



DIVISION OF
CORPORATION FINANCE

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

April 15, 2011

Leo F. Wells, III
President
Wells Core Office Income REIT, Inc.
6200 The Corners Parkway, Suite 250
Norcross, Georgia 30092

Re: Wells Core Office Income REIT, Inc.
Post-Effective Amendment No. 3 to Form S-11
Filed April 7, 2011
File No. 333-163411

Form 10-K for the Fiscal Year Ended December 31, 2010
Filed March 28, 2011
File No. 000-54248

Dear Mr. Wells:

We have reviewed your registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please provide disclosure about the relationship between the offering price and your net tangible book value per share as of December 31, 2010. Refer to Item 506 of Regulation S-K.
2. We note that you incorporate by reference your Form 10-K for the fiscal year ended December 31, 2010. We further note, however, that in the certifications filed, you deleted the following phrase from paragraph 5: "(or persons performing the equivalent functions.)" We also note that you have either added or removed certain punctuation marks and articles in the certifications. In future filings, please ensure that the certifications filed are in the exact form as prescribed by the rules.

Supplement No. 15 dated April 7, 2011

Real Estate Investment Summary, page 2

3. We note that you disclose the approximate annualized base rent per square foot your properties. Based on the definition provided, it does not appear that such disclosure takes into account tenant concessions. To the extent tenant concessions, such as free rent, are not reflected in your calculations, please expand your disclosure to quantify how concessions would impact the calculations.

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4. Please disclose your cumulative earnings and cumulative distributions since inception.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, before we can declare the amended registration statement effective, the company should provide us with a letter, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Erin E. Martin, Attorney-Advisor, at (202) 551-3391 or me at (202) 551-3655 with any other questions.

Sincerely,

Sonia Barros
Special Counsel

cc: Robert H. Bergdolt, Esq.
Via facsimile (919) 786-2200