cash in excess of required reserve balances is subsequently released to the Company in accordance with the terms of the indentures. See note 16 for a reconciliation of cash, cash equivalents and restricted cash.

Receivables Allowance

An allowance for doubtful accounts is recorded as an offset to accounts receivable. The Company uses judgment in estimating this allowance and considers historical collections, current credit status, or contractual provisions. Additions to the allowance for doubtful accounts are charged either to "Site rental costs of operations" or to "Services and other costs of operations," as appropriate, and deductions from the allowance are recorded when specific accounts receivable are written off as uncollectible.

Lease Accounting

Effective January 1, 2019, the Company adopted new guidance on the recognition, measurement, presentation and disclosure of leases (commonly referred to as "ASC 842" or the "new lease standard") using a modified retrospective approach as of the effective date without adjusting the comparative periods.

General. The Company evaluates whether a contract meets the definition of a lease whenever a contract grants a party the right to control the use of an identified asset for a period of time in exchange for consideration. To the extent the identified asset is able to be shared among multiple parties, the Company has determined that one party does not have control of the identified asset and the contract is not considered a lease. The Company accounts for contracts that do not meet the definition of a lease under other relevant accounting guidance (such as ASC 606 for revenue from contracts with customers).

Lessee. For its Tower segment, the Company's lessee arrangements primarily consist of ground leases for land under towers. Ground leases for land are specific to each site, generally contain an initial term of five to 10 years and are renewable (and cancelable after a notice period) at the Company's option. The Company also enters into term easements and ground leases in which it prepays the entire term. For its Fiber segment, the Company's lessee arrangements primarily include leases of fiber assets to support the Company's small cells and fiber solutions.

The majority of the Company's lease agreements have certain termination rights that provide for cancellation after a notice period and multiple renewal options exercisable at the Company's option. The Company includes renewal option periods in its calculation of the estimated lease term when it determines the options are reasonably certain to be exercised. When such renewal options are deemed to be reasonably certain, the estimated lease term determined under ASC 842 will be greater than the non-cancelable term of the contractual arrangement. Although certain renewal periods are included in the estimated lease term, the Company would have the ability to terminate or elect to not renew a particular lease if business conditions warrant such a decision.

The Company classifies its lessee arrangements at inception as either operating leases or finance leases. A lease is classified as a finance lease if at least one of the following criteria is met: (1) the lease transfers ownership of the underlying asset to the lessee, (2) the lease grants the lessee an option to purchase the underlying asset that the lessee is reasonably certain to exercise, (3) the lease term is for a major part of the remaining economic life of the underlying asset, (4) the present value of the sum of the lease payments equals or exceeds substantially all of the fair value of the underlying asset, or (5) the underlying asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of the lease term. A lease is classified as an operating lease if none of the five criteria described above for finance lease classification is met.

Right-of-use ("ROU") assets associated with operating leases are included in "Operating lease right-of-use assets" on the Company's consolidated balance sheet. Current and long-term portions of lease liabilities related to operating leases are included in "Current portion of operating lease liabilities" and "Operating lease liabilities" on the Company's consolidated balance sheet, respectively. ROU assets represent the Company's right to use an underlying asset for the estimated lease term and lease liabilities represent the Company's present value of its future lease payments. In assessing its leases and determining its lease liability at lease commencement or upon modification, the Company is not able to readily determine the rate implicit for its lessee arrangements, and thus uses its incremental borrowing rate on a collateralized basis to determine the present value of the lease payments. The Company's ROU assets are measured as the balance of the lease liability plus any prepaid or accrued lease payments and any unamortized initial direct costs. For both the Towers and Fiber segments, operating lease expenses are recognized on a ratable basis, regardless of whether the payment terms require the Company to make payments annually, quarterly, monthly, or for the entire term in advance. Certain of the Company's ground lease and fiber lease agreements contain fixed escalation clauses (such as fixed dollar or fixed percentage increases) or inflation-based escalation clauses (such as those tied to the change in consumer price index ("CPI")). If the payment terms include fixed escalator provisions, the effect of such increases is recognized on a straight-line basis. The Company calculates the straight-line expense over the tenant contract's estimated lease term, including any renewal option periods that the Company deems reasonably certain to be exercised.

Lease agreements may also contain provisions for a contingent payment based on (1) the revenues derived from the communications infrastructure located on the leased asset, (2) the change in CPI or (3) the usage of the leased asset. The Company's contingent payments are considered variable lease payments and are (1) not included in the initial measurement of the ROU asset or lease liability due to the uncertainty of the payment amount and (2) recorded as expense in the period such contingencies are resolved.

ROU assets associated with finance leases are included in "Property and equipment, net" on the Company's consolidated balance sheet. Lease liabilities associated with finance leases are included in "Current maturities of debt and other obligations" and "Debt and other long-term obligations" on the Company's consolidated balance sheet. For both its Towers and Fiber segments, the Company measures the lease liability for finance leases using the effective interest method. The initial lease liability is increased to reflect interest on the liability and decreased to reflect payments made during the period. Interest on the lease liability is determined each period during the lease term as the amount that results in a constant periodic discount rate on the remaining balance of the liability. The Company measures ROU assets for finance leases on a ratable basis over the applicable lease term.

The Company reviews the carrying value of its ROU assets for impairment, similar to its other long-lived assets, whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. The Company could record impairments in the future if there are changes in (1) long-term market conditions, (2) expected future operating results or (3) the utility of the assets that negatively impact the fair value of its ROU assets.

Lessor. The Company's lessor arrangements primarily include tenant contracts for dedicated space (including dedicated fiber) on its shared communications infrastructure. The Company classifies its leases at inception as operating, direct financing or sales-type leases. A lease is classified as a sales-type lease if at least one of the following criteria is met: (1) the lease transfers ownership of the underlying asset to the lessee, (2) the lease grants the lessee an option to purchase the underlying asset that the lessee is reasonably certain to exercise, (3) the lease term is for a major part of the remaining economic life of the underlying asset, (4) the present value of the sum of the lease payments equals or exceeds substantially all of the fair value of the underlying assets or (5) the underlying asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of the lease term. Furthermore, when none of the above criteria is met, a lease is classified as a direct financing lease if both of the following criteria are met: (1) the present value of the of the sum of the lease payments and any residual value guaranteed by the lessee, that is not already reflected in the lease payments, equals or exceeds the fair value of the underlying asset and (2) it is probable that the lessor will collect the lease payments plus any amount necessary to satisfy a residual value guarantee. A lease is classified as an operating lease if it does not qualify as a sales-type or direct financing lease. Currently, the Company classifies all of its lessor arrangements as operating leases.

Site rental revenues from the Company's lessor arrangements are recognized on a straight-line, ratable basis over the fixed, non-cancelable term of the relevant tenant contract, regardless of whether the payments from the tenant are received in equal monthly amounts during the life of a tenant contract. Certain of the Company's tenant contracts contain fixed escalation clauses (such as fixed-dollar or fixed-percentage increases) or inflation-based escalation clauses (such as those tied to the change in CPI). If the payment terms call for fixed escalations, upfront payments, or rent-free periods, the rental revenue is recognized on a straight-line basis over the fixed, non-cancelable term of the agreement. When calculating straight-line site rental revenues, the Company considers all fixed elements of tenant contractual escalation provisions.

Certain of the Company's arrangements with tenants in its Fiber segment contain both lease and non-lease components. In such circumstances, the Company has determined (1) the timing and pattern of transfer for the lease and non-lease component are the same and (2) the stand-alone lease component would be classified as an operating lease. As such, the Company has aggregated certain non-lease components with lease components and has determined that the lease components (generally dedicated fiber) represent the predominant component of the arrangement.

Property and Equipment

Property and equipment is stated at cost, net of accumulated depreciation. Property and equipment includes land owned in fee and perpetual easements for land, which have no definite life. Depreciation is computed utilizing the straight-line method at rates based upon the estimated useful lives of the various classes of assets. Depreciation of communications infrastructure is generally computed with a useful life equal to the shorter of 20 years or the term of the underlying ground lease (including optional renewal periods). Additions and permanent improvements to the Company's communications infrastructure are capitalized, while maintenance and repairs are expensed.

Labor and interest costs incurred directly related to the construction of certain property and equipment are capitalized during the construction phase of projects. For the years ended December 31, 2020, 2019 and 2018, the Company had $270 million, $246 million and $212 million in capitalized labor costs, respectively. The carrying value of property and equipment is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable.

Abandonments and write-offs of property and equipment are recorded to "Asset write-down charges" on the Company's consolidated statement of operations and comprehensive income (loss) and were $77 million, $17 million and $22 million for the years ended December 31, 2020, 2019 and 2018, respectively. Asset write-down charges for the year ended December 31, 2020 included the write-off of property and equipment of approximately $63 million which, following the Sprint Cancellation, was deemed to have no alternative future use. See note 15 for further information regarding the Sprint Cancellation.

Asset Retirement Obligations

Pursuant to its ground lease, easement and leased facility agreements, the Company records obligations to perform asset retirement activities, including requirements to remove communications infrastructure or remediate the space on which certain of its communications infrastructure is located. The Company does not record an obligation for asset retirement activities related to its fiber, as a settlement date is indeterminable and therefore a reasonable estimation of fair value cannot be made. Asset retirement obligations are included in "Other long-term liabilities" on the Company's consolidated balance sheet. The liability accretes as a result of the passage of time and the related accretion expense is included in "Depreciation, amortization and accretion" on the Company's consolidated statement of operations and comprehensive income (loss). The associated asset retirement costs are capitalized as an additional carrying amount of the related long-lived asset and depreciated over the useful life of such asset.

Goodwill

Goodwill represents the excess of the purchase price for an acquired business over the allocated value of the related net assets. The Company tests goodwill for impairment on an annual basis, regardless of whether adverse events or changes in circumstances have occurred. The annual test begins with goodwill and all intangible assets being allocated to applicable reporting units. The Company's reporting units are the same as its operating segments (Towers and Fiber). The Company then performs a qualitative assessment to determine whether it is "more likely than not" that the fair value of the reporting units is less than its carrying amount. If the Company concludes it is "more likely than not" that the fair value of a reporting unit is less than its carrying amount, it is necessary to perform a quantitative goodwill impairment test. The quantitative goodwill impairment test compares the estimated fair value of the reporting unit and the carrying value of the reporting unit. If the carrying amount of a reporting unit is greater than its fair value, an impairment loss shall be recognized in an amount equal to such excess, limited to the total amount of goodwill allocated to the reporting unit. The Company performed its most recent annual goodwill impairment test as of October 1, 2020, which resulted in no impairments.

See *"Recently Adopted Accounting Pronouncements"* for a discussion of the recently adopted new guidance related to goodwill impairment evaluation.

Intangible Assets

Intangible assets are included in "Site rental contracts and tenant relationships, net" and "Other intangible assets, net" on the Company's consolidated balance sheet and predominately consist of the estimated fair value of site rental contracts and tenant relationships or other contractual rights, such as trademarks, that are recorded in conjunction with acquisitions. The site rental contracts and tenant relationships intangible assets are comprised of (1) the current term of the existing leases, (2) the high rate of tenant retention, and (3) any associated relationships that are expected to generate value following the expiration of all renewal periods under existing leases.

The useful lives of intangible assets are estimated based on the period over which the intangible asset is expected to benefit the Company and gives consideration to the expected useful life of other assets to which the useful life may relate. Amortization expense for intangible assets is computed using the straight-line method over the estimated useful life of each of the intangible assets. The useful life of the site rental contracts and tenant relationships intangible asset is limited by the maximum depreciable life of the communications infrastructure (20 years), as a result of the interdependency of the communications infrastructure and site rental leases. In contrast, the site rental contracts and tenant relationships are estimated to provide economic benefits for several decades because of the low rate of tenant cancellations and high rate of tenant retention experienced to date. Thus, while site rental contracts and tenant relationships are valued based upon the fair value, which includes assumptions regarding both (1) tenants' exercise of optional renewals contained in the acquired leases and (2) renewals of the acquired leases past the contractual term including exercisable options, the site rental contracts and tenant relationships are amortized over a period not to exceed 20 years.

The carrying value of other intangible assets with finite useful lives will be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. The Company has a dual grouping policy for purposes of determining the unit of account for testing impairment of the site rental contracts and tenant relationships intangible assets. First, the Company pools the site rental contracts and tenant relationships with the related communications infrastructure assets into portfolio groups for purposes of determining the unit of account for impairment testing. Second and separately, the Company evaluates the site rental contracts and tenant relationships by significant tenant or by tenant grouping for individually insignificant tenants, as appropriate. If the sum of the estimated future cash flows (undiscounted) expected to result from the use or eventual disposition of an asset is less than the carrying amount of the asset, an impairment loss is recognized. Measurement of an impairment loss is based on the fair value of the asset.

Deferred Credits

Deferred credits are included in "Deferred revenues" and "Other long-term liabilities" on the Company's consolidated balance sheet and consist of the estimated fair value of below-market tenant leases for contractual interests with tenants on acquired communications infrastructure, which are amortized to site rental revenues.

Fair value for these deferred credits represents the difference between (1) the stated contractual payments to be made pursuant to the in-place lease and (2) management's estimate of fair market lease rates for each corresponding lease. Deferred credits are measured over a period equal to the estimated remaining economic lease term considering renewal provisions or economics associated with those renewal provisions, to the extent applicable. Deferred credits are amortized over their respected estimated lease terms at the time of acquisition.

Deferred Financing Costs

Third-party costs incurred to obtain financing, with the exception of costs incurred related to revolving lines of credit, are deferred and are included as a direct deduction from the carrying amount of the related debt liability in "Debt and other long-term obligations" on the Company's consolidated balance sheet. Third party costs incurred to obtain financing through a revolving line of credit are deferred and are included in "Other assets, net" on the Company's consolidated balance sheet.

Revenue Recognition

The Company generates site rental revenues from its core business by providing tenants with access, including space or capacity, to its shared communications infrastructure via long-term tenant contracts in various forms, including lease, license, sublease and service agreements. Providing such access over the length of the tenant contract term represents the Company's sole performance obligation under its tenant contracts.

Site rental revenues. Site rental revenues from the Company's tenant contracts are recognized on a straight-line, ratable basis over the fixed, non-cancelable term of the relevant tenant contract, which generally ranges from five to 15 years for wireless tenants and three to 20 years for the Company's fiber solutions tenants (including from organizations with high-bandwidth and multi-location demands), regardless of whether the payments from the tenant are received in equal monthly amounts during the life of the tenant contract. Certain of the Company's tenant contracts contain (1) fixed escalation clauses (such as fixed dollar or fixed percentage increases) or inflation-based escalation clauses (such as those tied to the CPI), (2) multiple renewal periods exercisable at the tenant's option and (3) only limited termination rights at the applicable tenant's option through the current term. If the payment terms call for fixed escalations, upfront payments, or rent-free periods, the revenue is recognized on a straight-line basis over the fixed, non-cancelable term of the agreement. When calculating straight-line rental revenues, the Company considers all fixed elements of tenant contractual escalation provisions, even if such escalation provisions contain a variable element in addition to a minimum. The Company's assets related to straight-line site rental revenues include current amounts of $152 million and $114 million included in "Other current assets" and non-current amounts of $1.4 billion and $1.4 billion included in "Deferred site rental receivables" for the years ended December 31, 2020 and 2019, respectively. Amounts billed or received prior to being earned are deferred and reflected in "Deferred revenues" and "Other long-term liabilities." Amounts to which the Company has an unconditional right to payment, which are related to both satisfied or partially satisfied performance obligations, are recorded within "Receivables, net" on the Company's consolidated balance sheet.

Services and other revenues. As part of the Company's effort to provide comprehensive communications infrastructure solutions, as an ancillary business, the Company offers certain services primarily relating to its Towers segment, predominately consisting of (1) site development services and (2) installation services. Upon contract commencement, the Company assesses its services to tenants and identifies performance obligations for each promise to provide a distinct service.

The Company may have multiple performance obligations for site development services, which primarily include: structural analysis, zoning, permitting and construction drawings. For each of the above performance obligations, services revenues are recognized at completion of the applicable performance obligation, which represents the point at which the Company believes it has transferred goods or services to the tenant. The revenue recognized is based on an allocation of the transaction price among the performance obligations in a respective contract based on estimated standalone selling price. The volume and mix of site development services may vary among contracts and may include a combination of some or all of the above performance obligations. Payments generally are due within 45 to 60 days and generally do not contain variable-consideration provisions. The transaction price for the Company's tower installation services consists of amounts for (1) permanent improvements to the Company's towers that represent a lease component and (2) the performance of the service. Amounts under the Company's tower installation service agreements that represent a lease component are recognized as site rental revenues on a straight-line basis over the length of the associated estimated lease term. For the performance of the installation service, the Company has one performance obligation, which is satisfied at the time of the applicable installation or augmentation and recognized as services and other revenues. Since performance obligations are typically satisfied prior to receiving payment from tenants, the unconditional right to payment is recorded within "Receivables, net" on the Company's condensed consolidated balance sheet. The vast majority of the Company's services generally have a duration of one year or less.

Additional information on revenues. As of January 1, 2020 and December 31, 2020, a total of $2.9 billion and $2.8 billion of unrecognized revenue, respectively, was reported in "Deferred revenues" and "Other non-current liabilities" on the Company's consolidated balance sheet. During the year ended December 31, 2020, approximately $575 million of the January 1, 2020 unrecognized revenue balance was recognized as revenue. As of January 1, 2019, a total of $2.7 billion of unrecognized revenue was reported in "Deferred revenues" and "Other non-current liabilities" on the Company's consolidated balance sheet. During the year ended December 31, 2019, approximately $510 million of the January 1, 2019 unrecognized revenue balance was recognized as revenue.

See note 3 for further discussion regarding the Company's revenues.

Costs of Operations

Approximately half of the Company's site rental costs of operations expenses consist of Towers ground lease expenses, and the remainder includes fiber access expenses, property taxes, repairs and maintenance expenses, employee compensation or related benefit costs, or utilities. Generally, the ground leases for land are specific to each site and are for an initial term of five years and are renewable for pre-determined periods. The Company also enters into term easements and ground leases in which it prepays the entire term in advance. Fiber access expenses primarily consist of leases of fiber assets and other access agreements to facilitate the Company's communications infrastructure.

Ground lease and fiber access expenses are recognized on a ratable basis, regardless of whether the payment terms require the Company to make payments annually, quarterly, monthly, or for the entire term in advance. Certain of the Company's ground lease and fiber access agreements contain fixed escalation clauses (such as fixed dollar or fixed percentage increases) or inflation-based escalation clauses (such as those tied to the change in CPI). If the payment terms include fixed escalator provisions, the effect of such increases is recognized on a straight-line basis. The Company's liability related to straight-line expense is included in "Operating lease right-of-use assets" on the Company's consolidated balance sheet. The Company's assets related to prepaid agreements is included in "Prepaid expenses" and "Operating lease right-of-use assets" on the Company's consolidated balance sheet.

Services and other costs of operations predominately consist of third-party service providers such as contractors and professional services firms and, to a lesser extent, internal labor costs.

The Company recognized $20 million as costs of operations during the year ended December 31, 2020 as a result of a reduction in staffing completed during the fourth quarter of 2020. Such costs were comprised of employee severance payments and termination benefits and primarily impacted the Company's Fiber segment.

Acquisitions and Integration Costs

Direct or incremental costs related to a potential or completed business combination transaction are expensed as incurred. Such costs are predominately comprised of severance, retention bonuses payable to employees of an acquired enterprise, temporary employees to assist with the integration of the acquired operations, fees paid for services (such as consulting, accounting, legal, or engineering reviews), and any other costs directly associated with the transaction. These business combination costs are included in "Acquisition and integration costs" on the Company's consolidated statement of operations and comprehensive income (loss). For those transactions accounted for as asset acquisitions, these costs are capitalized as part of the purchase price.

Stock-Based Compensation

Restricted Stock Units. The Company records stock-based compensation expense only for those unvested restricted stock units ("RSUs") for which the requisite service is expected to be rendered. The cumulative effect of a change in the estimated number of RSUs for which the requisite service is expected to be or has been rendered is recognized in the period of the change in the estimate. To the extent that the requisite service is rendered, compensation cost for accounting purposes is not reversed; rather, it is recognized regardless of whether or not the awards vest. A discussion of the Company's valuation techniques and related assumptions and estimates used to measure the Company's stock-based compensation is as follows:

Valuation. The fair value of RSUs without market conditions is determined based on the number of shares relating to such RSUs and the quoted price of the Company's common stock at the date of grant. The Company estimates the fair value of RSUs with market conditions granted using a Monte Carlo simulation. The Company's determination of the fair value of RSUs with market conditions on the date of grant is affected by its common stock price as well as assumptions regarding a number of highly complex or subjective variables. The determination of fair value using a Monte Carlo simulation requires the input of subjective assumptions, and other reasonable assumptions could provide differing results.

Amortization Method. The Company amortizes the fair value of all RSUs on a straight-line basis for each separately vesting tranche of the award (graded vesting schedule) over the requisite service periods.

Expected Volatility. The Company estimates the volatility of its common stock at the date of grant based on the historical volatility of its common stock.

Expected Dividend Rate. The expected dividend rate at the date of grant is based on the then-current dividend yield.

(Tabular dollars in millions, except per share amounts)

Risk-Free Rate. The Company bases the risk-free rate on the implied yield currently available on U.S. Treasury issues with an equivalent remaining term equal to the expected life of the award.

Forfeitures. The Company uses historical data and management's judgment about the future employee turnover rates to estimate the number of shares for which the requisite service period will not be rendered.

Interest Expense and Amortization of Deferred Financing Costs

The components of interest expense and amortization of deferred financing costs are as follows:

	Years Ended December 31,		
	2020	2019	2018
Interest expense on debt obligations	$ 683	$ 682	$ 635
Amortization of deferred financing costs and adjustments on long-term debt, net	23	21	21
Capitalized interest	(17)	(20)	(15)
Other	—	—	1
Total	$ 689	$ 683	$ 642

The Company amortizes deferred financing costs, discounts and premiums over the estimated term of the related borrowing using the effective interest yield method. Deferred financing costs and discounts are generally presented as a direct reduction to the related debt obligation on the Company's consolidated balance sheet.

Income Taxes

The Company operates as a REIT for U.S. federal income tax purposes. As a REIT, the Company is generally entitled to a deduction for dividends that it pays and therefore is not subject to U.S. federal corporate income tax on its net taxable income that is currently distributed to its stockholders. The Company also may be subject to certain federal, state, local and foreign taxes on its income and assets, including (1) taxes on any undistributed income, (2) taxes related to the TRSs, (3) franchise taxes, (4) property taxes, and (5) transfer taxes. In addition, the Company could under certain circumstances be required to pay an excise or penalty tax, which could be significant in amount, in order to utilize one or more relief provisions under the Internal Revenue Code of 1986, as amended ("Code"), to maintain qualification for taxation as a REIT.

Additionally, the Company has included in TRSs certain other assets and operations. Those TRS assets and operations will continue to be subject, as applicable, to federal and state corporate income taxes or to foreign taxes in the jurisdictions in which such assets and operations are located. The Company's foreign assets and operations (including its tower operations in Puerto Rico) are subject to foreign income taxes in the jurisdictions in which such assets and operations are located, regardless of whether they are included in a TRS or not. For its REIT conversion and certain subsequent acquisitions into the REIT, the Company will be subject to a federal corporate level tax rate (currently 21%) on any gain recognized from the sale of assets occurring within a specified period (generally 5 years) after the transfer date up to the amount of the built in gain that existed on the transfer date, which is based upon the fair market value of those assets in excess of the Company's tax basis on the transfer date. This gain can be offset by any remaining federal net operating loss carryforwards ("NOLs").

For the Company's TRSs, the Company accounts for income taxes using an asset and liability approach, which requires the recognition of deferred income tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns. Deferred income tax assets and liabilities are determined based on the temporary differences between the financial statement and tax bases of assets and liabilities using enacted tax rates. A valuation allowance is provided on deferred tax assets if it is determined that it is "more likely than not" that the asset will not be realized. The Company records a valuation allowance against deferred tax assets when it is "more likely than not" that some portion or all of the deferred tax asset will not be realized. The Company reviews the recoverability of deferred tax assets each quarter and based upon projections of future taxable income, reversing deferred tax liabilities or other known events that are expected to affect future taxable income, records a valuation allowance for assets that do not meet the "more likely than not" realization threshold. Valuation allowances may be reversed if related deferred tax assets are deemed realizable based upon changes in facts and circumstances that impact the recoverability of the asset.

The Company recognizes a tax position if it is "more likely than not" that it will be sustained upon examination. The tax position is measured at the largest amount that is greater than 50 percent likely of being realized upon ultimate settlement. The Company reports penalties and tax-related interest expense as a component of the benefit (provision) for income taxes. As of

December 31, 2020 and 2019, the Company has not recorded any material penalties related to its income tax positions. See note 9.

Per Share Information

Basic net income (loss) attributable to CCIC common stockholders, per common share, excludes dilution and is computed by dividing net income (loss) attributable to CCIC common stockholders by the weighted-average number of common shares outstanding during the period. For the years ended December 31, 2020, 2019 and 2018, diluted net income (loss) attributable to CCIC common stockholders, per common share, is computed by dividing net income (loss) attributable to CCIC common stockholders by the weighted-average number of common shares outstanding during the period, plus any potential dilutive common share equivalents, including shares issuable upon (1) the vesting of restricted stock units as determined under the treasury stock method and (2) conversion of the Company's previously outstanding 6.875% Mandatory Convertible Preferred Stock, Series A, par value $0.01 per share ("6.875% Convertible Preferred Stock"), as applicable, as determined under the if-converted method.

A reconciliation of the numerators and denominators of the basic and diluted per share computations is shown in the table below.

	Years Ended December 31,		
	2020	2019	2018
Net income (loss) attributable to CCIC stockholders	$ 1,056	$ 860	$ 622
Dividends/distributions on preferred stock	(57)	(113)	(113)
Net income (loss) attributable to CCIC common stockholders for basic and diluted computations	$ 999	$ 747	$ 509
Weighted-average number of common shares outstanding (in millions):			
Basic weighted-average number of common stock outstanding	423	416	413
Effect of assumed dilution from potential issuance of common shares relating to RSUs	2	2	2
Diluted weighted-average number of common shares outstanding	425	418	415
Net income (loss) attributable to CCIC common stockholders, per common share:			
Basic	$ 2.36	$ 1.80	$ 1.23
Diluted	$ 2.35	$ 1.79	$ 1.23
Dividends/distributions declared per share of common stock	$ 4.93	$ 4.58	$ 4.28

For the years ended December 31, 2019 and 2018, 14 million and 15 million, respectively, common share equivalents related to the Company's previously outstanding 6.875% Convertible Preferred Stock were excluded from the dilutive common shares because the impact of the conversion of such preferred stock would be anti-dilutive based on the Company's common stock price at the end of each respective year. See note 10 for further discussion of the Company's previously outstanding 6.875% Convertible Preferred Stock.

Fair Values

The Company's assets and liabilities recorded at fair value are categorized based upon a fair value hierarchy that ranks the quality and reliability of the information used to determine fair value. The three levels of the fair value hierarchy are (1) Level 1 — quoted prices (unadjusted) in active and accessible markets, (2) Level 2 — observable prices that are based on inputs not quoted in active markets but corroborated by market data, and (3) Level 3 — unobservable inputs and are not corroborated by market data. The Company evaluates fair value hierarchy level classifications quarterly, and transfers between levels are effective at the end of the quarterly period.

(Tabular dollars in millions, except per share amounts)

The fair value of cash and cash equivalents and restricted cash approximate the carrying value. The Company determines the fair value of its debt securities based on indicative, non-binding quotes from brokers. Quotes from brokers require judgment and are based on the brokers' interpretation of market information, including implied credit spreads for similar borrowings on recent trades or bid/ask prices or quotes from active markets if available. Foreign currency swaps are valued at settlement amounts using observable exchange rates and, if material, reflect an adjustment for the Company's and contract counterparty's credit risk. There were no changes since December 31, 2019 in the Company's valuation techniques used to measure fair values. See note 8 for a further discussion of fair values.

Recently Adopted Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued new guidance to simplify the accounting for goodwill impairment by removing the second step of the existing goodwill impairment test. As a result of the guidance, goodwill impairment, if any, will be measured during the quantitative impairment test as the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. Additionally, the guidance does not change the option to complete a qualitative assessment prior to performing a quantitative impairment test. The Company adopted the guidance during its most recent annual goodwill impairment test on October 1, 2020. The adoption of this guidance did not impact the Company's consolidated financial statements.

Recent Accounting Pronouncements Not Yet Adopted

No new accounting pronouncements issued but not yet adopted are expected to have a material impact on the Company's consolidated financial statements.

3. Revenues

The following table is a summary of the contracted amounts owed to the Company by tenants pursuant to tenant contracts in effect as of December 31, 2020. As of December 31, 2020, the weighted-average remaining term of tenant contracts is approximately five years, exclusive of renewals exercisable at the tenant's option.

	Years Ending December 31,						
	2021	2022	2023	2024	2025	Thereafter	Total
Contracted amounts[(a)]	$ 4,354	$ 4,153	$ 3,564	$ 2,875	$ 2,380	$ 9,560	$ 26,886

(a) Based on the nature of the contract, tenant contracts are accounted for pursuant to relevant lease accounting (ASC 842) or revenue accounting (ASC 606) guidance. Excludes amounts related to services, as those contracts generally have a duration of one year or less.

See notes 2 and 13 for further discussion regarding the Company's lessor arrangements and note 14 for further information regarding the Company's operating segments.

4. Property and Equipment

The major classes of property and equipment are summarized in the table below.

		As of December 31,	
	Estimated Useful Lives	2020	2019
Land[(a)]	—	$ 2,171	$ 2,08
Buildings	40 years	147	14
Communications infrastructure assets	1-20 years	22,027	20,52
Information technology assets and other	2-7 years	557	50
Construction in process	—	1,063	1,08
Total gross property and equipment		25,965	24,33
Less: accumulated depreciation		(10,803)	(9,66
Total property and equipment, net		$ 15,162	$ 14,66

(a) Includes land owned through fee interests and perpetual easements.

(Tabular dollars in millions, except per share amounts)

Depreciation expense for the years ended December 31, 2020, 2019 and 2018 was $1.2 billion, $1.1 billion and $1.1 billion, respectively. See note 13 for a discussion of finance leases recorded as "Property and equipment, net" on the Company's consolidated balance sheet.

5. Goodwill and Intangible Assets

Goodwill

There were no changes in the carrying value of goodwill during the years ended December 31, 2020 and 2019.

Intangibles

The following is a summary of the Company's intangible assets.

	As of December 31, 2020			As of December 31, 2019		
	Gross Carrying Value	Accumulated Amortization	Net Book Value	Gross Carrying Value	Accumulated Amortization	Net Book Value
Site rental contracts and tenant relationships	$ 7,797	$ (3,432)	$ 4,365	$ 7,761	$ (2,997)	$ 4,764
Other intangible assets	143	(75)	68	143	(71)	72
Total	$ 7,940	$ (3,507)	$ 4,433	$ 7,904	$ (3,068)	$ 4,836

Amortization expense related to intangible assets is classified as follows on the Company's consolidated statement of operations and comprehensive income (loss):

	For Years Ended December 31,		
Classification	2020	2019	2018
Depreciation, amortization and accretion	$ 439	$ 428	$ 428
Site rental costs of operations[(a)]	—	—	17
Total amortization expense	$ 439	$ 428	$ 445

(a) Amortization expense of intangible assets classified as "Site rental costs of operations" on the Company's consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2018 represented amortization of below-market leases. Effective January 1, 2019, the Company adopted ASC 842 and these below-market leases were de-recognized and reclassified from "Other intangible assets, net" to the "Operating lease right-of-use assets" on the Company's consolidated balance sheet.

The estimated annual amortization expense related to intangible assets for the years ending December 31, 2021 to 2025 is as follows:

	Years Ending December 31,				
	2021	2022	2023	2024	2025
Estimated annual amortization	$ 444	$ 444	$ 442	$ 393	$ 371

(Tabular dollars in millions, except per share amounts)

6. Other Liabilities

Other long-term liabilities

The following is a summary of the components of "Other long-term liabilities" as presented on the Company's consolidated balance sheet. See also note 2.

	December 31,	
	2020	2019
Deferred rental revenues	$ 1,707	$ 1,814
Deferred credits, net	375	434
Asset retirement obligation	259	227
Deferred income tax liabilities	11	8
Other long-term liabilities	27	33
Total	$ 2,379	$ 2,516

Pursuant to its ground lease, easement and leased facility agreements, the Company has the obligation to perform certain asset retirement activities, including requirements upon contract termination to remove communications infrastructure or remediate the space on which its communications infrastructure is located. Accretion expense related to liabilities for retirement obligations amounted to $18 million, $15 million and $14 million for the years ended December 31, 2020, 2019 and 2018, respectively. As of December 31, 2020, the estimated undiscounted future cash outlay for asset retirement obligations was approximately $1.0 billion. See note 2.

For the year ended December 31, 2018, the Company recorded $18 million as a decrease to "Site rental costs of operations" for the amortization of above-market leases for land under the Company's towers. Effective January 1, 2019, the Company adopted ASC 842 and these above-market leases were de-recognized and reclassified from "Other long-term liabilities" into the "Operating lease right-of-use assets" on the Company's consolidated balance sheet.

For the years ended December 31, 2020, 2019 and 2018, the Company recognized $58 million, $65 million and $69 million, respectively, in "Site rental revenues" related to the amortization of below-market tenant leases. The following table summarizes the estimated annual amounts related to below-market tenant leases expected to be amortized into site rental revenues for the years ending December 31, 2021 to 2025 are as follows:

	Years Ending December 31,				
	2021	2022	2023	2024	2025
Below-market tenant leases	$ 53	$ 48	$ 45	$ 41	$ 33

Other accrued liabilities

Other accrued liabilities included accrued payroll and other accrued compensation of $192 million and $174 million, respectively, as of December 31, 2020 and 2019.

(Tabular dollars in millions, except per share amounts)

7. Debt and Other Obligations

See note 17 for a discussion of the Company's issuance of the February 2021 Senior Notes (as defined in note 17) and the use of the net proceeds therefrom.

The table below sets forth the Company's debt and other obligations as of December 31, 2020.

	Original Issue Date		Contractual Maturity Date		Outstanding Balance as of December 31, 2020		Outstanding Balance as of December 31, 2019	Stated Interest Rate as of December 31, 2020 [(a)]
3.849% Secured Notes	Dec. 2012		Apr. 2023		$ 997		$ 995	3.9 %
Secured Notes, Series 2009-1, Class A-2	July 2009		Aug. 2029		60		67	9.0 %
Tower Revenue Notes, Series 2015-1	May 2015		May 2042	(b)(c)	299		298	3.2 %
Tower Revenue Notes, Series 2018-1	July 2018		July 2043	(b)(c)	248		248	3.7 %
Tower Revenue Notes, Series 2015-2	May 2015		May 2045	(b)(c)	695		694	3.7 %
Tower Revenue Notes, Series 2018-2	July 2018		July 2048	(b)(c)	743		742	4.2 %
Finance leases and other obligations	Various		Various	(d)	236		227	Various [(d)]
Total secured debt					3,278		3,271	
2016 Revolver	Jan. 2016		June 2024		290	(e)	525	1.3 % [(f)]
2016 Term Loan A	Jan. 2016		June 2024		2,252		2,310	1.3 % [(f)]
Commercial Paper Notes	Various	(g)	Various	(g)	285		155	0.5 %
3.400% Senior Notes	Feb./May 2016		Feb. 2021		—		850	N/A
2.250% Senior Notes	Sept. 2016		Sept. 2021		—		698	N/A
4.875% Senior Notes	Apr. 2014		Apr. 2022		—		846	N/A
5.250% Senior Notes	Oct. 2012		Jan. 2023		1,646		1,644	5.3 %
3.150% Senior Notes	Jan. 2018		July 2023		746		744	3.2 %
3.200% Senior Notes	Aug. 2017		Sept. 2024		745		744	3.2 %
1.350% Senior Notes	June 2020		July 2025		494		—	1.4 %
4.450% Senior Notes	Feb. 2016		Feb. 2026		894		893	4.5 %
3.700% Senior Notes	May 2016		June 2026		745		744	3.7 %
4.000% Senior Notes	Feb. 2017		Mar. 2027		496		495	4.0 %
3.650% Senior Notes	Aug. 2017		Sept. 2027		994		993	3.7 %
3.800% Senior Notes	Jan. 2018		Feb. 2028		991		990	3.8 %
4.300% Senior Notes	Feb. 2019		Feb. 2029		593		592	4.3 %
3.100% Senior Notes	Aug. 2019		Nov. 2029		544		543	3.1 %
3.300% Senior Notes	Apr. 2020		July 2030		737		—	3.3 %
2.250% Senior Notes	June 2020		Jan. 2031		1,088		—	2.3 %
4.750% Senior Notes	May 2017		May 2047		344		344	4.8 %
5.200% Senior Notes	Feb. 2019		Feb. 2049		395		395	5.2 %
4.000% Senior Notes	Aug. 2019		Nov. 2049		345		345	4.0 %
4.150% Senior Notes	Apr. 2020		July 2050		489		—	4.2 %
3.250% Senior Notes	June 2020		Jan. 2051		889		—	3.3 %
Total unsecured debt					$ 16,002		$ 14,850	
Total debt and other obligations					$ 19,280		$ 18,121	
Less: current maturities and short-term debt and other current obligations					$ 129		$ 100	
Non-current portion of long-term debt and other long-term obligations					$ 19,151		$ 18,021	

(a) Represents the weighted-average stated interest rate.
(b) The Tower Revenue Notes, Series 2015-1 and 2015-2 ("May 2015 Tower Revenue Notes") and Tower Revenue Notes, Series 2018-1 and 2018-2 ("July 2018 Tower Revenue Notes") are collectively referred to herein as "Tower Revenue Notes."
(c) If the respective series of Tower Revenue Notes are not paid in full on or prior to an applicable anticipated repayment date, then Excess Cash Flow (as defined in the indenture governing the terms of such notes) of the issuers of such notes will be used to repay principal of the applicable series and class of the Tower Revenue Notes, and additional interest (of an additional approximately 5% per annum) will accrue on the respective Tower Revenue Notes. As of December 31, 2019, the Tower Revenue Notes have principal amounts of $300 million, $250 million, $700 million and $750 million, with anticipated repayment dates in 2022, 2023, 2025 and 2028, respectively.

(d) The Company's finance leases and other obligations relate to land, fiber, vehicles, and other assets and bear interest rates ranging up to 10% and mature in periods ranging from less than one year to approximately 25 years.
(e) As of December 31, 2020, the undrawn availability under the 2016 Revolver was $4.7 billion.
(f) Both the 2016 Revolver and 2016 Term Loan A bear interest, at our option, at either (1) LIBOR plus a credit spread ranging from 0.875% to 1.750% per annum or (2) an alternate base rate plus a credit spread ranging from 0.000% to 0.750% per annum, in each case, with the applicable credit spread based on the Company's senior unsecured debt rating. The Company pays a commitment fee ranging from 0.125% to 0.350%, based on the Company's senior unsecured debt rating, per annum on the undrawn available amount under the 2016 Revolver.
(g) The maturities of the Commercial Paper Notes, as defined below, when outstanding, may vary but may not exceed 397 days from the date of issue.

The credit agreement governing the Company's 2016 Credit Facility contains financial maintenance covenants. The Company is currently in compliance with these financial maintenance covenants, and based upon current expectations, the Company believes it will continue to comply with its financial maintenance covenants. In addition, certain of the Company's debt agreements also contain restrictive covenants that place restrictions on CCIC or its subsidiaries and may limit the Company's ability to, among other things, incur additional debt and liens, purchase the Company's securities, make capital expenditures, dispose of assets, undertake transactions with affiliates, make other investments, pay dividends or distribute excess cash flow.

Bank Debt

In January 2016, the Company established the 2016 Credit Facility, which was originally comprised of (1) a $2.5 billion 2016 Revolver maturing in January 2021, (2) a $2.0 billion 2016 Term Loan A maturing in January 2021 and (3) a $1.0 billion senior unsecured 364-day revolving credit facility ("364-Day Facility") maturing in January 2017. The Company used the net proceeds from the 2016 Credit Facility (1) to repay the then outstanding 2012 Credit Facility and (2) for general corporate purposes. In February 2016, the Company used a portion of the net proceeds from the February 2016 Senior Notes (as defined below) offering to repay in full all outstanding borrowings under the then outstanding 364-Day Facility.

In February 2017, the Company entered into an amendment to the 2016 Credit Facility to (1) incur additional term loans in an aggregate principal amount of $500 million and (2) extend the maturity of both the 2016 Term Loan A and the 2016 Revolver to January 2022.

In August 2017, the Company entered into an amendment to the 2016 Credit Facility to (1) increase commitments on the 2016 Revolver by $1.0 billion, for total 2016 Revolver commitments of $3.5 billion, and (2) extend the maturity of the Credit Facility to August 2022.

In June 2018, the Company entered into an amendment to the 2016 Credit Facility to (1) increase commitments on the 2016 Revolver by $750 million, for total 2016 Revolver commitments of $4.25 billion, and (2) extend the maturity of the Credit Facility from August 2022 to June 2023.

In April 2019, the Company established a commercial paper program ("CP Program"), pursuant to which the Company may issue short-term, unsecured commercial paper notes ("Commercial Paper Notes"). Commercial Paper Notes may be issued, repaid and re-issued from time to time, with an aggregate principal amount of Commercial Paper Notes outstanding under the CP Program at any time not to exceed $1.0 billion. The net proceeds of the Commercial Paper Notes are expected to be used for general corporate purposes. The Commercial Paper Notes are issued under customary terms in the commercial paper market and are issued at a discount from par or, alternatively, can be issued at par and bear varying interest rates on a fixed or floating basis. For the year ended December 31, 2020, the Company had net issuances of $285 million under the CP Program. At any point in time, the Company intends to maintain available commitments under its 2016 Revolver in an amount at least equal to the amount of Commercial Paper Notes outstanding. While any outstanding commercial paper issuances generally have short-term maturities, the Company classifies the outstanding issuances as long-term based on its ability and intent to refinance the outstanding issuances on a long-term basis.

In June 2019, the Company entered into an amendment to the 2016 Credit Facility to (1) increase commitments on the 2016 Revolver by $750 million, for total 2016 Revolver commitments of $5.0 billion, and (2) extend the maturity of the Credit Facility from June 2023 to June 2024.

Securitized Debt

The Tower Revenue Notes and the Secured Notes, Series 2009-1, Class A-2 ("2009 Securitized Notes") (collectively, "Securitized Debt") are obligations of special purpose entities and their direct and indirect subsidiaries (each an "issuer"), all of which are wholly-owned, indirect subsidiaries of CCIC. The Tower Revenue Notes and 2009 Securitized Notes are governed by separate indentures. The May 2015 Tower Revenue Notes and July 2018 Tower Revenue Notes (each as defined below) are governed by one indenture and consist of multiple series of notes, each with its own anticipated repayment date.

In May 2015, the Company issued $1.0 billion aggregate principal amount of Senior Secured Tower Revenue Notes ("May 2015 Tower Revenue Notes"), which were issued pursuant to the existing indenture and have similar terms and security as the Company's then outstanding Tower Revenue Notes. The May 2015 Tower Revenue Notes consist of (1) $300 million aggregate principal amount of 3.222% senior secured tower revenue notes with an anticipated repayment date of May 2022 and a final maturity date of May 2042 and (2) $700 million aggregate principal amount of 3.663% senior secured tower revenue notes with an anticipated repayment date of May 2025 and a final maturity date of May 2045. The Company primarily used the net proceeds of the May 2015 Tower Revenue Notes, together with proceeds received from the Company's sale of the formerly 77.6% owned subsidiary that operated towers in Australia ("CCAL"), to (1) repay $250 million aggregate principal amount of the previously outstanding August 2010 Tower Revenue Notes, which had an anticipated repayment date of August 2015, (2) repay all of the then outstanding WCP Secured Wireless Site Contracts Revenue Notes, Series 2010-1 ("WCP Securitized Notes"), (3) repay portions of outstanding borrowings under the 2012 Credit Facility and (4) pay related fees and expenses.

In July 2018, the Company issued $1.0 billion aggregate principal amount of Senior Secured Tower Revenue Notes ("July 2018 Tower Revenue Notes"), which were issued pursuant to the existing indenture and have similar terms and security as the Company's existing Tower Revenue Notes. The July 2018 Tower Revenue Notes consist of (1) $250 million aggregate principal amount of 3.720% senior secured tower revenue notes with an anticipated repayment date of July 2023 and a final maturity of July 2043 and (2) $750 million aggregate principal amount of 4.241% senior secured tower revenue notes with an anticipated repayment date of July 2028 and a final maturity of July 2048. The Company used the net proceeds of the July 2018 Tower Revenue Notes, together with cash on hand, to repay all of the previously outstanding Tower Revenue Notes, Series 2010-6 and to pay related fees and expenses. In addition to the July 2018 Tower Revenue Notes described above, in connection with Exchange Act risk retention requirements ("Risk Retention Rules"), an indirect subsidiary of the Company issued and a majority-owned affiliate of the Company purchased approximately $53 million of the Senior Secured Tower Revenue Notes, Series 2018-1, Class R-2028 to retain an eligible horizontal residual interest (as defined in the Risk Retention Rules) in an amount equal to at least 5% of the fair value of the July 2018 Tower Revenue Notes.

The Securitized Debt is paid solely from the cash flows generated by the operation of the towers held directly and indirectly by the issuers of the respective Securitized Debt. The Securitized Debt is secured by, among other things, (1) a security interest in substantially all of the applicable issuers' assignable personal property, (2) a pledge of the equity interests in each applicable issuer and (3) a security interest in the applicable issuers' leases with tenants to lease tower space (space licenses). The governing instruments of two indirect subsidiaries ("Crown Atlantic" and "Crown GT") of the issuers of the Tower Revenue Notes generally prevent them from issuing debt and granting liens on their assets without the approval of a subsidiary of Verizon Communications. Consequently, while distributions paid by Crown Atlantic and Crown GT will service the Tower Revenue Notes, the Tower Revenue Notes are not obligations of, nor are the Tower Revenue Notes secured by the cash flows or any other assets of, Crown Atlantic and Crown GT. As of December 31, 2020, the Securitized Debt was collateralized with personal property and equipment with an aggregate net book value of approximately $920 million, exclusive of Crown Atlantic and Crown GT personal property and equipment.

The excess cash flows from the issuers of the Securitized Debt, after the payment of principal, interest, reserves, expenses and management fees, are distributed to the Company in accordance with the terms of the indentures. If the Debt Service Coverage Ratio ("DSCR") (as defined in the applicable governing loan agreement) as of the end of any calendar quarter falls to a certain level, then all excess cash flow of the issuers of the applicable debt instrument will be deposited into a reserve account instead of being released to the Company. The funds in the reserve account will not be released to the Company until the DSCR exceeds a certain level for two consecutive calendar quarters. If the DSCR falls below a certain level as of the end of any calendar quarter, then all cash on deposit in the reserve account along with future excess cash flows of the issuers will be applied to prepay the debt with applicable prepayment consideration.

The Company may repay the May 2015 Tower Revenue Notes or the 2009 Securitized Notes in whole or in part at any time after the second anniversary of the applicable issuance date and the July 2018 Tower Revenue Notes from the date of issuance, provided in each case that such prepayment is accompanied by any applicable prepayment consideration. The Securitized Debt has covenants and restrictions customary for rated securitizations, including provisions prohibiting the issuers from incurring additional indebtedness or further encumbering their assets.

Bonds—Senior Notes

In April 2020, the Company issued $1.25 billion aggregate principal amount of senior unsecured notes ("April 2020 Senior Notes"), which consisted of (1) $750 million aggregate principal amount of 3.300% senior unsecured notes due July 2030 and (2) $500 million aggregate principal amount of 4.150% senior unsecured notes due July 2050. The Company used the net proceeds of the April 2020 Senior Notes offering to repay outstanding borrowings under the 2016 Revolver.

In June 2020, the Company issued $2.5 billion aggregate principal amount of senior unsecured notes ("June 2020 Senior Notes"), which consisted of (1) $500 million aggregate principal amount of 1.350% senior unsecured notes due July 2025, (2) $1.1 billion aggregate principal amount of 2.250% senior unsecured notes due January 2031 and (3) $900 million aggregate principal amount of 3.250% senior unsecured notes due January 2051. The Company used the net proceeds of the June 2020 Senior Notes offering, together with available cash, to redeem all of the previously outstanding 3.400% Senior Notes, 2.250% Senior Notes and 4.875% Senior Notes.

In February 2019, the Company issued $1.0 billion aggregate principal amount of senior unsecured notes ("February 2019 Senior Notes"), which consisted of (1) $600 million aggregate principal amount of 4.300% senior unsecured notes due February 2029 and (2) $400 million aggregate principal amount of 5.200% senior unsecured notes due February 2049. The Company used the net proceeds of the February 2019 Senior Notes offering to repay a portion of the outstanding borrowings under the 2016 Revolver.

In August 2019, the Company issued $900 million aggregate principal amount of senior unsecured notes ("August 2019 Senior Notes"), which consisted of (1) $550 million aggregate principal amount of 3.100% senior unsecured notes due November 2029 and (2) $350 million aggregate principal amount of 4.000% senior unsecured notes due November 2049. The Company used the net proceeds of the August 2019 Senior Notes offering to repay outstanding borrowings under the 2016 Revolver and CP Program.

In January 2018, the Company issued $750 million aggregate principal amount of 3.150% senior unsecured notes due July 2023 and $1.0 billion aggregate principal amount of 3.800% senior unsecured notes due February 2028 (collectively, "January 2018 Senior Notes"). The Company used the net proceeds of the January 2018 Senior Notes offering to repay (1) in full the January 2010 Tower Revenue Notes and (2) a portion of the outstanding borrowings under the 2016 Revolver.

In February 2017, the Company issued $500 million aggregate principal amount of 4.000% senior unsecured notes due March 2027 ("4.000% Senior Notes"). The Company used the net proceeds from the 4.000% Senior Notes offering to repay a portion of the outstanding borrowings under the 2016 Revolver.

In May 2017, the Company issued $350 million aggregate principal amount of 4.750% senior unsecured notes due May 2047 ("4.750% Senior Notes"). The Company used the net proceeds from the 4.750% Senior Notes offering to partially fund the 2017 acquisition of Wilcon Holdings LLC and to repay a portion of the outstanding borrowings under the 2016 Revolver.

In August 2017, the Company issued $1.75 billion aggregate principal amount of senior unsecured notes ("August 2017 Senior Notes"), which consisted of (1) $750 million aggregate principal amount of 3.200% senior unsecured notes due September 2024 ("3.200% Senior Notes") and (2) $1.0 billion aggregate principal amount of 3.650% senior unsecured notes due September 2027 ("3.650% Senior Notes"). The Company used the net proceeds from the August 2017 Senior Notes offering to partially fund the 2017 acquisition of LTS Group Holdings LLC and pay related fees and expenses.

In February 2016, the Company issued $1.5 billion aggregate principal amount of senior unsecured notes ("February 2016 Senior Notes"), which consisted of (1) $600 million aggregate principal amount of 3.400% senior notes due February 2021 ("3.400% Senior Notes") and (2) $900 million aggregate principal amount of 4.450% senior unsecured notes due February 2026 ("4.450% Senior Notes"). The Company used the net proceeds from the February 2016 Senior Notes offering, together with cash on hand, to (1) repay in full all outstanding borrowings under the then outstanding 364-Day Facility and (2) repay $500 million of outstanding borrowings under the 2016 Revolver.

In May 2016, the Company issued $1.0 billion aggregate principal amount of senior unsecured notes ("May 2016 Senior Notes"), which consisted of (1) $250 million aggregate principal amount of additional 3.400% Senior Notes pursuant to the same indenture as the 3.400% Senior Notes issued in the February 2016 Senior Notes offering and (2) $750 million aggregate principal amount of 3.700% senior unsecured notes due June 2026 ("3.700% Senior Notes"). The Company used the net proceeds from the May 2016 Senior Notes offering to repay in full the Tower Revenue Notes, Series 2010-2 and Series 2010-5, each issued by certain of its subsidiaries, and to repay a portion of the outstanding borrowings under the 2016 Revolver.

In September 2016, the Company issued $700 million aggregate principal amount of 2.250% senior unsecured notes ("2.250% Senior Notes") due September 2021. The Company used the net proceeds from the 2.250% Senior Notes offering to (1) repay $500 million aggregate principal amount of 2.381% secured notes due 2017 ("2.381% Secured Notes") issued by certain of its subsidiaries and (2) repay a portion of the outstanding borrowings under the 2016 Revolver.

In April 2014, the Company issued $850 million aggregate principal amount of 4.875% senior unsecured notes due April 2022 ("4.875% Senior Notes"). The net proceeds from the offering were approximately $839 million, after the deduction of associated fees. The Company utilized the net proceeds from the 4.875% Senior Notes offering (1) to repay $300 million of the January 2010 Tower Revenue Notes with an anticipated repayment date of January 2015 and (2) to redeem all of the then outstanding 7.125% senior unsecured notes due 2019.

(Tabular dollars in millions, except per share amounts)

In October 2012, the Company issued $1.65 billion aggregate principal amount of 5.250% senior unsecured notes due 2023 ("5.250% Senior Notes"). The Company used the net proceeds from the 5.250% Senior Notes offering to partially fund the T-Mobile Acquisition.

Each of the 5.250% Senior Notes, 4.450% Senior Notes, May 2016 Senior Notes, 4.000% Senior Notes, 4.750% Senior Notes, August 2017 Senior Notes, January 2018 Senior Notes, February 2019 Senior Notes, August 2019 Senior Notes, April 2020 Senior Notes and June 2020 Senior Notes (collectively, "Senior Notes") are senior unsecured obligations of the Company and rank equally with all of the Company's existing and future senior unsecured indebtedness, including obligations under the 2016 Credit Facility, and senior to all of the Company's future subordinated indebtedness. The Senior Notes are structurally subordinated to all existing and future liabilities and obligations of the Company's subsidiaries. The Company's subsidiaries are not guarantors of the Senior Notes.

CCIC may redeem any of the Senior Notes in whole or in part at any time at a price equal to 100% of the principal amount to be redeemed, plus a make whole premium, if applicable, and accrued and unpaid interest, if any, to the date of redemption.

Bonds—Secured Notes

In December 2012, the Company issued $1.0 billion aggregate principal amount of 3.849% secured notes due 2023 ("3.849% Secured Notes"). The 3.849% Secured Notes were issued and are guaranteed by the same subsidiaries of CCIC that had previously issued and guaranteed the 7.750% senior unsecured notes due 2017 ("7.750% Secured Notes"). The 3.849% Secured Notes are secured by a pledge of the equity interests of such subsidiaries. The 3.849% Secured Notes are not guaranteed by and are not obligations of CCIC or any of its subsidiaries other than the issuers and guarantors of the 3.849% Secured Notes. The 3.849% Secured Notes will be paid solely from the cash flows generated from operations of the towers held directly and indirectly by the issuers and the guarantors of such notes. The Company used the net proceeds from the issuance of the 3.849% Secured Notes to repurchase and redeem the then outstanding 7.750% Secured Notes and a portion of the then outstanding 9.000% senior notes due 2011. The 3.849% Secured Notes may be redeemed at any time at a price equal to 100% of the principal amount, plus a make whole premium, and accrued and unpaid interest, if any to the redemption date.

Previously Outstanding Indebtedness

See above for a discussion of the Company's recent redemptions and repayments of debt.

Scheduled Principal Payments and Final Maturities

The following are the scheduled principal payments and final maturities of the total debt and other long-term obligations of the Company outstanding as of December 31, 2020, which do not consider the principal payments that will commence following the anticipated repayment dates on the Tower Revenue Notes. If the Tower Revenue Notes are not paid in full on or prior to their respective anticipated repayment dates, as applicable, then the Excess Cash Flow (as defined in the indenture) of the issuers of such notes will be used to repay principal of the applicable series and class of the Tower Revenue Notes and additional interest (of an additional approximately 5% per annum) will accrue on the Tower Revenue Notes.

	Years Ending December 31,								
	2021	2022	2023	2024	2025	Thereafter	Total Cash Obligations	Unamortized Adjustments, Net	Total Debt and Other Obligations Outstanding
Scheduled principal payments and final maturities	$ 415	$ 154	$ 3,608	$ 2,941	$ 525	$ 11,780	$ 19,423	$ (143)	$ 19,280

(Tabular dollars in millions, except per share amounts)

Debt Purchases and Redemptions

The following is a summary of the purchases and redemptions of debt during the years ended December 31, 2020, 2019 and 2018.

	Year Ended December 31, 2020		
	Principal Amount	Cash Paid[(a)]	Gains (losses)[(b)]
3.400% Senior Notes	$ 850	$ 863	$ (13)
2.250% Senior Notes	700	714	(16)
4.875% Senior Notes	850	913	(66)
Total	$ 2,400	$ 2,490	$ (95)

(a) Exclusive of accrued interest.
(b) Inclusive of the write-off of the respective deferred financing costs.

	Year Ended December 31, 2019		
	Principal Amount	Cash Paid[(a)]	Gains (losses)[(b)]
Secured Notes, Series 2009-1, Class A-1	$ 12	$ 12	$ (1)
2016 Term Loan A	—	—	(1)
Total	$ 12	$ 12	$ (2)

(a) Exclusive of accrued interest.
(b) Inclusive of the write-off of the respective deferred financing costs.

	Year Ended December 31, 2018		
	Principal Amount	Cash Paid[(a)]	Gains (losses)[(b)]
Tower Revenue Notes, Series 2010-3	$ 1,250	$ 1,318	$ (71)
2016 Term Loan A	—	—	(3)
Tower Revenue Notes, Series 2010-6	1,000	1,028	(32)
Total	$ 2,250	$ 2,346	$ (106)

(a) Exclusive of accrued interest.
(b) Inclusive of the write-off of the respective deferred financing costs.

8. Fair Value Disclosures

The following table shows the estimated fair values of the Company's financial instruments, along with the carrying amounts of the related assets (liabilities). See also note 2.

		December 31, 2020		December 31, 2019	
	Level in Fair Value Hierarchy	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Assets:					
Cash and cash equivalents	1	$ 232	$ 232	$ 196	$ 196
Restricted cash, current and non-current	1	149	149	142	142
Liabilities:					
Total debt and other obligations	2	19,280	21,302	18,121	19,170

(Tabular dollars in millions, except per share amounts)

9. Income Taxes

Income (loss) from continuing operations before income taxes by geographic area is summarized in the table below.

	Years Ended December 31,		
	2020	2019	2018
Domestic	$ 1,046	$ 850	$ 618
Foreign[(a)]	30	31	23
Total	$ 1,076	$ 881	$ 641

(a) Inclusive of income (loss) before income taxes from Puerto Rico.

The benefit (provision) for income taxes consists of the following:

	Years Ended December 31,		
	2020	2019	2018
Current:			
Federal	$ (6)	$ (6)	$ (5)
Foreign	(6)	(8)	(7)
State	(5)	(5)	(5)
Total current	(17)	(19)	(17)
Deferred:			
Foreign	(3)	(2)	(2)
Total deferred	(3)	(2)	(2)
Total tax benefit (provision)	$ (20)	$ (21)	$ (19)

A reconciliation between the benefit (provision) for income taxes and the amount computed by applying the federal statutory income tax rate to the income (loss) before income taxes is as follows:

	Years Ended December 31,		
	2020	2019	2018
Benefit (provision) for income taxes at statutory rate	$ (225)	$ (185)	$ (135)
Tax effect of foreign income (losses)	—	1	1
Tax adjustment related to REIT operations	219	178	128
State tax (provision) benefit, net of federal	(5)	(5)	(4)
Foreign tax	(9)	(10)	(9)
Total	$ (20)	$ (21)	$ (19)

(Tabular dollars in millions, except per share amounts)

The components of the net deferred income tax assets and liabilities are as follows:

	December 31,	
	2020	2019
Deferred income tax liabilities:		
Property and equipment	$ 7	$ 6
Deferred site rental receivable	7	7
Total deferred income tax liabilities	14	13
Deferred income tax assets:		
Intangible assets	3	3
Net operating loss carryforwards[(a)]	15	18
Straight-line rent expense liability	3	3
Accrued liabilities	6	5
Other	2	2
Valuation allowances	—	—
Total deferred income tax assets, net	29	31
Net deferred income tax asset (liabilities)	$ 15	$ 18

(a) Balance results from the Company's foreign NOLs. Due to the Company's REIT status, no federal or state NOLs result in the Company recording a deferred income tax asset. See further discussion surrounding the Company's NOL balances below.

The Company operates as a REIT for U.S. federal income tax purposes.

The components of the net deferred income tax assets (liabilities) are as follows:

	December 31, 2020			December 31, 2019		
Classification	Gross	Valuation Allowance	Net	Gross	Valuation Allowance	Net
Federal	$ 25	$ —	$ 25	$ 25	$ —	$ 25
State	1	—	1	1	—	1
Foreign	(11)	—	(11)	(8)	—	(8)
Total	$ 15	$ —	$ 15	$ 18	$ —	$ 18

At December 31, 2020, the Company had U.S. federal and state NOLs of approximately $1.5 billion and $0.6 billion, respectively, which are available to offset future taxable income. These amounts include approximately $237 million of losses related to stock-based compensation. The Company also has foreign NOLs of $40 million. If not utilized, the Company's U.S. federal NOLs expire starting in 2025 and ending in 2036, the state NOLs expire starting in 2021 and ending in 2036, and the foreign NOLs expire starting in 2023 and ending in 2036. The utilization of the NOLs is subject to certain limitations. The Company's U.S. federal and state income tax returns generally remain open to examination by taxing authorities until three years after the applicable NOLs have been used or expired. The remaining valuation allowance relates to certain foreign net deferred tax assets (primarily NOLs).

As of December 31, 2020, there were no unrecognized tax benefits that would impact the effective tax rate, if recognized.

From time to time, the Company is subject to examinations by various tax authorities in jurisdictions in which the Company has business operations. At this time, the Company is not subject to an Internal Revenue Service examination. The Australian Taxation Office is conducting an audit of the tax consequences for Australian tax purposes of the Company's sale of CCAL. The primary focus of the audit relates to the Company's asset valuation methodology and whether the Company should be subject to Australian capital gains tax on its sale of CCAL. The Company believes its valuation methodology is appropriate, that it is not subject to such tax, and that the ultimate resolution of the audit will not be material to the Company’s financial position.

In addition, the Company regularly assesses the likelihood of additional assessments in each of the tax jurisdictions in which it has business operations. The Company has no uncertain tax positions as of December 31, 2020. Additionally, the

Company does not believe any such additional assessments arising from other examinations or audits will have a material effect on the Company's financial statements.

As of December 31, 2020, the Company's deferred tax assets are included in "Other assets, net" and the Company's deferred tax liabilities are included in "Other long-term liabilities" on the Company's consolidated balance sheet.

10. Equity

2018 "At-The-Market" Stock Offering Program

In April 2018, the Company established an "at-the-market" stock offering program through which it may issue and sell shares of its common stock having an aggregate gross sales price of up to $750 million ("2018 ATM Program"). Sales under the 2018 ATM Program may be made by means of ordinary brokers' transactions on the NYSE or otherwise at market prices prevailing at the time of sale, at prices related to prevailing market prices or, subject to our specific instructions, at negotiated prices. The Company intends to use the net proceeds from any sales under the 2018 ATM Program for general corporate purposes, which may include (1) the funding of future acquisitions or investments or (2) the repayment or repurchase of any outstanding indebtedness. The Company has not sold any shares of common stock under the 2018 ATM Program. As of December 31, 2020, the Company had $750 million of gross sales of common stock availability remaining under the 2018 ATM Program.

Convertible Preferred Stock Conversion

In July and August 2020, all of the approximately 2 million shares of the Company's previously outstanding 6.875% Mandatory Convertible Preferred Stock were converted into approximately 14 million shares of the Company's common stock at a conversion rate (based on the applicable market value of the common stock and subject to certain anti-dilutive adjustments) of 8.8043 shares of common stock per each share of 6.875% Mandatory Convertible Preferred Stock.

March 2018 Common Stock Offering

In March 2018, the Company completed an offering of 8 million shares of its common stock, which generated net proceeds of $841 million ("March 2018 Equity Financing"). The Company used the net proceeds from the March 2018 Equity Financing for general corporate purposes, including repayment of outstanding indebtedness.

Declaration and Payment of Dividends

During the year ended December 31, 2020, the following dividends/distributions were declared or paid:

Equity Type	Declaration Date	Record Date	Payment Date	Dividends Per Share	Aggregate Payment Amount (In millions)
Common Stock	February 20, 2020	March 13, 2020	March 31, 2020	$ 1.20	$ 504 (a)
Common Stock	May 14, 2020	June 12, 2020	June 30, 2020	$ 1.20	$ 504 (a)
Common Stock	August 6, 2020	September 15, 2020	September 30, 2020	$ 1.20	$ 521 (a)
Common Stock	October 21, 2020	December 15, 2020	December 31, 2020	$ 1.33	$ 577 (a)
6.875% Convertible Preferred Stock	December 9, 2019	January 15, 2020	February 3, 2020	$ 17.1875	$ 28
6.875% Convertible Preferred Stock	March 12, 2020	April 15, 2020	May 1, 2020	$ 17.1875	$ 28
6.875% Convertible Preferred Stock	June 19, 2020	July 15, 2020	August 3, 2020	$ 17.1875	$ 28

(a) Inclusive of dividends accrued for holders of unvested RSUs, which will be paid when and if the RSUs vest.

See also note 17 for a discussion of the Company's common stock dividend declared in February 2021.

Tax Treatment of Dividends

The following table summarizes, for income tax purposes, the nature of dividends paid during 2020 on the Company's common stock and previously outstanding 6.875% Convertible Preferred Stock.

Equity Type	Payment Date	Cash Distribution (per share)	Ordinary Taxable Dividend (per share)	Qualified Taxable Dividend (per share)[(a)]	Section 199A Dividend (per share)	Non-Taxable Distribution (per share)
Common Stock	March 31, 2020	$ 1.20	$ 0.788	$ 0.010	$ 0.778	$ 0.412
Common Stock	June 30, 2020	$ 1.20	$ 0.788	$ 0.010	$ 0.778	$ 0.412
Common Stock	September 30, 2020	$ 1.20	$ 0.788	$ 0.010	$ 0.778	$ 0.412
Common Stock	December 31, 2020	$ 1.33	$ 0.874	$ 0.012	$ 0.862	$ 0.456
6.875% Convertible Preferred Stock	February 3, 2020	$ 17.1875	$ 17.1875	$ 0.2265	$ 16.9610	$ —
6.875% Convertible Preferred Stock	May 1, 2020	$ 17.1875	$ 17.1875	$ 0.2265	$ 16.9610	$ —
6.875% Convertible Preferred Stock	August 3, 2020	$ 17.1875	$ 17.1875	$ 0.2265	$ 16.9610	$ —

(a) Qualified taxable dividend and section 199A dividend amounts are included in ordinary taxable dividend amounts.

Purchases of the Company's Common Stock

During the years ended December 31, 2020, 2019 and 2018, the Company purchased 0.5 million, 0.4 million and 0.3 million shares of common stock, respectively, utilizing $76 million, $44 million and $34 million in cash, respectively.

11. Stock-based Compensation

Stock Compensation Plans

Pursuant to a stockholder approved plan, the Company has and is permitted to grant stock-based awards to certain employees, consultants or non-employee directors of the Company and its subsidiaries or affiliates. As of December 31, 2020, the Company has 8 million shares available for future issuance pursuant to its 2013 Long-Term Incentive Plan ("LTI Plan"). Of the shares remaining available for future issuance, approximately 2 million shares may be issued pursuant to outstanding RSUs granted under the LTI Plan.

Restricted Stock Units

The Company issues RSUs to certain executives and employees. Each RSU represents a contingent right to receive one share of the Company's common stock subject to satisfaction of the applicable vesting terms. The RSUs granted to certain executives and employees include (1) annual performance awards that generally include provisions for forfeiture by the employee if certain market performance of the Company's common stock is not achieved, (2) new hire or promotional awards that generally contain only service-based vesting conditions, and (3) other awards related to specific business initiatives or compensation objectives including retention and merger integration. Generally, such awards vest over periods of approximately three years.

The following is a summary of the RSU activity during the year ended December 31, 2020.

	RSUs
	(In millions)
Outstanding at the beginning of year	2.8
Granted	1.0
Vested	(1.3)
Forfeited	(0.1)
Outstanding at end of year	2.4

The Company granted approximately one million RSUs to the Company's executives and certain other employees for each of the years ended December 31, 2020, 2019 and 2018. The weighted-average grant-date fair value per share of the grants for the years ended December 31, 2020, 2019 and 2018 was $160.78, $106.55 and $91.52 per share, respectively. The weighted-average requisite service period for the RSUs granted during 2020 was approximately 2.4 years.

Of the approximately one million RSUs granted during the year ended December 31, 2020, (1) approximately 0.6 million RSUs were subject to time-based vesting conditions, vesting over a three-year period and (2) approximately 0.4 million RSUs were granted to the Company's executives and certain other employees and may vest on the third anniversary of the grant date based upon (a) the Company's total shareholder returns (defined as share price appreciation plus the value of dividends paid during the performance period) and (b) the Company's total shareholder return compared to that of the companies in the Standard & Poor's 500 Index. Certain RSU agreements contain provisions that result in forfeiture by the employee of any unvested shares in the event that the Company's common stock does not achieve certain performance targets. To the extent that the requisite service is rendered, compensation cost for accounting purposes is not reversed; rather, it is recognized regardless of whether or not the market performance target is achieved.

The following table summarizes the assumptions used in the Monte Carlo simulation to determine the grant-date fair value for the RSUs with market conditions granted during the years ended December 31, 2020, 2019 and 2018.

	Years Ended December 31,		
	2020	2019	2018
Risk-free rate	1.4 %	2.5 %	2.4 %
Expected volatility	19 %	18 %	18 %
Expected dividend rate	3.5 %	4.0 %	3.8 %

The Company recognized aggregate stock-based compensation expense related to RSUs of $111 million, $96 million and $90 million for the years ended December 31, 2020, 2019 and 2018, respectively. The aggregate unrecognized compensation (net of estimated forfeitures) related to RSUs at December 31, 2020 is $110 million and is estimated to be recognized over a weighted-average period of less than one year.

The following table is a summary of the RSUs vested during the years ended December 31, 2020, 2019 and 2018.

Years Ended December 31,	Total Shares Vested	Fair Value on Vesting Date
	(In millions of shares)	
2020	1	$ 220
2019	1	135
2018	1	107

Stock-based Compensation

The following table discloses the components of stock-based compensation expense.

	Years Ended December 31,		
	2020	2019	2018
Stock-based compensation expense:			
Site rental costs of operations	$ 16	$ 19	$ 17
Services and other costs of operations	8	7	8
Selling, general and administrative expenses	109	90	83
Total stock-based compensation	$ 133	$ 116	$ 108

12. Commitments and Contingencies

SEC Investigation

In September 2019, the Company received a subpoena from the SEC requesting certain documents from 2015 through the present, primarily related to the Company's long-standing capitalization and expense policies for tenant upgrades and installations in its services business. Prior to receiving this subpoena, the Company previously provided information to the SEC related to certain services-related transactions. The Company responded to the requests and cooperated fully with the SEC's investigation. On January 26, 2021, the SEC notified the Company that it had concluded its investigation, and based on the information the SEC had as of that date, the SEC staff did not intend to recommend an enforcement action by the Commission.

Shareholder Litigation

In February and March 2020, putative securities class action suits were filed in the United States District Court for the District of New Jersey against the Company and certain of its current officers. The lawsuits were filed against the Company on behalf of investors that purchased or otherwise acquired stock of the Company between February 26, 2018 and February 26, 2020. The allegations concern allegedly false or misleading statements or other alleged failures to disclose information about the Company’s business, operations and prospects. The plaintiffs seek monetary damages and the award of plaintiffs’ costs and expenses incurred. In December 2020, the cases were consolidated as *In re Crown Castle International Corp. Securities Litigation*, No. 2:20-cv-02156 in the United States District Court for the District of New Jersey. The Company is currently unable to determine the likelihood of an outcome or estimate a range of reasonably possible losses, if any. The Company believes the putative class action is without merit and intends to defend itself vigorously.

During the quarter ended June 30, 2020, derivative lawsuits were filed in the United States District Court for the District of Delaware, against the Company's current directors and certain of its current officers and the Company as a nominal defendant. Each complaint alleges, among other things, breaches of fiduciary duties, waste of corporate assets, unjust enrichment, and false or misleading statements. The derivative plaintiffs seek, among other things, unspecified monetary damages, costs and expenses, restitution from the defendants, and an order requiring the Company to implement certain corporate governance reforms. As a nominal defendant, no monetary relief is sought against the Company itself. In June 2020, the derivative lawsuits were consolidated as *In re Crown Castle International Corp. Derivative Litigation*, C.A. No. 20-00606-MN in the United States District Court for the District of Delaware. The consolidated derivative action is currently stayed pending the resolution of any motion to dismiss *In re Crown Castle International Corp. Securities Litigation* in the United States District Court for the District of New Jersey.

Durham Lawsuits

The Company has received notices of claims and has been named as one of several defendants in lawsuits stemming from an April 2019 gas leak explosion in Durham, North Carolina, which occurred near an area where the Company's subcontractors were installing fiber. The explosion resulted in two fatalities, physical injuries (some of which were serious), and property damage to surrounding buildings and businesses. Currently, the Company is unable to determine the likelihood of an outcome or estimate a range of possible losses, if any, related to these lawsuits.

New York State Department of Transportation

In 2019, the State of New York passed legislation authorizing the Department of Transportation ("NYSDOT") to enter into agreements with any fiber provider for the use and occupancy of the state right-of-way for fiber optic lines. The legislation authorizes the NYSDOT to charge a fee of up to fair market value for such use and occupancy. To date, the Company has paid fees relating to newly deployed fiber lines but has not been required to pay, and has not recognized any costs in connection with, any fees relating to previously deployed fiber lines.

The Company believes that the legislation violates both federal and state law and is evaluating its legal options regarding any use and occupancy fees that may be assessed on previously deployed fiber. Currently, the Company is unable to determine the likelihood of an outcome or reasonably estimate the amount of fees, if any, that it may be required to pay as a result of the legislation.

Other Matters

The Company is involved in various other claims, assessments, lawsuits or proceedings arising in the ordinary course of business. While there are uncertainties inherent in the ultimate outcome of such other matters and it is impossible to presently determine the ultimate costs or losses that may be incurred, if any, management believes the adverse resolution of such uncertainties and the incurrence of such costs should not have a material adverse effect on the Company's condensed consolidated financial position or results of operations. Additionally, the Company and certain of its subsidiaries are contingently liable for commitments or performance guarantees arising in the ordinary course of business, including certain letters of credit or surety bonds. See note 13 for a discussion of the operating lease commitments. In addition, see note 1 for a discussion of the Company's option to purchase approximately 53% of its towers at the end of their respective lease terms. The Company has no obligation to exercise such purchase options.

(Tabular dollars in millions, except per share amounts)

13. Leases

Lessor Tenant Leases

See note 3 for further information regarding the contractual amounts owed to the Company pursuant to tenant contracts in effect as of December 31, 2020 and other information.

Lessee Operating Leases

The components of the Company's operating lease expense are as follows:

	Years Ended December 31,	
	2020	2019[(d)]
Lease cost:		
Operating lease expense[(a)]	$ 640	$ 632
Variable lease expense[(b)]	153	149
Total lease expense[(c)]	$ 793	$ 781

(a) Represents the Company's operating lease expense related to its ROU assets for the twelve months ended December 31, 2020 and 2019.
(b) Represents the Company's expense related to contingent payments for operating leases (such as payments based on revenues derived from the communications infrastructure located on the leased asset) for the twelve months ended December 31, 2020 and 2019. Such contingencies are recognized as expense in the period they are resolved.
(c) Excludes those direct operating expenses accounted for pursuant to accounting guidance outside the scope of ASC 842.
(d) Amounts for the year ended December 31, 2019 reflect a revision from the Company's 2019 Annual Report on Form 10-K relating to an immaterial classification error of certain operating lease expenses. In connection with this revision, the Company reclassified $16 million from operating lease expense to variable lease expense for the year ended December 31, 2019; total lease expense for the year ended December 31, 2019 remained unchanged.

Lessee Finance Leases

The vast majority of the Company's finance leases are related to the towers subject to prepaid master lease agreements with AT&T and T-Mobile, including agreements assumed by T-Mobile in connection with its merger with Sprint, and are recorded as "Property and equipment, net" on the consolidated balance sheet. See note 1 for further discussion of the Company's prepaid master lease agreements. Finance leases and associated leasehold improvements related to gross property and equipment and accumulated depreciation were $4.4 billion and $2.3 billion, respectively, as of December 31, 2020. Finance leases and associated leasehold improvements related to gross property and equipment and accumulated depreciation were $4.4 billion and $2.1 billion, respectively, as of December 31, 2019. For the twelve months ended December 31, 2020 and 2019, the Company recorded $211 million and $216 million, respectively, to "Depreciation, amortization and accretion" related to finance leases.

Other Lessee Information

As of December 31, 2020, the Company's weighted-average remaining lease term and weighted-average discount rate for operating leases were 17 years and 3.7%, respectively.

The following table is a summary of the Company's maturities of operating lease liabilities as of December 31, 2020:

	Years Ending December 31,								
	2021	2022	2023	2024	2025	Thereafter	Total undiscounted lease payments	Less: Imputed interest	Total operating lease liabilities
Operating leases[(a)]	$ 546	$ 543	$ 538	$ 532	$ 518	$ 5,842	$ 8,519	$ (2,382)	$ 6,137

(a) Excludes the Company's contingent payments for operating leases (such as payments based on revenues derived from the communications infrastructure located on the leased asset) as such arrangements are excluded from the Company's operating lease liability. Such contingencies are recognized as expense in the period they are resolved.

14. Operating Segments and Concentrations of Credit Risk

Operating Segments

The Company's operating segments consist of (1) Towers and (2) Fiber. The Towers segment provides access, including space or capacity, to the Company's approximately 40,000 towers geographically dispersed throughout the U.S. The Towers segment also reflects certain ancillary services relating to the Company's towers, predominately consisting of site development services and installation services. The Fiber segment provides access, including space or capacity, to the Company's approximately 80,000 route miles of fiber primarily supporting small cell networks and fiber solutions geographically dispersed throughout the U.S.

The measurements of profit or loss used by the Company's chief operating decision maker ("CODM") to evaluate the performance of its operating segments are (1) segment site rental gross margin, (2) segment services and other gross margin and (3) segment operating profit. The Company defines segment site rental gross margin as segment site rental revenues less segment site rental cost of operations, which excludes stock-based compensation expense and prepaid lease purchase price adjustments recorded in consolidated cost of operations. The Company defines segment services and other gross margin as segment services and other revenues less segment services and other cost of operations, which excludes stock-based compensation expense recorded in consolidated cost of operations. The Company defines segment operating profit as segment site rental gross margin plus segment services and other gross margin, and segment other operating (income) expense, less selling, general and administrative expenses attributable to the respective segment. All of these measurements of profit or loss are exclusive of depreciation, amortization and accretion, which are shown separately.

Costs that are directly attributable to Towers and Fiber are assigned to those respective segments. Additionally, certain costs are shared across segments and are reflected in the Company's segment measures through allocations that management believes to be reasonable. The "Other" column (1) represents amounts excluded from specific segments, such as asset write-down charges, acquisition and integration costs, depreciation, amortization and accretion, amortization of prepaid lease purchase price adjustments, interest expense and amortization of deferred financing costs, gains (losses) on retirement of long-term obligations, net gain (loss) on interest rate swaps, gains (losses) on foreign currency swaps, interest income, other income (expense), income (loss) from discontinued operations, and stock-based compensation expense, and (2) reconciles segment operating profit to income (loss) before income taxes, as the amounts are not utilized in assessing each segment’s performance. The "Other" total assets balance includes corporate assets such as cash and cash equivalents which have not been allocated to specific segments. There are no significant revenues resulting from transactions between the Company's operating segments.

(Tabular dollars in millions, except per share amounts)

	Year Ended December 31, 2020			
	Towers	Fiber	Other	Consolidated Total
Segment site rental revenues	$ 3,497	$ 1,823		$ 5,320
Segment services and other revenues	500	20		520
Segment revenues	3,997	1,843		5,840
Segment site rental cost of operations	866	620		1,486
Segment services and other cost of operations	429	12		441
Segment cost of operations[(a)(b)]	1,295	632		1,927
Segment site rental gross margin	2,631	1,203		3,834
Segment services and other gross margin	71	8		79
Segment selling, general and administrative expenses[(b)]	100	186		286
Segment other operating (income) expense[(c)]	—	(362)		(362)
Segment operating profit (loss)	2,602	1,387		3,989
Other selling, general and administrative expenses[(b)]			$ 283	283
Stock-based compensation expense			133	133
Depreciation, amortization and accretion			1,608	1,608
Interest expense and amortization of deferred financing costs			689	689
Other (income) expenses to reconcile to income (loss) before income taxes[(d)]			200	200
Income (loss) before income taxes				$ 1,076
Capital expenditures	$ 335	$ 1,232	$ 57	$ 1,624
Total assets (at year end)	$ 22,242	$ 15,746	$ 780	$ 38,768
Total goodwill (at year end)	$ 5,127	$ 4,951	$ —	$ 10,078

(a) Exclusive of depreciation, amortization and accretion shown separately.
(b) Segment cost of operations for the year ended December 31, 2020 excludes (1) stock-based compensation expense of $24 million and (2) prepaid lease purchase price adjustments of $18 million. For the year ended December 31, 2020, segment selling, general and administrative expenses exclude stock-based compensation expense of $109 million.
(c) See note 15 for further information.
(d) See consolidated statement of operations for further information.

	Year Ended December 31, 2019			
	Towers	Fiber	Other	Consolidated Total
Segment site rental revenues	$ 3,389	$ 1,704		$ 5,093
Segment services and other revenues	653	17		670
Segment revenues	4,042	1,721		5,763
Segment site rental cost of operations	864	559		1,423
Segment services and other cost of operations	506	11		517
Segment cost of operations[(a)(b)]	1,370	570		1,940
Segment site rental gross margin	2,525	1,145		3,670
Segment services and other gross margin	147	6		153
Segment selling, general and administrative expenses[(b)]	96	195		291
Segment operating profit (loss)	2,576	956		3,532
Other selling, general and administrative expenses[(b)]			$ 233	233
Stock-based compensation expense			116	116
Depreciation, amortization and accretion			1,572	1,572
Interest expense and amortization of deferred financing costs			683	683
Other (income) expenses to reconcile to income (loss) before income taxes[(c)]			47	47
Income (loss) before income taxes				$ 881
Capital expenditures	$ 543	$ 1,473	$ 41	$ 2,057
Total assets (at year end)	$ 22,357	$ 15,389	$ 711	$ 38,457
Total goodwill (at year end)	$ 5,127	$ 4,951	$ —	$ 10,078

(a) Exclusive of depreciation, amortization and accretion shown separately.
(b) Segment cost of operations for the year ended December 31, 2019 excludes (1) stock-based compensation expense of $26 million and (2) prepaid lease purchase price adjustments of $20 million. For the year ended December 31, 2019, segment selling, general and administrative expenses exclude stock-based compensation expense of $90 million.
(c) See consolidated statement of operations for further information.

(Tabular dollars in millions, except per share amounts)

	Year Ended December 31, 2018			
	Towers	Fiber	Other	Consolidated Total
Segment site rental revenues	$ 3,196	$ 1,600		$ 4,796
Segment services and other revenues	558	16		574
Segment revenues	3,754	1,616		5,370
Segment site rental cost of operations	848	525		1,373
Segment services and other cost of operations	415	11		426
Segment cost of operations[(a)(b)]	1,263	536		1,799
Segment site rental gross margin	2,348	1,075		3,423
Segment services and other gross margin	143	5		148
Segment selling, general and administrative expenses[(b)]	110	179		289
Segment operating profit (loss)	2,381	901		3,282
Other selling, general and administrative expenses[(b)]			$ 191	191
Stock-based compensation expense			108	108
Depreciation, amortization and accretion			1,527	1,527
Interest expense and amortization of deferred financing costs			642	642
Other (income) expenses to reconcile to income (loss) before income taxes[(c)]			173	173
Income (loss) before income taxes				$ 641
Capital expenditures	$ 440	$ 1,264	$ 35	$ 1,739
Total assets (at year end)	$ 17,644	$ 14,512	$ 606	$ 32,762
Total goodwill (at year end)	$ 5,127	$ 4,951	$ —	$ 10,078

(a) Exclusive of depreciation, amortization and accretion shown separately.
(b) Segment cost of operations for the year ended December 31, 2018 excludes (1) stock-based compensation expense of $25 million and (2) prepaid lease purchase price adjustments of $20 million. For the year ended December 31, 2018, segment selling, general and administrative expenses exclude stock-based compensation expense of $83 million.
(c) See consolidated statement of operations for further information.

Major Tenants

The following table summarizes the percentage of the consolidated revenues for those tenants accounting for more than 10% of the consolidated revenues.

	Years Ended December 31,		
	2020[(a)]	2019	2018
T-Mobile	36 %	22 %	19 %
AT&T	22 %	21 %	20 %
Verizon Wireless	19 %	19 %	20 %
Sprint	— %	14 %	15 %
Total	77 %	76 %	74 %

(a) For the year ended December 31, 2020, revenues attributable to T-Mobile includes revenues previously derived from Sprint. On April 1, 2020, T-Mobile and Sprint announced the completion of their previously disclosed merger.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk are primarily cash and cash equivalents, restricted cash and trade receivables. The Company mitigates its risk with respect to cash and cash equivalents by maintaining such deposits at high credit quality financial institutions and monitoring the credit ratings of those institutions. The Company's restricted cash is predominately held and directed by a trustee (see note 2).

The Company derives the largest portion of its revenues from tenants in the wireless industry. The Company also has a concentration in its volume of business with T-Mobile, AT&T and Verizon Wireless or their agents that accounts for a significant portion of the Company's revenues, receivables and deferred site rental receivables. The Company mitigates its concentrations of credit risk with respect to trade receivables by actively monitoring the creditworthiness of its tenants, the use of tenant leases with contractually determinable payment terms or proactive management of past due balances.

(Tabular dollars in millions, except per share amounts)

15. Other Operating Income

During the fourth quarter of 2020, T-Mobile notified the Company that it was cancelling approximately 5,700 small cell nodes initially contracted with Sprint ("Sprint Cancellation") prior to its merger with T-Mobile. The majority of the cancelled small cells were not yet constructed and, upon completion, would have been located at the same locations as other T-Mobile small cells. The Sprint Cancellation resulted in T-Mobile accelerating payment of all contractual rental obligations associated with the approximately 5,700 small cells as well as the payment of capital costs incurred to date.

The Company received approximately $308 million from T-Mobile pursuant to the Sprint Cancellation, and recognized receipt of this payment as "Other operating income" on its consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2020.

Additionally, the Company previously received upfront payments from Sprint for certain of the small cells subject to the Sprint Cancellation, which the Company previously recorded as "Deferred revenues" and "Other long-term liabilities" on its consolidated balance sheet. As a result of the Sprint Cancellation, during the fourth quarter of 2020, the Company recognized the unamortized portion of such upfront payments, or approximately $54 million, as "Other operating income" on its consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2020.

See also note 2 for a discussion of the Company's separate evaluation and write-off of property and equipment previously recorded related to the cancelled small cells.

16. Supplemental Cash Flow Information

The following table is a summary of the supplemental cash flow information during the years ended December 31, 2020, 2019 and 2018.

	Years Ended December 31,		
	2020	2019	2018
Supplemental disclosure of cash flow information:			
Cash payments related to operating lease liabilities[(a)]	$ 538	$ 541	$ —
Interest paid	653	661	619
Income taxes paid	19	16	17
Supplemental disclosure of non-cash investing and financing activities:			
New ROU assets obtained in exchange for operating lease liabilities	627	431	—
Increase in accounts payable for purchases of property and equipment	27	2	29
Purchase of property and equipment under finance leases and installment land purchases	33	33	40

(a) Excludes the Company's contingent payments pursuant to operating leases, which are recorded as expense in the period such contingencies are resolved.

The reconciliation of cash, cash equivalents, and restricted cash reported within various lines on the consolidated balance sheet to amounts reported in the consolidated statement of cash flows is shown below.

	As of December 31,		
	2020	2019	2018
Cash and cash equivalents	$ 232	$ 196	$ 277
Restricted cash, current	144	137	131
Restricted cash reported within other assets, net	5	5	5
Cash, cash equivalents and restricted cash	$ 381	$ 338	$ 413

17. Subsequent Events

February 2021 Senior Notes Offering

On February 16, 2021, the Company issued $3.25 billion aggregate principal amount of senior unsecured notes ("February 2021 Senior Notes"), which consisted of (1) $1.0 billion aggregate principal amount of 1.050% senior unsecured notes due July

2026, (2) $1.0 billion aggregate principal amount of 2.100% senior unsecured notes due April 2031 and (3) $1.25 billion aggregate principal amount of 2.900% senior unsecured notes due April 2041. The Company used a portion of the net proceeds from the February 2021 Senior Notes offering to repay a portion of the outstanding Commercial Paper Notes at their maturity date and a portion of outstanding borrowings under the 2016 Term Loan A. The Company intends to use the remainder of the net proceeds from the February 2021 Senior Notes offering to (1) redeem all of the outstanding 5.250% Senior Notes on March 10, 2021 (the designated redemption date) and (2) repay an additional portion of the outstanding Commercial Paper Notes at their maturity date.

Common Stock Dividend

On February 18, 2021, the Company's board of directors declared a quarterly cash dividend of $1.33 per common share. The quarterly dividend will be payable on March 31, 2021, to common stockholders of record as of March 15, 2021.

Item 9. ***Changes in and Disagreements With Accountants on Accounting and Financial Disclosure***

None.

Item 9A. ***Controls and Procedures***

(a) Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

In connection with the preparation of this Annual Report on Form 10-K, as of December 31, 2020, the Company's management conducted an evaluation, under the supervision and with the participation of the Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended ("Exchange Act")). Based upon their evaluation, the CEO and CFO concluded that as of December 31, 2020, the Company's disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by the Company in the reports filed or submitted by it under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and to provide reasonable assurance that information required to be disclosed by the Company in such reports is accumulated and communicated to the Company's management, including its CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

(b) Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) for the Company. Under the supervision and with the participation of the Company's CEO and CFO, management assessed the effectiveness of the Company's internal control over financial reporting based on the framework described in *Internal Control – Integrated Framework* (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. The Company's internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with authorization of management and directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisitions, use or disposition of the Company's assets that could have a material effect on the financial statements.

Management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2020. Based on the Company's assessment, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2020 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with generally accepted accounting principles in the United States of America.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears in Part II, Item 8 of this Annual Report on Form 10-K.

(c) Remediation of Previously Disclosed Material Weakness

As previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2019, management concluded that a material weakness existed in the Company's internal control over financial reporting as it did not effectively design and maintain controls related to the accounting for its tower installation services. Management has completed its plan of remediation, which primarily consisted of 1) revising its accounting policies for its tower installation services to identify and account for lease components and the associated deferred revenue, and 2) improvements to existing processes and controls related to the determination of the accuracy of capital expenditures made for permanent improvements associated with tower installation services.

During the quarter ended December 31, 2020, management completed its evaluation and testing of the operating effectiveness of the improved controls and deemed them to be designed and operating effectively. As a result, management concluded that the previously disclosed material weakness has been remediated as of December 31, 2020.

(d) Changes in Internal Control Over Financial Reporting

There have not been any changes in the Company's internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the most recent fiscal quarter that have materially affected or are reasonably likely to materially affect the Company's internal control over financial reporting.

(e) Limitations on the Effectiveness of Controls

Because of its inherent limitations, the Company's internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

Item 9B. ***Other Information***

None.

PART III

Item 10. ***Directors and Executive Officers of the Registrant***

The information required to be furnished pursuant to this item will be set forth in the 2021 Proxy Statement and is incorporated herein by reference.

Item 11. ***Executive Compensation***

The information required to be furnished pursuant to this item will be set forth in the 2021 Proxy Statement and is incorporated herein by reference.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management***

The information required to be furnished pursuant to this item will be set forth in the 2021 Proxy Statement and is incorporated herein by reference.

The following table summarizes information with respect to equity compensation plans under which equity securities of the registrant are authorized for issuance as of December 31, 2020:

Plan category[(a)]	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
	(In millions of shares)	*(In dollars per share)*	*(In millions of shares)*
Equity compensation plans approved by security holders	—	$ —	8 [(b)]
Equity compensation plans not approved by security holders	—	—	—
Total	—	$ —	8

(a) See note 11 to the consolidated financial statements for more detailed information regarding the registrant's equity compensation plan.
(b) Of the shares remaining available for future issuance, 2 million shares may be issued pursuant to outstanding RSUs granted under the LTI Plan.

Item 13. ***Certain Relationships and Related Transactions***

The information required to be furnished pursuant to this item will be set forth in the 2021 Proxy Statement and is incorporated herein by reference.

Item 14. ***Principal Accounting Fees and Services***

The information required to be furnished pursuant to this item will be set forth in the 2021 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. ***Exhibits, Financial Statement Schedules***

(a)(1) Financial Statements:

The list of financial statements filed as part of this report is submitted as a separate section, the index to which is located on page 46.

(a)(2) Financial Statement Schedules:

Schedule II—Valuation and Qualifying Accounts for the years ended December 31, 2020, 2019 and 2018, which is located on page 97.

Schedule III—Schedule of Real Estate and Accumulated Depreciation for the years ended December 31, 2020 and 2019, which is located on page 98.

All other schedules are omitted because they are not applicable or because the required information is contained in the financial statements or notes thereto included in this 2020 Form 10-K.

(a)(3) Exhibits:

Exhibit Index

		Incorporated by Reference			
Exhibit Number	**Exhibit Description**	**Form**	**File Number**	**Date of Filing**	**Exhibit Number**
1.1	Form of Sales Agreement, dated April 6, 2018, between Crown Castle International Corp. and each of Merrill Lynch, Pierce, Fenner & Smith Incorporated, Barclays Capital Inc., Citigroup Global Markets Inc., Credit Agricole Securities (USA) Inc., Fifth Third Securities, Inc., Jefferies LLC, J.P. Morgan Securities LLC, Mizuho Securities USA LLC, Morgan Stanley & Co. LLC, MUFG Securities Americas Inc., RBC Capital Markets, LLC, SG Americas Securities, LLC, SMBC Nikko Securities America, Inc., SunTrust Robinson Humphrey, Inc., TD Securities (USA) LLC and Wells Fargo Securities, LLC	8-K	001-16441	April 6, 2018	1.1
2.1	Agreement and Plan of Merger by and between Crown Castle International Corp. and Crown Castle REIT Inc., dated September 19, 2014	8-K	001-16441	September 23, 2014	2.1
2.2	Stock Purchase Agreement, dated as of April 29, 2015, by and among Quanta Services, Inc., Crown Castle International Corp. and CC SCN Fiber LLC	10-Q	001-16441	May 8, 2015	10.5
2.3	Agreement for the Sale and Purchase of the Shares of Crown Castle Australia Holdings Pty Ltd, dated May 14, 2015, by and among Crown Castle International Corp., Crown Castle Operating LLC, The Trust Company (Nominees) Limited, Todd International Investments Limited, Oceania Capital Limited, Birdsong Capital Limited, Baytown Investments Limited, Heritage PTC LLC, David Lloyd CCA Limited, Turri Finance Pty Ltd and Turri Bidco Pty Ltd	10-Q	001-16441	August 7, 2015	10.2
2.4	Agreement and Plan of Merger, dated as of July 18, 2017, by and among Crown Castle International Corp., LTS Group Holdings, LLC, Berkshire Fund VII-A (LTS) Acquisition Partners, Berkshire Fund VIII-A (LTS) Acquisition Partners, LTS Berkshire Fund VII-A Blocker Corporation, LTS Berkshire Fund VIII-A Blocker Corporation, LTS Co-Invest Blocker LLC, LTS Co-Invest Blocker II LLC, LTS Rollover Blocker LLC, LTS BF VII-A Blocker Merger Sub, Inc., LTS BF VIII-A Blocker Merger Sub, Inc., LTS Co-Invest Blocker Merger Sub, Inc., LTS Co-Invest Blocker II Merger Sub, Inc., LTS Rollover Blocker Merger Sub, Inc., LTS Group Holdings Merger Sub, Inc. and BSR LLC, as equityholders' representative	8-K	001-16441	July 19, 2017	2.1

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
3.1	Restated Certificate of Incorporation of Crown Castle International Corp., dated July 20, 2017	8-K	001-16441	July 26, 2017	3.1
3.2	Certificate of Designations of 6.875% Mandatory Convertible Preferred Stock, Series A, of Crown Castle International Corp., filed with the Secretary of State of the State of Delaware and effective July 26, 2017	8-K	001-16441	July 26, 2017	3.2
3.3	Certificate of Elimination of Certificate of Designations of the 6.875% Mandatory Convertible Preferred Stock of Crown Castle International Corp., dated November 5, 2020	8-K	001-16441	November 5, 2020	3.1
3.3	Amended and Restated By-Laws of Crown Castle International Corp. dated February 21, 2019	10-K	001-16441	February 25, 2019	3.3
4.1	Specimen of Common Stock Certificate	8-K	001-16441	December 16, 2014	4.2
4.2	Indenture, dated as of June 1, 2005, by and among JPMorgan Chase Bank, N.A., as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communications Inc., Crown Castle PT Inc., Crown Communication New York, Inc. and Crown Castle International Corp. de Puerto Rico, collectively as Issuers, relating to the Senior Secured Tower Revenue Notes	8-K	001-16441	June 9, 2005	4.1
4.3	Indenture Supplement, dated as of June 30, 2014, by and among The Bank of New York Mellon (as successor to The Bank of New York as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication LLC, Crown Castle PT Inc., Crown Communication New York, Inc., Crown Castle International Corp. de Puerto Rico, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC and Crown Castle MUPA LLC, relating to the Senior Secured Tower Revenue Notes	8-K	001-16441	July 1, 2014	4.1
4.4	Indenture Supplement, dated as of May 15, 2015, by and among The Bank of New York Mellon (as successor to The Bank of New York as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication LLC, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC and Crown Castle MUPA LLC, collectively as Issuers, relating to the Senior Secured Tower Revenue Notes, Series 2015-1	8-K	001-16441	May 21, 2015	4.1
4.5	Indenture Supplement, dated as of May 15, 2015, by and among The Bank of New York Mellon (as successor to The Bank of New York as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication LLC, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC and Crown Castle MUPA LLC, collectively as Issuers, relating to the Senior Secured Tower Revenue Notes, Series 2015-2	8-K	001-16441	May 21, 2015	4.2
4.6	Indenture Supplement, dated as of July 11, 2018, by and among The Bank of New York Mellon (as successor to The Bank of New York as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication LLC, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC and Crown Castle MUPA LLC, collectively as Issuers, relating to the Senior Secured Tower Revenue Notes, Series 2018-1, Class C-2023	8-K	001-16441	July 16, 2018	4.1

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
4.7	Indenture Supplement, dated as of July 11, 2018, by and among The Bank of New York Mellon (as successor to The Bank of New York as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication LLC, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC and Crown Castle MUPA LLC, collectively as Issuers, relating to the Senior Secured Tower Revenue Notes, Series 2018-2, Class C-2028	8-K	001-16441	July 16, 2018	4.2
4.8	Indenture Supplement, dated as of July 11, 2018, by and among The Bank of New York Mellon (as successor to The Bank of New York as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication LLC, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC and Crown Castle MUPA LLC, collectively as Issuers, relating to the Senior Secured Tower Revenue Notes, Series 2018-1, Class R-2028	8-K	001-16441	July 16, 2018	4.3
4.9	Indenture dated July 31, 2009, between Pinnacle Towers Acquisition Holdings LLC, GS Savings Inc., GoldenState Towers, LLC, Pinnacle Towers Acquisition LLC, Tower Ventures III, LLC and TVHT, LLC, as Issuers, Global Signal Holdings III, LLC, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Indenture Trustee, relating to Senior Secured Notes	8-K	001-16441	August 4, 2009	4.1
4.10	Indenture Supplement dated July 31, 2009, between Pinnacle Towers Acquisition Holdings LLC, GS Savings Inc., GoldenState Towers, LLC, Pinnacle Towers Acquisition LLC, Tower Ventures III, LLC and TVHT, LLC, as Issuers, Global Signal Holdings III, LLC, as Guarantor, and The Bank of New York Mellon Trust Company, N.A., as Indenture Trustee, relating to Senior Secured Notes, Series 2009-1, Class A-2	8-K	001-16441	August 4, 2009	4.2
4.11	Indenture dated as of October 15, 2012, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as Trustee, relating to 5.25% Senior Notes due 2023	8-K	001-16441	October 16, 2012	4.1
4.12	First Supplemental Indenture dated as of December 15, 2014, among Crown Castle REIT Inc., Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as Trustee, relating to 5.25% Senior Notes due 2023	8-K	001-16441	December 16, 2014	4.4
4.13	Indenture dated as of December 24, 2012, by and among CC Holdings GS V LLC, Crown Castle GS III Corp., each of the guarantors party thereto and The Bank of New York Mellon Trust Company, N.A., as Trustee, relating to 3.849% Senior Secured Notes due 2023	8-K	001-16441	December 28, 2012	4.1
4.14	Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	001-16441	April 15, 2014	4.1
4.15	Second Supplemental Indenture dated December 15, 2014, between Crown Castle REIT Inc., Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	001-16441	December 16, 2014	4.5
4.16	Third Supplemental Indenture dated December 15, 2014, between Crown Castle REIT Inc., Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	001-16441	December 16, 2014	4.6

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
4.17	Fourth Supplemental Indenture dated February 8, 2016 between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 3.400% Senior Notes due 2021 and 4.450% Senior Notes due 2026	8-K	001-16441	February 8, 2016	4.1
4.18	Fifth Supplemental Indenture dated May 6, 2016, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 3.700% Senior Notes due 2026	8-K	001-16441	May 6, 2016	4.1
4.19	Seventh Supplemental Indenture dated February 2, 2017, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 4.000% Senior Notes due 2027	8-K	001-16441	February 2, 2017	4.1
4.20	Eighth Supplemental Indenture dated May 1, 2017, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 4.750% Senior Notes due 2047	8-K	001-16441	May 1, 2017	4.1
4.21	Ninth Supplemental Indenture dated August 1, 2017, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 3.200% Senior Notes due 2024 and 3.650% Senior Notes due 2027	8-K	001-16441	August 1, 2017	4.1
4.22	Tenth Supplemental Indenture dated January 16, 2018, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated April 15, 2014, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 3.150% Senior Notes due 2023 and 3.800% Senior Notes due 2028	8-K	001-16441	January 17, 2018	4.1
4.23	Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee	8-K	001-16441	February 11, 2019	4.1
4.24	First Supplemental Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 4.300% Senior Notes due 2029 and 5.200% Senior Notes due 2049	8-K	001-16441	February 11, 2019	4.2
4.25	Second Supplemental Indenture dated August 15, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 3.100% Senior Notes due 2029 and 4.000% Senior Notes due 2049	8-K	001-16441	August 15, 2019	4.1

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
4.26	Third Supplemental Indenture dated April 3, 2020, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 3.300% Senior Notes due 2030 and 4.150% Senior Notes due 2050	8-K	011-16441	April 3, 2020	4.1
4.27	Fourth Supplemental Indenture dated June 15, 2020, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 1.350% Senior Notes due 2025, 2.250% Senior Notes due 2031 and 3.250% Senior Notes due 2051	8-K	011-16441	June 15, 2020	4.1
4.28	Fifth Supplemental Indenture, dated February 16, 2021, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, to the Indenture dated February 11, 2019, between Crown Castle International Corp. and The Bank of New York Mellon Trust Company, N.A., as trustee, relating to 1.050% Senior Notes due 2026, 2.100% Senior Notes due 2031 and 2.900% Senior Notes due 2041	8-K	001-16441	February 16, 2021	4.1
4.29	Description of the Company's Common Stock	10-K	001-16441	March 10, 2020	4.29
10.1†	Amended and Restated Severance Agreement between Crown Castle International Corp. and Jay A. Brown, effective as of June 1, 2016	8-K	001-16441	February 24, 2016	10.3
10.2†	Form of Severance Agreement between Crown Castle International Corp. and Philip M. Kelley	8-K	001-16441	July 15, 2008	10.1
10.3†	Form of Severance Agreement between Crown Castle International Corp. and James D. Young	8-K	001-16441	March 2, 2005	10.4
10.4†	Form of First Amendment to Severance Agreement between Crown Castle International Corp. and certain senior officers, including James D. Young	8-K	001-16441	December 7, 2007	10.2
10.5†	Form of Amendment to Severance Agreement between Crown Castle International Corp. and certain senior officers, including James D. Young and Philip M. Kelley, effective April 6, 2009	8-K	001-16441	April 8, 2009	10.2
10.6†	Form of Amendment to Severance Agreement between Crown Castle International Corp. and certain executive officers, including James D. Young and Philip M. Kelley	8-K	001-16441	February 24, 2016	10.5
10.7†	Form of Severance Agreement between Crown Castle International Corp. and each of Kenneth J. Simon, Daniel K. Schlanger, Michael J. Kavanagh, Robert C. Ackerman and Christopher D. Levendos	10-K	001-16441	February 22, 2016	10.47
10.8†	Crown Castle International Corp. 2013 Long-Term Incentive Plan	DEF 14A	001-16441	April 8, 2013	App. A
10.9†	First Amendment to Crown Castle International Corp. 2013 Long-Term Incentive Plan, as amended	10-Q	001-16441	August 4, 2016	10.1
10.10†	Form of 2013 Long-Term Incentive Plan Restricted Stock Units Agreement (effective as of February 18, 2016)	8-K	001-16441	February 24, 2016	10.2
10.11†	Form of 2013 Long-Term Incentive Plan Restricted Stock Units Agreement (effective as of August 3, 2017)	10-Q	001-16441	August 7, 2017	10.1
10.12†	Form of 2013 Long-Term Incentive Plan Restricted Stock Units Agreement (effective as of February 21, 2018)	8-K	001-16441	February 27, 2018	10.2
10.13†	Amended and Restated Crown Castle International Corp. Extended Service Separation Program	10-Q	001-16441	August 6, 2018	10.2
10.14†	Crown Castle International Corp. 2020 Executive Management Team Annual Incentive Plan	8-K	001-16441	February 21, 2020	10.1

		Incorporated by Reference			
Exhibit Number	**Exhibit Description**	**Form**	**File Number**	**Date of Filing**	**Exhibit Number**
10.15	Global Lease Agreement dated March 31, 1999 between Crown Atlantic Company, LLC and Cellco Partnership	8-K	000-24737	April 12, 1999	99.6
10.16	Agreement to Sublease dated June 1, 1999 by and among BellSouth Mobility Inc., BellSouth Telecommunications Inc., the Transferring Entities (as defined therein), Crown Castle International Corp. and Crown Castle South Inc.	8-K	000-24737	June 9, 1999	99.1
10.17	Sublease dated June 1, 1999 by and among BellSouth Mobility Inc., Certain BMI Affiliates, Crown Castle International Corp. and Crown Castle South Inc.	8-K	000-24737	June 9, 1999	99.3
10.18	Agreement to Sublease dated August 1, 1999 by and among BellSouth Personal Communications, Inc., BellSouth Carolinas PCS, L.P., Crown Castle International Corp. and Crown Castle South Inc.	10-K	000-24737	March 30, 2000	2.7
10.19	Sublease dated August 1, 1999 by and among BellSouth Personal Communications, Inc., BellSouth Carolinas PCS, L.P., Crown Castle International Corp. and Crown Castle South Inc.	10-K	000-24737	March 30, 2000	2.8
10.20	Management Agreement, dated as of June 8, 2005, by and among Crown Castle USA Inc., as Manager, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication Inc., Crown Castle PT Inc., Crown Communication New York, Inc., Crown Castle International Corp. de Puerto Rico, Crown Castle GT Holding Sub LLC and Crown Castle Atlantic LLC, collectively as Owners	8-K	001-16441	June 9, 2005	10.1
10.21	Series 2005-1 Management Agreement Amendment, dated September 26, 2006, by and among Crown Castle USA Inc., as Manager, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication Inc., Crown Castle PT Inc., Crown Communication New York, Inc., Crown Castle International Corp. de Puerto Rico, Crown Castle GT Holding Sub LLC and Crown Castle Atlantic LLC, collectively, as Owners	8-K	001-16441	September 29, 2006	10.2
10.22	Joinder and Amendment to Management Agreement, dated as of November 29, 2006, by and among Crown Castle USA Inc., as Manager, and Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication Inc., Crown Castle PT Inc., Crown Communication New York, Inc., Crown Castle International Corp. de Puerto Rico, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC, Crown Castle MUPA LLC, Crown Castle GT Holding Sub LLC and Crown Castle Atlantic LLC, collectively as Owners	8-K	001-16441	December 5, 2006	10.1
10.23	Cash Management Agreement, dated as of June 8, 2005, by and among Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication Inc., Crown Castle PT Inc., Crown Communication New York, Inc. and Crown Castle International Corp. de Puerto Rico, as Issuers, JPMorgan Chase Bank, N.A., as Indenture Trustee, Crown Castle USA Inc., as Manager, Crown Castle GT Holding Sub LLC, as Member of Crown Castle GT Company LLC, and Crown Castle Atlantic LLC, as Member of Crown Atlantic Company LLC	8-K	001-16441	June 9, 2005	10.2
10.24	Joinder to Cash Management Agreement, dated as of November 29, 2006, by and among Crown Castle Towers LLC, Crown Castle South LLC, Crown Communication Inc., Crown Castle PT Inc., Crown Communication New York, Inc. and Crown Castle International Corp. de Puerto Rico, Crown Castle Towers 05 LLC, Crown Castle PR LLC, Crown Castle MU LLC, Crown Castle MUPA LLC, as Issuers, The Bank of New York (as successor to JPMorgan Chase Bank, N.A.), as Indenture Trustee, Crown Castle USA Inc., as Manager, Crown Castle GT Holding Sub LLC, as Member of Crown Castle GT Company LLC, and Crown Castle Atlantic LLC, as Member of Crown Atlantic Company LLC	8-K	001-16441	December 5, 2006	10.2

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
10.25	Servicing Agreement, dated as of June 8, 2005, by and among Midland Loan Services, Inc., as Servicer, and JPMorgan Chase Bank, N.A., as Indenture Trustee	8-K	001-16441	June 9, 2005	10.3
10.26	Master Lease and Sublease, dated as of May 26, 2005, by and among STC One LLC, as lessor, Sprint Telephony PCS L.P., as Sprint Collocator, Global Signal Acquisitions II LLC, as lessee, and Global Signal Inc.	8-K	001-32168	May 27, 2005	10.1
10.27	Master Lease and Sublease, dated as of May 26, 2005, by and among STC Two LLC, as lessor, SprintCom, Inc., as Sprint Collocator, Global Signal Acquisitions II LLC, as lessee, and Global Signal Inc.	8-K	001-32168	May 27, 2005	10.2
10.28	Master Lease and Sublease, dated as of May 26, 2005, by and among STC Three LLC, as lessor, American PCS Communications, LLC, as Sprint Collocator, Global Signal Acquisitions II LLC, as lessee, and Global Signal Inc.	8-K	001-32168	May 27, 2005	10.3
10.29	Master Lease and Sublease, dated as of May 26, 2005, by and among STC Four LLC, as lessor, PhillieCo, L.P., as Sprint Collocator, Global Signal Acquisitions II LLC, as lessee, and Global Signal Inc.	8-K	001-32168	May 27, 2005	10.4
10.30	Master Lease and Sublease, dated as of May 26, 2005, by and among STC Five LLC, as lessor, Sprint Spectrum L.P., as Sprint Collocator, Global Signal Acquisitions II LLC, as lessee, and Global Signal Inc.	8-K	001-32168	May 27, 2005	10.5
10.31	Master Lease and Sublease, dated as of May 26, 2005, by and among STC Six Company, Sprint Spectrum L.P., as Sprint Collocator, Global Signal Acquisitions II LLC, as lessee, and Global Signal Inc.	8-K	001-32168	May 27, 2005	10.6
10.32	Management Agreement, dated as of July 31, 2009, by and among Crown Castle USA Inc., as Manager, and Pinnacle Towers Acquisition Holdings LLC, and the direct and indirect subsidiaries of Pinnacle Towers Acquisition Holdings LLC, collectively, as Owners	8-K	001-16441	August 4, 2009	10.1
10.33	Cash Management Agreement, dated as of July 31, 2009, by and among Pinnacle Towers Acquisition Holdings LLC, Pinnacle Towers Acquisition LLC, GS Savings Inc., GoldenState Towers, LLC, Tower Ventures III, LLC and TVHT, LLC, as Issuers, The Bank of New York Mellon Trust Company, N.A., as Indenture Trustee, and Crown Castle USA Inc., as Manager	8-K	001-16441	August 4, 2009	10.2
10.34	Servicing Agreement, dated as of July 31, 2009, by and among Midland Loan Services, Inc., as Servicer, and The Bank of New York Mellon Trust Company, N.A., as Indenture Trustee	8-K	001-16441	August 4, 2009	10.3
10.35	Management Agreement, dated as of December 24, 2012, by and among Crown Castle USA Inc., as Manager, and CC Holdings GS V LLC, Global Signal Acquisitions LLC, Global Signal Acquisitions II LLC, Pinnacle Towers LLC and the direct and indirect subsidiaries of Pinnacle Towers LLC, collectively, as Owners	8-K	001-16441	December 28, 2012	10.1
10.36	Master Prepaid Lease, dated as of November 30, 2012, by and among T-Mobile USA Tower LLC, T-Mobile West Tower LLC, T-Mobile USA, Inc. and CCTMO LLC	10-K	001-16441	February 12, 2013	10.40
10.37	MPL Site Master Lease Agreement, dated as of November 30, 2012, by and among T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., VoiceStream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, SunCom Wireless Operating Company, L.L.C., T-Mobile USA, Inc. and CCTMO LLC	10-K	001-16441	February 12, 2013	10.41

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
10.38	Sale Site Master Lease Agreement, dated as of November 30, 2012, by and among T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., VoiceStream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, SunCom Wireless Operating Company, L.L.C., T-Mobile USA, Inc., T3 Tower 1 LLC and T3 Tower 2 LLC	10-K	001-16441	February 12, 2013	10.42
10.39	Management Agreement, dated as of November 30, 2012, by and among SunCom Wireless Operating Company, L.L.C., Cook Inlet/VS GSM IV PCS Holdings, LLC, T-Mobile Central LLC, T-Mobile South LLC, Powertel/Memphis, Inc., VoiceStream Pittsburgh, L.P., T-Mobile West LLC, T-Mobile Northeast LLC, Wireless Alliance, LLC, SunCom Wireless Property Company, L.L.C., T-Mobile USA Tower LLC, T-Mobile West Tower LLC, CCTMO LLC, T3 Tower 1 LLC and T3 Tower 2 LLC	10-K	001-16441	February 12, 2013	10.43
10.40	Master Agreement dated as of October 18, 2013, among AT&T Inc. and Crown Castle International Corp.	8-K	001-16441	October 21, 2013	10.1
10.41	Master Prepaid Lease, dated as of December 16, 2013, by and among CCATT LLC, AT&T Mobility LLC and the AT&T Lessors party thereto	10-K	001-16441	February 24, 2014	10.49
10.42	MPL Site Master Lease Agreement, dated as of December 16, 2013, by and among CCATT LLC, AT&T Mobility LLC and the AT&T Collocators party thereto	10-K	001-16441	February 24, 2014	10.50
10.43	Sale Site Master Lease Agreement, dated as of December 16, 2013, by and among AT&T Mobility LLC, the AT&T Collocators party thereto and the Tower Operators party thereto	10-K	001-16441	February 24, 2014	10.51
10.44	Management Agreement, dated as of December 16, 2013, by and among CCATT LLC, the Sale Site Subsidiaries party thereto, the AT&T Newcos party thereto and the AT&T Contributors party thereto	10-K	001-16441	February 24, 2014	10.52
10.45	Credit Agreement dated as of January 21, 2016, among Crown Castle International Corp., the lenders and issuing banks party thereto and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-16441	January 22, 2016	10.1
10.46	Amendment No. 1 dated as of February 13, 2017, among Crown Castle International Corp., the lenders and issuing banks party thereto, and JPMorgan Chase Bank, N.A., as administrative agent, to the Credit Agreement dated as of January 21, 2016, by and among Crown Castle International Corp., the lenders and issuing banks from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent.	8-K	001-16441	February 13, 2017	10.1
10.47	Amendment No. 2 dated as of August 29, 2017, among Crown Castle International Corp., the lenders and issuing banks party thereto, and JPMorgan Chase Bank, N.A., as administrative agent, to the Credit Agreement dated as of January 21, 2016, by and among Crown Castle International Corp., the lenders and issuing banks from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-16441	August 29, 2017	10.1
10.48	Amendment No. 3 dated as of June 14, 2018, among Crown Castle International Corp., the lenders and issuing banks party thereto, and JPMorgan Chase Bank, N.A., as administrative agent, to the Credit Agreement dated as of January 21, 2016, by and among Crown Castle International Corp., the lenders and issuing banks from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-16441	June 14, 2018	10.1
10.49	Amendment No. 4 dated as of March 20, 2019, among Crown Castle International Corp., the lenders and issuing banks party thereto, and JPMorgan Chase Bank, N.A., as administrative agent, to the Credit Agreement dated as of January 21, 2016, by and among Crown Castle International Corp., the lenders and issuing banks from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-16441	March 20, 2019	10.1

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File Number	Date of Filing	Exhibit Number
10.50	Amendment No. 5 dated as of June 21, 2019, among Crown Castle International Corp., the lenders and issuing banks party thereto, and JPMorgan Chase Bank, N.A., as administrative agent, to the Credit Agreement dated as of January 21, 2016, by and among Crown Castle International Corp., the lenders and issuing banks from time to time party thereto and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-16441	June 21, 2019	10.1
10.51	Form of Dealer Agreement among Crown Castle International Corp. and the Dealer party thereto	8-K	001-16441	April 8, 2019	10.1
21*	Schedule of Subsidiaries of Crown Castle International Corp.	—	—	—	—
23.1*	Consent of PricewaterhouseCoopers LLP	—	—	—	—
24*	Power of Attorney (included on signature page of this annual report)	—	—	—	—
31.1*	Certification of Chief Executive Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002	—	—	—	—
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of Sarbanes-Oxley Act of 2002	—	—	—	—
32.1**	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of Sarbanes-Oxley Act of 2002	—	—	—	—
101*	The following financial statements from Crown Castle International Corp.'s Annual Report on Form 10-K for the year ended December 31, 2020, formatted in Inline XBRL: (i) Consolidated Balance Sheet, (ii) Consolidated Statement of Operations and Comprehensive Income (Loss), (iii) Consolidated Statement of Cash Flows, (iv) Consolidated Statement of Equity, and (v) Notes to Consolidated Financial Statements, tagged as blocks of text and including detailed tags	—	—	—	—
104*	The cover page from Crown Castle International Corp.'s Annual Report on Form 10-K for the year ended December 31, 2020, formatted in Inline XBRL	—	—	—	—

* Filed herewith.

** Furnished herewith.

† Indicates management contract or compensatory plan or arrangement.

Item 16. ***Form 10-K Summary***

N/A

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS

YEARS ENDED DECEMBER 31, 2020, 2019 AND 2018
(In millions of dollars)

		Additions	Deductions				
	Balance at Beginning of Year	Charged to Operations	Credited to Operations	Written Off	Effect of Exchange Rate Changes	Other Adjustments	Balance at End of Year
Allowance for Doubtful Accounts Receivable:							
2020	$ 18	$ 4	$ —	$ (5)	$ —	$ —	$ 17
2019	$ 14	$ 7	$ —	$ (3)	$ —	$ —	$ 18
2018	$ 14	$ 4	$ —	$ (4)	$ —	$ —	$ 14

		Additions		Deductions			
	Balance at Beginning of Year	Charged to Operations	Charged to Additional Paid-in Capital and Other Comprehensive Income	Credited to Operations	Credited to Additional Paid-in Capital and Other Comprehensive Income	Other Adjustments	Balance at End of Year
Deferred Tax Valuation Allowance:							
2020	$ —	$ —	$ —	$ —	$ —	$ —	$ —
2019	$ 1	$ —	$ —	$ (1)	$ —	$ —	$ —
2018	$ 1	$ —	$ —	$ —	$ —	$ —	$ 1

CROWN CASTLE INTERNATIONAL CORP. AND SUBSIDIARIES

SCHEDULE III—SCHEDULE OF REAL ESTATE AND ACCUMULATED DEPRECIATION

YEARS ENDED DECEMBER 31, 2020 AND 2019
(In millions of dollars)

Description	Encumbrances	Initial Cost to Company	Cost Capitalized Subsequent to Acquisition	Gross Amount Carried at Close of Current Period	Accumulated Depreciation at Close of Current Period	Date of Construction	Date Acquired	Life on Which Depreciation in Latest Income Statement is Computed
Communications infrastructure[(a)]	$ 3,295 [(b)]	[(c)]	[(c)]	$ 25,441	$ (10,478)	Various	Various	Up to 20 years

(a) Includes approximately 40,000 towers and 80,000 route miles of fiber. No single asset exceeds 5% of the aggregate gross amounts at which the assets were carried at the close of the period set forth in the table above.
(b) Encumbrances are reported at face value, without contemplating the effect of deferred financing costs, discounts or premiums. Certain of the Company's debt is secured by (1) a security interest in substantially all of the applicable issuers' assignable personal property, (2) a pledge of the equity interests in each applicable issuer and (3) a security interest in the applicable issuers' leases with tenants to lease tower space (space licenses).
(c) The Company has omitted this information, as it would be impracticable to compile such information on an asset-by-asset basis.

	2020	2019
oss amount at beginning	$ 23,854	$ 21,840
ditions during period:		
Acquisitions through foreclosure	—	—
Other acquisitions[(a)]	68	4
Communications infrastructure construction and improvements	1,438	1,878
Purchase of land interests	64	53
Sustaining capital expenditures	66	84
Other[(b)]	47	101
al additions	1,683	2,120
ductions during period:		
Cost of real estate sold or disposed	(96)	(45)
Other	—	(61)
al deductions	(96)	(106)
ance at end	$ 25,441	$ 23,854

(a) Includes acquisitions of communications infrastructure.
(b) Predominately relates to the purchase of property and equipment under finance leases and installment land purchases.

	2020	2019
oss amount of accumulated depreciation at beginning	$ (9,382)	$ (8,338)
ditions during period:		
Depreciation	(1,114)	(1,087)
al additions	(1,114)	(1,087)
ductions during period:		
Amount for assets sold or disposed	18	24
Other	—	19
al deductions	18	43
ance at end	$ (10,478)	$ (9,382)

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this 2020 Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on this 22nd day of February, 2021.

CROWN CASTLE INTERNATIONAL CORP.

By: /s/ DANIEL K. SCHLANGER

Daniel K. Schlanger
Executive Vice President and Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jay A. Brown and Kenneth J. Simon and each of them, as his or her true and lawful attorneys-in-fact and agents with full power of substitution and re-substitution for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all documents relating to the 2020 Form 10-K, including any and all amendments and supplements thereto, for the year ended December 31, 2020 and to file the same with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully as to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, this 2020 Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities indicated below on this 22nd day of February, 2021.

Name	Title
/s/ JAY A. BROWN **Jay A. Brown**	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ DANIEL K. SCHLANGER **Daniel K. Schlanger**	Executive Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ ROBERT S. COLLINS **Robert S. Collins**	Vice President and Controller (Principal Accounting Officer)
/s/ J. LANDIS MARTIN **J. Landis Martin**	Chairman of the Board of Directors
/s/ P. ROBERT BARTOLO **P. Robert Bartolo**	Director
/s/ CINDY CHRISTY **Cindy Christy**	Director
/s/ ARI Q. FITZGERALD **Ari Q. Fitzgerald**	Director

/s/ ROBERT E. GARRISON II **Robert E. Garrison II**	Director
/s/ ANDREA J. GOLDSMITH **Andrea J. Goldsmith**	Director
/s/ LEE W. HOGAN **Lee W. Hogan**	Director
/s/ EDWARD C. HUTCHESON, JR. **Edward C. Hutcheson, Jr.**	Director
/s/ TAMMY K. JONES **Tammy K. Jones**	Director
/s/ ROBERT F. MCKENZIE **Robert F. McKenzie**	Director
/s/ ANTHONY J. MELONE **Anthony J. Melone**	Director
/s/ W. BENJAMIN MORELAND **W. Benjamin Moreland**	Director
/s/ KEVIN A. STEPHENS **Kevin A. Stephens**	Director
/s/ MATTHEW THORNTON III **Matthew Thornton III**	Director

EXHIBIT 21

CROWN CASTLE INTERNATIONAL CORP. SUBSIDIARIES

Subsidiary	Jurisdiction of Incorporation
CC Holdings GS V LLC	Delaware
CC Towers Guarantor LLC	Delaware
CC Towers Holding LLC	Delaware
CCATT LLC	Delaware
CCATT Holdings LLC	Delaware
CCGS Holdings Corp.	Delaware
CCTM Holdings LLC	Delaware
CCTMO LLC	Delaware
Crown Atlantic Company LLC	Delaware
Crown Castle Atlantic LLC	Delaware
Crown Castle CA Corp.	Delaware
Crown Castle Fiber Holdings Corp.	Delaware
Crown Castle Fiber LLC	New York
Crown Castle GT Company LLC	Delaware
Crown Castle GT Corp.	Delaware
Crown Castle GT Holding Sub LLC	Delaware
Crown Castle Investment II Corp.	Delaware
Crown Castle Operating Company	Delaware
Crown Castle South LLC	Delaware
Crown Castle Towers 06-2 LLC	Delaware
Crown Castle Towers 09 LLC	Delaware
Crown Castle Towers LLC	Delaware
Crown Castle USA Inc.	Pennsylvania
Crown Communication LLC	Delaware
Global Signal Acquisitions LLC	Delaware
Global Signal Acquisitions II LLC	Delaware
Global Signal Acquisitions III LLC	Delaware
Global Signal Acquisitions IV LLC	Delaware
Global Signal Holdings III LLC	Delaware
Global Signal Operating Partnership, L.P.	Delaware
Pinnacle Towers Acquisition LLC	Delaware
Pinnacle Towers Acquisition Holdings LLC	Delaware
Pinnacle Towers LLC	Delaware

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 ASR (No. 333-223921) and Form S-8 (No. 333-212383, 333-181715 and 333-188801) of Crown Castle International Corp. of our report dated February 22, 2021 relating to the financial statements, financial statement schedules and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania
February 22, 2021

Exhibit 31.1

Certification
For the Year Ended December 31, 2020

I, Jay A. Brown, certify that:

1. I have reviewed this annual report on Form 10-K of Crown Castle International Corp. (“registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2021

/s/ Jay A. Brown

Jay A. Brown
President and Chief Executive Officer

Exhibit 31.2

Certification
For the Year Ended December 31, 2020

I, Daniel K. Schlanger, certify that:

1. I have reviewed this annual report on Form 10-K of Crown Castle International Corp. (“registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2021

/s/ Daniel K. Schlanger
Daniel K. Schlanger
Executive Vice President and Chief Financial Officer

Exhibit 32.1

Certification Pursuant to
18 U.S.C. Section 1350
As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report on Form 10-K of Crown Castle International Corp., a Delaware Corporation ("Company"), for the period ending December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof ("Report"), each of the undersigned officers of the Company hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of such officer's knowledge:

1) the Report complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of December 31, 2020 (the last date of the period covered by the Report).

/s/ Jay A. Brown
Jay A. Brown
President and Chief Executive Officer
February 22, 2021

/s/ Daniel K. Schlanger
Daniel K. Schlanger
Executive Vice President and Chief Financial Officer
February 22, 2021