

Document Reference:-		NSP/002/005	Document Type:-		Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	1	of	15	

NSP/002/005 – Code of Practice for Cable Locations in Trench Layouts

1. Purpose

The purpose of this document is to detail Northern Powergrid (the 'Company') requirements for; cable locations in trench layouts, that apply to Company staff, their contractors and others (the 'Installer') installing network infrastructure to be adopted by the Company at all voltage levels (LV up to and including 132 kV) for connection to the Company's network.

This Code of Practice and referenced documents, communicates what spacing's, depths and locations that should apply to the Company's cables installed in trenches. The distances between other utilities and the Company cables should be that as referenced within NJUG documents (see section 4).

This document supersedes the following documents, all copies of which should be destroyed.

Document Reference	Document Title	Version	Published Date
NSP/002/005	Code of Practice for Cable Locations in Trench Layouts	1.0	Oct 2017

2. Scope

This document applies to the installation of all distribution power and auxiliary cable arrangements within various trench layouts at all operational voltages up to and including 132 kV. This primarily covers the relative position of Company cables in the trench (i.e. minimum spacing and order) and minimum depths for cable installation based on current practice within the Company.

Document Reference:-		NSP/002/005	Document Type:-		Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	2	of	15	

2.1. Table of Contents

1. Purpose.....	1
2. Scope	1
2.1. Table of Contents.....	2
3. Requirements	3
4. References	4
4.1. External Documentation	4
4.2. Internal Documentation	4
4.3. Amendments from Previous Version	4
5. Definitions	4
6. Authority for Issue	5
6.1. CDS Assurance	5
6.2. Author	5
6.3. Technical Assurance.....	5
6.4. Authorisation	5
Appendix 1 – LV Services	6
Appendix 2 – LV Mains	7
Appendix 3 – 11 / 20 kV.....	8
Appendix 4 – 33 / 66 / 132 kV.....	10
Appendix 5 – 33 / 66 / 132 kV Oil & Gas	13
Appendix 6 – Auxiliary	15

Document Reference:-		NSP/002/005	Document Type:-		Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	3	of	15	

3. Requirements

Cables referenced in this Code of Practice are required to be laid under conditions stipulated in NSP/002 'Policy for the Installation of Distribution Power Cables' and NSP/002/001 'Guidance Document for the Installation of Fibre Optic Underground Cables'. NSP/002 and NSP/002/001 contain the detailed dimensions referred to in the various appendices within this document.

Where it is not reasonably practicable for the Installer to apply the requirements of this document; a suitable and sufficient alternative solution shall be agreed with the Company's Project Manager, in accordance with NSP/002/006 'Code of Practice for Engineering Difficulty Trench Layouts'.

When laying a fibre along an existing ducted EHV cable route, the standard layout in Appendix 4, 5 & 6 should be used.

The following acronyms are used in the drawings shown in the appendices of this document:-

- E Electric power cable
- F Fibre optic cable
- O Oil / Gas pipe
- P Pilot cable
- T Telecommunication cable

Document Reference:-		NSP/002/005	Document Type:-		Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	4	of	15	

4. References

4.1. External Documentation

Reference	Title
NJUG Documents	NJUG Guidelines volumes 1 to 6

4.2. Internal Documentation

Reference	Title
NPS/002/003	Technical Specification for Protection Tile, Protection Tape, Cable Ducting and Route Markers
NSP/002	Policy for the Installation of Distribution Power Cables
NSP/002/001	Guidance Document for the Installation of Fibre Optic Underground Cables
NSP/002/006	Code of Practice for Engineering Difficulty Trench Layouts

4.3. Amendments from Previous Version

Section	Amendments
Requirements	Added requirement for when laying a fibre cable next to existing laid direct EHV cables

5. Definitions

Reference	Title
Company	Northern Powergrid
Installer	Any persons working on cable installation work for Northern Powergrid, either in house or external.
LV	A voltage up to and including 1000V
NJUG	National Joint Utilities Group Publications

Document Reference:-	NSP/002/005	Document Type:-	Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	5	of 15

6. Authority for Issue

6.1. CDS Assurance

I sign to confirm that I have completed and checked this document and I am satisfied with its content and submit it for approval and authorisation.

		Date
Liz Beat	Governance Administrator	06/03/2024

6.2. Author

I sign to confirm that I have completed and checked this document and I am satisfied with its content and submit it for approval and authorisation.

Review Period - This document should be reviewed within the following time period.

Standard CDS review of 3 years?	Non Standard Review Period & Reason	
Yes	Period: n/a	Reason: n/a
Should this document be displayed on the Northern Powergrid external website?		Yes
		Date
David Johnson	Specification and Design Engineer	25/03/2024

6.3. Technical Assurance

I sign to confirm that I am satisfied with all aspects of the content and preparation of this document and submit it for approval and authorisation.

		Date
Paul Hanrahan	Policy and Standards Engineer	14/03/2024
Aaron Chung	Policy and Standards Engineer	07/03/2024

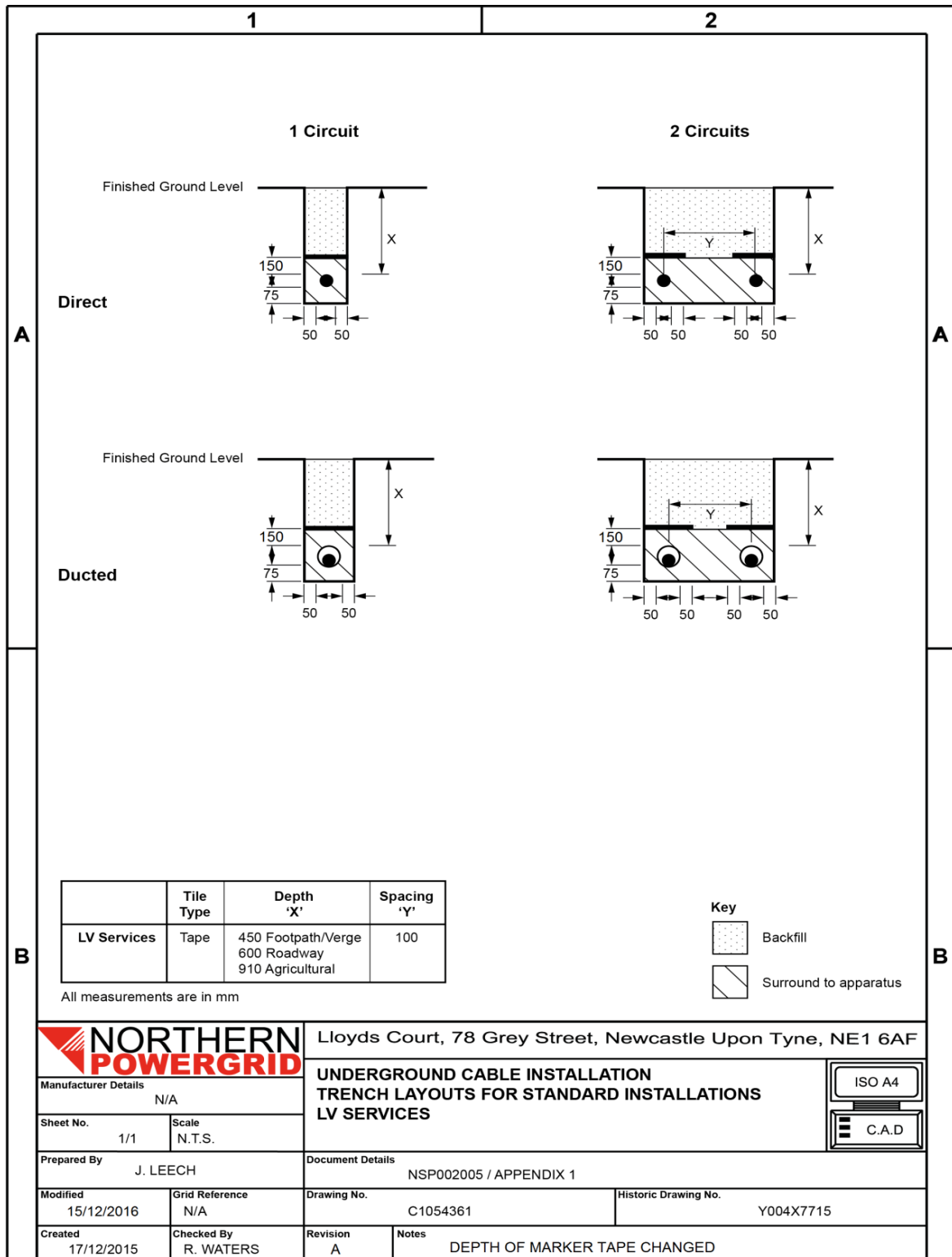
6.4. Authorisation

Authorisation is granted for publication of this document.

		Date
David Sillito	Head of Major Projects	21/03/2024

Document Reference:-		NSP/002/005	Document Type:-	Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	6	of	15

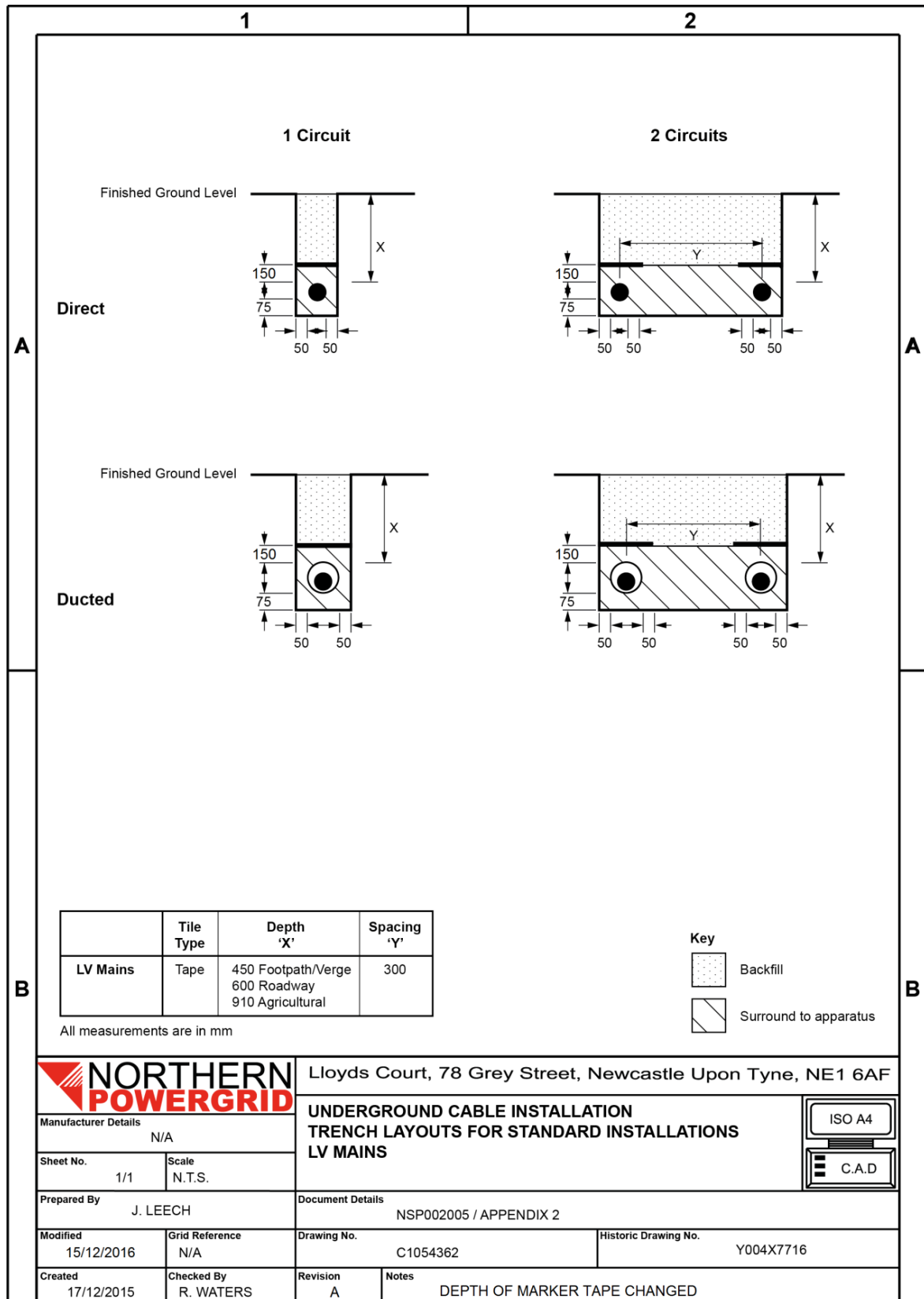
Appendix 1 – LV Services



Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

Document Reference:- NSP/002/005		Document Type:- Code of Practice	
Version:- 2.0	Date of Issue:- March 2024	Page 7	of 15

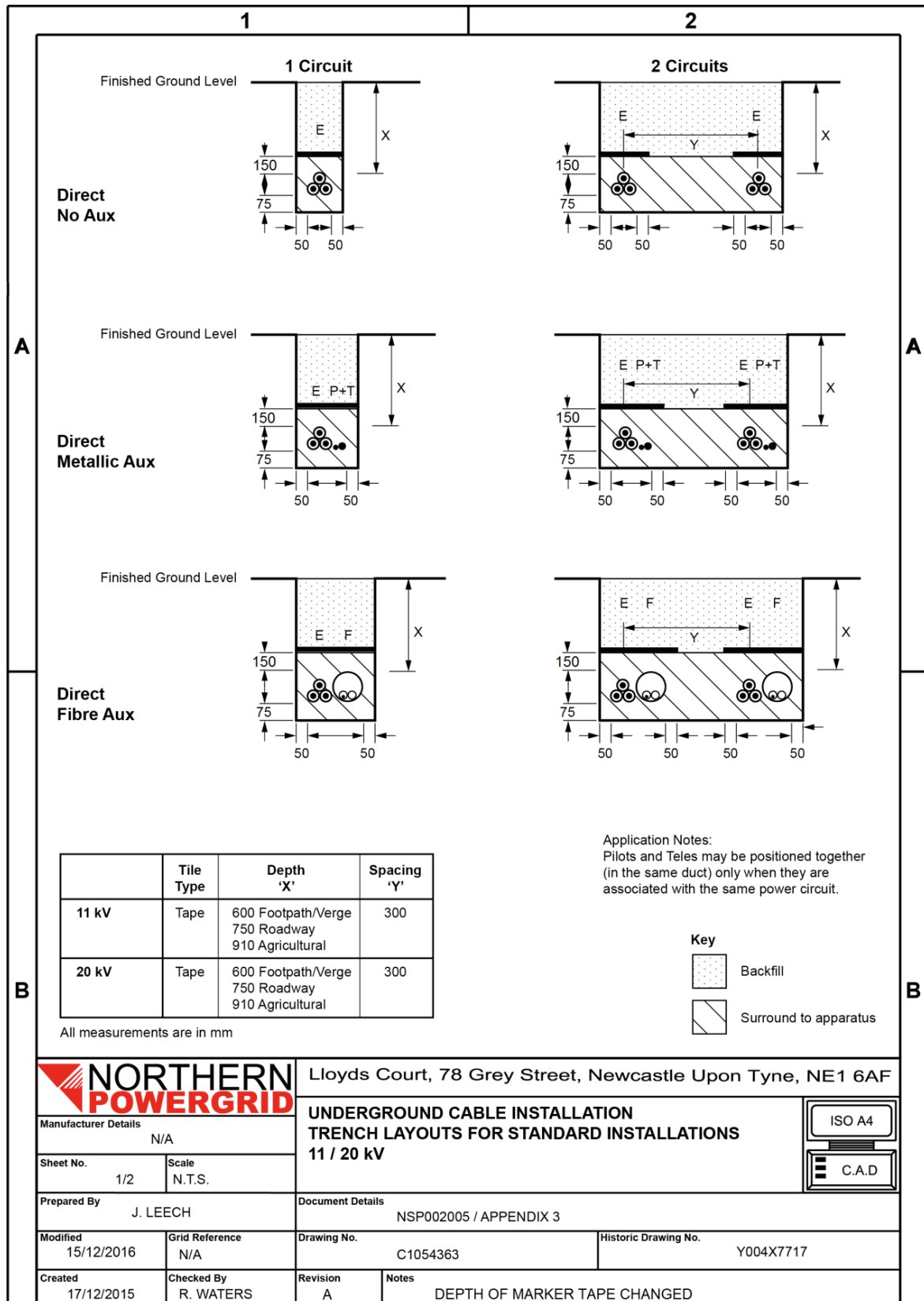
Appendix 2 – LV Mains



Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

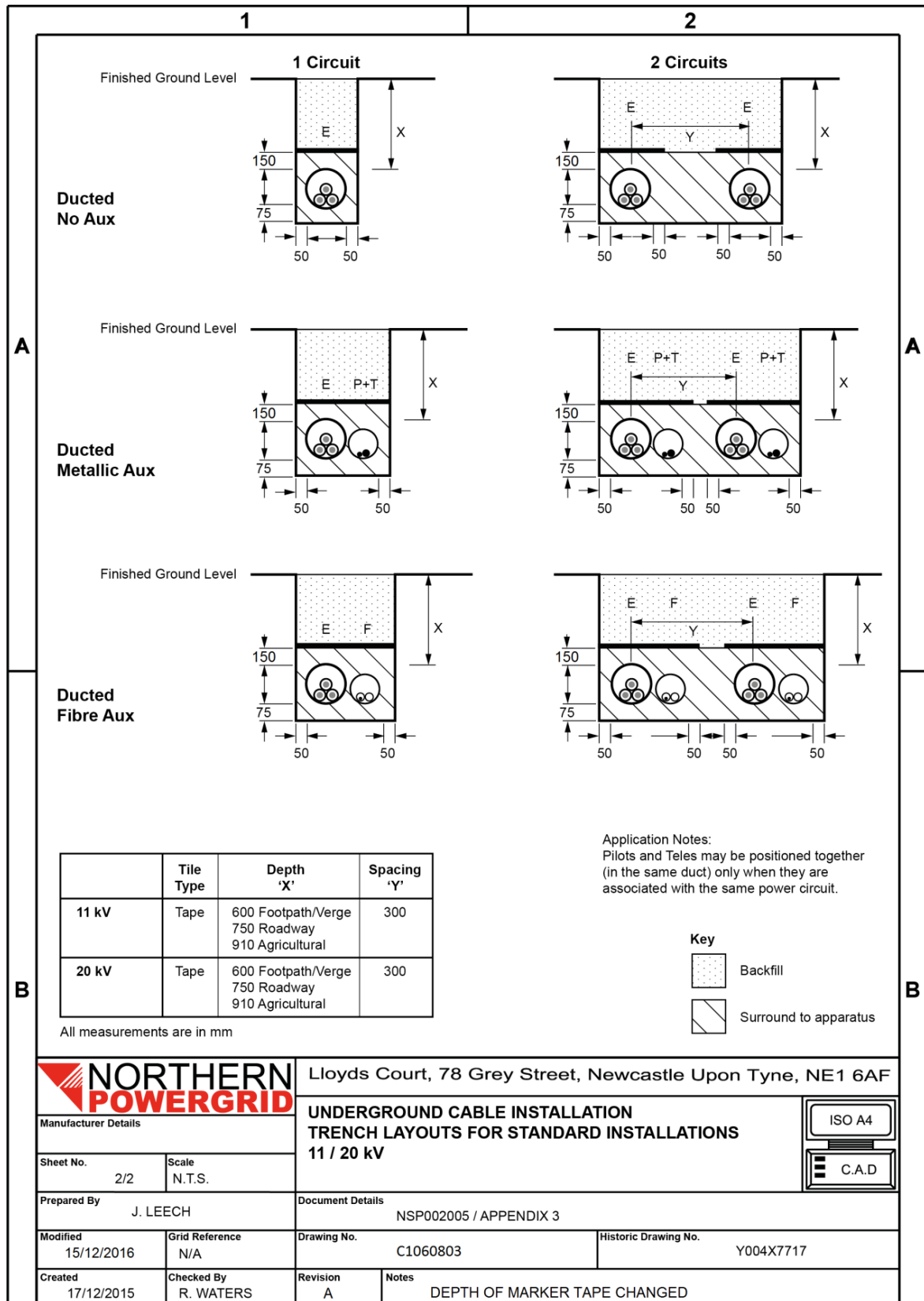
Document Reference:-	NSP/002/005	Document Type:-	Code of Practice
Version:-	2.0	Date of Issue:-	March 2024
		Page	8 of 15

Appendix 3 – 11 / 20 kV



Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

Document Reference:- NSP/002/005		Document Type:- Code of Practice	
Version:- 2.0	Date of Issue:- March 2024	Page 9	of 15





Lloyds Court, 78 Grey Street, Newcastle Upon Tyne, NE1 6AF

Manufacturer Details

Sheet No. 2/2 Scale N.T.S.

Prepared By J. LEECH

Modified 15/12/2016 Grid Reference N/A

Created 17/12/2015 Checked By R. WATERS

**UNDERGROUND CABLE INSTALLATION
TRENCH LAYOUTS FOR STANDARD INSTALLATIONS
11 / 20 kV**

Document Details NSP002005 / APPENDIX 3

Drawing No. C1060803 Historic Drawing No. Y004X7717

Revision A Notes DEPTH OF MARKER TAPE CHANGED

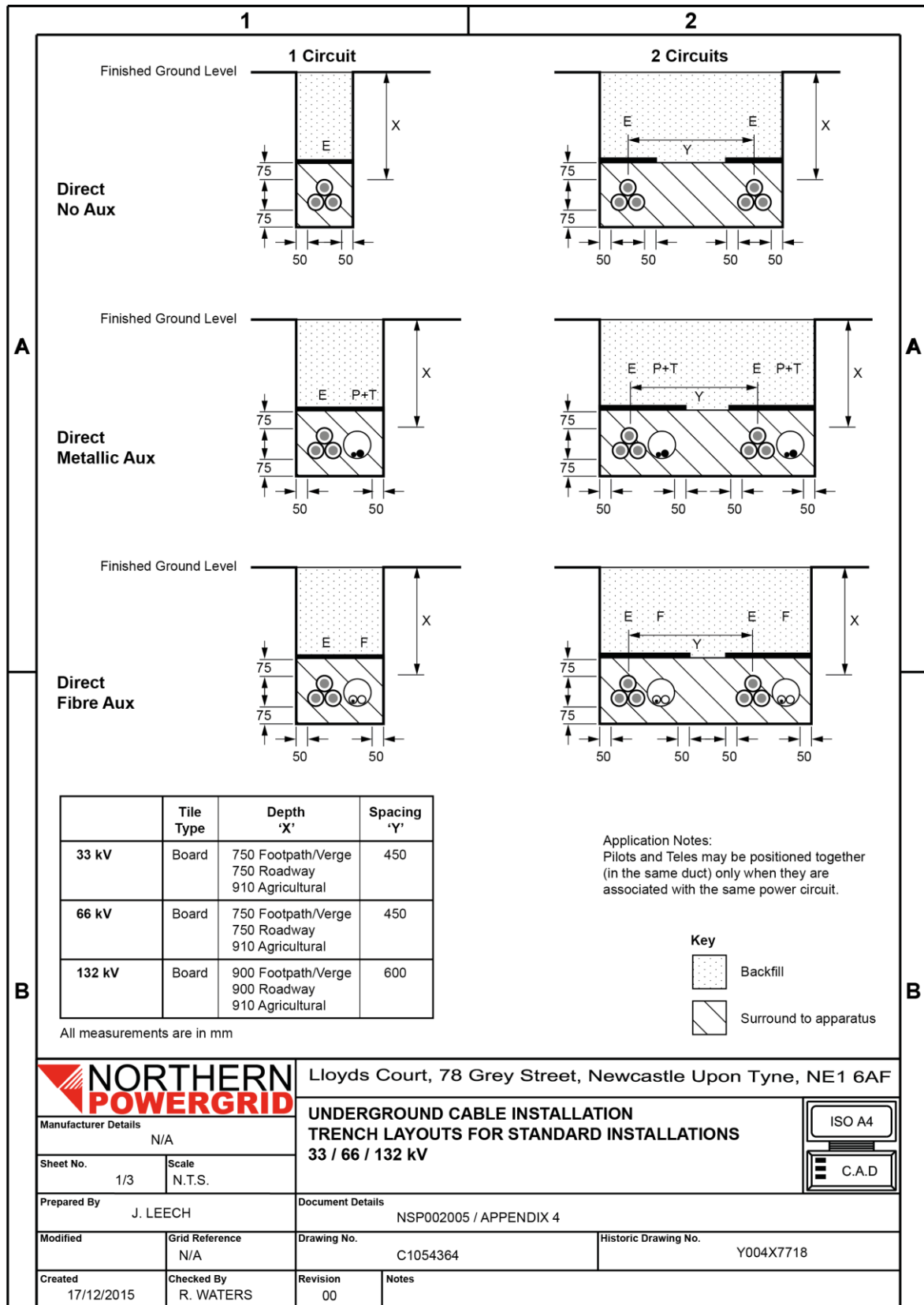
ISO A4

C.A.D

Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

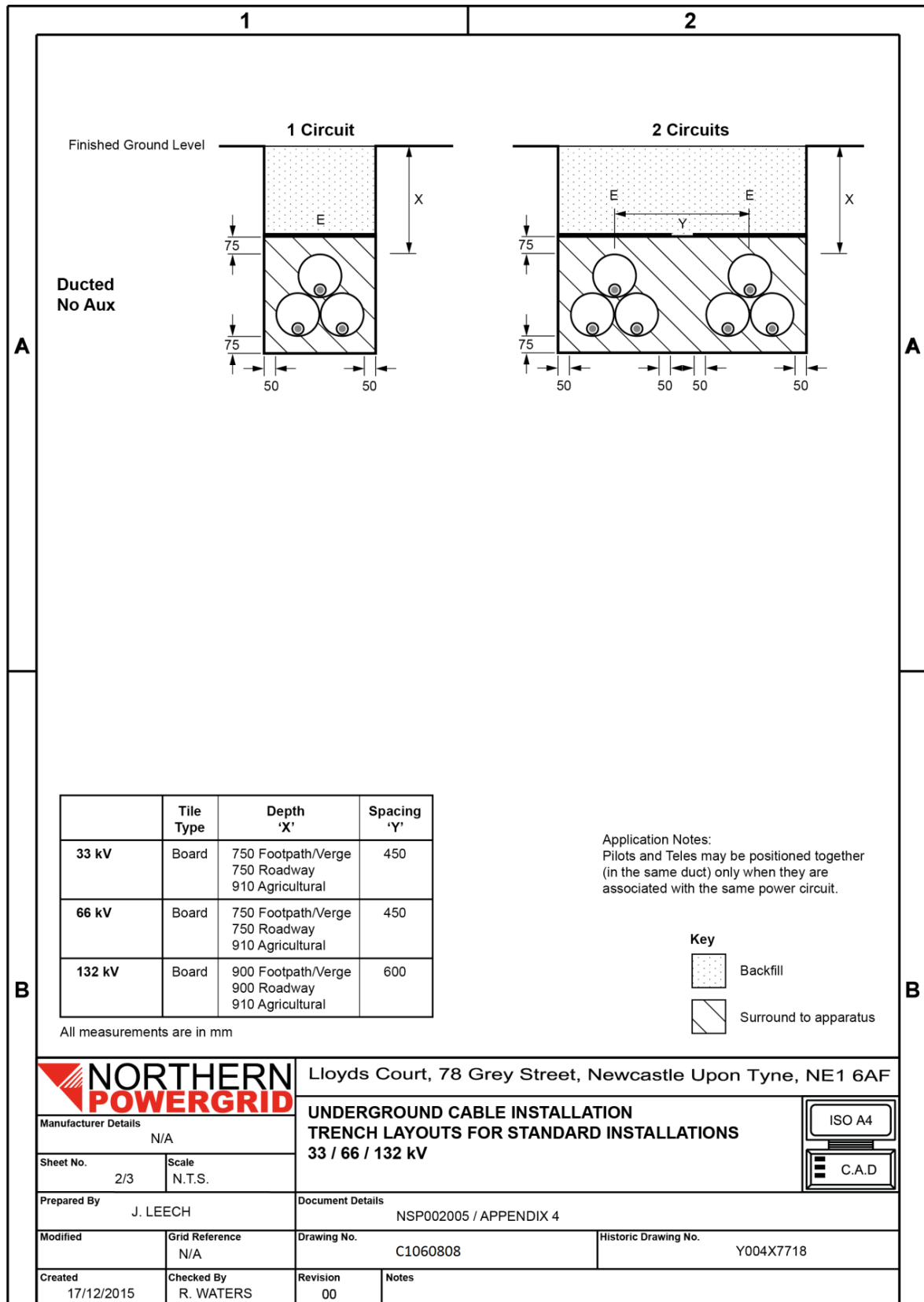
Document Reference:-	NSP/002/005	Document Type:-	Code of Practice
Version:-	2.0	Date of Issue:-	March 2024
		Page	10 of 15

Appendix 4 – 33 / 66 / 132 kV

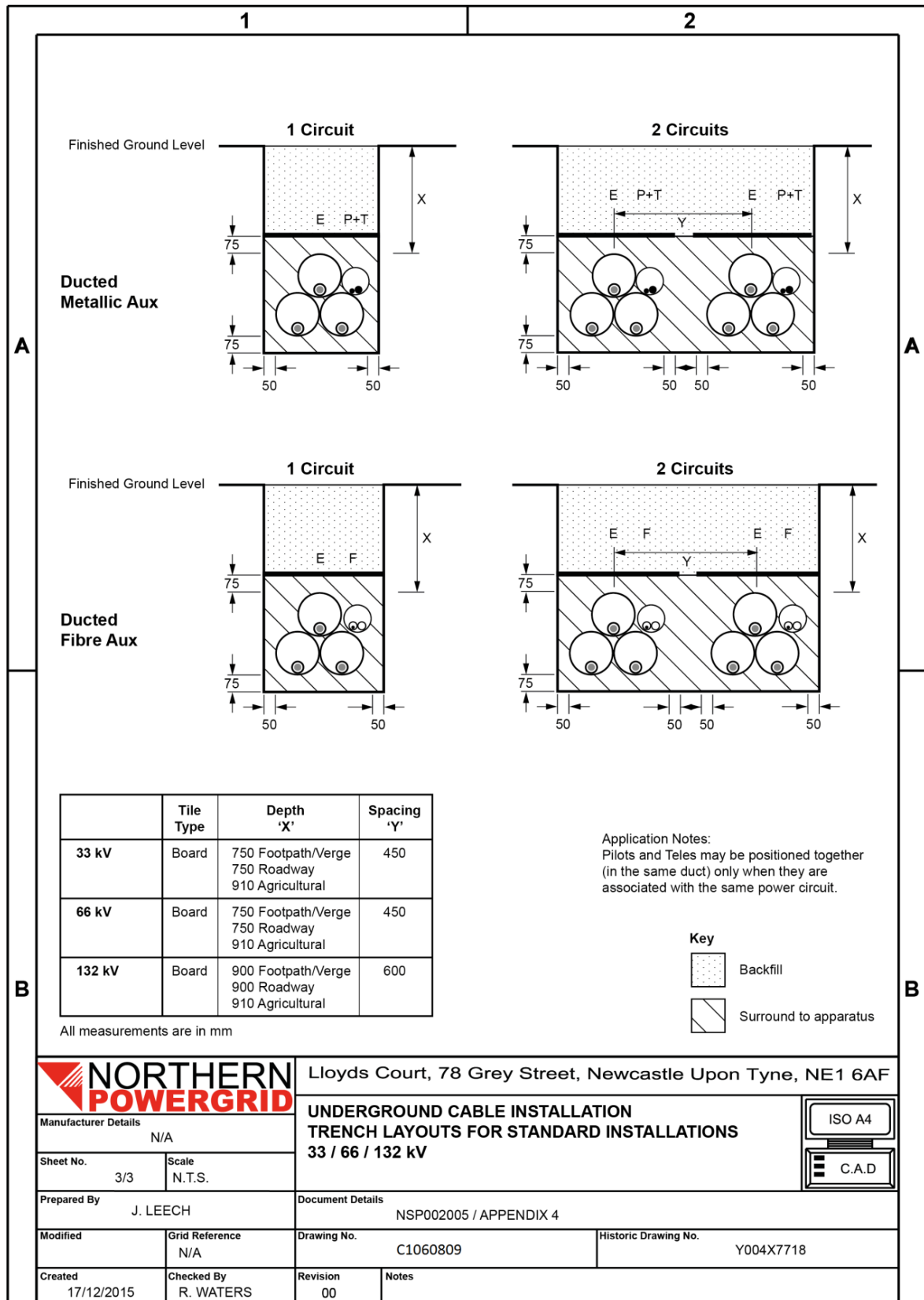


Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

Document Reference:- NSP/002/005		Document Type:-	Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	11	of 15



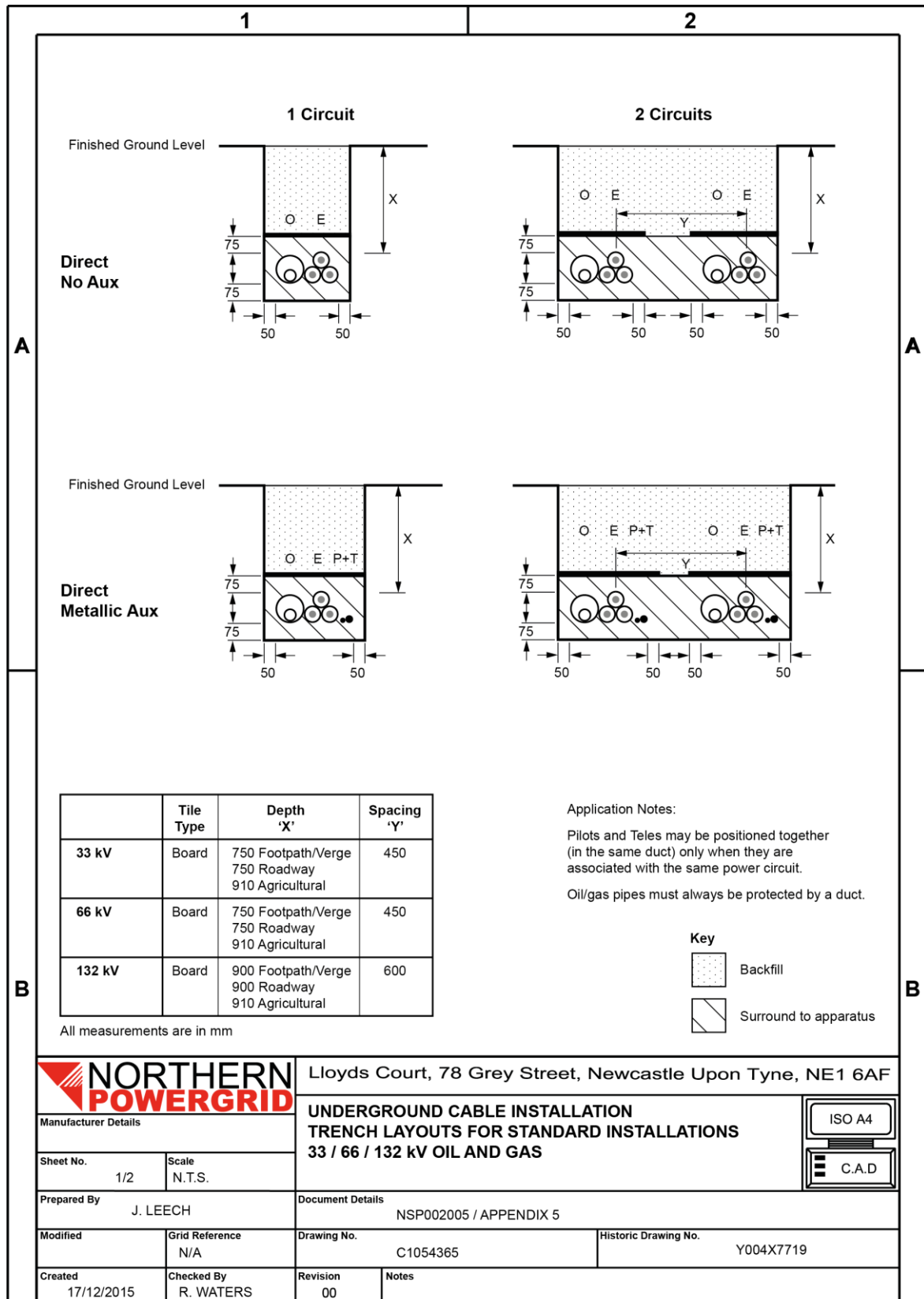
Document Reference:- NSP/002/005		Document Type:-	Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	12 of	15



Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

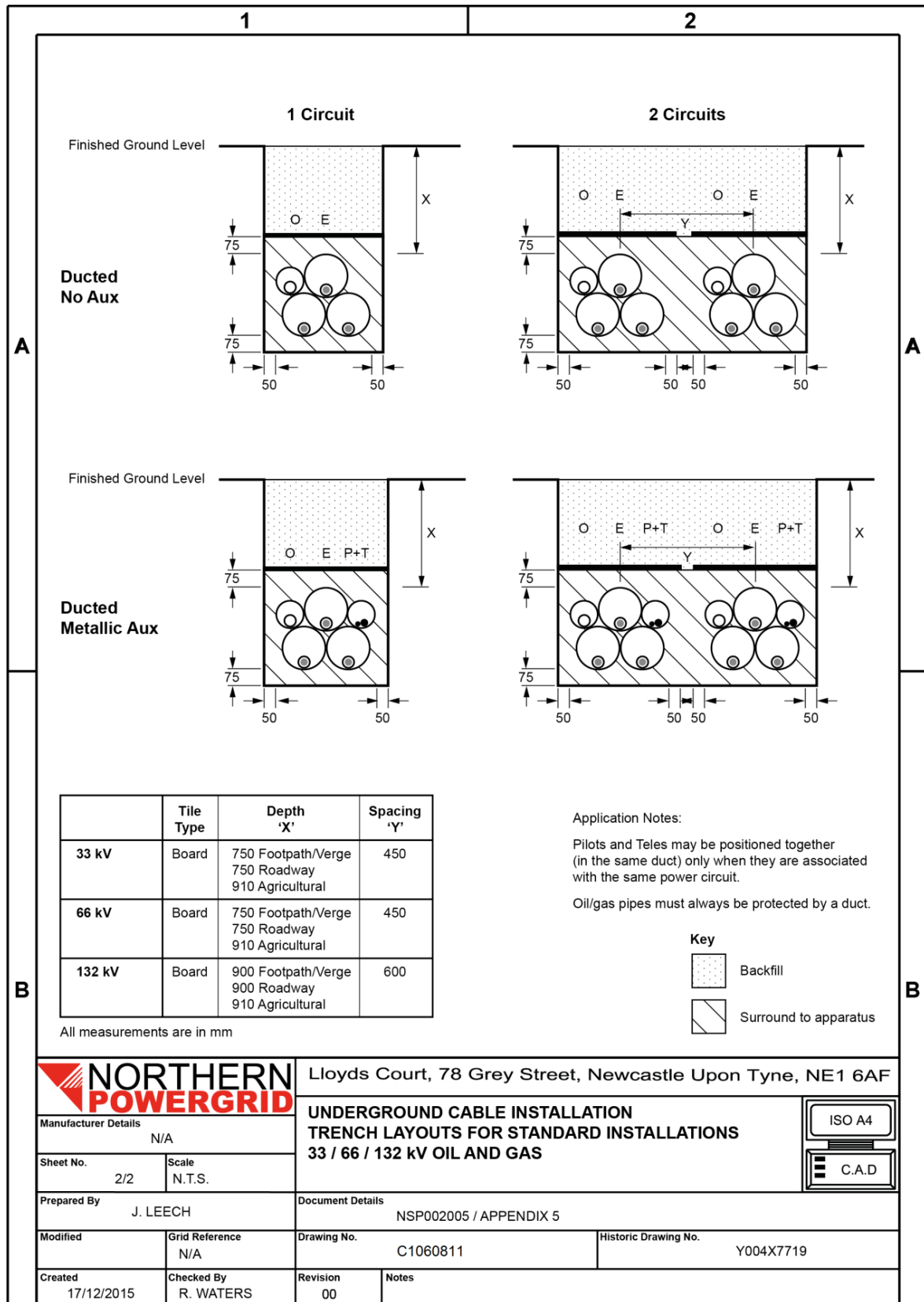
Document Reference:-	NSP/002/005	Document Type:-	Code of Practice
Version:-	2.0	Date of Issue:-	March 2024
		Page	13 of 15

Appendix 5 – 33 / 66 / 132 kV Oil & Gas



Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

Document Reference:- NSP/002/005		Document Type:-	Code of Practice			
Version:-	2.0	Date of Issue:-	March 2024	Page	14 of	15



Copyright of Northern Powergrid Holding Company. No part of this drawing to be reproduced without prior permission.

Document Reference:-	NSP/002/005	Document Type:-	Code of Practice
Version:-	2.0	Date of Issue:-	March 2024
		Page	15 of 15

Appendix 6 – Auxiliary

