The Mixer

ALBERTA READY-MIXED CONCRETE ASSOCIATION

PRESIDENTS MESSAGE

Welcome to the summer edition of "The Mixer". It has been an exciting year so far, for many, as consumer optimism and the economy appear to have taken an upward glance. I wanted to touch on a few areas of significance for the association and our industry.

As the summer lends itself to summer holidays and busy schedules for most, I am looking forward to the challenges we are about to encounter in our association as we get back into the fall sessions. We have a Joint Sustainability presentation scheduled for the board in early October put on by Michael McSweeney of the Cement Association of Canada. This is an important step to giving our association direction and focus for the immediate and foreseeable future. It is our goal, through this presentation, to add clarity to Alberta's strategic plan moving forward, encompassing alliances for marketing and promoting our industry. We hope to gain an insight into how the CAC and ARMCA can work together to achieve our ultimate goals.

Most of you have heard about the YYC Airport Development Program (ADP). This is the construction taking place at the Calgary Airport. The ADP includes two major projects; the Runway Development Project, and the International Facilities Project. Any project of this size deserves recognition as it is budgeted at over $600-million. Once the project is completed the Calgary

Josh Tanasiychuk

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ADVERTISERS:

International Airport will have the longest runway in Canada. The runway will be over 4 km long and 61 meters wide. There is over one million square meters of new concrete pavement. This doesn't include any concrete required for the terminal, the 90-metre NAV Canada air traffic-control tower, or the tunnel being constructed to allow Barlow Trail to continue under the taxiways for the new runway. Most of us will not be directly involved with this project, but if you are like me the topic has come up as a point of interest for all of us involved in the concrete industry. It is worth taking a look at the YYC website to get a better perception of the magnitude of this project.

Let's continue to support our industry by getting involved where we can. I appreciate those who have made contact with me to express their desire to get involved with the association. Our success will be measured by the level of involvement and feedback we get from you, our members. Please feel free to contact the ARMCA office, or myself, if you would like to get involved or have something to discuss. Hope we all finish the summer strong in 2012.

Respectfully,

Josh Tanasiychuk
ARMCA President

PRAIRIE REGION GROWTH FORECASTS

With the first half of 2012 experiencing favorable weather conditions, gains in residential and nonresidential construction activity, and robust gains in cement intensities, the new Portland Cement Association forecast nearly doubles the expected increase in cement consumption for the year. Cement consumption is expected to slow for the remainder of 2012 and remain flat for 2013; beyond 2013 all provinces are expected to experience solid growth, but particularly in the Prairie Provinces.

Since 2009 the cement consumption in the Prairies has increased steadily. Statistics Canada indicates a strong move up in 2010, and a moderate move from 2010 to 2011. Overall, the increase from 2009 to end of 2011 is 18.5%. Cement consumption levels have increased in 2012 to where they are approaching the levels of 2007 before the downturn in the Canadian economy. The outlook for cement consumption in the Prairies is for a13.9% increase this year and a 1.8% increase next year. Cement activity is expected to accelerate in the 4.4 to 4.6% range in the years following.

In the last five years, the Prairies have represented over 25% of the cement volumes in Canada; with Western Canada representing over 38% of the cement consumption.

Real GDP growth is tilted towards the Western Provinces due to the global demand for energy and commodity related exports. The forecasted growth rate of 3.4% this year is expected to slow to 3.2% as commodity prices fall. By 2014 global markets are expected to return to growth resulting in real GDP of 3.6% in 2014 and remaining around 3.5% further out.

Listed below are the incremental percentage increases forecasted to the year 2017; everything is in a positive growth position for the prairies.

	Prairie Provinces Forecasts					
	2012	2013	2014	2015	2016	2017
Economic Activity						
Consumer spending	3.0%	3.2%	3.6%	3.6%	3.5%	3.6%
Labor Markets						
Unemployment Rates	5.2%	5.0%	5.0%	4.9%	4.6%	4.4%
Housing Starts						
Total % change	11.6%	2.9%	3.6%	3.1%	2.8%	2.9%
Construction Activity						
Total % change	3.0%	1.5%	2.7%	5.6%	4.5%	5.1%
Information courtesy of PCA and Statistics Canada						

Submitted by Ed Kalis – Director of Technical Services and Training – ARMCA

INDUSTRY ANNOUNCEMENTS

Lafarge would like to welcome Kimberly Roy to Lafarge. Kimberly has accepted the role of Area Manager, Nisku (effective July 23), and will report to Rebecca Reeves, General Manager - Edmonton Transit Mix & Nisku.

Kimberly brings with her a wealth of experience from the 14 years she has spent in the industry in Edmonton, serving in various operational functions and capacities during that time.

Please join in wishing her success in her new position.

ARMCA CONGRATULATES BURNCO ON THEIR 100TH ANNIVERSARY

HOLCIM CANADA'S 'TOGETHER FOR COMMUNITIES' EMPLOYEE VOLUNTEER INITIATIVE

Providing Almost 100 Years' Worth of Volunteering to Society

Holcim Canada, a leading supplier of building materials and construction services, is proudly celebrating the centennial of its parent company in 2012, and recently announced the launch of its 'Together for Communities' program. With the Together for Communities initiative Holcim Canada aims to give back to the community by mobilizing its 3000 Canadian employees to volunteer one day to relevant causes in their local communities throughout the year.

The 100 year anniversary of Holcim Ltd. is being celebrated in a very special way across the globe in the various countries where the company is present. The ambitious initiative aims to engage as many as 80,000 employees worldwide to volunteer one day in the communities where the company operates. If everybody at Holcim participates, Holcim Ltd. could provide almost 100 years' worth of volunteering service to society.

Holcim Canada has built a solid reputation for its commitment to neighbours and the Together for Communities initiative is just another innovative way the company has found to contribute. "To be successful in business, a company must look beyond profit and operate on the concept of balancing the triple bottom line; People, planet and profit. Holcim Ltd., one of the world's leading producers of products and services for the construction industry, is a model for this concept; and the fact we are celebrating our 100 years in business, confirms that it works." said Paul Ostrander, President & CEO, Holcim Canada.

Holcim 100 years of Strength. Performance. Passion.

WELCOME NEW MEMBERS

Amvic Building Systems

Green Trend Systems

LVM/HTES Ltd.

Tegart Concrete Pumping Ltd.

CONCRETE PUMPING SAFETY

(With thanks to Concrete Construction magazine - July 2012)

Pulling up to a jobsite one morning, I saw that the concrete pump had not been set up. I jumped out of my truck and began yelling, “Why is the pump not ready to pour, concrete comes in a half hour!” My foreman told me the operator was concerned about power lines in the way of the pour. I told the operator that a pump was set up a week earlier in that location to pump the footings. He still refused to set up the pump, so we cleared a spot that took the power lines out of play. I later realized that I was wrong and that following my directions would have put the operator and the placing crew at risk.

Planning ahead is critical to safe placements

There are many factors to consider when you place concrete using a concrete pump. First, make sure you are able to provide a location that is free of debris and as level as possible. Optimally, you need to allow clear access for two ready-mix trucks to discharge at the same time. Next, consider the ground and soil conditions where you will set up the pump. If there were excavations in the area, have they been properly backfilled and compacted? Check as-built drawings to locate these areas. Use trench plates to cover questionable areas.

Power line locations also must be addressed. If boom extensions can come within 20 feet of a power line, there must be a designated spotter to warn the operator when the boom comes into the danger zone. Power line contact is the deadliest accident related to concrete pumps. Not only is the operator in danger, but so is anyone who is in contact with the concrete pump—including the placing crew and the ready-mix truck driver. Power lines near the washout area can also be hazardous.

The American Concrete Pavement Association’s (ACPA) guidelines require concrete pump outriggers to be placed not less than 1 foot away from a cut for each foot of a vertical excavation. For instance, if a vertical cut is 6 feet deep, the pump’s outriggers must be located at least 6 feet away, maintaining 45 degrees of soil from the outrigger to the toe of the cut, referred to as the one-to-one rule. Extra distance may be required if soil conditions appear muddy, soft, or loose. If the outriggers rest on shoring, ask the soil engineer what soil pressures the shoring will support and what methods are needed to spread the outrigger loads for adequate support.

Crew safety is part of the equation

Whenever a concrete pump is on a jobsite, be sure to have a person available to assist the operator when the pump truck is backing up. Identify the washout area and have a Storm Water Pollution Prevention Plan in place.

Continued…

CONCRETE PUMPING SAFETY (continued)

When using a concrete pump, there is always the danger of hose whipping, most often caused when air gets into placing lines. This can happen in many ways, such as when a pump stops and gravity allows concrete to free-fall from a line replacing the concrete with air, or when concrete in the hopper falls below the intake allowing air into the placing line. The air, under pressure when the pump starts pumping again, is compressed and may cause the placing hose to whip violently. When air is introduced into the placing line, the crew must stand back from the placing hose until the air clears and a steady flow of concrete is being discharged through the hose. A placing hose should never have any type of metal at its end, such as s-bends, rams horns, or even a metal connector for another placing hose. If the hose was to whip, metal devices could cause serious injury or loss of life.

The crew should have only one person giving direction to the pump operator, communicating movement of the boom, speed of placement, or the starting or stopping of concrete delivery. The ACPA recommends a set of hand signals for communication between the person giving directions and the pump operator to help ensure a safe placement. When an operator can't see the placement, they must have contact with the placing crew via a relay person or radio contact.

When a concrete pump operator is located at the point-of-placement, away from the pump, an oiler must be at the hopper to ensure that the proper level of concrete is maintained in the hopper, to direct backing-up by ready-mix trucks, and to make sure the pump and outriggers are working properly. This person should be trained by the operator to know the locations of the emergency stops and the dangers of the pump itself; the hopper, water box, the lifting or sinking of outriggers, and any oil leaks.

Proper training leads to safety

The concrete pump operator is a highly trained person in the operation of the pump and is responsible for safety in and around the pump. They also ensure the placing crew and the ready-mix driver are observing safe practices for a successful concrete placement. Make sure your pump operator is ACPA certified. Every 2 years, ACPA-certified operators must complete a comprehensive training program in the safe operation of the concrete pump and co-worker safety as a requirement for certification.

Concrete pumping is the most efficient way to place concrete and if all safety concerns are addressed before, during, and after a placement, the chance for accidents will be minimized. If you have questions about a placement requiring a concrete pump, ask the concrete pumping contractor to visit the jobsite and help you with the pre-pour plan. They can assist in selecting the right size and type of equipment required to make the pour, and where to locate the pump in the safest location.

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ARMCA – JUNE 27, 2012 GOLF TOURNAMENT RESULTS

Once again, we would like to recognize and extend a very special "thank you" to our generous sponsors.

GOLF PRIZES	WINNERS	SPONSOR
Hole #1 - Longest Drive	Bob Callon	Ashcor Technologies Ltd.
Hole #1 - Longest Putt	Steve Thompson	Inland Concrete - Calgary
Hole #2 - Closest to the Pin in 2	Chris Thorne	Lafarge Canada Inc.
Hole #2 - Longest Putt	Derek Brown	Wajax Power Systems
Hole #3 - Closest to the Pin	Mike Gibson	Interstar Pigments
Hole #3 - Longest Putt	Travis Carpenter	McIntosh Lalani Engineering
Hole #4 - Closest to the Pin in 2	Ron Ternovoy	BASF Canada Inc.
Hole #5 - Longest Drive	Brett McKay	D & R Companies
Hole #5 - Closest to the Pin in 2	Kevin James	BMH Systems
Hole #6 - Longest Putt	Glenn Erixon	BlasPro Inc.
Hole #7 - Closest to the Pin	Matt Kerley	Stantec Consulting Ltd.
Hole #7 - Longest Putt	Ken Ward	Inland Concrete - Edmonton
Hole #8 - Closest to the Pin in 2	Tom Kinnell	Elkon Products
Hole #9 - Longest Drive	Westy	GRACE Canada, Inc
Hole #9 - Closest to the Pin in 3	Kim Christensen	AMEC Environment & Infrastructure
Hole #10 - Closest to the Pin in 2	Terry Diduck	Cascade Carriers L.P.
Hole #11 - Longest Putt	Dylan Maskalyk	Lafarge Canada Inc. - Calgary

Continued on page 14

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Also in Stock

VIN #	MIXER	TRUCK	LOCATION	AXLE CONFIG	DEMO
DJ562061	11 Yd (8.4 m3) Paver Hardox LW Package	Allison Automatic M13 430 HP	Calgary	Single steer Tridem	Stock unit
DJ562058	11 Yd (8.4 m3) Paver Hardox LW Package	Eaton Ultrashift M13 430 HP	Edmonton	Single steer Tridem	Demo Mixer
CJ597310	11 Yd (8.4 m3) Paver Hyd water pump	Eaton Ultrashift M13 430 HP	Calgary	Single steer Tridem	Stock unit
CJ087332	17 Yd (13 m3) Trailer	Eaton Ultrashift M13 430 HP	Edmonton ETA Sept 15/2012	Tandem tractor Tridem trailer	Demo Mixer

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ARMCA – JUNE 27, 2012 GOLF TOURNAMENT RESULTS (continued)

GOLF PRIZES	WINNERS	SPONSOR
Hole #12 - Longest Drive	Tyler Dobell	Tri-Line Carriers LP
Hole #12 - Closest to the Pin in 3	Bob Galloway	EBA, A Tetra Tech Company
Hole #13 - Closest to the Pin in 2	Ron Schimpf	BURNCO Rock Products Ltd
Hole #14 - Longest Drive	Collin Campbell	Mack Trucks Canada
Hole #14 - Closest to the Pin in 2	Lindsay Young	Lehigh Cement
Hole #15 - Longest Putt	Barry Martin	Almor Testing Services Ltd.
Hole #16 - Closest to the Pin	Darren Keith	Caron Transportation Systems
Hole #17 - Longest Drive	Kris Lasek	Finning (Canada)
Hole #17 - Longest Putt	Greg Lunn	Lafarge Canada Inc. - Edmonton
Hole #18 - Longest Putt	Mike Johnson	Simard Suspensions Inc.

HOLE IN ONE		
Hole #6	No Winner	New West Freightliner Inc.
Hole #15	No Winner	Nortrux Inc.

FLIGHT WINNERS

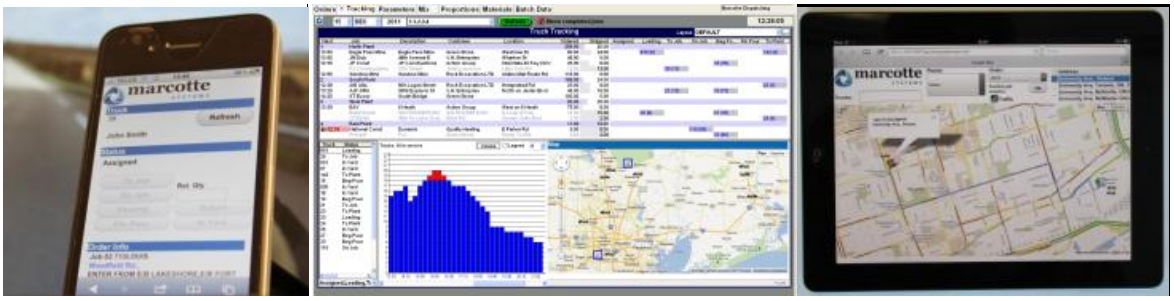
Flight # 1:	Kris Lasek	John Low	
	Tyler Dobell	Kim Christenson	Diamond International Truck
			Glover International Truck
Flight # 2:	Kent Plewes	Piero Nanfara	Continental Mixers
	David Chute	Rebecca Reeves	

50/50 DRAW Glenn Erixon

***** Proceeds from the 50/50 draws will be donated to STARS *****

MARCOTTE'S SMART AUTOMATION HELPS WITH CONCRETE PRODUCERS' ISSUES

Marcotte Systems, a specialist in the design of process control and automation systems for ready-mix concrete producers, announced new functionalities developed for its Marcotte ***OPERATION*** Dispatching system. The system is now adapted for the producers of every size including small and medium plants. The users of the system will benefit of innovative features that allow managing their track fleet even more efficiently.



Photos: Marcotte ***OPERATION*** is available from PC screen, iPhone and iPad

Marcotte is a fast growing company on the North American construction market where it has already installed more than 650 systems. Alberta is an important region where the company is a member of ARMCA. Marcotte's smart solutions help concrete producers doing their job faster and with better quality.

Company's suite is anchored on the four pillars of industry players: ***CONTROL***, ***QUALITY***, ***OPERATION*** and ***MANAGEMENT*** and integrates solutions from batching to dispatching and invoicing. "We ensure you operate at maximum capacity while optimizing resource utilization", says Syed Mohamed, Marcotte Industry Expert.

Marcotte's clients appreciate company's understanding of their needs and customer service received. According to them, the only Marcotte ***OPERATION*** can result in truck utilization savings of $10,000 per month during high season.

"At Marcotte, we understand the desire of our clients to maximize their production and optimize their resource utilization, while delivering a product that meets their customer's toughest requirements. Each of our software solutions comes loaded with integrated features and configurable options that help you meet your goals", says Syed.

syed.mohamed@marcottesystems.com

IMPORTANT DATES TO REMEMBER

Sept. 6, 2012 **ARMCA Golf Tournament** (Two Person Scramble)
Lacombe Golf and Country Club
Registration deadline: August 30, 2012

CLASSES

Concrete Technology Level 1

Tentatively scheduled for November 28th/29th (Edmonton) and December 5th/6th (Calgary).

Concrete Technology Level 2

Tentatively scheduled for the first week of February, 2013 (Edmonton) and third week of February, 2013 (Calgary).

ACI Field Testing

Calgary – Tentatively scheduled for April 2013.

Edmonton – Tentatively scheduled for March 2013.

***** Note: Additional ACI & Concrete Technology classes will be held in the event that 16 students are enrolled. 6 – 8 weeks notification is required to book these extra classes*****

As there are only 16 spots available per class, we encourage you to register today in order to secure a spot.

ARMCA also provides training to other provincial ready-mixed associations when requested.

CHECKLIST FOR CONCRETE PRODUCERS & CONCRETE CONTRACTORS

FRESH CONCRETE PERFORMANCE EXPECTATIONS

Introduction: The following checklist is intended for use in a pre-contract meeting between the concrete producer and the concrete contractor to clearly define responsibilities of each party for performance of the fresh concrete. This checklist applies only to properties of the fresh concrete and is not a part of the contract documents, but supplies an organizational framework for a partnering process. It's assumed that the proportions developed by the concrete producer will result in hardened concrete properties that meet the requirements in the contract documents. Fill in blanks only for items applicable to the project.

Producer Responsibility

Ck	Element Type	Setting time			Target slump, mm (tolerance per CSA A23.1.4.3.2.3.2)	Air content (1% tolerance)
		Hot*	21°C	Cold*		
☐	Footings					
☐	Foundation Walls					
☐	Exterior Slabs on Grade					
☐	Interior Slabs on Grade					
☐	Suspended Slabs [normal weight]					
☐	Concrete Toppings					
☐	Building Frame Members					
☐	Building Walls					
☐	Mass Concrete					

*Refers to concrete temperature (±10°C) as delivered

Notes:

Provide temperature ranges for hot and cold weather situations.

Slump to remain within the stated range for 30 minutes, starting either on arrival at the job site or after the initial slump adjustment (per CSA A23.1.4.3.2.3-09).

Total air content for normal weight concrete to receive a burnished finish (repeated hard trowelling) to be less than 3% as measured in a preliminary test ___ at truck discharge point, or a test at point of placement ___ at the jobsite.

Concrete will be pumpable under the conditions outlined by the contractor (below).

Concrete will be finishable under the conditions outlined by the contractor (below).

Continued…

CHECKLIST FOR CONCRETE PRODUCERS & CONCRETE CONTRACTORS (continued)

Concrete producer will advise contractor in writing of any changes made in:

- ☐ Cement type or source
- ☐ Supplementary cementitious material type, dosage, or source
- ☐ Admixture type or source
- ☐ Aggregate type or source

Expected variations in setting time, slump, air content, finishability and pumpability, as a result of these changes, will also be reported.

Contractor Responsibility

Define responsibility for measuring slump and air content.

Air content test method: ☐ pressure method or ☐ volumetric method

Test frequency (cu yd) for slump _____ and air content _____..

Location for slump and air-content testing ☐ end-of-chute; ☐ point of placement)

Evaluation of the effect of placement method on air content, and slump between point of discharge and point of placement (when specifications require testing at point of placement).

Contractor will allow jobsite addition of:

- ☐ Mixing water (in accordance with CSA A23.1.5.2.4-09 requirements or project specifications)
- ☐ Air-entraining admixture
- ☐ Air-detraining admixture
- ☐ Water-reducing admixture

with the understanding that such jobsite mix adjustments may affect setting time and slump.

Contractor requires a delivery rate of ___ cu m^3/hr; Concrete contractor to communicate any changes in delivery rate to the producer.

Contractor requires an average truck spacing of _____ min. and will communicate any changes in this spacing to the concrete producer.

Contractor will provide a contact surface temperature for both hot and cold weather placement (provide range).

Contractor will moisten subgrade when required to improve finishability when permitted by the specifications.

Contractor will use a test placement to confirm needed finishability for critical work.

Concrete contractor or pumping subcontractor to indicate, as necessary:

Pump type (boom or trailer) _____ .
Line diameter _____mm, length _____ m, (give horizontal and vertical dimensions).
Length of rubber hose _____ meters.
Number of 90 degree bends _____ .
Pump capacity _____ cu m^3/hr.

Concrete contractor or pumping subcontractor shall provide methods for assuring constant flow of concrete.

Concrete contractor or pumping subcontractor shall communicate any changes in pumping conditions to the concrete producer.

Identify contact persons for producer and contractor.

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COLD WEATHER CONCRETE REMINDERS

Winter is slowly creeping up on us, and the high number of freeze-thaw cycles and the frequency of deicing chemicals used on the roads can lead to scaling of concrete surfaces.

The National Ready Mixed Concrete Association (NRMCA) defines scaling as local flaking or peeling of a finished surface of hardened concrete as a result of exposure to freezing and thawing. Scaling will normally begin as a small area but can expand to cover large areas.

Although it is likely that scaling will never be eliminated due to the many variables that contribute to it, the Portland Cement Association (PCA), Cement Association of Canada (CAC), NRMCA and American Concrete Institution (ACI) International have developed the following guidelines to help minimize scaling.

1. Use an air-entrained, low water/cement ratio (0.45 or less w/c), as delivered.

   Alberta Building Code requires a C2 exposure for driveways and garage floors

   32 MPa or 30MPa where in indigenous aggregates do not achieve 32MPa with a .45 water/cementing material ratio
   5 to 8% air entrainment, 80mm slump

   ARMCA recommends Duramix®: Minimum Cement 300kg./m³
   Maximum water/cement ratio of .45
   Air entrainment 5 to 8%
   Slump 80 mm

2. Avoid finishing practices that reduce or eliminate the air-entrained voids in the wearing surface layer. Delay finishing until all bleed water has risen to, and disappeared from the surface.

3. Provide adequate curing for the concrete:
   When placing concrete after September 15th the use of curing compounds is not recommended. Proper cold-weather curing procedures should be followed. A high-quality sealer should be applied in the spring.

Placement of concrete pavements after September 30th is not recommended unless proper **Cold Weather Concrete procedures are followed. CSA A23.1 recommends that concrete subject to freeze-thaw and de-icing chemicals should be cured for 7 days at 10 degrees C for minimum curing, or the time required to attain 70% of specified 28 day concrete strength.**

IF THE AMBIENT TEMPERATURE IS AT OR BELOW 5°C OR WHEN THERE IS A PROBABILITY OF THE TEMPERATURE FALLING BELOW 5°C WITHIN 24H OF PLACING, CONCRETE MUST BE MAINTAINED AT 10°C FOR A MINIMUM OF 7 DAYS.

Continued…

COLD WEATHER CONCRETE REMINDERS (continued)

4. Avoid late season concrete placement where concrete can experience freezing conditions and /or exposure to de-icing salts before:
    a. the concrete has reached 32MPa, and/or
    b. the slab has had at least 30 days of air drying.

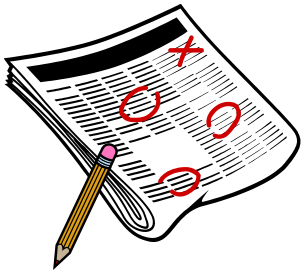
*****SPECIAL NOTE*****

Do not use deicing salts in the first year after placing the concrete. Use clean sand for traction. When conditions permit, hose off salt accumulations deposited by vehicles on newly placed driveways, approaches, and garage slabs. Never use ammonium sulphate or ammonium nitrate as a deicer, these are chemically aggressive and destroy concrete surfaces. Following the first year, if deicing compounds are used, ARMCA recommends immediate removal of residue by shoveling or brushing.

ADVERTISING OPPORTUNITY FOR ARMCA MEMBERS

The Mixer

The Quarterly Newsletter of the Alberta Ready-Mixed Concrete Association



Make sure your advertising dollars hit the target. If concrete is your target market, then there isn't a better bang for your advertising buck then to advertise in the Alberta Ready-Mixed Concrete Associations' "The Mixer." In addition to reaching our membership and various stakeholders, the newsletter with your advertisement is accessed by over 1,500 people per month on the website and will remain on-line for at least two years so your advertisement will still be viewed long after the publication has been sent.

Full page	6¼" wide x 8¼" high	$300 + GST
Half Page	6¼" wide x 4¼" high	$200 + GST
Quarter Page	3½" wide x 4¼" high	$150 + GST
Business Card		$100 + GST

If you would like to place an advertisement in the "The Mixer", please forward your high resolution PDF advertisement to the Alberta Ready-Mixed Concrete Association (ARMCA) Office.

Alberta Ready-Mixed Concrete Association
9653 – 45 Avenue
Edmonton, AB T6E 5Z8
Phone: 780-436-5645 Fax: 780-436-6503 email: info@armca.ca