



**TESTING SERVICE CORPORATION**

*Local Offices:*

457 E. Gundersen Drive, Carol Stream, IL 60188-2492  
630.653.3920 • Fax 630.653.2726

209 Cleveland Street, Suite C, Cary, IL 60013-2978  
847.516.0505 • Fax 847.516.0527

401 N. Riverside Drive, Suite 24, Gurnee, IL 60031-5914  
847.249.6040 • Fax 847.249.6042

203 Earl Road, Suite A, Shorewood, IL 60431-9446  
815.744.1510 • Fax 815.744.1728

8201 W. 183<sup>RD</sup> Street, Suite C, Tinley Park, IL 60477-9249  
708.429.2080 • Fax 708.429.2144

Shorewood, Illinois

September 5, 2008

Mr. Dan Bromberek  
Village of Romeoville - Village Hall  
13 Montrose Drive  
Romeoville, Illinois 60446-1329

Re: Concrete Flatwork  
Scaling Opinion  
Romeoville, Illinois

Dear Mr. Bromberek:

As requested I have reviewed the July 9, 2008 petrographic report prepared by CTL Group. It is our understanding that the report was prepared to provide an explanation for the scaling occurring on some village sidewalks.

According to the ACI Manual of Concrete Practice "Scaling is the loss of surface mortar and mortar surrounding the coarse aggregate particles. The aggregate is usually clearly exposed and often stands out from the concrete. Scaling is primarily a physical action caused by hydraulic pressure from water freezing within the concrete; it is not usually caused by chemical corrosive action." The major causes of scaling include but are not limited to:

- 1) High water/cement ratio
- 2) Low air content
- 3) Overworking or early finishing

Based on the CTL report at least one of these conditions is evident in each of the 4 cores.

- |        |                                                                                                                                                                                                                                           |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Core 1 | In addition to the relatively high w/c ratio (0.50 to 0.60) prominent bleed channels and a reduced air content were observed in the upper portion of the core.                                                                            |
| Core 2 | Exhibits a relatively high w/c ratio (>0.65) and an overall air content of over 10 % due to re-tempering. Additionally, surface perpendicular cracking and a reduction of the air content in the upper portion of the core were observed. |
| Core 3 | Exhibited signs of re-tempering and a reduced air content in the upper portion of the core.                                                                                                                                               |
| Core 4 | Exhibited signs of re-tempering and a reduced air content in the upper portion of the core.                                                                                                                                               |

Village of Romeoville - Village Hall  
September 5, 2008

---

A review of the delivery tickets should provide additional information including the length of time between batching and placement (need for re-tempering); and, the quantity of additional water added after the loads left the plant.

If you have any questions regarding the information contained herein, please call at your convenience.

Sincerely yours,

TESTING SERVICE CORPORATION



Thomas L. Jessup, P.E.  
CME Manager-Shorewood

TLJ:wn