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ISIS Directive  
All Openreach and Contract people

NWK/NNS/V048

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# ***Guidance Notes for Civils Quality Checks***

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

## **Author**

The author of this document may be contacted at:

Quality Standards & Network Performance  
Openreach Chief Engineers Office  
Openreach (BOI)  
Post Point Cedar Avenue  
Worcester  
Worcestershire  
WR4 9UE

Telephone: 07436277890

Fax:

Email: [accreditationqualitystandards@openreach.co.uk](mailto:accreditationqualitystandards@openreach.co.uk)

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# 1 ***Introduction***

This document is intended as a guide for those people carrying out civils Quality Checks in the access network, enabling the person doing the quality check to more clearly describe the quality of the finished task. The document layout is designed to give quick and easy referencing by product area e.g. Jointing, Block Terminals or Dropwire etc. Each section is broken down using the checks item number. Each item will have a Scope: statement provided as required. All check items are described fully in script below the Item Code title with specific information where required in bullet point format.

# 2 ***Status***

This instruction gives definitive Guidance for Quality Check item codes formerly held on OQP/CANDID

# 3 ***Scope***

The content of the document is derived from the Contract and Direct Labour checksheets; product information other sources and covers civils items. Definitive guidance is contained in the Civils Specification LN550, CN drawings and relevant ISIS documents.

# 4 ***Objectives***

The objective is to provide clear guidance on the elemental part of each Quality Check, as defined by the Quality of Personal Workmanship programme.

# 5 ***Duct***

## 5.1 **Item Code: C1001 Points Score: 10**

### **Item Description:**

Section checked end to end and Drawrope Installed.

### **Scope:**

This check is to ascertain that the duct sections are checked end to end, that all blockages been cleared and a draw rope installed. All duct sections repaired must be checked.

### **Points of Reference:**

■ LN550

**Specific Guidance:**

- Each section must be rodded from end to end to ensure that all stoppages are cleared
- Draw rope provided & secured at both ends
- Ropes cannot be secured to cables, joints, steps, ladders, bracket cable bearers, but may be secured to anchor irons, cable bearer's walls type, bolts, to other ropes at the same wall for multiway configurations
- Ropes must not be left in a way likely to cause a safety hazard. Where the above situations are unavailable, any reasonably practical and safe method of securing ropes would be acceptable.

*Note:* If cable has already been drawn in prior to inspection there will be no draw rope - mark as not checked

*Note:* Any lack of draw rope/cable due to abandoned section must be covered by DFE

*Note:* For Departures from Specification refer to ISIS - CPE/NNS/V010

## 5.2 Item Code: C1002 Points Score: 5

**Item Description:**

Trench bottom compacted prior to laying duct

**Scope:**

In progress inspections to check if the trench bottom is correctly compacted

**Points of Reference:**

■ LN550

**Specific Guidance:**

- Inspect trench bottom to ensure correct compaction

## 5.3 Item Code: C1003 Points Score: 5

**Item Description:**

Soft Bed provided in rocky soil

**Scope:**

In progress inspections to check if the trench bottom is correctly lined with earth free from stones

**Points of Reference:**

■ LN550



**Specific Guidance:**

- Inspect trench bottom to ensure correct placement of fine fill

**5.4 Item Code: C1004 Points Score: 10**

**Item Description:**

Duct laid at specified / agreed depth within tolerance

**Scope:**

In-progress only check for duct track. In-progress and Retrospective check for Joint Boxes

**Points of Reference:**

- LN550
- ISIS CPE/NNS/V010
- ISIS EPT/PPS/B025
- ISIS EPT/UGP/B054

**Specific Guidance:**

- The depth of duct must be at the correct depth of cover or within tolerances quoted in LN550
- For Departures from Specification refer to ISIS - CPE/NNS/V010
- For Earth Electrode Systems cover see ISIS EPT/PPS/B025
- For box entry: Given the site conditions e.g. existing duct and any supporting TDFS evidence has the duct(s) been provided to the best achievable standard

**5.5 Item Code: C1005 Points Score: 5**

**Item Description:**

Duct laid to planned route or agreed alternative

**Scope:**

Planned route matches actual duct

**Points of Reference:**

- LN550

**Specific Guidance:**

- The duct route must match the planned route or agreed alternative

**5.6 Item Code: C1006 Points Score: 5**

**Item Description:**

Singleway duct laid and jointed correctly

**Scope:**

In progress inspections Single way duct to be laid correctly

**Points of Reference:**

- LN550

**Specific Guidance:**

- Single way duct to be laid correctly

## **5.7 Item Code: C1007 Points Score: 5**

**Item Description:**

Multiway ducts laid and jointed correctly up to and including 9 way

**Scope:**

In progress inspections Multiway ducts laid and jointed correctly up to and including 9 way

**Points of Reference:**

- LN550

**Specific Guidance:**

- Multi-way ducts laid and jointed correctly up to and including 9 way

## **5.8 Item Code: C1008 Points Score: 5**

**Item Description:**

Multiway ducts laid and jointed correctly over 9 way

**Scope:**

In progress inspections Multi-way must be jointed and laid correctly

**Points of Reference:**

- CN 10686

- LN 550

**Specific Guidance:**

- Multi-way must be jointed and laid correctly

## **5.9 Item Code: C1009 Points Score: 5**

**Item Description:**

Fine fill cover / surround to duct hand compacted to a depth of 75mm

**Scope:**

Fine fill must be used to surround the duct

**Points of Reference:**

- LN 550

**Specific Guidance:**

- Fine fill must be used to surround the duct and compacted to a depth of not less than 75mm

**5.10 Item Code: C1010 Points Score: 10**

**Item Description:**

Minimum clearances observed

**Scope:**

Where affected by the work being undertaken that minimum clearances between Openreach plant and other undertakers' plant is achieved

**Points of Reference:**

- LN 550

**Specific Guidance:**

- The specification states different minimum clearances are required relative to the type of undertaker's plant encountered
- Where the relevant minimum separation cannot be achieved and an Openreach approved separator has been used. The Separator is supplied / applied correctly

**5.11 Item Code: C1011 Points Score: 1**

**Item Description:**

Duct formations have specified separation at chamber entries

**Scope:**

Where affected by the work being undertaken that correct separation exists between individual bores of multi-way ducts entering Jointing Chambers

**Points of Reference:**

- CN 15456 (Construction Tolerances for Jointing chambers)
- CN 10686
- CN 10617
- LN550

**Specific Guidance:**

- Correct gap provided between ducts at jointing chamber (vertically and horizontally)

*Note:* Construction Tolerances may apply

*Note:* For Departures from Specification refer to ISIS - CPE/NNS/V010

## **5.12 Item Code: C1012 Points Score: 10**

### **Item Description:**

Duct Cleaning & Testing carried out as per Specification

### **Scope:**

All new and/or disturbed existing empty ducts cleaned and tested upon completion of work as per specification

### **Points of Reference:**

- CN 15563
- LN550

### **Specific Guidance:**

- Duct tested with brush
- Correct size / type of brush used
- Duct formation is maintained between jointing chambers or reported to Openreach

*Note:* Where Openreach has required a section of duct to contain a pre- formed bend with a radius of less than 3000mm. The cleaning shall be carried out with a suitable rag mop

*Note:* When jointing chambers are provided on existing duct, or a disturbance takes place, which may affect the alignment of the duct, a test brush shall be drawn through each of the spare ducts

*Note:* Provision of a Draw Rope is covered in item C1013

## **5.13 Item Code: C1013 Points Score: 10**

### **Item Description:**

Draw rope provided and secured at each end. Drawrope is spliced correctly & free from knots and strands

### **Scope:**

This check is to identify that a draw rope has been provided as laid down in the Specification. All duct "ways" laid that are included in the Job/Order No. identified for check must be inspected.

### **Points of Reference:**

- CN13207 (for jointing of ropes)

- LN550

**Specific Guidance:**

- Draw Rope has been installed
- Draw Rope is secured at both ends of each section
- Ropes cannot be secured to cables, joints, steps, ladders, bracket cable bearers but may be secured to anchor irons, cable bearer's walls type, bolts, to other ropes at the same wall for mulitway configurations
- Ropes must not be left in a way likely to cause a safety hazard. Where the above situations are unavailable, any reasonably practical and safe method of securing ropes would be acceptable
- Any joints in the Draw Rope have been made correctly
- For short sections of terminal or isolated duct that have been provided where no more than one 90 degree bend is fitted and the section of duct is no more than 5m in length end to end for D54 or 3m in length end to end for D56 or a combination of D54/56 mark this item not checked

**5.14 Item Code: C1014 Points Score: 5**

**Item Description:**

All slewing operations performed to specification

**Scope:**

All slewing operations performed to specification

**Points of Reference:**

- LN550

**Specific Guidance:**

- All slewing operations performed to specification

**5.15 Item Code: C1015 Points Score: 5**

**Item Description:**

Concrete protection provided as per works instructions

**Scope:**

Concrete protection provided as per works instructions

**Points of Reference:**

- LN550

**Specific Guidance:**

- The job instructions shall instruct the required concrete protection required

## **5.16 Item Code: C1016 Points Score: 5**

### **Item Description:**

Correct type of duct bends and duct tees used

### **Scope:**

Correct type of duct bends and duct tees used

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- The correct type of tees and bends to be used e.g. bends duct 54A and 54C shall not be used on main or trunk routes
- Flexible footway duct permissible for use between PCP and serving jointbox where congestion prevents use of standard duct

## **5.17 Item Code: C1017 Points Score: 10**

### **Item Description:**

Duct entries to chambers / building walls / floors by appropriate approved method

### **Scope:**

This check is to ascertain that duct entries have been provided using the method laid down in the Specification. All duct entries provided on the Job/Order No. identified for check should be inspected

### **Points of Reference:**

- EPT/UGP/B054
- LN550

### **Specific Guidance:**

- Entries must be provided using Core Drill where specified
- Core Drill must be sufficiently oversized to enable the overbreak between the duct and the hole to be made good through the entire thickness of the wall e.g. D54 recommended drill size is 127mm (the contractor may select an alternative drill size at his discretion, provided that the overbreak can be successfully filled to provide a suitable finish to the works)

*Note:* The position of duct entries and the finish to them is measured in C2014, not this item

## 5.18 Item Code: C1018 Points Score: 5

### Item Description:

All necessary steps taken to minimize damage as a result of dirt / dust / water whilst core drilling

### Scope:

All necessary steps taken to minimize damage as a result of dirt / dust / water whilst core drilling

### Points of Reference:

- LN550

### Specific Guidance:

- Dirt dust and water to be minimised

## 5.19 Item Code: C1019 Points Score: 10

### Item Description:

Duct Seals fitted correctly including Draw Rope

### Scope:

This check is to ascertain that where ducts enter buildings, cabinets, joint boxes and hollow poles; duct seals are provided & fitted correctly. All duct on the Job/Order Number must be inspected

### Points of Reference:

- ISIS EPT/ANS/A003
- ISIS EPT/ANS/A010
- LN550

### Specific Guidance:

- Duct seal fitted correctly. If draw rope is provided through duct seal fail under this item

*Note:* The provision of a draw rope is checked under C1013

- Ducts gas sealed if open or within the FTTC RDSLAM
- FTTC Root and cabinet need temporary or permanent gas seal providing (plug pressure 1 or resin 14)

*Note:* Includes temporary gas seals

*Note:* Excludes DSLAM Earth rod duct and power ducts see C1026

## **5.20 Item Code: C1020 Points Score: 5**

### **Item Description:**

Pressure test of adhesive jointed duct carried out

### **Scope:**

Pressure test of adhesive jointed duct carried out

### **Points of Reference:**

LN550

### **Specific Guidance:**

Pressure testing of the ductways

## **5.21 Item Code: C1021 Points Score: 5**

### **Item Description:**

Duct to property wall / pole finished correctly

### **Scope:**

Duct to property wall / pole finished correctly

### **Points of Reference:**

- CN 13388
- LN550

### **Specific Guidance:**

- Duct to property wall / pole finished correctly
- Ducts provided to wooden telegraph poles should be left 25mm – 50mm above ground level
- Duct shall not be laid below the pole markings/3 metre mark when compliant position is achievable
- There must be no gap between the duct and the pole
- When laying duct to a wall where a Plinth or other fixed obstructions prevent the duct being finished correctly, the duct shall be left in a safe position, which best suites the site conditions

## **5.22 Item Code: C1022 Points Score: 10**

### **Item Description:**

Correct Kits and fittings used



**Scope:**

Any repairs to existing ducts affected by the works are undertaken to the required specification using the correct Kits and Fittings

**Points of Reference:**

- LN550
- EPT/UGP/B033

**Specific Guidance:**

- Correct repair kits and fittings used
- Damaged duct cut back to a clean square edge or the spigot and socket ends
- No sharp edges or burrs remain, that may cause damage to in-situ cables or future cable operations
- Remove all debris from effected area
- Correct Kits and fittings (straps fixing, split duct etc.) used to extend/replace existing damaged/removed ducts during chamber construction

*Note:* When a repair is performed on a SAD or Earthenware duct the damaged duct must be cut back to a clean square edge or the spigot and socket ends

## 5.23 **Item Code: C1023 Points Score: 10**

**Item Description:**

Duct route free from severe deviations /90 degree bends (other than feeds into PCPs and at the foot of Poles/feed to customer Buildings)

**Scope:**

This check is to ascertain that all duct sections provided on the estimate are fit for purpose and the duct route chosen will not prevent the section from being rodded in the future for subsequent cabling activities or prevent the insertion of a large cable in empty duct.

**Points of Reference:**

LN550

**Specific Guidance:**

- Each section must be free from severe duct deviations e.g. through the use of 90 degree bends or multiple bends duct connected together (either whole or cut) to give the same result

*Note:* This does not apply to 90 degree bends provided at the foot of/ into a pole, in to a cabinet or into/up against a customer's premises

*Note:* Where connecting to existing duct (for road crossings on Newsites) defect will not apply if slewing is not possible and TDFS has been obtained from Works originator

*Note:* This check item does not apply to feeds to properties using D56

## **5.24 Item Code: C1024 Points Score: 5**

### **Item Description:**

Ducts and materials protected to prevent ingress of foreign matter and damage.

### **Scope:**

**Duct laying operations**

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- Ducts and materials protected to prevent ingress of foreign matter and damage.

## **5.25 Item Code: C1025 Points Score: 5**

### **Item Description:**

Correct duct type provided for non-power cables.

### **Scope:**

**Duct laying operations**

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- Correct duct type provided for non-power cables e.g. grey D56.
- Black D36A used for power/earth ducts in DSLAM plinth

## **5.26 Item Code: C1026 Points Score: 10**

### **Item Description:**

Earth rod duct / power duct sealed as per specification

### **Scope:**

**All operations where duct sealing is required**

### **Points of Reference:**

EPT/UGP/B033

### **Specific Guidance:**

- DSLAM Earth rod duct / power duct sealed as per specification

## 6 *Chambers*

### 6.1 **Item Code: C2001 Points Score: 5**

**Item Description:**

Constructed in planned position or agreed alternative

**Scope:**

The position of the jointing chamber

**Points of Reference:**

- LN550

**Specific Guidance:**

- The position of the works is in accordance with the issued plans or TDFS or agreement from the planner

### 6.2 **Item Code: C2002 Points Score: 5**

**Item Description:**

Chambers constructed within dimensional tolerance

**Scope:**

Chambers constructed within dimensional tolerance, this refers to the construction of the box, see C2015 & C2023 for furniture related items

**Points of Reference:**

- CN 15456
- CPE/NNS/V010
- LN550

**Specific Guidance:**

- Dimensions must be within specified tolerances

### 6.3 **Item Code: C2003 Points Score: 5**

**Item Description:**

Base / Floor cast correctly including sump as specified

**Scope:**

Base / Floor cast correctly including sump as specified

**Points of Reference:**

- LN550

- Relevant CN drawings

**Specific Guidance:**

- Base / Floor cast correctly including sump as specified

## **6.4 Item Code: C2004 Points Score: 5**

**Item Description:**

Timber shuttering removed from road structures as per specification

**Scope:**

Timber shuttering removed from road structures as per specification

**Points of Reference:**

- LN550

**Specific Guidance:**

- Timber shuttering removed from road structures as per specification

## **6.5 Item Code: C2005 Points Score: 10**

**Item Description:**

Reinforcement Bars positioned correctly and of correct type

**Scope:**

Correct size & type of, reinforcement bars / mesh are used, positioned and secured correctly during construction of Manholes / Jointing Chambers associated with the job.

**Points of Reference:**

- CN 14122 (Position of Chairs & U Bars)
- CN Diagrams
- LN550

**Specific Guidance:**

- Reinforcement Bars of correct type / size / strength and positioned correctly.
- All reinforcement in the floor, walls, roof and shaft secured together with approved ties.
- Where applicable, (Manholes) Chairs & U Bars provided between reinforcement faces. as per CN 14122

*Note:* All reinforcement material supplied must be supported by test certificates, which certify compliance to BS4449

## **6.6 Item Code: C2006 Points Score: 5**

### **Item Description:**

Proprietary spacers provided as per Specification

### **Scope:**

Proprietary spacers provided as per Specification

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- Proprietary spacers provided as per Specification

## **6.7 Item Code: C2007 Points Score: 5**

### **Item Description:**

Plastic sheeting placed between excavation / rear shuttering and the concrete

### **Scope:**

Plastic sheeting placed between excavation / rear shuttering and the concrete

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- Plastic sheeting placed between excavation / rear shuttering and the concrete

## **6.8 Item Code: C2008 Points Score: 5**

### **Item Description:**

No soil or other deleterious material allowed to collect / fall between shuttering

### **Scope:**

No soil or other deleterious material allowed to collect / fall between shuttering

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- No soil or other deleterious material allowed to collect / fall between shuttering

## **6.9 Item Code: C2009 Points Score: 10**

### **Item Description:**

Manhole construction - Ready Mix concrete of correct grade used. (Site mix not permitted)

**Scope:**

This check is to identify that, for Manhole construction, only Ready Mix Concrete of the grade laid down in the Specification is used. All Manholes constructed on the Job/Order No. identified for check should be included in the inspection

*Note:* The above shall be verified by viewing the Delivery Certificate supplied with the Concrete

**Points of Reference:**

- LN550

**Specific Guidance:**

- Delivery Certificate available & shows concrete to be of the correct grade

*Note:* Grade shown in LN550 is the minimum permissible

## **6.10 Item Code: C2010 Points Score: 10**

**Item Description:**

F/W & C/W J/Box - Ready Mix to correct grade or site mix to "Cert. of Compliance" issued by TAA

**Scope:**

F/W & C/W J/Box - Ready Mix to correct grade or site mix to "Cert. of Compliance" issued by TAA

**Points of Reference:**

- LN550

**Specific Guidance:**

- F/W & C/W J/Box - Ready Mix to correct grade or site mix to "Cert. of Compliance" issued by TAA

## **6.11 Item Code: C2011 Points Score: 10**

**Item Description:**

Concrete freshly placed / handled correctly. Vibrated to obtain correct compaction (all boxes) and protected from weather.

**Scope:**

All mixed concrete on site. From Mixing to Placing

**Points of Reference:**

- LN550

**Specific Guidance:**

- No segregation of the aggregate has occurred.
- Concrete placed in even layers and thoroughly compacted using appropriate poker type vibrator.
- No reinforcement disturbed during compaction
- Concrete protected against adverse weather conditions.
- Concrete provided in low temperatures (<5 °C) as per specification

**6.12 Item Code: C2012 Points Score: 5**

**Item Description:**

Any construction joint provided / prepared as per specification

**Scope:**

Any construction joint provided / prepared as per specification

**Points of Reference:**

- LN550

**Specific Guidance:**

- Any construction joint provided / prepared as per specification

*Note:* Construction joints provided as per specification i.e. no ledges or recesses evident

**6.13 Item Code: C2013 Points Score: 10**

**Item Description:**

Specified curing time elapsed prior to striking shuttering

**Scope:**

For newly constructed Jointing Chambers, the requisite curing time has been achieved for all concrete used. The inspection should cover all Chambers / Manholes on site that the Operative(s) being checked are responsible for.

**Points of Reference:**

**LN550**

**Specific Guidance:**

- Minimum specified curing time elapsed before:
  1. Shuttering is removed
  2. Restoration of paving or surfaces commenced
  3. Traffic is allowed to pass

*Note:* The period of time that the temperature remains below 3 °C shall be added to the minimum curing times.

*Note:* Minimum concrete strength can be used as an alternative to curing time

## 6.14 **Item Code: C2014 Points Score: 5**

### **Item Description:**

Duct entries at specified location and finished flush with inside of chamber

### **Scope:**

Duct entries at specified location and finished flush with inside of chamber

### **Points of Reference:**

- CN drawing
- EPT/UGP/B054
- LN550
- CPE/NNS/V010

### **Specific Guidance:**

- Duct entries at specified location and finished flush with inside of brick/concrete chamber
- For the installation of new duct into a JB23 or JB26, the duct may protrude - 25mm into the chamber
- Ducts entering Modular boxes shall protrude 10mm -25mm, with no other tolerance
- Ducts grouted or sealed as per specification

*Note:* Safety aspects to be checked under C2026

*Note:* Ducts that are not positioned in the ideal or recommended position (shown on CN Drawings) are not necessarily incorrectly positioned; occasionally site circumstances dictate where plant can be placed. In these situations, consideration must be given to Openreach's best interest, Safety, Network requirements and financial implications; then a practical decision must be made, based on sound experience

- Given the site conditions and supporting TDFS evidence has the duct(s) been provided to the best achievable standard

## 6.15 **Item Code: C2015 Points Score: 10**

### **Item Description:**

Safety furniture and fittings (including where applicable, Steps & Anchor Irons) installed correctly



**Scope:**

This check is to ascertain that furniture and fittings including steps and where applicable, Anchor Irons, are installed correctly. All boxes on the Job/Order Number must be inspected

**Points of Reference:**

- CN 1961
- CN 1059
- CN 10850
- CN 10851
- LN550

**Specific Guidance:**

- Safety furniture and fittings refer to anchor irons, steps, ladder hooks and bar, guard rails (where required)

*Note:* This item is only applicable to newly built boxes

*Note:* Refer to relevant CN diagram for each individual box requirement

## 6.16 **Item Code: C2016 Points Score: 5**

**Item Description:**

All concrete finished to specification with any slight cavities made good

**Scope:**

All concrete finished to specification with any slight cavities made good

**Points of Reference:**

- LN550

**Specific Guidance:**

- All concrete finished to specification with any slight cavities made good

## 6.17 **Item Code: C2017 Points Score: 5**

**Item Description:**

Brickwork Chambers - Correct grade of concrete provided for floor. Where Anchor Iron provided, min time elapsed before commencement of Brickwork

**Scope:**

Brickwork Chambers - Correct grade of concrete provided for floor. Where Anchor Iron provided, min time elapsed before commencement of Brickwork

**Points of Reference:**

- LN550

**Specific Guidance:**

- Brickwork Chambers - Correct grade of concrete provided for floor.
- Where Anchor Iron provided, min time elapsed before commencement of Brickwork

**6.18 Item Code: C2018 Points Score: 5**

**Item Description:**

Brickwork bond and joint thickness as per Specification

**Scope:**

Brickwork bond and joint thickness as per Specification

**Points of Reference:**

- CN 15456
- LN550

**Specific Guidance:**

- Brickwork bond and joint thickness as per Specification

**6.19 Item Code: C2019 Points Score: 1**

**Item Description:**

Structure painted as specified

**Scope:**

Structure painted as specified

**Points of Reference:**

- LN550

**Specific Guidance:**

- Structure painted as specified

**6.20 Item Code: C2020 Points Score: 5**

**Item Description:**

Debris / mud removed from chamber (resulting from operations to provide safe environment)

**Scope:**

Debris / mud removed from chamber (resulting from operations to provide safe environment)

**Points of Reference:**

- LN550

**Specific Guidance:**

- Debris / mud removed from chamber (resulting from operations to provide safe environment)

**6.21 Item Code: C2021 Points Score: 10**

**Item Description:**

Cables and joints supported and protected from damage

**Scope:**

This check is to ascertain that, both during and after the cutting of duct entries into an existing structure, or demolition/building of Jointing chambers, existing Cables and Joints are afforded support and protection as per the Specification. All joints and Cables affected by these works on the Job/Order No. identified for check should be inspected

**Points of Reference:**

- LN550

**Specific Guidance:**

- Any Cables/Joints required to be moved are evenly supported throughout their length. (In Progress)
- For manhole / joint box excavations, a ladder or other safe access / egress is provided (In Progress)
- All cables shielded as necessary, against damage at Duct entries (In Progress)
- During Manhole Roof demolition, timber deck provided between Cables & Roof as protection (In Progress)
- No Plant/materials supported on Joints/Cables at any time (In Progress)
- On completion, all Cables/Joints left supported on Ironwork and free from damage & Concrete/Cement contamination (Retrospective).

**6.22 Item Code: C2022 Points Score: 5**

**Item Description:**

Decking provided during roof and upper wall demolition

**Scope:**

Manhole demolition operations

**Points of Reference:**

- LN550

**Specific Guidance:**

- Decking provided during roof and upper wall demolition

**6.23 Item Code: C2023 Points Score: 5**

**Item Description:**

Non Safety related Furniture & Fittings installed correctly

**Scope:**

This check is to ascertain that non-safety furniture and fittings are installed correctly. All boxes on the Job/Order Number must be inspected, not to be used for safety F&F's see C2015

**Points of Reference:**

- CN 1059
- CN 15562
- CPE/NNS/V010

**Specific Guidance:**

- Bolts, brackets, bearers and locking pins installed correctly or have a TDFS number
- This item refers to brackets and bearers, MOBRA brackets (where agreed by Industry)

*Note:* This item is only applicable to newly built boxes

*Note:* Refer to relevant CN diagram for each individual box requirement

**6.24 Item Code: C2024 Points Score: 10**

**Item Description:**

Pre-fabricated / modular joint box structural integrity not compromised by incorrect location, installation or cutting

**Scope:**

Pre-fabricated / modular joint box structural integrity not compromised by incorrect location, installation or cutting

**Points of Reference:**

- LN550
- CN13152
- CN14113

- CN14981
- CN15571
- SAL specification for modular chambers
- HAUC Specification for the Reinstatement of Openings in the Highways
- Specification for Installation of Modular Joint Boxes

**Specific Guidance:**

- The manufacturer's instructions/specification followed for modular boxes
- No inappropriate cutting of pre-cast jointboxes to accommodate shallow cables/duct, modular alternative used
- Non safety defects relating to the incorrect location of modular boxes should be scored against C2001
- Reference to incorrect location (only applicable if provided in location other than planned position) - This should not be a defect if guidance in LN550 has been followed and a vehicle has damaged the box
- Reference to cutting (re LN550, the instruction to core drill JB26) - it is not possible due to the cut-outs being manufactured as knock-outs which just fall out under pressure
- Permissible to drill single 50mm hole in newly provided JB23/6 side wall

**6.25 Item Code: C2025 Points Score: 5**

**Item Description:**

Cables and joints restrained / supported correctly

**Scope:**

Cables and joints supported correctly

**Points of Reference:**

- LN550

**Specific Guidance:**

- This check applies to all new / re-built joint boxes & man holes

*Note:* Civils operatives are not expected to restrain cables. Any cables / joints removed from their brackets / bearers, should be returned as found

**6.26 Item Code: C2026 Points Score: 10**

**Item Description:**

Duct entry in safe position

**Scope:**

All duct entries into chambers provided as part of the estimate must be checked

**Points of Reference:**

- LN550
- EPT/UGP/B054

**Specific Guidance:**

- Duct positions must be sited in a safe position so as not to either compromise the integrity of the structure or present a safety hazard to operatives climbing in to/out of or working in the structure.
- Duct entries must not be sited within the manhole shaft
- Duct entries must not be sited within the manhole roof
- Duct entries must not be sited within the chamber floor
- Duct entry position will not impede/interfere operative when using climbing steps/ladder when duct is subsequently cabled
- Duct entry has required separation from anchor iron in existing chamber. Note, where this is not possible, item will not be marked as below standard PROVIDING anchor Iron has been recovered/made unusable

*Note:* **NO TDFS permitted if resultant product is/will become a safety issue**

## **7** ***Frame & Cover***

### **7.1** **Item Code: C3001 Points Score: 10**

**Item Description:**

Frame correctly fitted and covers level. Complies with Specification

**Scope:**

This check is to ascertain that frames are correctly fitted and covers level. All frames & covers provided on the Job/Order Number identified for check must be inspected.

**Points of Reference:**

- CN 1750 sheets 1-3
- CN 15456
- CN 15353
- PAM/001
- LN550

**Specific Guidance:**

- Frame and cover of a jointing chamber shall be installed flush and level with the surrounding ground - no depressions and no crowning of surrounding reinstatement outside tolerance limits +/-6mm
- Covers must not rock
- F&C provided as per CN drawing/specification on newly built chamber
- F&C renewed as per LN550 on existing chamber
- Flowable mortar (e.g. Install Plus) Correctly used for carriageway F&C bedding
- Preparation - Ensure carriageway upper chamber surface is clean and free from pooling water (In-progress only)
- Complete Hammer Tap Test on chamber top and remove all existing bedding materials and loose brickwork (In-progress only)
- Ensure Carriageway Cover linking Pins in place
- Where required a concrete plinth to CN 15353, must be provided to enable the safe removal of C/W covers by mechanical means, in Grass, soft or unmade surfaces
- Security items installed correctly (Plant Plates Protection, lockable frame and covers, padlocks etc.)

*Note:* Reference should be made to CN 1750 sheets 1-3 for renewing frame and covers where the opening is either wider or narrower than the new frame and cover (e.g. JRC9).

*Note:* For Departures from Specification refer to ISIS - CPE/NNS/V010

## 7.2 **Item Code: C3002 Points Score: 5**

### **Item Description:**

Resin Bedding / Mortar used as specified

### **Scope:**

All Frame & cover operations

### **Points of Reference:**

- LN550

### **Specific Guidance:**

- Resin Bedding / Mortar used as specified

## 7.3 **Item Code: C3003 Points Score: 5**

### **Item Description:**

In unmade F/W surface - Concrete strip surround to frame provided as per specification

**Scope:**

In unmade F/W surface - Concrete strip surround to frame provided as per specification

**Points of Reference:**

- LN550
- SAL specification for JMF

**Specific Guidance:**

- Brick/concrete jointbox: Concrete strip surround to frame provided as per specification
- Modular jointbox:
  - Chamfer screed from outside edge of the frame to edge of modular structure ring (LN550)

Or:

- Concrete surround as detailed in SAL spec

## 7.4 **Item Code: C3004 Points Score: 5**

**Item Description:**

In unsurfaced C/W - Concrete surround to frame provided as per Specification

**Scope:**

In unsurfaced C/W - Concrete surround to frame provided as per Specification

**Points of Reference:**

- LN550

**Specific Guidance:**

- In unsurfaced C/W - Concrete surround to frame provided as per Specification

# 8 **PCPs**

## 8.1 **Item Code: C4001 Points Score: 10**

**Item Description:**

PCP/SCP/RDSLAM Position and type of node as specified by work originator

**Scope:**



This check is to ascertain that the cabinet position and type is correct. All cabinets provided on the Job/Order Number must be inspected.

**Points of Reference:**

**Specific Guidance:**

- Correct cabinet shell type provided
- The cabinet is in the correct position or Openreach agreed alternative
- DSLAM: Sufficient space left to allow rear of cabinet panel to be 100mm from any fixed structure (for the full height of the fixed structure)
- Side access door(s) position is a minimum of 1m from any obstruction and other structures when opened through a minimum of 90 degrees. (Huawei 96 and ECI small RDSLAMS need space on both side doors)
- Rear of cabinet not on any other structure foundations

## 8.2 **Item Code: C4002 Points Score: 5**

**Item Description:**

Cabinet upright, level and trowelled around flange as watershed

**Scope:**

This check is to ascertain that the cabinet is upright, level and trowelled around the flange as a watershed

**Points of Reference:**

- LN550

**Specific Guidance:**

- Cabinet upright, level and trowelled around flange as watershed
- Bedded on cement mortar for all the perimeter area of flange
- Mortar chamfered and neatly finished around internal and external perimeter of root flange
- FTTC Plinth nuts and bolts protected with compound 16A or sealing Mud prior to applying resin
- External FTTC Transit hooks removed and replaced with grommets or screw plugs

## 8.3 **Item Code: C4003 Points Score: 10**

**Item Description:**

Cabinet base correctly constructed including duct positioning

**Scope:**

This is to check that the Cabinet / Pillar base has been correctly constructed / modified.

**Points of Reference:**

- CN1464
- CN15647
- LN550

**Specific Guidance:**

- Foundation, Plinth and cabinet/DSLAM installed as per CN drawing
- Templates provided & used
- Correct Concrete Grade used and levelled at correct depth
- Ducts positioned correctly
- Bolts positioned correctly
- When extending an existing Cabinet base the adjoining surface of the in-situ concrete to be scabbled by hand tools
- Duct entry as per CN Drawings to allow subsequent cabling provision and permanent sealing
- FTTC correct number, type and colour of ducts provided - black for power supply and earthing (this can be red if specified by DNO)
- No frost damage evident (damage can be avoided by using approved additives in cold weather)
- Pre-Cast DSLAM plinth provided as per CN drawing

*Note:* If only one RDSLAM duct is requested to be connected by Openreach this must be:

- Huawei 288 - Left hand side duct
- ECI - Right hand side duct

## 8.4 Item Code: C4004 Points Score: 10

**Item Description:**

PCP/SCP/RDSLAM All base water sealing operations completed satisfactorily

**Scope:**

This is to check that once the cabinet has been erected all sealing operations have been completed correctly. All cabinets provided on the job/order number must be inspected

**Points of Reference:**

- LN550

- CN drawing
- EPT/ANS/A041

**Specific Guidance:**

- Cabinet base sealed correctly.

*Note:* The sealing of ducts is checked under item C1019

*Note:* This also applies to the FTTC RDSLAM

- Resin 6 provided correctly, to correct depth and flange fully covered
- No Water present in RDSLAM due to incorrect base sealing or RDSLAM shell Provision
- **Polylid:**
  - MS60 Sealant neatly applied around the ducts in accordance with the Polyolid method statement
  - No voids left
  - A washer and nut on each cabinet fixing bolt to a max torque of 45N/M
  - No stones or debris etc. under gasket seal
  - Rubber gasket compressed and sealing the base of the cabinet
  - No resin required for Polyolid

## 8.5 **Item Code: C4005 Points Score: 1**

**Item Description:**

Earth connection point provided where applicable

**Scope:**

Earth connection point provided where applicable

**Points of Reference:**

- EPT/PPS/B025
- EPT/PPS/B062

**Specific Guidance:**

- Earth connection point provided where applicable

# 9 ***Materials***

## 9.1 **Item Code: C5001 Points Score: 5**

**Item Description:**

All Materials on site are separated and protected from contamination & weather

**Scope:**

All Materials on site are separated and protected from contamination & weather

**Points of Reference:**

- LN550
- Specification for the Opening of Highways

**Specific Guidance:**

- All Materials on site are separated and protected from contamination & weather

## 9.2      **Item Code: C5002 Points Score: 10**

**Item Description:**

Cement used complies with specification

**Scope:**

All cement on site complies with specification.

**Points of Reference:**

- [BS EN 197-1:2011](#)
- [BS5838](#)
- LN550

**Specific Guidance:**

- Cement used complies with Specification

*Note:*      Labelling information on packaging should include supplier (or supplier code), type and strength class & BS standard (dated)

## 9.3      **Item Code: C5003 Points Score: 5**

**Item Description:**

Reinforcement Bars comply with specification

**Scope:**

Reinforcement Bars comply with specification

**Points of Reference:**

- [BS4449](#)
- LN550

**Specific Guidance:**

- Reinforcement Bars comply with specification

**9.4 Item Code: C5004 Points Score: 5**

**Item Description:**

Sand and aggregates comply with specification

**Scope:**

Sand and aggregates comply with specification

**Points of Reference:**

- [BS EN 16236:2018](#)
- LN550

**Specific Guidance:**

- Sand and aggregates comply with specification

**9.5 Item Code: C5005 Points Score: 5**

**Item Description:**

Any additives used have a certificate of approval issued by the TAA

**Scope:**

Any additives used have a certificate of approval issued by the TAA

**Points of Reference:**

LN550

**Specific Guidance:**

- Any additives used have a certificate of approval issued by the TAA

**9.6 Item Code: C5006 Points Score: 10**

**Item Description:**

Concrete meets specification / slump / aggregate size / water purity

**Scope:**

Concrete meets specification / slump / aggregate size / water purity

**Points of Reference:**

- LN550

**Specific Guidance:**

- Concrete meets specification / slump / aggregate size / water purity

## 9.7 Item Code: C5007 Points Score: 10

### Item Description:

Bricks used comply with BSI specs

### Scope:

This check is to ascertain that any bricks used comply with BSI specs. All bricks on the Job/Order Number must be inspected.

### Points of Reference:

- ISIS CPE/NNS/V010
- LN550
- [BS EN 772-3:1998](#)
- [BS EN 772-7:1998](#)

### Specific Guidance:

- Bricks are of the correct standard. See delivery ticket to confirm

## 9.8 Item Code: C5008 Points Score: 5

### Item Description:

Mortar used complies with BSI specs

### Scope:

Mortar used complies with BSI specs

### Points of Reference:

- CPE/NNS/V010
- LN550
- [PD 6697:2019](#)
- [BS EN 1996-3:2006](#)
- [BS EN 1996-2:2006](#)
- [BS EN 1996-1-2:2005](#)
- [NA to BS EN 1996-1-2:2005](#)

### Specific Guidance:

- Mortar used complies with BSI specs

## 9.9 Item Code: C5009 Points Score: 5

### Item Description:

Fine Fill material (Earth free from stones) complies with specification

### Scope:

Fine Fill material (Earth free from stones) complies with specification

### Points of Reference:

- LN550
- [Specification for the Reinstatement of Openings in Highways \(fourth edition\)](#)

### Specific Guidance:

- Fine Fill material (Earth free from stones) complies with specification

## 9.10 Item Code: C5010 Points Score: 10

### Item Description:

Test cubes taken meet strength requirements

### Scope:

Test Cubes are taken as and when required and test results meet requirements.

### Points of Reference:

- [BS1881](#)
- ISIS CPE/NNS/V010
- LN550

### Specific Guidance:

- Test Cubes taken as per LN550
- Test cube taken using approved equipment
- Contractor shall supply a copy of the test report to Openreach within 14 days of cubes being tested
- Test results satisfy the table in LN550

*Note:* Assuming Test Cube taken correctly, this item should be marked on the Check sheet as "Not checked" until results are known

## 10 ***Reinstatement***

### 10.1 **Item Code: C6001 Points Score: 1**

**Item Description:**

Contractor in possession of correct class of road category

**Scope:**

Contractor in possession of correct class of road category

**Points of Reference:**

- LN550

**Specific Guidance:**

- Contractor in possession of correct class of road category
- Operative able to demonstrate availability of the road classification, this may be by information held within the job pack or contact with his/her superiors/office

### 10.2 **Item Code: C6002 Points Score: 10**

**Item Description:**

Contractor able to demonstrate which option of reinstatement chosen

**Scope:**

The Suppliers Representative is able to demonstrate that the reinstatement being undertaken is a valid option from the CoP for all area's disturbed by works.

**Points of Reference:**

- LN550
- [Specification for the Reinstatement of Openings in Highways \(fourth edition\)](#)

**Specific Guidance:**

- The Operative can identify a valid reinstatement option for the area disturbed by works

### 10.3 **Item Code: C6003 Points Score: 5**

**Item Description:**

Contractor able to perform field identification tests on materials intended for re-use

**Scope:**



Contractor able to perform field identification tests on materials intended for re-use

**Points of Reference:**

- [Practical Guide to Streetworks Annex 1 HAUC \(UK\)](#)

**Specific Guidance:**

- Contractor able to perform field identification tests on materials intended for re-use
- At least one operative on site is able to demonstrate the field identification test on materials selected for re-use

#### **10.4 Item Code: C6004 Points Score: 5**

**Item Description:**

Any material selected as suitable for re-use is correctly categorized

**Scope:**

Any material selected as suitable for re-use is correctly categorized

**Points of Reference:**

- LN550
- [Practical Guide to Streetworks Annex 1 HAUC \(UK\)](#)

**Specific Guidance:**

- Any material selected as suitable for re-use is correctly categorized

#### **10.5 Item Code: C6005 Points Score: 5**

**Item Description:**

Backfill materials have correct moisture content

**Scope:**

Backfill materials have correct moisture content

**Points of Reference:**

- [Practical Guide to Streetworks Annex 1 HAUC \(UK\)](#)

**Specific Guidance:**

- Backfill materials have correct moisture content

#### **10.6 Item Code: C6006 Points Score: 5**

**Item Description:**

Compaction equipment suitable for area to be compacted

**Scope:**

Compaction equipment suitable for area to be compacted

**Points of Reference:**

- [Practical Guide to Streetworks Annex 1 HAUC \(UK\)](#)
- [HAUC Yellow Book](#)

**Specific Guidance:**

- Compaction equipment suitable for area to be compacted

**10.7 Item Code: C6007 Points Score: 5**

**Item Description:**

Correct number of passes for material / compaction equipment

**Scope:**

Correct number of passes for material / compaction equipment

**Points of Reference:**

- [Practical Guide to Streetworks Annex 6, 7 and 8 HAUC \(UK\)](#)
- [HAUC Yellow Book](#)

**Specific Guidance:**

- Correct number of passes for material / compaction equipment

**10.8 Item Code: C6008 Points Score: 5**

**Item Description:**

Maximum compaction layer thickness observed

**Scope:**

Maximum compaction layer thickness observed

**Points of Reference:**

- [Practical Guide to Streetworks Annex 6, 7 and 8 HAUC \(UK\)](#)
- [HAUC Yellow Book](#)

**Specific Guidance:**

- Maximum compaction layer thickness observed

**10.9 Item Code: C6010 Points Score: 5**

**Item Description:**

Trench edge requirements / trimming performed to specification.

**Scope:**

**Trench excavations**

**Points of Reference:**

- LN550
- [HAUC The Specification for the Reinstatement of Openings in Highways](#)

**Specific Guidance:**

- Trench edge requirements / trimming performed to specification.

**10.10 Item Code: C6011 Points Score: 5**

**Item Description:**

Vertical edges / ironwork sealed with approved emulsion / sealant

**Scope:**

Vertical edges / ironwork sealed with approved emulsion / sealant

**Points of Reference:**

- [HAUC The Specification for the Reinstatement of Openings in Highways](#)
- LN550

**Specific Guidance:**

- Vertical edges / ironwork sealed with approved emulsion / sealant

**10.11 Item Code: C6012 Points Score: 5**

**Item Description:**

Wearing course correct type & thickness for class of road and reinstatement option

**Scope:**

Wearing course correct type & thickness for class of road and reinstatement option

**Points of Reference:**

- [HAUC The Specification for the Reinstatement of Openings in Highways](#)
- [HAUC Yellow Book](#)

**Specific Guidance:**

- Wearing course correct type & thickness for class of road and reinstatement option

*Note:* This item includes roads, footways, footpaths and cycle tracks

## 10.12 Item Code: C6013 Points Score: 5

### Item Description:

Base course correct type & thickness for class of road and reinstatement option

### Scope:

Base course correct type & thickness for class of road and reinstatement option

### Points of Reference:

- [HAUC Yellow Book](#)

### Specific Guidance:

- Base course correct type & thickness for class of road and reinstatement option

*Note:* This item includes roads, footways, footpaths and cycle tracks

## 10.13 Item Code: C6014 Points Score: 5

### Item Description:

Roadbase layer correct type & thickness for class of road and reinstatement option

### Scope:

Roadbase layer correct type & thickness for class of road and reinstatement option

### Points of Reference:

- [HAUC Yellow Book Appendix 6 and 7](#)

### Specific Guidance:

- Roadbase layer correct type & thickness for class of road and reinstatement option

## 10.14 Item Code: C6015 Points Score: 5

### Item Description:

Sub-base layer correct type & thickness for class of road and reinstatement option

### Scope:

Sub-base layer correct type & thickness for class of road and reinstatement option

**Points of Reference:**

- [HAUC Yellow Book Appendix A3, A4 and A7](#)

**Specific Guidance:**

- Sub-base layer correct type & thickness for class of road and reinstatement option

*Note:* This item includes roads, footways, footpaths and cycle tracks

**10.15 Item Code: C6016 Points Score: 5**

**Item Description:**

Backfill layer correct type & thickness for class of road and reinstatement option

**Scope:**

Backfill layer correct type & thickness for class of road and reinstatement option

**Points of Reference:**

- [HAUC Yellow Book Appendix A3, A4 & A7](#)

**Specific Guidance:**

- Backfill layer correct type & thickness for class of road and reinstatement option

*Note:* This item includes roads, footways, footpaths and cycle tracks

**10.16 Item Code: C6017 Points Score: 5**

**Item Description:**

Contractor can prove / demonstrate temperature monitoring of hot materials (& entered in daily record)

**Scope:**

Contractor can prove / demonstrate temperature monitoring of hot materials (& entered in daily record)

**Points of Reference:**

- [HAUC Yellow Book Appendix A2.7](#)
- [Practical Guide to Streetworks Annex 9](#)

**Specific Guidance:**

- Contractor can prove / demonstrate temperature monitoring of hot materials (& entered in daily record)

## 10.17 **Item Code: C6018 Points Score: 10**

### **Item Description:**

All reinstatement complies with specification. Any road markings / special surfaces replaced.

### **Scope:**

This check is to identify that a reinstatement has been provided which matches that shown in the Closing Notice and whether interim or permanent, the reinstatement meets the required specification for that option. All surface areas disturbed as result of works carried out on the Job / Estimate number identified for check must be inspected. This item refers to both public and private land.

*Note:* For Retrospective checks on work registered as permanent to the HA ALL reinstatement must be completed to a permanent standard prior to invoice. Where a permanent reinstatement has not been provided mark this item as below standard

### **Points of Reference:**

- [HAUC Specification for the Reinstatement of Openings in the Highways](#)
- LN550

### **Specific Guidance:**

- Physical Reinstatement type matches that declared in the Closing Notice or Job Pack.
- Reinstatement provided for all areas disturbed by works.
- Special surfaces replaced
- Road Markings replaced
- Vertical edges are saw cut
- Trim line requirements met
- Wearing course is of the correct material
- Surface meets performance requirements
- Hard standing provided for FTTC cabinets in soft/unmade surfaces where required/permitted by HA
  - Large RDSLAM - to front and left of cabinet
  - Small RDSLAM - to front, left and right of cabinet

## 10.18      **Item Code: C6019 Points Score: 5**

**Item Description:**

On private land all work completed to reasonable satisfaction of the owner

**Scope:**

On private land all work completed to reasonable satisfaction of the owner. This item does not refer to reinstatement, see C6018. This does not cover items where a current spec exists

**Points of Reference:**

- LN550

**Specific Guidance:**

- On private land all work completed to reasonable satisfaction of the owner

## 10.19      **Item Code: C6020 Points Score: 5**

**Item Description:**

Reasonable growth of seeding / replanting / returfing

**Scope:**

Reinstatement of unmade ground

**Points of Reference:**

- [Specification for the Reinstatement of Openings in Highways](#)

**Specific Guidance:**

- Reasonable growth of seeding / replanting / returfing

# 11      ***Moleplough***

## 11.1      **Item Code: C7001 Points Score: 5**

**Item Description:**

Landowner notified prior to work commencement

**Scope:**

Landowner notified prior to work commencement

**Points of Reference:**

**Specific Guidance:**

- Landowner notified prior to work commencement

## 11.2 Item Code: C7002 Points Score: 1

### Item Description:

Duct / cable prepared and laid out in planned / agreed position

### Scope:

Duct / cable prepared and laid out in planned / agreed position

### Points of Reference:

- LN550

### Specific Guidance:

- Duct / cable prepared and laid out in planned / agreed position

## 11.3 Item Code: C7003 Points Score: 5

### Item Description:

Duct / cable 'ploughed in' at planned / agreed position

### Scope:

Duct / cable 'ploughed in' at planned / agreed position

### Points of Reference:

- LN550

### Specific Guidance:

- Duct / cable 'ploughed in' at planned / agreed position

## 11.4 Item Code: C7004 Points Score: 5

### Item Description:

Plant, equipment and practices meet Openreach requirements

### Scope:

Plant, equipment and practices meet Openreach requirements

### Points of Reference:

- LN550
- [Specification for the Reinstatement of Openings in Highways](#)

### Specific Guidance:

- Plant, equipment and practices meet Openreach requirements



## **11.5 Item Code: C7005 Points Score: 10**

**Item Description:**

Duct / cable 'ploughed in' at specified / agreed depth

**Scope:**

Duct / cable 'ploughed in' at specified / agreed depth

**Points of Reference:**

LN550

**Specific Guidance:**

- Duct / cable 'ploughed in' at specified / agreed depth

## **11.6 Item Code: C7006 Points Score: 10**

**Item Description:**

Cable ends left safely and sealed with sufficient length for jointing

**Scope:**

This item is to ascertain that where mole plough cable has been provided, sufficient cable has been left for jointing and cable ends are left sealed. Also that Cable ends have been left in a safe position as per LN550 Issue 6 Specification. All cable included in the Job/Estimate Number identified for check must be inspected

**Points of Reference:**

- EPT/ANS/A003
- LN550
- NWK/NNS/V046

**Specific Guidance:**

- Sufficient Cable left at all identified jointing positions and ends sealed correctly
- Cable ends left in a safe position
- A Marker Cable to be installed at each buried joint or terminating point, as directed by Openreach.

## 12 *Labelling*

### 12.1 **Item Code: C6221 Points Score: 5**

**Item Description:**

Correct marking/labelling of civils activities (ducts/chambers/PCP's etc)

**Scope:**

Civil engineering activities requiring labelling: All newly provided ducts entering a chamber (e.g. JUF4,). All newly built chambers (e.g. JUF4, Carriageway). All renewed/newly provided frame & covers. All newly provided Cabinets (e.g. PCP, DSLAM, Stand-off, and G.Fast). All PCP reshell activities: Civils re-shell & associated jointer assist.

**Points of Reference:**

- EPT/ANS/A067

**Specific Guidance:**

The information required for each activity is: -

- Task
- Openreach Estimate
- Contract operative UIN
- Date
- Main partner name

*Note:* In addition, any label must also be durable and visible, if not, mark as BS.

## 13 *Validation Items – A55*

### 13.1 **Item Code: V1001 Points Score: 5**

**Item Description:**

All information fields of the A55 completed correctly, clear and legible. Signed to confirm compliance with the requirements of ISIS CPE/NNS/V006 and Statutory Legislation.

**Scope:**

To ascertain that all the information fields on the A55b have been completed correctly, signed and can be clearly read. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

**Points of Reference:**

- CPE/NNS/V006
- [Statutory Instrument 2002 No.3217](#) (or relevant equivalent in Scotland and Wales).
- [Traffic Advisory Leaflet 7/14: Mapping underground assets](#)
- [The Code of Practice for the Recording of Underground Apparatus in Streets \(November 2002\)](#)

**Specific Guidance:**

- All information fields of the A55 completed correctly, clear and legible. Signed to confirm compliance with the requirements of ISIS CPE/NNS/V006 and Statutory Legislation.

## 13.2 **Item Code: V1002 Points Score: 5**

**Item Description:**

Plant recorded using standard symbols and colours, a single line is shown regardless of the number of ways installed.

**Scope:**

To check that standard symbols/colours, as defined in ISIS CPE/NNS/V006, are used to indicate all plant on the front of the A55b. All duct must be shown as a single line even when more than 1x way has been laid. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

**Points of Reference:**

- CPE/NNS/V006

**Specific Guidance:**

- All duct and Plant is recorded using the correct symbols and colour convention (black for existing plant and red for new plant)
- Where more than 1 new duct (i.e. 2x way, 3x way etc.) has been laid only a single line is used on the A55b
- Where an A55b which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

## 13.3 **Item Code: V1003 Points Score: 5**

**Item Description:**

The number of ways and material of the duct/pipe recorded on rear of A55

**Scope:**

The rear of the A55b should contain a description of the material from which each newly installed duct is constructed (or duct type) and also state the number of “ways” that have been laid. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

**Points of Reference:**

- CPE/NNS/V006

**Specific Guidance:**

- Duct material should be recorded (e.g. Steel or PVC etc.) or alternatively the duct type may be quoted (e.g. duct 54D)
- The number of ways should also be indicated (e.g. 2x duct 54D or 2x PVC duct etc.)
- Where an A55b which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

## 13.4 Item Code: V1004 Points Score: 5

**Item Description:**

The diagram records sufficient background information. e.g. Buildings, Street names etc.

**Scope:**

To ascertain whether the actual diagram/drawing on the front of the A55b contains sufficient geographic detail i.e. Street/Road names, buildings etc. to enable the work location to be readily identified. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

**Points of Reference:**

- CPE/NNS/V006
- [Statutory Instrument 2002 No.3217](#) (or relevant equivalent in Scotland and Wales).
- [Traffic Advisory Leaflet 7/14: Mapping underground assets](#)
- [The Code of Practice for the Recording of Underground Apparatus in Streets \(November 2002\)](#)

**Specific Guidance:**

- The diagram must include sufficient geographical background information (this must include details of the highways, verges, footways, kerbs, hedges, walls, buildings, street names, road junctions, and fixed features) to facilitate quick and accurate location of Openreach apparatus
- A coloured line, other than red or black (e.g. blue) has been used to draw background / geographic features
- Where an A55b which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

**13.5 Item Code: V1005 Points Score: 5****Item Description:**

All dimensions correctly and legibly recorded (centre to centre / end to end / position of duct with reference to kerb line or other fixed point etc.) as per legislative requirements

**Scope:**

To ascertain whether the actual Diagram/Drawing on the front of the A55b is annotated with accurate measurements indicating the length of all duct sections and position of all plant in relation to fixed geographic features. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

**Points of Reference:**

- **CPE/NNS/V006**
- [Statutory Instrument 2002 No.3217](#) (or relevant equivalent in Scotland and Wales).
- [Traffic Advisory Leaflet 7/14: Mapping underground assets](#)
- [The Code of Practice for the Recording of Underground Apparatus in Streets \(November 2002\)](#)

**Specific Guidance:**

- All dimensions are legible and easily read
- Sufficient measurements must be taken on site, and recorded on the A55b, to represent accurately the line, length and depth and position of apparatus
- With regard to positional accuracy of plant location, all measurements MUST comply with the stipulations in both CPE/NNS/V006 and Statutory Instrument 2002 No. 3217 The Street Works (Records) (England) Regulations 2002

- Where an A55b which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

## 13.6 **Item Code: V1006 Points Score: 5**

### **Item Description:**

All Apparatus located is recorded on the A55 correctly, where appropriate.

### **Scope:**

To ascertain that all existing buried/underground apparatus/plant, which was located during the works, has been correctly recorded on the A55b. This applies to both Openreach and other undertaker's plant. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

### **Points of Reference:**

- **CPE/NNS/V006**
- [Statutory Instrument 2002 No.3217](#) (or relevant equivalent in Scotland and Wales).
- [Traffic Advisory Leaflet 7/14: Mapping underground assets](#)
- [The Code of Practice for the Recording of Underground Apparatus in Streets \(November 2002\)](#)
- [Construction \(Design & Management\) Regulations 2015](#)

### **Specific Guidance:**

- Other utilities apparatus encountered within close proximity of an Openreach structure (i.e. chamber) must be recorded. This record must include the lateral and depth measurements from the external face of the Openreach structure
- Any known mains (not property services) whether Openreach or any other utility which are located and supported by records to hand must be included in the record for Openreach engineering purposes. The material of the apparatus, depth, relative position and service provider (e.g. gas, water, electricity and cable TV) must also be recorded
- Where an A55b which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

## 13.7 **Item Code: V1007 Points Score: 5**

### **Item Description:**

There are no more than 2 sections (of duct) recorded on the drawing.

**Scope:**

To ascertain that no more than 2 ductwork sections (excluding spurs) have been recorded on the A55b. Applies to all A55b diagrams which have been completed by the supplier and returned to Openreach. An A55b diagram must be submitted for all aspects of the completed job as appropriate.

**Points of Reference:**

- CPE/NNS/V006

**Specific Guidance:**

- A maximum of 2 ductwork sections box to box along the same trench line to be shown per A55b form. Exceptions will apply for spur duct sections to adjacent boxes, DP's, premises etc.
- Where an A55b which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

## 13.8 **Item Code: V1008 Points Score: 5**

**Item Description:**

Returned job pack contains all necessary components e.g. A55, Scheme plans (Map/Duct) etc. as per requirements of the Contract

**Scope:**

To ascertain that the returned job pack contains all necessary

**Points of Reference:**

- CPE/NNS/V006

**Specific Guidance:**

- Returned job pack contains all necessary components e.g. A55, Scheme plans (Map/Duct) etc.

# 14 ***Validation Items – Drawings***

## 14.1 **Item Code: V2001 Points Score: 5**

**Item Description:**

Scheme plans, Duct/Cable diagrams completed correctly, any alterations shown & annotated in red.

**Scope:**

To ascertain that all Duct diagrams and all schematic prints which are returned to Openreach on completion of work have been correctly amended and annotated using correct colours and symbols. All appropriate Duct/Cable diagrams must be submitted to cover the completed job.

**Points of Reference:**

**Specific Guidance:**

- All alterations are shown in Red.
- Where required correct symbols used
- Where a Scheme Plan/Cable diagram which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned

## 14.2 **Item Code: V2002 Points Score: 5**

**Item Description:**

Scheme plans, Duct/Cable diagrams legible, authorised as correct and dated

**Scope:**

To ascertain that all schematic prints which are returned to Openreach on completion of work are legible and have been signed and dated as correct by the Supplier. All appropriate Scheme Plans, Duct cable Diagrams must be submitted to cover the completed job.

**Points of Reference:**

**Specific Guidance:**

- All amendments must be clear and legible
- Requirements for mark up and certification may vary depending on type of work and whether work was executed as planned.
- Where Scheme Plans, Duct cable Diagrams which should have been returned to Openreach have not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the documents to be returned

## 14.3 **Item Code: V2004 Points Score: 5**

**Item Description:**

A502 Cable pressure diagrams completed correctly. Alterations highlighted and where required completed sets returned

**Scope:**



To ascertain that all cable/pressurisation diagrams, which are returned to Openreach on completion of work, have been correctly amended and annotated using correct colours and symbols. All appropriate A502 Cable pressure diagrams must be submitted to cover the completed job.

**Points of Reference:**

- Supplier Mark-up of Openreach Job Packs (Available via CANDID)

**Specific Guidance:**

- All amendments must be clear and legible
- Requirements for mark up and certification may vary depending on type of work and whether work was executed as planned. When marking this item reference will need to be made to the "Supplier Mark-up of Openreach Job Packs - Guidance Notes"
- Where Scheme Plans, Duct cable Diagrams which should have been returned to Openreach have not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the documents to be returned

## 14.4 **Item Code: V2005 Points Score: 1**

**Item Description:**

Ordnance Survey map completed correctly. Alterations highlighted and where required complete sets returned

**Scope:**

To ascertain that all Ordnance Survey maps which are returned to Openreach on completion of work have been correctly amended and annotated using correct colours and symbols. All appropriate Ordnance Survey Maps must be submitted to cover the completed job.

**Points of Reference:**

- Schedule 4 Network Installation Process (Available via CANDID)
- Supplier Mark-up of Openreach Job Packs (Available via CANDID)

**Specific Guidance:**

- Requirements for mark up and certification may vary depending on type of work and whether work was executed as planned. When marking this item reference will need to be made to the "Supplier Mark-up of Openreach Job Packs - Guidance Notes"
- Where an Ordnance Survey Map which should have been returned to Openreach has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the documents to be returned

## 14.5 Item Code: V2006 Points Score: 5

### Item Description:

Duct Space records completed correctly and alternative bores identified

### Scope:

If supplied as part of the job pack this is to ascertain that all Duct Space Records (DSR's) which are returned to Openreach on completion of work have been correctly completed and indicate the cable bore used. All appropriate Duct Space Records must be submitted to cover the completed job.

### Points of Reference:

### Specific Guidance:

- Where the cable is provided as planned, the supplier is required to fill-in the Circle (indicating the cable) and put the Bore number utilised in the 'Way No' column
- Where a different bore is used then the supplier should cross out the circle and place a red disc in the actual bore used plus place the bore number in the 'Way No' column
- Where Duct Space Records which should have been returned to Openreach have not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the documents to be returned

## 14.6 Item Code: V2007 Points Score: 5

### Item Description:

A154s routing schedules completed correctly & submitted to the Openreach routing office within required timescales

### Scope:

All certified A154's (Jointing schedules/routing schedules) should be accurately completed and returned to Openreach within the prescribed timescale for the work type. All A154s must be submitted to cover the completed job

### Points of Reference:

### Specific Guidance:

- Time scales for return of A154s will differ depending on work type (Proactive, Reactive, Newsites etc.)
- A154s have been amended/completed correctly and certified as correct

- Where A154s which should have been returned to Openreach have not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the documents to be returned

## 15 ***Validation Items – Documentation***

### 15.1 **Item Code: V5002 Points Score: 10**

**Item Description:**

The quantity / volumes claimed match the actual quantity claimed / completed

**Scope:**

To ascertain that items and quantities being claimed on the A537 correspond to those which have actually been supplied. Applies to all items on the A537. This question does not assess the necessity for, or validity of, a DFE. This is covered by item V5004

**Points of Reference:**

**Specific Guidance:**

- All products and volumes claimed on the A537 correspond to the products/volumes supplied on the completed job
- Where an item has been claimed but only part completed (e.g. "F&C renewal" has been claimed but "Covers only" have been replaced), then this item should be marked as "Below Standard". Where the product is also sub-standard in terms of quality or safety requirements then the appropriate item on the product checksheet must also be marked as "Below Standard"

*Note:* This item must not be marked as "Not Checked"

*Note:* Where all work on site associated with the estimate has been completed and differs from the original e537 then **V5004** must be marked either "Checked OK" or "Below Standard"

### 15.2 **Item Code: V5003 Points Score: 10**

**Item Description:**

Quantity of premium hourly rate per operatives corresponds with utilisation records available

**Scope:**

Any Premium Hours claimed

**Points of Reference:**

- DFE - Where applicable

- Suppliers Utilisation record (timesheets etc.)
- The Contract

**Specific Guidance:**

- The payment of Premium Hourly rate was applicable and agreed by Openreach
- The number of operatives and the hours claimed are correct

### 15.3 **Item Code: V5004 Points Score: 10**

**Item Description:**

DFE process followed for all departures from original planned estimate. A valid DFE (-ve/+ve) has been agreed where appropriate and corresponds with quantity/products supplied

**Scope:**

This item applies to all jobs where the product/quantities supplied, differ from that which was requested on the original planned estimate. It ascertains whether a DFE has been agreed as appropriate. It also ascertains whether the products and quantities claimed/credited on the DFE match those which have been actually supplied/omitted

**Points of Reference:**

**Specific Guidance:**

- Auto DFE has been obtained where appropriate
- All changes to product/quantities, which have been agreed as part of the DFE (+ve/-ve), match those which have actually been supplied

*Note:* This item can only be marked as "Not Checked" in circumstances where the completed works match the original planned estimate

*Note:* Where no work was completed and the estimate was closed in error mark this item as "Not Checked" and **V5002** as "Below Standard"

*Note:* Where not all work has been completed, but has been invoiced in error and should have been completed without the need for a DFE, mark this item as "Not Checked" and **V5002** as "Below Standard" (as estimate should have been carried out as planned) providing outstanding work is then completed as part of V5002 CAR

*Note:* Variations to the original quantities entered against the work items on the eBus Order (e537) can occur throughout the life cycle of a works order up to job closure and invoicing (status Z on NIMS/NEJ) Where this has occurred this is not a defect under this item

### 15.4 **Item Code: V5005 Points Score: 10**

**Item Description:**

A537 sign off date, post perm reinstatement and site fully reinstated to permanent NRSWA standard

**Scope:**

This item is to check that a permanent reinstatement has been provided prior to final invoice for all areas disturbed by the works

**Points of Reference:**

- Contract
- A537 complete date
- ETON noticing system

**Specific Guidance:**

- Permanent reinstatement provided for all areas disturbed by works
- Permanent reinstatement notice issued prior to final invoice date

*Note:* The actual physical quality of the reinstatement is not reported under this item. For this aspect use either C6018 or N3411

## 15.5 Item Code: V5009 Points Score: 5

**Item Description:**

Completed job meets Works Originators Requirements

**Scope:**

This is to ascertain that the completed work is in accordance with the Work Originators design. Applies to all aspects of the work being checked. This question is not intended to assess the quality and measure of the product

**Points of Reference:**

- N/A

**Specific Guidance:**

- Work has been completed as per the Work Originators design in order that all follow on activities can be completed (i.e. pairs provided/diverted to specified location, Jointing chamber built on correct duct/cable where specified etc.)
- Any deviation from the original planned job has been agreed with the Work originator
- Product is usable and fit for purpose

*Note:* Although this question is not primarily intended to assess the quality and measure of the finished product, in circumstances where the quality is so poor that the product cannot be used (i.e. unable to cable through duct etc) then it must be deemed that the product does not meet the W/O requirements and the question must be marked as "Below Standard". The defect will also be recorded on the appropriate product checksheet

## **15.6 Item Code: V5010 Points Score: 1**

### **Item Description:**

A1024 label(s) removed from plant following rectification of defect.

### **Scope:**

To ascertain that the Supplier has removed all A1024 defect labels, associated with the plant worked on, following completion of the remedial work and rectification of the reported defect. Only the Label associated with the actual defect being worked on should be removed.

### **Points of Reference:**

- NWK/NNS/V080

### **Specific Guidance:**

- All A1024 labels have been removed where the specific reported defect has been fully rectified by the supplier

## **15.7 Item Code: V5011 Points Score: 1**

### **Item Description:**

Supplier provides blocking/wire recovery log

### **Scope:**

To ascertain that the supplier is able to provide a document recording details of all newly provided wires which have not been run directly into the customer's property (i.e. blocked) and also all wires that have been recovered from non Openreach customers. Where these circumstances have not occurred a log is not required

### **Points of Reference:**

- Contract

### **Specific Guidance:**

- All recovered wires and newly provided "blocked" wires are recorded in a log
- Customers signatures have been obtained where wires have been recovered or permission has been granted by the AAPO and recorded in log
- Customer signatures have been recorded (where customer was at home during execution of work) where newly provided wires have not been taken directly into the customer's property

## **15.8 Item Code: V5012 Points Score: 10**

### **Item Description:**

TDFS process followed for all products constructed outside of tolerance limits. A valid TDFS has been agreed prior to commencement of work on non-conforming product.

**Scope:**

This item applies to all products which were constructed outside of base tolerance limits. It does not cover modifications to jointing chambers where the materials, design or dimensions are not in accordance with the LN550, the relevant standard CN Drawing for that chamber and the tolerances in CN15456. These changes require authorisation from Openreach Technical Approval Authority (TAA) or their nominee and shall be agreed with the Work Originator for the structure. LN550 gives further guidance. Note: The TDFS process is currently only applicable to Civils activities. The item should therefore be marked as "Not Checked" where only non-civils Checksheets are being used.

**Points of Reference:**

- CN 15456
- LN550
- CPE/NNS/V010

**Specific Guidance:**

- Reason for TDFS is in accordance with criteria/limits detailed in CPE/NNS/V010 and associated documents. TDFS has not been obtained to cover poor workmanship
- TDFS has not been requested for situations which are outside of the scope of the TDFS process (i.e. Depths of chamber exceeding the design depth, In situ concrete strength, Wall thickness, Reinforcing bars – number, type and location etc.) In these circumstances the item must be marked as 'Below Standard'. The appropriate product check item must also be marked as 'Below Standard'
- Auto TDFS obtained for minor deviations from specification (see table in ISIS CPE/NNS/V010)
- Non-Auto TDFS obtained for all deviations from specification which are not listed in table held in CPE/NNS/V010
- Non-Auto TDFS obtained for all deviations from specification on all jobs marked as 'Engineering sensitive'
- All TDFS permits are logged and available for audit. (Recorded in site log for 'In Progress' check and recorded on rear of A55b for 'Retro' check)
- Photo(s) which clearly identify the reason for TDFS are made available on request

*Note:* Where a TDFS has been obtained to cover poor workmanship/sub-standard materials, then this Item must be marked as 'Below Standard' and the appropriate product item must also be marked as 'Below Standard'

## 16 ***Validation Items – NRSWA Noticing***

### 16.1 **Item Code: V4101 Points Score: 10**

**Item Description:**

Notice valid for type of work, duration and location of the operation

**Scope:**

All Opening and Closing Notices pertinent to each NRSWA defined Section on the Job being inspected

**Points of Reference:**

- [NRSWA Co-ordination COP](#)
- EPT/OAM/H062
- The Contract

**Specific Guidance:**

- NRSWA Notice is correct for Type of work
- The work was completed within the notice period

### 16.2 **Item Code: V4102 Points Score: 10**

**Item Description:**

Notice closed within required time scale

**Scope:**

To ascertain that all NRSWA notices applicable to the work being checked have been closed by the supplier within the prescribed timescales

**Points of Reference:**

- [NRSWA Co-ordination COP](#)

**Specific Guidance:**

- The notice must be closed within correct timescales
- Where a closing notice is required and has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the document to be returned



*Note:* In addition to the permanent R/S being completed, the site should also be clear of all spoil, materials and equipment before “works Closed” can be reported

### **16.3 Item Code: V4103 Points Score: 5**

**Item Description:**

Notice dimensions match actual site dimensions for Length and Width

**Scope:**

To ascertain that all dimensions recorded on the closing notice accurately reflect the actual dimensions of the excavation on site. Applies to all NRSWA notices covering the work being checked

**Points of Reference:**

- [NRSWA Co-ordination COP](#)

**Specific Guidance:**

- All excavation measurements recorded on the NRSWA notice accurately reflect the physical dimensions of the excavations on site
- Where a closing notice is required and has not been included in the Audit Pack then the question must be marked as "Below Standard". The item can only be marked as "Not Checked" in circumstances where the work did not require the documents to be returned

<b>END OF DOCUMENT</b>
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