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UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 11-K
ANNUAL REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2005
or
TRANSITION REPORT PURSUANT TO SECTION 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number 001-16441
CROWN CASTLE INTERNATIONAL CORP. 401(K) PLAN (Full title of the Plan and address of the Plan, if different from that of the issuer named below)

CROWN CASTLE INTERNATIONAL CORP.

510 Bering Drive, Suite 600 Houston, Texas 77057-1457

(Name of issuer of the securities held pursuant to the plan and the address of principal executive office)

CROWN CASTLE INTERNATIONAL CORP. 401(K) PLAN

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EXHIBIT	

 $23.1\ Consent\ of\ Independent\ Registered\ Public\ Accounting\ Firm$

Report of Independent Registered Public Accounting Firm

To the Plan Administrator for the Crown Castle International Corp. 401(k) Plan:

We have audited the accompanying statements of net assets available for benefits of the Crown Castle International Corp. 401(k) Plan as of December 31, 2005 and 2004, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2005 and 2004 and the changes in net assets available for benefits for the years then ended, in conformity with U.S. generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The supplemental schedules, *Schedule H*, *Line-4i – Schedule of Assets (Held at End of Year)* as of December 31, 2005 and *Schedule of Reportable Transactions* for the year ended December 31, 2005, are presented for purposes of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ KPMG LLP Pittsburgh, Pennsylvania June 19, 2006

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Statements of Net Assets Available for Benefits

December 31, 2005 and 2004

	2005	2004		
Assets				
Investments, at fair value (note 3):				
Registered investment companies	\$ 29,316,709	\$ 23,643,267		
Common collective fund	2,268,014	1,639,987		
Unitized trust fund	4,285,590	2,984,941		
Participant loans	482,005	438,224		
Total investments	36,352,318	28,706,419		
Receivables:				
Employer contributions	886,753	1,165,880		
Other receivables	2,704	1,384		
Total receivables	889,457	1,167,264		
Net assets available for benefits	\$ 37,241,775	\$ 29,873,683		

See accompanying notes to financial statements.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Statements of Changes in Net Assets Available for Benefits

Years ended December 31, 2005 and 2004

	2005	2004	
Additions to net assets attributed to:			
Investment income:			
Net realized gain and unrealized appreciation on investments (note 3)	\$ 2,629,275	\$ 2,659,051	
Dividends and interest	1,140,998	633,010	
Total investment income	3,770,273	3,292,061	
Contributions:			
Employer, net of forfeitures	2,104,734	2,359,668	
Participant	3,727,960	3,643,118	
Rollovers	621,762	485,803	
Total contributions	6,454,456	6,488,589	
Total additions	10,224,729	9,780,650	
Deductions from net assets attributed to:			
Benefits paid to participants	2,781,419	1,865,792	
Administrative expenses	75,218	96,535	
Total deductions	2,856,637	1,962,327	
Net increase	7,368,092	7,818,323	
Net assets available for benefits:			
Beginning of year	29,873,683	22,055,360	
End of year	\$ 37,241,775	\$ 29,873,683	

See accompanying notes to financial statements.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Notes to Financial Statements

December 31, 2005 and 2004

(1) Plan Description

The following description of the Crown Castle International Corp. 401(k) Plan (the Plan) provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan's provisions.

(a) General

The Plan is a defined contribution plan available to eligible employees of Crown Castle International Corp. (the Company). The Charles Schwab Trust Company is the trustee of the Plan, and Schwab Retirement Plan Services, Inc. serves as custodian and recordkeeper. The Plan was established on May 1, 1999. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA) and is administered by a plan administrator appointed by the Company.

(b) Contributions

Employees are eligible for participation in the Plan once they are twenty-one years of age and have completed three months of service with the Company. Employees can participate in the Plan on the first day of the month coinciding with or following three months of service. Participants may contribute any percentage that allows the participant to reach the section 401(k) pre-tax contribution limit of \$14,000 for participants under age 50. Participants who are age 50 and older can contribute an additional \$4,000 for a total of \$18,000. These salary reduction contributions are fully vested at all times. Participants may also contribute amounts representing distributions from other qualified plans. Participants direct the investment of their contributions into various investment options offered by the Plan. As of December 31, 2004, the Plan offers thirteen mutual funds, one common collective fund, and Crown Castle International Corp. Common Stock Unitized Trust Fund. The Company matches and contributes 100% of the first 3% of compensation that a participant contributes to the Plan. Additional discretionary amounts may be contributed at the option of the Company's board of directors. Contributions are subject to certain limitations. The Company's discretionary contributions, net of forfeitures, were \$833,491 and \$1,089,607 for the years ended December 31, 2005 and 2004, respectively. The Company applied forfeitures to fund the discretionary contributions in the amount of \$151,060 and \$-0- for the years ended December 31, 2005 and 2004, respectively.

(c) Participant Accounts

Participant accounts are maintained at fair market value. Each participant's account is credited with the participant's contribution and allocations of (a) the Company's matching contribution and (b) Plan earnings and losses. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

(d) Vesting

Participants are vested immediately in their contributions plus actual earnings thereon. Vesting in the Company's contribution portion of their accounts is based on years of service. A participant is 33% vested after one year of credited service, 67% vested after two years of credited service, and 100% vested after three years of credited service.

(e) Participant Loans

Participants are permitted to borrow from their fund accounts a minimum of \$1,000 up to a maximum of 50% of vested balance or \$50,000, whichever is less. The loans are secured by the balance in the participant's account and bear interest at a fixed rate of prime plus 1%. All loans are subject to specific repayment terms and must be repaid within a five-year period. Each participant is granted one loan at a time.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Notes to Financial Statements (Continued)

December 31, 2005 and 2004

(f) Payment of Benefits

Participants are permitted to withdraw any portion of their vested account balance due to death, permanent disability, retirement, attainment of age 59 ½, in the event of financial hardship or termination of service. The participant may elect to receive a lump-sum payment, subject to federal income tax withholdings, or rollover the vested account balance to another qualified plan. These withdrawals, prior to retirement, may result in certain suspensions of future participation in the plan.

(g) Forfeitures

Company contributions and earnings thereon that have not become vested, and have been forfeited by the withdrawal of participants' savings in accordance with the applicable provisions of the Plan, are applied against administrative expenses of the Plan and may be applied to reduce the Company's contributions to the Plan. Amounts forfeited were \$43,040 and \$116,500 during the years ended December 31, 2005 and 2004, respectively. Forfeited amounts of \$67,803 and \$96,535 were applied against administrative expenses for the years ended December 31, 2005 and 2004, respectively. Forfeited amounts of \$151,060 and \$-0- were applied against the Company's discretionary contributions to the plan for the years ended December 31, 2005 and 2004, respectively. The forfeited amounts applied as reductions to the Company's discretionary contributions were allocated to the employee's account when the related discretionary contributions were paid. The forfeited non-vested accounts that were unallocated to participants totaled \$219,285 and \$234,225 as of December 31, 2005 and 2004, respectively.

(h) Termination of Plan

In the event of termination of the Plan, the plan administrator will continue to function during such period as is necessary to make remaining normal distributions and to administer and distribute the residual interests of the participants. Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants become 100% vested in their accounts. Any unallocated assets of the Plan shall be allocated to participant accounts and distributed in such a manner as the Company may determine.

(i) Significant Plan Amendments

Effective May 26, 2005, the Plan was amended to mandate distributions in a single lump sum to an Individual Retirement Account made available through Charles Schwab & Company, Inc to any participant who has terminated employment and whose vested account balance is between \$1,000 and \$5,000 at the time of termination.

Effective May 26, 2005, the Plan was amended to provide for employee deferral percentage changes on the first of each month rather than each quarter.

Effective April 1, 2006, the Plan was amended to automatically enroll new employees in the Plan after three months of service at a deferral rate of 3% of their compensation.

(2) Summary of Significant Accounting Policies

(a) Basis of Financial Statements

The accompanying financial statements have been prepared on the accrual basis. Amounts payable to participants terminating participation in the Plan are included as a component of net assets available for Plan Benefits. The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the amounts reported in the financial statements and notes thereto. Actual results could differ from those estimates.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Notes to Financial Statements (Continued)

December 31, 2005 and 2004

(b) Investment Income

Interest income from investments is recorded as earned on an accrual basis. Dividend income is recorded on the ex-dividend date.

(c) Investments

Investments in the Crown Castle International Corp. Stock Unitized Trust Fund are valued based on the current market value of the underlying assets of the fund. These investments include cash equivalents as well as shares of the common stock of Crown Castle International Corp. which, along with investments in registered investment companies, are valued at their last reported sales price on the last business day of the Plan year. Investments in collective trust funds are valued at the net asset value of the respective funds on the last day of the Plan year. Loans to participants are stated at cost which approximates fair value.

Investment transactions are accounted for on a trade-date basis.

In accordance with the policy of stating investments at fair value, changes in unrealized appreciation or depreciation are reflected in the statements of changes in net assets available for plan benefits.

(d) Contributions

Participant contributions are recorded on a bi-weekly basis as they are withheld from the participant's wages.

(e) Distributions to Participants

Distributions to participants are recorded when paid by the Plan.

(f) Expenses

Administrative expenses are recorded as paid for by the Plan.

(3) Investment Programs

Schwab Retirement Plan Services, Inc. acted as custodian of the Plan assets as of December 31, 2005. The funds listed below were the investment options for salary reduction contributions as of December 31, 2005. Any of these funds may be invested in short-term debt obligations of any nature or may hold cash pending investment or distribution.

- · Columbia Acorn Z Fund
- Goldman Sachs Government Income Fund
- Goldman Sachs Mid Cap Value A Fund
- · Growth Fund of America
- JPMorgan Core Bond Select
- · Julius Baer International Equity A Fund
- Mainstay Small Cap Opportunity
- Phoenix-Duff Real Estate Fund

- Schwab 1000 Index Fund
- Schwab MarketTrack Balanced Portfolio
- Schwab MarketTrack Conservative Portfolio
- Schwab MarketTrack Growth Portfolio
- Schwab Stable Value Fund
- · Van Kampen Growth & Income A Fund
- Crown Castle International Corp. Stock Unitized Trust Fund

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Notes to Financial Statements (Continued)

December 31, 2005 and 2004

The following are investments that represent 5% or more of the Plan's assets:

	Decen	December 31,	
	2005	2004	
REGISTERED INVESTMENT COMPANIES: (valued at fair value)			
Ariel Appreciation Fund	\$ —	\$ 2,528,401	
Columbia Acom Z	2,810,876	1,806,525	
Goldman Sachs Mid Cap Value A Fund	2,798,975	_	
Growth Fund of America	6,717,701	_	
Jensen J Fund	_	6,267,800	
Julius Baer International Equity	4,861,591	3,113,593	
Schwab 1000 Index Fund	3,839,248	3,570,460	
Van Kampen Growth & Income A Fund	2,362,696	1,715,140	
COMMON COLLECTIVE FUND: (valued at net asset value)			
Schwab Stable Value Fund	\$ 2,268,014	\$ 1,639,987	
COMMON STOCK UNITIZED TRUST FUND: (valued at fair value of underlying assets)			
Crown Castle International Corp. Stock Fund Unitized Trust Fund	\$ 4,285,590	\$ 2,984,941	

For the years ended December 31, 2005 and 2004, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in value by \$2,629,275 and \$2,659,051, respectively, as follows:

	F	For the Years Ended December 31,		
		2005		2004
Registered investment companies and common collective funds	\$	776,908	\$	1,707,239
Common stock		1,852,367		951,812
	\$	2,629,275	\$	2,659,051

(4) Federal Income Taxes

The Plan received a favorable determination letter from the Internal Revenue Service dated October 29, 2004, which stated that the Plan and related trust are designed in accordance with the applicable sections of the Internal Revenue Code (IRC). The Plan has been amended since receiving the determination letter. However, the plan administrator believes that the Plan is designed and currently being operated in compliance with the applicable provisions of the IRC. Accordingly, the accompanying financial statements do not include a provision for federal income taxes.

(5) Party-In-Interest Transactions

Certain Plan investments are funds managed by The Charles Schwab Trust Company. The Charles Schwab Trust Company was the trustee of the Plan, and Schwab Retirement Plan Services, Inc. served as custodian and recordkeeper, and therefore, these transactions qualify as a party-in-interest.

The Crown Castle International Corp. Stock Unitized Trust Fund holds 154,225 shares of Crown Castle International Corp. common stock as of December 31, 2005 and therefore, qualify as a party-in-interest.

Participants have loans from their fund accounts outstanding in the amount \$482,005 as of December 31, 2005.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

Notes to Financial Statements (Continued)

December 31, 2005 and 2004

(6) Risk and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits.

(7) Subsequent Events

On January 10, 2006, the Plan eliminated the investment option for the Schwab MarketTrack Balanced Portfolio, Schwab MarketTrack Conservative Portfolio and Schwab MarketTrack Growth Portfolio. On January 10, 2006, the Plan added the investment option for the Schwab Managed Retirement Trust 2010, Schwab Managed Retirement Trust 2020, Schwab Managed Retirement Trust 2030, Schwab Managed Retirement Trust 2040 and the Schwab Managed Retirement Trust Income. In addition, the Plan added an investment option for the Schwab Personal Choice Retirement Account. The Schwab Personal Choice Retirement Account is a self directed brokerage account made available through Charles Schwab & Company, Inc. that offers a wide array of mutual funds and fund families and the option to invest in individual stocks and bonds.

Certain amendments to Plan became effective after December 31, 2005. See note 1.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

EIN: 76-0470458 Plan Number: 001

Schedule H, Line 4i – Schedule of Assets (Held at End of Year)

December 31, 2005

Identity of issuer, borrower, lessor, or similar party	Description of investment	Current value
REGISTERED INVESTMENT COMPANIES:		
American Funds	Growth Fund of America	\$ 6,717,701
Columbia Wagner Asset Management	Columbia Acorn Z Fund	2,810,876
Goldman Sachs Trust	Goldman Sachs Government Income A Fund	686,386
Goldman Sachs Trust	Goldman Sachs Mid Cap Value A Fund	2,798,975
JPMorgan Asset Management	JPMorgan Core Bond Select	1,687,303
Julius Baer Investments Funds	Julius Baer International Equity A Fund	4,861,591
Mainstay Funds	Mainstay Small Cap Opportunity	910,352
Phoenix Investment Partners, LTD	Phoenix-Duff & Phelps Real Estate Securities A Fund	814,919
* The Charles Schwab Trust Company	Schwab 1000 Index Fund	3,839,248
* The Charles Schwab Trust Company	Schwab MarketTrack Balanced Portfolio	1,319,960
* The Charles Schwab Trust Company	Schwab MarketTrack Conservative Portfolio	156,198
* The Charles Schwab Trust Company	Schwab MarketTrack Growth Portfolio	350,504
Van Kampen Funds	Van Kampen Growth & Income A Fund	2,362,696
Total registered investment companies		29,316,709
COMMON COLLECTIVE FUND:		
* The Charles Schwab Trust Company	Schwab Stable Value Fund	2,268,014
UNITIZED TRUST FUND:		
* Crown Castle International Corp.	Common stock	4,285,590
PARTICIPANT LOANS:		
* Participants	Participant loans with various rates of interest from 5.00% to 8.00%	
	and various maturity dates through 2010	482,005
		\$ 36,352,318

^{*} Party-in-interest.

See accompanying report of independent registered public accounting firm.

CROWN CASTLE INTERNATIONAL CORP. 401(k) PLAN

EIN: 76-0470458 Plan Number: 001

Schedule H, Line 4j – Schedule of Reportable Transactions

Year Ended December 31, 2005

Identity of Party Involved Category (i) – individual transactions in excess of 5% of plan assets:	(b) Description of Assets (Including Interest Rate and Maturity in Case of Loans)	(c) Purchase Price	(d) Selling Price	(g) Cost of Asset	(h) Current Value of Asset on Transaction Date	(i) Net Gain or (loss)
Jensen J Fund	Registered Investment Company	\$ —	\$ 5,952,819	\$ 5,440,324	\$ 5,952,819	\$ 512,495
Ariel Appreciation Fund	Registered Investment Company	\$ —	\$ 2,496,291	\$ 2,055,447	\$ 2,496,291	\$ 440,844
Growth Fund of America	Registered Investment Company	\$5,952,819	\$ —	\$ 5,952,819	\$ 5,952,819	\$ —
Goldman Sachs Mid Cap Value A Fund	Registered Investment Company	\$2,496,291	\$ —	\$ 2,496,291	\$ 2,496,291	\$ —

Columns (e) and (f) are not applicable

See accompanying report of independent registered public accounting firm.

SIGNATURE

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

CROWN CASTLE INTERNATIONAL CORP. 401(K) PLAN

(Name of Plan)

By /s/ ROB A. FISHER

Rob A. Fisher Vice President and Controller (Principal Accounting Officer)

Date: June 27, 2006

Consent of Independent Registered Public Accounting Firm

The Board of Directors Crown Castle International Corp.:

We consent to incorporation by reference in the Registration Statement (No. 333-67379) on Form S-8 of Crown Castle International Corp. of our report dated June 19, 2006 with respect to the financial statements of Crown Castle International Corp. 401(k) Plan as of December 31, 2005 and 2004 in the December 31, 2005 Annual Report on Form 11-K of the Crown Castle International Corp. 401(k) Plan.

/s/ KPMG LLP Pittsburgh, Pennsylvania June 27, 2006