

Via Facsimile and U.S. Mail
Mail Stop 6010

February 27, 2008

Mr. Edwin Quattlebaum
President and Chief Executive Officer
Metamorphix, Inc.
8000 Virginia Manor road, Suite 140
Beltsville, MD 20705

Re: Metamorphix, Inc.
Item 4.02 Form 8-K/A
Filed February 26, 2008
File No. 000-51294

Dear Mr. Quattlebaum:

We have reviewed your filing and have the following comments. In our comments, we ask you to provide us with information to better understand your disclosure. Please be as detailed as necessary in your explanation. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone number listed at the end of this letter.

Item 4.02

1. To the extent known, please amend your Form 8-K to quantify the range of possible restatement relating to debt and equity exchange transactions. In addition, provide a more specific timing for when you expect to restate your financial statements.
2. In light of your proposed restatements, please tell us whether you have reevaluated the effectiveness of your disclosure controls and procedures. See Item 307 of Regulation S-K or Regulation S-B. Provide a sample disclosure you propose to include in your amended documents. If the officers conclude that the disclosure controls and procedures were effective, despite the restatement,

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describe the basis for the officers' conclusion. If the officers conclude that the disclosure controls and procedures were ineffective, describe material weakness and the specific steps that you have taken, if any, to remediate the material weakness.

As appropriate, please respond to these comments within five business days or tell us when you will respond. Please furnish a letter that keys your responses to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

If you have any questions, please call me at (202) 551-3659.

Sincerely,

Kei Ino
Staff Accountant