

openreach

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For Openreach and Contract Partners

AEI/ACC/Q006

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# ***Civils Quality: Audit of Jointing Chambers (JMF, JB23 & JB26)***

## ***About this document ...***

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### **Content approval**

This is the Issue 11 of this document.  
The information contained in this document was approved on 07-May-2023  
by Stuart Laing, Accreditation Professional

## Version History

Version No.	Date	Author	Comments
Issue 11	07-May-2023	Quality Standards & Accreditation	Full document review, updated author, scope, description, safety, method, questionnaire and modular guidance.
Issue 10	16-May-2022	Quality Standards & Accreditation	Full document review, updated author, Content approval, description, safety, method, questionnaire, modular guidance, and references.
Issue 9	10-Feb-2021	Owen Mckeown	Document review- Revised title and content
Issue 8	04-Dec-2020	Owen Mckeown	Review date extended
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# 1 *Introduction*

This ISIS is reviewed and updated annually. Between reviews any changes are communicated using Access Engineering Communications (AEC).

Links to ISIS documents, accreditation modules and all reference material can be found in:

- [Technical Library](#), [Bookstore](#) or Policy & Build app for Openreach.
- CANDID for Contract Partners.

Answers for all modules are available via the Author of this document (see above).

In order to comply with the requirements of this accreditation module the Assessor must follow the procedure below:

- Allow the time shown for the Delegate to complete.
- Explain that reference documentation can be used.
- The criteria for **all** sections **must** be fulfilled in order to meet the requirements for this module.

# 2 *Scope*

This target audience for this module is: Auditors/Quality Assessors conducting civil engineering product quality checks on Openreach external plant.

This module is essential for anyone carrying out Audits of modular jointing chambers and prefabricated JB23 & JB26 jointing chambers. The overall content is covered in the following Description and Method sections, in more detail.

# 3 *Description*

This module consists of two parts, a questionnaire and a practical assessment.

**Content:** It will check the Delegates understanding and the product specification, technical requirements and demonstrate their competence auditing Joint box construction of the Modular series chambers and prefabricated JB23 & JB26 jointing chambers to current working practices and quality standards..

**Prerequisites:** The Delegate must have successfully completed the below:

- SA006 or Equivalent for partners.
- Relevant NWRSA Units.

**Duration:** Questionnaire 60 mins    **Practical:** Open

## 4 **Measurement**

**Questionnaire:** The Delegate must achieve **80%** or greater to be successful. For Openreach people the questionnaire can be found on Learning Home as an online course using the code: **ORCHK091**.

**Practical:** The Delegate will conduct a minimum of **Five** jointing chamber construction audits (4 x modular and 1 x prefabricated) and complete the appropriate Quality Scoresheet for each check.

The Module Guidance outlines where coaching can be provided, highlighted by a Coaching Mark (C) next to each Assessment Pointer. No more than **30%** of the available Coaching Marks can be used.

**Assessor Note:** The exact score required to pass the questionnaire and the allowed amount of Coaching Marks can be found in the Delegates Details section.

**Post Assessment:** You **must** enter the results onto the [Skills Passport](#) or Smart Awards for Contract Partners.

## 5 **Safety**

**Caution:** If the Delegate displays a disregard for, or lack of knowledge of safety, then **STOP THE ASSESSMENT**. Re-assessment required & refer to safety module for guidance.

Using their mandatory holding of safety and relevant access equipment, the Delegate will demonstrate to the Assessor, the correct safety practices required to successfully complete this accreditation module. This may include a check of:

- Relevant safety modules on National Operative Passport Scheme (NOPS) card (Partners Only).
- Openreach Construction Design Management (CDM) 2015 Regulations Policy followed.
- Tools and Equipment.
- Safe System of Working.
- Risk Assessment and Method Statement.

- Personal Protective Equipment (PPE).
- Equipment checks.
- Relevant New Roads and Street Works Act (NRSWA) qualification.
- Locating and avoiding underground apparatus.
- COSHH (Control Of Substances Hazardous For Health).
- Gas detection equipment.
- Manual handling.
- Abrasive wheels.
- Hand and arm vibration.
- Control of Noise.
- Working in UG (Under Ground) structures.

## 6 *Method*

**Questionnaire:** Using reference documentation where required, the Delegate will complete the questionnaire. A maximum of **60** minutes is allowed for this exercise.

**Practical:** Using the correct tools, equipment and working practices, the Delegate will demonstrate the following:

- Initial check of the chamber.
- Setting up of SLG.
- Removal of the chamber cover.
- Gas Testing.
- Inspection of jointing chamber.
- Recording defects on the appropriate Quality Scoresheet.
- Digital evidence recorded.
- Replacement of cover.
- Removal of SLG.

The practical assessment can be completed under live or simulated working conditions using one of the below methods:

- On site – During a new build.
- On site – During relevant sections of different builds.

The Assessor will then use the Module Guidance to verify their understanding and ability to carry out the task.

## 7 *Delegate Details*

Module No	AEI/ACC/Q006
Title	Assessment of Civils Quality: Audit of jointing chambers (JMF, JB23&26)
Date	
Delegate's Name	
UIN/Smart awards number	
OUC	
Assessor's Name	
Assessor's UIN	
Questionnaire	PASS/FAIL
Practical 1	PASS/ FAIL
Practical 2	PASS/ FAIL
Practical 3	PASS/ FAIL
Practical 4	PASS/ FAIL
Practical 5	PASS/ FAIL
Notes	

### Questionnaire Scoring:

Total Possible Score	Score Achieved	Required Score to Pass
32		26

### Practical Scoring:

Total Coaching Marks Available	Total Coached	Total Coaching Marks Allowed



11		3
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## 8 Questionnaire

No.		Mark(s)
1	<p>What is the permitted internal chamber depth for a JMF104C type chamber?</p> <p>A. 700mm B. 750mm C. 900mm</p>	
2	<p>What is the permitted internal chamber depth for a JMF106F type chamber?</p> <p>A. 1200mm B. 1500mm C. 1050mm</p>	
3	<p>For the installation of new duct into a JB26, how far may the ducts protrude into the chamber?</p> <p>A. 10mm - 20mm B. 10mm - 20mm +/- 5mm C. 10mm - 25mm no tolerance D. Any length</p>	
4	<p>What is the foundation dimension for a JMF106 (L x W x D)?</p> <p>A. 1710mm x 830mm x 200mm</p>	

	B. 1510mm x 810mm x 150mm C. 1900mm x 1200mm x 200mm	
5	Which is the correct method of constructing a JMF106 chamber base?  A. C35/45 concrete with A393 steel mesh B. C20 concrete C. 150mm type 1 D. 50mm of ready mixed concrete on 100mm compacted type 1	
6	Is it permissible to drill holes into the side of a JB23 new build chamber?  A. Yes B. No	

7	Is it permissible to cut a modular ring vertically?  A. No B. Yes, as long as a complete ring is installed above and below the cut ring and if it's a bottom ring it must be set into the concrete C. Yes, all rings can be drilled and cut D. Yes, as long as it's not the bottom ring	
8	Which end of the duct should enter the chamber and by how much?  A. The socket end protruding into the chamber inner wall surface by a minimum of 10mm and a maximum of 25mm	

	<p>B. The spigot end protruding into the chamber inner wall surface by a minimum of 10mm and a maximum of 25mm</p> <p>C. The socket end flush to the inner wall</p> <p>D. The spigot end flush to the inner wall</p>	
9	<p>What is the maximum permitted bed of mortar for levelling a JMF frame?</p> <p>A. 50mm</p> <p>B. 60mm</p> <p>C. 40mm</p>	
10	<p>Can the top ring of the chamber be cut horizontally to attain the final level?</p> <p>A. No</p> <p>B. Yes</p>	
11	<p>What ironwork should be provided in a JMF106D?</p> <p>A. Cable bearers wall type No3 x2</p> <p>B. Step</p> <p>C. Bracket cable barer No8 x 2</p> <p>D. Pin locking cable bearer x 2</p> <p>E. All the above</p>	
12	<p>A second row of ducts may only be permitted in which type(s) of JMF106 chambers? Select all that apply.</p> <p>A. F</p> <p>B. C</p> <p>C. E</p>	

	D. B F. D	

13	JMF chambers are suitable for installation in areas which are occasionally trafficked by slow moving vehicles under 5mph?  A. True B. False	
14	Is cutting the top ring to level the frame more than 50mm permissible?  A. No, you would use mortar bed, bricks, quarry tiles to level B. Yes, with a minimum 40mm wall section C. Yes, with a minimum 30mm wall section	
15	What is the maximum recommended number of ducts out of an end wall for a JMF102B?  A. 3 B. 1 C. 2 D. 4	
16	Describe two methods of securing a JMF frame and cover in soft surface? Select all that apply.  A. Where there is only a 65mm supporting structure below the frame, the concrete surround may be a 'chamfer screed' of sharp sand from the top outside edge of the frame to the outside edge of the supporting structure	

	<p>B. 150mm Grade C32/40 Concrete Apron surround</p> <p>C. The frame shall be surrounded with a strip of minimum Grade C25/30 concrete to the full depth of the frame. This concrete surround shall be 50mm wide or extend to the outer edge of the chamber walls whichever is less</p>	
17	<p>What is the minimum distance a modular jointing chamber should be sited from a telephone pole?</p> <p>A. 1000mm</p> <p>B. 300mm</p> <p>C. 500mm</p>	
18	<p>What size sump should be provided in a JMF 110?</p> <p>A. 210mm +/- 10mm</p> <p>B. 225mm +/- 10mm</p> <p>C. 230mm +/- 10mm</p>	

19	<p>If the top ring is cut horizontally, what must be done?</p> <p>A. Just fit the frame and cover as normal</p> <p>B. Fit quarry tiles</p> <p>C. Fill voids with C32/40 concrete or mortar</p> <p>D. Fill voids with earth free from stone</p>	

20	What is the minimum distance a prefabricated JB23/26 jointing chamber should be sited from a telephone pole?  A. 1000mm B. 300mm C. 500mm	
21	What is the minimum distance a JB26 must be sited from a constructed barrier or natural barrier?  A. 500mm B. 1000mm C. 600mm D. 800mm	
22	Prefabricated joint box 26 may be modified by cutting the bottom off to allow for shallow cables?  A. False B. True	
23	What minimum cover must be provided to the reinforcing mesh in a JMF110?  A. 60mm B. 55mm C. 100mm	
24	The tolerance for a rocking frame and cover is?  A. +/- 5mm	

	B. +/- 2mm C. Nil	

25	What is the tolerance between the levels of the frame and cover and the adjacent surfaces?  A. +/- 12mm B. +/- 6mm C. +/- 10mm D. +/- 8mm	
26	What chamber is an alternative for installation over shallow dig cable/joints where a JB26/23 are too deep? Select all that apply.  A. JMF101 B. JMF110 C. JMF111 D. JMF102	
27	Can a JMF102 in permitted situations be installed with only 1 or 2 rings deep?  A. Yes	

	B. No	
28	Can ducts be installed within the intersection of 2 rings?  A. No B. Yes	
29	How many rings should be fitted to a JMF102B?  A. 3 B. 4 C. 5	
30	What is the recommended measurement for duct 54 separation into a JMF104?  A. 145mm centre to centre B. 135mm centre to centre C. 150mm centre to centre	
31	In a JMF110 what is the recommended distance from the side wall a duct can be core-drilled?  A. 80mm B. 100mm C. 90mm	
32	When must access step(s) be provided in the JMF 104,106 & 110 chambers?	



	A. Chamber depth over 700mm	
	B. Chamber depth over 1000mm	
	C. Steps are not required in JMF chambers	

## 9 *Modular Guidance (Practical)*

The below table should be used as a guide for the Assessor to accurately assess the Delegates knowledge and ability during the practical assessment.

Coaching Marks 'C' are explained in the Measurement section and the total allowed can be found in Delegate Details.

If an Assessment Pointer is followed by an 'X' then not only is no coaching allowed, but failure to meet the standard on the Assessment Pointer means that the standard has not been met for the accreditation a whole.

Task Assessment	Assessment Pointers	Coaching	Document Guidance
<b>Prerequisites</b>	Successfully completed.	X	
<b>Questionnaire</b>	Completed at required 80% or above.	X	
<b>Trained /Skilled</b>	The delegate is trained, experienced and competent in this skill.	X	
	Behaviour and wellbeing, does the person have any difficulty/concerns coping with this task.	X	
<b>Safety</b>	All safety procedures followed, and safe working practices adopted.	X	
	LSBUD (Line Search Before yoU Dig) process followed.	X	
<b>Risk Assessment</b>	An on-site risk assessment should be carried out.	X	
<b>Personal Protective Equipment (PPE)</b>	Correct PPE held, in good condition and used where necessary.	X	
<b>Environment</b>	Weather conditions considered	X	

	before commencing work.		
<b>Equipment Available</b>	Delegate has the correct tools and they are in good condition to complete the task to the current working practices and quality standards.	X	
<b>Job Pack/Work Instructions</b>	All prints and job pack understood.	X	
	Ensure CN drawings are available.	X	
	Ensure LN550 and supporting documentation are available	X	
<b>General</b>	Digital evidence recorded.	X	
<b>Work Site</b>	All SLG (Sign Lighting Guarding) used correctly.	X	
<b>JMF series chambers</b>	Chamber /location suitability	X	
	Chamber depth in accordance to spec.	C	
	Correct floor/base construction for type of chamber	C	
	Cutting of rings, duct entries and finish	C	
	Correct furniture installed for type & depth of chamber	X	
	Frame and cover installed correctly	X	
	No rocking of cover(s)	X	
	Backfill and final reinstatement	C	
<b>JB23/26 chambers</b>	Chamber /location suitability	X	
	Correct installation/cutting of entries	C	
	Frame and cover installed correctly	X	
	No rocking of cover(s)	X	
	Backfill and final reinstatement	C	
<b>In-progress work (if part of assessment)</b>	Excavation to correct width and depth for type of modular/ JB23/26 box.	C	
	Separation from services	C	

	Spoil correct distance away from excavation.	X	
	Existing ducts correctly broke away.	C	
	All cables and joints correctly protected.	X	
	New ducts in correct position for entry into new modular/ JB26 box.	X	
	Base correctly constructed	C	
	Excavation backfilled to correct specification, using correct materials and tools.	C	
<b>Completion</b>	Site made safe or all SLG removed.	X	

## 10 *References*

All the documents below are available through the sites and systems described in the Introduction section. If you require access to external sources within them, then please contact the Author (see above) of this accreditation module.

**Assessors Note:** All Openreach people should have access to the Policy & Build app via their work mobile phones. Please make sure that this app is accessed during the accreditation.

- LN550.
- CN Drawings 14929, 15571, 14979 and 14981.
- ISIS Guideline, Cubis JMF102, 4, 6 stackerbox installation guide.

<b>END OF DOCUMENT</b>
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