



Issued: September 8, 2021

Program: Glazier

To: ITA Training Providers

Articulation Chair

System Liaison Person

Youth Train in Trades School Districts

Subject: Glazier Program Outline and Program Profile Update

OPSN No.: OPSN 2021 009

Effective Date: April 1, 2022

Summary of Change:

Please be advised that the new Harmonized Program Outline has been posted to the Industry Training Authority (ITA) <u>website</u>. For details, please see the *Glazier Program*

Outline Review Details (attached).

Changes are as follows:

- Increase of 260 work-based training hours (from 6,400 to 6,660)
- Changes in sequencing of technical training content

Rationale:

At the request of industry, the Canadian Council of Directors of Apprenticeship's (CCDA) Harmonization Initiative was launched in Fall 2013. 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: trade name, total training hours (in-school plus on-the-job), the number of training levels, and the sequencing of training content.

Glazier is one of the trades identified for the sixth phase of Harmonization. After a series of consultations, the finalized priorities of the Harmonized Glazier program were as follows:

Glazier	Changes in BC?	What will it be?
Trade name	No	Glazier
Total work-based training hours	Yes	6,660 hours (from 6,400 hours)



Training Levels	No	3 Levels
Training sequence	Yes	Some changes

Details: The Glazier Program Review was conducted in May 2021 to align BC's Glazier

Program Outline to the harmonized sequencing and 2020 Red Seal Occupational Standard (RSOS). The review process revised content to meet the current industry

standard.

After April 1, 2022, please implement the harmonized 3-level Glazier program (HL1, HL2, and HL3). There will be no gap training or phased transition plans needed.

Attachments: Glazier Program Outline Review Details (below)

This attachment provides details of the revisions made to the Glazier Program Outline

during the review process.

For more Program Standards

information contact: email: programstandards@itabc.ca

cc: All Staff



Key

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Summary - Competency Migration

The BC Occupational Analysis Chart (OAC) was aligned to the structure of the Red Seal Occupational Standard (RSOS). Therefore, <u>all of the competencies have been renamed and restructured</u>. This chart shows the finalized competency distribution for the Glazier program. It summarizes the major changes to the competencies. For details, see the charts below.

GLAZIER HARMONIZED LEVEL 1 (HL1)		GLAZIER HARMO	DNIZED LEVEL 2 (HL2)	GLAZIER HARMONIZ	ED LEVEL 3 (HL3)
Line A	USE SAFE WORK PRACTICES	Line A	USE SAFE WORK PRACTICES	Line A	USE SAFE WORK PRACTICES
	A1 Control workplace hazards				
	A2 Apply OHS regulations and WorkSafeBC				
	standards				
	A3 Use Global Harmonized System 2015 (WHIMIS) Certification				
	A4 Use personal protective equipment				
	A5 Practice fire prevention				
	A6 Apply Level 1 First Aid practices				
	A7 Use fall protection systems				
Line B	ORGANIZE WORK	Line B	ORGANIZE WORK	Line B	ORGANIZE WORK
	B1 Interpret drawings and specifications		B1 Interpret drawings and specifications		B1 Interpret drawings and specifications
HL1/HL3←CL3	B2 Use codes, regulations, and standards			HL1/HL3←CL3	B2 Use codes, regulations, and standards
HL1/HL3←CL3	B3 Apply manufacturer and supplier			HL1/HL3←CL3	B3 Apply manufacturer and supplier
	documentation				documentation
	B4 Apply trade math		B4 Apply trade math		B4 Apply trade math
	B5 Plan sequence of work				B5 Plan sequence of work
	B6 Handle materials				
	B7 Communicate with others				B7 Communicate with others
Line C	USE TOOLS AND EQUIPMENT	Line C	USE TOOLS AND EQUIPMENT	Line C	USE TOOLS AND EQUIPMENT
	C1 Use hand tools				
	C2 Use portable power tools				
	C3 Use stationary power tools				
	C4 Use layout and measuring equipment				C4 Use layout and measuring equipment
	C5 Use ladders and scaffolds				



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GLAZIER HARMONIZED LEVEL 1 (HL1)		GLAZIER HARMONIZED I	EVEL 2 (HL2)	GLAZIER HARMONIZED	LEVEL 3 (HL3)
	C6 Use rigging and hoisting equipment				C6 Use rigging and hoisting equipment
	C7 Operate mobile access equipment				
Line D	FABRICATE COMMERCIAL SYSTEMS	Line D	FABRICATE COMMERCIAL SYSTEMS	Line D	FABRICATE COMMERCIAL SYSTEMS
	D1 Fabricate storefront systems		D1 Fabricate storefront systems		
HL1/HL2←CL2	D2 Fabricate window systems	HL1/HL2←CL2	D2 Fabricate window systems		
		CL1/CL2→HL2/HL3	D3 Fabricate curtain walls	CL1/CL2→HL2/HL3	D3 Fabricate curtain walls
					D4 Fabricate skylights and sloped glazing systems
		HL2/HL3←CL3	D5 Fabricate commercial entrance systems	HL2/HL3←CL3	D5 Fabricate commercial entrance systems
		HL2/HL3←CL3	D6 Fabricate guardrail, handrail and balustrade systems	HL2/HL3←CL3 & New	D6 Fabricate guardrail, handrail and balustrade systems New Achievement Criteria (practical)
	D7 Perform glass cutting and edge treatment		D7 Perform glass cutting and edge treatment		D7 Perform glass cutting and edge treatment
Line E	INSTALL COMMERCIAL SYSTEMS	Line E	INSTALL COMMERCIAL SYSTEMS	Line E	INSTALL COMMERCIAL SYSTEMS
	E1 Install storefront systems		E1 Install storefront systems		
HL1/HL2←CL2	E2 Install strip window systems	HL1/HL2←CL2	E2 Install strip window systems		
CL1/CL2→HL1/HL2/HL3	E3 Install curtain walls	CL1/CL2→HL1/HL2/HL3	E3 Install curtain walls	CL1/CL2 & New→HL1/HL2/HL3	E3 Install curtain walls New Achievement Criteria (practical)
				CL2/CL3→HL3	E4 Install skylights and sloped glazing systems
					E5 Install commercial entrance systems
		HL2/HL3←CL3	E6 Install guardrail, handrail and balustrade systems	HL2/HL3←CL3	E6 Install guardrail, handrail and balustrade systems



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GLAZIER HARMONIZED LEVEL 1 (HL1)		GLAZIER HARMONIZED LEVEL 2 (HL2)		GLAZIER HARMONIZED LEVEL 3 (HL3)		
CL1→HL1/HL3	E7 Install building envelope membranes			CL1→HL1/HL3	E7 Install building envelope membranes	
		CL2→HL2/HL3	E8 Install flashing	CL2 & New→HL2/HL3	E8 Install flashing New Achievement Criteria (practical)	
	E9 Use caulking and sealants		E9 Use caulking and sealants		E9 Use caulking and sealants	
Line F	INSTALL RESIDENTIAL SYSTEMS	Line F	INSTALL RESIDENTIAL SYSTEMS	Line F	INSTALL RESIDENTIAL SYSTEMS	
		HL2←CL3	F1 Lay out residential window and door systems			
		HL2/HL3←CL3	F2 Glaze residential window and doors	HL2/HL3←CL3	F2 Glaze residential window and doors	
				CL2→HL3	F3 Install residential skylights and solariums	
HL1/HL2/HL3←CL2/CL3	F4 Install shower enclosures, mirrors, and back painted glass	HL1/HL2/HL3←CL2/CL3	F4 Install shower enclosures, mirrors, and back painted glass	HL1/HL2/HL3←CL2/CL3 & New	F4 Install shower enclosures, mirrors, and back-painted glass New Achievement Criteria (practical)	
					F5 Install guardrail, handrail, and balustrade systems	
		HL2←CL3	F6 Install residential windows, doors, frames and hardware			
Line G	INSTALL SPECIALTY GLASS AND PRODUCTS	Line G	INSTALL SPECIALTY GLASS AND PRODUCTS	Line G	INSTALL SPECIALTY GLASS AND PRODUCTS	
		HL2/HL3←CL3	G1 Lay out specialty glass and products	HL2/HL3←CL3	G1 Lay out specialty glass and products	
					G2 Assemble specialty glass and products	
					G3 Install custom glazing systems	
Line H	SERVICE GLAZING SYSTEMS	Line H	SERVICE GLAZING SYSTEMS	Line H	SERVICE GLAZING SYSTEMS	
					H1 Service commercial window and door	
					systems	
		HL2←CL3	H2 Service residential window and door systems			

Details – Competency Migration



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This chart shows where content from the current Glazier program (CL) moved to in the harmonized Glazier program (HL) and includes details of content that was moved or split across levels.

CURRENT LEVEL 1 TO HARMONIZED LEVEL 1

CURRENT LEVEL 1 (CL1)	HARMONIZED LEVEL 1 (HL1)	MIGRATION	DETAILS
Line A – USE SAFE WORK PRACTICES	Line A – USE SAFE WORK PRACTICES		
A1 - Control workplace hazards	A1 - Control workplace hazards		
A2 – Apply OHS regulations and WCB standards	A2 – Apply OHS regulations and WorkSafeBC standards		
A3 – Use Global Harmonized System 2015 (WHIMIS) Certification	A3 – Use Global Harmonized System 2015 (WHIMIS) Certification		
A4 – Use personal protective equipment	A4 – Use personal protective equipment		
A5 – Practice fire prevention	A5 – Practice fire prevention		
A6 – Apply Level 1 First Aid practices	A6 – Apply Level 1 First Aid practices		
A7 – Use fall protection systems	A7 – Use fall protection systems		
Line B – ORGANIZE WORK	Line B – ORGANIZE WORK		
B1 – Interpret drawings and specifications	B1 – Interpret drawings and specifications		
	B2 – Use codes, regulations, and standards	HL1/HL3←CL3	Content from Level 3 was split across Levels 1 & 3 HL1 = Describe codes, regulations, standards & engineering requirements HL3 = Interpret & apply codes, regulations, standards & engineering requirements
	B3 – Apply manufacturer and supplier documentation	HL1/HL3←CL3	Content from Level 3 was split across Levels 1 & 3 HL1 = Interpret manufacturer and supplier documentation HL3 = Apply manufacturer and supplier documentation for installation purposes
B4 – Apply trade math	B4 – Apply trade math		
B5 – Plan sequence of work	B5 – Plan sequence of work		
B6 – Handle materials	B6 – Handle materials		
B7 – Communicate with others	B7 – Communicate with others		
Line C – USE TOOLS AND EQUIPMENT	Line C – USE TOOLS AND EQUIPMENT		
C1 – Use hand tools	C1 – Use hand tools		



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CURRENT LEVEL 1 (CL1)	HARMONIZED LEVEL 1 (HL1)	MIGRATION	DETAILS
C2 – Use portable power tools	C2 – Use portable power tools		
C3 – Use stationery power tools	C3 – Use stationery power tools		
C4 – Use layout and measuring equipment	C4 – Use layout and measuring equipment		
C5 – Use ladders and scaffolds	C5 – Use ladders and scaffolds		
C6 – Use rigging and hoisting equipment	C6 – Use rigging and hoisting equipment		
C7 – Operate mobile access equipment	C7 – Operate mobile access equipment		
Line D – FABRICATE COMMERCIAL SYSTEMS	Line D – FABRICATE COMMERCIAL SYSTEMS		
D1 – Fabricate storefront systems	D1 – Fabricate storefront systems		
	D2 – Fabricate window	HL1/HL2 ←CL2	Content from Level 2 was split across Levels 1 & 2 HL1 = Describe layout for fabrication of commercial window systems HL2 = Layout & fabricate commercial window systems
D3 – Fabricate curtain walls		CL1/CL2→ HL2/HL3	Content from CL1 was moved to HL2 & 3; see Level 2 & 3 charts below for details.
D7 – Perform glass cutting and edge treatment	D7 – Perform glass cutting and edge treatment		
Line E – INSTALL COMMERCIAL SYSTEMS	Line E – INSTALL COMMERCIAL SYSTEMS		
E1 – Install storefront systems	E1 – Install storefront systems		
	E2 – Install strip window systems	HL1/HL2 ←CL2	Content from Level 2 was split across Levels 1 & 2 HL1 = Describe installation of commercial strip window systems HL2 = Layout & install strip window systems
E3 – Install curtain walls	E3 – Install curtain walls	CL1/CL2 & New → HL1/HL2/HL3	Content from Levels 1 & 2 was split across Levels 1, 2 & 3 HL1 = Prep, glaze & finish curtain wall HL2 = Install & glaze curtain wall HL3 = Analyze & troubleshoot envelope integrity problems (new Achievement Criteria (practical) – troubleshoot problems with envelope performance integrity)
E7 – Install building envelope membranes	E7 – Install building envelope membranes	CL1→ HL1/HL3	Content from Levels 1 was split across Levels 1 & 3 HL1 = Describe material prep and install membranes HL3 = Describe membrane types & purpose
E9 – Use caulking and sealants	E9 – Use caulking and sealants		



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CURRENT LEVEL 1 (CL1)	HARMONIZED LEVEL 1 (HL1)	MIGRATION	DETAILS
Line F – INSTALL RESIDENTIAL SYSTEMS	Line F – INSTALL RESIDENTIAL SYSTEMS		
	F4 – Install shower enclosures, mirrors, and back-painted glass	HL1/HL2/HL3 ←CL2/CL3 &	-
		New	HL1 = Describe prep & installation of mirrors and back-painted
			glass
			HL2 = Prep wall & install mirrors and back-painted glass
			HL3 = Measure & install shower enclosures
			Note: a new Achievement Criteria (practical) added to
			HL3 - install a shower door and sidelite

CURRENT LEVEL 2 (CL2)	HARMONIZED LEVEL 2 (HL2)	MIGRATION	DETAILS
Line B – ORGANIZE WORK	Line B – ORGANIZE WORK		
B1 – Interpret drawings and specifications	B1 – Interpret drawings and specifications		
B4 – Apply trade math	B4 – Apply trade math		
Line D – FABRICATE COMMERCIAL SYSTEMS	Line D – FABRICATE COMMERCIAL SYSTEMS		
D1 – Fabricate storefront systems	D1 – Fabricate storefront systems		
D2 – Fabricate window systems	D2 – Fabricate window systems	HL1/HL2 ←CL2	Content from Level 2 was split across Levels 1 & 2 HL1 = Describe layout for fabrication of commercial window systems HL2 = Layout & fabricate commercial window systems
D3 – Fabricate curtain walls	D3 – Fabricate curtain walls	CL1/CL2→ HL2/HL3	Content from Level 1 was moved to Level 3 as review. Level 2 remains the same. HL2 = Plan & fabricate curtain walls HL3 = Describe curtain wall components, fabrication, anchor systems & rain screen
	D5 – Fabricate commercial entrance systems	HL2/HL3 ←CL3	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe types & applications and fabricate entrance systems HL3 = Fabricate entrance systems
	D6 – Fabricate guardrail, handrail, and balustrade systems	HL2/HL3 ←CL3 & New	Content from Level 3 was split across Levels 2 & 3

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CURRENT LEVEL 2 (CL2)	HARMONIZED LEVEL 2 (HL2)	MIGRATION	DETAILS
			HL2 = Describe the fabrication of guardrail, handrail & balustrade systems HL3 = Fabricate guardrail, handrail & balustrade systems Note: new Achievement Criteria (practical) added to HL3 – assemble a guardrail or handrail
D7 – Perform glass cutting and edge treatment	D7 – Perform glass cutting and edge treatment		TILS — assemble a guardran of fiantifall
Line E – INSTALL COMMERCIAL SYSTEMS	Line E – INSTALL COMMERCIAL SYSTEMS		
E1 – Install storefront systems	E1 – Install storefront systems		
E2 – Install strip window systems	E2 – Install strip window systems	HL1/HL2 ←CL2	Content from Level 2 was split across Levels 1 & 2 HL1 = Describe installation of commercial strip window systems HL2 = Layout & install strip window systems
E3 – Install curtain walls	E3 – Install curtain walls	CL1/CL2 & New → HL1/HL2/HL3	Content from Levels 1 & 2 was split across Levels 1, 2 & 3 HL1 = Prep, glaze & finish curtain wall HL2 = Install & glaze curtain wall HL3 = Analyze & troubleshoot envelope integrity problems Note: new Achievement Criteria (practical) added – troubleshoot problems with envelope performance integrity
E4 – Install skylights and sloped glazing systems		CL2/CL3→ HL3	Level 2 content & practical assessment removed from CL2 and combined with Level 3 content in HL3
	E6 – Install guardrail, handrail, and balustrade systems	HL2/HL3 ←CL3	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe installation of commercial strip window systems HL3 = Layout & install strip window systems
E8 – Install flashing	E8 – Install flashing	CL2 & New → HL2/HL3	Content from Level 2 was split across Levels 2 & 3 HL2 = Select & install flashing HL3 = Install flashing Note: new Achievement Criteria (practical) added to HL3 - build a flashing mock-up
E9 – Use caulking and sealants	E9 – Use caulking and sealants		
Line F – INSTALL RESIDENTIAL SYSTEMS	Line F – INSTALL RESIDENTIAL SYSTEMS		



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CURRENT LEVEL 2 (CL2)	HARMONIZED LEVEL 2 (HL2)	MIGRATION	DETAILS
	F1 – Lay out residential window and door systems	HL2 ←CL3	Moved from Level 3 to Level 2; includes layout of window & door systems
	F2 – Glaze residential windows and doors	HL2/HL3 ←CL3	Content from Level 3 was moved to Level 2. Only the practical assessment remains in Level 3. HL2 = Describe & measure different types of residential windows & doors, and replace broken glass HL3 = Install a residential nail-on flange
F3 – Install residential skylights and solariums		CL2→ HL3	Moved to HL3. See Level 3 chart below for details.
F4 – Install shower enclosures, mirrors, and back-painted glass	F4 – Install shower enclosures, mirrors, and back-painted glass F6 – Install residential windows, doors, frames, and hardware	HL1/HL2/HL3 ←CL2/CL3 & New HL2 ←CL3	Content from Levels 2 & 3 was split across Levels 1, 2 & 3 HL1 = Describe prep & installation of mirrors and back-painted glass HL2 = Prep wall & install mirrors and back-painted glass HL3 = Measure & install shower enclosures Note: a new Achievement Criteria (practical) added to HL3 - install a shower door and sidelite Moved from Level 3 to Level 2; includes layout & installation of residential windows, doors, frames, and hardware
Line G – INSTALL SPECIALTY GLASS AND PRODUCTS	Line G – INSTALL SPECIALTY GLASS AND PRODUCTS		
	G1 – Lay out specialty glass and products	HL2/HL3 ←CL3	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe applications & materials of specialty glass & products HL3 = Layout specialty glass & products
Line H – SERVICE GLAZING SYSTEMS	Line H – SERVICE GLAZING SYSTEMS		
	H2 – Service residential window and door systems	HL2 ←CL3	Moved from Level 3 to Level 2; includes servicing doors, vents & locks, and replacing hinges

CURRENT LEVEL 3 (CL3)	HARMONIZED LEVEL 3 (HL3)	MIGRATION	DETAILS
Line B – ORGANIZE WORK	Line B – ORGANIZE WORK		
B1 – Interpret drawings and specifications	B1 – Interpret drawings and specifications		



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CURRENT LEVEL 3 (CL3)	HARMONIZED LEVEL 3 (HL3)	MIGRATION	DETAILS
B2 – Use codes, regulations, and standards	B2 – Use codes, regulations, and standards	HL1/HL3 ←CL3	Content from Level 3 was split across Levels 1 & 3 HL1 = Describe codes, regulations, standards & engineering requirements HL3 = Interpret & apply codes, regulations, standards & engineering requirements
B3 – Apply manufacturer and supplier documentation	B3 – Apply manufacturer and supplier documentation	HL1/HL3 ←CL3	Content from Level 3 was split across Levels 1 & 3 HL1 = Interpret manufacturer and supplier documentation HL3 = Apply manufacturer and supplier documentation for installation purposes
B4 – Apply trade math	B4 – Apply trade math		
B5 – Plan sequence of work	B5 – Plan sequence of work		
B7 – Communicate with others	B7 – Communicate with others		
Line C – USE TOOLS AND EQUIPMENT	Line C – USE TOOLS AND EQUIPMENT		
C4 – Use layout and measuring equipment	C4 – Use layout and measuring equipment		
C6 – Use rigging and hoisting equipment	C6 – Use rigging and hoisting equipment		
Line D – FABRICATE COMMERCIAL SYSTEMS	Line D – FABRICATE COMMERCIAL SYSTEMS		
	D3 – Fabricate curtain walls	CL1/CL2→ HL2/HL3	Content from Level 1 was moved to Level 3 as review. Level 2 remains the same. HL2 = Plan & fabricate curtain walls HL3 = Describe curtain wall components, fabrication, anchor systems & rain screen
D4 – Fabricate skylights and sloped glazing systems	D4 – Fabricate skylights and sloped glazing systems		
D5 – Fabricate commercial entrance systems	D5 – Fabricate commercial entrance systems	HL2/HL3 ←CL3	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe types & applications and fabricate entrance systems HL3 = Fabricate entrance systems
D6 – Fabricate guardrail, handrail, and balustrade systems	D6 – Fabricate guardrail, handrail, and balustrade systems	HL2/HL3 ←CL3 & New	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe the fabrication of guardrail, handrail & balustrade systems HL3 = Fabricate guardrail, handrail & balustrade systems Note: new Achievement Criteria (practical) added to HL3 – assemble a guardrail or handrail



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CURRENT LEVEL 3 (CL3)	HARMONIZED LEVEL 3 (HL3)	MIGRATION	DETAILS
D7 – Perform glass cutting and edge treatment	D7 – Perform glass cutting and edge treatment		
Line E – INSTALL COMMERCIAL SYSTEMS	Line E – INSTALL COMMERCIAL SYSTEMS		
	E3 – Install curtain walls	CL1/CL2 & New → HL1/HL2/HL3	Content from Levels 1 & 2 was split across Levels 1, 2 & 3 HL1 = Prep, glaze & finish curtain wall HL2 = Install & glaze curtain wall HL3 = Analyze & troubleshoot envelope integrity problems Note: new Achievement Criteria (practical) added – troubleshoot problems with envelope performance integrity
E4 – Install skylights and sloped glazing systems	E4 – Install skylights and sloped glazing systems	CL2/CL3→ HL3	Level 2 content & practical assessment removed from CL2 and combined with Level 3 content in HL3
E5 – Install commercial entrance systems	E5 – Install commercial entrance systems		
E6 – Install guardrail, handrail, and balustrade systems	E6 – Install guardrail, handrail, and balustrade systems	HL2/HL3 ←CL3	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe installation of commercial strip window systems HL3 = Layout & install strip window systems
	E7 – Install building envelope membranes	CL1→ HL1/HL3	Content from Levels 1 was split across Levels 1 & 3 HL1 = Describe material prep and install membranes HL3 = Describe membrane types & purposes
	E8 – Install flashing	CL2 & New → HL2/HL3	Content from Level 2 was split across Levels 2 & 3 HL2 = Select & install flashing HL3 = Install flashing Note: new Achievement Criteria (practical) added to HL3 - build a flashing mock-up
E9 – Use caulking and sealants	E9 – Use caulking and sealants		
Line F – INSTALL RESIDENTIAL SYSTEMS	Line F – INSTALL RESIDENTIAL SYSTEMS		
F1 – Lay out residential window and door systems		HL2 ←CL3	Moved from Level 3 to Level 2. See Level 2 chart above for details.
F2 – Glaze residential windows and doors	F2 – Glaze residential windows and doors	HL2/HL3 ←CL3	Content from Level 3 was moved to Level 2. Only the practical assessment remains in Level 3. HL2 = Describe & measure different types of residential windows & doors, and replace broken glass HL3 = Install a residential nail-on flange



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CURRENT LEVEL 3 (CL3)	HARMONIZED LEVEL 3 (HL3)	MIGRATION	DETAILS
	F3 – Install residential skylights and solariums	CL2→ HL3	Moved from Level 2 to Level 3; includes measuring & installing solariums
F4 – Install shower enclosures, mirrors, and back-painted glass	F4 – Install shower enclosures, mirrors, and back-painted glass	HL1/HL2/HL3 ←CL2/CL3 & New	Content from Levels 2 & 3 was split across Levels 1, 2 & 3 HL1 = Describe prep & installation of mirrors and back-painted glass HL2 = Prep wall & install mirrors and back-painted glass HL3 = Measure & install shower enclosures Note: new Achievement Criteria (practical) added to HL3 - install a shower door and sidelite
F5 – Install guardrail, handrail, and balustrade systems	F5 – Install guardrail, handrail, and balustrade systems		
F6 – Install residential windows, doors, frames, and hardware		HL2 ←CL3	Moved from Level 3 to Level 2. See Level 2 chart above for details.
Line G – INSTALL SPECIALTY GLASS AND PRODUCTS	Line G – INSTALL SPECIALTY GLASS AND PRODUCTS		
G1 – Lay out specialty glass and products	G1 – Lay out specialty glass and products	HL2/HL3 ←CL3	Content from Level 3 was split across Levels 2 & 3 HL2 = Describe applications & materials of specialty glass & products HL3 = Layout specialty glass & products
G2 – Assemble specialty glass and products	G2 – Assemble specialty glass and products		
G3 – Install custom glazing systems	G3 – Install custom glazing systems		
Line H – SERVICE GLAZING SYSTEMS	Line H – SERVICE GLAZING SYSTEMS		
H1 – Service commercial window and door systems	H1 – Service commercial window and door systems		
H2 – Service residential window and door systems		HL2 ←CL3	Moved from Level 3 to Level 2. See Level 2 chart above for details.