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February 21, 2012

Via Overnight Delivery.

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Attn: Pamela A. Long, Assistant Director

Re: Proto Labs, Inc.
Amendment No. 7 to Registration Statement on Form S-1
Filed: February 21, 2012
File No.: 333-175745

Ladies and Gentlemen:

Proto Labs, Inc., a Minnesota corporation (the "Company"), has today filed with the Securities and Exchange Commission, pursuant to the requirements of the Securities Act of 1933, as amended, an Amendment No. 7 to its Registration Statement on Form S-1 ("Amendment No. 7").

On behalf of the Company, we are writing to respond to the comment raised in the letter to the Company, dated February 15, 2012, from the staff of the Securities and Exchange Commission (the "Staff"). The Company's response below corresponds to the caption and number of that comment (which is reproduced below in italics). For your convenience, copies of Amendment No. 7 are enclosed, and have been marked to show changes from Amendment No. 6 to the Registration Statement on Form S-1 filed on February 13, 2012. Capitalized terms used in this letter, but not otherwise defined, have the meanings assigned to them in Amendment No. 7.

Prospectus Cover Page

- Please remove from the prospectus cover page disclosure about North Bridge's indication of interest to purchase shares in the IPO. Supplementally, please tell us when North Bridge first expressed its interest to participate in the offering, as well as whether North Bridge or any of its associates are broker-dealers. We may have additional comments following the review of your response.*

Response: In response to the Staff's comment, the Company has removed from the prospectus front cover page the disclosure about North Bridge's preliminary indication of interest to potentially purchase shares in the initial public offering (the "IPO") and will exclude such disclosure from the front cover page of the final prospectus as requested.

The Company advises the Staff that North Bridge first expressed its preliminary interest to potentially participate in the IPO on February 8, 2012, which was the day after the Board of Directors of the Company determined to target February 13, 2012 as the start date for the IPO roadshow. While North Bridge has expressed its preliminary interest to potentially participate in the IPO, as is clearly described in Amendment No. 7, neither the Company nor the underwriters have entered into any written instrument with, or otherwise have any binding agreement with or obligation or commitment to, North Bridge in connection with its preliminary interest to potentially participate in the IPO. And likewise, North Bridge has no binding agreement, obligation or commitment to participate in the IPO. As disclosed in Amendment No. 7, the underwriters may determine to sell more, less or no shares in the IPO to North Bridge, and North Bridge may determine to purchase more, less or no shares in the IPO.

The Company advises the Staff that neither North Bridge nor any of its associates are broker-dealers. The Company confirmed this fact with North Bridge on February 15, 2012, and that confirmation was consistent with North Bridge's responses to a FINRA Questionnaire it had previously completed upon request of the underwriters in connection with the IPO.

* * * * *

In connection with responding to your comment, we acknowledge that the Company is responsible for the adequacy and accuracy of the disclosure in the filing, that 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 that the Company may not assert Staff comments as a defense in any proceedings initiated by the Commission or any person under the federal securities laws of the United States.

We hope that the foregoing has been responsive to the Staff's comment. Should you have any questions relating to any of the foregoing, please feel free to contact the undersigned at (612) 766-7136.

Sincerely,

FAEGRE BAKER DANIELS LLP

/s/ W. Morgan Burns

W. Morgan Burns

Enclosure

cc: Bradley Cleveland
 Proto Labs, Inc.
 Kenneth Guernsey
 Cooley LLP
 Charles Kim
 Cooley LLP