

American Realty Capital Trust, Inc.  
Form 424B3  
March 22, 2010

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AMERICAN REALTY CAPITAL TRUST, INC.  
SUPPLEMENT NO. 5 DATED March 22, 2010  
TO THE PROSPECTUS DATED November 10, 2009

This prospectus supplement (this “Supplement No. 5”) is part of the prospectus of American Realty Capital Trust, Inc. (the “REIT” or the “Company”), dated November 10, 2009 (the “Prospectus”), Supplement No. 3, dated February 3, 2010 (“Supplement No. 3”) and Supplement No. 4, dated February 19, 2010 (“Supplement No. 4”, together with Supplement No. 3, the “Prior Supplements”) and should be read in conjunction with the Prospectus and the Prior Supplements. This Supplement No. 5 supplements, modifies or supersedes certain information contained in our Prospectus and the Prior Supplements. This Supplement No. 5 will be delivered with the Prospectus and the Prior Supplements.

The purpose of this Supplement No. 5 is to disclose recently completed acquisitions of real estate investments.

#### Status of the Offering

We commenced our initial public offering of 150,000,000 shares of common stock on January 25, 2008. As of March 15, 2010, we had issued 18,893,430 shares of common stock, including 339,077 shares issued in connection with an acquisition in March 2008. Total gross proceeds from these issuances were \$186.6 million. As of March 15, 2010, the aggregate value of all share issuances and subscriptions outstanding was \$188.8 million based on a per share value of \$10.00 (or \$9.50 per share for shares issued under the DRIP). We will offer these shares until January 25, 2011, provided that the offering will be terminated if all of the shares are sold before then.

#### Acquisition of Properties from Affiliates

The following disclosure is to be added to the section of our Prospectus entitled “Acquisition of Properties from Affiliates” on pages 82- 84 of the Prospectus.

Effective March 31, 2009, the Board of Directors approved the recommendation of the officers of the Company that the Company not pursue any opportunities to acquire real property from an entity affiliated with its advisor, American Realty Capital Advisor, LLC. It was determined the foregoing recommendation would be reviewed annually by the Board of Directors. On March 9, 2010, the Board of Directors of the Company approved the recommendation of the officers of the Company that the Company continue not to pursue any opportunities to acquire real property from an entity affiliated with its advisor. The Board of Directors determined that this practice will remain in effect during the remaining term of the offering.

#### Real Property Investments

The following information is to be added to the section of our Prospectus captioned “Real Property Investments” on pages 87-104 of the Prospectus.

#### Jack in the Box 4 Property Portfolio

We acquired the Jack in the Box 4 Property Portfolio (the “Jack in the Box Portfolio”) on February 24, 2010 for \$8.3 million, inclusive of all closing costs and fees. The Jack in the Box Portfolio consists of 4 recently-constructed restaurants (the “Jack Properties”). The Jack Properties contain an aggregate 9,892 square feet of gross leasable area. The Jack Properties are located in Desloge, Missouri, The Dalles, Oregon, Vancouver, Washington and Corpus Christi, Texas.

The primary lease term is 20 years, having commenced simultaneous with closing. The leases contain contractual rental escalations every 5 years at the lesser of accumulated Consumer Price Index over the prior 5 year period or 10%. The leases provide for 4 renewal options of 5 years each and are triple-net, whereby Jack is required to pay substantially all operating expenses, including all costs to maintain and repair the roof and structure of the building, including the cost of all capital expenditures in addition to base rent. The average annual base rent for the initial term is approximately \$600,000.

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(NASDAQ: JACK) is an American fast-food restaurant founded in 1951 in San Diego, California. Jack (S&P: BB-) operates and franchises Jack in the Box restaurants, one of the nation's largest fast food hamburger chains. The Jack In the Box restaurants are primarily located on the West Coast of the United States. During the fiscal year ended September 27, 2009, Jack in the Box had 2,212 restaurants in 18 states, of which 1,190 were company-operated and the remaining 1,022 were franchise-operated. Jack in the Box has approximately 43,000 employees. The company reported revenue of \$2.47 billion, net income of \$118 million, had assets of \$1.45 billion and a net worth of more than \$524 million for the fiscal year ended September 27, 2009.

The Company has secured a 5 year mortgage from Wells Fargo Bank, N.A. The following table outlines the terms of the debt financing incurred in connection with the acquisition of the Jack in the Box Portfolio. The loan will be secured by a mortgage on the Jack Properties.

Mortgage Debt Amount	Rate	Term
\$4,394,500	6.36% (fixed for term)	5 Years (matures February 2015)

#### Bridgestone Firestone 2 Property Portfolio

We acquired the Bridgestone Firestone 2 Property Portfolio (the "Bridgestone 2 Portfolio") on February 26, 2010 for \$4.8 million, inclusive of all closing costs and fees. The Bridgestone 2 Portfolio consists of 2 recently-constructed auto centers (the "Bridgestone 2 Properties"). The Bridgestone 2 Properties contain an aggregate of 15,892 square feet of gross leasable area and are located in Rockwall, Texas and Albuquerque, New Mexico. We acquired the Bridgestone 2 Portfolio from Mays Development Company and its affiliates. The Bridgestone Properties are located in Rockwall, Texas and Albuquerque, New Mexico.

The Bridgestone 2 Properties are 100% net leased to Bridgestone Retail Operations, LLC, a wholly owned subsidiary of the Bridgestone Corporation (S&P: BBB+). The stores operate as Firestone Complete Auto Care. The lease term at commencement was 15 years. At acquisition, the average remaining lease term was 13.9 years. The leases contain contractual rental escalations of 6.25% every five years, and provide for 5 renewal options of 5 years each. The leases are double net whereby Bridgestone Operations, LLC is required to pay substantially all operating expenses, with the exception of costs to maintain and repair the roof and structure of the building. The average annual base rent on a straight-line basis over the initial term is approximately \$417,000.

We acquired the Bridgestone 2 Portfolio with proceeds from the sale of common stock.

### Bridgestone Firestone 4 Property Portfolio

We acquired the Bridgestone Firestone 4 Property Portfolio (the “Bridgestone 4 Portfolio”) on March 15, 2010 for \$8.4 million, inclusive of all closing costs and fees. The Bridgestone 4 Portfolio consists of 4 recently-constructed auto centers (the “Bridgestone 4 Properties”). The Bridgestone 4 Properties contain an aggregate of 31,505 square feet of gross leasable area and are all located in Texas. We acquired the Bridgestone 4 Portfolio from Mays Development Company and its affiliates. The Bridgestone Properties are located in Weatherford, Texas, League City, Texas, Crowley, Texas and Allen, Texas.

The Bridgestone 4 Properties are 100% double net leased to Bridgestone Retail Operations, LLC, a wholly owned subsidiary of the Bridgestone Corporation (S&P: BBB+). The stores operate as Firestone Complete Auto Care. The lease term at commencement was 15 years. At acquisition, the average remaining lease term was 13.7 years. The leases contain contractual rental escalations of 6.25% every five years, and provide for 5 renewal options of 5 years each. The leases are double net whereby Bridgestone Operations, LLC is required to pay substantially all operating expenses, with the exception of costs to maintain and repair the roof and structure of the building. The average annual base rent on a straight-line basis over the initial term is approximately \$727,000. We acquired the entire purchase price of the Bridgestone 4 Portfolio with proceeds from the sale of common stock.

Bridgestone Retail Operations, LLC is a wholly owned subsidiary of Bridgestone Americas, Inc. It consists of more than 2,200 company-owned vehicle service and tire locations across the United States, including Firestone Complete Auto Care, Tires Plus, Expert Tire and Wheel Works store locations. Bridgestone Americas, Inc. is the U.S. subsidiary of Bridgestone Corporation, which is headquartered in Tokyo, Japan and the largest tire producer in the world. Bridgestone Corporation had assets of \$30.2 billion and posted net sales of \$27.9 billion for the fiscal year ended December 31, 2009.

Bridgestone Corporation is a multinational corporation with 179 production facilities in 25 countries and has one of the largest sales networks in the world, selling its products in over 150 countries. In addition to being the largest tire producer in the world, Bridgestone Corporation has diversified business segments offering various services and products including chemical and industrial products, sporting goods and bicycles.

### Pending Acquisition

We intend to acquire an additional 6 recently-constructed Bridgestone Firestone auto centers (the “Bridgestone 6 Properties”) from Mays Development Company and affiliates for \$13.3 million. The Bridgestone 6 Properties contain an aggregate of approximately 46,000 square feet of gross leaseable area and are located in Arkansas, Colorado, Kansas, Louisiana and Texas.

The Bridgestone 6 Properties are 100% double net leased to Bridgestone Retail Operations, LLC, a wholly owned subsidiary of the Bridgestone Corporation (S&P: BBB+). The stores operate as Firestone Complete Auto Care. The lease term at commencement was 15 years. At acquisition, the average remaining lease term will be 13.9 years. The leases contain contractual rental escalations of 6.25% every five years, and provide for 5 renewal options of 5 years each. The leases are double net whereby Bridgestone Operations, LLC is required to pay substantially all operating expenses, with the exception of costs to maintain and repair the roof and structure of the building. The average annual base rent on a straight-line basis over the initial term is \$1.2 million. We intend to acquire the Bridgestone 6 Properties with proceeds from the sale of common stock. We expect to close the acquisition of the Bridgestone 6 Properties within 30 days of the date hereof although there can be no assurance that we will close the acquisition within such time period or at all.

