

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

Mail Stop 3720

May 4, 2010

Via US Mail and Facsimile: (978) 250-2994

Daniel E. Smith President and Chief Executive Officer Sycamore Networks, Inc. 220 Mill Road Chelmsford, MA 01824

Re: Sycamore Networks, Inc. Form 10-K for Fiscal Year Ended July 31, 2009 Filed September 29, 2009 File No. 000-27273

Dear Mr. Smith:

We have completed our review of your Form 10-K and have no further comments at this time.

Sincerely,

/s/ Larry Spirgel Assistant Director