PRO CON INCORPORATED
Design and Construction Management

March 30, 2007

Tim Levine
The Olympia Companies
280 Fore Street, Suite 202
Portland, ME 04101

Re: Custom House Square, 300 Fore Street
Portland, ME
Structural Observations

Dear Mr. Levine,

Per your request, I visited the above referenced site this past Wednesday, March 28th, 2007, to perform a structural observation between the hours of 11:45 a.m. and 1:15 p.m. The temperature was approximately 45 degrees, it was sunny and windy. Larry Ross (superintendent) of Wright-Ryan Construction, Inc, allowed access to the site. The following is a brief summary of my findings:

Progress:

Concrete Foundation:

The concrete foundation work, including, but not limited to foundation walls, grade beams, pile caps, piers and footings has been completed.

Concrete floor slabs:

The reinforced structural slab on grade beams and pile caps has been completed at the lower level floor. The extent of the slabs on deck have been completed, most recently the 5th floor had been placed the day prior to my arrival. The contractor was in the process of wet curing this slab using a hose to cover the extent of the 5th floor slab.

Structural Steel Framing:

The structural steel framing has been erected at all levels of the structure.
As viewed in various areas, some bolts had not been installed at beam/beam and beam/column connections. Additionally, there were locations noted in which bolts had not been installed to the required tension. This was evident with the short extensions on the tension control (TC) bolts, which had yet to shear off upon required tension. As discussed with Larry, these items were to be completed by the structural steel fabricator and future structural steel inspection reports would encompass these items.

Steel Deck:

Composite steel floor deck installation has been completed at all levels of the structure. Steel roof deck on the required portions of the main (flat) roof has been completed. The erector was in the process of completing the roof deck on the structural steel tube sections at the curved roof at the time of the visit.

As viewed in various areas from the 5th floor level, the curved steel roof deck had sustained a level of damage as was evident from various small dents/dimples on the bottom surface of the deck. As discussed with Larry, based on the fact that said decking will be exposed, it is recommended that the owner/architect visit the site to address the condition.

LGMF curtain wall system:

The light gauge metal framing exterior curtain wall system has been installed to the underside of the 5th floor. The contractor was in the process of installing the LGMF on the 5th floor level at the time of the visit. It was estimated that the LGMF installation was approximately 75% complete.

As noted and discussed with Larry, there were several areas at the lower levels of the structure in which screws had yet to be installed to secure the base of the wall studs to the supporting bottom tracks. As a means of supporting this observation, LGMF studs were able to be relocated from their original position without the use of excessive force. Additionally, in several locations the cripple studs above the LGMF header locations were not adequately secured to the supporting header tracks with the required screw fasteners. Furthermore, in locations where a nested stud had been provided within the header track (for added strength), installed screw fasteners had been installed at the bottom edge of the cripple studs in an attempt to secure the cripple studs to the supporting header assembly. In addition to not maintaining the required edge distance around the screw, the connection was not adequate in these locations to the supporting header assembly. LGMF clips, or other means of connection, must be specified by the LGMF subcontractor's engineer and installed in these locations.

CMU walls:

CMU wall construction had been completed at the fire wall and around the shaft, stair and elevator structures to a level a few courses above the 5th floor.

As noted and discussed with Larry, the stair and elevator shafts have been constructed approximately 4" or 5" from the designed location towards 3 line. This was evident based on the observation of the masonry wall, which had been notched out approximately 1" along the W12 beam (5'-8 ¾" south of 3 line) north of the stair tower. Furthermore, the 6" dimension required from the centerline of the steel beam to the face of the south CMU wall of the elevator was noted to be in excess of 10". These findings have been forwarded to the architect for their review.

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Items to be addressed by the Contractor:

1. Complete installation of all required bolts at the extent of the structural steel connections.
2. Replace/repair sections of deficient curved roof deck as required by architect/owner.
3. Complete the installation of all required screwed connections in accordance with the LGMF engineer's design, utilizing required clips at connections as discussed above.
4. Continue to forward a copy of all testing reports to our office through the architect for review.

Please feel free to contact our office if you should have any questions.
Best regards,

Matthew LaBrecque, P.E.
Structural Engineer

Cc: Randy Alred, Larry Ross, Craig Hill – Wright-Ryan
Jim Loft, Matt Wirth – Pro Con Inc.

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