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Carpentry Qualification Review Practical Unit Standards

National Advisory Group Approved Changes

resulting from the

Carpentry Focus Groups

July 2007

CARPENTRY PRACTICAL UNIT STANDARDS

1.	13036	C	Carry out safe working practices on construction sites
2.	13037	C	Use and maintain carpentry hand tools on site
3.	13038	C	Use bench saws to machine timber on site
4.	13039	C	Use and maintain portable power tools for construction work on site
5.	13040	C	Carry out preliminary work for construction on site
6.	13041	C	Set out buildings on site
7.	13042	C	Take levels on construction sites
8.	13043	C	Excavate and prepare for footings and slab on ground on site
9.	13044	O	Construct residential and/or light commercial foundations on site
10.	13045	C	Construct formwork for footings, floors and walls up to 1.2 metres on site
11.	13046	C	Fabricate and place reinforcing steel on a construction site
12.	13047	O	Transport, place, finish and cure concrete on site
13.	13048	O	Construct sub-floor framing and flooring on site
14.	13049	C	Construct wall framing on site
15.	18730	CO	Construct equal pitch gable and hip roof framing on site
16.	18732	CO	Erect roof trusses on site
17.	COMRF	CO	Construct substrates for roofing systems on existing structural steel framework on site

ONE OF THE THREE ROOFING UNIT STANDARDS LISTED ABOVE IN BOLD MUST BE ACHIEVED FOR THE QUALIFICATION

18.	13051	O	Construct timber framed roofs of alternative design
19.	13052	O	Attend to subcontractors on site
20.	13053	O	Erect scaffolds up to five metres on site
21.	13054	C	Fix exterior cladding on site
22.	13055	C	Install exterior and interior joinery on site
23.	13056	O	Install metal roof coverings on site
24.	18729	C	Install thermal insulation material on site
25.	18731	O	Install sound insulation systems on site
26.	13058	C	Fix interior linings and trim on site
27.	13059	C	Install building hardware on site
28.	13060	O	Construct pole frames and pole platforms on site
29.	13061	O	Construct exterior timber stairs and ramps on site
30.	13062	O	Construct retaining walls
31.	13063	O	Attend to and check the construction of concrete masonry structures and paving on site
32.	13064	C	Use adhesives and sealants on site
33.	13065	O	Construct high wall, column and beam formwork on site
34.	18727	O	Carry out demolition work on site
35.	13066	O	Erect prefabricated beams and components on site
36.	18728	O	Set up proprietary suspended concrete floor systems on site

NOT INCLUDED IN THE REVIEW BUT PART OF THE QUALIFICATION

4346		ODemonstrate knowledge of, set out and install interior proprietary partitions on site
6155	O	Demonstrate knowledge of, set out and install suspended ceilings on site
12028	O	Use moulds for pre-cast concrete
12041	O	Coordinate delivery of and erect pre-cast concrete units on site

C = Compulsory
O = Optional
CO = A Compulsory Optional (Do one of three)

Notes When Reading the Carpentry National Advisory Group Approved Changes for Carpentry Practical Unit Standards

- Contents page shows existing unit standard titles and numbers
- Changes in titles or credits is highlighted at the top of each table
- Existing unit standard content (as registered on the NQF) is in the left hand column of each table
- Reviewed unit standard content (where there have been changes made) is in the right hand column of each table with changes either:
    - **Bolded**
    - Highlighted in Green
- Practical unit standards are made up of:
    - Compulsory (All from the Carpentry Domain)
    - Optional (From the Carpentry Domain and domains elsewhere on the framework relating to Concrete and Specialist Interiors)
    - "Do one of the three listed" (For the roofing component of the qualification)
- To complete the requirements of the National Certificate in Carpentry, a minimum of **12** optional unit standards must be completed
- Reinforcing has changed from being Optional (in the current version of the qualification as registered on the NQF) to Compulsory (in the reviewed version of the qualification yet to be registered on the NQF)
- 13067 (Order Lists) will be removed from the qualification altogether
- 4347 (Demonstrate knowledge of, set out and construct interior proprietary partitions to special detail on site) will be re0.moved from the qualification altogether

Unit Standard No: **13036** Level: **4** Credits: **5 change to 4**	Unit Standard Title: **Carry out safe working practices on construction sites**	**1**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Carry out safe working practices on construction sites.	
PC1.1	Employer's site specific safety plan is obtained, read, and followed in accordance with safe working practices.	Employer's **safety procedures are** obtained, read, and followed in accordance with safe working practices.
PC1.2	Hazards are identified and managed in accordance with the site specific safety plan.	Hazards are identified and **controlled** in accordance with the employer's **safety procedures.** Range: one of – hazard register, task analysis, job safety analysis
PC1.3	Construction practices on site are carried out without injury to **operatives** and the public, or damage to the building under construction, materials, tools, and items of plant and equipment.	**Remove this pc altogether as it's covered in 1.2**
PC1.4	Construction machinery is guarded in accordance with the site specific safety plan.	**Becomes PC 1.3** Construction machinery is guarded in accordance with the **employer's safety procedures and manufacturer's instructions.**
PC1.5	Personal protective clothing and equipment is used in accordance with the site specific safety plan. Range: safety footwear, hearing protection, eye protection, hard hats, dust masks, gloves.	**Becomes PC 1.4** Personal protective equipment and clothing is used in accordance with the **employer's safety procedures.** Range: seven of – hi-visibility clothing, protective clothing, safety footwear, hearing protection, eye or face protection, hard hats, dust masks or respirators, gloves, uv protection
PC1.6	Walkways, thoroughfares, and platforms are kept clean and clear of obstructions in accordance with the site specific safety plan.	**Becomes PC 1.5** Walkways, thoroughfares, and platforms are kept clean and clear of obstructions in accordance with the **employer's safety procedures.**
PC1.7	Signs, hoardings, covers and screens are erected and used as required to protect the safety of site personnel and the public.	**Becomes PC 1.6** **Barriers and signs** are erected and used as required to protect the safety of site personnel and the public.
PC1.8	Hazardous materials are handled, stored and used in accordance with specifications. Range: manufacturer's Material Safety Data Sheets, site specific safety plan.	**Becomes PC 1.7** Hazardous materials **and products** are handled, stored and used in accordance with the **employer's safety procedures and manufacturer's Material Safety Data Sheets or Environmental Resource Management Authority approvals.**
PC1.9	Personal actions do not contribute to unsafe practices or conditions.	**Remove this pc**
PC1.10	Accidents are reported in accordance with site specific safety plan.	**Becomes PC 1.8** **Hazards, accidents, incidents or near misses** are reported in accordance with **the employer's safety procedures.**
PC1.11	Emergency evacuation procedures are identified in accordance with site specific safety plan.	**Becomes PC 1.9** Emergency evacuation procedures are identified in accordance with **the employer's safety procedures.**
PC1.12	Work area is cleaned up and waste disposal is arranged, after each specific site operation, in accordance with site specific safety plan.	**Becomes PC 1.10** Work area is cleaned up and waste disposal is arranged, after each specific site operation, in accordance with **the employer's safety procedures.**

Unit Standard No: **13037** Level: **3** Credits: **6**	Unit Standard Title: **Use and maintain carpentry hand tools on site** Change to: **Safely use and maintain carpentry hand tools on site**	**2**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Use carpentry hand tools safely. Range: **includes but is not limited to –** apron, **1 metre rule folding**, **8m and 30m measuring tapes**, carpenter's pencil, **hammer**, nail punch **(set)**, combination square, steel square, **panel saw, cross cut saw**, wall board saw, coping saw, sliding bevel, set of chisels, **plane oilstone**, screwdrivers **(slot, posidrive, spiral ratchet) or screwdriver set,** spirit level, **pinch bar (wrecking bar)**, plumb bob, end cutting nippers, adjustable spanner, pliers, tinsnips, hacksaw and blades, chalk line, string line, **sandpaper block**, cutting knife, **pair** dividers.	Use carpentry hand tools safely. Range: apron, **folding rule**, **measuring tapes**, carpenter's pencil, **claw hammer**, **nail punch**, combination square, steel square, wall board saw, coping saw, sliding bevel, set of chisels, plane**,** oilstone, **screwdrivers**, spirit level, **wrecking bar**, plumb bob, end cutting nippers, adjustable spanner, pliers, tinsnips, hacksaw and blades, chalk line, string line, **sanding** block, cutting knife, **cramp or clamp, straight edge, socket set, pop riveter**; **one of – panel saw, crosscut saw, rip saw, combination saw.**
PC1.1	Tools are selected to meet identified job requirements.	
PC1.2	Tools are used in **the manner and for a purpose as designed**.	Tools are used in **accordance with manufacturer's recommendations and/or work site practice.**
PC1.3	Tools are used to complete the operation without injury to the user or bystanders, or damage to materials.	
E2	Maintain carpentry hand tools in safe working order.	
PC2.1	Cutting edges are ground and sharpened to give maximum cutting efficiency.	**Range: plane, chisels**
PC2.2	Tools are maintained in working order, clean and free of rust.	
PC2.3	Damaged or broken tools are either repaired or replaced in accordance with work site practice.	

Unit Standard No: **13038** Level: **3** Credits: **2**	Unit Standard Title: **Use bench saws to machine timber on site** Change to: **Safely use and maintain bench saws to machine timber on site**	**3**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Use bench saws to machine timber to width or thickness and to cut to length on site. Range: **evidence is required for a minimum of two bench saws which can include but is not limited to** – table saw, mitre saw, drop saw, radial arm saw.	**Safely** use bench saws to machine timber to width or thickness and to cut to length on site. Range: **table saw and one of** – drop saw, mitre saw, radial arm saw, **sliding compound mitre saw** Add definition of bench saw to include the range, in special notes 'intent of unit is ripping and cross cutting timber'
PC1.1	Equipment is selected in terms of the identified work operation.	
PC1.2	Equipment selected is set up to manufacturer's **specifications** for the work operation, in accordance with the requirements of the site specific safety plan. Range: guards, fences, riving knife, jigs, stops, support tables or rollers, power supply.	Equipment selected is set up to manufacturer's **instructions** for the work operation, **and** in accordance with the requirements of the **employer's safety procedures.** Range: guards, fences, riving knife, jigs, stops, support tables or rollers, power supply.
PC1.3	Timber is machined to the required profile, without injury to the operator or damage to the machine or the material being machined.	
PC1.4	Personal safety equipment is used in accordance with the requirements of the site specific safety plan.	Personal safety equipment is used in accordance with the requirements of the **employer's safety procedures.**
PC1.5	Machine and work areas are cleaned after use in accordance with the site specific safety plan.	Machine and work areas are cleaned after use in accordance with the **employer's safety procedures.**
E2	Maintain bench saws on site.	Maintain bench saws **in safe working order** on site.
PC2.1	The sharpness of blade/s is confirmed before use **in accordance with manufacturer's specifications.**	The sharpness of blade/s is confirmed before use.
PC2.2	Blade is changed when required to meet manufacturer's **specifications** and job requirements and in accordance with the site specific safety plan.	Blade is **selected and** changed when required **in accordance with** manufacturer's **instructions** and job requirements and in accordance with the **employer's safety procedures**.
PC2.3	Machines are lubricated in accordance with manufacturer's **specifications**.	Machines are lubricated in accordance with manufacturer's **instructions.**
PC2.4	Machines are kept clean and free of corrosion in accordance with manufacturer's **specifications** and site specific safety plan.	Machines are kept clean and free of corrosion in accordance with manufacturer's **instructions** and **employer's safety procedures**.
PC2.5	Power supply is protected in accordance with the site specific safety plan.	Power supply is protected in accordance with the **employer's safety procedures.**

Unit Standard No: **13039** Level: **3** Credits: **8**	Unit Standard Title: **Use and maintain portable power tools for construction work on site** Change to: **Safely** use and maintain portable power tools **and attachments** for construction work on site	**4**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Select and use portable power tools. Range: evidence is required for a minimum of ten portable power tools which can include but is not limited to – circular saw, jigsaw, **sabre** saw, planer, drill and/or screwdriver, hammer drill, belt sander, orbital sander, router, compressed air nail gun, gas powered nail gun, powder **powered** actuated fastening tool, disc grinder, bench grinder.	Select and safely use **portable** power tools **and attachments**. Range: **powder actuated fastening tool; one of - compressed air nail gun, gas powered nail gun; 8 of** – circular saw, jigsaw, **reciprocating** saw, planer, drill, screwdriver, hammer drill, belt sander, orbital sander, router, disc grinder, bench grinder, **hammer drill/breaker**.
PC1.1	Tools are selected in terms of identified work operations.	Tools **and attachments** are selected in terms of identified work operations.
PC1.2	Tools are set up and used in accordance with manufacturer's **specifications, work operations** and site specific safety plan. Range: guards, fences, adjustment, power source, electrical safe guards.	Tools **and attachments** are set up and used in accordance with manufacturer's **instructions** and **employer's safety procedures**. Range: guards, fences, adjustment, power source, electrical safe guards.
PC1.3	Portable mechanically powered nailers **and staplers** are set up and used in accordance with manufacturer's instructions and **guidelines**.	Portable mechanically powered nailers are set up and used in accordance with manufacturer's instructions and **employer's safety procedures**.
PC1.4	Powder **powered** actuated fastening tools are set up and used in accordance with manufacturer's instructions and legislative requirements. Range: certificate of competency for type of tool.	Powder actuated fastening tools are set up and used in accordance with manufacturer's instructions, legislative requirements**, approved code of practice and employer's safety procedures**. Range: certificate of competency for type of tool.
PC1.5	Tools are used without injury to personnel and without damage to equipment or work. Range: guards, fences, personal protective equipment, power source **and** electrical safe guards.	Tools **and attachments** are used without injury to personnel and without damage to equipment or work. Range: guards, fences, personal protective equipment, power source, electrical safe guards.
E2	Maintain portable power tools and accessories on site.	Maintain portable power tools **and attachments in safe working order** on site.
PC2.1	Power tools are maintained in accordance with manufacturer's **specifications** and site specific safety plan.	Power tools are maintained, **tested and tagged** in accordance with manufacturer's **instructions** and **employer's safety procedures**.
PC2.2	The sharpness of cutting bits, blades, knives and cutters is confirmed before use **in accordance with manufacturer's specifications and site specific safety plan.**	The sharpness of cutting bits, blades, knives and cutters is confirmed before use.
PC2.3	Cutting bits, blade, knives and attachments are changed when required to meet manufacturer's specifications, job requirements and site specific safety plan.	Cutting bits, blade**s**, knives and attachments are **selected and** changed when required **in accordance with** manufacturer's **instructions**, job requirements and **employer's safety procedures.**

Unit Standard No: **13040** Level: **4** Credits: **3**	Unit Standard Title: **Carry out preliminary work for construction on site** Change to: Carry out preliminary work **and site establishment on a construction site**	**5**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Complete site identification and establish facilities.	
PC1.1	Land is identified in terms of site plan and boundary markers.	
PC1.2	Construction area is confirmed in terms of site plan requirements.	Construction area **and datum points are** confirmed in terms of site plan requirements.
PC1.3	The set up of temporary site facilities is in accordance with job requirements, site limitations, and the site specific safety plan.	The set up of temporary site facilities is in accordance with job requirements, site limitations, and the **employer's safety procedures.**
E2	Comply with Territorial Authority **construction** requirements on site.	Comply with Territorial Authority **and/or Building Consent Authority** requirements on site.
PC2.1	Building consent is confirmed prior to commencement of work.	Building consent **issue** is confirmed prior to commencement of work.
PC2.2	Territorial Authority requirements are complied with, as specified in the building consent.	Territorial Authority **and/or Building Consent Authority** requirements are complied with, as specified in the building consent.

Unit Standard No: **13041** Level: **4** Credits: **7**	Unit Standard Title: **Set out buildings on site**	**6**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Set up building profiles on site.	
PC1.1	The position of the building **on the site is located** in accordance with site **plans**.	The **set out** of the building **is** in accordance with **consent documents**.
PC1.2	Building profiles are erected and made rigid **with working clearances from the proposed building.**	Building profiles are erected and **reduced level determined in accordance with site requirements**.
E2	Place building lines on site.	**Set out** building lines on site.
PC2.1	Lines are placed in accordance with working drawings and specifications for size, shape and squareness of the building. Range: building length and width ± 3mm in 10m, equal diagonals ± 3mm in 10m.	Lines are **set out** in accordance with working drawings and specifications for size, shape and squareness of the building. Range: building length and width ± 3mm in 10m, equal diagonals ± 3mm in 10m.
PC2.2	Pythagoras or diagonal squaring measurement methods are used to meet specifications.	**Squaring measurement method is used in accordance with site requiremnts.** **Range: one of – Pythagoras, diagonal measurement, squaring devices**
PC2.3	Individual and running **measure** are used **to meet** specifications.	Individual and running measure**ments** are used **in accordance with site requirements**.
PC2.4	Position and size of footings and walls are marked on profile boards to meet specifications.	**Marking of set out points on profile boards is in accordance with site requirements.** **Range: three of – beams, columns, reinforcing, fixings, footings, walls.**
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to the public and operatives or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13042** Level: **4** Credits: **5**	Unit Standard Title: **Take levels on construction sites** **Change to:** **Set up levelling instruments and** take levels on a construction site	**7**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Set up **a** levelling instrument on a construction site.	Set up levelling instrument**s** on a construction site.
PC1.1	Levelling work required is identified **in terms of** working drawings and specifications.	Levelling work required is identified **from site documents**.
PC1.2	Levelling instrument is set up and adjusted. Range: **evidence is required for a minimum of two types of levelling equipment which can include but is not limited to** – theodolite, straight edge and spirit level, builder's levels, laser level, water level.	**Range: two of** – theodolite, straight edge and spirit level, builder's levels, laser level, water level.
PC1.3	Systems for measuring and recording are selected to meet site requirements.	Systems for measuring and recording are selected **in accordance with** site requirements.
PC1.4	Levelling instrument is checked for accuracy prior to taking levels.	
E2	Take levels on a construction site.	
PC2.1	Levelling equipment is used safely and in a manner which will give a level surface (3mm in 10m. Range: **evidence is required for a minimum of two types of levelling equipment which can include but is not limited to** – theodolite, straight edge and spirit level, builder's levels, laser level, water level.	Levelling equipment is used safely and in a manner which will give a level surface (3mm in 10m**).** Range: **two of** – theodolite, straight edge and spirit level, builder's levels, laser level, water level.
PC2.2	Heights for profiles are set in relation to job datum.	
PC2.3	Level readings are taken and recorded **to meet** job requirements.	Level readings are taken and recorded **in accordance with site** requirements.

Unit Standard No: **13043** Level: **3** Credits: **8**	Unit Standard Title: **Excavate and prepare for footings and slab on ground on site**	**8**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Prepare and carry out excavations on site. Range: site, footing, slab.	
PC1.1	Site is set out and excavated in accordance with working drawings and specifications.	
PC1.2	Footing and slab excavations are set out to specifications. Range: position, size, line, level, depth, **stepped**.	Footing and slab excavations are set out to **site documents**. Range: position, size, line, level, depth.
PC1.3	Footing and slab excavations are carried out in accordance with the requirements of the working drawings, specifications and site specific safety plan.	Footing and slab excavations are carried out in accordance with the requirements of the **site documents** and **the employer's safety procedures**.
PC1.4	Excavated spoil is disposed of in accordance with the specifications and site specific safety plan.	Excavated spoil is disposed of in accordance with the **site documents and the employer's safety procedures.**
E2	Place graded hardfill on site.	
PC2.1	**Site is** checked to ensure that it is ready for hardfill **with all soft material removed.**	**Footing and slab excavations are** checked to ensure they are ready for hardfill.
PC2.2	Hardfill is placed on the site without damage to any existing foundations.	**Selected** hardfill is placed on site **in accordance with site documents**
PC2.3	Hardfill **is** levelled and compacted in accordance with **specifications.**	Hardfill **and blinding are** levelled and compacted in accordance with **site documents**.
E3	Lay sheet damp proof membrane and/or apply emulsion on site.	**Apply damp proofing material in accordance withsite documents or manurfacturer's specifications.** **Range: one of: membrane, emulsion**
PC3.1	Damp course is laid and sealed and/or emulsion is applied in accordance with specifications.	
PC3.2	Joints and penetrations are sealed in accordance with specifications.	
PC3.3	Damp proof membrane is confirmed impervious to moisture, before any concrete is placed.	**Remove this PC as it should be covered in placing concrete unit**
E4	Complete work operations on site.	
	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: 13044 Level: 3 Credits: 16	Unit Standard Title: **Construct residential and/or light commercial foundations on site** Change to: **Construct pile foundations on site**	**9**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct pile foundations on site.	
PC1.1	Type of pile is selected to meet job specifications and sub-floor bracing schedule. Range: **evidence is required for a minimum of two types of piles which can include but is not limited to** – anchor, braced, cantilever, driven, ordinary.	Type of pile is selected to meet job **site documents** and sub-floor bracing schedule. **Range: two of** – anchor, braced, cantilever, driven, ordinary.
PC1.2	Materials lists are prepared in accordance with **the materials specified**.	Materials lists are prepared in accordance with **work site practice**.
PC1.3	Piles are spaced **at the intervals detailed on the working drawings or as specified in NZS 3604:1999 Timber Framed Buildings.**	Piles are spaced **at the specified intervals in accordance with site documents.**
		New pc 1.4 **Provision is made for sub floor ventilation in accordance with site documents.**
PC1.4	Piles are **constructed and** placed to line, level and plumb.	Piles are placed to line, level, **height** and plumb.
E2	Construct corner or continuous wall foundations on site.	**Remove this entire element and its pcs**
PC2.1	Materials lists are prepared in accordance with the materials specified.	
PC2.2	Foundation walls are constructed plumb and to line and level.	
PC2.3	Fixings are built in, in accordance with job specifications or NZS 3604:1999 Timber Framed Buildings.	
PC2.4	Provision is made for subfloor ventilation as specified, or in accordance with NZS 3604:1999 Timber Framed Buildings.	
		New Element 2
E2		**Fix bearers, stringers and bracing used in pile foundations**
PC2.1		**Bearers, stringers or beams are placed and fixed to straight** lines by using fastening systems **in accordance with site documents.**
PC2.2		**Sub-floor brace system is completed to the requirements of the sub-floor bracing schedule in accordance with site documents.**
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice**.

Unit Standard No: **13045** Level: **3** Credits: **12**	Unit Standard Title: **Construct formwork for footings, floors and walls up to 1.2 metres on site** Change to: Construct formwork for footings, **foundations** and walls up to 1.2 metres on site	**10**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct formwork for footings on site.	
PC1.1	Formwork is constructed **to the footing heights within the tolerances allowed by the** working drawings and specifications.	Formwork is constructed to **line, level, plumb and height in accordance with site documents and specified tolerances.**
PC1.2	Stepped footing formwork is constructed in accordance with working drawings, specifications, or NZS 3604:1999 Timber Framed Buildings.	**Remove this PC**
E2	Construct formwork for walls up to 1.2 metres on site.	Construct formwork for walls **and foundations** up to 1.2 metres on site.
PC2.1	Formwork is constructed to line, level and plumb to the tolerances allowed by the specifications.	**Wall and foundation** formwork is constructed to line, level, plumb **and height in accordance with site documents and specified** tolerances.
PC2.2	Joints in formwork are made tight enough to prevent **undue** loss of fines from the concrete.	Joints in formwork are constructed to prevent loss of fines from the concrete.
PC2.3	Formwork is tied and braced to maintain **the tolerances specified.**	Formwork is tied and braced to maintain **specified tolerances in accordance with the site documents**.
PC2.4	All **opening vents, sleeves, chases, pipes, wires, joints and fixings** are provided for, **as detailed in** working drawings and specifications.	All **attachments and penetrations** are provided for, **in accordance with site documents**.
PC2.5	Formwork is struck **after the time specified.**	Formwork is struck **in accordance with site documents.**
PC2.6	Formwork is cleaned, repaired and stored for reuse in accordance with work site practices.	
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13046** Level: **3** Credits: **5**	Unit Standard Title: **Fabricate and place reinforcing steel on a construction site** Change to: Fabricate and place reinforcing steel **and steel mesh on site**	**11**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Fabricate reinforcing steel for footings, walls and floors on site. Range: bars, mesh, stirrups, links.	
PC1.1	Type of reinforcing steel is selected **to meet job specifications.**	Type of reinforcing steel is selected **in accordance with site documents**.
PC1.2	The reinforcing **bars are** cut and bent **and completed** as detailed in **the working drawings, specifications and/or NZS 3109:1997 Concrete construction.**	The reinforcing **steel is** cut and bent as detailed in the **site documents.**
PC1.3	Reinforcing **bars are** fabricated **to required specifications.**	Reinforcing **steel is** fabricated **as detailed in the site documents.**
E2	Place reinforcing steel and steel mesh on site. Range: **evidence is required for a minimum of two structures, which can include but is not limited to –** footings, **slabs,** ground beams, foundation, walls, masonry.	Place reinforcing steel and steel mesh on site. Range: **floor slabs;** **two of –** footings, foundation**s**, ground beams, walls, masonry.
PC2.1	Reinforcing steel and**/or** steel mesh is accepted on site and stored without damage or deterioration.	Reinforcing steel and steel mesh is accepted on site and stored without damage or deterioration.
PC2.2	Reinforcing steel is placed and tied in position in accordance with specifications	Reinforcing steel **and steel mesh** is placed and tied in position in accordance with **site documents.**
PC2.3	Reinforcing steel and**/or** steel mesh is fixed in place to prevent displacement during construction.	Reinforcing steel and steel mesh is fixed in place to prevent displacement during construction **and placement of concrete**.
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13047** Level: **3** Credits: **7**	Unit Standard Title: **Transport, place, finish and cure concrete on site** **Change to:** **Receive,** transport, place, finish and cure concrete on site	**12**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
		New Element 1 **Prepare for placing of concrete on site.** **PC 1.1 Pipes and ducts are placed and protected in accordance with site documents.** **PC 1.2 Damp proof membrane is confirmed impervious to moisture, before any concrete is placed.** **PC 1.3 Pre placement Fixings are positioned as detailed on the site documents** **PC 1.4 Concrete joints are formed, as detailed on the site documents.** **Range: one of - expansion joints, construction joints, isolation joints, contraction joints, shrinkage joints.**
E1	Transport, place, and compact concrete on site.	**Becomes Element 2** **Receive,** transport, place, and compact concrete on site.
PC1.1	Concrete is transported without segregation.	**Becomes pc 2.1** **Add new pc 2.2** **Concrete is received and confirmed as in accordance with site documents.**
PC1.2	Concrete is placed as close to its final position as is practicable.	**Becomes pc 2.3**
PC1.3	Concrete is transported and placed before initial set takes place.	**Becomes pc 2.4**
PC1.4	Concrete is compacted to give maximum density **to meet job specifications.**	**Becomes pc 2.5** Concrete is compacted to give maximum density.
E2	Finish the concrete surface.	**Becomes Element 3**
PC2.1	Wet concrete slabs are screeded and floated, to the required shape **as specified.**	**Becomes pc 3.1** Wet concrete slabs are screeded and floated, to the **specified tolerances in accordance with site documents.**
PC2.2	Surface of wet concrete is finished **to the requirements of the** specifications.	**Becomes pc 3.2** Surface of wet concrete is finished **in accordance with site documents**.
E3	Cure the concrete.	**Becomes Element 4**
PC3.1	Concrete is cured **to the requirements of the** specifications. Range: e**vidence is required for a minimum of one curing method which can include but is not limited to –** ponding, covering, curing compound.	**Becomes pc 4.1** Concrete is cured **in accordance with site documents**. Range: **one of** – ponding, covering, curing compound.

PC3.2	Concrete cutting is arranged to allow for shrinkage **as detailed in the specifications.**	**Becomes pc 4.2** Concrete cutting is arranged **and set out** to allow for shrinkage **in accordance with site documents.**
E4	Build in services and fixing and form other joints.	**Remove this element and pcs altogether as now covered in new element 1**
PC4.1	Pipes and ducts are placed and protected in accordance with specifications.	
PC4.2	Fixings are positioned as detailed on the working drawings and specifications.	
PC4.3	Concrete joints are formed, as detailed on the working drawings and specifications. Range: **evidence is required for a minimum of one jointing method which can include but is not limited to –** expansion joints, construction joints, isolation joints, control joints.	
E5	Complete work operations on site.	
PC5.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**Change pc to: All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13048** Level: **3** Credits: **10**	Unit Standard Title: **Construct sub-floor framing and flooring on site** Change to: Construct floor framing and flooring on site	**13**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Determine material required for **sub-**floor framing and flooring.	Determine materials required for floor framing and flooring.
PC1.1	Materials are identified and order list prepared **in accordance with working drawings and job specifications or NZS 3604:1999 Timber Framed Buildings.**	Materials are identified **from the site documents,** and an order list prepared **in accordance with work site practice**.
PC1.2	Supply of delivered materials is checked and confirmed on site. Range: quality, quantity.	
E2	Construct **sub-**floor framing on site.	Construct floor framing on site.
PC2.1	Plates are **cut, drilled and** fixed on damp course in accordance with specifications. Range: **includes but is not limited to** – **wall** plates, stringers.	**Remove this pc**
PC2.2	Bearers or beams are placed and fixed to straight lines by using fastenings and fastening methods in accordance with working drawings and specifications.	**Remove this pc**
PC2.3	Floor joists are set out, cut and fixed, and laterally supported in accordance with working drawings and specifications.	**Becomes pc 2.1** Floor joists are set out, cut and fixed, and laterally supported in accordance with **site documents**.
PC2.4	Floor joists are trimmed for floor openings and fixed with fastenings, to the requirements of the working drawings and specifications **or NZS 3604:1999 Timber Framed Buildings.**	**Becomes pc 2.2** Floor joists are trimmed for floor openings.
PC2.5	Sub-floor brace system is completed to the requirements of the sub-floor bracing schedule.	**Becomes pc 2.3** **Floor diaphragm bracing** system is completed to the requirements of the **site documents and specifications.**
E3	Install sub-floor insulation on site.	**Remove Element 3 and PC's altogether as it is covered in the thermal insulation unit (18729).**
PC3.1	Insulation is installed to comply with the requirements of working drawings, job specifications, and manufacturer's specifications.	
E4	Fix flooring and decking on site.	**Becomes Element 3**
PV4.1	Flooring is laid and fixed in accordance with the working drawings and specifications, **manufacturer's specifications or NZS 3604:1999 Timber Framed Buildings.** Range: evidence is required for a minimum of one flooring method which can include but is not limited to – sheet flooring, timber strip flooring.	**Becomes pc 3.1** Flooring is laid and fixed in accordance with the **site documents and manufacturer's specifications**. Range: **one of** – sheet flooring, timber strip flooring.
PC4.2	Decking is cut, laid and fixed in accordance with working drawings and specifications.	**Becomes pc 3.2** Decking is cut, laid and fixed in accordance with **site documents**.

E5	Complete work operations on site.	**Becomes Element 4**
PC5.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**Becomes pc 4.1** **All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13049** Level: **4** Credits: **16**	Unit Standard Title: **Construct wall framing on site** Change to: **Set out, cut, assemble and erect** wall framing on site	**14**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Determine materials required for wall framing.	Determine materials required for wall framing **on site**.
PC1.1	Materials are identified and an order list is prepared in accordance with working drawings, job specifications or NZS 3604:1999 Timber Framed Buildings.	**Materials are identified from the site documents, and a cutting list prepared in accordance with work site practice.**
PC1.2	Supply of delivered materials is checked and confirmed **on site**. Range: **quality**, quantity.	Supply of delivered materials is checked and confirmed **as in accordance with site documents**. Range: **grade, treatment**, quantity.
E2	**Construct** wall framing, posts and beams.	**Set out, cut, assemble and erect** wall framing, posts and beams **on site.**
PC2.1	Wall framing members are set out and cut to the calculated lengths **to the requirements of working drawings, specifications or NZS 3604:1999 Timber Framed Buildings.** Range: **includes but is not limited to** – plates (including raking plates), studs and jack studs, trimmers, lintels, beams, braces, nogging (dwangs), posts.	Wall framing members are set out and cut to the calculated lengths **in accordance with site documents.** Range: plates (including raking plates), studs and jack studs, trimmers, lintels, beams, braces, **dwangs** (**noggings**), posts.
PC2.2	Wall frames are **fabricated** to the requirements of NZS 3604:1999 Timber Framed Buildings, and are straight, square and **temporarily** braced.	Wall frames are **assembled** to the requirements of NZS 3604:1999 Timber Framed Buildings **or specific design**, and are straight, square and braced. **Range: Use of connectors, provision for bracing elements.**
PC2.3	Wall frames, posts and beams are erected and fixed in **the positions indicated on the working drawings, in accordance with the requirements of the specifications or NZS 3604:1999 Timber Framed Buildings.**	Wall frames, posts and beams are erected and fixed in **position in accordance with site documents.**
PC2.4	Corners are plumbed both ways **to the accuracy specified, or in accordance with NZS 3604:1999 Timber Framed Buildings.**	Corners **and walls** are plumbed **and straightened** both ways **for accuracy, and temporarily braced, in accordance with the site documents.**
PC2.5	Wall frames are straightened **to the accuracy specified or in accordance with NZS 3604:1999 Timber Framed Buildings.**	**Remove this pc.**
PC2.6	Wall frames are held in position until the ceiling **and** roof structure **are** completed in accordance with **the requirements of the specifications, or NZS 3604:1999 Timber Framed Buildings.**	**Remove this pc.** **New pc 2.5** **Connectors are installed in accordance with the site documents and manufacturer's specifications.**
E3	Interpret a bracing schedule and install wall bracing.	
PC3.1	Wall bracing requirements are identified **and located as per** the bracing schedule.	Wall bracing requirements are identified **from** the bracing schedule.
PC3.2	Wall bracing elements are fixed in accordance with **bracing schedule and** manufacturer's recommendations.	Wall bracing elements are **positioned from the bracing schedule and** fixed in accordance with manufacturer's recommendations. **Range: one of – plywood sheet diaphragm, metal angle, proprietary systems.**

E4	Complete work operations on site.	
PC4.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **18730** Level: **4** Credits: **12**	Unit Standard Title: **Construct equal pitch gable and hip roof framing on site** Change to: **Set out, cut and erect** equal pitch gable and hip roof framing **on site**	**15**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Determine material required for equal pitch gable and hip roofs.	Determine materials required for equal pitch gable and hip roofs **on site**.
PC1.1	Lengths of roof framing members are determined in accordance with working drawings and specifications, and meet the requirements of NZS 3604:1999 Timber Framed Buildings.	**Materials for roof framing members are identified from site documents, and a cutting list prepared in accordance with work site practice.**
PC1.2	Numbers and types of roof braces required are identified from the working drawings and specifications, and meet the requirements of NZS 3604:1999 Timber Framed Buildings.	**Materials for roof braces are identified from site documents, and a cutting list prepared in accordance with work site practice.**
		New pc added – **Supply of delivered materials is checked and confirmed on site."** **Range: grade, treatment, quantity.**
E2	Construct roof framing.	**Set out, cut and erect** roof framing **on site**.
PC2.1	Roof member positions are **located** in accordance with the working drawings and **meet the requirements of NZS 3604:1999 Timber Framed Buildings.**	Roof member positions are **set out** in accordance with **site documents.**
PC2.2	Roof framing members are set and cut to length and bevels in accordance with specifications. Range: **evidence is required for a minimum of six framing members which can include but is not limited to –** common rafters and jack rafters, outriggers, flying rafters, hip and valley rafters, ridge, valley boards, ceiling joists, purlins.	Roof framing members are **marked out** and cut to length and bevels in accordance with **site documents**. Range: **six of –** common rafters and jack rafters, outriggers, flying rafters, hip and valley rafters, ridge, valley boards, ceiling joists, purlins.
PC2.3	Roof framing members are erected and fixed **safely** in accordance with working drawings, specifications **and NZS 3604:1999 Timber Framed Buildings.** **Range: includes but is not limited to – responsibilities, work methods, hazard identification, personal protection, emergency procedures.**	Roof framing members are erected **safely** and fixed in accordance with **site documents**. **Remove the range**
PC2.4	Support and bracing systems are set out, cut and fixed in accordance with working drawings and specifications. Range: **evidence is required for a minimum of seven support/bracing systems which can include but is not limited to** – under purlins, struts, strutting beams, collar ties and cleats, roof space braces, roof plane braces, purlins and ceiling battens, **diaphragm bracing**.	Support and bracing systems are set out, cut and fixed in accordance with **site documents**. Range: **six of** – under purlins, struts, strutting beams, collar ties and cleats, roof space braces, roof plane braces, purlins and ceiling battens, **dragon ties**.

PC2.5	Framing and trim for eaves and verges are constructed in accordance with working drawings and specifications.	Framing and trim for **fascia boards, barge boards, soffits (eaves)** and verges are constructed in accordance with **site documents**.
E3	Trim roof and ceiling framing members for openings.	
PC3.1	Ceiling space access and roof penetration openings are trimmed and framed in accordance with working drawings and specifications **or the requirements of NZS 3604:1999 Timber Framed Buildings.**	Ceiling space access and roof penetration openings are trimmed and framed in accordance with **site documents**.
E4	Complete work operations on site.	
PC4.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **18732** Level: **4** Credits: **8**	Unit Standard Title: **Erect roof trusses on site**	**16**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct roofs using roof trusses. Range: **includes but is not limited to –** gable, hip and valley roofs.	Construct roofs using roof trusses. Range: gable, hip, valley roofs.
PC1.1	Confirm roof trusses and fixings are received without damage and comply with manufacturer's documentation.	Confirm roof trusses and fixings are received without damage and comply with **truss** manufacturer's **instructions**.
PC1.2	Roof trusses are handled and stored on site without damage.	Roof trusses are handled and stored on site without damage **in accordance with truss manufacturer's instructions.**
PC1.3	Roof trusses are set out, erected and fixed in position, **using fastenings** in accordance with manufacturer's **documentation**. Range: includes but is not limited to – responsibilities, work methods, hazard identification, personal protection, emergency procedures.	Roof trusses are **set out in accordance with site documents, and** safely erected and fixed in position in accordance with **truss** manufacturer's **truss plan**. **Delete range**
PC1.4	Support and bracing systems are set out and fixed in accordance with the working drawings, specifications**, NZS 3604:1999 Timber Framed Buildings and manufacturer's documentation.** Range: **evidence is required for a minimum of five support/bracing systems, which can include but is not limited to –** purlins, ceiling battens, roof plane braces, roof space braces, **diaphragm bracing**.	Support and bracing systems are set out, erected and fixed in accordance with the **site documents**. Range: **four of –** purlins, ceiling battens, roof plane braces, roof space braces, **dragon ties**.
PC1.5	The framing and trim for eaves and verges is constructed in accordance with working drawings and specifications.	The framing and trim for **fascia boards, barge boards, eaves (soffit)** and verges is constructed in accordance with **site documents**.
E2	Trim roof and ceiling framing members for openings.	
PC2.1	Ceiling space access and roof penetration openings are trimmed and framed in accordance with working drawings and specifications **or NZS 3604:1999 Timber Framed Buildings.**	Ceiling space access and roof penetration openings are trimmed and framed in accordance with **site documents**.
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public, or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No:	**COMRF**	Unit Standard Title:	**Construct substrates for roofing systems on structural steel framework on site**	**17**
Level:	**4**			
Credits:	**8**			

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Install plywood sarking on steel framework on site.	There are no suggested changes as this is a brand new unit standard drafted for inclusion in the qualification
PC1.1	Roof cladding system to be used is identified from site documents.	
PC1.2	Plywood sarking is identified in accordance with site documents. Range: grade, treatment, thickness, fastening systems.	
PC1.3	Plywood sarking is installed in accordance with roof cladding manufacturer's specifications. Range: layout, fixings, fixing centres, expansion joints, control joints, edge fixing.	
E2	Construct framing and trim for roof systems on steel framework on site.	
PC2.1	Framing system for internal gutter and sumps is formed out of timber, to falls in accordance with site documents.	
PC2.2	Framing is lined with plywood and angle fillets installed in all internal corners in accordance with site documents.	
PC2.3	Penetrations are framed and trimmed in accordance with site documents.	
PC2.4	Allowance is made for flashings in accordance with site documents.	
PC2.5	Framing and trim for fascia and soffits are constructed in accordance with site documents.	
PC2.6	Any other timber work required prior to installation of roof cladding is identified and carried out in accordance with site documents.	
E3	Complete work operations on site.	
PC3.1	All operations are safely completed, workplace, tool, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.	

Unit Standard No: **13051** Level: **4** Credits: **8**	Unit Standard Title: **Construct timber framed roofs of alternative design** Change to: Construct timber framed roofs of alternative design **on site**	**18**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Determine materials required for alternative roof designs.	Determine materials required for alternative roof designs. Range: **four of – flat roofs, mono pitch roofs, skillion roofs, mansard roofs, curved roofs, dormers, unequal pitch, splayed ends.**
PC1.1	Roof structure is identified from working drawings and specifications.	**Remove pcs 1-5, replace with** **1.1 Materials for roof framing members are identified from the site documents, and a cutting list prepared in accordance with work site practice.** **1.2 Materials for roof braces are identified from the site documents, and a cutting list prepared in accordance with work site practice.** **1.3 Supply of delivered materials is checked and confirmed on site.** **Range: grade, treatment, quantity.**
PC1.2	Lengths of roof framing members are determined in accordance with working drawings, specifications and NZS 3604:1999 Timber Framed Buildings.	
PC1.3	Roof member positions are located in accordance with the working drawings and NZS 3604:1999 Timber Framed Buildings.	
PC1.4	Numbers and types of roof braces required are identified from the drawings, specifications and NZS 3604:1999 Timber Framed Buildings.	
PC1.5	Materials lists of framing and trim members are prepared in accordance with working drawings and specifications.	
E2	Construct timber framed roofs of alternative design. Range: evidence is required for a minimum of four roofs which can include but is not limited to – flat roofs, single plane roofs, skillion roofs, mansard roofs, curved roofs, dormers, unequal pitch, splayed ends.	**Construct timber framed roofs of alternative design.** Range: **four of** – flat roofs, mono pitch roofs, skillion roofs, mansard roofs, curved roofs, dormers, unequal pitch, splayed ends. **Insert new pc as 2.1** **Roof member positions are set out in accordance with site documents.**
PC2.1	Roof framing members are set out and cut to length and bevels in accordance with specifications. Range: **evidence is required for a minimum of six framing members which can include but is not limited to –** common rafters and jack rafters, ridge beam, outriggers, flying rafters, hip and valley rafters, valley boards, ridge, ceiling joists, purlins.	**Becomes pc 2.2** Roof framing members are cut to length and bevels in accordance with **site documents.**
PC2.2	Roof framing members are erected and fixed safely in accordance with working drawings, specifications **and NZS 3604:1999 Timber Framed Buildings.** **Range: includes but is not limited to – responsibilities, work methods, hazard identification, personal protection, emergency procedures**.	**Becomes pc 2.3** Roof framing members are erected and fixed safely in accordance with **site documents**. **Remove range**

PC2.3	Support and bracing systems are set out, cut and fixed in accordance with **working drawings and specifications.** **Range: evidence is required for a minimum of seven support/bracing systems, which can include but is not limited to – under purlins, struts, strutting beams, collar ties and cleats, roof space braces, roof plane braces, purlins and ceiling battens, diaphragm bracing.**	**Becomes pc 2.4** Support and bracing systems are set out, cut and fixed in accordance with **site documents**. **Add new pc 2.5** **Penetration framing is constructed in accordance with site documents.**
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13052** Level: **3** Credits: **4**	Unit Standard Title: **Attend to subcontractors on site**	**19**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Attend to subcontractors on site. Range: evidence is required for a minimum of eight subcontractors, which can include but is not limited to – excavator, brick and block-layer, reinforcing steel **placer**, roofer, steel fabricator, mechanical services, plumber, drain-layer, joiner, glazier, window installer, electrician, interior plasterer, **interior decorator and/or painter**, **exterior** plasterer, tiler, scaffolder, concrete placer, floor sander, insulation installer.	Attend to **construction** subcontractors on site. Range: **eight of** – excavator, brick and block layer, reinforcing steel **fixer,** roofer, **structural** steel fabricator, mechanical services, plumber, drain layer, joiner, glazier, window installer, electrician, interior plasterer, interior decorator, **painter, solid** plasterer, specialist coatings applicator, tiler, scaffolder, concrete placer, floor sander, insulation installer, **metal worker, floor covering contractor, suspended ceilings contractor, proprietary partitions contractor, lift installer, fire protection contractor, data technician, concrete cutter.**
PC1.1	Extent of work of subcontractors is identified as detailed in working drawings and specifications.	Extent of work of subcontractors is identified as detailed in **site documents**.
PC1.2	Framing and cutting is completed to the requirements of the subcontractor and specifications.	
PC1.3	Building is 'made good' after work of the subcontractor is completed.	
PC1.4	Temporary protection is provided in accordance with the specifications.	Temporary protection is provided in accordance with **site documents**.
E2	Complete work operations on site.	
PC2.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13053** Level: **3** Credits: **4**	Unit Standard Title: **Erect scaffolds up to five metres on site** Change to: Erect**, alter, maintain, inspect and dismantle** scaffolds up to five metres on site	**20**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Erect scaffolds up to five metres. Range: evidence is required for a minimum of three types of scaffolds which can include but is not limited to – timber, trestles, modular, framed, tube and clip.	Erect scaffolds up to five metres **on site**. Range: **two of** – timber, trestles, modular systems, framed, tube and clip.
PC1.1	Spacing and size of all members, **and construction** is in accordance with all regulatory requirements and manufacturer's specifications.	Spacing**,** size **and erection** of all members is in accordance with all regulatory requirements and manufacturer's specifications.
PC1.2	Scaffold is **constructed** in accordance with site requirements. Range: manufacturer's specifications, structural requirements.	**Remove this pc as covered in 1.1**
PC1.3	Bracing is installed to meet regulatory requirements.	**Becomes pc 1.2** Bracing is installed to meet regulatory requirements **and manufacturer's specifications**.
PC1.4	Hazards associated with the construction and use of the scaffold are identified and controlled in accordance with regulatory requirements.	**Becomes pc 1.3** Hazards associated with the construction and use of the scaffold are identified and controlled in accordance with **site and** regulatory requirements **and employer's safety procedures**.
E2	Alter scaffolds up to five metres. Range: **evidence is required for a minimum of three types of scaffolds which can include but is not limited to** – timber, trestles, modular, framed, tube and clip.	Alter scaffolds up to five metres **on site**. Range: **two of** – timber, trestles, modular systems, framed, tube and clip.
PC2.1	Scaffold alterations are identified and confirmed in accordance with job and safety requirements.	
PC2.2	Scaffolding is altered in accordance with site requirements. Range: manufacturer's specifications, structural requirements.	Scaffold is altered in accordance with **all** site **and regulatory** requirements **and manufacturer's specifications.** **Remove range**
E3	Inspect scaffolds up to five metres. Range: evidence is required for a minimum of three types of scaffolds which can include but is not limited to – timber, trestles, modular, framed, tube and clip.	Inspect and maintain scaffolds up to five metres **on site.** Range: **two of** – timber, trestles, modular, framed, tube and clip.

PC3.1	Scaffolding is confirmed as complying with structural and safety requirements, and is fit for purpose. Range: includes but is not limited to – **design, Health and Safety in Employment Act 1992, Code of Practice for the Safe Erection and Use of Scaffolding 1995,** manufacturer's specifications**/instructions**, damage, corrosion, wear, stability.	Scaffolding is **checked for compliance** with structural and safety requirements, and is fit for purpose. Range: **site and regulatory requirements,** manufacturer's specifications, damage, wear, stability. **Add a pc 3.2: Scaffolding is maintained to ensure ongoing compliance with site and regulatory requirements.**
E4	Dismantle scaffolds up to five metres. Range: **evidence is required for a minimum of three types of scaffold which can include but not limited to** – timber, trestles, modular, frame, tube and clip.	Dismantle scaffolds up to five metres **on site**. Range: **two of** – timber, trestles, modular, frame, tube and clip.
PC4.1	Scaffolding is dismantled in accordance with **safe** work site practices and site specific safety plan. **Range: includes but is not limited to – planned hazard prevention and control measures, structural and material requirements.**	Scaffolding is dismantled in accordance with site **and regulatory requirements**. **Remove range.**
E5	Complete work operations on site.	
PC5.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13054** Level: **4** Credits: **12 change to 16**	Unit Standard Title: **Fix exterior cladding on site**	**21**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Inspect wall framing.	Inspect wall framing **on site**.
PC1.1	The correct placement and fixing of wall framing members is **verified as being in accordance with** specifications and manufacturer's requirements.	The correct placement and fixing of wall framing members is **checked for compliance with site documents** and **cladding** manufacturer's requirements.
PC1.2	Alignment of the wall members is within the tolerances stated by the **specifications.**	Alignment of the wall members is within the tolerances stated by the **site documents and cladding manufacturer's specifications**.
		New element 2 **Install weathertightness elements prior to fixing of claddings on site.** **PC 2.1 Quantity of underlay or wrap is determined and fixed in accordance with site documents and manufacturer's specifications.** **PC 2.2 Cavity system is installed in accordance with the requirements of the site documents and manufacturer's instructions.** **PC 2.3 Window and door Openings and penetration flashing systems are installed in accordance with site documents and manufacturer's instructions** **Range – tape, head, side, sill**
E2	Fix external wall claddings. Range: **evidence is required for a minimum of five claddings which can include but is not limited to –** vertical boards, timber, metal and PVC weather boards, plywood, fibre, cement planks and sheets, metal sheets.	**Becomes Element 3** Fix **exterior** wall claddings **on site**. **Range: timber or fibre cement weatherboards; two of - timber vertical boards, PVC weatherboards, plywood, fibre cement sheet, metal, proprietary panels.**
PC2.1	Quantity of underlay is determined and fixed in accordance with specifications.	**Delete as moved to new element.**
PC2.2	Exterior claddings are identified and the material lists prepared in accordance with the working drawings and specifications.	**Becomes pc 2.1** **Materials for** exterior claddings are identified **from the site documents, and an order list prepared in accordance with work site practice.** **Add new pc 2.2:** **Supply of delivered materials is checked and confirmed on site.** **Range: quality, quantity.**

PC2.3	Exterior claddings are fixed in accordance with job specifications, manufacturer's specifications or NZS 3604:1999 Timber Framed Buildings.	Exterior claddings are fixed **in accordance with site documents and cladding manufacturer's specifications.**
PC2.4	Flashings and trim are installed to give a weather tight finish in accordance with working drawings, specifications and**/or** manufacturer's specifications.	**Trim is** installed to give a weather tight finish in accordance with **site documents** and **cladding** manufacturer's specifications.
E3	Complete work operations on site.	**Becomes Element 4**
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**Becomes pc 4.1** **All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13055** Level: **3** Credits: **9 change to 10**	Unit Standard Title: **Install exterior and interior joinery on site** Change to: Install exterior, interior **and wet area** joinery **and fixtures** on site	**22**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Install exterior joinery.	Install exterior joinery **on site.**
PC1.1	Opening and frame or unit sizes are confirmed for accuracy in accordance with **working drawings and specifications**.	Opening and frame or unit sizes are confirmed for accuracy in accordance with **site documents**.
PC1.2	Window and door frames are prepared and installed plumb and level with all packing, and fixed in accordance with working drawings, specifications **or** manufacturer's **recommendations**.	Window and door frames are prepared and installed plumb and level with all packing **and provision for air seal**, and fixed in accordance with **site documents and** manufacturer's **instructions**.
PC1.3	Exterior finishing trim is installed to give a weather tight finish in accordance with working drawings, specifications and manufacturer's instructions. Range: **evidence is required for a minimum of four types of finishing trim which can include but is not limited to – head, side and sill flashing,** scribers, facings, plugs, weather bar, seal**er**.	Exterior finishing trim is installed to give a weather tight finish **to the interface between building elements** in accordance with **site documents** and manufacturer's instructions. Range: **air seal, and two of** – scribers, facings, plugs, seal**ant**.
E2	Install interior joinery units.	Install interior joinery units **on site**.
PC2.1	Interior joinery items are prepared and fixed **to wall or floor or ceiling**, and are **plumb and to line and level**, in accordance with working drawings and specifications.	Interior joinery items are prepared and fixed **in position**, and are **plumb, in line and level**, in accordance with **site documents.**
PC2.2	Interior doors and frames are installed in accordance with **working drawings and specifications**.	Interior doors and frames are installed in accordance with **site documents and manufacturer's instructions**.
PC2.3	Timber and other trim is cut, fit**ted** and fixed in accordance with working drawings and specifications.	Timber and other trim is cut, fit and fixed in accordance with **site documents.**
PC2.4	Joints are waterproofed for wet area installations as specified.	**Remove this pc**
PC2.5	Temporary protection for all joinery units is provided in accordance with the specifications and work site practice.	**Becomes pc 2.4**
E3	Receive, install and protect interior stairs.	Receive, install and protect interior stairs **on site**.
PC3.1	Stair units are received and stored without damage in accordance with work site practices.	
PC3.2	Stair units and hand rails are trimmed and installed in accordance with **working drawings and specifications.**	Stair units and hand rails are trimmed and installed in accordance with **site documents.**

PC3.3	Stair units and hand rails are temporarily protected from damage in accordance with work site practices.	**No change to this pc 3.3** **Add element 4** **Install wet area joinery and fixtures on site.** **Range: two of – tub, vanity, bath, shower.** **PC 4.1 Wet area joinery items are prepared and fixed to wall or floor, and are plumb and to line and level, in accordance with site documents.** **PC 4.2 Joints are waterproofed for wet area installations in accordance with site documents manufacturer's instructions.** **PC 4.3 Timber and other trim is cut, fit and fixed in accordance with site documents.** **PC 4.4 Temporary protection for all wet area joinery units is provided in accordance with site documents and work site practice.**
E4	Complete work operations on site.	**Becomes Element 5**
PC4.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**Becomes pc 5.1** **All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13056** Level: **4** Credits: **4**	Unit Standard Title: **Install metal roof coverings on site** Change to: Install metal roof claddings **and verify the installation of roof claddings by others** on site	**23**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Cut and fix metal sheet roofing.	Cut and fix metal **roof claddings on site**.
PC1.1	Type of roofing to be used is identified from specifications.	Type of **roof claddings** to be used is identified from **site documents**.
PC1.2	Material lists for roofing materials are prepared.	**Materials are identified from the site documents, and an order list prepared in accordance with work site practice.**
PC1.3	The installation of roof framing members is verified in accordance with working drawings and specifications.	
PC1.4	Underlay is installed in accordance with **job specifications, manufacturer's specifications or NZS 3604:1999 Timber Framed Buildings**.	Underlay is installed in accordance with **site documents.**
PC1.5	Roofing sheets are cut, and fixed in accordance with working drawings**, job specifications, and manufacturer's** specifications. Range: includes but is not limited to – work methods, hazard identification, personal protection, emergency procedures.	**Metal roof claddings** are cut, and fixed in accordance with **site documents.** **Remove range**
PC1.6	Accessories are cut and fixed to provide a weather tight finish in accordance with working drawings and specifications. Range: **evidence is required for a minimum of two accessories which can include but is not limited to –** ridging, hip caps, barge covers, valley gutters.	Accessories are cut and fixed to provide a weather tight finish in accordance with **site documents.** Range: **three of –** ridging, hip caps, barge covers, valley gutters, **apron flashings.**
E2	Verify the installation of roof **coverings** by others.	Verify the installation of roof **claddings** by others **on site**.
PC2.1	Battens, purlins and underlay are verified as installed **to job requirements.**	Battens, purlins and underlay are verified as installed **in accordance with site documents.**
PC2.2	Roofing material and accessories are verified as installed in accordance with specifications. Range: manufacturer's specifications, NZS 3604:1999 Timber Framed Buildings, working drawings, specifications.	Roofing material and accessories are verified as installed in accordance with **site documents**. **Remove range**
PC2.3	Flashings and trim as detailed, are verified as installed in accordance with specifications.	Flashings and trim as detailed are verified as installed in accordance with **site documents**.
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **18729** Level: **4 change to 3** Credits: **3 change to 1**	Unit Standard Title: **Install thermal insulation material on site** Change to: Install thermal insulation material**s** on site	**24**

	Existing Elements and Performance Criteria (PC's)	**Suggested Changes to Elements and PC's**
E1	Install thermal insulating materials in buildings on site.	Install thermal insulat**ion** materials in buildings on site.
PC1.1	Thermal insulation is identified and installed **to meet the requirements of** the working drawings, specifications and manufacturer's **installation specifications**. Range: **evidence is required for a minimum of two environments that can include but is not limited to** – timber floors, walls, ceilings, roof, concrete floors.	Thermal insulation is identified and installed **in accordance with** the **site documents** and manufacturer's **instructions**. Range: **two of** – timber floors, concrete floors, walls, ceilings, roof**s**.
E2	Complete work operations on site.	
PC2.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **18731** Level: **4** Credits: **4 change to 3**	Unit Standard Title: **Install sound insulation systems on site** Change to: Install sound **control** systems on site	**25**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Install sound insulating materials in buildings on site.	Install sound **control systems** in buildings on site.
PC1.1	Sound **insulation and absorption material including seals** are identified and installed **to meet the requirements of** the working drawings, specifications and manufacturer's **installation specifications**. Range: **evidence is required for a minimum of two environments which can include but is not limited to** – floors, walls, ceilings, **roof.**	Sound **control systems** are identified and installed **in accordance with** the **site documents** and manufacturer's instructions. Range: **one of** - walls, ceilings, floors
E2	Complete work operations on site.	
PC2.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13058** Level: **4** Credits: **10**	Unit Standard Title: **Fix interior linings and trim on site** Change to: **Cut, fit and** fix interior linings and trim on site	**26**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Inspect wall and ceiling framing, insulation and services.	Inspect wall and ceiling framing, insulation and **in-built** services **on site**.
PC1.1	The framing members are verified as fixed in **place as required, straightness is within the tolerances as specified, and the moisture content is correct.**	The framing members are verified as fixed in **accordance with site documents and lining manufacturer's instructions.** **Range: specified centres, straightness, level, plumb, given tolerances, moisture content, bracing and structural elements, openings**
PC1.2	The insulation is verified as installed **to meet the requirements of** the **working drawings, specifications** and manufacturer's instructions.	The insulation is verified as installed **in accordance with** the **site documents** and manufacturer's instructions.
PC1.3	All pipes, wires and other services are verified as having been installed **in the wall cavities** and the systems tested in accordance with specifications.	All pipes, wires and other **in-built** services **and fixtures** are verified as having been installed and the systems tested in accordance with **site documents**.
PC1.4	The inspection confirms the results of **Territorial Authority/Building Certifier** pre line inspection.	The inspection confirms the results of **the Building Consent Authority pre-line inspection.**
E2	Determine materials required for interior lining.	Determine materials required for interior lining**s and trim**.
PC2.1	Materials are identified and an order list prepared **in accordance with working drawings, job specifications and NZS 3604:1999 Timber Framed Buildings.** Range: linings, trim.	Materials are identified **from the site documents** and an order list prepared **in accordance with work site practice.** **Remove range**
PC2.2	Supply of delivered materials is checked and confirmed on site. Range: quality, quantity.	Supply of delivered materials is checked and confirmed on site. Range: quality, quantity, **size, type**.
PC2.3	**Material is** received and stored without damage and in accordance with manufacturer's **specifications.**	**Materials are** received and stored without damage in accordance with manufacturer's **instructions**.
E3	Cut and fix interior **wall** linings. Range: **evidence is required for a minimum of two linings which can include but is not limited to** – softboard, hardboard, ceiling tiles, pre-finished board, timber panelling, plywood, fibre board, fibre cement, rigid polypropylene sheet, metal profiled sheets**.**	Cut**, fit** and fix interior linings **on site**. Range: **two of** – softboard, hardboard, ceiling tiles, pre-finished board, timber panelling, plywood, **medium density** fibre board, fibre cement, rigid polypropylene sheet, metal profiled sheets**.**
PC3.1	The interior linings are cut **to requirements.**	Interior linings are cut **in accordance with manufacturer's instructions.**
PC3.2	Interior linings are fixed **to the requirements of the specification,** and manufacturer's instructions.	Interior linings are **fit and** fixed **in accordance with site documents** and manufacturer's instructions

E4	Cut and fix plaster board linings. Range: **evidence is required for a minimum of three lining types which can include but is not limited to –** standard, water resistant, fire resistant, impact resistant, bracing, noise control.	Cut**, fit** and fix plaster board linings **on site**. Range: **three of –** standard, water resistant, fire resistant, impact resistant, bracing, noise control.
PC4.1	Plaster board linings are cut and fixed according to the requirements of the **specifications**, and manufacturer's instructions.	Plaster board linings are cut**, fit** and fixed according to the requirements of the **site documents**, and manufacturer's specifications.
		New PC 4.2 **Building Consent Authority post-line inspection is confirmed as having taken place.**
E5	Fix interior trim.	**Cut, fit and** fix interior trim **on site.** **Range: two of - architrave, cornice, skirting, corner and joint mouldings, dado, scotia.**
PC5.1	The items of interior trim are cut, fitted and fixed **according to** the working drawings, specifications and manufacturer's **recommendations**.	The items of interior trim are cut, fit and fixed **in accordance with** the **site documents**.
E6	Complete work operations on site.	
PC6.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13059** Level: **3** Credits: **4**	Unit Standard Title: **Install building hardware on site** Change to: Install **mechanical fixings and** building hardware on site	**27**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Install fasteners on site. Range: nails, screws, bolts.	**Combine element 1 and 2 : Install mechanical fixings on site** **Range: nails, screws, bolts; three of – nail plates, nail on plates, joint brackets, hangers, framing anchors, metal fittings**
PC1.1	Fasteners are selected in accordance with working drawings and specifications or NZS 3604:1999 Timber Framed Buildings.	**Mechanical fixings are selected and installed in accordance with site documents and manufacturer's instructions.**
PC1.2	Fasteners are installed in accordance with working drawings and specifications or NZS 3604:1999 Timber Framed Buildings.	**Deleted as now combined with PC 1.1**
E2	Install joint connectors used in timber construction.	**Deleted as it is now combined with E1**
PC2.1	Joint connectors are selected and installed in accordance with working drawings and specifications or NZS 3604:1999 Timber Framed Buildings. Range: evidence is required for a minimum of three joint connectors which can include but is not limited to – nail plates, nail on plates, framing anchors, joist hangers, metal fittings.	**Deleted as now combined with PC 1.1**
E3	Install building hardware. Range: evidence is required for lock latches and a minimum of three other hardware types.	**Becomes Element 2** Install building hardware **on site**. **Range: latches and locks; three of - door hinges, single swing door closers, window hinges, stays, catches, bathroom hardware, door pivot systems, egress door hardware, security door and window hardware, fire door and window hardware, door stops, disability hardware.**
PC3.1	Building hardware is selected in accordance with working drawings, specifications, **and hardware schedule**.	**Becomes pc 2.1** Building hardware is selected in **and installed in** accordance with **site documents and manufacturer's instructions.**
PC3.2	Building hardware is installed in accordance with working drawings, specifications, **hardware schedule**, and manufacturer's **recommendations**.	**Becomes pc 2.2** Building hardware is installed in accordance with **site documents** and manufacturer's **instructions**.
E4	Complete work operations on site.	**Becomes Element 3**
PC4.1	All operations are completed without injury to operatives and public or damage to plant and materials.	**Becomes pc 3.1** **All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**
PC4.2	All activities comply with the requirements of site specific safety plan.	**Delete this pc**

PC4.3	All tools and equipment are used, maintained, repaired, cleaned and stored in accordance with specifications. Range: manufacturer's specifications, work site practices.	**Delete this pc**
PC4.4	Surplus materials are dealt with according to work site practices.	**Delete this pc**

Unit Standard No: **13060** Level: **4** Credits: **12**	Unit Standard Title: **Construct pole frames and pole platforms on site** Change to: Construct pole frames **or** pole platforms on site	**28**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct pole platforms **and/**or pole frames.	Construct pole frames **or** pole platforms **on site**.
PC1.1	Pole positions are set out and excavated to the requirements of working drawings and specifications. Range: line, plumb, width and depth.	Pole positions are set out **in accordance with site documents**. Range: line, plumb, width, depth.
		New PC 1.2 **Holes are excavated for the placement of poles, and/or poles are driven.**
PC1.2	Construction is completed in accordance with working drawings and specifications. Range: **fixing and their protection,** attachment of bearers and permanent braces**, weatherproofing.**	**Becomes pc 1.3** Construction is completed in accordance with **site documents**. Range: **mechanical fixings and their protective finishes,** attachment of bearers and **temporary and** permanent braces, **re–treatment of cuts, weatherproofing of poles.**
E2	Complete work operations on site.	
PC2.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13061** Level: **3** Credits: **6**	Unit Standard Title: Construct **exterior timber** stairs and ramps on site Change to: **Construct stairs and ramps on site**	**29**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct **exterior timber** stairs.	Construct stairs **on site**. **Range: one of - timber, formwork for in situ concrete stairs**
PC1.1	Stair **case** requirements are identified from working drawings and specifications **or NZS 3604:1999 Timber Framed Buildings and the Building Code.** Range: location, foundation, width, height, setout, materials, surface finish, handrails.	Stair requirements are identified from **site documents**. Range: location, foundation, width, height, setout, materials, surface finish, handrails, **riser, going, balustrades, reinforcing or stringers, nosings**.
PC1.2	Framing to landings is constructed in accordance with **the** working drawings and specifications **or NZS 3604:1999 Timber Framed Buildings.**	Framing **or falsework** to landings is constructed in accordance with **site documents**.
PC1.3	Stair components are set out **and** assembled in accordance with working drawings and specifications.	Stair components are set out, assembled **and erected** in accordance with **site documents**.
PC1.4	Stair is trimmed and installed in accordance with working drawings and specifications.	**Delete PC 1.4**
PC1.5	Balustrades and handrails are installed in accordance with working drawings and specifications.	**Becomes PC 1.4** Balustrades and handrails are installed in accordance with **site documents**.
E2	Construct **exterior ramps**.	Construct ramps **on site.** **Range: one of – timber, formwork for in situ concrete ramps**
PC2.1	Ramp requirements are identified from working drawings and specifications **or NZS 3604:1999 Timber Framed Buildings and the Building Code.** Range: **includes but is not limited to –** location, foundations, **slope**, width, **set out**, materials, surface finish, handrails.	Ramp requirements are identified from **site documents**. Range: location, foundations, **gradient**, width, **setout,** materials, surface finish, handrails, **height, reinforcing or bearers, upstands.**
PC2.2	Footings and foundations are constructed in accordance with **the working drawings and specification**s.	Footings and foundations are constructed in accordance with **site documents**.
PC2.3	**Timber** ramps are **constructed** in accordance with **working drawings and specifications**. Range: includes but is not limited to – bearers, joists and nogging (dwangs), decking.	Ramps are **set out, assembled and erected** in accordance with **site documents**. **Delete range**
PC2.4	Balustrades and handrails are installed in accordance with **working drawings and specifications.**	Balustrades and handrails are installed in accordance with **site documents.**

E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13062** Level: **3** Credits: **10**	Unit Standard Title: Construct retaining walls Change to: Construct retaining walls **on site**	**30**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct retaining walls.	Construct retaining walls **on site**.
PC1.1	Retaining wall requirements are identified from **working drawings and specifications**. Range: **includes but is not limited to –** location, **lay out**, materials, height, foundations, surcharge, drainage, water proofing.	Retaining wall requirements are identified from **site documents**. Range: location, **setout**, materials, height, foundations, surcharge, drainage, water proofing.
PC1.2	Retaining wall is constructed **to** working drawings and specifications.	Retaining wall is constructed **in accordance with site documents**.
PC1.3	Drainage systems are installed in accordance with working drawings and specifications.	Drainage systems are installed in accordance with **site documents**.
PC1.4	Backfilling is placed and compacted in accordance with working drawings and specifications.	Backfilling is placed and compacted in accordance with **site documents**
E2	Complete work operations on site.	
PC2.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identifications methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13063** Level: **3** Credits: **2**	Unit Standard Title: **Attend to and check the construction of concrete masonry structures and paving on site**	**31**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Attend to and check the construction of concrete masonry structures.	Attend to and check the construction of concrete masonry structures **on site**.
PC1.1	Footing levels and the positions of reinforcing starters are **checked in** accordance with working drawings and specifications.	Footing levels and the positions of reinforcing starters are **confirmed as being in** accordance with **site documents**.
PC1.2	Scaffolding is erected and inspected in accordance with the Health and Safety in Employment Regulations 1995, Code of Practice for the Safe Erection and Use of Scaffolding 1995, and safe work practices.	**Access equipment is arranged in accordance with the employer's safety procedures.**
		New PC 1.3 **Attend to and check falsework for supporting lintels is in accordance with site documents.**
PC1.3	Reinforcing and wash out ports are **completed in** accordance with working drawings and specifications.	**Becomes PC 1.4** **Pre- grout check is completed in accordance with site documents.** **Range: reinforcing tied, washout ports cleaned, Building Consent Authority approval obtained, washout ports closed off.**
PC1.4	Control joints are **checked for compliance with** working drawings and specifications.	**Becomes PC 1.5** Control joints are **confirmed as complying with site documents**.
PC1.5	Grout filling is placed and compacted in accordance with working drawings and specifications.	**Becomes PC 1.6** Grout filling is **confirmed as** placed and compacted in accordance with **site documents**.
PC1.6	Construction is confirmed as being in accordance with working drawings.	**Becomes PC 1.7** Construction is confirmed as being in accordance with **site documents**. **Range: line, level, plumb, specified tolerances, height, position of fixings and attachments**
E2	Attend to and check the **laying of concrete masonry to** paved areas on site.	Attend to and check the **construction of paving** on site.
PC2.1	Base course is placed and compacted, and levels **are** in accordance with working drawings and specifications.	Base course is **confirmed as** placed and compacted, and levels in accordance with **site documents**.
PC2.2	Edge restraints are constructed in accordance with working drawings and specifications.	Edge restraints are **confirmed as** constructed in accordance with **site documents**
PC2.3	Pavers are laid, compacted and joints filled in accordance with working drawings and specifications.	Paving is **confirmed as** contructed in accordance with **site documents**.
E3	Complete work operations on site.	
PC3.1	3.1 All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13064** Level: **4** Credits: **3**	Unit Standard Title: **Use adhesives and sealants on site**	**32**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Use adhesives for **fixing building materials.**	Use adhesives for **construction work on site**
PC1.1	Adhesives are identified in accordance with job requirements and specifications.	Adhesives are identified in accordance with site documents and **manufacturer's** specifications. Range: location, type, suitability, surface preparation, environmental conditions
PC1.2	Hazards are identified from **manufacturer's product data sheets and/or** MSDS **and in accordance with site specify safety plan**.	Hazards and controls are identified from the manufacturer's Material Safety Data Sheets **or Environmental Resource Management Authority approval**.
PC1.3	Precautions are taken in terms of controlling health risks. Range: ventilation, gloves, barrier cream, respirators or masks, goggles, washing.	**Delete this pc.**
PC1.4	Conditions are checked to ensure they comply with specifications and manufacturer's recommendations **for applying adhesive**.	**Delete this pc.**
PC1.5	Adhesive is applied in accordance with **specifications and** manufacturer's recommendations.	**Becomes pc 1.3** Adhesive is applied in accordance with manufacturer's recommendations.
E2	Use sealants for construction work on site.	
PC2.1	Sealants are identified in accordance with job requirements and specifications.	Sealants are identified in accordance with site documents and **manufacturer's** specifications. Range: location, type, suitability, surface preparation, primer, environmental conditions
PC2.2	Hazards are identified from **manufacturer's product data sheets and/or** MSDS **and in accordance with site specific safety plan.**	Hazards and controls are identified from the manufacturer's Material Safety Data Sheets **or Environmental Resource Management Authority approval**.
PC2.3	Precautions are taken in terms of controlling health risks. Range: ventilation, gloves, barrier cream, respirators or masks, goggles, washing.	**Delete this pc.**
PC2.4	Substrate is confirmed as **being in accordance with specifications.**	**Delete this pc.**
PC2.5	Primers and sealants are applied in accordance with specifications.	**Becomes pc 2.3** Sealants are applied in accordance with **manufacturer's** specifications.
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13065** Level: **4** Credits: **16**	Unit Standard Title: **Construct high wall, column and beam formwork on site** Change to: Construct **in situ** high wall, column and beam **falsework and** formwork on site	**33**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Construct high wall and column formwork.	Construct **in situ** high wall and column **falsework and** formwork **on site**.
PC1.1	Formwork is set out and constructed to line, plumb, level and within tolerances, in accordance with **working drawings and job specifications.**	**Falsework and** formwork is set out and constructed to in accordance with **design requirements and manufacturer's specifications.** **Range: line, level, plumb, specified tolerances, manufacturer's specifications, release agents**
PC1.2	Formwork is braced to prevent displacement during the construction process.	**Falsework and** formwork is braced to prevent displacement during the construction process **in accordance with design requirements and manufacturer's specifications.**
PC1.3	Formwork is held with proprietary or other tie systems to the specified tolerances until the concrete has set.	
PC1.4	Formwork is struck without damage to the formwork or to the concrete.	Formwork **and falsework** is struck without damage to the formwork or to the concrete.
E2	Construct formwork for **suspended** beams.	Construct **falsework and** formwork for **in situ** beams.
PC2.1	Formwork is set out and constructed in accordance with **working drawings, specifications and engineer's requirements.**	**Falsework and** formwork is set out and constructed in accordance with **design requirements and manufacturer's specifications.** **Range: line, level, plumb, specified tolerances, manufacturer's specifications, release agents**
PC2.2	Formwork is tied and braced to prevent movement while concrete is being placed.	**Falsework and** formwork is tied and braced to prevent movement while concrete is being placed, **in accordance with design requirements and manufacturer's specifications.**
PC2.3	Falsework is constructed in accordance with specifications and manufacturer's design instructions.	**Remove PC 2.3**
PC2.4	Formwork and falsework are removed without damage to the formwork, falsework or concrete.	**Becomes PC 2.3**
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **18727** Level: **4** Credits: **10**	Unit Standard Title: **Carry out demolition work on site** Change to: **Plan and** carry out demolition work on site	**34**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Plan demolition work. Range: additions and alterations.	Plan demolition work **on site**. **Remove range**
PC1.1	Demolition work is identified from working drawings and specifications.	Demolition work is identified from **site documents**.
PC1.2	Inspection of demolition site carried out. Range: **includes but is not limited to –** existing services, structure, public safety, waste disposal, site access.	Inspection of **area to be demolished is** carried out. Range: existing services, structur**al components to be removed**, **personal and** public safety, waste disposal, site access.
PC1.3	Demolition plan is prepared in accordance with the required demolition work.	
E2	Carry out demolition work. Range: additions and alterations.	Carry out demolition work **on site**. **Remove range**
PC2.1	Hazards, and safety procedures to be followed during demolition activities are identified. Range: includes but is not limited to – work at height, support for existing structure, noise, dust control, personal protective equipment, plant and equipment.	**Existing structural components are supported prior to demolition work taking place.** **Range: two of – load bearing walls, posts, beams, columns, bracing elements.**
PC2.2	Demolition work is carried out in accordance with demolition plan.	
PC2.3	Debris and waste are disposed of in accordance with demolition plan and Territorial Authority requirements.	
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **13066** Level: **4** Credits: **4**	Unit Standard Title: **Erect prefabricated beams and components on site** Change to: Erect **and fix** prefabricated beams on site	**35**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Erect prefabricated beams on site.	Erect **and fix** prefabricated beams on site. **Range: one of - precast concrete, steel, timber, composite.**
PC1.1	Prefabricated beams are identified from working drawings and specifications.	
PC1.2	Prefabricated beams are **accepted on site** and stored without damage.	Prefabricated beams **are received** and stored without damage **in accordance with manufacturer's specifications.**
PC1.3	Prefabricated beams are erected plumb, level and to line, **to the requirements of the working drawings.**	Prefabricated beams are erected **and propped to** plumb, level, line **and camber, within specified tolerances in accordance with site documents and manufacturer's specifications.**
PC1.4	Prefabricated beams are jointed and fixed to the requirements of the working drawings and the engineer.	Prefabricated beams are jointed and fixed **in accordance with site documents and manufacturer's specifications.**
PC1.5	Prefabricated beams are protected from damage and weather exposure, until the completion of the contract.	Finished surface is protected in accordance with **site documents and** manufacturer's **speicifications**.
E2	Complete work operations on site.	
PC2.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**

Unit Standard No: **18728** Level: **4** Credits: **12**	Unit Standard Title: **Set up proprietary suspended concrete floor systems on site** Change to: Set up, **place and fix** proprietary suspended concrete floor systems on site	**36**

Existing Elements and Performance Criteria (PC's)		**Suggested Changes to Elements and PC's**
E1	Set up proprietary suspended concrete floor systems.	Set up**, place and fix** proprietary suspended concrete floor systems.
PC1.1	Proprietary suspended floor system is identified from working drawings and specifications.	Proprietary suspended floor system is identified from **site documents**.
PC1.2	Proprietary suspended floor system is received on site and stored in accordance with manufacturer's **instructions and work site practice.**	Proprietary suspended floor system is received on site and stored in accordance with manufacturer's **specifications**.
PC1.3	Suspended concrete floor falsework support systems are identified from working drawings and manufacturer's **design** specifications.	Suspended concrete floor falsework support systems are identified from working drawings and manufacturer's specifications.
PC1.4	Suspended concrete floor falsework support systems are installed in accordance with **working drawings** and manufacturer's instructions. Range: **may include but is not limited to –** equipment, position, camber, bracing, temporary support.	Suspended concrete floor falsework support systems are installed in accordance with **site documents** and manufacturer's **specifications**. Range: position, camber, bracing.
PC1.5	Proprietary suspended concrete floor systems are placed and fixed in accordance with working drawings and manufacturer's instructions.	Proprietary suspended concrete floor systems are placed and fixed in accordance with **site documents** and manufacturer's **specifications**.
PC1.6	Reinforcing for concrete topping is set out and placed in accordance with working drawings and specifications.	Reinforcing for concrete topping is set out and placed in accordance with **site documents**.
PC1.7	Formwork for edges and joints is formed in accordance with working drawings and specifications.	Formwork for edges and joints **and penetrations** is formed in accordance with **site documents**.
PC1.8	Concrete topping is placed and finished in accordance with specifications.	Concrete topping is placed and finished in accordance with **site documents**.
E2	Dismantle proprietary suspended concrete floor falsework support systems.	Dismantle proprietary suspended concrete floor **formwork and** falsework support systems.
PC2.1	Proprietary suspended concrete floor systems falsework is dismantled in accordance with specifications and manufacturer's instructions.	Proprietary suspended concrete floor systems **formwork and** falsework is dismantled in accordance with **site documents** and manufacturer's **specifications**.
PC2.2	Proprietary suspended concrete floor falsework support systems are cleaned and stored in accordance with work site practice and manufacturer's instructions.	Proprietary suspended concrete floor falsework support systems are cleaned and stored in accordance with work site practice and manufacturer's **specifications**.
E3	Complete work operations on site.	
PC3.1	All operations are completed without injury to operatives and public or damage to plant and materials. Range: includes but is not limited to – responsibilities, work methods, hazard identification methods, accident reporting, injury prevention, personal protection, emergency procedures.	**All operations are safely completed, workplace, tools, plant and equipment cleaned, and tools, plant and equipment stored in accordance with work site practice.**