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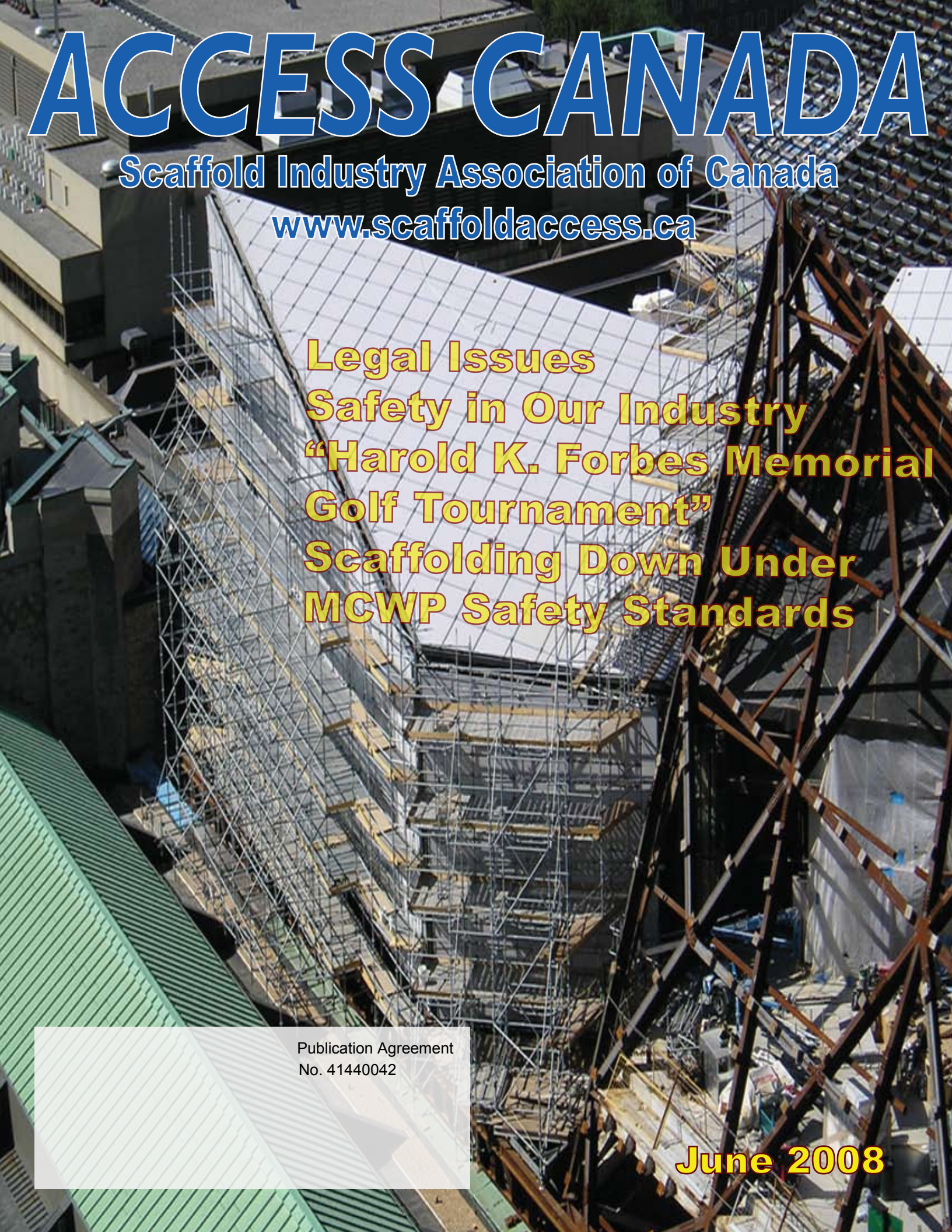

Legal Issues
Safety in Our Industry
"Harold K. Forbes Memorial Golf Tournament"
Scaffolding Down Under
MCWP Safety Standards

Publication Agreement
No. 41440042

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Project "Don Fry Scaffold Service Inc."

By Tim Root donfryscaffold@gmail

Last August Steven Vipond from Kingpost Builders of Orangeville asked us to quote on an enclosure for a cottage on the south shore of Lake Simcoe. The purpose was to allow the builders to work through the winter on an addition to the existing building. They thus required a large roofed enclosure, with tarp around the sides. As it turned out, this was sufficient protection against the weather that heating was not required. The scaffold provided some access to the siding, but this was not its primary purpose. We initially quoted on an enclosure of up to 95'x 125', but in the event a smaller structure of 58'x 46'x 36'H was chosen.

The base of the structure was built with standard system scaffold, in 10' long bays 42" wide, braced diagonally as usual with bay braces and tube-and-clamp. Some of this scaffold had to be built over the roof of the existing cottage. Standard MonarFlex tarp was used on all four sides, attached with bungies.

The main challenge was the roof. We could do clear spans of that width using aluminum trusses custom made for us by Mills Construction, but that would produce a flat surface. This roof, however, had to be sloped to cope with the snow load. For this and other engineering aspects of the design, we consulted with George Meyer of Quartz Holdings. Frank Frietsch, Layher's commendably efficient executive VP for operations in the US, sold us on a cassette roof. This is a modular truss system with sheet metal cassettes, capable of interfacing with system scaffold as well as other structures. As with system scaffold, locking is by hammering in wedges. Tension cables may be used to increase the snow load, and there is a special safety line system. This roof had to be shipped from Germany -- we believe ours may be the only one of its kind in this country.

Once the rest of the scaffold was built, the roof was mostly assembled on the ground. We retained an 80-ton crane from C.W. Smith Crane to hoist it and drop it onto the existing structure. Naturally this meant that both elements of the structure had to be carefully built to exactly the same dimensions.

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Roof being hoist onto system scaffold.

Safety Standards for Mast Climbing Work Platforms

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5. Fall protection (clause 8.5.4)

Guardrails provided on the exposed sides of the platform provide fall protection. In cases where the guardrail must be temporarily removed, a fall arrest system or travel restraint attached to a designated anchor point must be used. This provision also applies when the foot planks on the platform extensions are being removed to provide clearance for the mast ties when the platform is raised or lowered.

An exposed edge of the platform may sometimes be created when the platform is moving past an opening or reveal in the building façade. In these situations all occupants on the platform must be positioned more than 2.0 meters from the edge while the platform is in motion.

6. Platform access (clause 8.5.3)

Worker access to the platform is often provided through the adjacent building or other structure. In these situations the gap between the access structure and the platform must not exceed 6 inches in the horizontal direction and 8 inches in the vertical direction. When material is being transferred to or from the platform, the gap between the two surfaces must be adequately covered.

7. Training

Adequate training of operators and erectors is essential for the safe erection, dismantling and use of mast climbing work platforms. The standard sets out a comprehensive list of topics to be covered in a training program for operators of mast climbers. These include such subjects as manufacturers' operating manual, inspections of the work area, platform loading and factors affecting platform stability, pre-start inspections, and the identification of hazards associated with the operation of the equipment. Demonstration of operating proficiency is also required.

Training requirements for erectors are also specified including the installation and dismantling procedures for mast tie anchors, mast sections, and the relocation and transport of the machines. Mast climbing work platforms can provide a very safe and versatile solution to worker access challenges in the industry. A good understanding of the codes and regulations associated with their use is absolutely essential.

Jim Wilkinson is the chair of the CSA B354 technical committee and is a member of the ANSI A92.9 committee in the USA. He is also the chair of the SIAC Mast Climbing Work Platform Council. He can be contacted by e-mail at james.wilkinson@rogers.com or by phone at (905) 434-4501

Special Project "Don Fry Scaffold Service Inc."

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That need for precision was the only major challenge to what was overall an easy-to-work-with system. Once the roof was up, the remaining cassettes were installed. As the wind off Lake Simcoe could be considerable, the entire structure was secured using 1/2" cable connected to earth anchors and fence posts. This worked well enough to cause problems later: the anchors proved very difficult to remove.

Set-up began in mid-December and finished about a month later, some of the intervening time being spent waiting for material from Germany. Once the enclosure was complete, the tarps required checking at intervals but the winter's heavier-than-average snowfall mostly slid right off the roof. It needed to be cleared only once, when an adjacent tree's branches trapped some snow on the roof. With the addition to the cottage completed, the scaffold was dismantled starting in late April. This required about two weeks, bringing total hours on the job to over 1000. All our crews were on the job at some point, but the majority of the work was done by Rick Stevens (who lives nearby) with Kathy Kinal and Jordan Nicholas.

Finished Enclosure.

We were glad to have this job, and not only because it kept us busy in a season when bad weather denied us a lot of other work. The Layher Cassette roof gives us a rare and valuable capability, and it has already been booked for another upcoming job.