Filed pursuant to 424(b)(3) Registration No. 333-200594

BLACK CREEK INDUSTRIAL REIT IV INC. SUPPLEMENT NO. 6 DATED NOVEMBER 3, 2017 TO THE PROSPECTUS DATED JULY 3, 2017

This prospectus supplement ("Supplement") is part of and should be read in conjunction with the prospectus of Black Creek Industrial REIT IV Inc., dated July 3, 2017 (the "Prospectus"), as supplemented by Supplement No. 1, dated August 9, 2017, Supplement No. 2, dated August 28, 2017, Supplement No. 3, dated September 13, 2017, Supplement No. 4, dated September 21, 2017 and Supplement No. 5, dated November 2, 2017. Unless otherwise defined herein, capitalized terms used in this Supplement shall have the same meanings as in the Prospectus.

The purpose of this Supplement is as follows:

A. To provide an update on the status of our public offering.

A. Status of our Current Public Offering

As of November 30, 2016, we had received sufficient offering proceeds to satisfy the minimum offering requirements for our offering with respect to all states other than the states of Ohio, Pennsylvania and Washington. As of November 2, 2017, we had raised sufficient offering proceeds to satisfy the minimum offering requirements for Ohio. Accordingly, we are no longer required to deposit offering proceeds from Ohio residents in an escrow account. Subscriptions from Pennsylvania residents will not be released from escrow until subscriptions for shares totaling at least \$75,000,000 have been received from all sources and subscriptions from Washington residents will not be released from escrow until subscriptions for shares totaling at least \$10,000,000 have been received from all sources.

QuickLinks

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