

Mine reclamation project 2009-10



# Maple Grove Town Green Bandshell and Pavilion

## **Project description**

Town Green bandshell and facilities is a showcase for the architectural potential of concrete as well as the versatility of concrete as a building material. The project involved white concrete columns and an arching concrete post-tensioned roof. The facilities are built on the site of a reclaimed aggregate quarry and exemplifies our industry's responsible use of land and resources.

### **Project dates**

07/01/09 - 12/31/09; opened to public June, 2010

## Special project specifications

The architect wanted a brilliant white color for the concrete roof and columns. To achieve the pure white color, we designed concrete mixes that contained white portland cement and a white concrete pigment. Special plant and truck washing procedures had to be instituted to insure that no grey cement or concrete residues contaminated the white concrete mix. In the field, the contractor had to take special care to keep the forms clean because any foreign material on the forms would stain the finished surface.

The post-tensioned roof pour on the bandshell was challenging due to the extreme slope of the roof. There was a very narrow slump range that allowed the mix to be properly consolidated around the reinforcement and still hold the slope of the roof. We developed a white concrete mix design with fibers. Extra quality control measures were put in place to ensure the mix arrived on site within the limits of the slump range. Hydration stabilizers were used to provide an adequate window of workability for the contractor.

#### **Team**

Architect: HGA Architects and Engineers Contractor: Northland Concrete and Masonry

Owner: City of Maple Grove

Ready Mix supplier: Aggregate Industries

For more information about this project, contact Tom Schmit at tom.schmit@aggregate-us.com.