



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3233

April 27, 2016

Via E-mail
Brant Meleski
Senior Vice President and Chief Financial Officer
InfraREIT, Inc.
1807 Ross Ave, 4th Floor
Dallas, TX 75201

Re: InfraREIT, Inc.
Form 10-K for the fiscal year ended December 31, 2015
Filed March 3, 2016
File No. 001-36822

Dear Mr. Meleski:

We have reviewed your filing 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the year ended December 31, 2015

1. Please tell us how you considered providing financial statements for your significant lessee, Sharyland Utilities, LP.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 45

Financial Information Related to Our Tenant, page 61

2. In future filings, please provide a more detailed explanation of the reasons that management believes the non-GAAP measures provided for Sharyland provide useful information to investors regarding the registrant's financial condition and results of operations. Reference is made to Item 10(e)(1)(i)(C) of Regulation S-K. Please provide

us with your anticipated disclosure in your response. With respect to your presentation of a non-GAAP balance sheet for Sharyland, your revised disclosure should include a discussion of why management believes the non-GAAP presentation is useful despite the fact that the lease transaction is in essence a financing. In addition, please explain to us how you determined it would be appropriate to present non-GAAP information for your lessee in your filing.

Financial Statements

General

3. Please tell us how you have met the disclosure requirements of ASC Topic 275-10-50-18 with respect to your relationship with Sharyland.

Form 8-K filed March 3, 2016

Item 2.02 Results of Operations and Financial Condition

4. In future filings, please provide the nearest comparable measure under GAAP as well as a reconciliation to that measure when providing non-GAAP forecasts.

You may contact Eric McPhee at (202) 551-3693 or the undersigned at (202) 551-3438 if you have any questions.

Sincerely,

/s/ Robert F. Telewicz, Jr.

Robert F. Telewicz, Jr.
Branch Chief
Office of Real Estate and
Commodities