



Norwich Western Link

Environmental Statement

Chapter 13: Geology & Soils

Appendix 13.3: Ground

Contamination Interpretive

Report – Addendum

Part 2 of 3

Author: Ferrovial Construction and Ramboll UK Ltd

Document Reference: 3.13.03d

Version Number: 00

Date: March 2024



FIGURES

FIGURE 1 SITE LOCATION

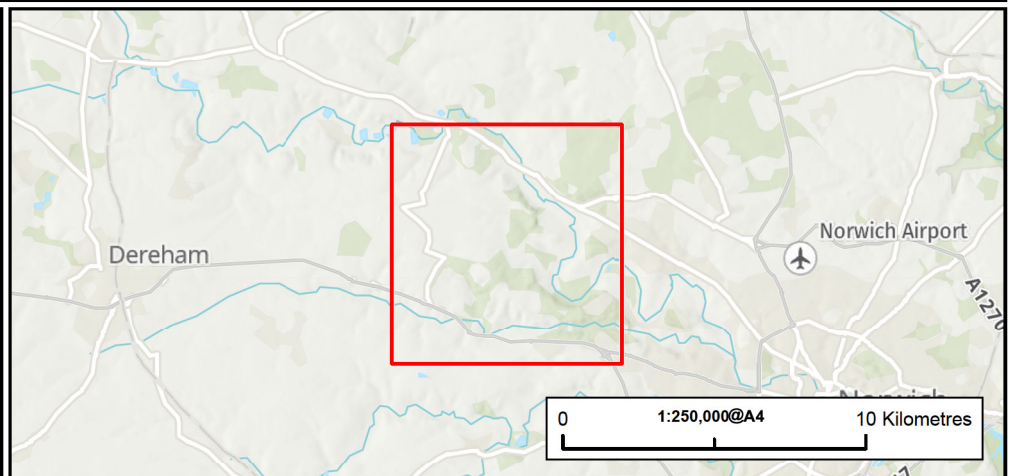


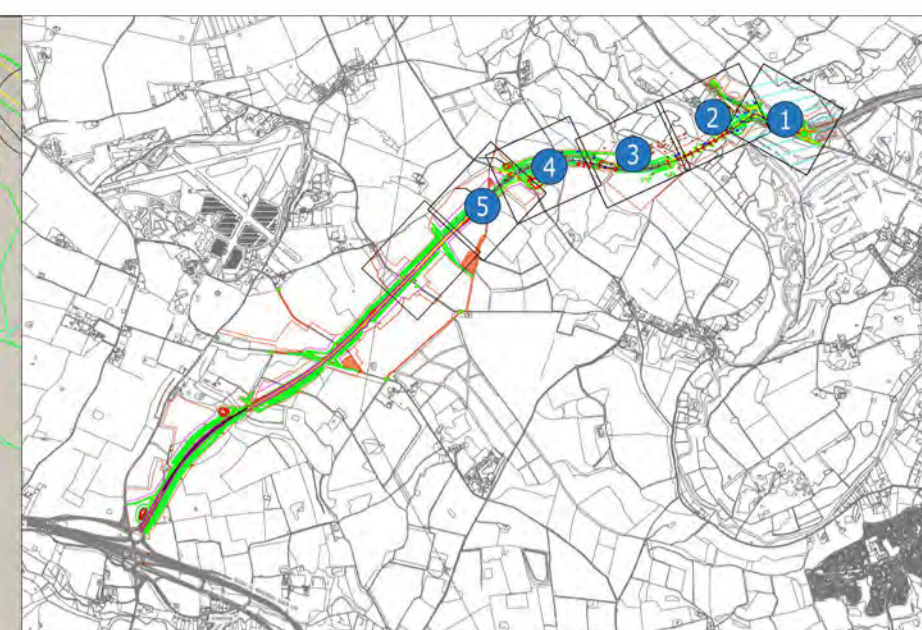
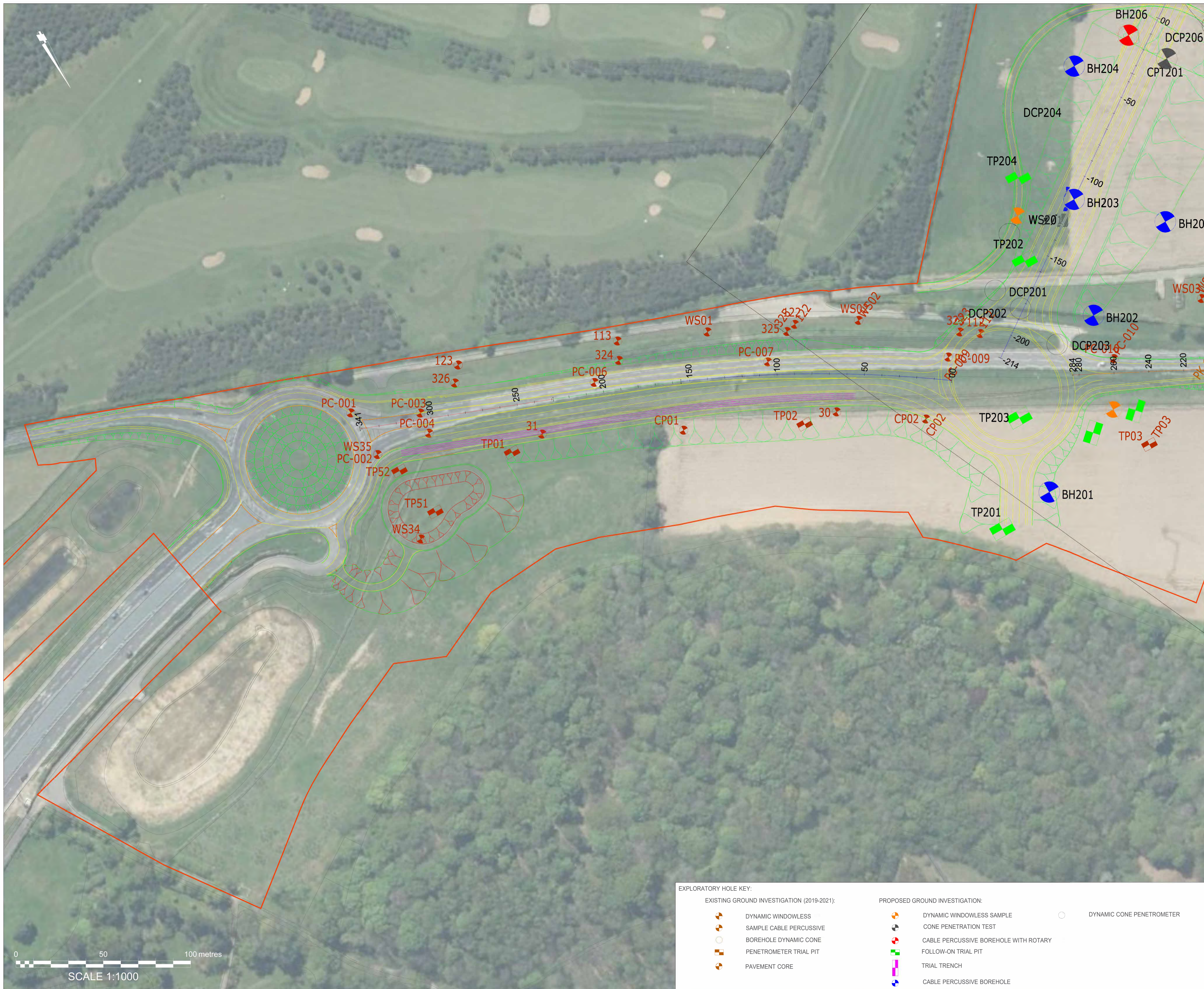
Figure Title Figure 1: Site Location	Project Name Norwich Western Link Road	Date May 2023	
		Scale As shown	
Project Number 1620010282	Client Ferrovia Construction (UK) Limited	Issue 2	Prepared By CT





FIGURES

FIGURE 2 EXPLORATORY HOLE LOCATION PLAN



Key:
 Site extents boundary

- Notes:**
- Do not scale from this drawing.
 - All dimensions are in metres unless otherwise stated.
 - This drawing is to be read with all other relevant drawings and reports. Any discrepancies, errors or omissions to be brought to the attention of the designer.
 - This drawing must not be used for construction. This drawing does not show hazards and residual risks.
 - Additional boreholes with rotary follow-on may be required at some of the wensum viaduct pier locations. Number to be confirmed during the ground investigation.
 - BH232 and BH248 may need to be relocated to gain suitable access.
 - BH249 and BH250 may need to be relocated to avoid trees.
 - TR203, TP233, TP234 may need to be relocated to avoid skylark nests.
 - Groundwater monitoring installations at the following locations: BH201, BH203, BH206, BH210, BH221, BH226, BH229, BH231, BH233, BH235, BH236, BH237, BH241, BH243, BH245, BH246, WS211, WS212, WS213, WS214, WS215 and WS216.
 - Provisionally allow for an additional 20 trial pits south of CH2400 in the cuttings along main line. Positions to be agreed.
 - TP235, 236, 237, 238, WS218 positions may need to be relocated depending on the position of the infiltration pond(s).
 - WS207 may need to be relocated to avoid trees and bat roosts.
 - The locations of BH206, 208, 209, 211, 212, 255, 256, and CPT201 are approximate until the new arrangement has been fixed.
 - Lightweight deflectometer tests to be carried out at the following locations: WS208, WS209, WS210 (1 No. at each WS location) TR201, TR202, TR203 (3 No. at each trench location), TP202, TP204, TP241 to TP250, TP211, TP212, TP213, TP231, TP232, TP233, TP234, TP251 and TP252 (1 no. at pit location).
 - Plate bearing tests at TR201, TR202, TR203 (3 no. at each tr location), TP241 to TP250, TP211, TP212, TP213, TP231, TP232, TP233, TP234, TP251, and TP252 (1 no. at TP location).
 - Sand Replacement Tests at each Plate Bearing test location.
 - Allow for an additional 2 no. trial pits with infiltration testing south of Green Bridge 4. Positions to be agreed.
 - Allow for an additional 2 no. trial pits with infiltration testing near to Green Bridge GB1. Positions to be agreed.
 - BH210 and BH211 are rotary open-holed from ground level.

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P03	SK	CM	AR	16/03/2022
ADDITIONAL EXPLORATORY HOLES AND IN SITU TESTING				
P02	SK	CM	AR	04/03/2022
REVISED POSITIONS				
P01	SK	CM	AR	25/02/2022

REVISION	DRAWN	CHECKED	APPROVED	DATE
CLIENT				

Norfolk County Council
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 Executive Director of
 Community and Environmental Services
 Norfolk County Council
 County Hall, Martineau Lane
 Norwich NR1 2SG

PROJECT **TENDERER** **RAMBOLL**

DRAWING TITLE
 NORWICH WESTERN LINK ROAD ALIGNMENT REFINEMENT
 PROPOSED EXPLORATORY HOLE LOCATION PLAN
 SHEET 1 OF 5

DRAWING STATUS PRELIMINARY

DRAWN	CHECKED	APPROVED	AUTHORISED
SK	CM	AR	-

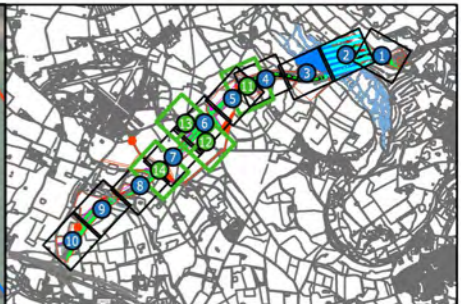
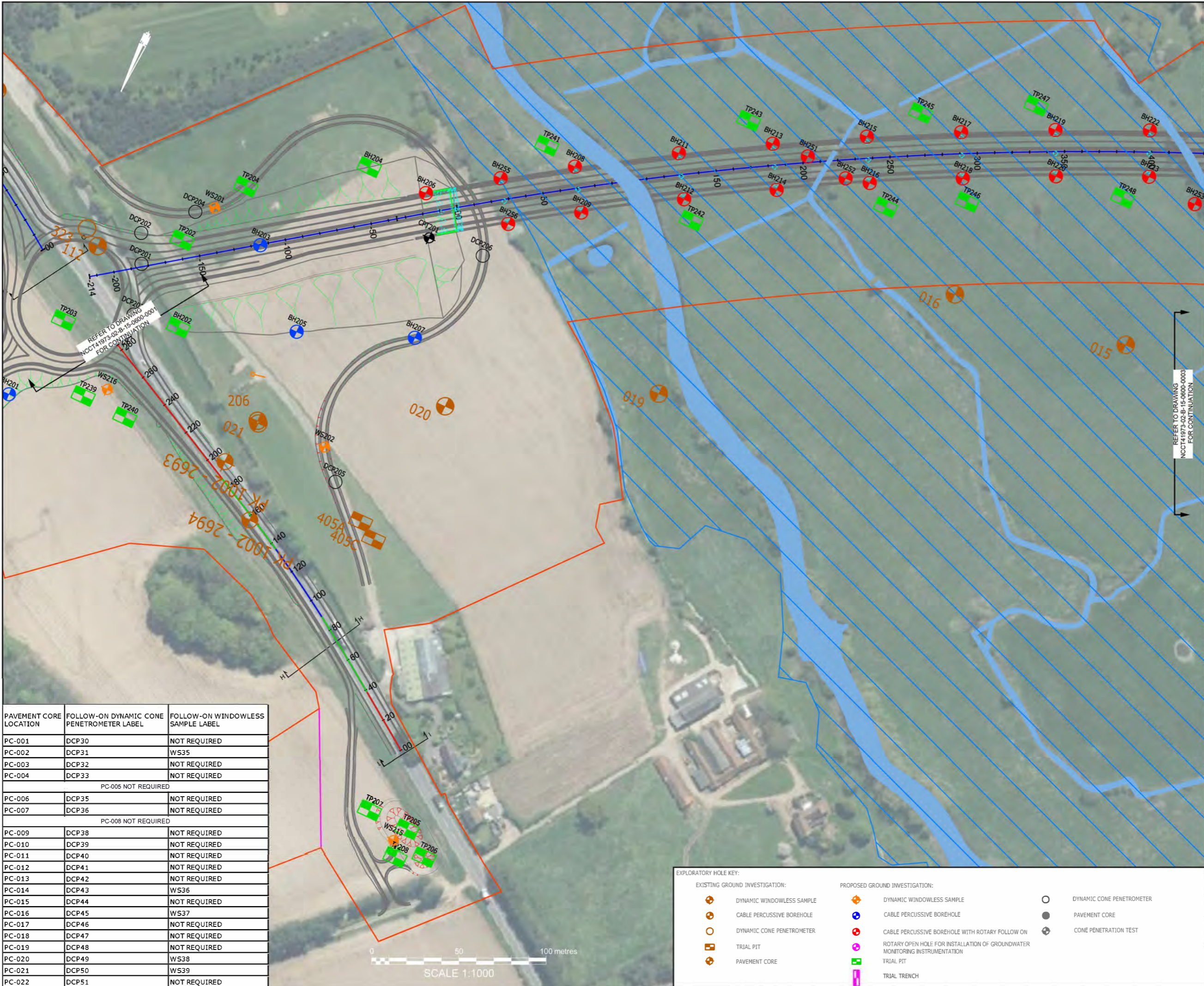
SCALE @ A1 SIZE	DATE	REVISION
1:1000	16/03/2022	P03

DRAWING NUMBER
 NCCT41793-RAM-VGT-FSC-DR-GI-0001

EXPLORATORY HOLE KEY:

	DYNAMIC WINDOWLESS SAMPLE CABLE PERCUSSIVE		DYNAMIC CONE PENETROMETER
	BOREHOLE DYNAMIC CONE PENETROMETER TRIAL PIT		CABLE PERCUSSIVE BOREHOLE WITH ROTARY
	PAVEMENT CORE		FOLLOW-ON TRIAL PIT
			TRIAL TRENCH
			CABLE PERCUSSIVE BOREHOLE





Key:

- Site extent boundary
- Exploratory holes (ancient trees and woodland) are currently in abeyance until access rights obtained

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- Dynamic Cone Penetrometer tests to be undertaken at the pavement core positions to a depth of 1.5 metres below ground level.
- Cross-hole geophysics to be carried out at each pier location.
- Additional boreholes with rotary follow-on may be required at some of the wensum viaduct pier locations. Number to be confirmed during the ground investigation.
- Following Dynamic Cone Penetrometer testing Windowless Sampling to be undertaken to a depth of 2.0 metres below ground level at pavement core locations: PC-002; PC-014; PC-016; PC-020 and PC-021.

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P06	DH	CM	AR	11/05/2022
VIADUCT LOCATIONS AMENDED				
P05	DH	CM	AR	21/07/2021
PRELIMINARY				
P04	DH	CM	AR	09/07/2021
PRELIMINARY				
REVISION	DRAWN	CHECKED	APPROVED	DATE
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PROJECT: TENDERER:

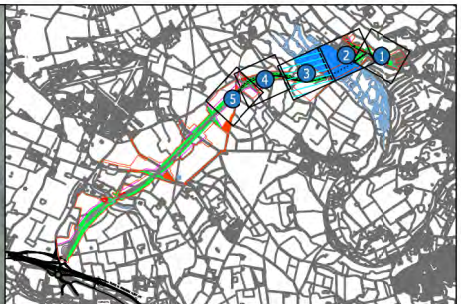
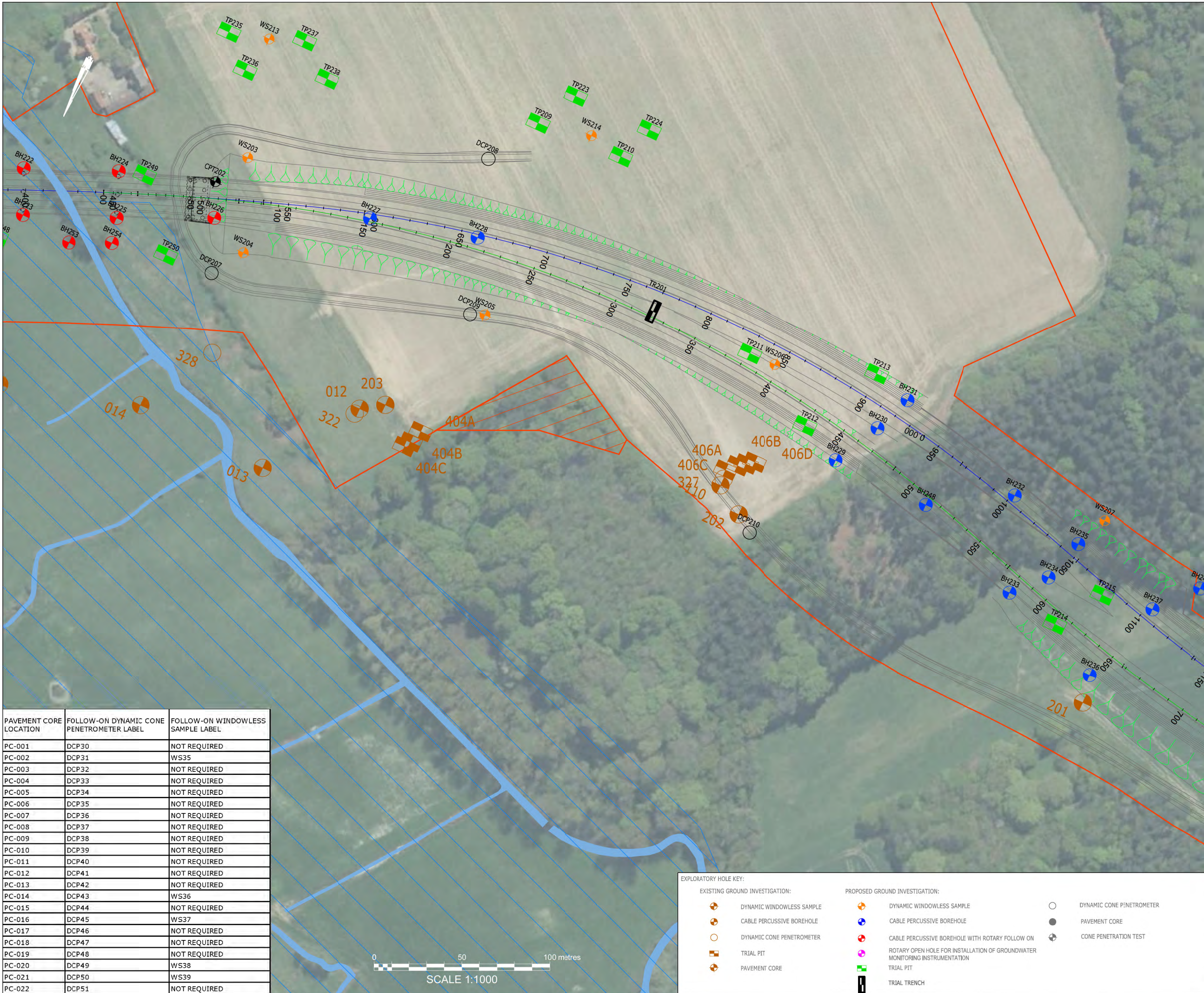
DRAWING TITLE
PROPOSED EXPLORATORY HOLE LOCATION PLAN
FOR STAGE 1 SUPPLEMENTARY GROUND INVESTIGATION
SHEET 2 OF 10

DRAWING STATUS			
P05 - PRELIMINARY			
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DH	CM	AR	-
SCALE @ A1 SIZE		DATE	REVISION
1:1000		06/07/2021	P06
DRAWING NUMBER			
NCCT41973-02-B-15-0600-0002			

PAVEMENT CORE LOCATION	FOLLOW-ON DYNAMIC CONE PENETROMETER LABEL	FOLLOW-ON WINDOWLESS SAMPLE LABEL
PC-001	DCP30	NOT REQUIRED
PC-002	DCP31	WS35
PC-003	DCP32	NOT REQUIRED
PC-004	DCP33	NOT REQUIRED
PC-005 NOT REQUIRED		
PC-006	DCP35	NOT REQUIRED
PC-007	DCP36	NOT REQUIRED
PC-008 NOT REQUIRED		
PC-009	DCP38	NOT REQUIRED
PC-010	DCP39	NOT REQUIRED
PC-011	DCP40	NOT REQUIRED
PC-012	DCP41	NOT REQUIRED
PC-013	DCP42	NOT REQUIRED
PC-014	DCP43	WS36
PC-015	DCP44	NOT REQUIRED
PC-016	DCP45	WS37
PC-017	DCP46	NOT REQUIRED
PC-018	DCP47	NOT REQUIRED
PC-019	DCP48	NOT REQUIRED
PC-020	DCP49	WS38
PC-021	DCP50	WS39
PC-022	DCP51	NOT REQUIRED

EXPLORATORY HOLE KEY:

	DYNAMIC WINDOWLESS SAMPLE		DYNAMIC WINDOWLESS SAMPLE		DYNAMIC CONE PENETROMETER
	CABLE PERCUSSIVE BOREHOLE		CABLE PERCUSSIVE BOREHOLE		PAVEMENT CORE
	DYNAMIC CONE PENETROMETER		CABLE PERCUSSIVE BOREHOLE WITH ROTARY FOLLOW-ON		CONE PENETRATION TEST
	TRIAL PIT		ROTARY OPEN HOLE FOR INSTALLATION OF GROUNDWATER MONITORING INSTRUMENTATION		TRIAL PIT
	PAVEMENT CORE		TRIAL TRENCH		



Key:
— Site extents boundary

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 10. Provisionally allow for an additional 20 trial pits south of CH2400 in the cuttings along main line. Positions to be agreed.
 11. TP235, 236, 237, 238, WS218 positions may need to be relocated depending on the position of the infiltration pond(s).
 12. WS207 may need to be relocated to avoid trees and bat roosts.
 13. The locations of BH206, 208, 209, 211, 212, 255, 256, and CPT201 are approximate until the new arrangement has been fixed.
 14. Lightweight deflectometer tests to be carried out at the following locations: WS208, WS209, WS210 (1 No. at each WS location) TR201, TR202, TR203 (3 No. at each trench location) TP202, TP211, TP231 to TP234.

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VIADUCT LOCATIONS AMENDED				
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P01	SK	CM	AR	25/02/2022

PAVEMENT CORE LOCATION	FOLLOW-ON DYNAMIC CONE PENETROMETER LABEL	FOLLOW-ON WINDOWLESS SAMPLE LABEL
PC-001	DCP30	NOT REQUIRED
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PC-003	DCP32	NOT REQUIRED
PC-004	DCP33	NOT REQUIRED
PC-005	DCP34	NOT REQUIRED
PC-006	DCP35	NOT REQUIRED
PC-007	DCP36	NOT REQUIRED
PC-008	DCP37	NOT REQUIRED
PC-009	DCP38	NOT REQUIRED
PC-010	DCP39	NOT REQUIRED
PC-011	DCP40	NOT REQUIRED
PC-012	DCP41	NOT REQUIRED
PC-013	DCP42	NOT REQUIRED
PC-014	DCP43	WS36
PC-015	DCP44	NOT REQUIRED
PC-016	DCP45	WS37
PC-017	DCP46	NOT REQUIRED
PC-018	DCP47	NOT REQUIRED
PC-019	DCP48	NOT REQUIRED
PC-020	DCP49	WS38
PC-021	DCP50	WS39
PC-022	DCP51	NOT REQUIRED

EXPLORATORY HOLE KEY:

	DYNAMIC WINDOWLESS SAMPLE		CABLE PERCUSSIVE BOREHOLE		DYNAMIC CONE PENETROMETER
	CABLE PERCUSSIVE BOREHOLE		CABLE PERCUSSIVE BOREHOLE		PAVEMENT CORE
	DYNAMIC CONE PENETROMETER		CABLE PERCUSSIVE BOREHOLE WITH ROTARY FOLLOW ON		CONE PENETRATION TEST
	TRIAL PIT		ROTARY OPEN HOLE FOR INSTALLATION OF GROUNDWATER MONITORING INSTRUMENTATION		TRIAL PIT
	PAVEMENT CORE		TRIAL TRENCH		

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SCALE @ A1 SIZE
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DATE
 04/03/2022

REVISION
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DRAWING NUMBER
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