

Assessment

Challenge Assessment for Restricted Certificate of Competence

- Advanced Scaffolding
- Elementary Scaffolding



Student Name _____

Process for Challenge Assessment for Restricted Certificate of Competence



To be considered into the process of Challenge Assessment for Restricted Certificate of Competence, candidates must be able to:

- provide a current 'Scaffolder' qualification, from an authorised overseas agent
- meet NZ COC requirements for currency and experience
- A detailed CV, or work history.

Once SARNZ have accepted the requirements listed, the candidate will be invited onto the next stages of the process. Stage One will be a written assessment and must be successfully completed before going on to Stage Two the practical assessment.

- Stage 1 - Written assessment consisting of Section 1, mock scenario. All paperwork must be completed to the assessor's satisfaction. Section 2, Theory Questions. Both mock scenario and theory questions will provide adequate evidence of legislative requirements of the NZ Standards.
- Stage 2 - Undertake a practical assessment to recognise practical skills e.g., double drop hanger, incorporating a cantilever section, must include all the necessary paper work (planning sheet, inspection reports etc).

We encourage the reviewing of the assessment process and the Best Practice Guidelines Scaffolding New Zealand in your preparation to apply for this challenge.

On successful completion of all stages, candidates will be able to apply for a limited Certificate of Competency from SARNZ.

Special Note

The above assessment should be conducted by approved assessors. For this reference, approved assessors are those that would meet the AMAP for the National Certificate in Advanced Scaffolding, and appointed by SARNZ. See Appendix 1 attached, Criterion 3 - Staff selection, appraisal and development (excerpt from NZQA AMAP document).

Elementary Scaffolding Challenge Assessment



This assessment is in two parts:-

Part one is a written theory assessment.

Part two requires you to design, erect, inspect and dismantle an Elementary Scaffold. Complete the attached documentation, as applicable to the tasks outlined. Additional information has been provided for this scenario.

Part 1: Documentation

From the diagram and information, provided below, complete the following:

1. Hazard Identification Sheet
2. Notification Form
3. Scaffold Plan (must show all calculations, loads etc)
4. Scaffold Handover Sheet
5. Inspection Report
6. Scaffold Register

You are to erect a standard scaffold 67 Queen St, CBD, Auckland.

The scaffold is for Stewart Donald (Main Contractor)

Contact details: 55 Ascot Road, Auckland, Ph 09254 4564

The purpose of the scaffold is to allow light maintenance and painting of the facade to two elevations.

Elevation One is to be of tube and coupler scaffolding to three working lifts, two bays including return where continuation of two bays (second elevation), three lifts of unit assembled proprietary scaffolding will need to be utilised.

You are the scaffolder (cert No. 188867)

Your employer is No Limits Scaffolding, 19 Freedom Ave, Auckland, ph 09789654

Insert all documentation, Hazard ID, Planning sheet, notification, etc.,.

Advanced Scaffolding Challenge Assessment

This assessment is in two parts:-

Part one is a written theory assessment.

Part two requires you to design, erect, inspect and dismantle an Advanced Scaffold. Complete the attached documentation, as applicable to the tasks outlined. Additional information has been provided for this scenario.

Part 1: Documentation

From the diagram and information, provided below, complete the following:

1. Hazard Identification Sheet
2. Notification Form
3. Scaffold Plan (must show all calculations, loads etc)
4. Scaffold Handover Sheet
5. Inspection Report
6. Scaffold Register

You are to erect a scaffold on the roof of 67 Champion St, CBD, Auckland

The scaffold is for Wayne Charming (Main Contractor)

Contact details: 88 Harley Place, Auckland, Ph 09345876

The purpose of the scaffold is to inspect cracks 1.5m below the parapet/roof edge.

The working height is 30m above ground level and will be 4m long (or simulated height).

The cantilevered and hanging sections of the scaffold can be erected from scaffold equipment of the candidates' choice. Manufacturer's instructions may need to be consulted when utilising proprietary scaffolding.

No scaffolding tubes are to rest on the parapet.

You are the scaffolder (cert No. 188867)

Your employer is No Limits Scaffolding, 19 Freedom Ave, Auckland, ph 09789654

Insert all documentation, Hazard ID, Planning sheet, notification, etc.,.

Theory Assessment



Part 2: Written Questions

1. Give two examples of scaffolding that require notification to the Department of Labour (DOL).

2. Give three examples of special duty scaffolding

3. When must the notification form for Notifiable scaffolds be sent to DOL?

4. How often must a register check be done on standing scaffolding?

1. In use _____

2. Not in use _____

5. How often must a register check be done on suspended scaffolding?

6. Who is permitted to sign off scaffold registers?

7. Where is the scaffold register kept?

8. What Certificate of Competency card must a worker hold to do a register check on a hanging scaffold?

9. What is the purpose of a scaffold hand over certificate?

Theory Assessment

10. If the scaffold safe tag has been removed who is allowed on the scaffold and for what reason?

11. Complete the following table:

Maximum	Light Duty	Medium Duty	Heavy Duty
Duty Load			
Bay Length			
Bay Width			
Putlog Spacing			

12. How many lifts per bay may be used on a light duty scaffold up to 13.5 m high?

13. When Butting planks what is the minimum/maximum overhang?

1. Minimum _____
2. Maximum _____

14. What is the minimum working platform width for all non proprietary scaffolds?

15. What is the maximum work platform height for the first lift?

16. When must a guardrail be fitted to a scaffold?

17. Guardrails must be able to take a load of:

1. Horizontal _____kg
2. Vertical _____kg

Theory Assessment



18. What three loads must be considered when basing out?

1. _____
2. _____
3. _____

19. Explain what you need to consider when placing a sole board on uneven ground.

20. What is the minimum size of a sole-board?

21. In what circumstances would you use a 3m plank as a sole-board?

22. Explain why base plates must have spigots.

23. Whenever practical, at what height should bracing be started?

24. When reliant on transverse (dog-leg) bracing, what is the maximum spacing?

25. What is the best angle for longitudinal (face) bracing?

26. What is the maximum spacing for longitudinal bracing?

27. What are the minimum dimensions of a base-plate?

Theory Assessment



28. What length of screw-jack must remain inside a standard?

29. What is the purpose of a raker tube?

30. What is the maximum recommended distance that a raker may be placed from a standard?

Circle correct answer:

300mm 500mm 1m Anywhere

31. Describe why ties must be provided and where they are fixed?

1. _____

2. _____

32. Explain why a putlog coupler should not be used in tie assemblies?

33. Ties must be able to take a horizontal force of the what % of the combined live and dead load in the vicinity of the tie?

Circle correct answer:

5% 10% 25% 50%

34. What are the maximum spacing for ties on non proprietary scaffolding?

Horizontal _____ m _____ bays

Vertical _____ m _____ lifts

35. What can be used to increase the recommended tie spacing?

Theory Assessment



36. What is the maximum number of lifts between landings?

Circle correct answer:

- 1 2 3 As many as required

37. From what height must internal ladder access be used?

38. What is the minimum clear width of access that must be maintained on all scaffold decks?

39. When a ladder does not extend past an access deck, what must be provided?

40. List three methods of isolating the hazard of an open access deck:

1. _____
2. _____
3. _____

41. When a scaffold is also used for roof edge protection, how far below gutter level may the deck for a roof with a pitch of 25° or less?

42. When installing roof edge protection, what is the maximum permissible distance between the scaffold and the gutter?

43. What is the height to base width ratio for:

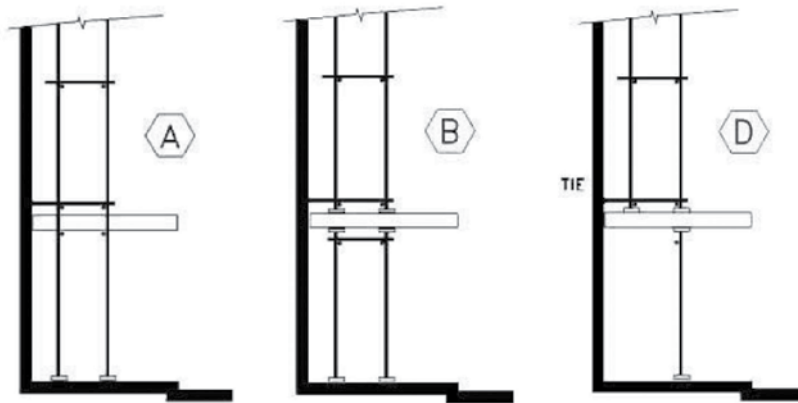
1. Mobile and free standing scaffolds up to 1.8m high _____
2. Mobile and free standing scaffolds over 1.8m high _____
3. What is the maximum permissible height of a mobile scaffold with a base 1.2m wide? _____

44. Why is a plan brace required on a mobile scaffold?

Theory Assessment

45. How many workers are allowed on a mobile scaffold when it is being moved?

46. Which of the following require an engineer's certificate? Briefly explain your answer. (Circle correct answer and give an explanation)



A – Yes or No _____

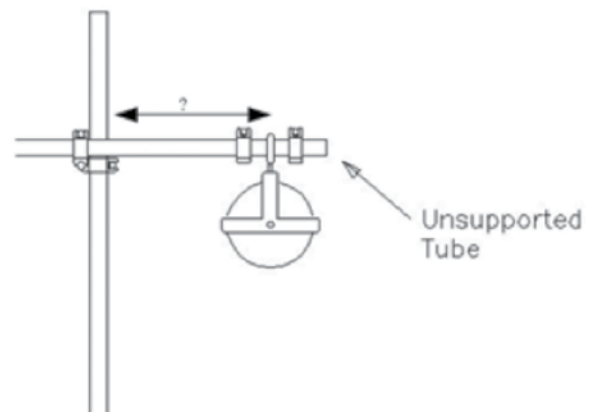
B – Yes or No _____

D – Yes or No _____

47. The maximum load to be raised or lowered on a gin wheel is how many kg?

48. What must be done to secure a hook on a gin wheel from working free from the needle?

49. What is the maximum unsupported distance may a gin wheel be placed before a spur must be used?



Theory Assessment



50. Name four proprietary scaffold systems:

1. _____
2. _____
3. _____
4. _____

51. All proprietary scaffold systems should be built to...

52. Why are the manufacturer's instructions so important when working with proprietary scaffolding?

53. Who is permitted to erect and shift suspended scaffolds?

54. List three points to consider when inspecting the following:

1. Couplers _____
2. Timber planks _____
3. Castors _____
4. Ladders _____

55. If any items are found defective what should be done with them?

56. Complete the following, regarding mechanical lifting appliances

1. Strengthening of Scaffolding must be how many times the lifting capacity of the appliance

2. What is the maximum lifting capacity of a mechanical lifting device?

57. Describe when you would need to construct a cantilevered scaffold?

Theory Assessment



58. What classification of scaffolder is certified to erect a hanging scaffold?

59. Name three conditions that must be known before commencement of a hanging scaffold?

1.

2.

3.

60. A person with an advanced scaffolding certificate is allowed to construct a catch fan.

Circle the correct answer

True False

61. You are allowed to use a catch fan as a loading platform.

Circle the correct answer

True False

62. What are the structural considerations that should be made to the scaffold if the scaffold is to be screened?

63. Describe a Node point

64. Describe when you would use a safety net?

Hazard Identification and Controls Report



The purpose of this procedure is to inspect the work site for hazards, to eliminate, isolate or minimise the hazard.

Person in charge	Location
Job description	

Work party details		
Work Group Member	Task Responsibility	Initials

Hazard prompt						
Personal protection equipment required?	yes	no	Evacuation procedures?	Smoking permitted?	yes	no

Is the equipment you are working on clearly identified? Are there any hazards in getting access to the site? Can any hazards arise during the job?

Hazard identification and control			
Hazard	Exists		Method of Control (To eliminate, isolate or minimise)
	Yes	No	
Fall			
Power lines			
Confined Spaces			
Fire			
Public Protection			
Traffic			
Overhead Dangers			
Stacked Materials			
Insecure Scaffold			
Wind			
Vehicle Loads			
Power leads/ source			
Faulty Plant			
Others:			
Site supervision (signed)			Date

Notification of Particular Hazardous Work Associated with Scaffolding



Please mail or fax this notification form to your nearest Occupational Safety and Health Service of the Department of Labour branch (see the next page/back of this form). Regulation 2 and 26 of the Health and Safety in Employment Regulations 1995 define notifiable work and set out who is responsible for making the notification. They are also quoted on the back of this form for your convenience. If faxing this form, please return only the front page.

Notice is hereby given under the Health and Safety in Employment Regulations 1995 in respect of the following work. (Circle the appropriate nature of work)

Scaffolding (General) - Scaffolding (Suspended) - Scaffolding (Special Duty Scaffold)

Address of worksite:		Contractor/Self Employed:	
Main access road:		Address:	
Location		Contact:	
		Phone:	Fax:
Principal:		Employer:	
Address:		Address:	
Contact:		Contact:	
Phone:	Fax	Phone:	Fax:
Certificate Holder:		Phone:	Fax:

(please name certificate holder when notifying scaffolding)

Brief description of work:

Special duty scaffolding:

Please provide the reason this scaffold has been designated a special duty scaffold and also provide drawings, calculations or a chartered engineer's designs if applicable.

Due date of commencement / / Estimated time to complete _____

Date: / /

Signed: _____

Notification of Particular Hazardous Work



NORTHLAND

Whangarei
L2 Michael Hill Building
25 Rathbone Street
PO Box 141, Whangarei
Fax: (09) 438 4874

AUCKLAND

Manukau

12 Lambie Drive, Manukau
PO Box 63010, Papatoetoe
Sth
Fax: (09) 909 3248

West Auckland

Westgate Business Estate
5 Pinot Lane, Massey
PO Box 84245, Westgate
Fax: (09) 833 5157

Auckland Central

Level 9, 280 Queen Street
PO Box 105 146, Auckland
Fax: (09) 984 4115

North Harbour

Level 5, ANZ Building
9-11 Corinthian Drive
Albany
PO Box 33790, Takapuna
Fax: (09) 909 3280

WAIKATO/THAMES

Hamilton

Level 3 Westpac Building
430 Victoria Street
PO Box 19217, Hamilton
Fax: (07) 838 0054

TAUPO/ EASTERN BAY OF PLENTY

Rotorua
1231 Haupapa Street
PO Box 2128, Rotorua
Fax: (07) 346 0229

WESTERN BAY OF PLENTY

Tauranga

Unit 2, Promed House
Cnr. 10th Ave
& Edgecumbe Rd
PO Box 66, Tauranga
Fax: (07) 577 6396

MANAWATU/WHANGANUI

Palmerston North

Cnr Walding & Taonui Streets
PO Box 241, Palmerston
North
Fax: (06) 359 1431

TARANAKI

New Plymouth

330 Devon Street East
PO Box 342, New Plymouth
Fax: (06) 759 9417

HAWKES BAY/EAST COAST

Napier

6 Taradale Road
PO Box 546, Napier
Fax: (06) 835 7102

Gisborne

295 Gladstone Road
PO Box 139, Gisborne
Fax: (06) 868 8832

WELLINGTON/KAPITI

Wellington

Level 1, 85 The Terrace
PO Box 3705, Wellington
Fax: (04) 382 9159

HUTT/WAIRARAPA

Lower Hutt

Level 1
Cnr Cornwall St & Kings Cres
PO Box 30556, Lower Hutt
Fax: (04) 566 7363

NELSON/MARLBOROUGH

Nelson

L1, 9 Buxton Square
PO Box 180, Nelson
Fax: (03) 989 6789

CANTERBURY/WEST COAST

Christchurch

Markham Building
144 Kilmore Street
PO Box 13278, Christchurch
Fax: (03) 365 2616

Greymouth

54 Tainui Street
PO Box 37, Greymouth
Fax: (03) 768 6930

Timaru

Site 26B, Stafford Mall,
Stafford Street, Timaru
Fax: (03) 684 9127

OTAGO

Dunedin

392 Hillside Road
PO Box 537, South Dunedin
Fax: (03) 455 6680

SOUTHLAND

Invercargill

70 Victoria Avenue
PO Box 548, Invercargill
Fax: (03) 218 2152

Sections 2 and 26 of the Health and Safety in Employment Regulations 1995

Section 2: Interpretation -

"Notifiable Work" means -

- (a) Any restricted work, as that term is defined in regulation 2 (1) of the Asbestos Regulations 1983;
- (b) Any logging operation or tree-felling operation, being an operation that is undertaken for commercial purposes;
- (c) Any construction work of one or more of the following kinds:
 - (i) Work in which a risk arises that any person may fall 5 metres or more, other than-
 - (A) Work in connection with a residential building up to and including 2 full storeys;
 - (B) Work on overhead telecommunications lines and overhead electric power lines;
 - (C) Work carried out from a ladder only;
 - (D) Maintenance and repair work of a minor or routine nature;
 - (ii) The erection or dismantling of scaffolding from which any person may fall 5 metres or more;
 - (iii) Work using a lifting appliance where the appliance has to lift a mass of 500 kilograms or more a vertical distance of 5 metres or more, other than work using an excavator, a forklift, or a self-propelled mobile crane;
 - (iv) Work in any pit, shaft, trench, or other excavation in which any person is required to work in a space more than 1.5 metres deep and having a depth greater than the horizontal width at the top;
 - (v) Work in any drive, excavation, or heading in which any person is required to work with a ground cover overhead;
 - (vi) Work in any excavation in which any face has a vertical height of more than 5 metres and an average slope steeper than a ratio of 1 horizontal to 2 vertical;
 - (vii) Work in which any explosive is used or in which any explosive is kept on the site for the purpose of being used;
 - (viii) Work in which any person breathes air that is or has been compressed or a respiratory medium other than air;

Section 26: Notification -

- (1) In this regulation, the term "Employer" includes a person who controls a place of work.
- (2) Subject to sub clause (4) of this regulation, every Employer who intends to commence any notifiable work or any work that will at any time include any notifiable work shall take all practicable steps to lodge notice of that intention in accordance with this regulation.
- (3) A notice required to be lodged under sub clause (2) of this regulation shall -
 - (a) Be lodged at an office that deals with occupational safety and health matters, being the nearest such office of the Department to the place where the work is to be carried out; and
 - (b) Be in writing; and
 - (c) Be given at least 24 hours before the time at which the Employer intends to commence the work; and
 - (d) Contain the following particulars -
 - (i) The nature and location of the work; and
 - (ii) The name, address, and contact details of the Employer; and
 - (iii) The intended date of commencement of the work; and
 - (iv) The estimated duration of the work.
- (4) It shall not be necessary for any Employer to comply with sub clause (2) of this regulation before commencing any construction work necessary to deal with an emergency arising from -
 - (a) Damage caused by any earthquake, explosion, fire, flood, lightning, rain, slip, storm, or washout; or
 - (b) The blockage or breakdown of any drain or sewer; or
 - (c) The blockage or breakdown of any distribution system or network for electricity, gas, telecommunications, or water.

Scaffold Register



Project:	Site Address:																				
Main Contractor:	Contact:																				
Client(s):	Contact:																				
Scaffolding Contractor:	Contact:																				
Scaffolder:	Certificate of Competence No:																				
Register, in compliance with the Approved Code of Practice for Scaffolding, under Section 20 of the Health and Safety in Employment Act 1992; for each standing scaffold over 5m high.																					
(1) Type of Scaffold: (tick one)	<table> <tr> <td>Tube & Coupler</td> <td>r</td> <td>(2) Duty: (tick one)</td> <td>Light</td> <td>r</td> </tr> <tr> <td>Prefabricated</td> <td>r</td> <td></td> <td>Medium</td> <td>r</td> </tr> <tr> <td>Proprietary</td> <td>r</td> <td></td> <td>Heavy</td> <td>r</td> </tr> <tr> <td>Timber</td> <td>r</td> <td></td> <td>Special</td> <td>r</td> </tr> </table>	Tube & Coupler	r	(2) Duty: (tick one)	Light	r	Prefabricated	r		Medium	r	Proprietary	r		Heavy	r	Timber	r		Special	r
Tube & Coupler	r	(2) Duty: (tick one)	Light	r																	
Prefabricated	r		Medium	r																	
Proprietary	r		Heavy	r																	
Timber	r		Special	r																	
(3) Safe live load ofkg per platform. (enter number of kg's)																					

Light Duty – 225kg per work platform contained within each scaffold bay (including a single point load of 100kg).

Medium Duty – 450kg per work platform contained within each scaffold bay (including a single point load of 150kg).

Heavy Duty – 675kg per work platform contained within each scaffold bay (including a single point load of 200kg).

Special Duty – SWL as specified by designer.

Maximum number of working platforms per bay which may be used on metal tubular or framed scaffolding are given in the following table:

Maximum height of scaffold	Maximum number of working platforms that may be used in any bay			
	Light Duty	Medium Duty	Heavy Duty	Special Duty
Up to 13.5 m	4	2	2	As specified by designer
Up to 33 m	2	1	1	

Inspection Record



Location of scaffold on site:			
Length:m	Number of Bays:	Height:m	Number of Lifts:
Limitations:			
Comments:			

Date:	Time:	Inspector:	Signature:	Comments:

Marking Schedule for Practical Assessment



This document is to be completed in conjunction with Scaffold Inspection Report (Section 9.2.2 – BPG).

To be deemed Competent, the Candidate must produce work compliant to Manufacturers Instructions and the Best Practice Guidelines for Scaffolding in New Zealand.

Task	Evidence	Assessor Signature	Comments
A. Planning, Preparation and Lay Out			
Hazard ID	Verbal hazard ID Hazard plan		
Site preparation	Observation		
Job Planning Sheet	Job Planning Sheet		
Lay out established	Observation		
B. Basing Out, Erection and Finishing			
Base out	Observation		
Erecting	Observation		
Erected as to manufacturers instructions/BPG recommendations	Observation		
All work completed in a safe manner	Observation		
Scaffold Register Inspection	Observation Inspection Report Handover Certificate		
Completed scaffold is compliant with BPG	Observation		
C. Dismantling			
Dismantling	Observation		
Pack up	Observation		
Overall Comments			
Task completed satisfactorily?	Yes / No	Date:	
Assessor Name: Assessor Signature:			

Student Signature:

Conditions of assessment

- The assessment tasks will be scheduled and location(s) decided after discussion between the candidate, assessor and any other applicable party. Assessment needs to be in a controlled environment where you, as the candidate, have the best chance of success.
- The order of tasks will be agreed between the assessor and the candidate, consistent with the requirements of this booklet.
- Unless specified, scaffolds may be erected using tube and fitting or proprietary scaffolding (or combinations of both) as agreed between the candidate and the assessor and as appropriate for each task. The appropriate BPG inspection report will need to be completed depending on the type of scaffolding used. For combination scaffolds use the proprietary report.
- Appropriate Personal Protective Equipment (PPE) must be worn throughout all assessments. This is a safety issue and failure to comply with this may lead to the discontinuation of the assessment as below.
- The safety of the candidate and all others on the site must be maintained at all times or the assessment will be stopped. If the candidate is at fault the assessment may be discontinued.

Feedback

Feedback is given verbally and in writing using the written task assessment documents in this booklet, especially through the tick boxes and result notification in the Competency checklist at the end of each task and the Feedback sheet which follows the Overall assessment result near the end of the booklet. Results are reported to learners progressively via the competency sign offs in the Competency checklists.

Primary standard for competency

The Best Practice Guidelines for Scaffolding in New Zealand (BPG) is the final standard against which all competencies are measured. Manufacturer's instructions and a copy of the BPG are both available to candidates during practical tasks (but not theory tests).

Resources

As an assessment candidate you need to provide your own PPE (hard hat, high viz jacket, safety footwear), scaffold belt and hand tools, and should ideally also have your own copy of the BPG. You may refer to the BPG during practical assessments and to the manufacturer's guidelines for any proprietary system you are using. Scaffolding components and equipment will be needed to determined and is dependent on variable, such as task, location, and cost.

Determining competency

- Candidates will be assessed against evidence and judgement derived from the inspection reports from the BPG which will then provide a base judgement for the marking schedule, which accompanies the assessment document.
- In this booklet, the standard required for competency in particular tasks is stated in the task instructions, described in the evidence and competency requirements section after the task outline, and/or summarised in the Competency checklist at the end of each task. Further, as in the industry, the BPG is the final arbiter of quality in this assessment. Standards within the BPG are reflected in the BPG inspection reports at the end of the assessment booklet. These are primary documents for collecting evidence and judging candidate performance.
- The assessors' version of this booklet also contains model answers and descriptors that are used to judge candidate performance. These give detailed answers and examples. They may be broadly described to candidates by assessors but not shown to them.
- Additionally candidates will be assessed on how well their completed scaffold matches the scaffold plan they prepare based on the task outlined. Tolerances are to be within ranges and expectations contained in the task instructions and the BPG.
- For proprietary systems candidates will also be assessed against their capacity to follow the manufacturer's instructions for the erection and dismantling of the type of proprietary scaffolding used.
- Each task itself and the task assessment documents added at the end of this booklet encompass the evidence that needs to be completed by candidates. The task instructions state which documents need to be completed for each task.
- The evidence documents are signed off progressively by assessors as detailed within the documents themselves and need to be completed to industry standards consistent with manufacturer's requirements and the BPG, in particular as reflected in the relevant BPG inspection report.
- To aid assessment photographs may be taken of candidates during the scaffolding process and also of their completed scaffolds.
- At the end of each task Competency checklists ensure adequate quality evidence is collected for that task, guide the judgements made by assessors in terms of the quality of that evidence against the required standard and give immediate feedback to candidates.

Documentary evidence

BPG inspection reports (slightly modified), are the primary evidential documents for the assessments in this booklet. However where additional documents are required in the BPG inspection reports these are not required for assessment purposes here unless they are asked for in the instructions for a particular task. Examples are hazard documentation, scaffold registers, handover documents, notifications of hazardous works and documents related to determining and dealing with duty loading.

Appeals

If you disagree with a result, in the first instance discuss it with your assessor. If a resolution is not reached then a reference to the SARNZ Executive should be made.

Reassessment

- Failure to complete a task successfully will result in a reassessment of that task. Time, venue and cost will need to be considered for this to be an option.
- Failure to successfully complete assessment may require the candidate to undergo further training prior to the next reassessment being scheduled.
- The time frame available for skill development, as well as the number of reassessments, is at the discretion of the assessor.