



DIVISION OF
CORPORATION FINANCE

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

October 11, 2011

Via E-mail

Bradley A. Cleveland
Chief Executive Officer
Proto Labs, Inc.
5540 Pioneer Creek Drive
Maple Plain, MN 55359

**Re: Proto Labs, Inc.
Amendment No.2 to Registration Statement on Form S-1
Filed: September 26, 2011
File No.: 333-175745**

Dear Mr. Cleveland:

We have reviewed your registration statement and have the following comments.

Prospectus Summary

Our Industry and Market Opportunity, page 1

1. We note your response to comment three in our letter dated September 15, 2011. Since Jon Peddie's consent was required for use of the report information in the registration statement and, as disclosed in Jon Peddie's website (see http://jonpeddie.com/publications/cad_report/), the report appears to be available only through payment of more than a nominal fee, please file Jon Peddie's consent as an exhibit to the registration statement. For additional guidance, please refer to Question 233.02 of Securities Act Rules Compliance and Disclosure Interpretation found in the Commission's website.

Financing Arrangements, page 49

2. We note your response to comment nine in our letter dated September 15, 2011 and believe that in light of the facility amount, covenant default, and history of accessing bank loans as one source of liquidity, this credit agreement, along with any schedules and annexes, should be filed as an exhibit. Should you terminate this agreement and enter into another credit facility, please file the subsequent agreement as an exhibit instead.

Note 15 – Segment and Geographic Information, page F-22

3. You disclose on page F-22 that your two operating segments are Protomold injection molding and Firstcut CNC machining. However, based on your CODM reports it appears that your operating segments are your US operations, EU operations and JP operations pursuant to the guidance of ASC 280-10-50-1. Additionally, we note from your disclosure on page 68 that you have a managing director for each of your foreign subsidiaries. In this regard, ASC 280-10-50-7 states that generally, an operating segment has a segment manager who is directly accountable to and maintains regular contact with the chief operating decision maker to discuss operating activities, financial results, forecasts, or plans for the segment.

Furthermore, based on the guidance of ASC 280-10-50-12, it appears that you have two reportable segments and an Other. It does not appear that your operating segments can be aggregated given that the segments do not have similar economic characteristics. Specifically, revenue growth rates and gross, operating and net income margins for your US operations, EU operations and JP operations are materially different, which implies these segments are not economically similar, pursuant to ASC 280-10-50- 11. Please tell us how you concluded US operations and EU operations were not operating or reportable segments.

Given the above, it appears that you may need to expand MD&A to separately discuss each segment pursuant to Section 501.06 of the Financial Reporting Codification.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or Al Pavot, Senior Staff Accountant, at (202) 551-3738 if you have questions regarding comments on the financial statements and related matters. Please contact Era Anagnosti, Staff Attorney, at (202) 551-3369 or Craig Slivka, Special Counsel, at (202) 551-3729 with any other questions.

Sincerely,

/s/ Craig E. Slivka, for

Pamela A. Long
Assistant Director

cc: Via E-mail
W. Morgan Burns, Esq.
Erik J. Romslo, Esq.
Faegre & Benson LLP