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OFFICIAL PROGRAM STANDARDS NOTIFICATION (OPSN)

Issued: January 25, 2018

Program: Concrete Finisher

To: ITA Training Providers
Articulation Chair
System Liaison Person
School Districts

Subject: **Concrete Finisher Program Update**

OPSN No.: **OPSN 2018 005**

Effective Date: September 1, 2018

Summary of Change: Please be advised that a new Program Outline has been posted to the Industry Training Authority (ITA) website. For details, please see ***Concrete Finisher Program Outline Review Details*** (attached).

The following changes have been made to the Concrete Finisher program in BC:

- **Trade Name**: ITA will use the Red Seal trade name, Concrete Finisher, and will no longer use the BC trade name, Cement Mason.
- **Technical training:** There will be a decrease from 3 levels to 2 levels; however, the **total hours** of technical training will remain the same.
    - **Level 1** will be 150 hours
    - **Level 2** will be 210 hours

Note: The work-based training requirement will remain the same at 3,240 hours.

Rationale: The Concrete Finisher National Occupational Standard (NOA, 2006) was reviewed and updated as part of **the Harmonization Initiative** (see *General Information* below for more details). After a series of consultations, workshops and pan-Canadian webinars, a new Red Seal Occupational Standard (RSOS) was developed to replace the NOA, including the following finalized priorities for Concrete Finisher:

What's changing for CONCRETE FINISHER	Changing in BC?	What will it be?
TRADE NAME	**YES**	**Concrete Finisher**
NUMBER OF TRAINING LEVELS	**YES**	**2**
TOTAL HOURS technical + work-based training	**NO**	**3600 hours**
TRAINING SEQUENCE order of subjects taught	**YES**	**Changes to sequence**

The revised RSOS (2017) and the finalized harmonization recommendations triggered a full program review in BC, which resulted in a new Program Outline and the changes to the program as outlined above.

Details:

A review of the BC Concrete Finisher Program to align it to the RSOS (2017) was conducted in October-November 2017. During the Program Outline review, a training duration analysis was conducted in order to redistribute the technical training hours from 3 levels to 2 levels.

ITA will be working with the training provider to identify strategies for transitioning to the harmonized program. ITA is also working on a communication plan to inform apprentices and employer-sponsors of the changes to the program.

GENERAL INFORMATION: The Harmonization Initiative

At the request of industry, the Canadian Council of Directors of Apprenticeship (CCDA)'s Harmonization Initiative was launched in Fall 2013, and endorsed by the Forum of Labour Market Ministers (FLMM) in 2014. The goal of Harmonization is to *substantively align* apprenticeship systems across Canada by making apprenticeship training requirements more consistent in Red Seal trades.

In consultation with stakeholders, the CCDA identified four harmonization priorities:

1. Use of Red Seal **trade name**
2. Consistent **total training hours** (in-school and on-the-job)

3. Same number of **training levels**
4. Consistent **sequencing** of training content, including use of most recent Red Seal Occupation Standard.

For more information on the Harmonization Initiative, please visit our website at http://www.itabc.ca/our-trades-training-system/pan-canadian-harmonization-initiative.

Attachments: ***Concrete Finisher Program Outline Review Details***
This attachment provides details of the revisions made to the Concrete Finisher Program Outline during the review process.

For more information contact: ITA Program Standards
email: programstandards@itabc.ca

cc: All Staff

Concrete Finisher Program Outline Review Details

Key

Blue Text = Content moved to lower level = HL←CL (creates an gap)
Purple Text = Content moved to higher level = CL→HL (creates an overlap)
Green Text = New content added
Black Text = No change to level
CL = Current Level
HL = Harmonized level

Summary - Competency Migration

The BC Occupational Analysis Chart (OAC) was aligned to the structure of the Red Seal Occupational Standard (RSOS). Therefore, **all of the competencies have been renamed and restructured**. This chart shows the finalized competency distribution for the Harmonized Concrete Finisher (CF) program. It summarizes the major changes to the competencies.

CF HARMONIZED LEVEL 1		CF HARMONIZED LEVEL 2	
Line A	**Perform Safety-Related Functions**	**Line A**	**Perform Safety-Related Functions**
	A1 Use personal protective equipment (PPE) and safety equipment		
	A2 Maintain safe work environment		
Line B	**Use Tools and Equipment**	**Line B**	**Use Tools and Equipment**
	B1 Use hand tools		
			B2 Use power tools
	B3 Use measuring equipment	HL2←CL3	B3 Use measuring equipment
Line C	**Organize Work**	**Line C**	**Organize Work**
HL1←CL2	C1 Use documentation	HL2←CL3	C1 Use documentation
HL1←CL3	C2 Determine material requirements and quantities	HL2←CL3	C2 Determine material requirements and quantities
	C3 Sequence work procedures	HL2←CL3	C3 Sequence work procedures
Line D	**Use Communication and Mentoring Techniques**	**Line D**	**Use Communication and Mentoring Techniques**
	D1 Use communication techniques	CL1→HL2	D1 Use communication techniques
		New	D2 Use mentoring techniques
Line E	**Prepare Site**	**Line E**	**Prepare Site**
HL1←CL3	E1 Inspect site	HL2←CL3	E1 Inspect site
HL1←CL3	E2 Prepare sub-grade and elevations		E2 Prepare sub-grade and elevations
Line F	**Use Formwork**	**Line F**	**Use Formwork**
	F1 Construct concrete formwork		F1 Construct concrete formwork
	F2 Install reinforcements	CL1→HL2	F2 Install reinforcements
	F3 Inspect formwork and reinforcement	CL1→HL2	F3 Inspect formwork and reinforcement
	F4 Install construction, isolation and expansion joints		
HL1←CL2	F5 Remove forms		F5 Remove forms

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CF HARMONIZED LEVEL 1		CF HARMONIZED LEVEL 2	
Line G	**Place Concrete**	**Line G**	**Place Concrete**
	G1 Transport concrete on site		G1 Transport concrete on site
	G2 Spread concrete		
	G3 Consolidate concrete		G3 Consolidate concrete
			G4 Place concrete in vertical formwork
Line H	**Level Concrete**	**Line H**	**Level Concrete**
	H1 Establish elevation	HL2←CL3	H1 Establish elevation
	H2 Screed concrete		H2 Screed concrete
	H3 Bull float concrete		
Line I	**Float Concrete**	**Line I**	**Float Concrete**
	I1 Float concrete by hand		
			I2 Float concrete by machine
Line J	**Hand Tool Concrete**	**Line J**	**Hand Tool Concrete**
	J1 Edge perimeter of slab		
		HL2←CL3	J2 Finish extruded concrete surfaces
	J3 Tool contraction joints		
Line K	**Trowel Concrete**	**Line K**	**Trowel Concrete**
	K1 Trowel concrete by hand		
			K2 Trowel concrete by machine
Line L	**Apply Surface Treatments to Concrete**	**Line L**	**Apply Surface Treatments to Concrete**
			L1 Apply dry shake aggregate surface hardeners
		HL2←CL3	L2 Apply exposed aggregate finish
		HL2←CL3	L3 Texture concrete surface
		HL2←CL3	L4 Apply stamped concrete surface finish
		CL1→HL2	L5 Apply evaporation reducers
Line M	**Cure Concrete**	**Line M**	**Cure Concrete**
	M1 Wet-cure concrete		
	M2 Chemical cure concrete		
Line N	**Create Contraction Joints**	**Line N**	**Create Contraction Joints**
	N1 Saw cut contraction joints		
	N2 Fill joints		
Line O	**Protect Concrete**	**Line O**	**Protect Concrete**
	O1 Protect plastic concrete		
	O2 Protect hardened concrete		
Line P	**Repair and Restore Concrete**	**Line P**	**Repair and Restore Concrete**
HL1←CL2	P1 Inspect concrete		P1 Inspect concrete
HL1←CL2	P2 Remove materials		P2 Remove materials

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CF HARMONIZED LEVEL 1		CF HARMONIZED LEVEL 2	
HL1←CL2	P3 Prepare surface for repair or restoration		P3 Prepare surface for repair or restoration
HL1←CL2	P4 Install repair materials		P4 Install repair materials
Line Q	**Apply Surface Treatment to Hardened Concrete**	**Line Q**	**Apply Surface Treatment to Hardened Concrete**
			Q1 Prepare surface for surface treatments
		HL2←CL3	Q2 Abrade surface to achieve architectural finish
			Q3 Apply seamless systems
			Q4 Apply bonded and non-bonded toppings to concrete
			Q5 Parge vertical surfaces
			Q6 Apply chemical surface treatment
Line R	**Grout**	**Line R**	**Grout**
		HL2←CL3	R1 Prepare surface for grouting
		HL2←CL3	R2 Install grout
		HL2←CL3	R3 Finish exposed grout surface
Line S	**Perform cutting and coring**	**Line S**	**Perform cutting and coring**
			S1 Perform cutting
			S2 Perform coring

Concrete Finisher Program Outline Review Details

Key
Blue Text = Content moved to new level
Green Text = New content added
Red Text = Removed

Details of Changes

The BC Occupational Analysis Chart (OAC) was aligned to the structure of the Red Seal Occupational Standard (RSOS). Therefore, **all of the competencies have been renamed and restructured**. This chart shows the finalized competency distribution for the Harmonized Concrete Finisher (CF) program. It details the major movement of the competencies.

LEVEL ONE			
Current Level 1	**Harmonized Program**	**HL**	**Description of Change**
A Apply Safe Work Practices	**A Perform Safety-Related Functions**		
A1 Apply Shop and Site Safety Practices	A2 Maintain safe work environment	1	No change to level (n/c)
A2 Apply Personal Safety Practices	A1 Use personal protective equipment (PPE) and safety equipment	1	n/c
A3 Use Workplace Hazardous Materials Information System (WHMIS)	A2 Maintain safe work environment	1	n/c
A4 Use Fire Safety Procedures	A2 Maintain safe work environment	1	n/c
A5 Use Ladders, Scaffolds and Elevating Work Platforms	A2 Maintain safe work environment	1	n/c
B Use Tools And Equipment	**B Use Tools and Equipment**		
B1 Use Hand Tools	B1 Use hand tools B3 Use measuring equipment	1	n/c
C Design and Control Concrete Mixtures			Split across various lines
C1 Select and Use Cement	C2 Determine material requirements and quantities	1	n/c
C2 Select and Use Aggregate	C2 Determine material requirements and quantities	1	n/c
C3 Select and Use Admixtures	C2 Determine material requirements and quantities	1	n/c
C4 Batch and Convey Concrete	C3 Sequence work procedures G1 Transport concrete on site	1	n/c
C5 Use Concrete Curing and Sealing Procedures	M1 Wet-cure concrete M2 Chemical cure concrete	1	n/c
C6 Follow Concreting Practices for Adverse Weather Conditions	C3 Sequence work procedures O1 Protect plastic concrete O2 Protect hardened concrete	1	n/c to level, but split across various competencies

Concrete Finisher Program Outline Review Details

LEVEL ONE			
Current Level 1	**Harmonized Program**	**HL**	**Description of Change**
C7 Describe Quality Control Tests	C2 Determine material requirements and quantities	1	n/c
D Place and Finish Concrete			Split across various lines
D1 Place and Finish Concrete With Hand Tools	F1 Construct concrete formwork F2 Install reinforcements F3 Inspect formwork and reinforcement F4 Install construction, isolation and expansion joints G2 Spread concrete G3 Consolidate concrete H1 Establish elevation H2 Screed concrete H3 Bull float concrete I1 Float concrete by hand J1 Edge perimeter of slab J3 Tool contraction joints K1 Trowel concrete by hand N1 Saw cut contraction joints N2 Fill joints	1	n/c to level, but split across various competencies
G Plan and Organize Work	**D Use Communication and Mentoring Techniques**		
G1 Use Communication Skills	D1 Use communication techniques	1	n/c
	Content new to or moved into Level 1	**Movement**	**Specific content moved to new level**
	C1 Use documentation	HL1←CL2	Interpret documentation relating to concrete standards and building code
	C2 Determine material requirements and quantities	HL1←CL3	Perform slump test
	E1 Inspect site	HL1←CL3	Describe site inspection before site preparation
	E2 Prepare sub-grade and elevations	HL1←CL3	Describe basic layout Perform calculations
	F5 Remove forms	HL1←CL2	Describe form removal
	P1 Inspect concrete	HL1←CL2	Describe concrete defects and their causes
	P2 Remove materials	HL1←CL2	Perform removal for minor repair
	P3 Prepare surface for repair or restoration	HL1←CL2	Prepare surface for minor repair, including profile requirement
	P4 Install repair materials	HL1←CL2	Install repair materials for minor repairs

Concrete Finisher Program Outline Review Details

LEVEL TWO			
Current Level 2	**Harmonized Program**	**HL**	**Description of Change**
B Use Tools and Equipment	**B Use Tools and Equipment**		
B2 Use Power Tools and Equipment	B2 Use power tools S1 Perform cutting S2 Perform coring	2	n/c
D Place and Finish Concrete			Split across various lines
D2 Explain Construction Practices	F1 Construct concrete formwork	2	n/c
D3 Place and Finish Horizontal Flatwork Using Power Equipment and Hand Tools	G1 Transport concrete on site G3 Consolidate concrete H2 Screed concrete I2 Float concrete by machine K2 Trowel concrete by machine L1 Apply dry shake aggregate surface hardeners	2	n/c to level, but split across various competencies
D4 Place and Finish Vertical Concrete	G4 Place concrete in vertical formwork I2 Float concrete by machine K2 Trowel concrete by machine	2	n/c to level, but split across various competencies
D5 Perform Roadwork	E2 Prepare sub-grade and elevations F1 Construct concrete formwork H1 Establish elevation J2 Finish extruded concrete surfaces	2	n/c to level, but split across various competencies
D6 Strip Formwork for Finishing Procedures	F5 Remove forms	2	n/c
E Repair Concrete	**P Repair and Restore Concrete**		
E1 Repair Concrete Surface Defects	P1 Inspect concrete P2 Remove materials P3 Prepare surface for repair or restoration P4 Install repair materials	HL1←CL2	Perform minor repairs (i.e. snap ties, bug holes and minimal honeycomb was moved to HL1)
E2 Repair Internal Concrete Defects	P1 Inspect concrete P2 Remove materials P3 Prepare surface for repair or restoration P4 Install repair materials	2	n/c to level, but split across various competencies
E3 Install Concrete Toppings and Self Levelling Underlayments	Q1 Prepare surface for surface treatments Q2 Abrade surface to achieve architectural finish Q3 Apply seamless systems Q4 Apply bonded and non-bonded toppings to concrete Q5 Parge vertical surfaces Q6 Apply chemical surface treatment	2	n/c to level, but split across various competencies
	Content new to or moved into Level 2	**Movement**	**Specific content moved to new level**
	B3 Use measuring equipment	HL2←CL3	Establish string line location and elevation

Concrete Finisher Program Outline Review Details

LEVEL TWO			
Current Level 2	**Harmonized Program**	**HL**	**Description of Change**
	C1 Use documentation	HL2←CL3	Interpret drawings Interpret information found in curb and gutter prints Interpret reference materials and drawings for flat work and road building
	C2 Determine material requirements and quantities	HL2←CL3	Estimate concrete costs
	C3 Sequence work procedures	HL2←CL3	Describe the sequence of work for self-levelling overlayment installation
	D1 Use communication techniques	CL1→HL2	Demonstrate two-way communication Use active listening
	D2 Use mentoring techniques	2	New to Red Seal Occupational Standard (RSOS) Describe mentoring techniques
	E1 Inspect site	HL2←CL3	Report on site conditions
	F2 Install reinforcements	CL1→HL2	Describe types of reinforcements and their advantages Describe installation of reinforcements
	F3 Inspect formwork and reinforcement	CL1→HL2	Inspect reinforcements
	H1 Establish elevation	HL2←CL3	Set string lines
	J2 Finish extruded concrete surfaces	HL2←CL3	Describe finishing procedures for extruded concrete
	L2 Apply exposed aggregate finish	HL2←CL3	Create exposed aggregate finish
	L3 Texture concrete surface	HL2←CL3	Describe techniques to achieve surface textures
	L4 Apply stamped concrete surface finish	HL2←CL3	Apply stamped concrete finishes
	L5 Apply evaporation reducers	CL1→HL2	Describe the application of evaporation reducers
	Q2 Abrade surface to achieve architectural finish	HL2←CL3	Describe the procedures to abrade concrete surfaces to achieve an architectural finish
	R1 Prepare surface for grouting	HL2←CL3	Prepare surface for grout installation
	R2 Install grout	HL2←CL3	Mix grout. Install dry pack grout.
	R3 Finish exposed grout surface	HL2←CL3	Finish exposed grout surfaces

LEVEL THREE			
Current Level 3	**Harmonized Program**	**Movement**	**Specific content moved to new level**
D Place and Finish Concrete	**P Repair and Restore Concrete**		
D5 Perform Roadwork	C1 Use documentation H1 Establish elevation J2 Finish extruded concrete surfaces	HL2←CL3	Interpret curb and gutter prints Set string lines Describe finishing procedures for extruded concrete
D7 Achieve Architectural Finishes	L2 Apply exposed aggregate finish L3 Texture concrete surface L4 Apply stamped concrete surface finish	HL2←CL3	Create exposed aggregate finish Describe techniques to achieve surface textures Apply stamped concrete finishes

LEVEL THREE			
Current Level 3	**Harmonized Program**	**Movement**	**Specific content moved to new level**
	Q2 Abrade surface to achieve architectural finish		Describe the procedures to abrade concrete surfaces to achieve an architectural finish
F Install Grout	**R Grout**		
F1 Install Grout	R1 Prepare surface for grouting R2 Install grout R3 Finish exposed grout surface	HL2←CL3	Prepare surface for grout installation Mix grout. Install dry pack grout Finish exposed grout surfaces
F2 Perform Quality Control Tests	C2 Determine material requirements and quantities	HL1←CL3	Perform slump test
G Plan and Organize Work	**C Organize Work**		
G2 Read Prints, Specifications and Industry Standards	C1 Use documentation	HL2←CL3	Interpret reference materials and drawings for flat work and road building
G3 Plan and Supervise Projects	C2 Determine material requirements and quantities E1 Inspect site	HL2←CL3	Estimate concrete costs Report on site conditions