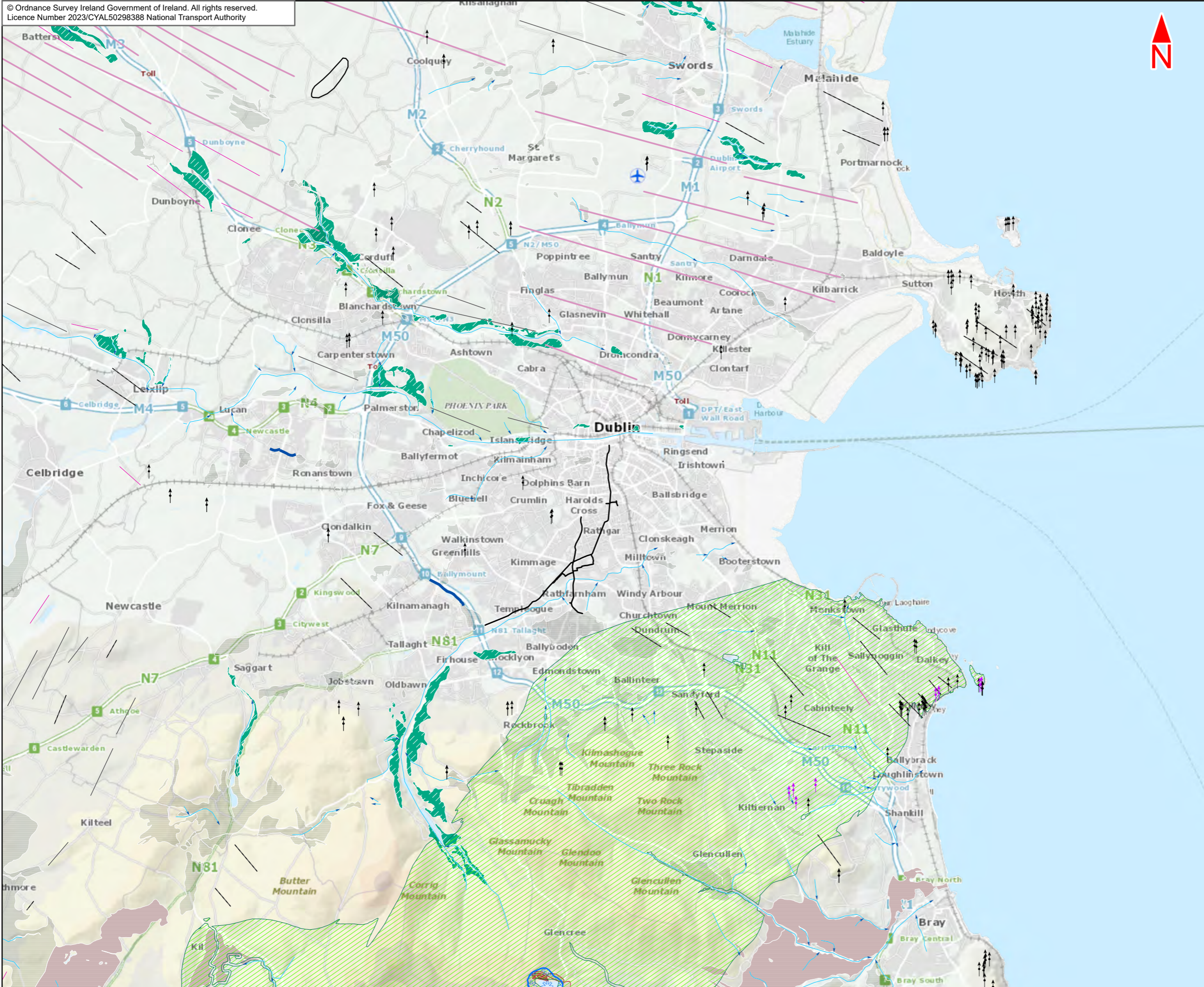




Chapter 14
Land, Soils, Geology &
Hydrogeology



14.1
Regional Geomorphology



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - Landform**
 - ↑ Striae
 - ↑ Roche Moutonnee
 - LANDFORM**
 - Crag-and-Tail
 - Drumlins
 - Mega scale glacial lineation
 - Streamlined Bedrock
 - LANDFORM**
 - Esker ridge
 - Meltwater channel
 - Description**
 - Composite Thrust Block Moraine
 - Landform**
 - Corries
 - Landform**
 - Indicator erratic source area
 - Deglacial Landforms**
 - Delta
 - Glaciofluvial Terrace
 - Hummocky Sand and Gravel
 - Moraine Ridge

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing may not be reproduced, copied or otherwise used in whole or in part or for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

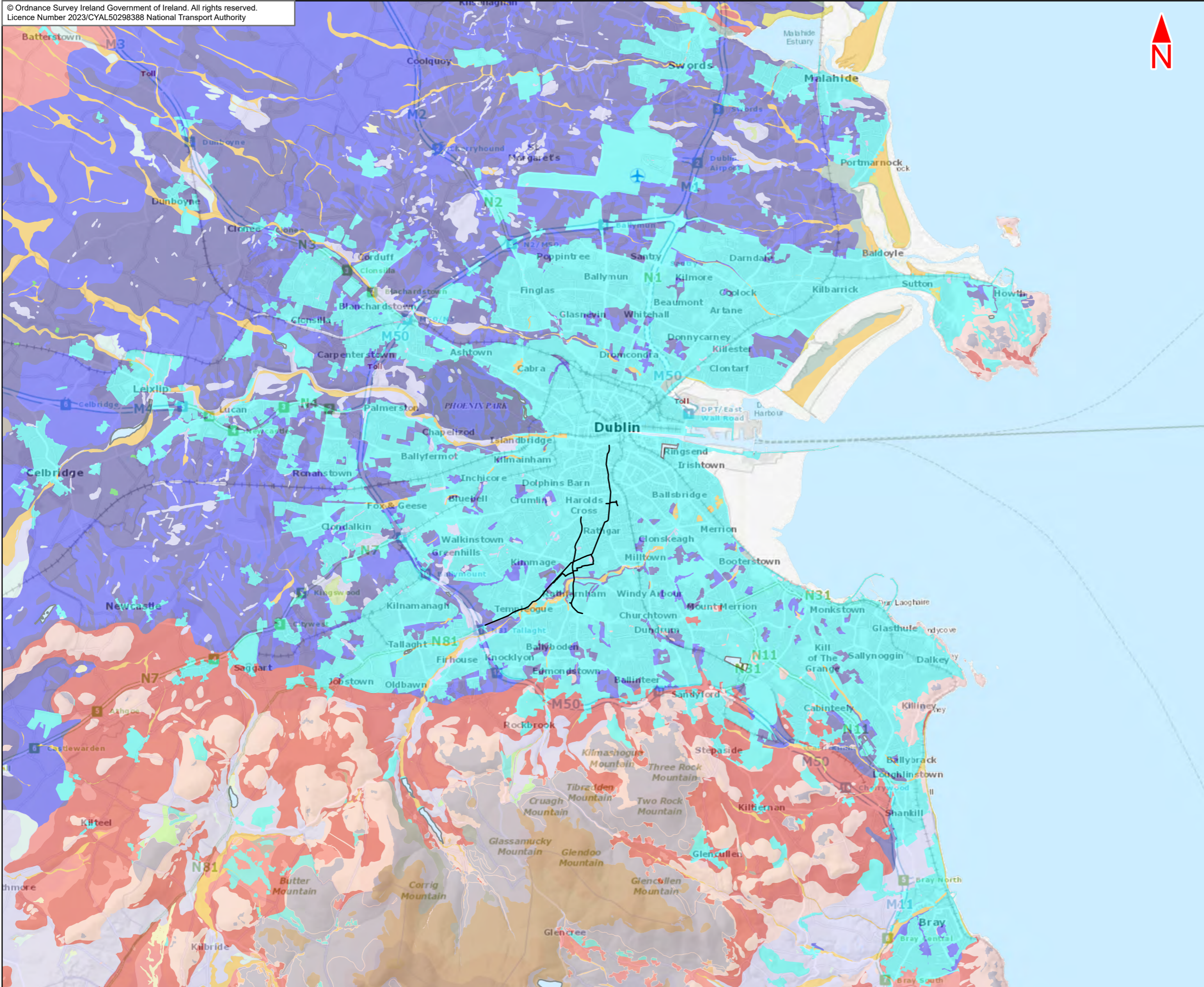
Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

Consultant
JACOBS
ARUP SYSTRA

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.1 Regional Geomorphology				
Date 16/02/2023	Scale @ A3 1:125 000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0001	Sheet Number 1 of 1	Status A	Rev M01	

14.2
Regional Soils





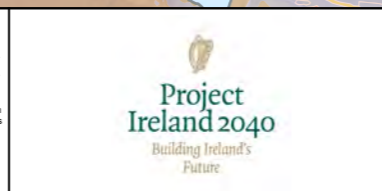
Legend :

Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme	BminPD - Surface water Gleys / Ground water Gleys Basic
Teagasc Soils	BminPDPT - Peaty Gleys Basic Parent Materials Basic
Ae0UND - Aeolian Undifferentiated	BminSP - Surface water Gleys / Ground water Gleys Shallow
AlluvMIN - Mineral alluvium	BminSPPT - Peaty Gleys Shallow
AminDW - Acid Brown Earths / Brown Podzolics	BminSRPT - Lithosols Peats
AminPD - Surface water Gleys / Ground water Gleys Acidic	BminSW - Renzinas / Lithosols
AminPDPT - Peaty Gleys Acidic	Cut - Raised Bog cutaway/cutover
AminSP - Surface water Gleys / Ground water Gleys Shallow	FenPT - Fen peat
AminSRPT - Podzols Peaty	Lac
AminSW - Lithosols / Regosols	Made
BktPT - Blanket peat	MarSands
BminDW - Grey Brown Podzolics / Brown Earths Basic	MarSed
	Scree
	Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

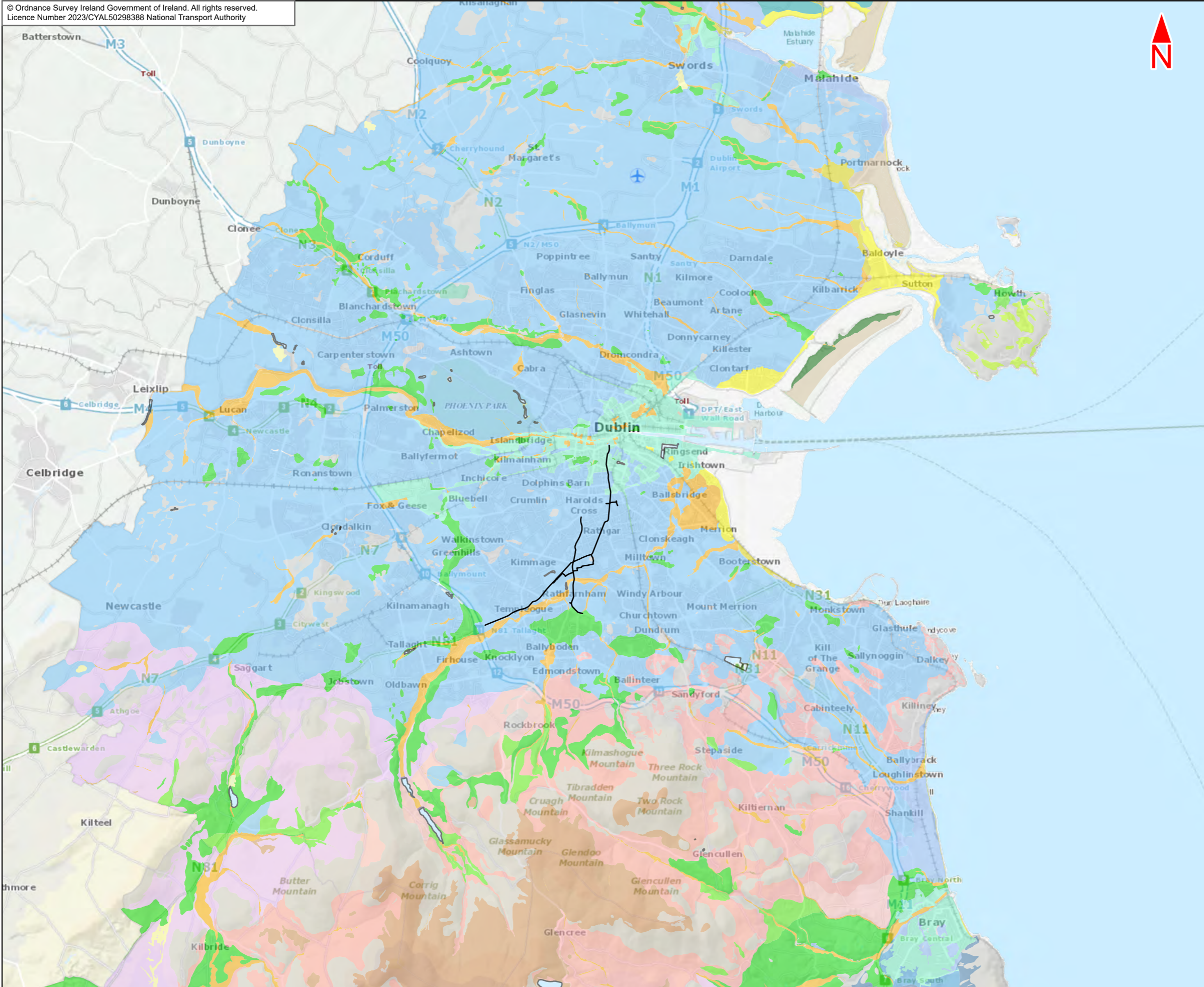
Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

Consultant
JACOBS
ARUP SYSTRA

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.2 Regional Soils				
Date 16/02/2023	Scale @ A3 1:125 000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0002	Sheet Number 1 of 1	Status A	Rev M01	

14.3
Regional Subsoils





- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - Quaternary Sediments - 1:50,000
 - A, Alluvium
 - Ag, Alluvium (gravelly)
 - As, Alluvium (sandy)
 - Asi, Alluvium (silty)
 - BktPt, Blanket Peat
 - Cut, Cut over raised peat
 - GCh, Gravels derived from chert
 - GLPSsS, Gravels derived from Lower Palaeozoic sandstones and shales
 - GLs, Gravels derived from Limestones
 - Gmp, Gravels derived from Metamorphic rocks
 - GGr, Gravels derived from granite
 - Rck, Bedrock outcrop or subcrop
 - Scree, Scree
 - L, Lacustrine sediments
 - Lsi, Lacustrine silts
 - Mbs, Marine beach sands
 - Mesc, Estuarine silts and clays
 - TdIMr, Tidal Marsh
 - IrSTCSpS, Irish Sea Till derived from Cambrian sandstones and shales
 - IrSTLPSsS, Irish Sea Till derived from Lower Palaeozoic sandstones and shales
 - IrSTLs, Irish Sea Till derived from Limestones
 - TCSsS, Till derived from Cambrian sandstones and shales
 - TGr, Till derived from granites
 - TLPsS, Till derived from Lower Palaeozoic sandstones and shales
 - TLs, Till derived from shales
 - Tmp, Till derived from Metamorphic rocks
 - TQz, Till derived from quartzites
 - Ws, Windblown sands
 - Wsd, Windblown sands and dunes
 - Dam
 - Embankment
 - Landfill
 - Urban
 - Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.

d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

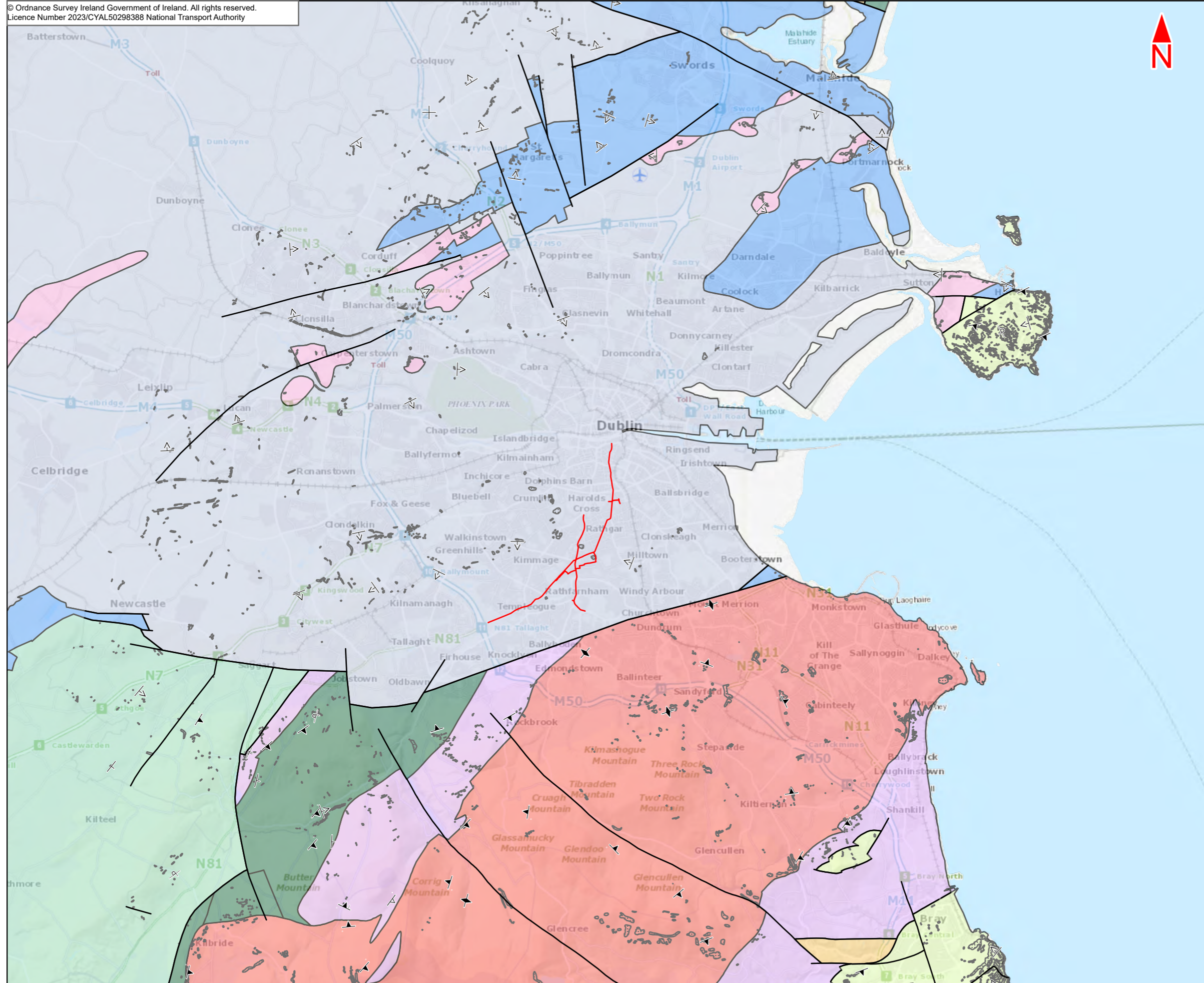
Date: 16/02/2023 | Scale @ A3: 1:125 000
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.3 Regional Subsoils			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0003	Sheet Number: 1 of 1	Status: A	Rev: M01

14.4
Regional Bedrock





Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- GSI Bedrock Geological Faults - 1:500,000

GSI Bedrock Structural Symbols - 1:100,000

- First foliation parallel to bedding
- Horizontal Bedding
- Strike and dip of bedding, right way up
- Strike and dip of bedding, way up unknown
- Strike and dip of first foliation
- Strike and dip of overturned bedding
- Strike and dip of second foliation
- Strike of vertical first foliation

GSI Bedrock Outcrop - 1:100,000

- GSI Bedrock Outcrop - 1:100,000

GSI Bedrock Geology - 1:500,000

- Visean basinal limestone "Calp"
- Waulsortian mudbank
- Courcean limestone
- Up Dev-Lr Carb ORS
- Caledonian granite
- Silurian sandstone, g'wacke, shale
- Mid-Up Ordovician basic volcanics
- Lr-Mid Ordovician slate
- Lr-Mid Ordovician acid volcanics
- Lr-Mid Ordovician basic volcanics
- Cambrian greywacke, sandst, qtzite

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.

d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

Date: 16/02/2023
Scale @ A3: 1:125 000

Project Code: BCIDE
Originator Code: JAC

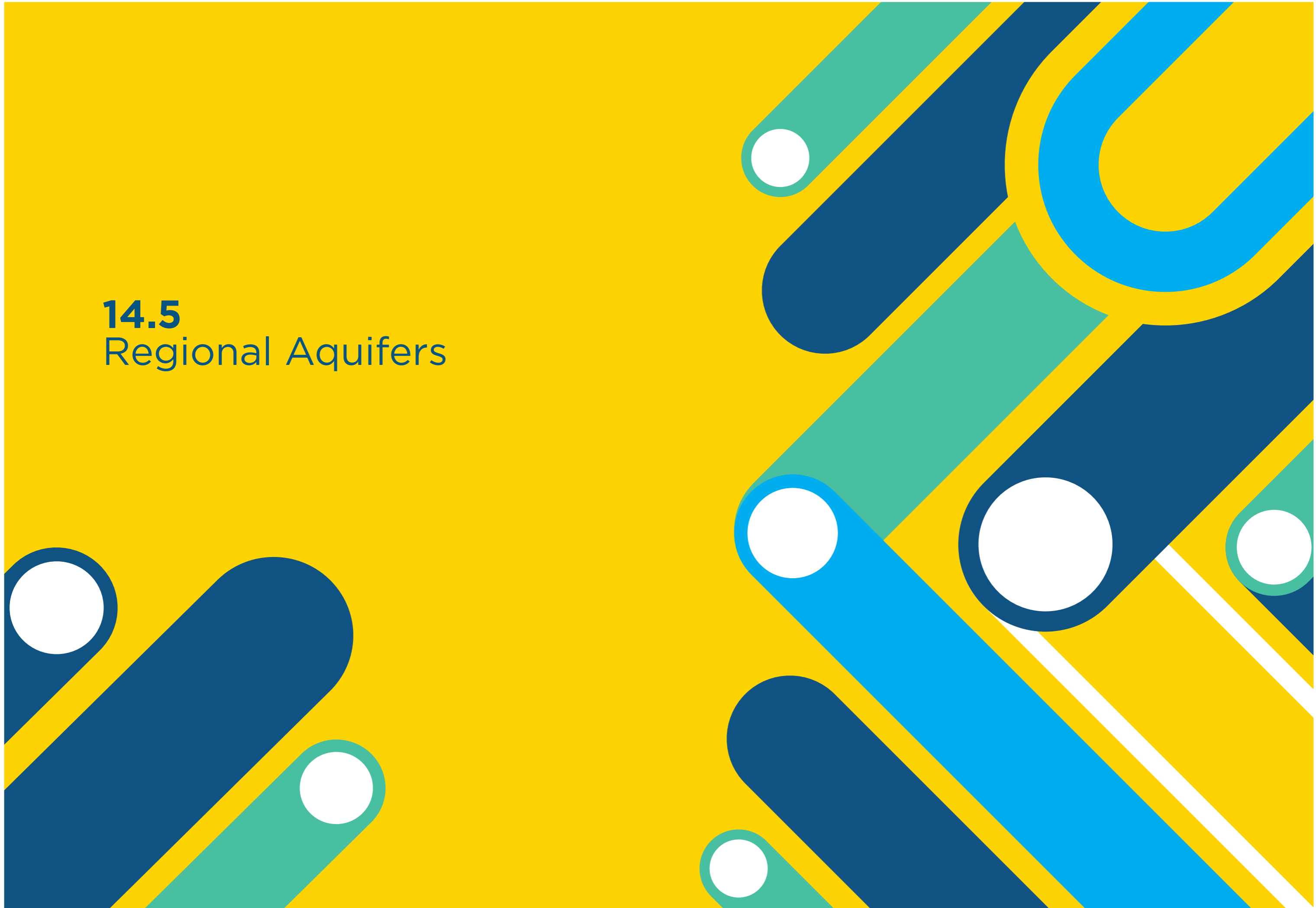
Consultant
JACOBS ARUP SYSTRA

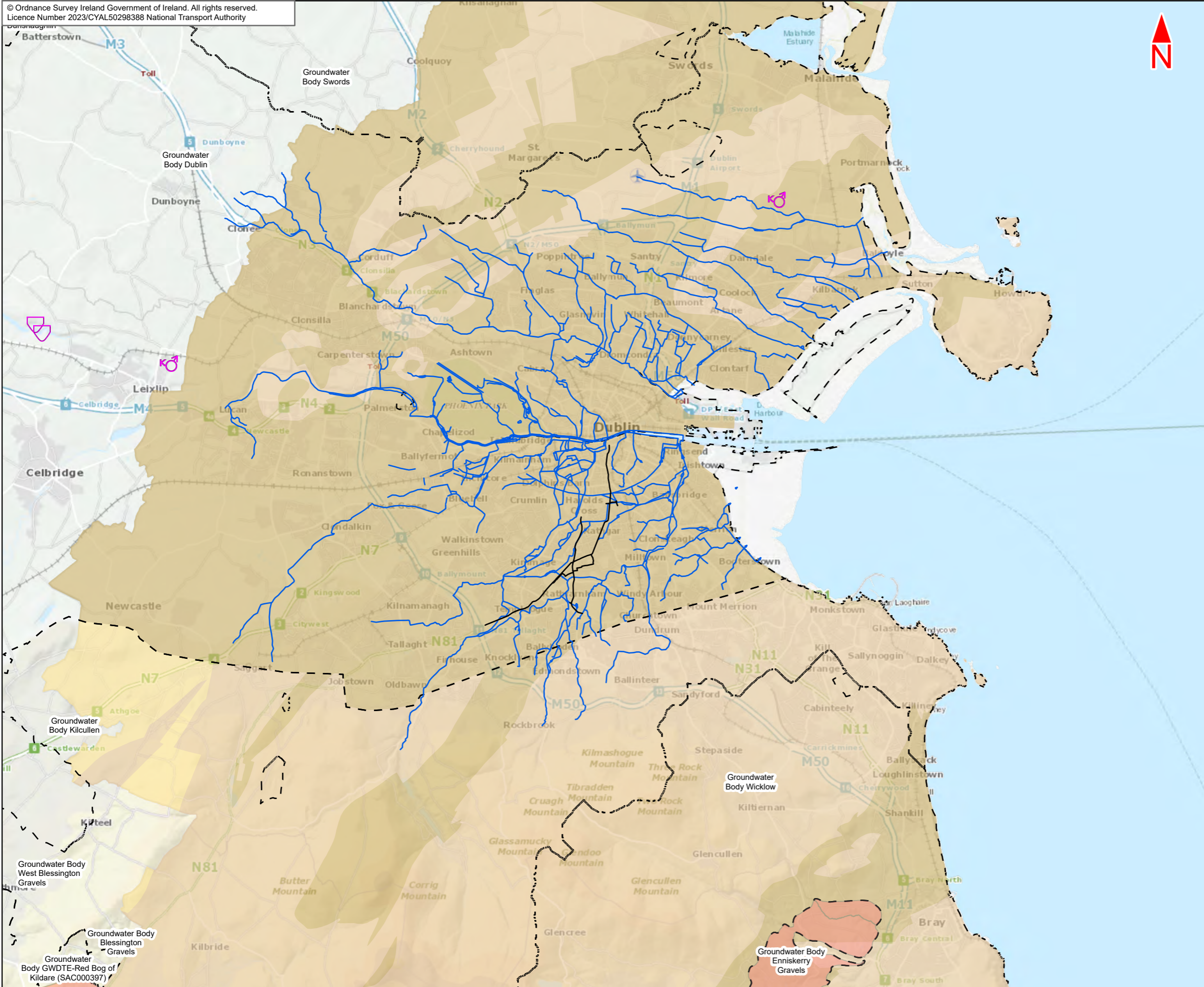
Drawn: FG
Checked: PW
Approved: DK

QMS Code

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.4 Regional Bedrock				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0004	Sheet Number 1 of 1	Status A	Rev M01	

14.5
Regional Aquifers





- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - Rivers Of Dublin
 - GSI Sand And Gravel Aquifers
 - - - Groundwater Bodies - Water Framework Directive
 - GSI Karst**
 - ☐ CAVE
 - ☐ SPRING
 - GSI Bedrock Aquifer**
 - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)
 - Locally Important Aquifer - Bedrock which is Generally Moderately Productive (Lm)
 - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones (PI)
 - Poor Aquifer - Bedrock which is Generally Unproductive (Pu)

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
 a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
 b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
 c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Malin Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
 d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.
 e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

Project Ireland 2040
 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
 Udarás Náisiúnta Iompair
 National Transport Authority

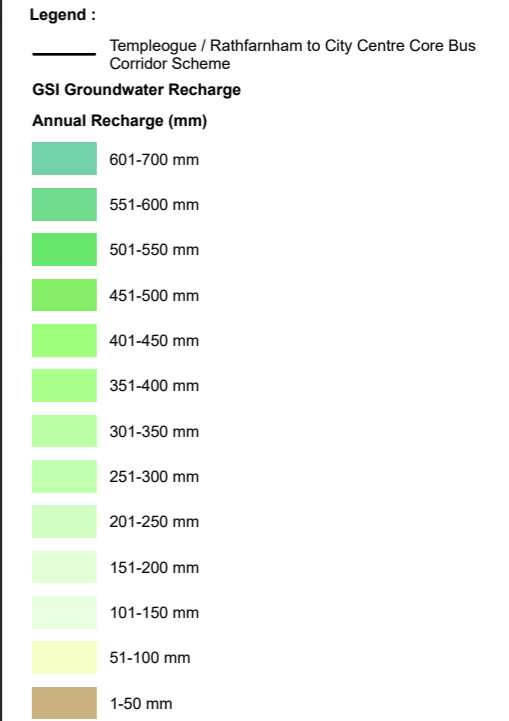
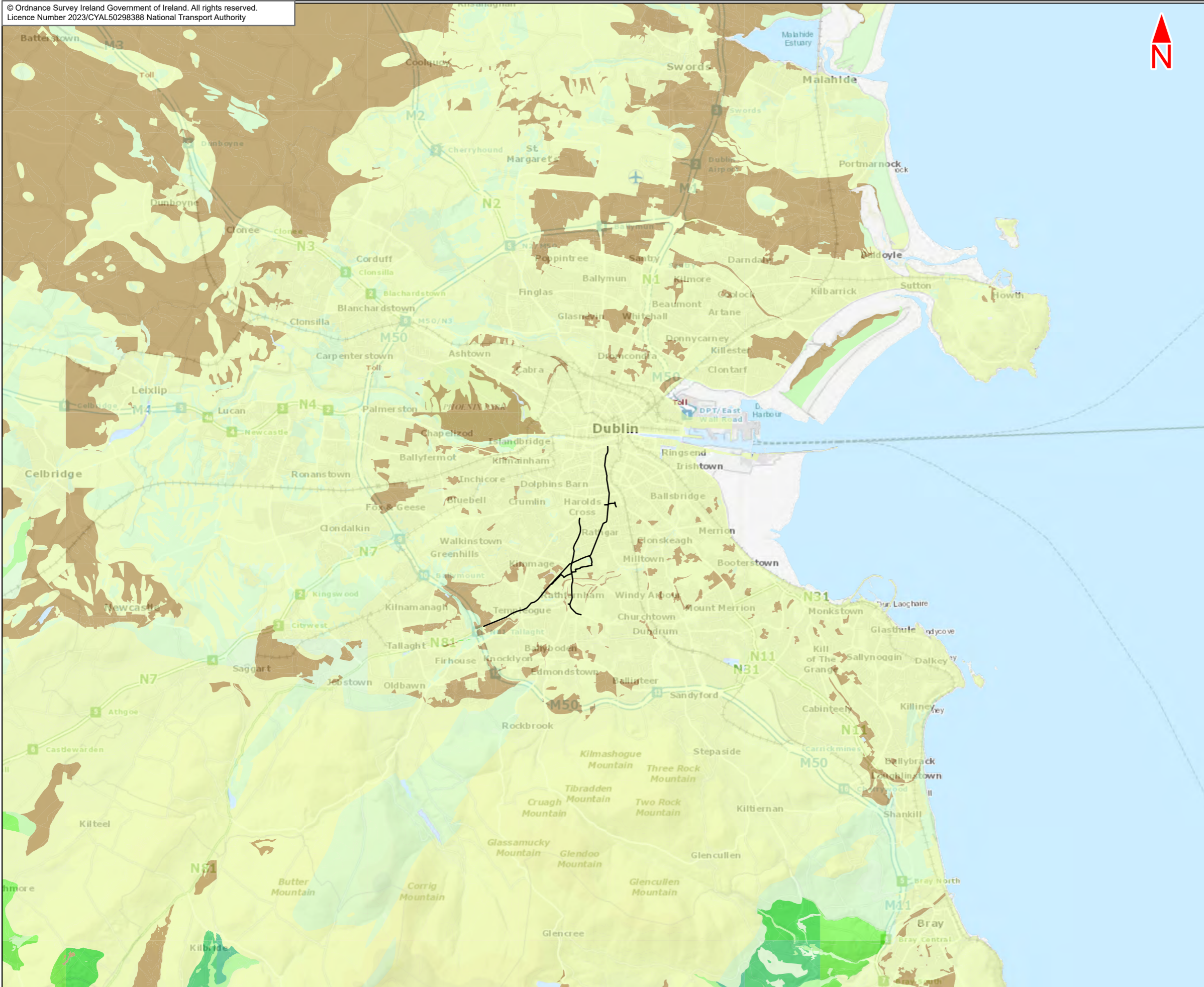
Consultant: **JACOBS ARUP SYSTRA**

Date: 16/02/2023 Scale @ A3: 1:125 000
 Project Code: BCIDE Originator Code: JAC
 Drawn: FG Checked: PW Approved: DK
 QMS Code:

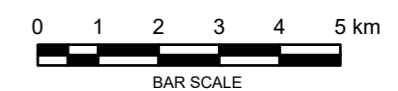
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.5 Regional Aquifers			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0005	Sheet Number: 1 of 1	Status: A	Rev: M01

14.6
Regional Groundwater
Recharge





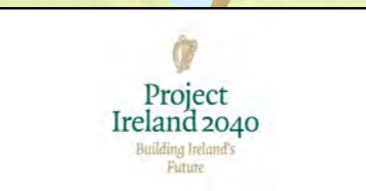
This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this information and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

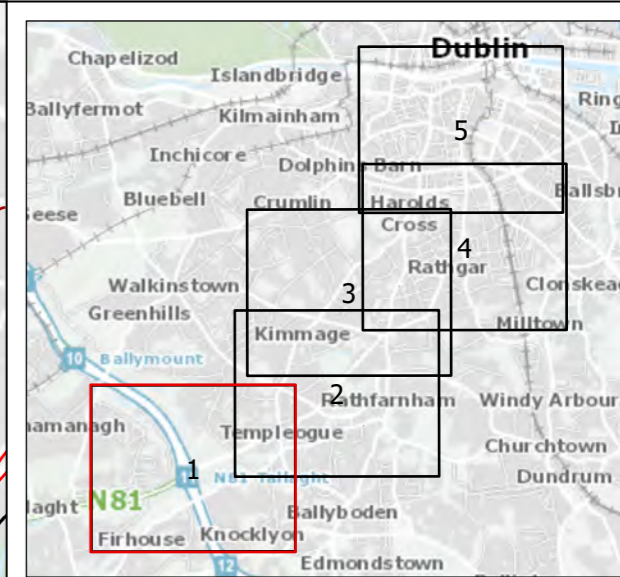
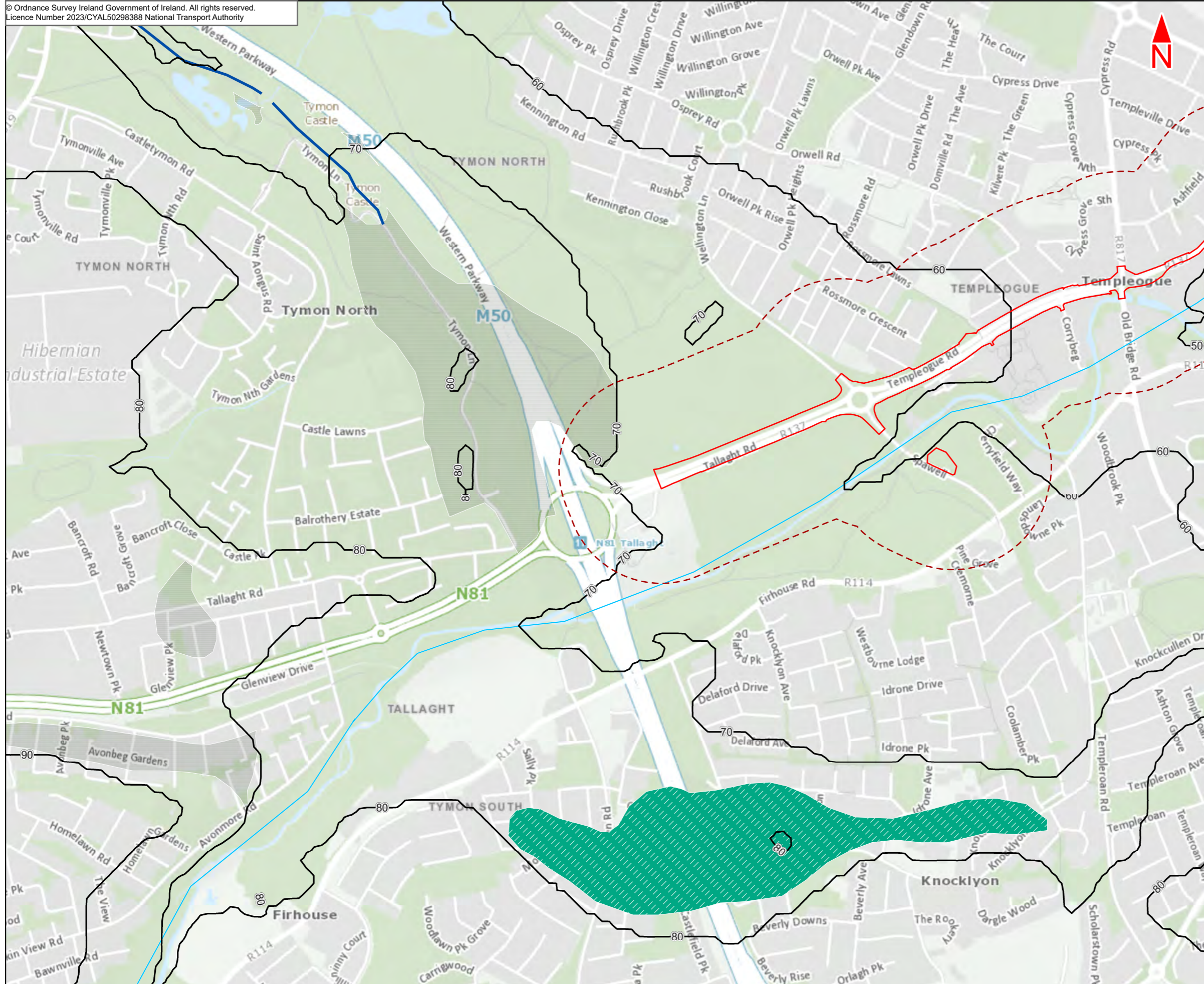
Client

Consultant

Programme Title					BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title					Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.6 Regional Groundwater Recharge				
Date	16/02/2023	Scale @ A3	1:125 000	Drawn	FG	Checked	PW	Approved	DK
Project Code	BCIDE	Originator Code	JAC	QMS Code					
Drawing File Name	BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0006	Sheet Number	1 of 1	Status	A	Rev	M01		

14.7
Topography and
Geomorphology





- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - EPA Contours
 - Meltwater Landforms**
 - LANDFORM**
 - Esker ridge
 - Meltwater channel
 - Deglacial Landforms**
 - Landform**
 - Glaciofluvial Terrace
 - Hummocky Sand and Gravel

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA** (Udarás Náisiúnta Iompair National Transport Authority)

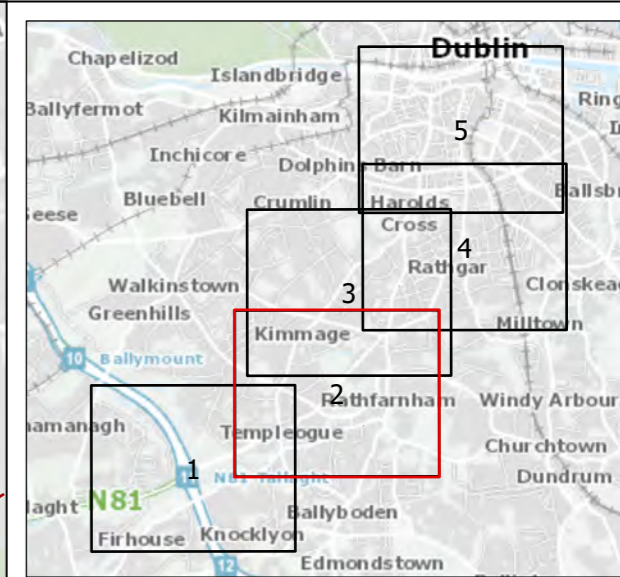
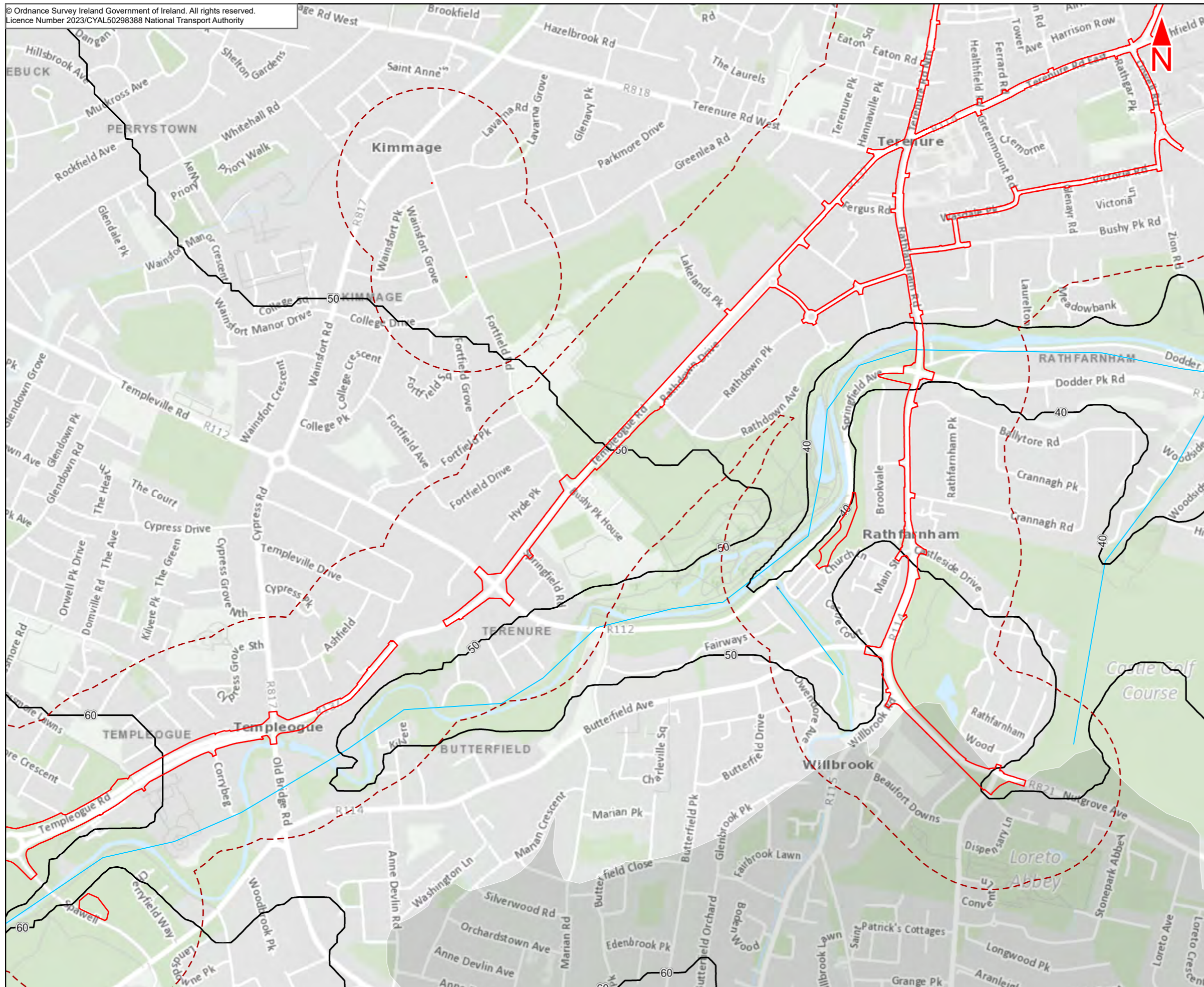
Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000

Project Code: BCIDE | Originator Code: JAC

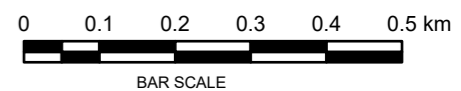
Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0101	Sheet Number: 1 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - EPA Contours
 - Meltwater Landforms**
 - LANDFORM
 - Meltwater channel
 - Deglacial Landforms**
 - Landform
 - Hummocky Sand and Gravel

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
 a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
 b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
 c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (TM) as defined by OSI active local GPS station.
 d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

Project Ireland 2040
 Building Ireland's Future

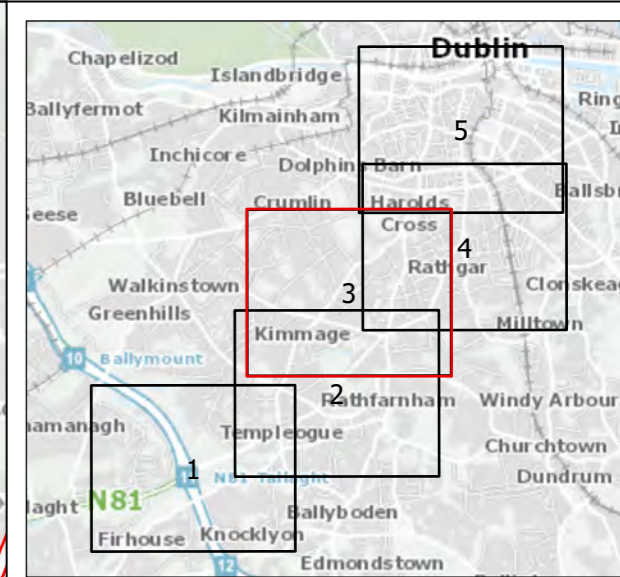
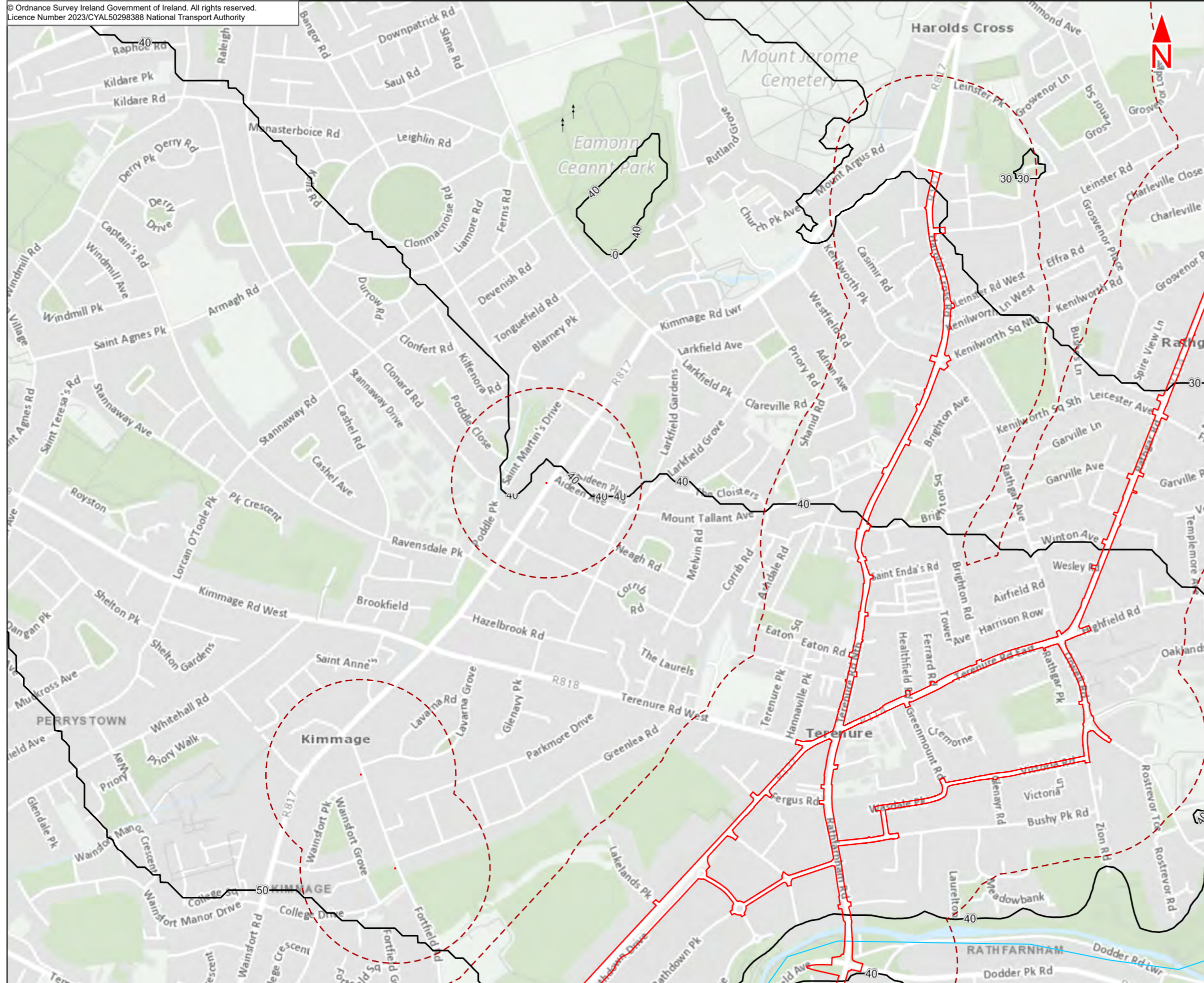
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
 Udarás Náisiúnta Iompair
 National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
 Project Code: BCIDE | Originator Code: JAC
 Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0102	Sheet Number: 2 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - EPA Contours
 - Subglacial Lineation Striae
 - Landform
 - Striae
 - Meltwater Landforms
 - LANDFORM
 - Meltwater channel

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (TM) as defined by OSI active local GPS station.
e. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

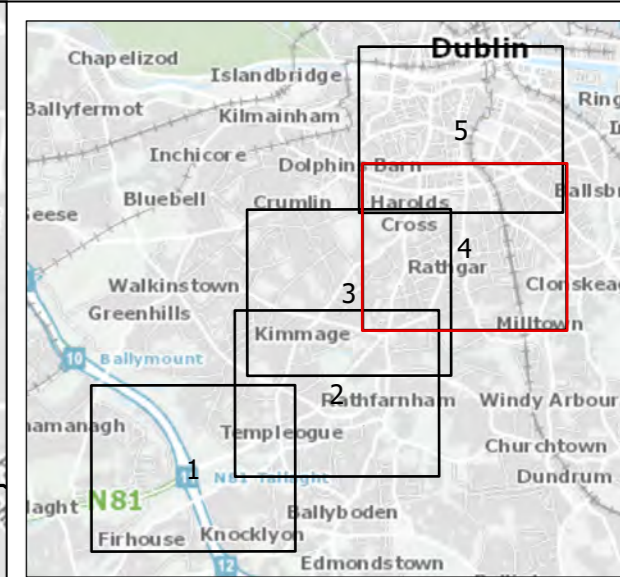
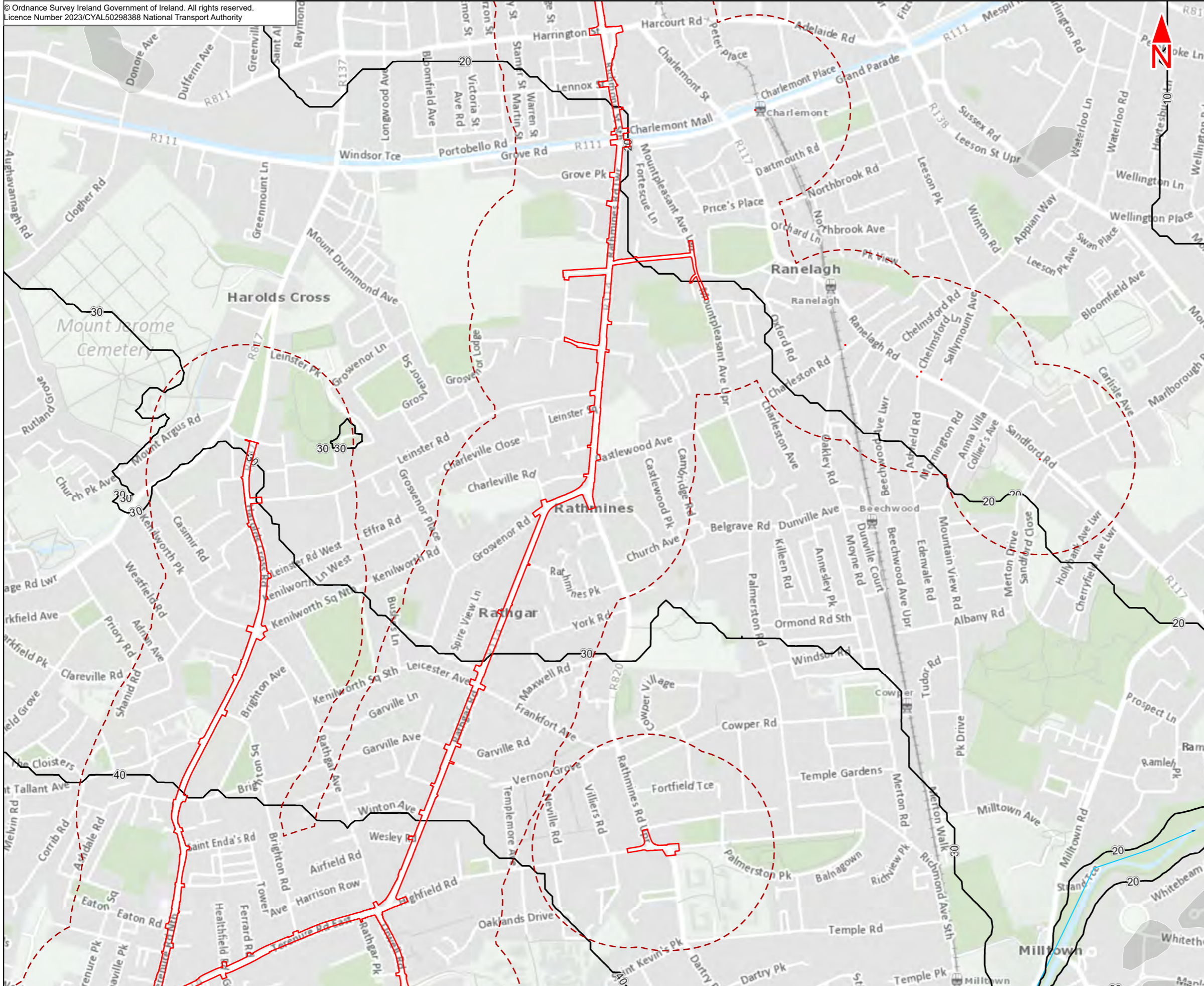
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
Project Code: BCIDE | Originator Code: JAC | QMS Code: []

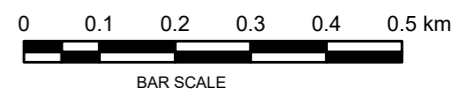
Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0103	Sheet Number: 3 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - EPA Contours
 - Meltwater Landforms
 - LANDFORM
 - Meltwater channel
 - Deglacial Landforms
 - Landform
 - Hummocky Sand and Gravel

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

Project Ireland 2040
Building Ireland's Future

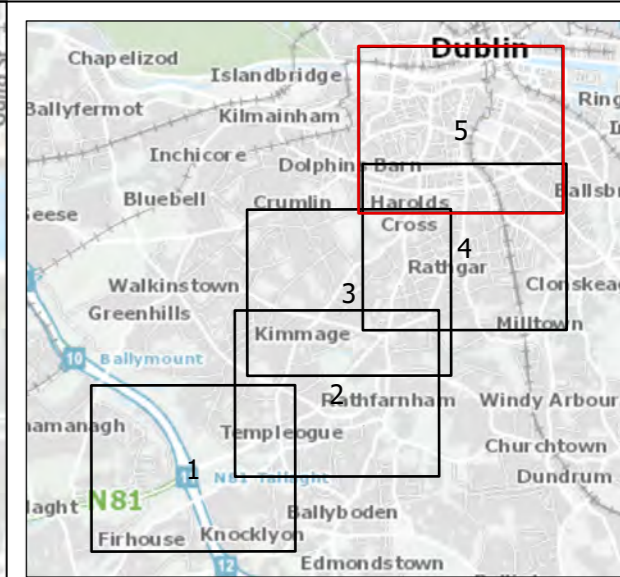
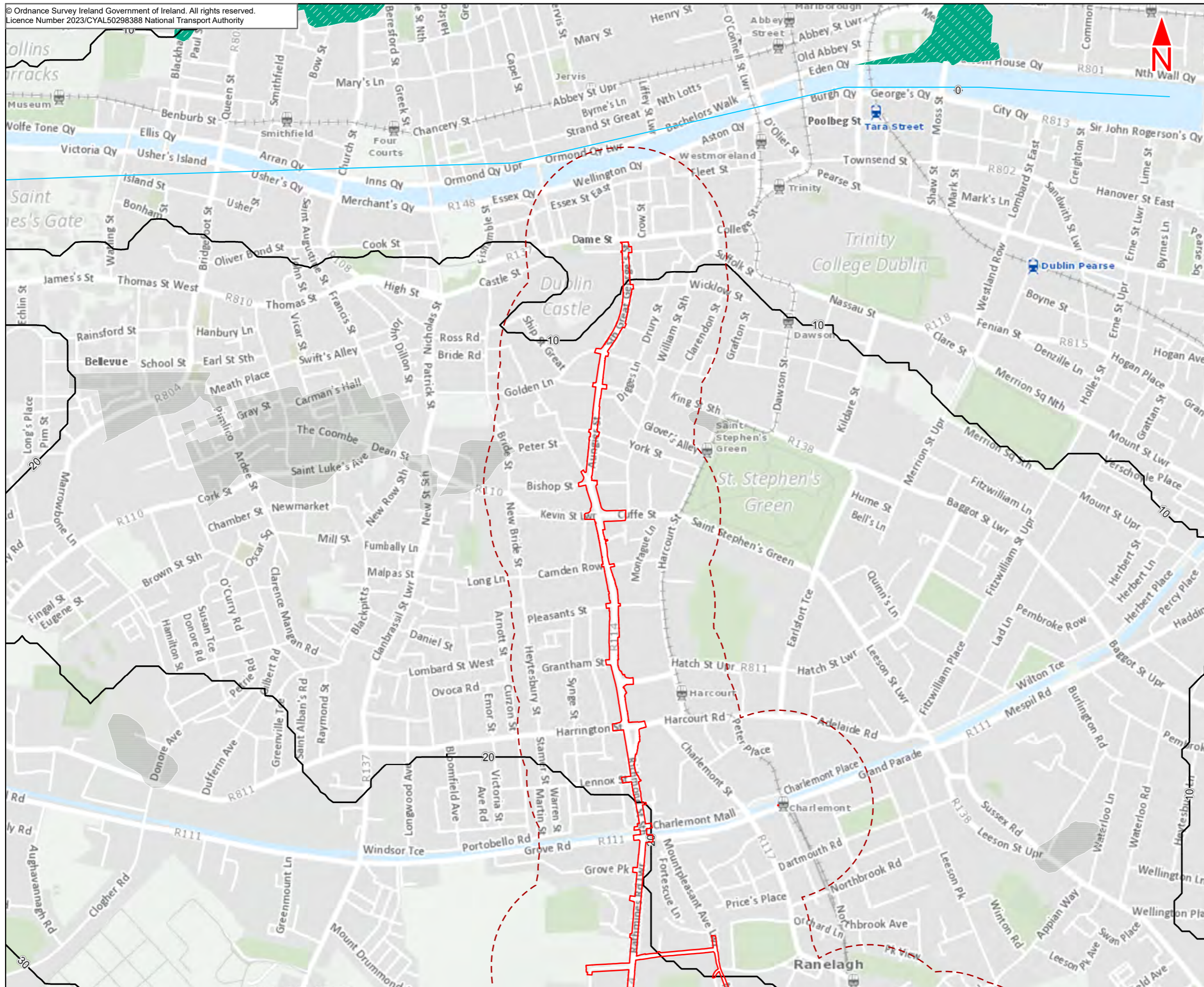
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
 Drawn: FG | Checked: PW | Approved: DK
 Project Code: BCIDE | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN			
CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme			
Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0104	Sheet Number: 4 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - EPA Contours
 - Meltwater Landforms**
 - LANDFORM
 - Meltwater channel
 - Deglacial Landforms**
 - Landform
 - Glaciofluvial Terrace
 - Hummocky Sand and Gravel

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
 a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
 b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
 c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
 Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

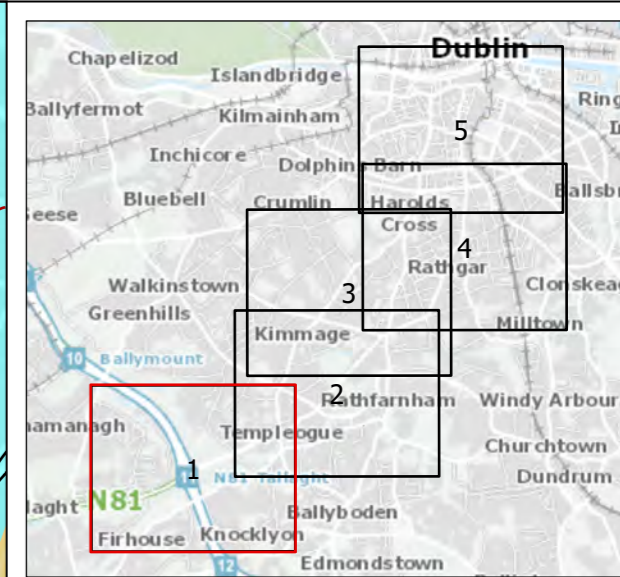
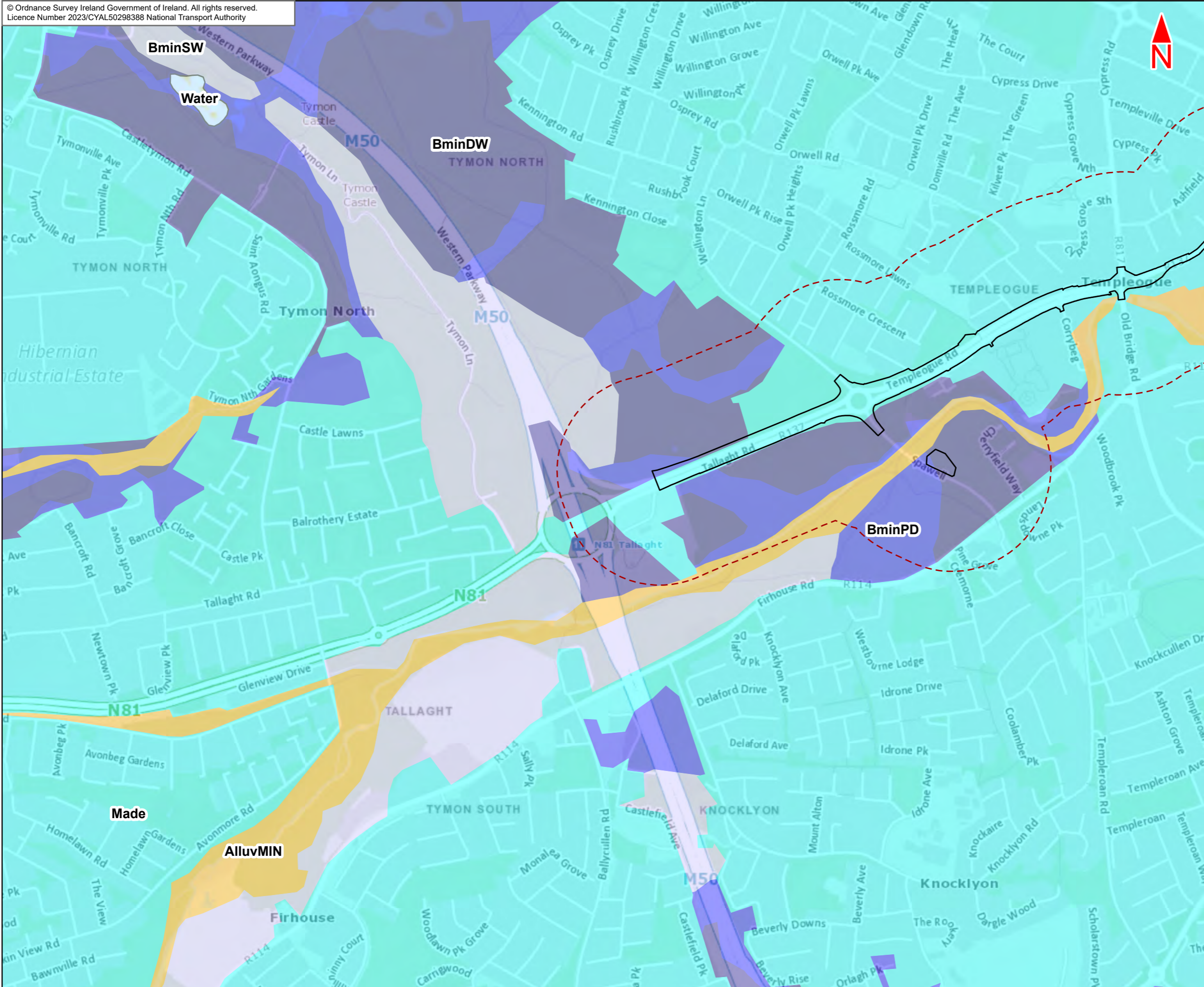
Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
 Project Code: BCIDE | Originator Code: JAC
 Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.7 Topography and Geomorphology			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0105	Sheet Number: 5 of 5	Status: A	Rev: M01

14.8
Soil Deposits





Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

Teagasc Soils

- AlluvMIN - Mineral alluvium
- BminDW - Grey Brown Podzolics / Brown Earths Basic
- BminPD - Surface water Gleys / Ground water Gleys Basic
- BminSW - Renzinas / Lithosols
- Made
- Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer

a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.

b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.

c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.

d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

	Rev	Date	Drn	Chk'd	App'd	Description
	M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

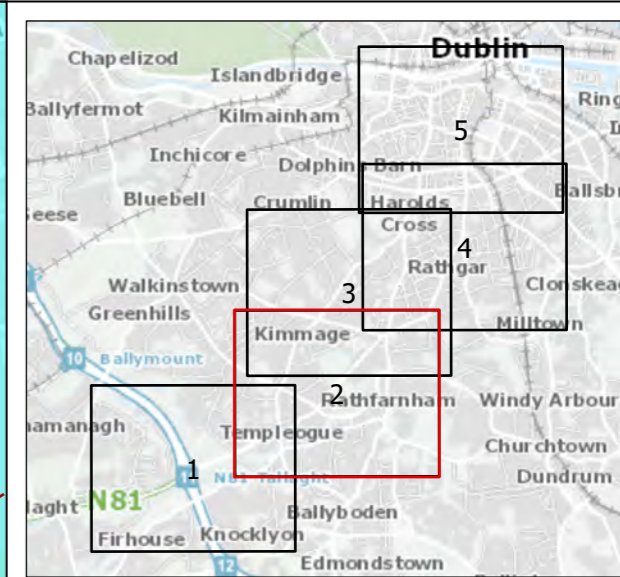
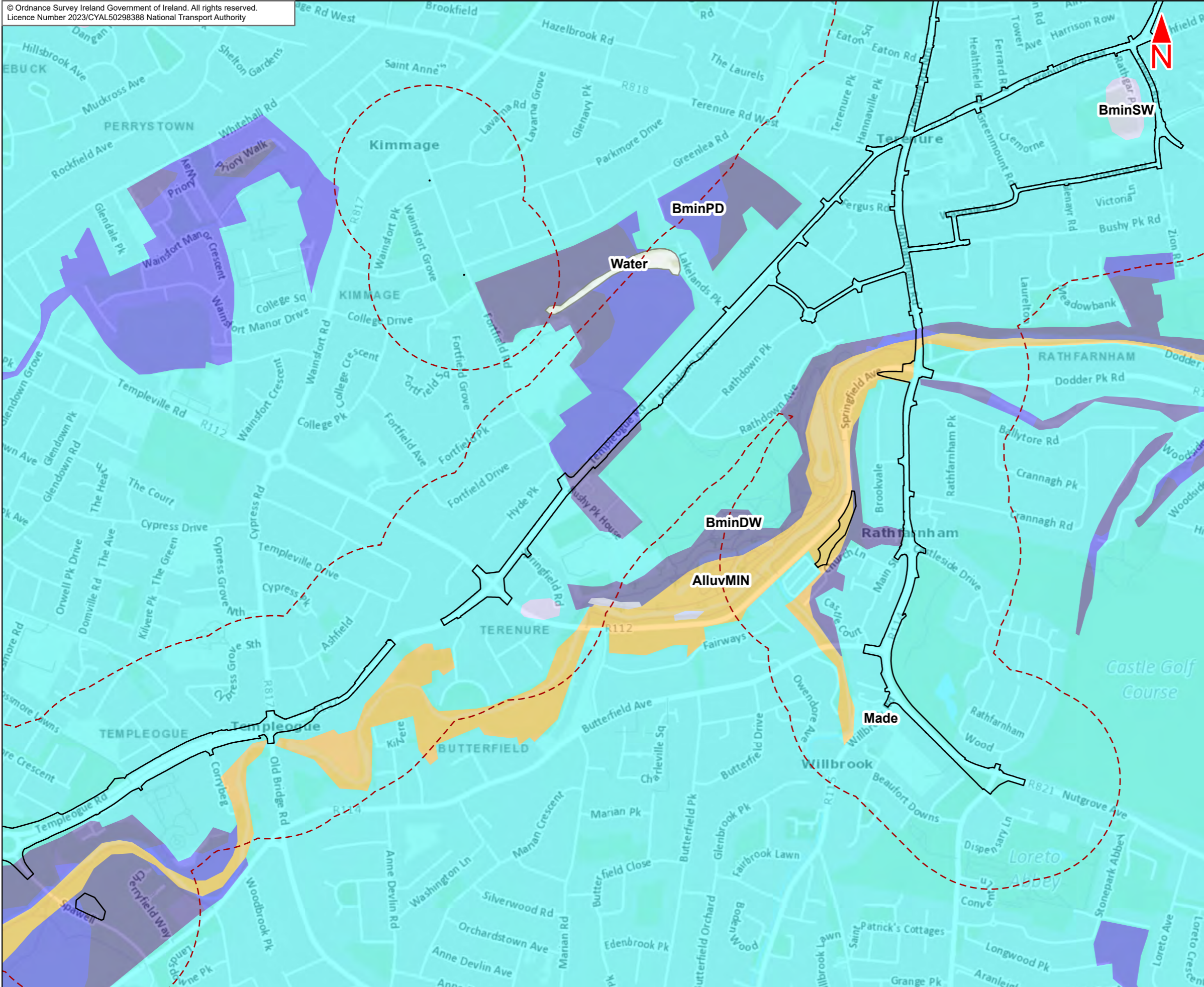
Date: 21/02/2023 | Scale @ A3: 1:10000

Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

QMS Code: _____

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.8 Soil Deposits			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0201	Sheet Number: 1 of 5	Status: A	Rev: M01



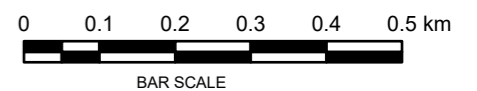
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

Teagasc Soils

- AlluvMIN - Mineral alluvium
- BminDW - Grey Brown Podzolics / Brown Earths Basic
- BminPD - Surface water Gleys / Ground water Gleys Basic
- BminSW - Renzinas / Lithosols
- Made
- Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer

a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.

b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.

c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.

d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000

Project Code: BCIDE | Originator Code: JAC

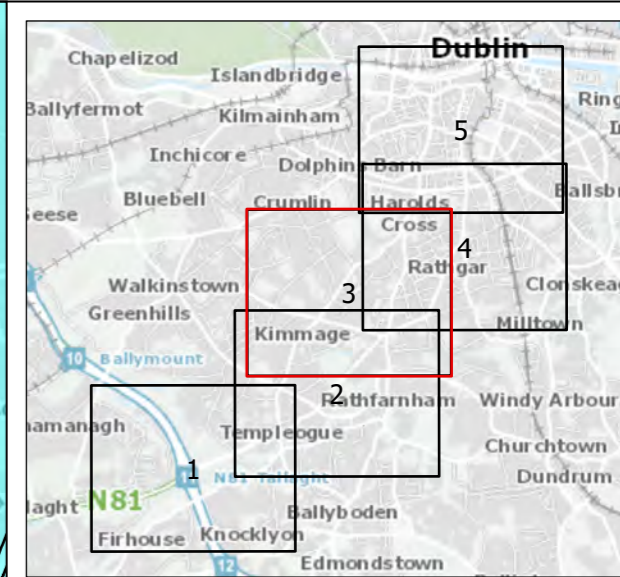
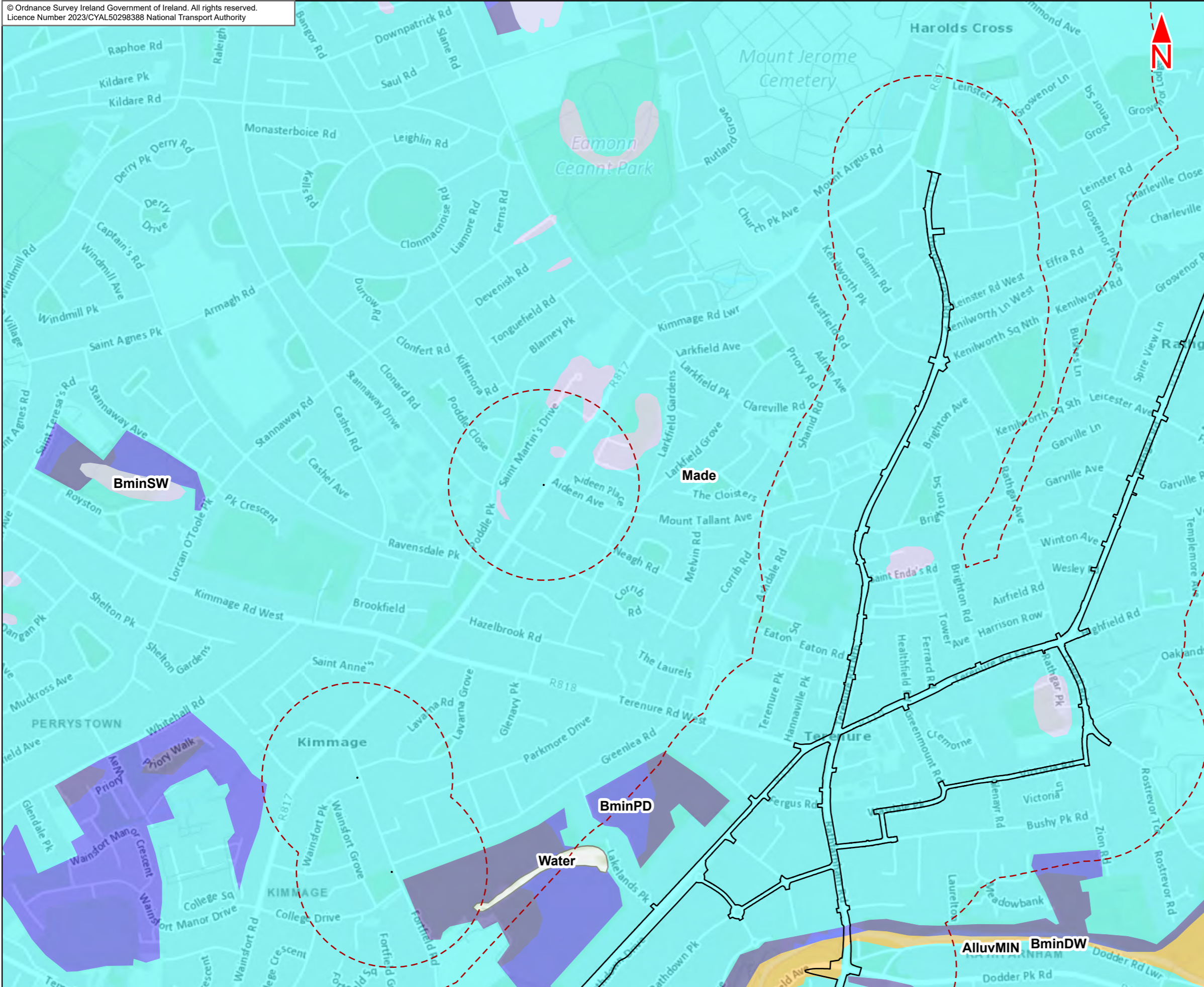
Drawn: FG | Checked: PW | Approved: DK

QMS Code: _____

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

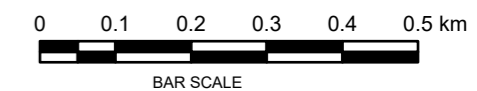
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
Figure 14.8
Soil Deposits

Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0202 | Sheet Number: 2 of 5 | Status: A | Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
- Teagasc Soils**
- AlluvMIN - Mineral alluvium
 - BminDW - Grey Brown Podzolics / Brown Earths Basic
 - BminPD - Surface water Gleys / Ground water Gleys Basic
 - BminSW - Renzinas / Lithosols
 - Made
 - Water

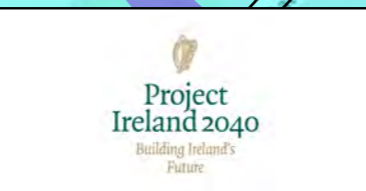
This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing may not be reproduced, copied or otherwise used in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

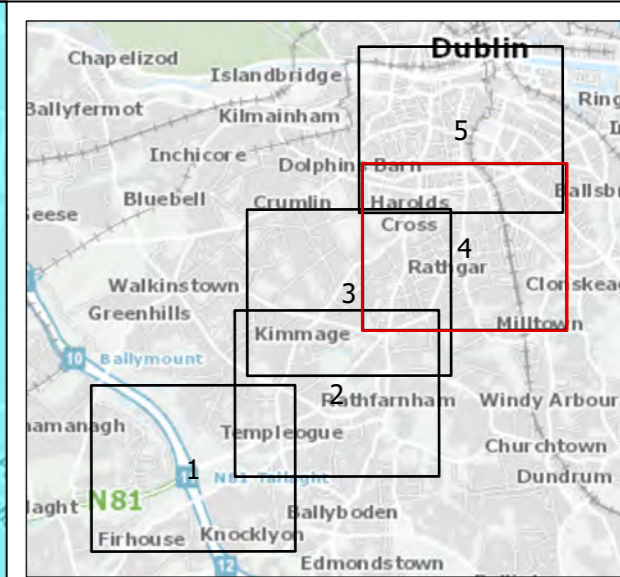
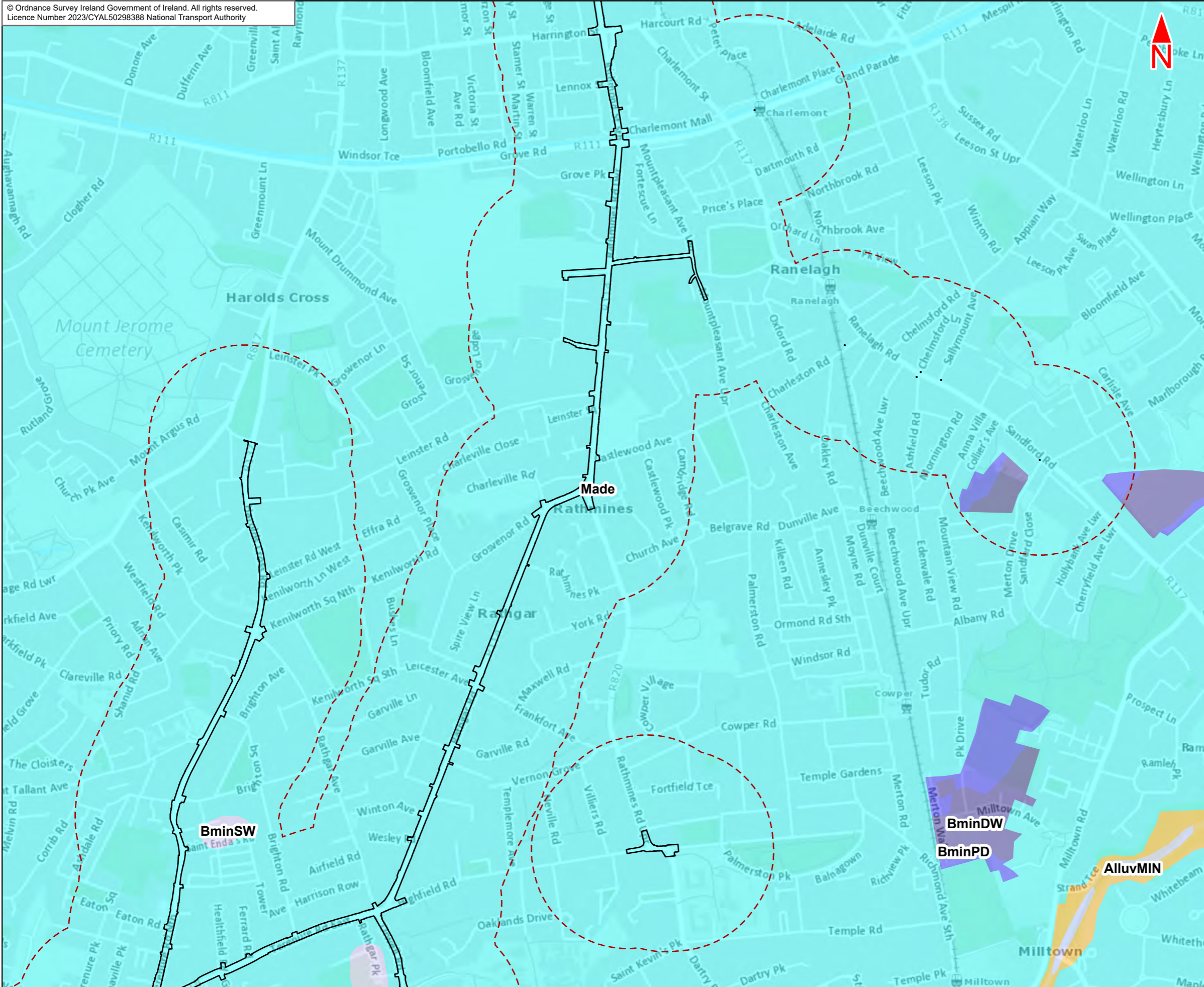
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.8 Soil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0203	Sheet Number 3 of 5	Status A	Rev M01	



Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

Teagasc Soils

- AlluvMIN - Mineral alluvium
- BminDW - Grey Brown Podzolics / Brown Earths Basic
- BminPD - Surface water Gleys / Ground water Gleys Basic
- BminSW - Renzinas / Lithosols
- Made

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

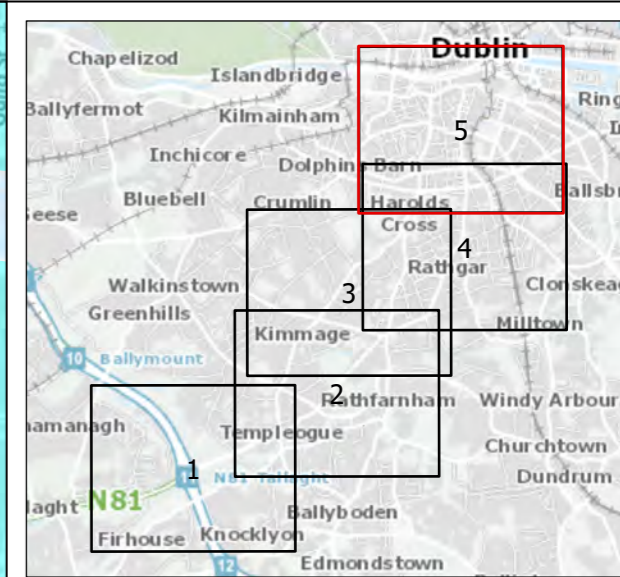
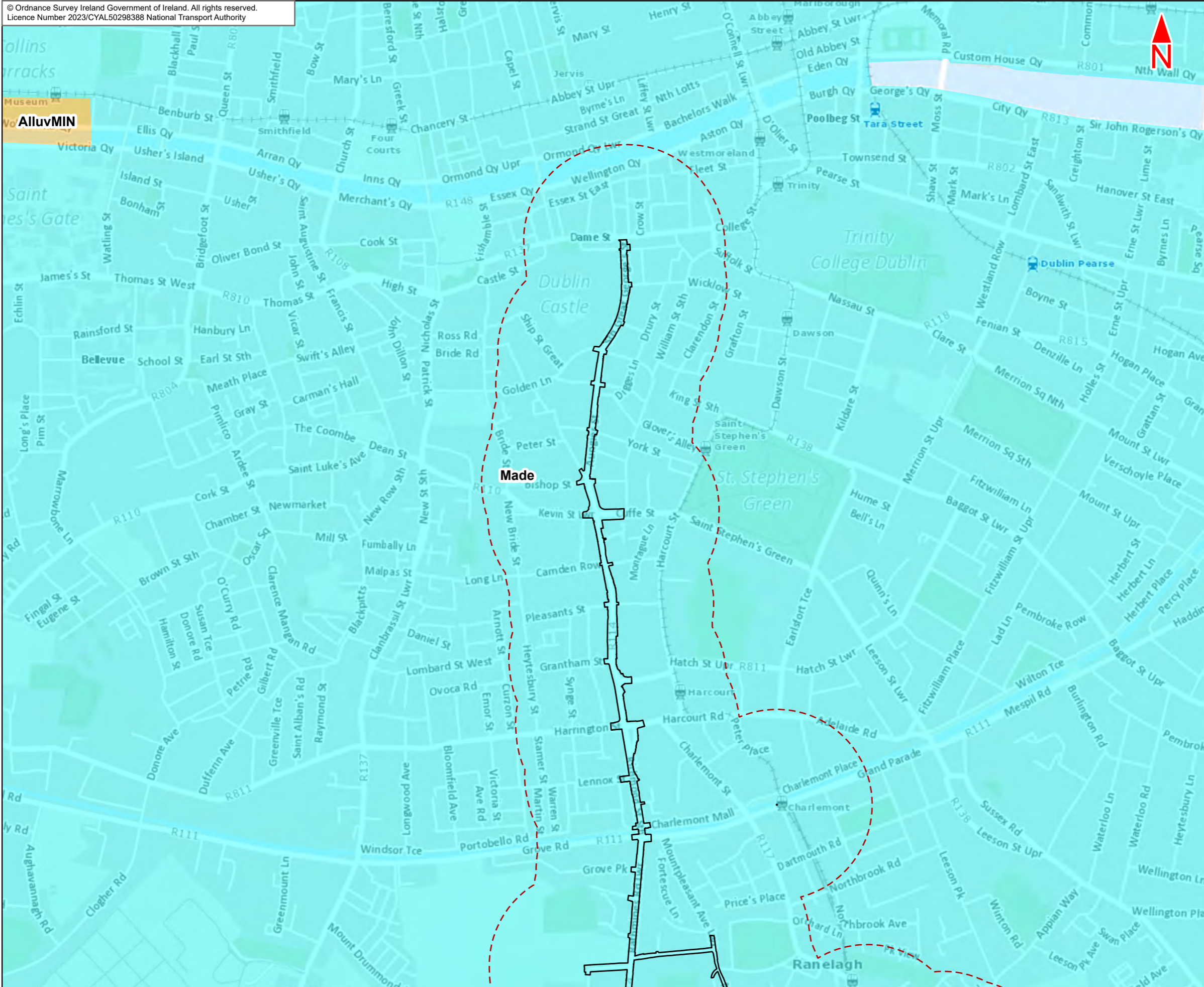
Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 Scale @ A3: 1:10000
 Drawn: FG Checked: PW Approved: DK
 Project Code: BCIDE Originator Code: JAC QMS Code:

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
Figure 14.8
Soil Deposits

Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0204 Sheet Number: 4 of 5 Status: A Rev: M01



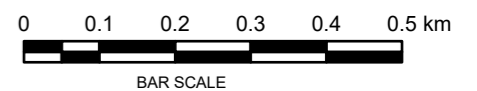
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area

Teagasc Soils

- AlluvMIN - Mineral alluvium
- Made

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA** (Udarás Náisiúnta Iompair National Transport Authority)

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000

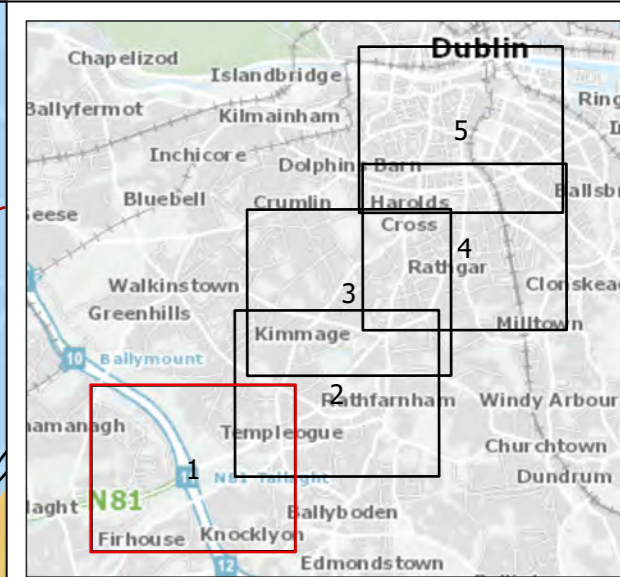
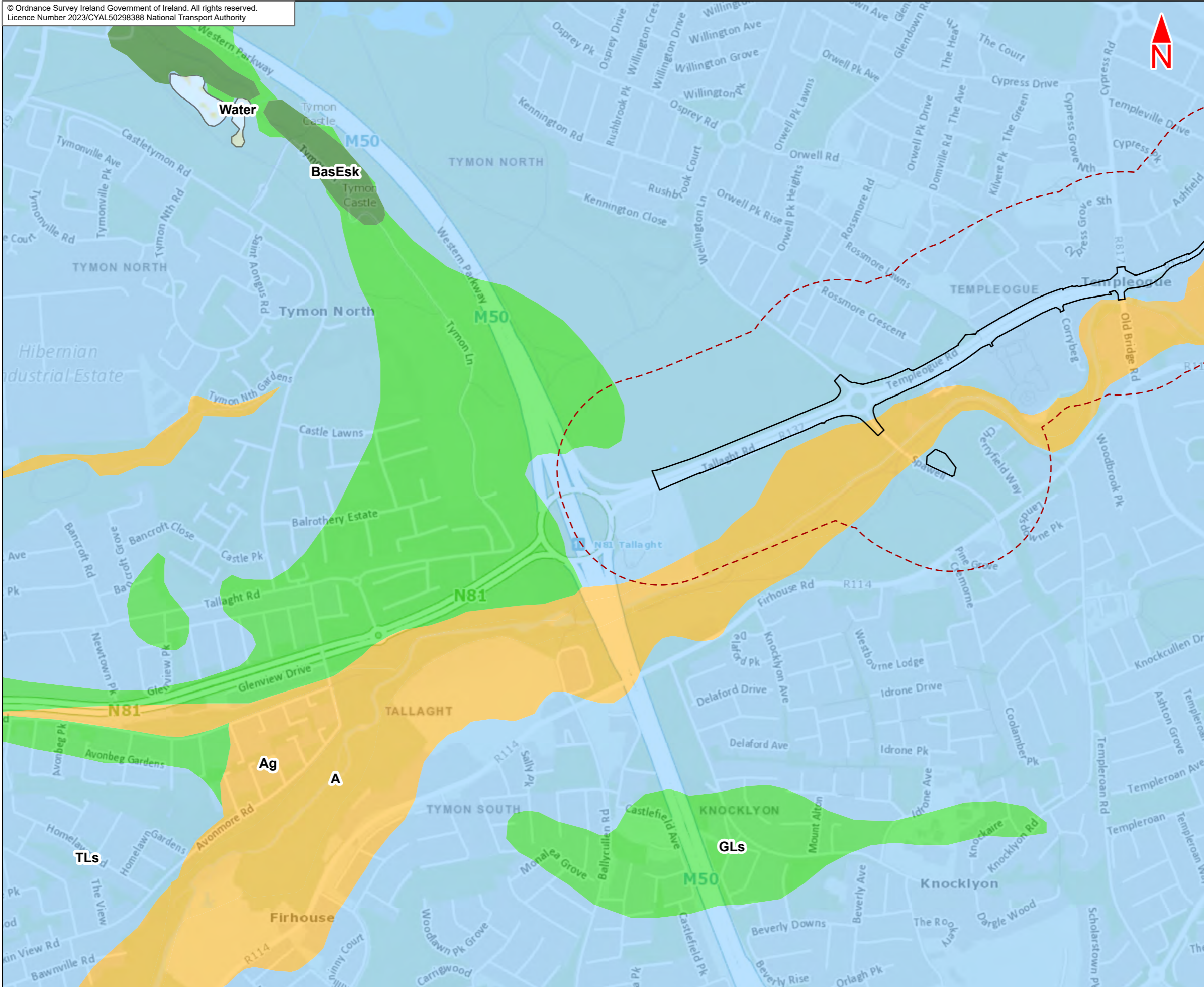
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.8 Soil Deposits				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0205	Sheet Number: 5 of 5	Status: A	Rev: M01	

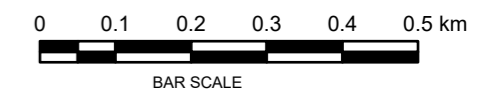
The background of the slide is a vibrant yellow. It is decorated with several abstract, organic shapes in shades of blue and green. These shapes are interconnected and overlap, creating a sense of depth and movement. Scattered throughout the composition are several white circles of varying sizes, some of which are partially enclosed by the blue and green shapes, resembling rivets or bolts on a mechanical part. The overall aesthetic is modern and clean.

14.9 Subsoil Deposits



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - 250m Study Area
 - Quaternary Sediments - 1:50,000
 - A, Alluvium
 - Ag, Alluvium (gravelly)
 - GLs, Gravels derived from Limestones
 - TLs, Till derived from limestones
 - Water
 - BasEsk, Eskers comprised of gravels of basic reaction

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
 a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
 b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
 c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Malin Head. All Co-ordinates are in Irish Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
 d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.
 e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



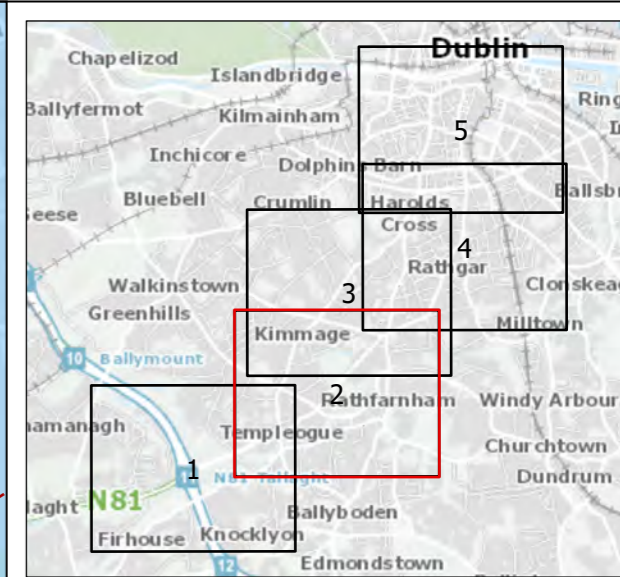
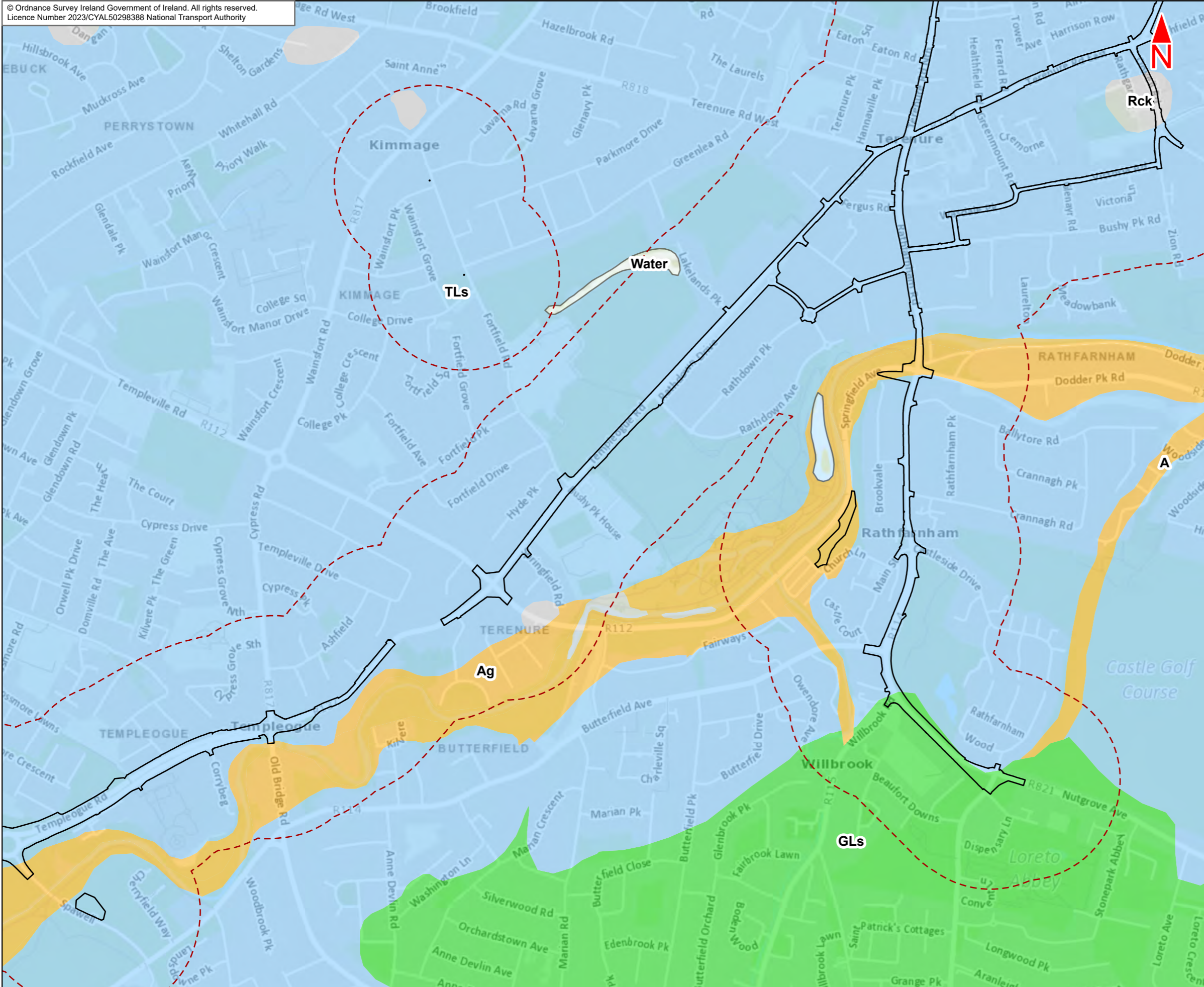
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udaráis Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

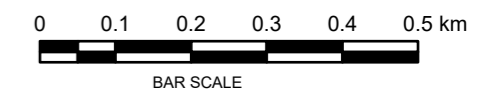
Date: 21/02/2023 Scale @ A3 1:10000
 Drawn: FG Checked: PW Approved: DK
 Project Code: BCIDE Originator Code: JAC QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0301	Sheet Number: 1 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Quaternary Sediments - 1:50,000
 - A, Alluvium
 - Ag, Alluvium (gravelly)
 - GLs, Gravels derived from Limestones
 - Rck, Bedrock outcrop or subcrop
 - TLs, Till derived from limestones
 - Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

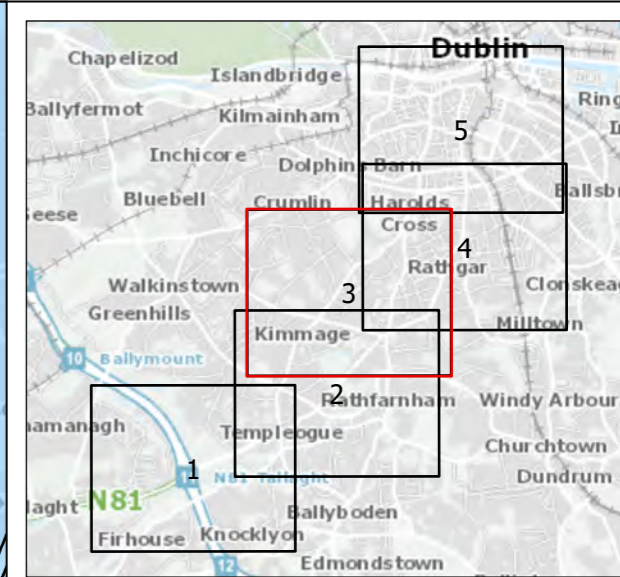
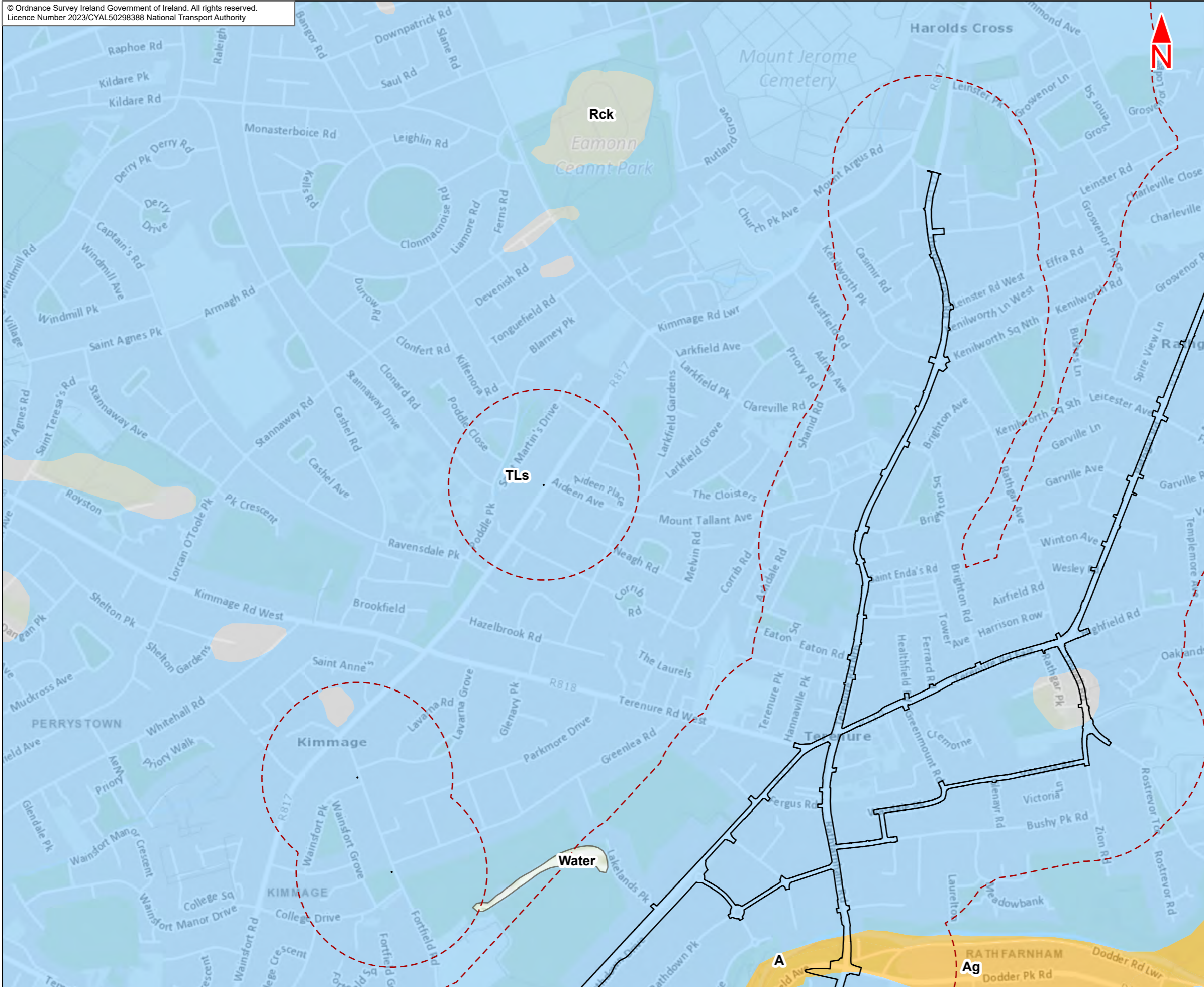
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

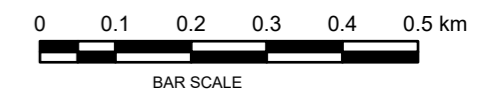
Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0302	Sheet Number 2 of 5	Status A	Rev M01	



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Quaternary Sediments - 1:50,000**
 - A, Alluvium
 - Ag, Alluvium (gravelly)
 - Rck, Bedrock outcrop or subcrop
 - TLs, Till derived from limestones
 - Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

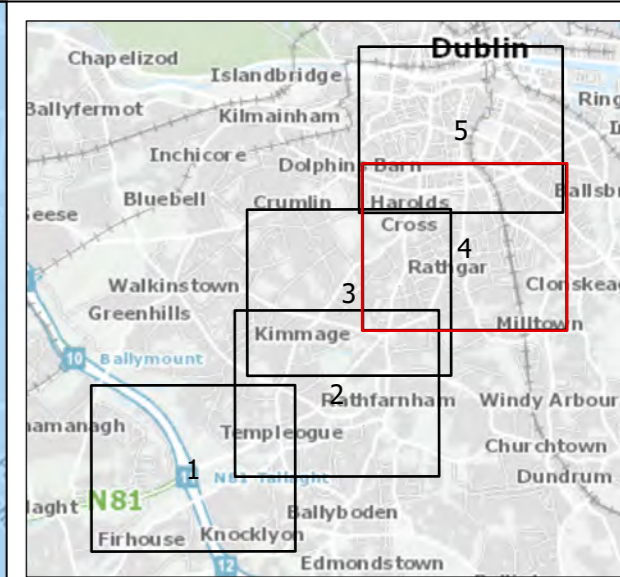
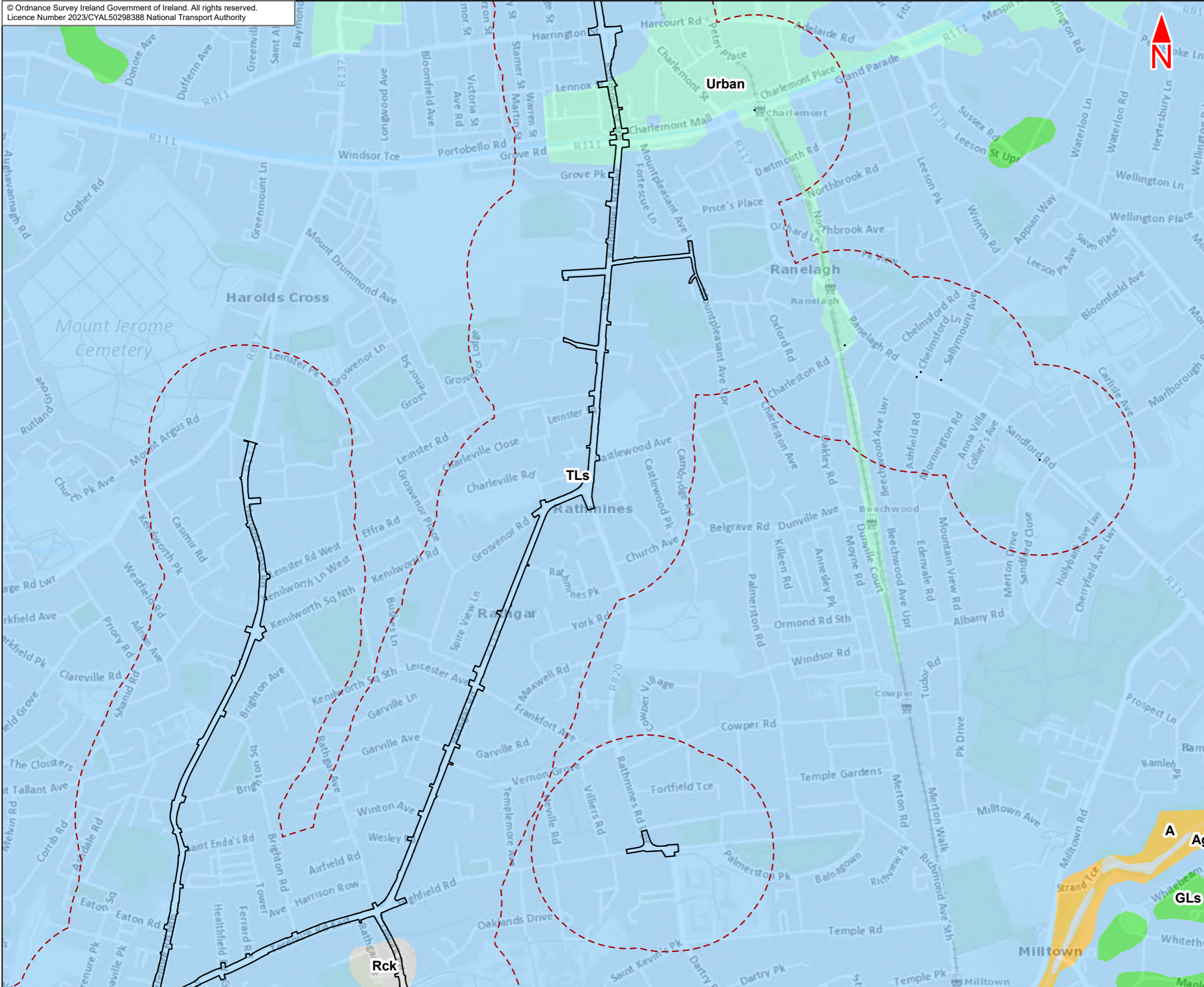
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

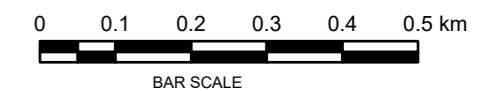
 Udarás Náisiúnta Iompair National Transport Authority					
Date	21/02/2023	Scale @ A3	1:10000	Drawn	FG
Project Code	BCIDE	Originator Code	JAC	Checked	PW
				Approved	DK

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS					
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits					
Drawing File Name	BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0303	Sheet Number	3 of 5	Status	A
Rev	M01				



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Quaternary Sediments - 1:50,000**
 - A, Alluvium
 - Ag, Alluvium (gravelly)
 - GLs, Gravels derived from Limestones
 - Rck, Bedrock outcrop or subcrop
 - TLs, Till derived from limestones
 - Urban

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CVAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
e. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

f. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



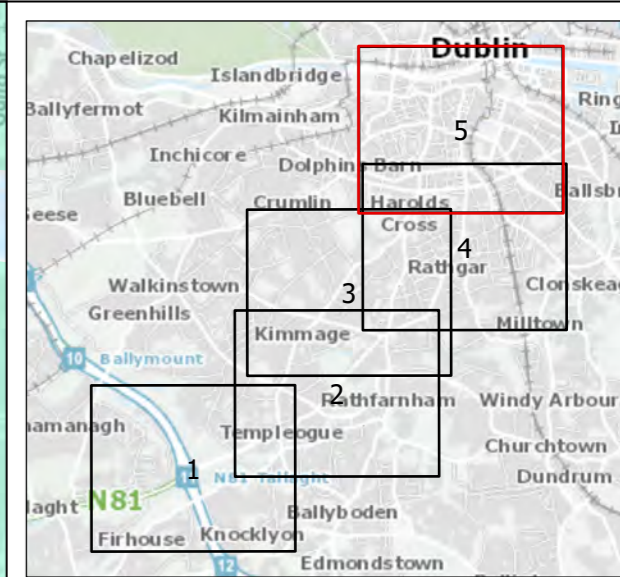
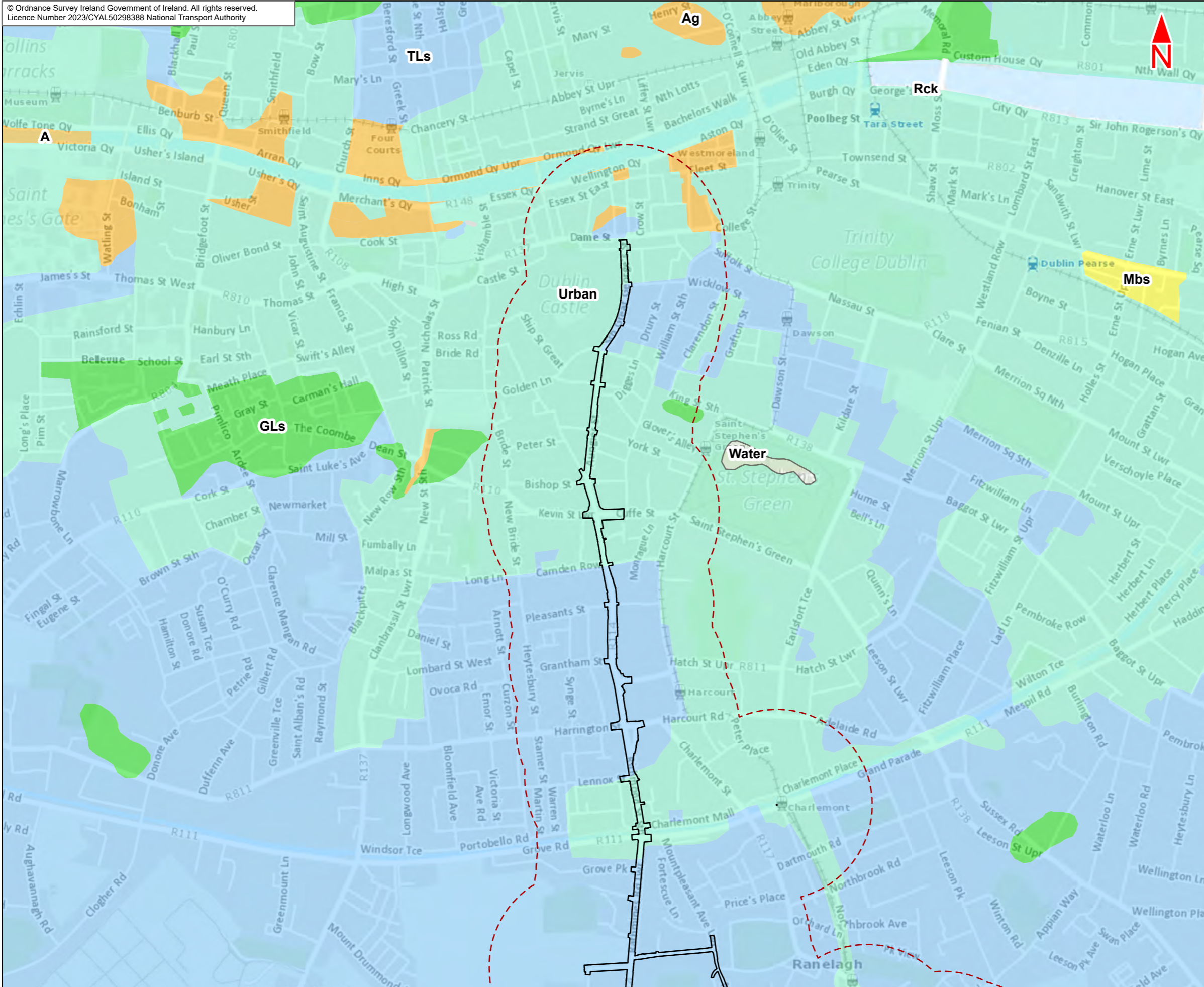
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

Consultant
JACOBS ARUP SYSTRA

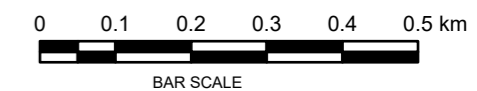
Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0304	Sheet Number 4 of 5	Status A	Rev M01	

Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Quaternary Sediments - 1:50,000
 - A, Alluvium
 - Ag, Alluvium (gravelly)
 - GLs, Gravels derived from Limestones
 - Rck, Bedrock outcrop or subcrop
 - Mbs, Marine beach sands
 - TLs, Till derived from limestones
 - Urban
 - Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



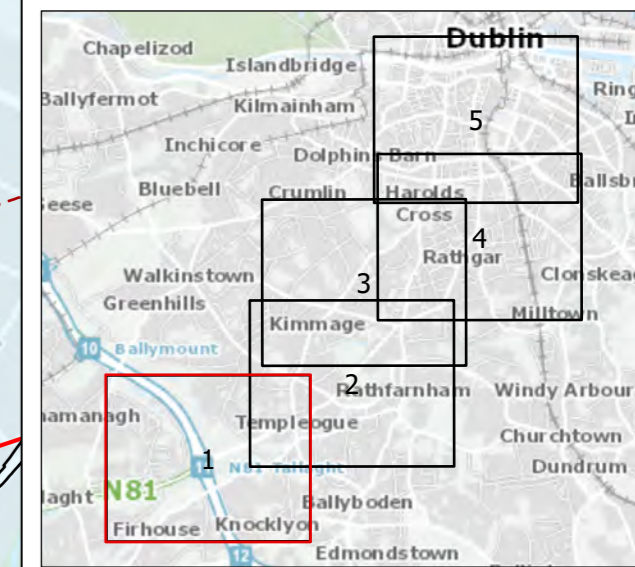
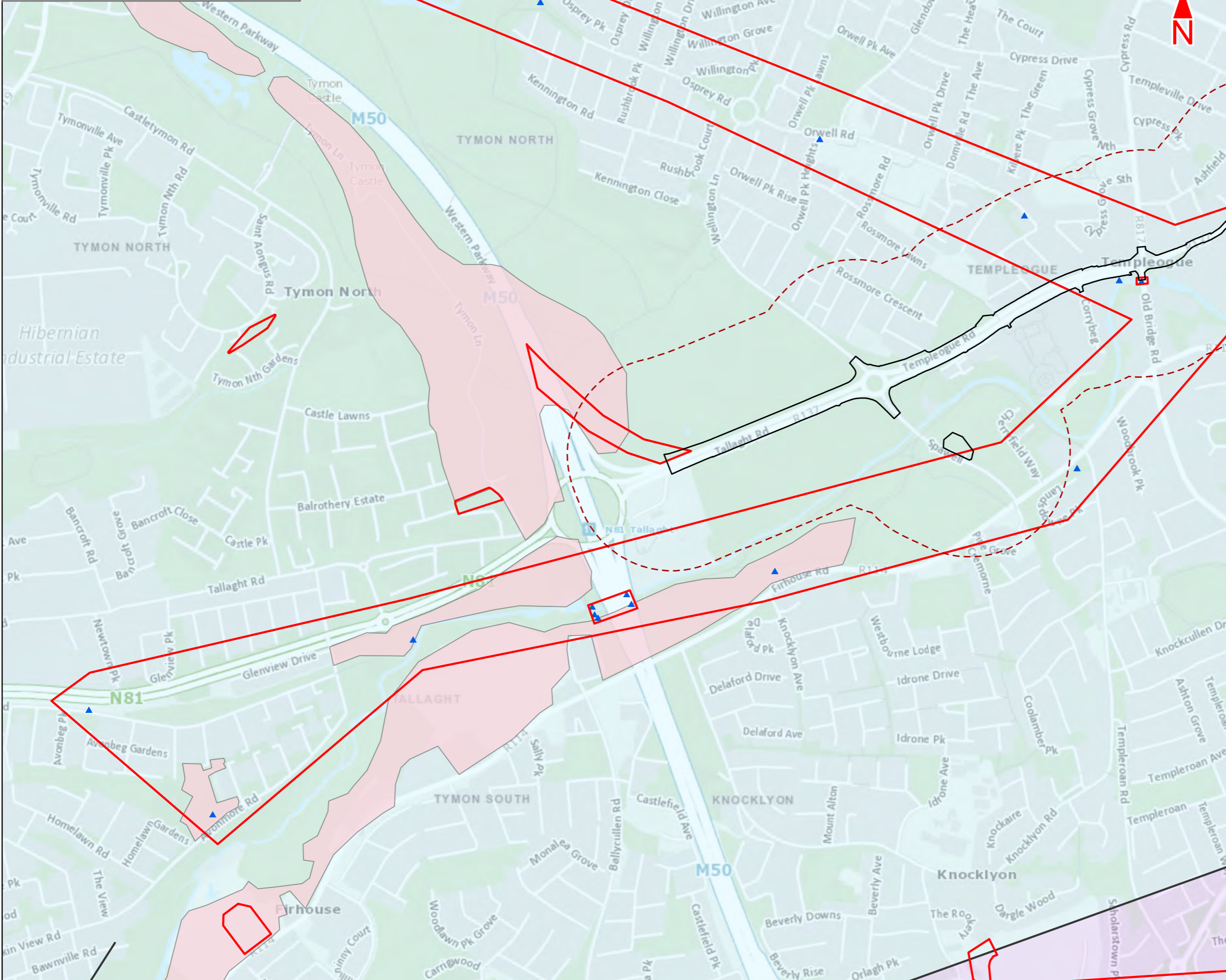
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Date	Scale @ A3	Drawn	Checked	Approved
21/02/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.9 Subsoil Deposits				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0305	5 of 5	A	M01	

14.10
Bedrock Geology





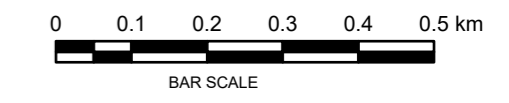
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area
- GSI Geotechnical Sites
- Geological Heritage Site
- GSI Geotechnical Boreholes
- Fault

GSI Bedrock Geology - 1:100,000

- Lucan Formation
- Type 2p microcline porphyritic
- Butter Mountain Formation

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

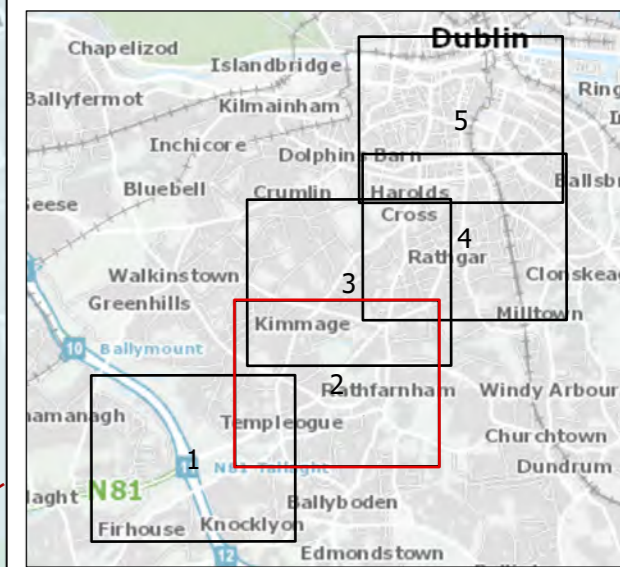
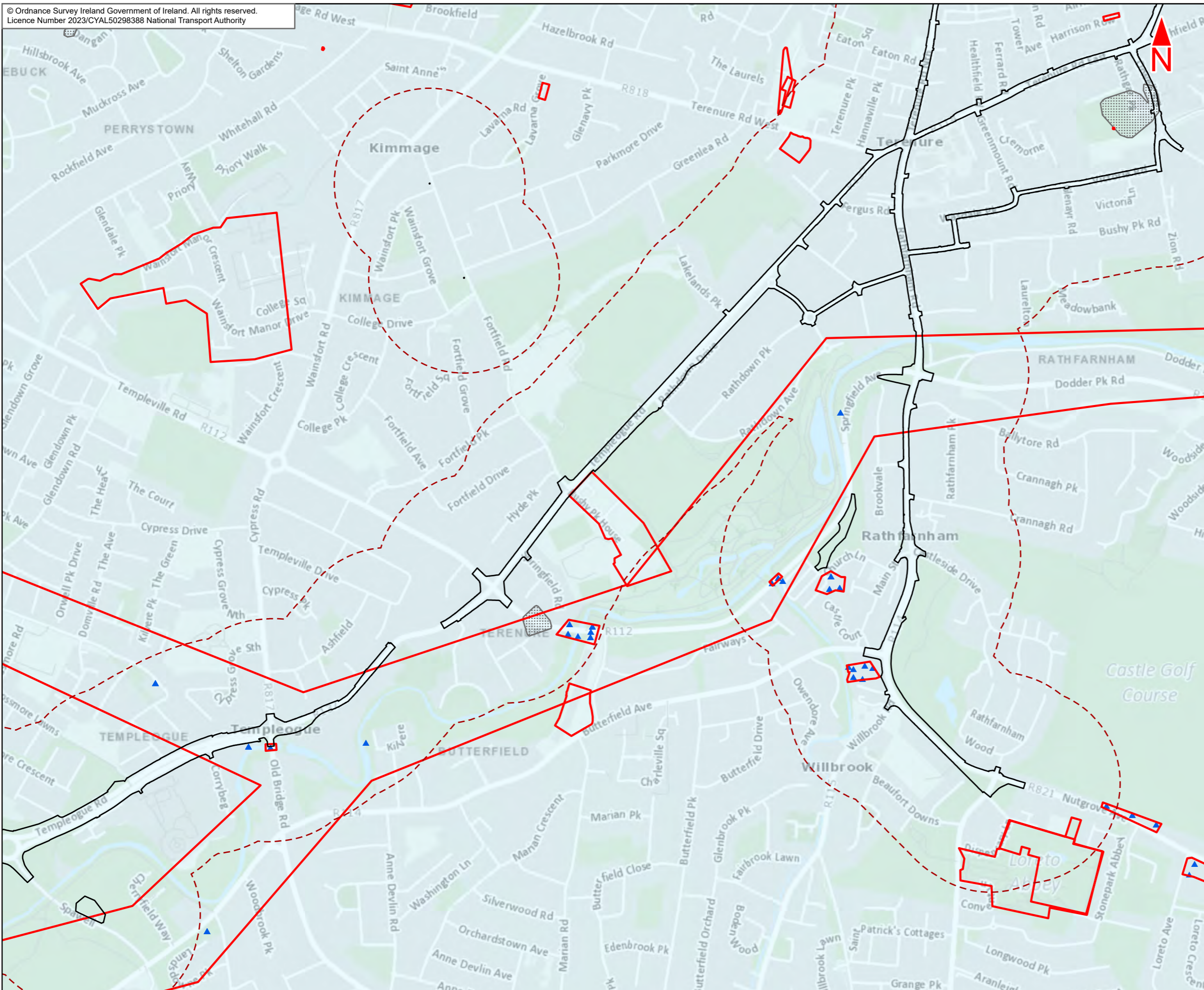
Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK
QMS Code:

Programme Title: **BUSCONNECTS DUBLIN
CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

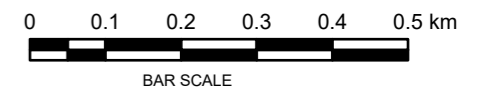
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
Figure 14.10
Bedrock Geology

Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0401 Sheet Number: 1 of 5 Status: A Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - ▭ GSI Geotechnical Sites
 - ▲ GSI Geotechnical Boreholes
 - Fault
 - GSI Bedrock Outcrop - 1:100,000**
 - ▨ GSI Bedrock Outcrop - 1:100,000
 - GSI Bedrock Geology - 1:100,000**
 - ▭ Lucan Formation

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

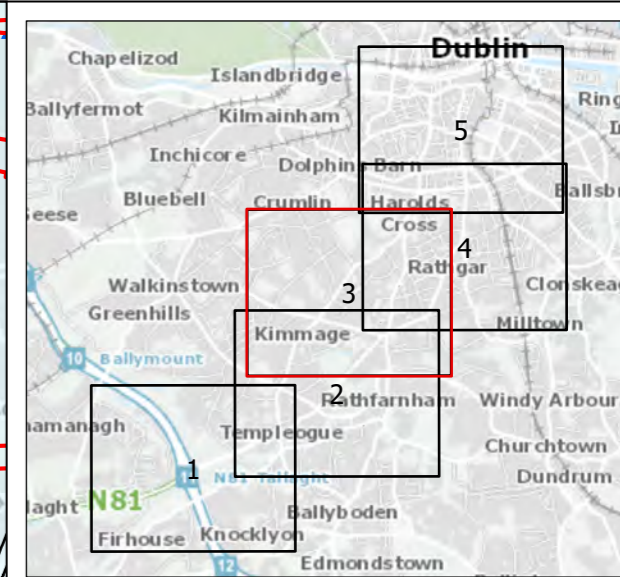
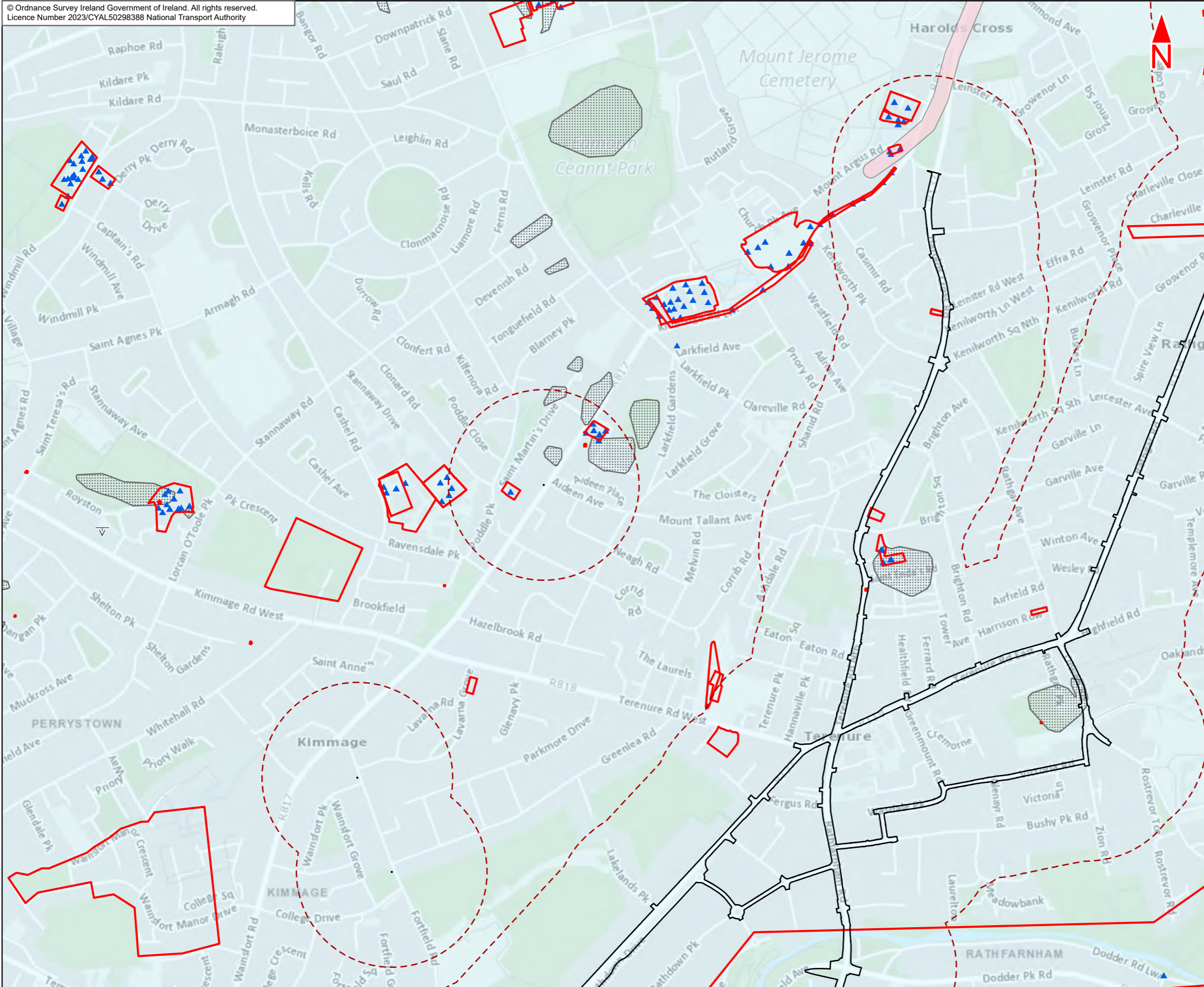
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

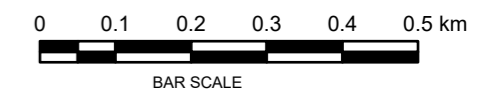
Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0402	Sheet Number 2 of 5	Status A	Rev M01	



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - GSI Geotechnical Sites
 - Geological Heritage Site
 - GSI Geotechnical Boreholes
- GSI Bedrock Structural Symbols - 1:100,000**
- Strike and dip of bedding, right way up
- GSI Bedrock Outcrop - 1:100,000**
- GSI Bedrock Outcrop - 1:100,000
- GSI Bedrock Geology - 1:100,000**
- Lucan Formation

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

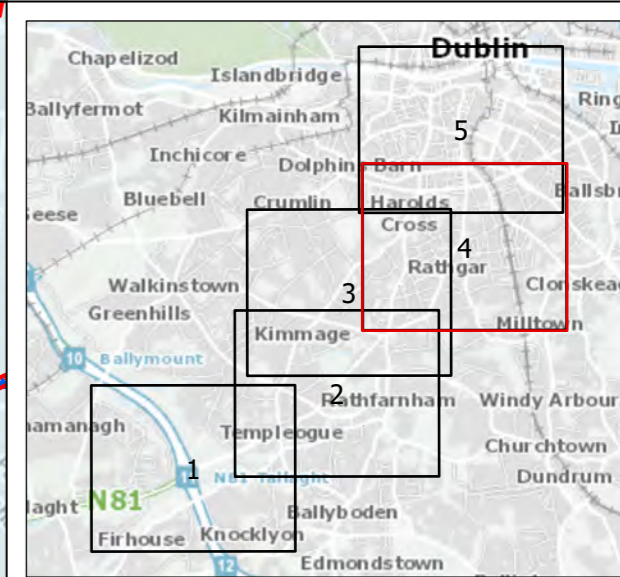
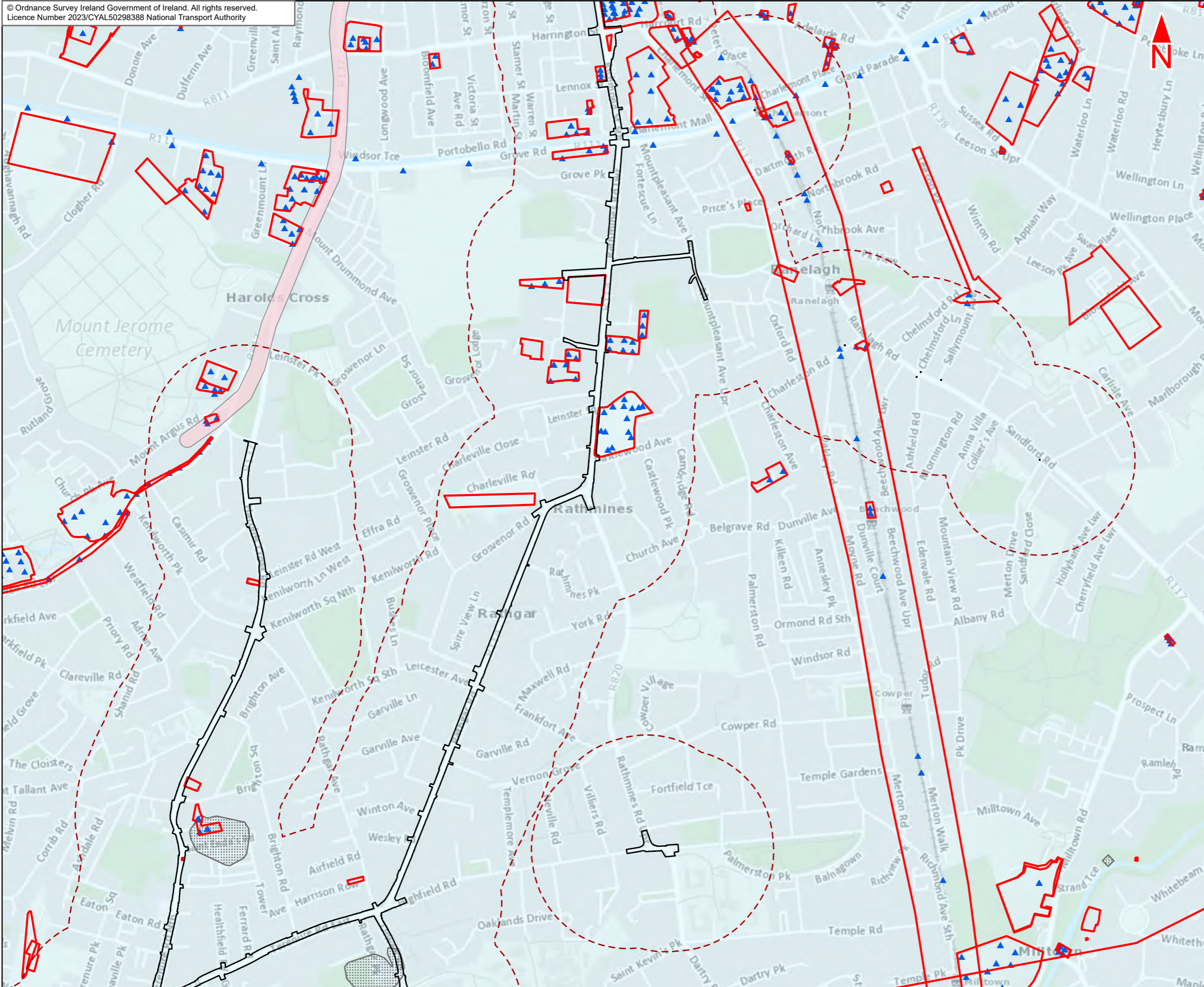
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

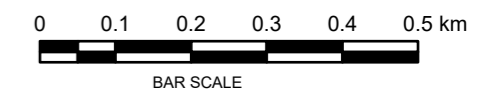
Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0403	Sheet Number 3 of 5	Status A	Rev M01	



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - GSI Geotechnical Sites
 - Geological Heritage Site
 - GSI Geotechnical Boreholes
 - GSI Bedrock Outcrop - 1:100,000**
 - GSI Bedrock Outcrop - 1:100,000
 - GSI Bedrock Geology - 1:100,000**
 - Lucan Formation

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

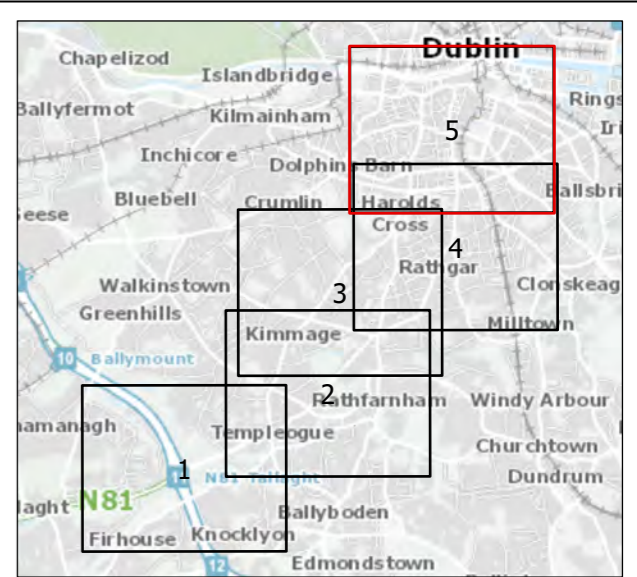
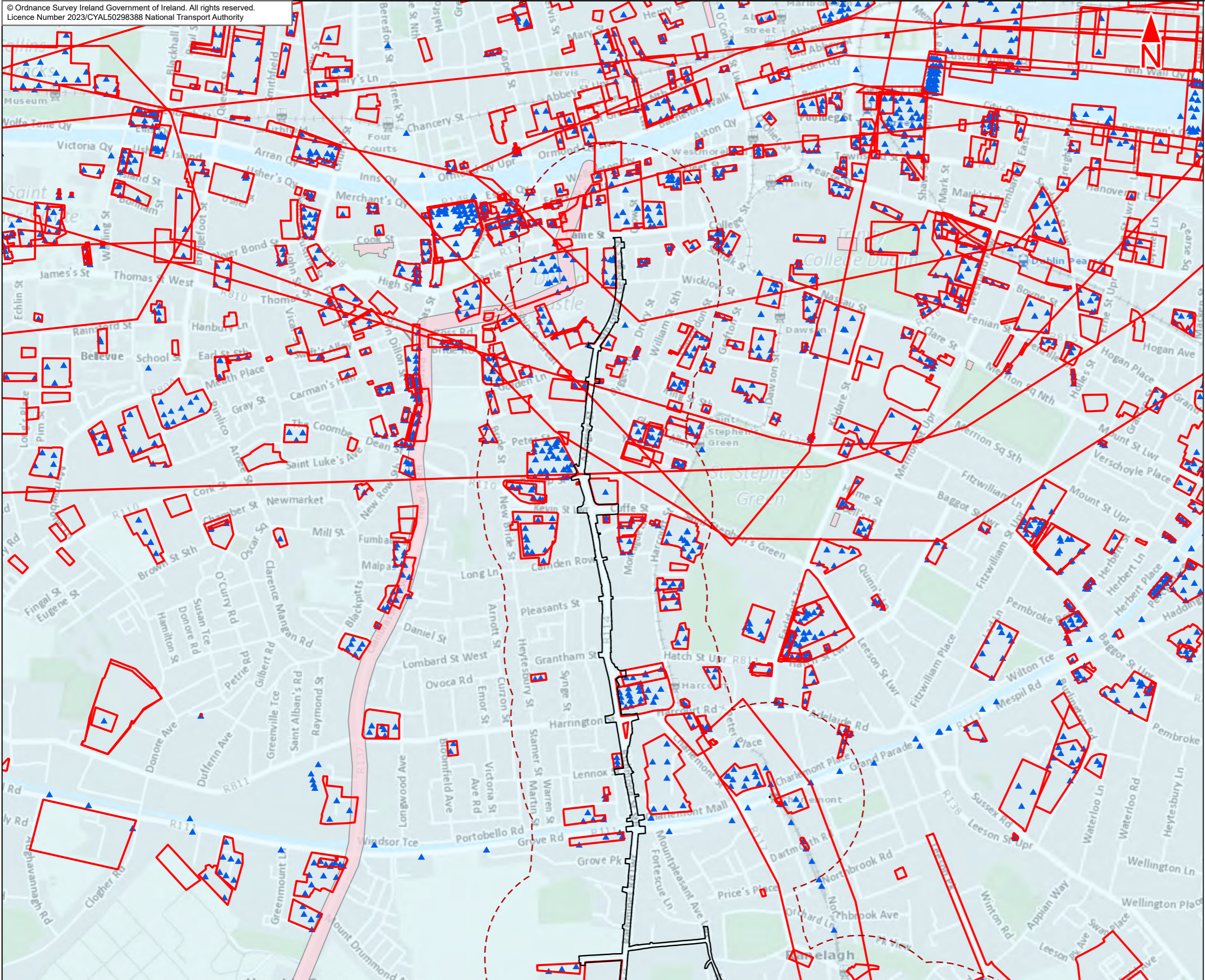
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

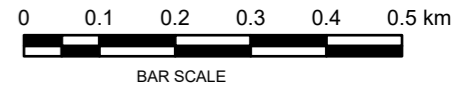
Date	21/02/2023	Scale @ A3	1:10000	Drawn	FG
Project Code	BCIDE	Originator Code	JAC	Checked	PW
				Approved	DK

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS					
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.10 Bedrock Geology					
Drawing File Name	BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0404	Sheet Number	4 of 5	Status	A
Rev	M01				



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - GSI Geotechnical Sites
 - Geological Heritage Site
 - ▲ GSI Geotechnical Boreholes
- GSI Bedrock Geology - 1:100,000**
- Lucan Formation

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing may not be reproduced, copied or otherwise used in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



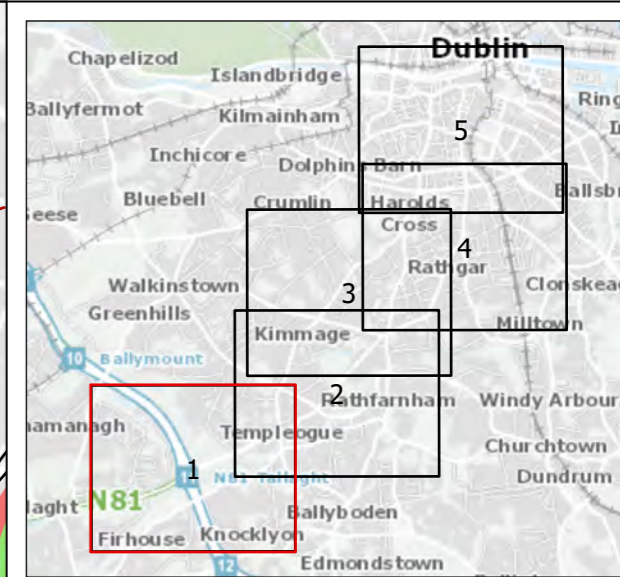
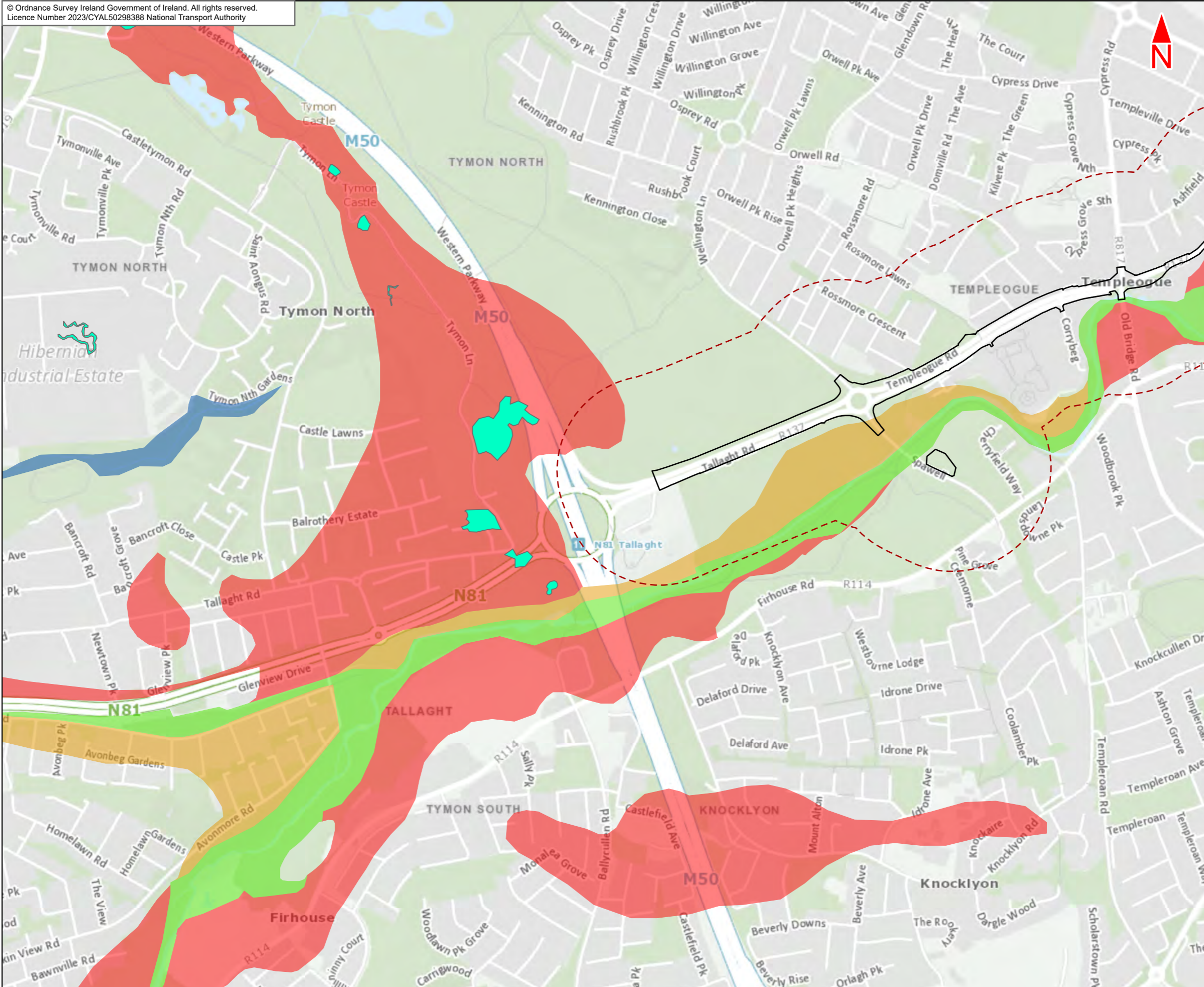
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.10 Bedrock Geology				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0405	Sheet Number 5 of 5	Status A	Rev M01	



14.11
Granular Aggregate Potential



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - Pits and Quarries Areas
- GSI Aggregate Potential Mapping - Granular Aggregate Potential**
- Very High potential
 - High potential
 - Low potential
 - Very Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

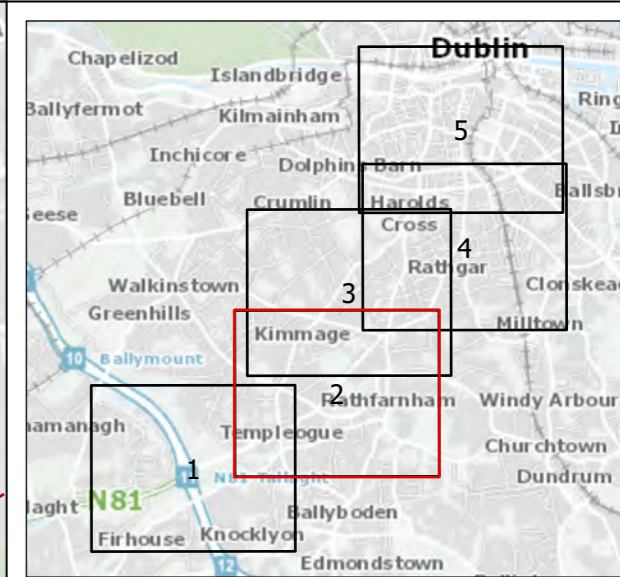
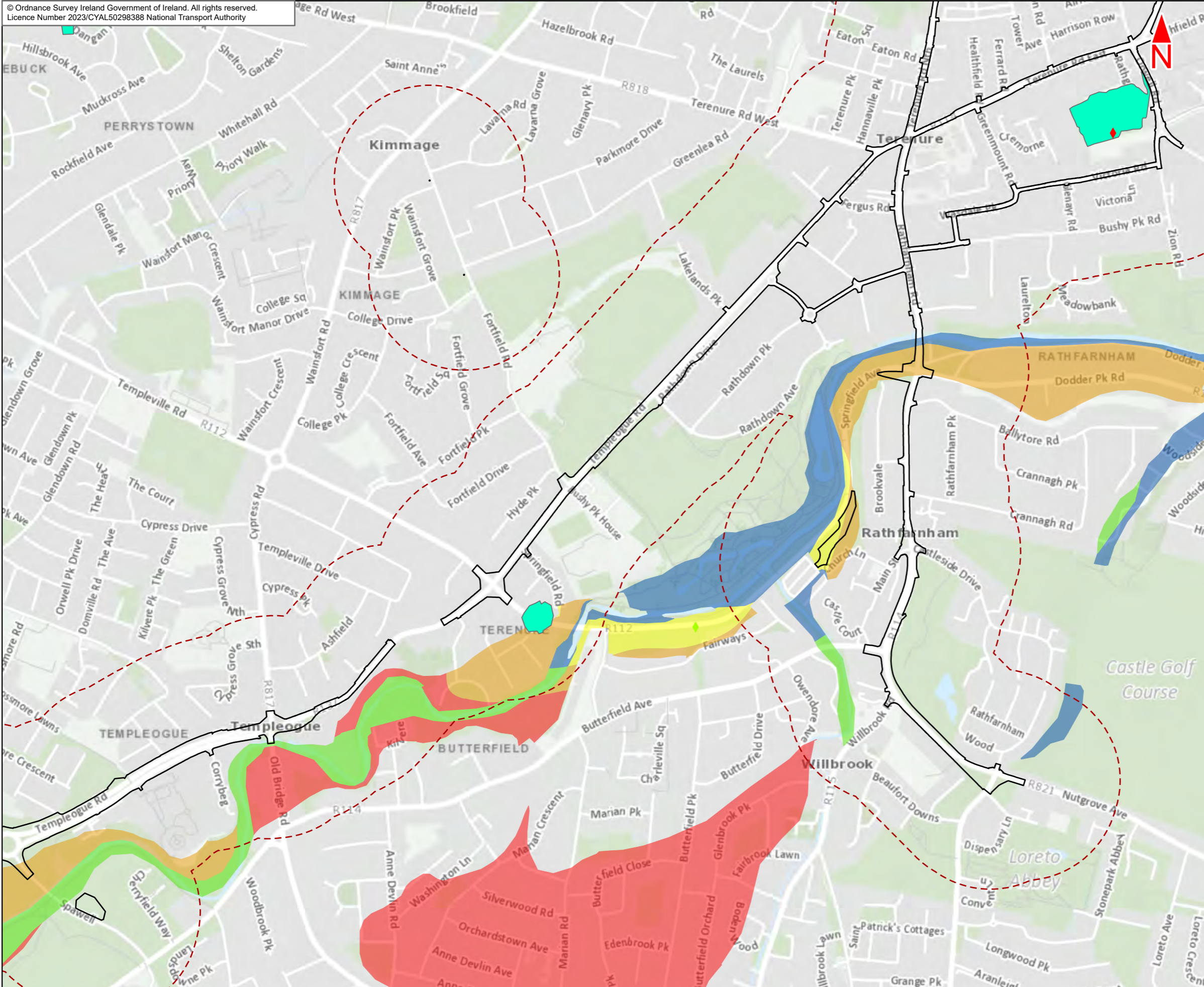
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
Project Code: BCIDE | Originator Code: JAC

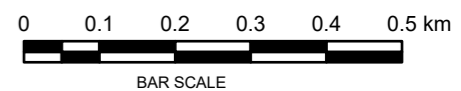
Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0501	Sheet Number: 1 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - Mineral Locations**
 - ◆ Metallic
 - ◆ Non-metallic
 - Pits and Quarries Areas
 - GSI Aggregate Potential Mapping - Granular Aggregate Potential**
 - Very High potential
 - High potential
 - Moderate potential
 - Low potential
 - Very Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
e. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

f. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

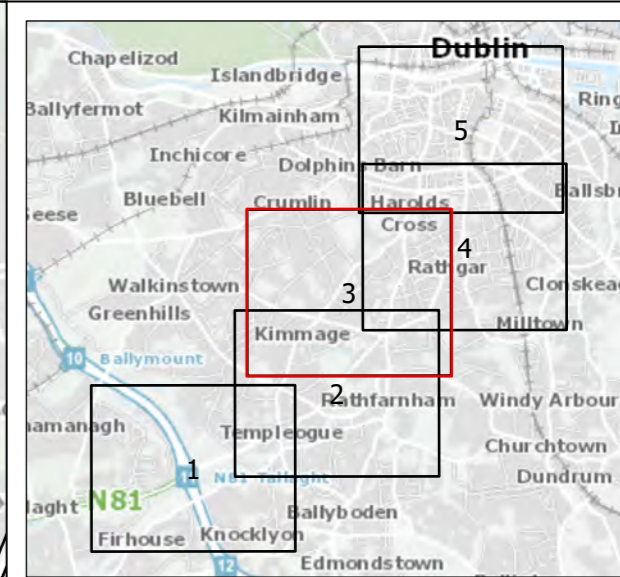
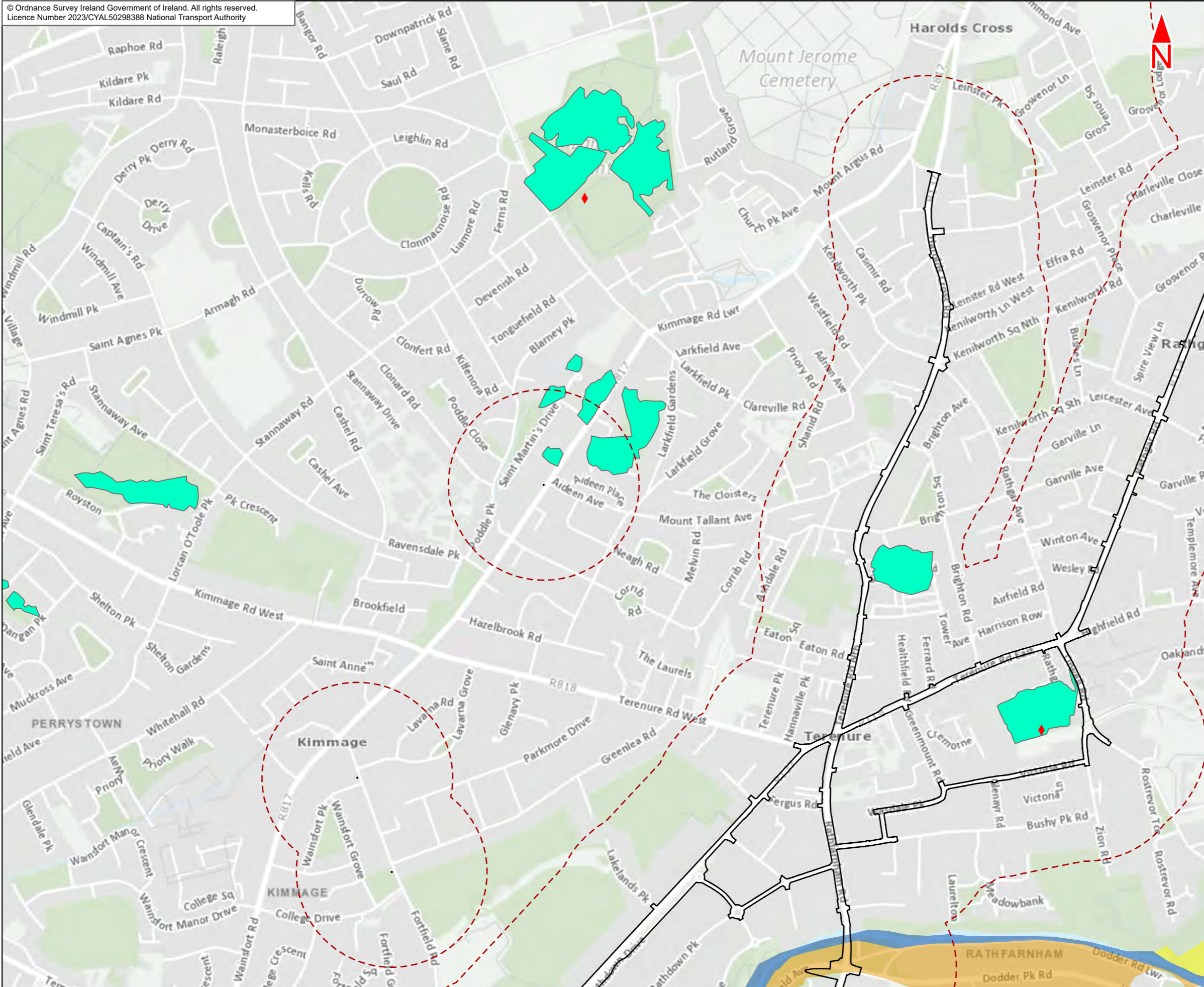


Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

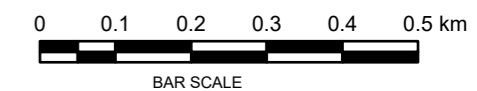
Consultant
JACOBS
ARUP SYSTRA

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code	Sheet Number 2 of 5	Status A
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0502	Rev M01			



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - Mineral Locations**
 - ◆ Non-metallic
 - Pits and Quarries Areas
 - GSI Aggregate Potential Mapping - Granular Aggregate Potential**
 - High potential
 - Moderate potential
 - Very Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



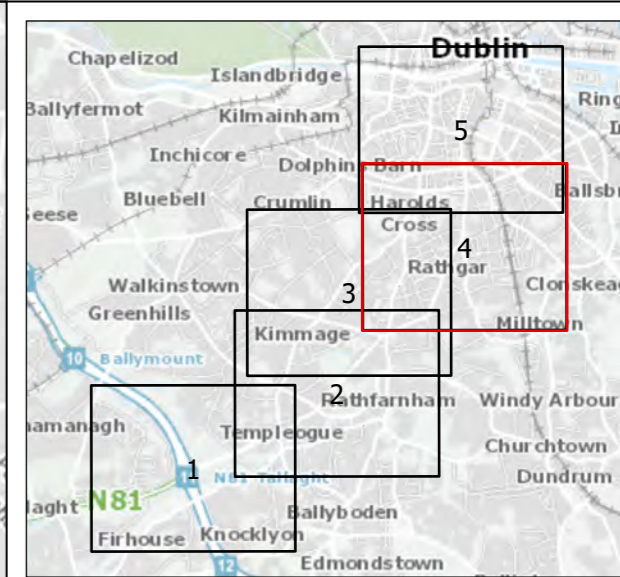
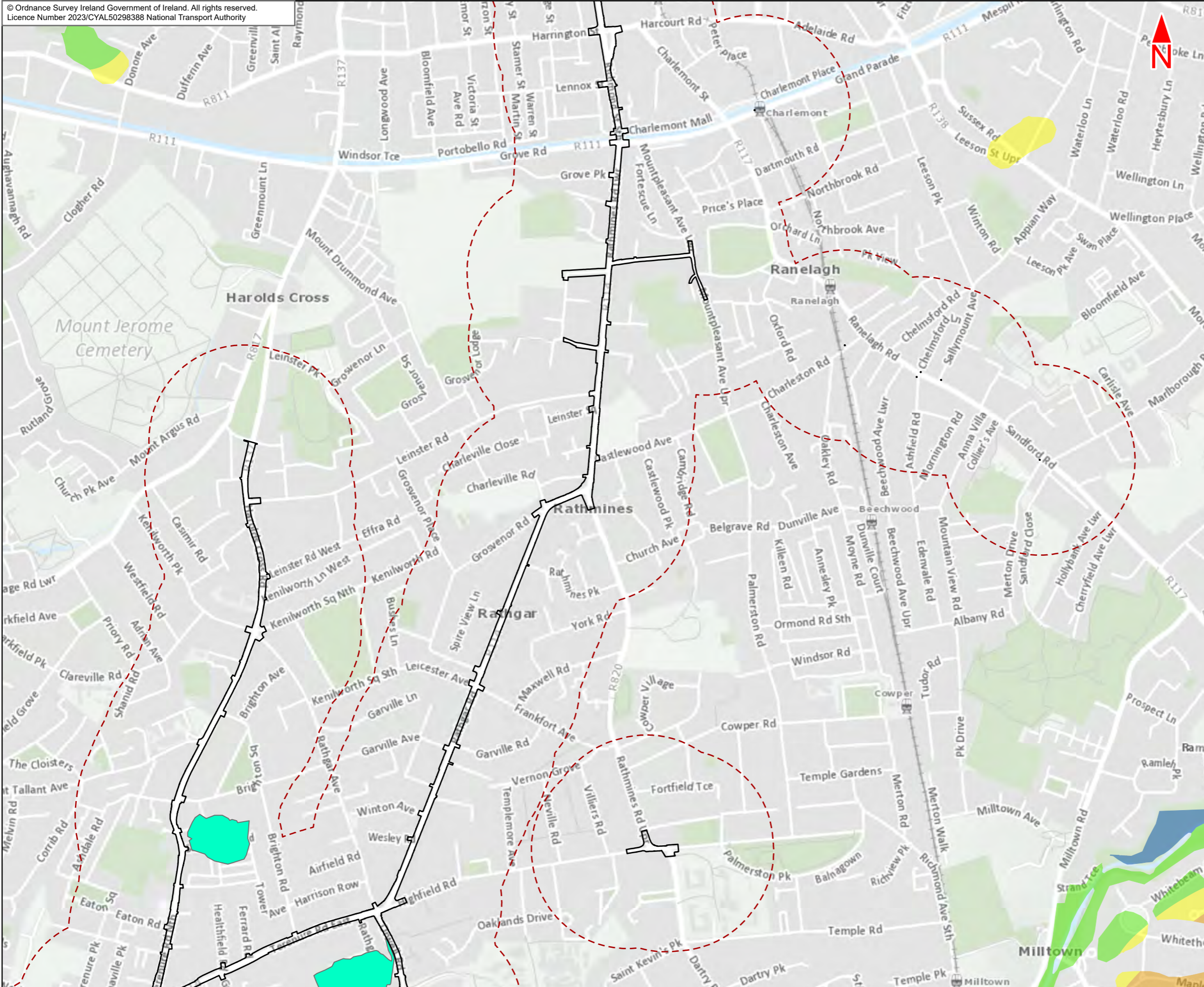
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

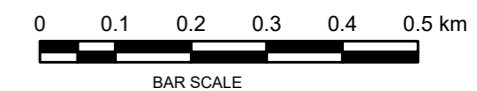
Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC
Drawn: FG Checked: PW Approved: DK
QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0503	Sheet Number: 3 of 5	Status: A	Rev: M01	



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - Pits and Quarries Areas
- GSI Aggregate Potential Mapping - Granular Aggregate Potential**
- High potential
 - Moderate potential
 - Low potential
 - Very Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing may not be reproduced, copied or otherwise used in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
e. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

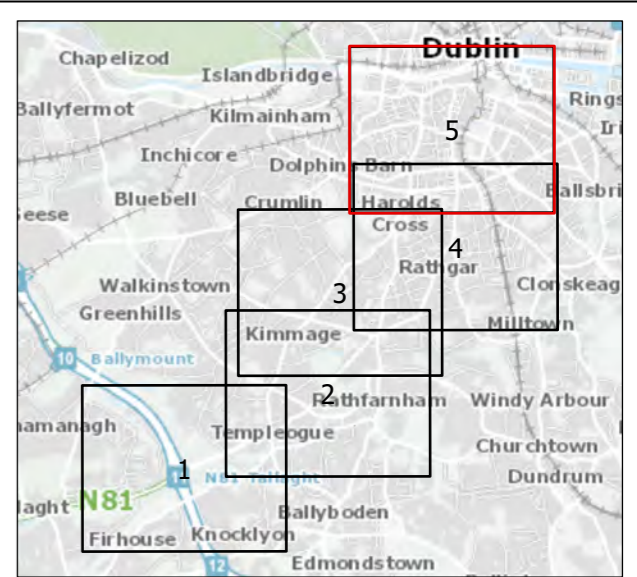
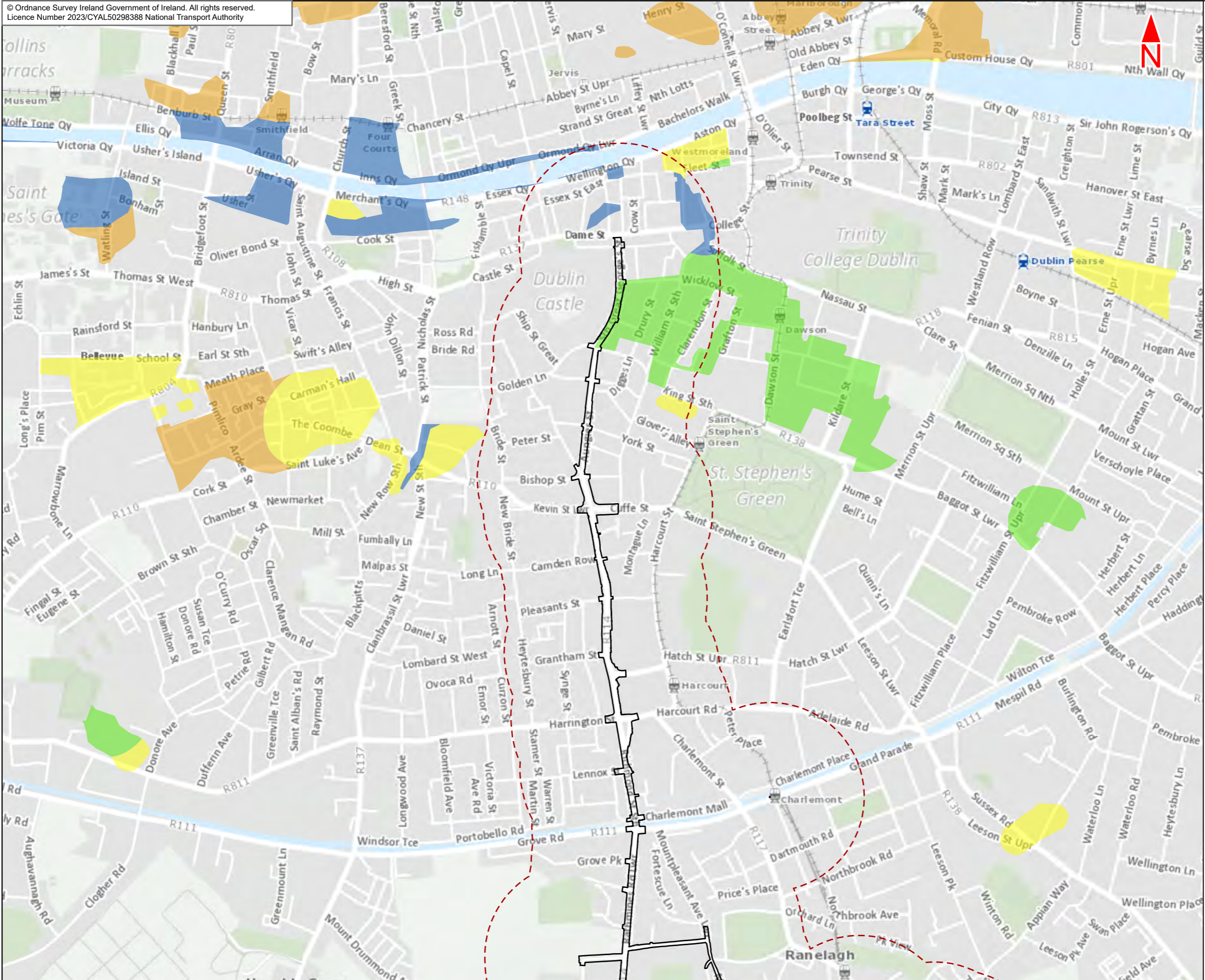
f. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0504	Sheet Number 4 of 5	Status A	Rev M01	



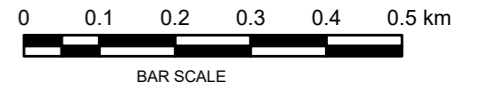
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area

GSI Aggregate Potential Mapping - Granular Aggregate Potential

- High potential
- Moderate potential
- Low potential
- Very Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

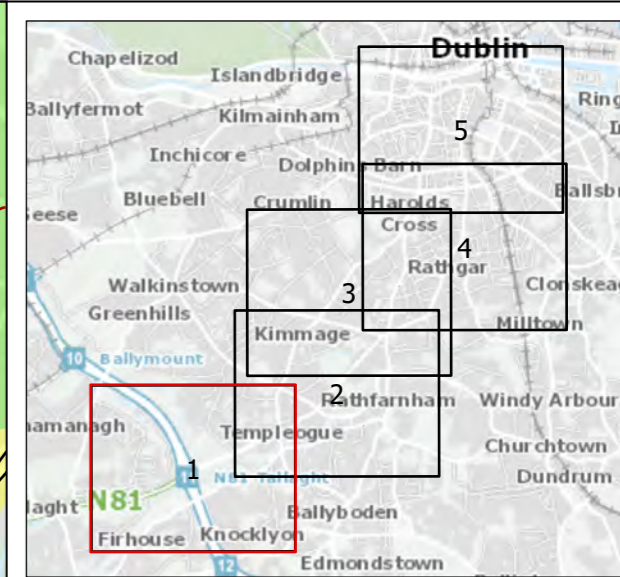
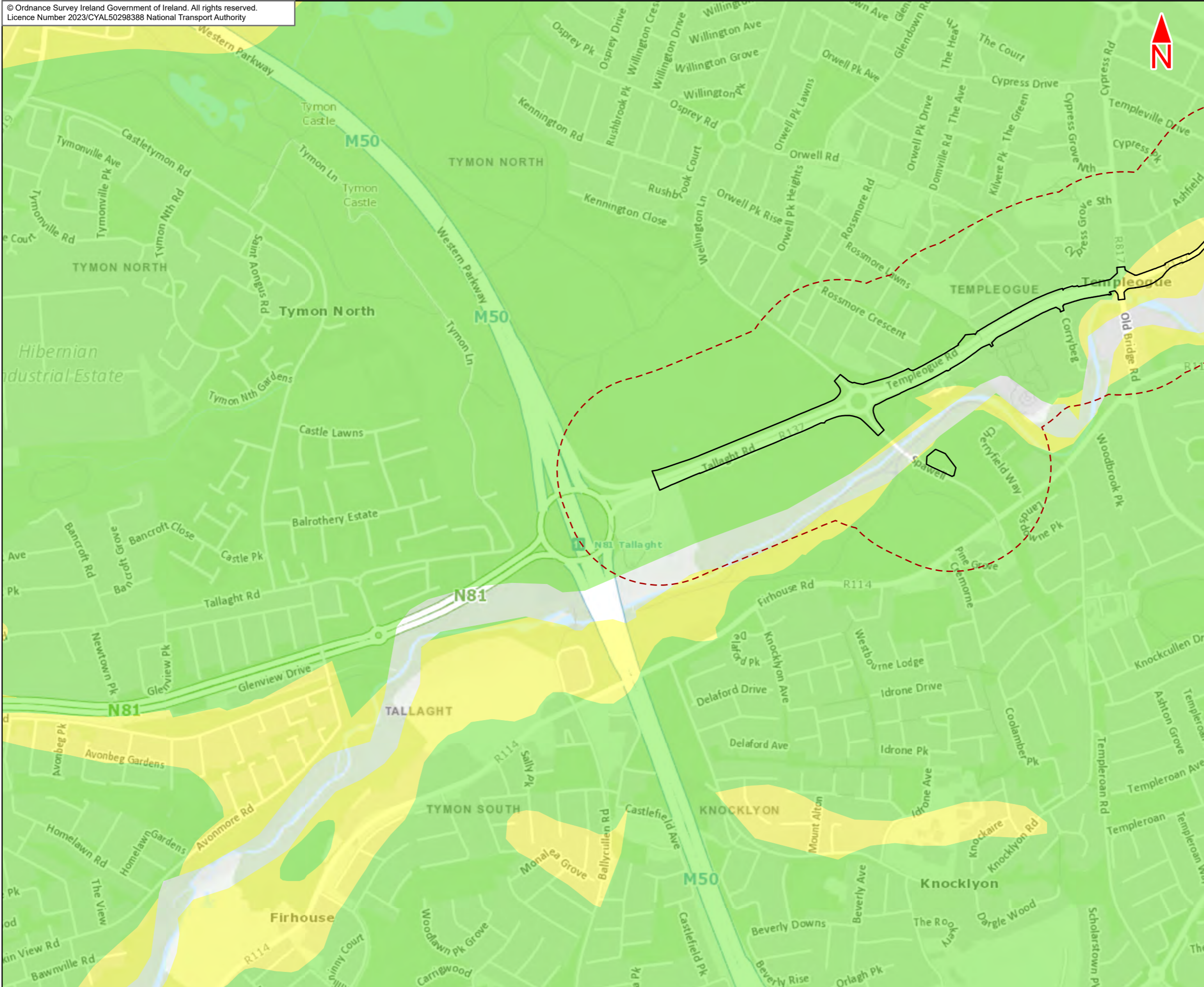
Date: 21/02/2023 | Scale @ A3: 1:10000
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.11 Granular Aggregate Potential				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0505	Sheet Number: 5 of 5	Status: A	Rev: M01	

14.12
Crushed Rock Aggregate
Potential





Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential

- Yellow: Moderate potential
- Green: Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing may not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

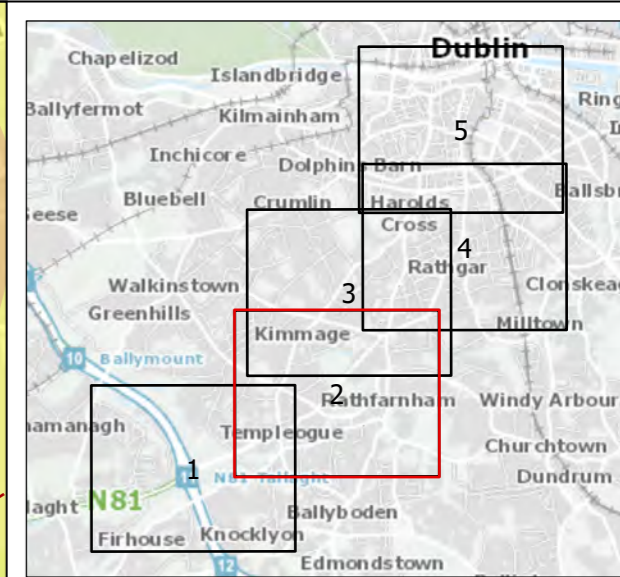
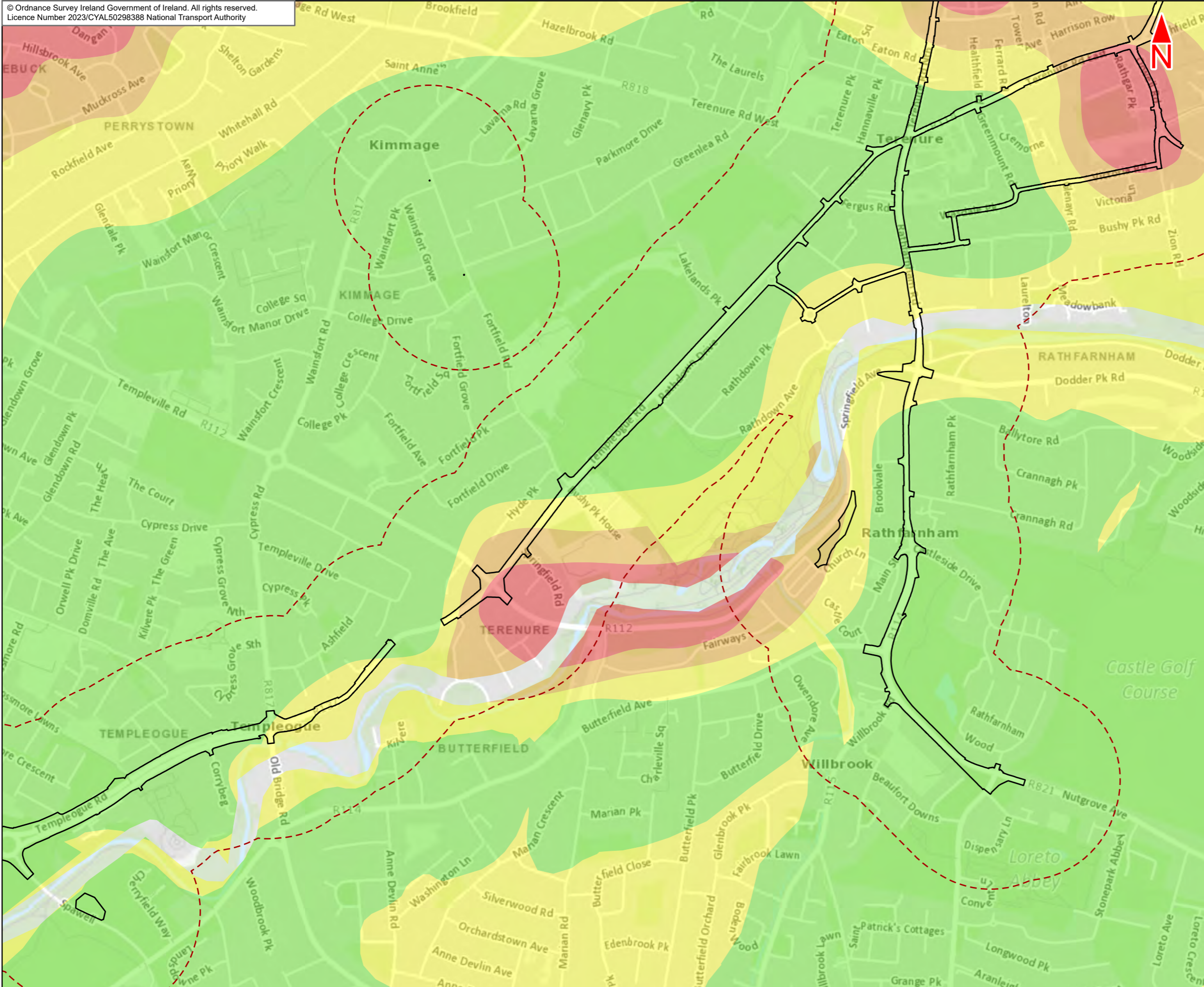
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK
QMS Code: _____

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.12 Crushed Rock Aggregate Potential				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0601	Sheet Number: 1 of 5	Status: A	Rev: M01	



Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential

- Very high potential
- High potential
- Moderate potential
- Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

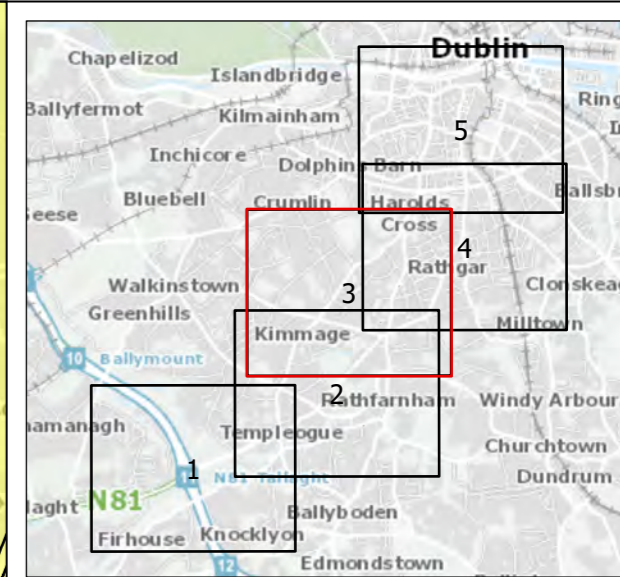
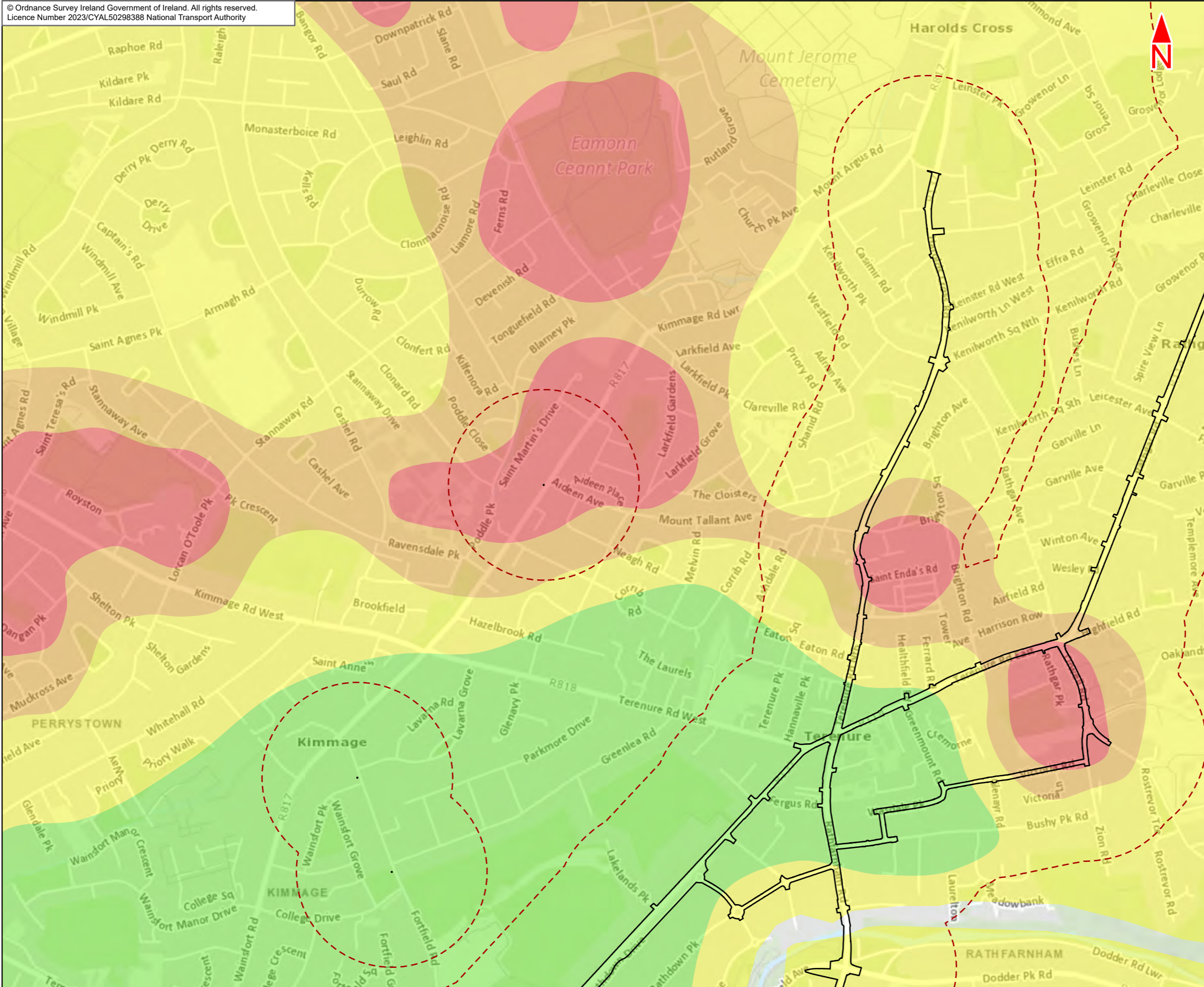
Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK
QMS Code:

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
Figure 14.12
Crushed Rock Aggregate Potential

Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0602 Sheet Number: 2 of 5 Status: A Rev: M01



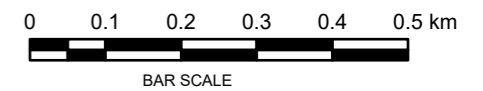
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area

GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential

- Very high potential
- High potential
- Moderate potential
- Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

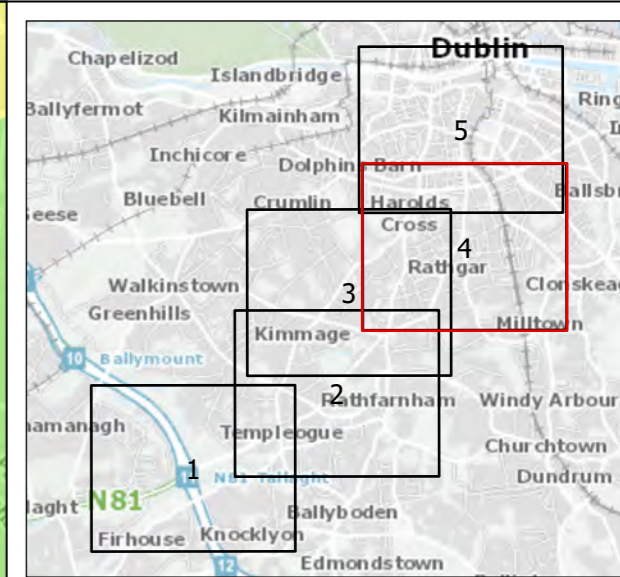
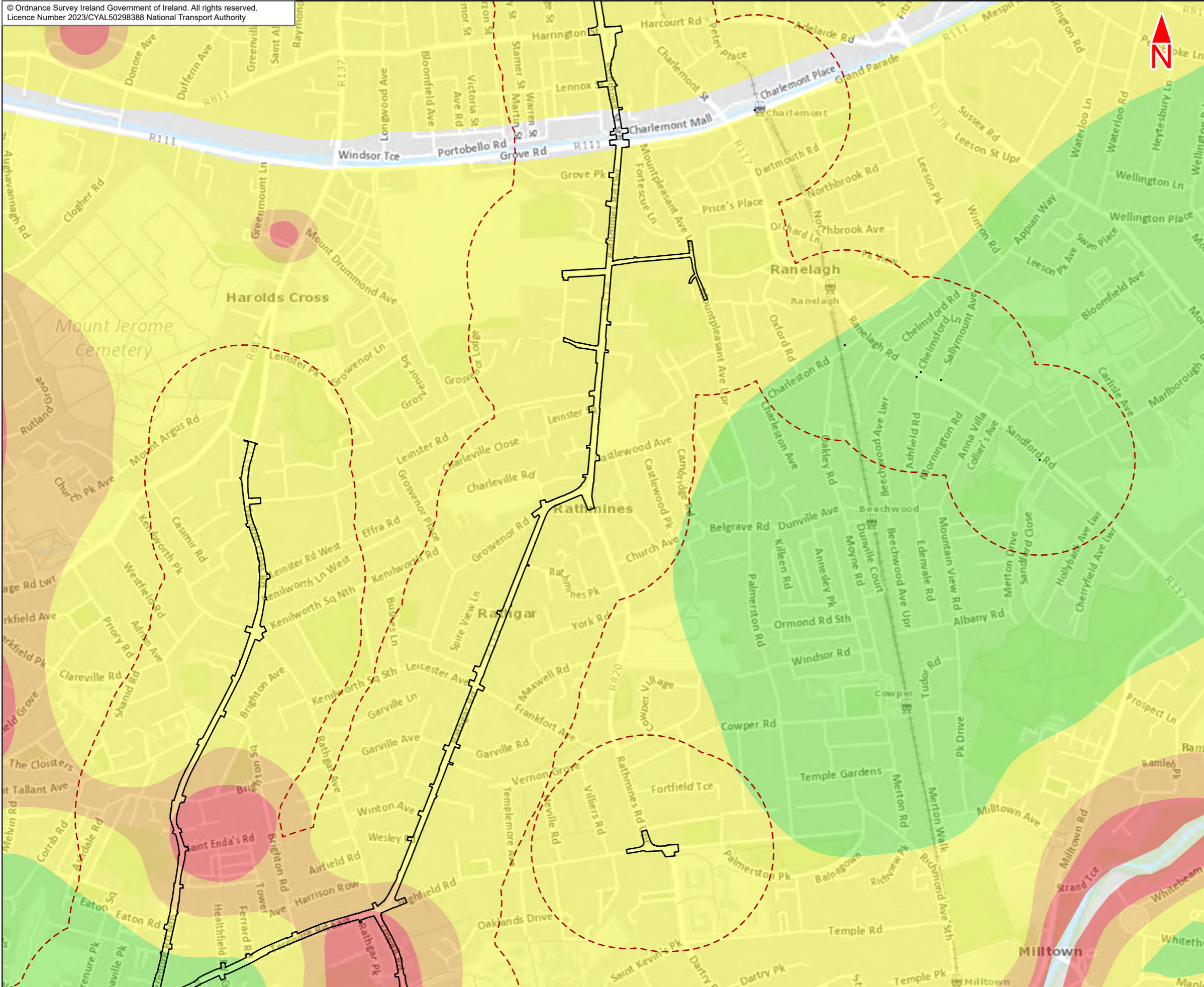
Date: 21/02/2023 | Scale @ A3: 1:10000
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK

Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
Figure 14.12
Crushed Rock Aggregate Potential

Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0603 | Sheet Number: 3 of 5 | Status: A | Rev: M01



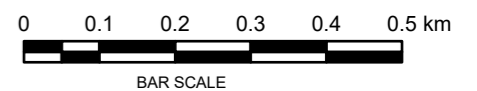
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area

GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential

- Very high potential
- High potential
- Moderate potential
- Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



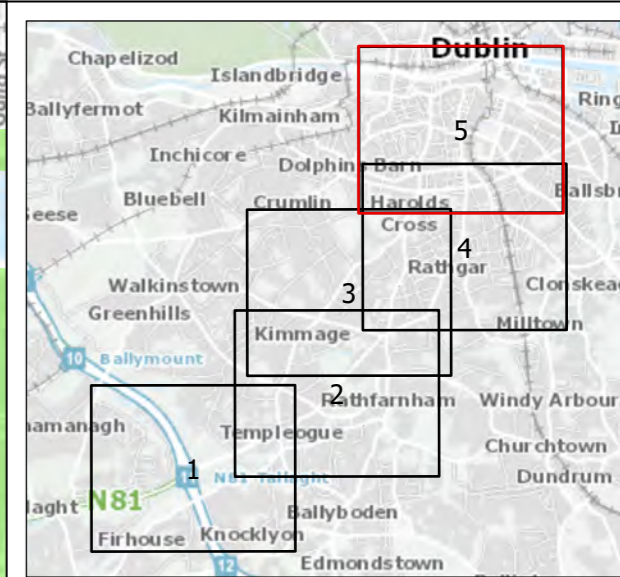
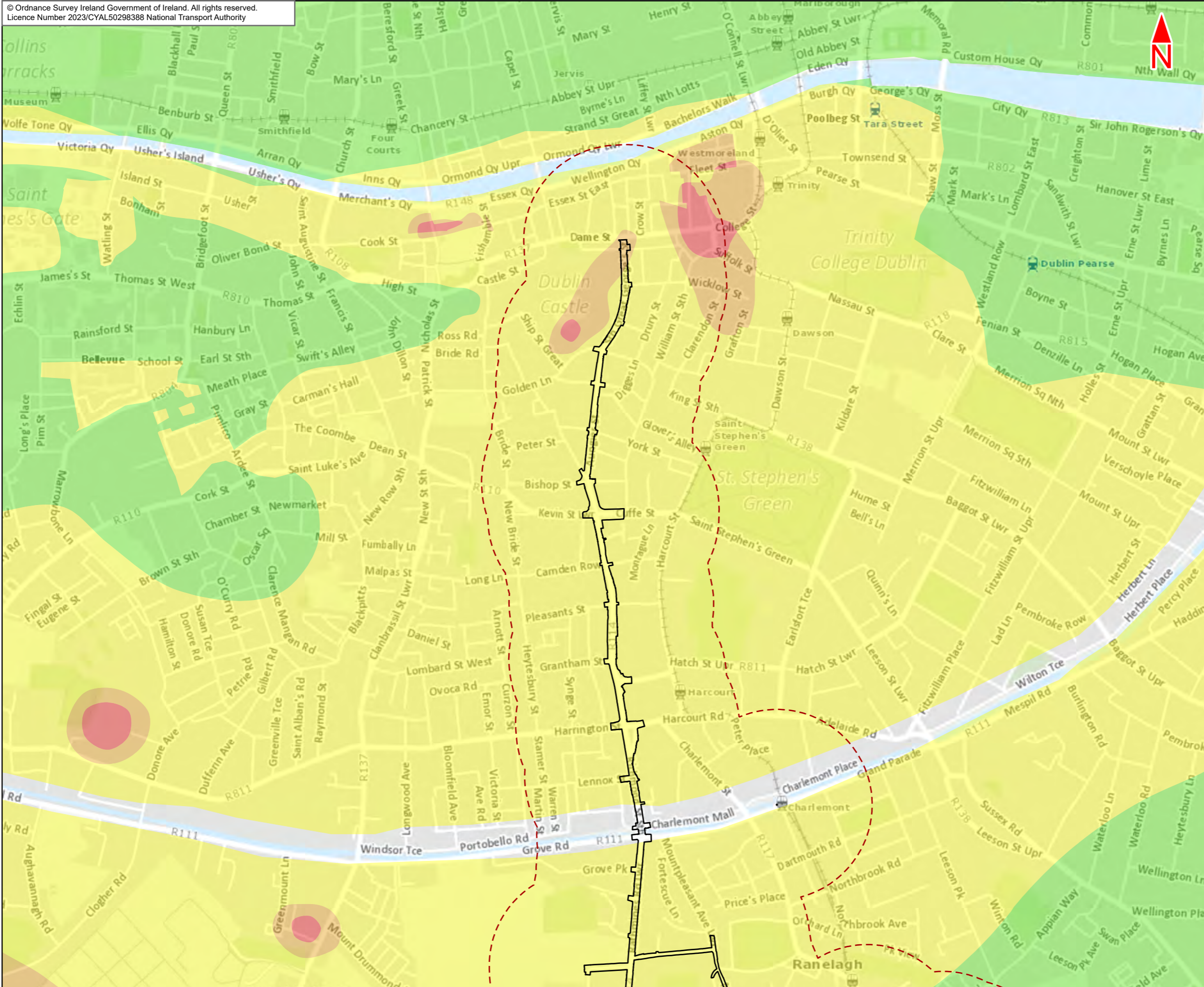
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS**
ARUP SYSTRA

Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC
Drawn: FG Checked: PW Approved: DK
QMS Code: _____

Programme Title: BUSCONNECTS DUBLIN			
CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme			
Figure 14.12 Crushed Rock Aggregate Potential			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0604	Sheet Number: 4 of 5	Status: A	Rev: M01



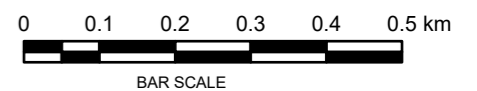
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

GSI Aggregate Potential Mapping - Crushed Rock Aggregate Potential

- Very high potential
- High potential
- Moderate potential
- Low potential

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK
QMS Code:

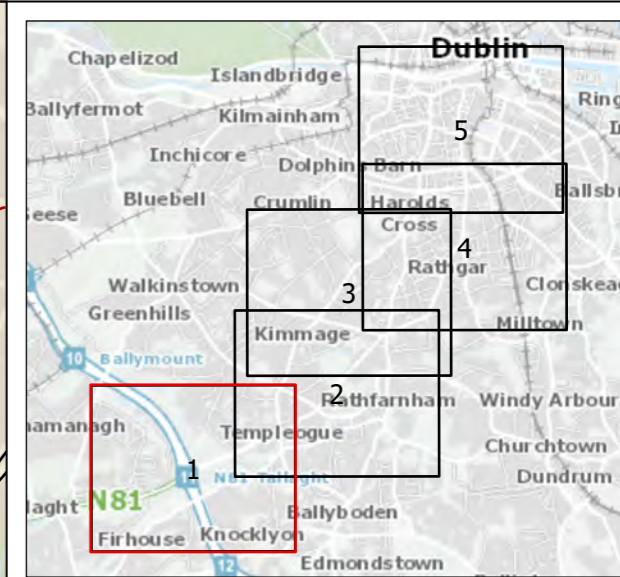
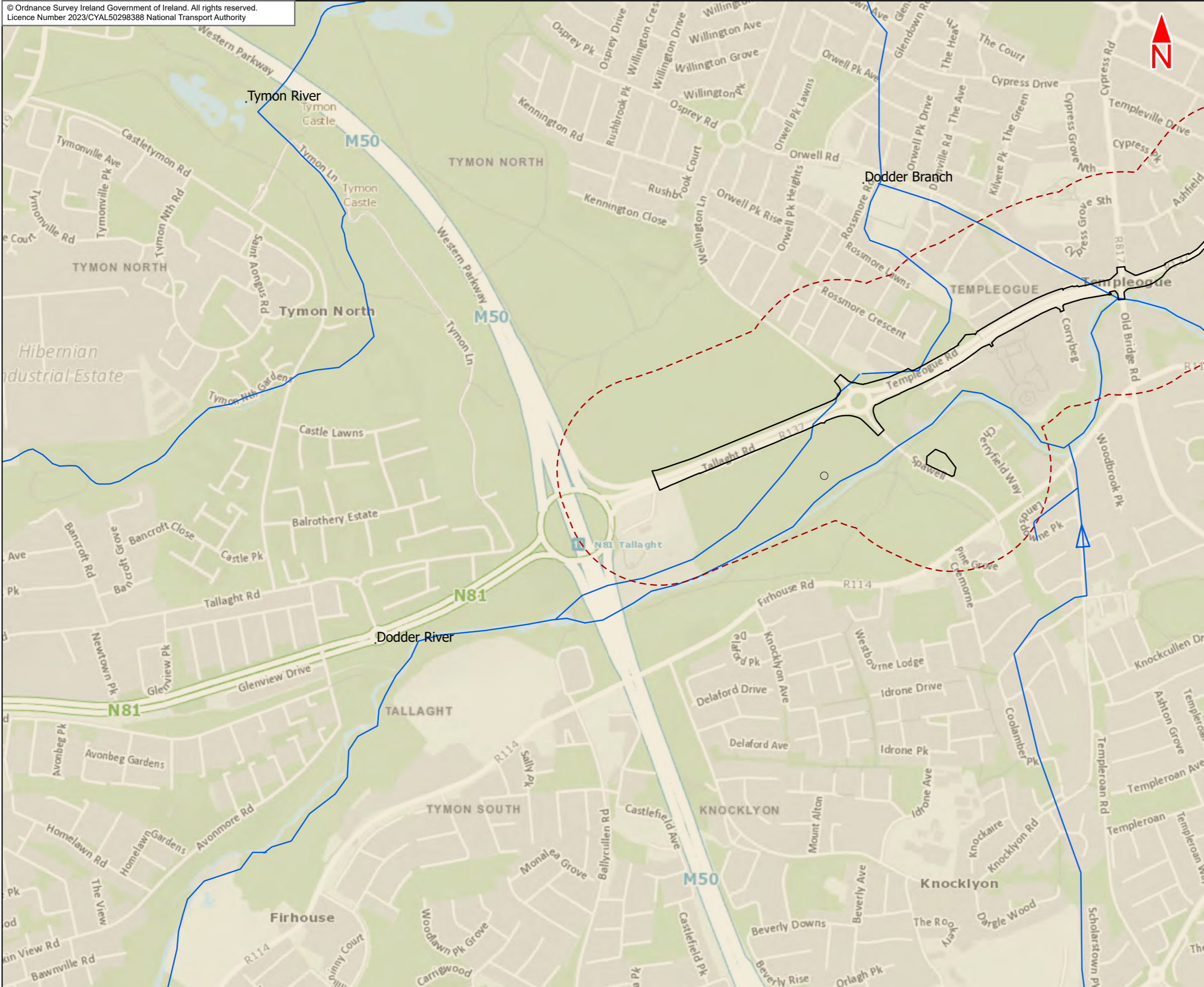
Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
Figure 14.12
Crushed Rock Aggregate Potential

Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0605 Sheet Number: 5 of 5 Status: A Rev: M01

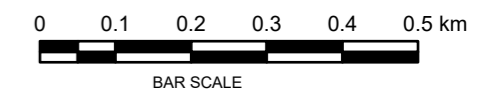
14.13
Aquifers





- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Rivers Of Dublin
 - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

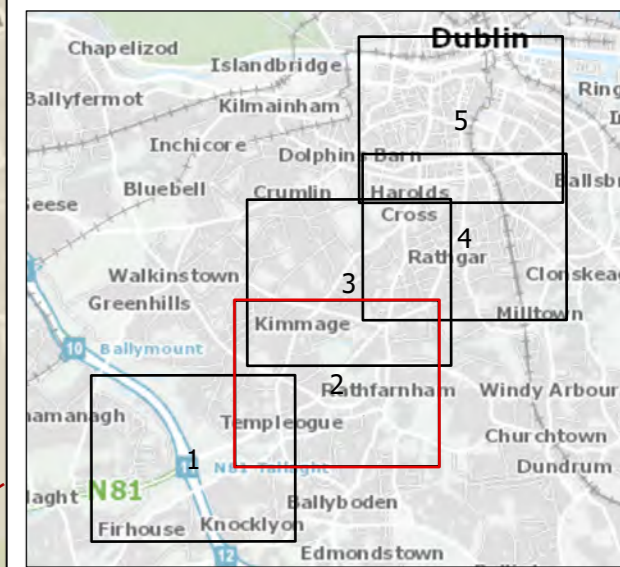
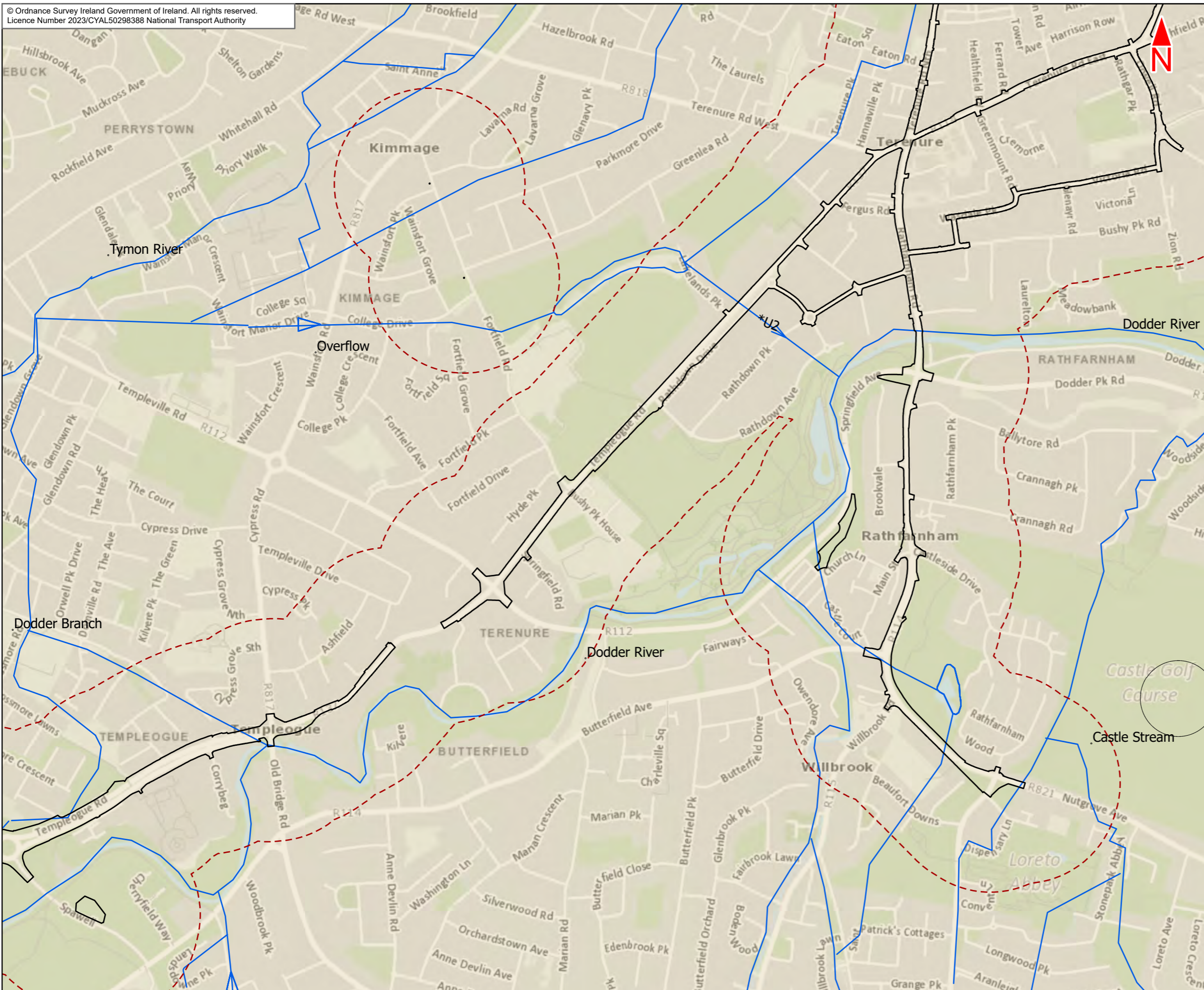
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

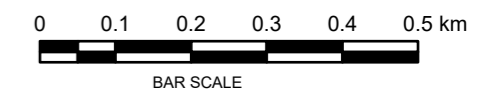
Date	Scale @ A3	Drawn	Checked	Approved
21/02/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0701	1 of 5	A	M01	



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Rivers Of Dublin
 - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OS Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



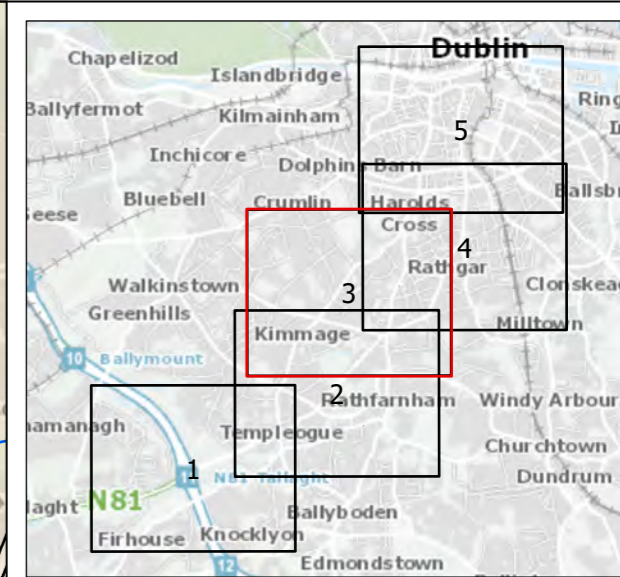
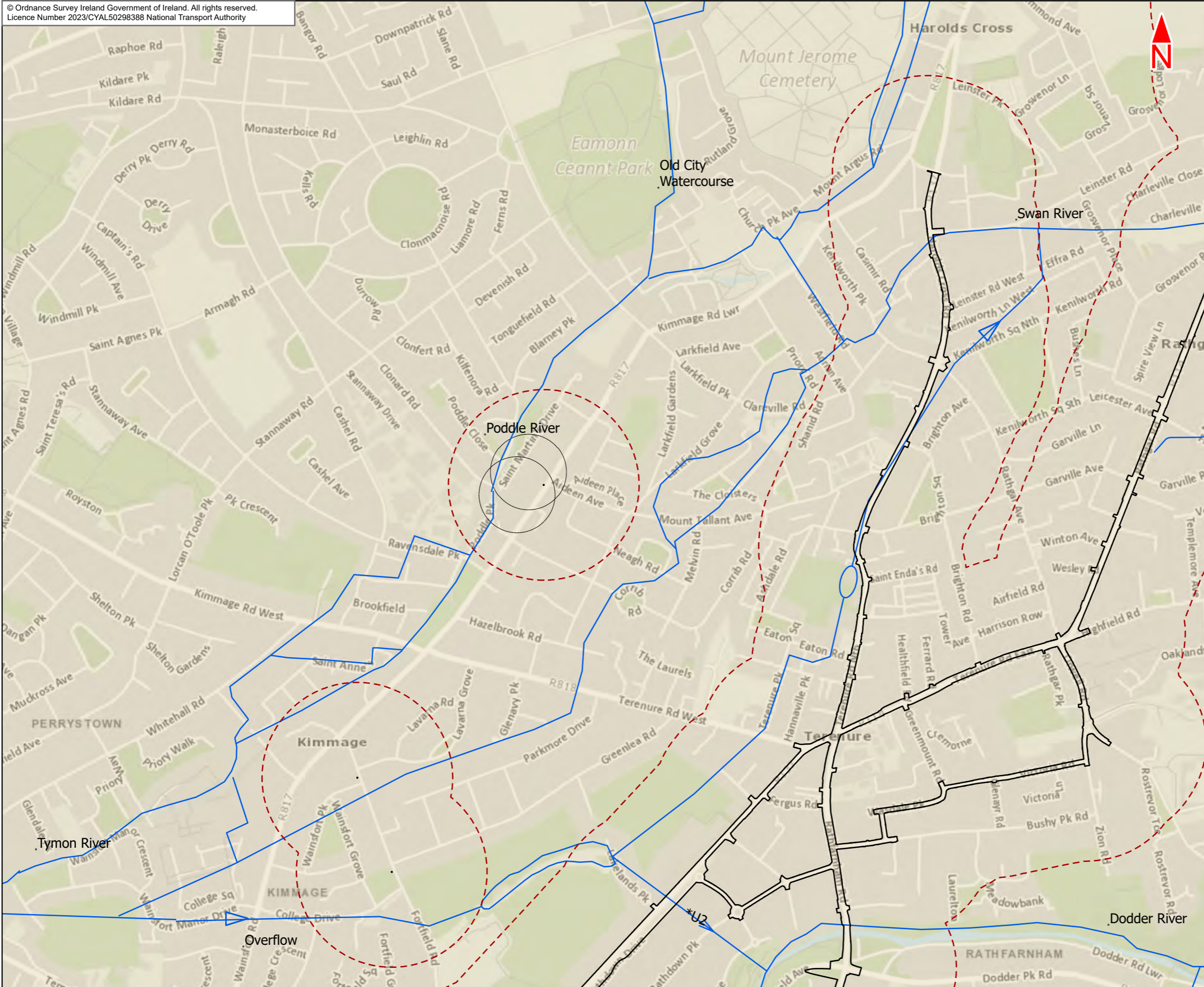
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

Consultant
JACOBS ARUP SYSTRA

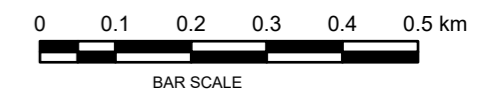
Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Aquifers Figure 14.13				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0702	Sheet Number 2 of 5	Status A	Rev M01	

Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Rivers Of Dublin
 - Groundwater Wells and Springs
 - GSI Bedrock Aquifer**
 - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

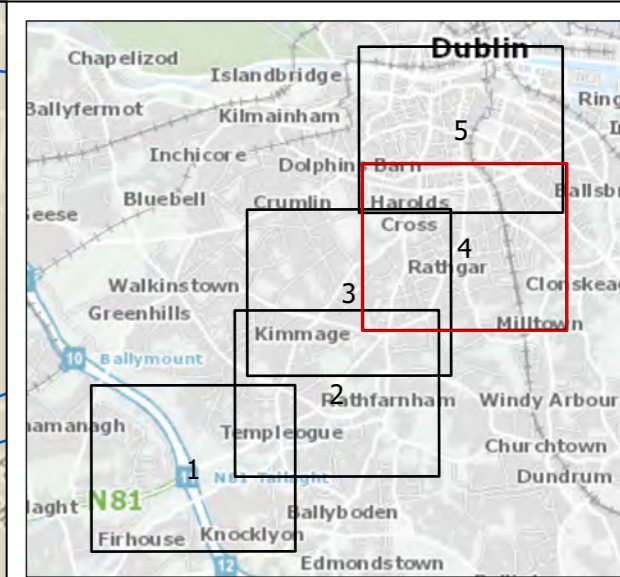
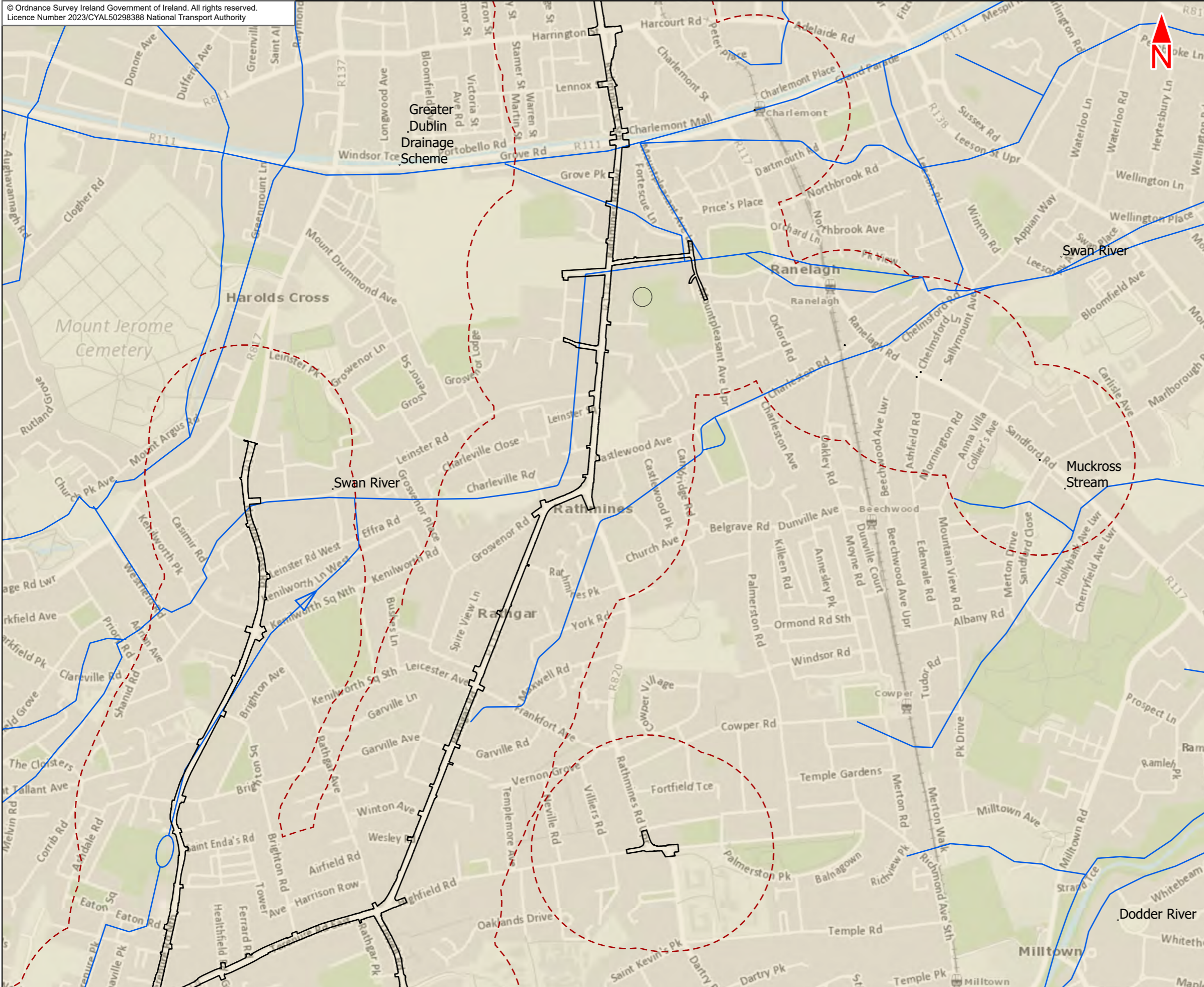
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

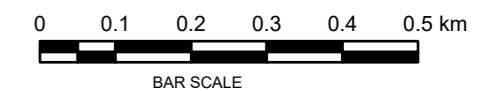
Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0703	Sheet Number 3 of 5	Status A	Rev M01	



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Rivers Of Dublin
 - Groundwater Wells and Springs
- GSI Bedrock Aquifer**
- Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

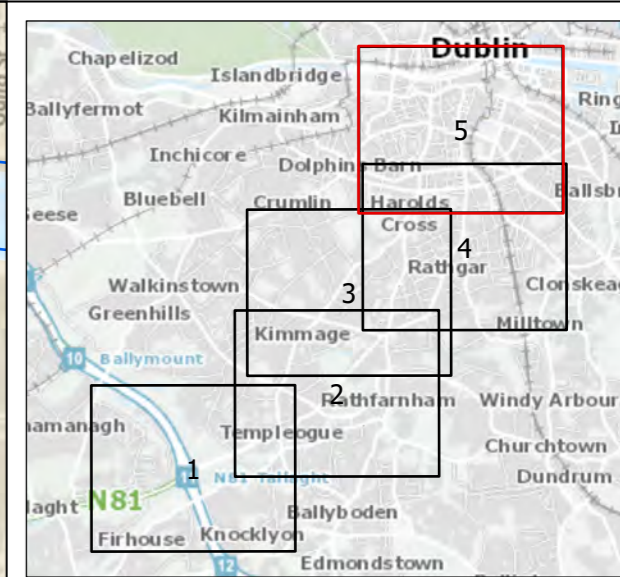
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

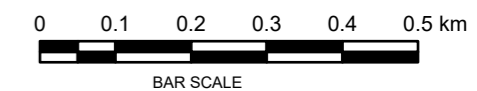
Drawn: FG Checked: PW Approved: DK
QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Aquifers Figure 14.13			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0704	Sheet Number: 4 of 5	Status: A	Rev: M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - 250m Study Area
 - Rivers Of Dublin
 - Groundwater Wells and Springs
 - GSI Bedrock Aquifer**
 - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones (LI)

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



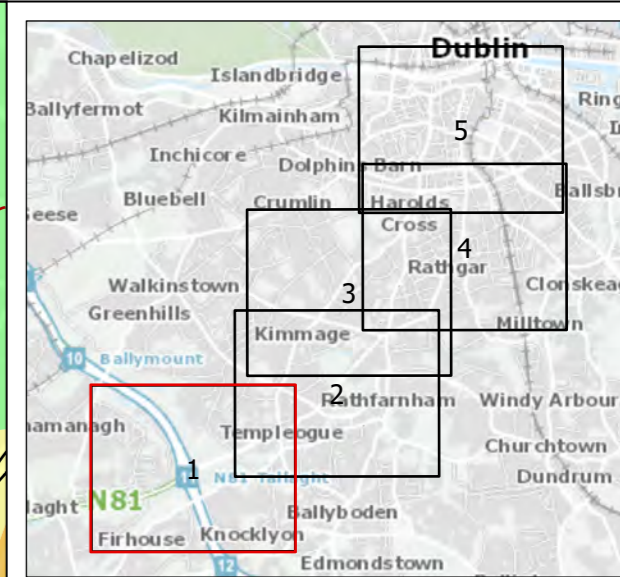
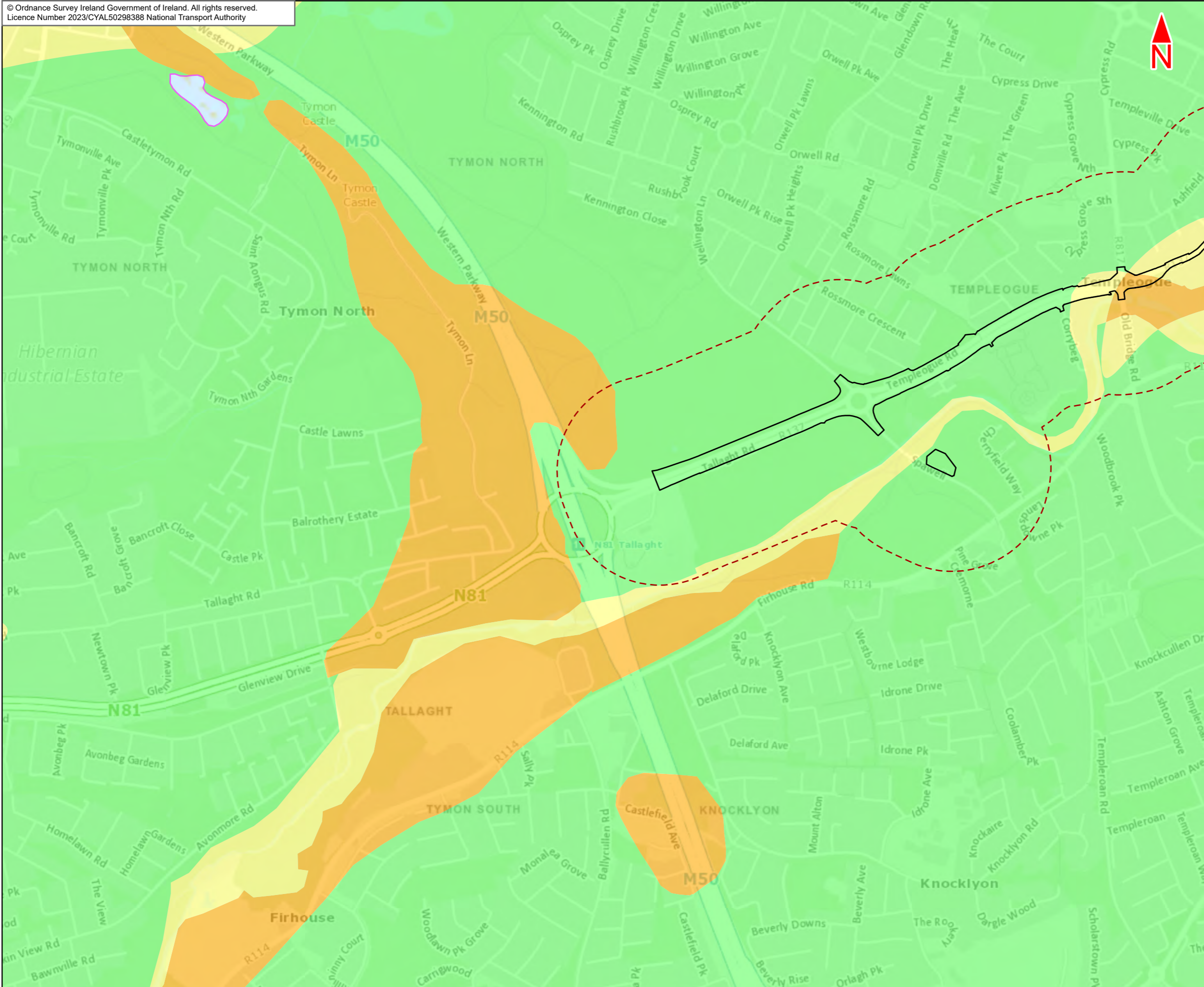
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Date	Scale @ A3	Drawn	Checked	Approved
21/02/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.13 Aquifers				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0705	5 of 5	A	M01	

14.14
Groundwater Vulnerability





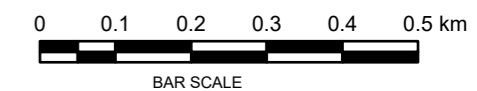
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area

GSI National Groundwater Vulnerability

- High
- Moderate
- Low
- Water

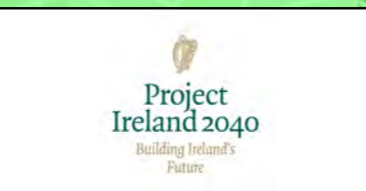
This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

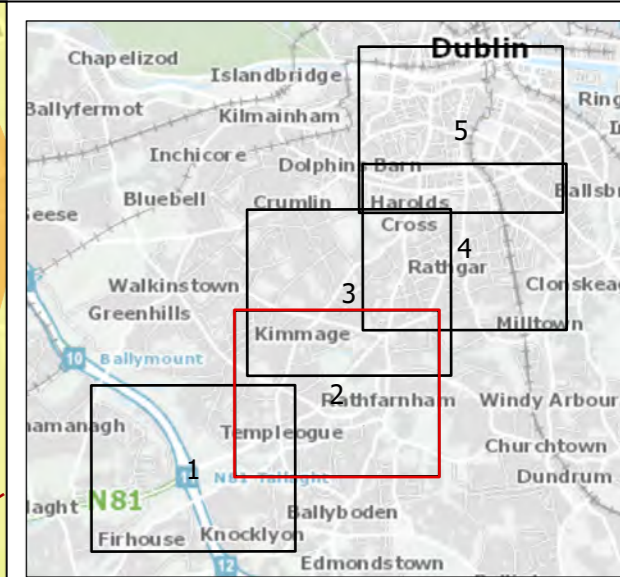
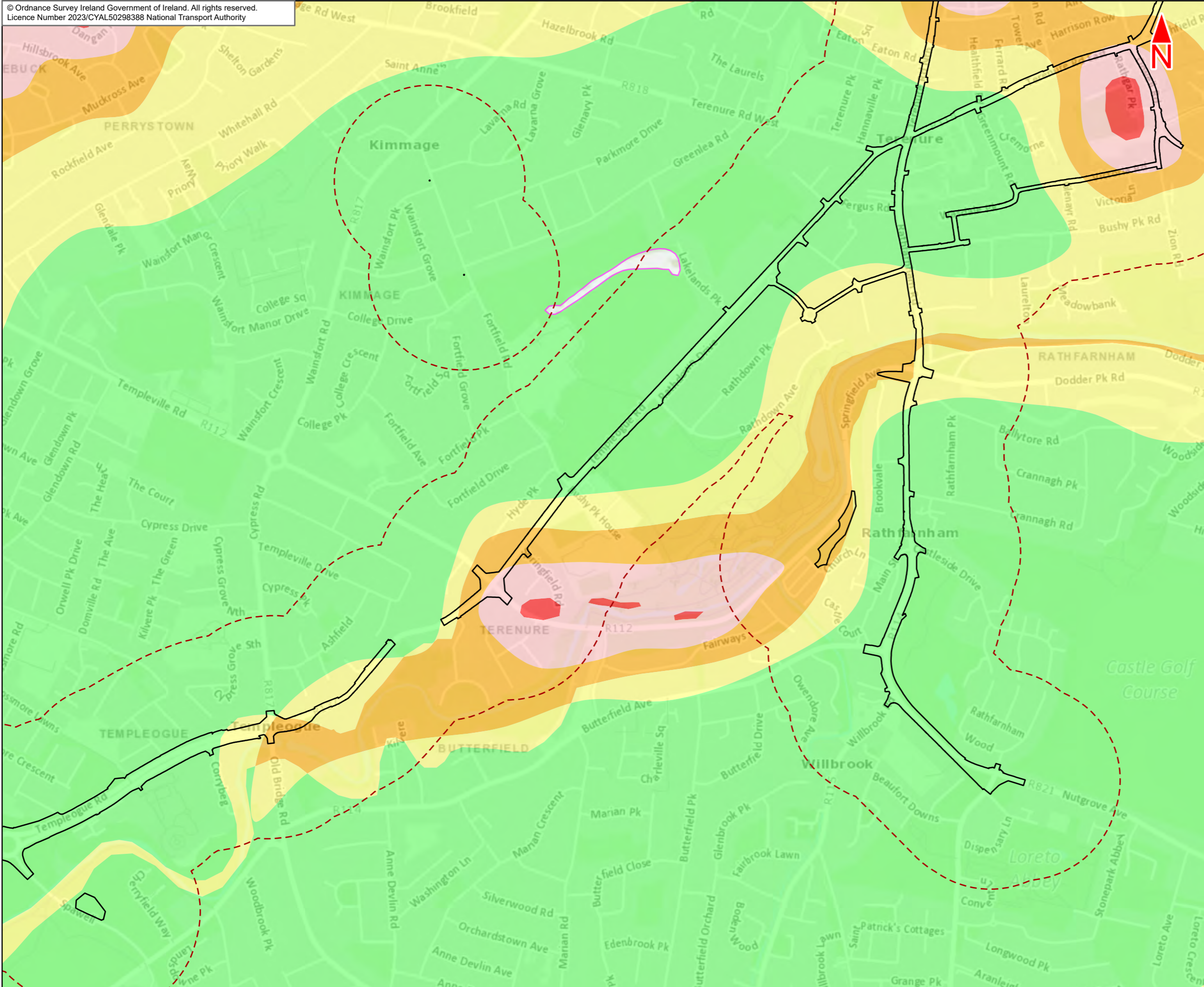


Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client
NTA
Udarás Náisiúnta Iompair
National Transport Authority

Consultant
JACOBS
ARUP SYSTRA

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0801	Sheet Number 1 of 5	Status A	Rev M01	



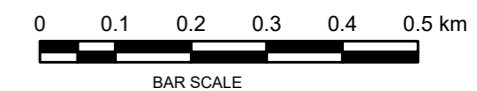
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area

GSI National Groundwater Vulnerability

- Extreme (X) Rock at/close to surface or Karst
- Extreme
- High
- Moderate
- Low
- Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

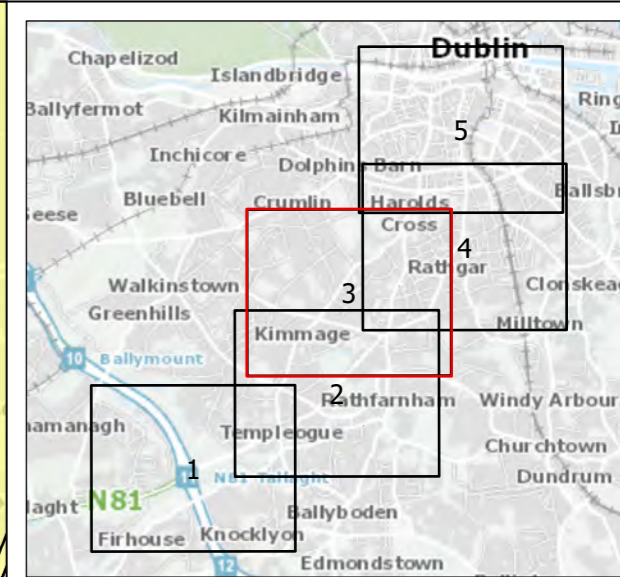
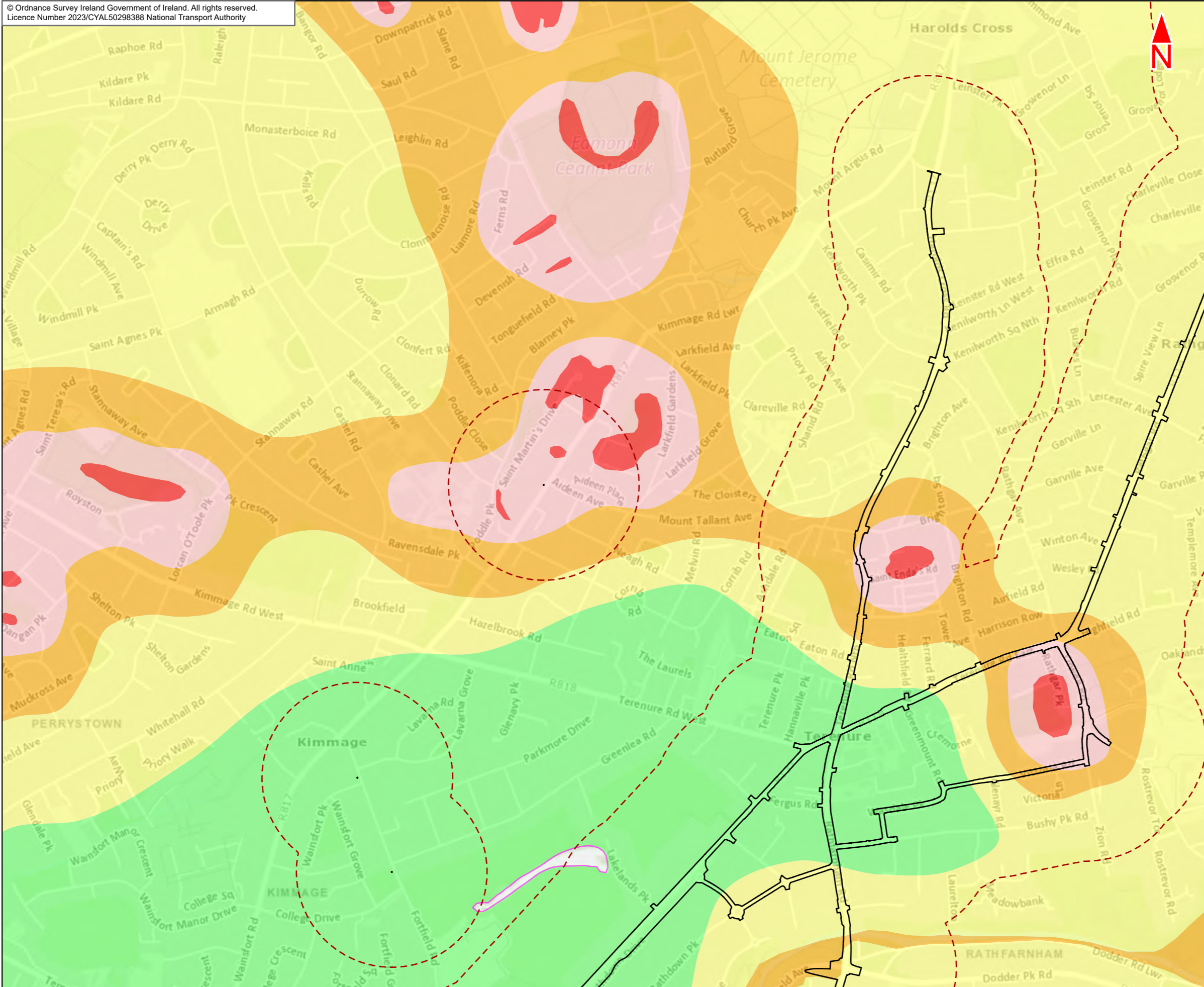
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
Project Code: BCIDE | Originator Code: JAC

Drawn: FG | Checked: PW | Approved: DK
QMS Code: _____

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability			
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0802	Sheet Number: 2 of 5	Status: A	Rev: M01



Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

GSI National Groundwater Vulnerability

- Extreme (X) Rock at/close to surface or Karst
- Extreme
- High
- Moderate
- Low
- Water

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



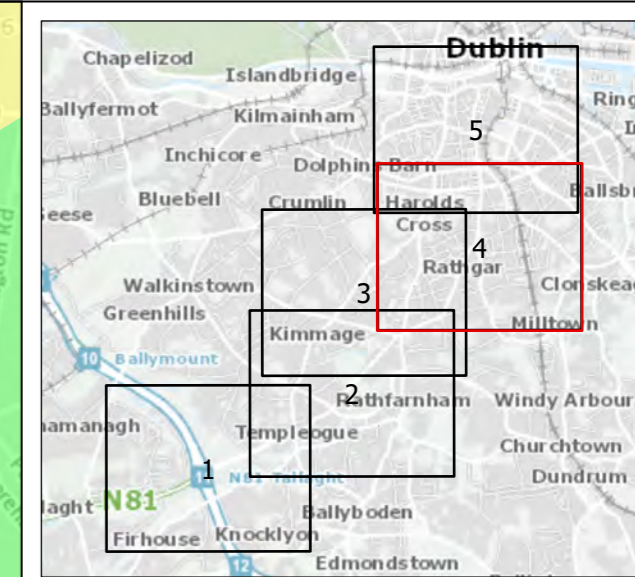
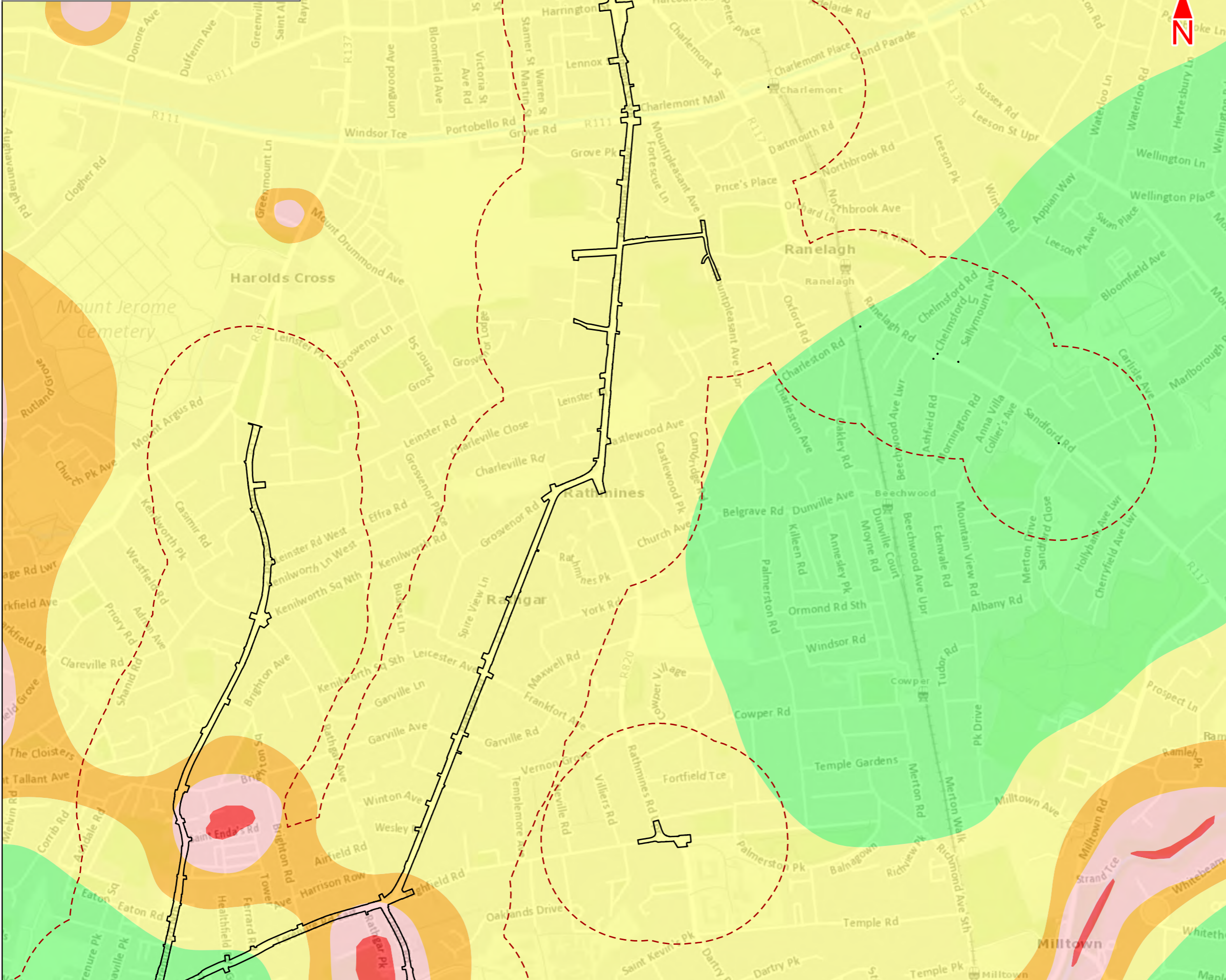
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 | Scale @ A3: 1:10000
 Drawn: FG | Checked: PW | Approved: DK
 Project Code: BCIDE | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0803	Sheet Number: 3 of 5	Status: A	Rev: M01	



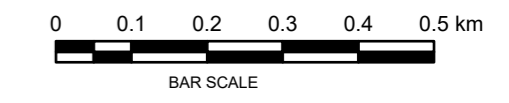
Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- - - 250m Study Area

GSI National Groundwater Vulnerability

- Extreme (X) Rock at/close to surface or Karst
- Extreme
- High
- Moderate
- Low

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

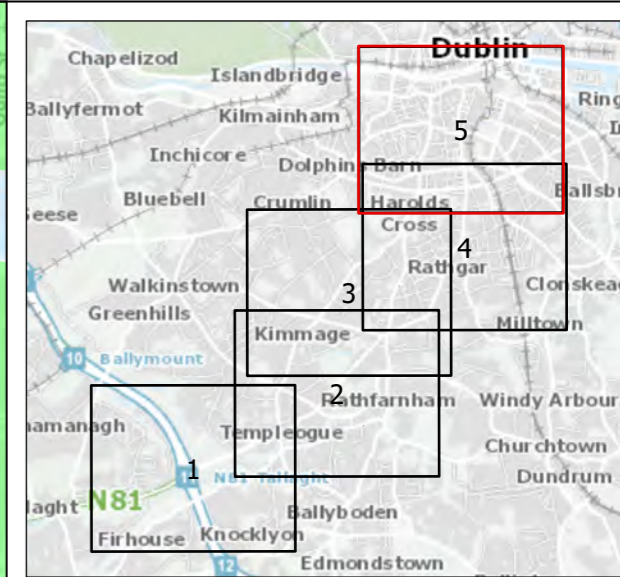
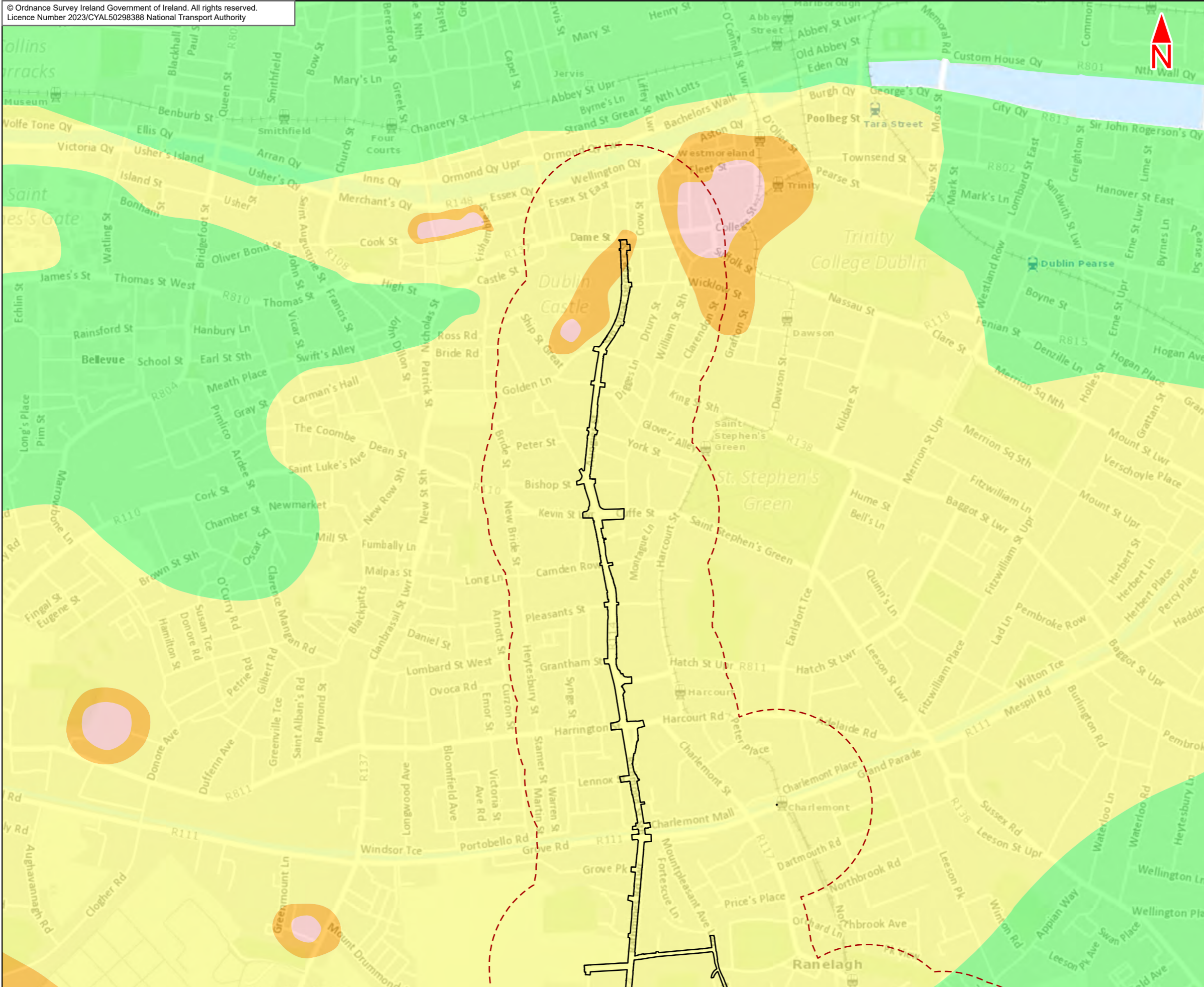
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK
QMS Code: _____

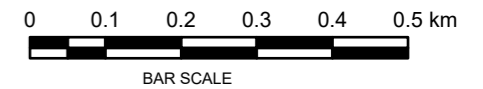
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0804	Sheet Number: 4 of 5	Status: A	Rev: M01	



Legend :

- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- 250m Study Area
- GSI National Groundwater Vulnerability**
 - Extreme
 - High
 - Moderate
 - Low

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.

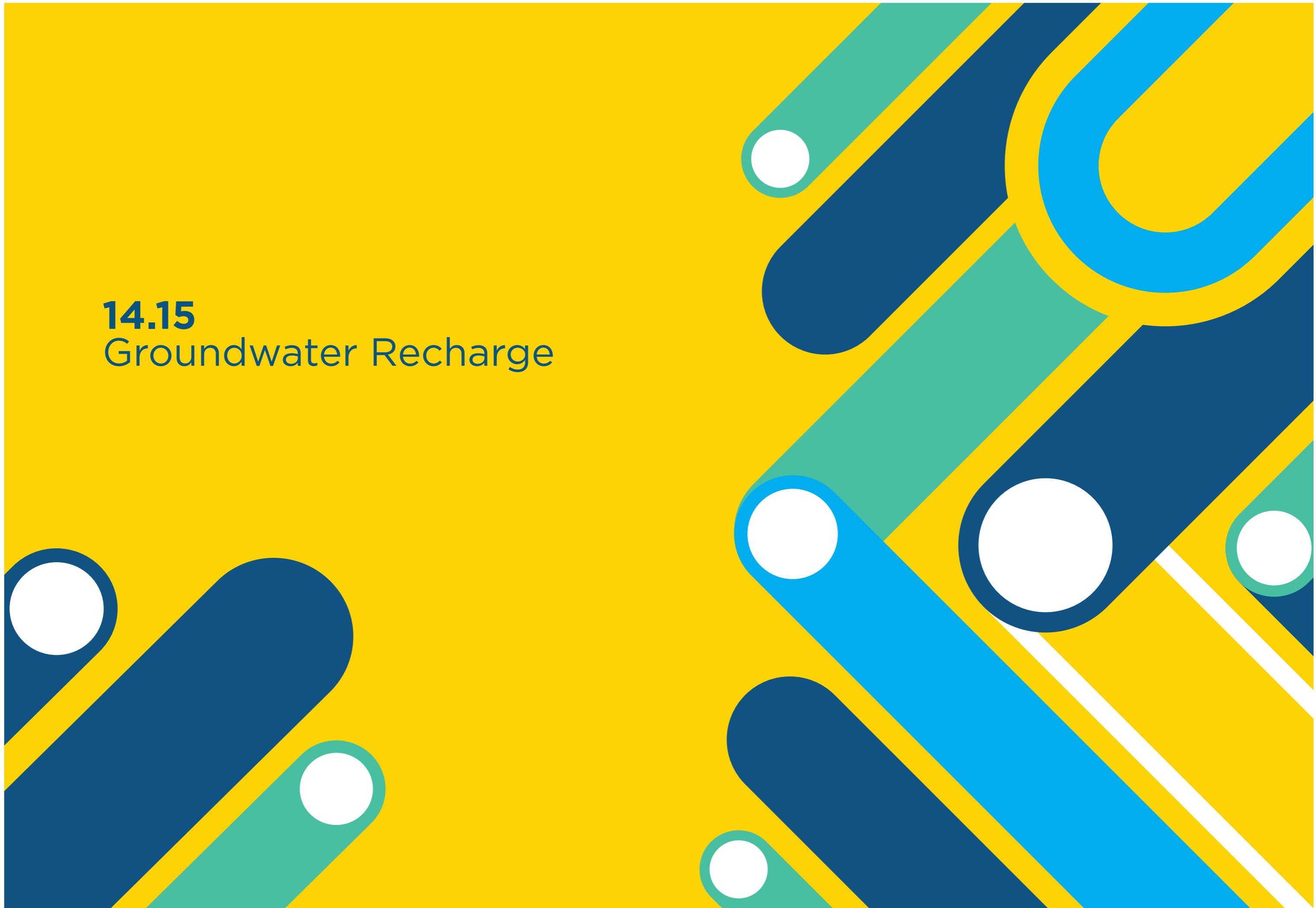


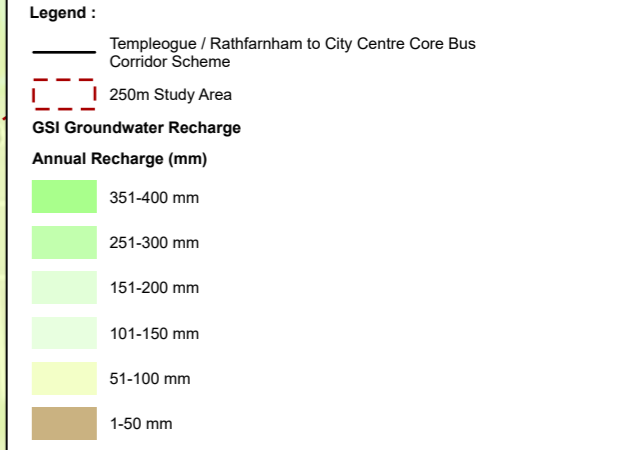
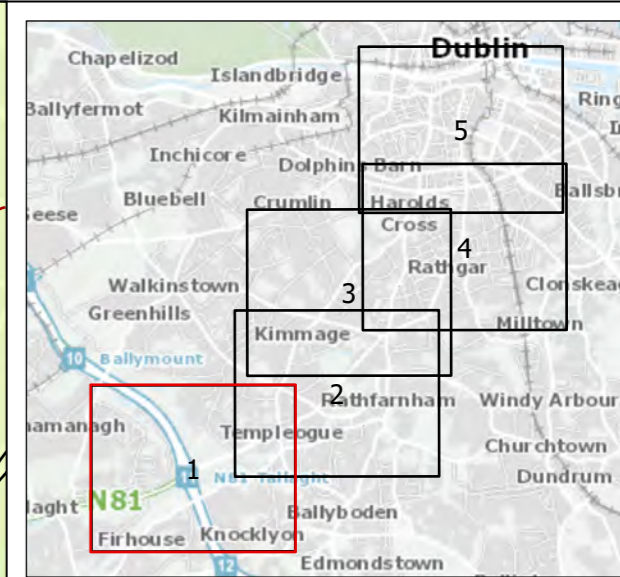
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Date	Scale @ A3	Drawn	Checked	Approved
21/02/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

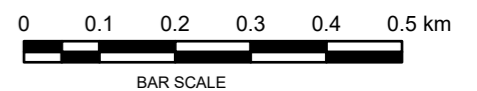
Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.14 Groundwater Vulnerability				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0805	5 of 5	A	M01	

14.15
Groundwater Recharge





This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

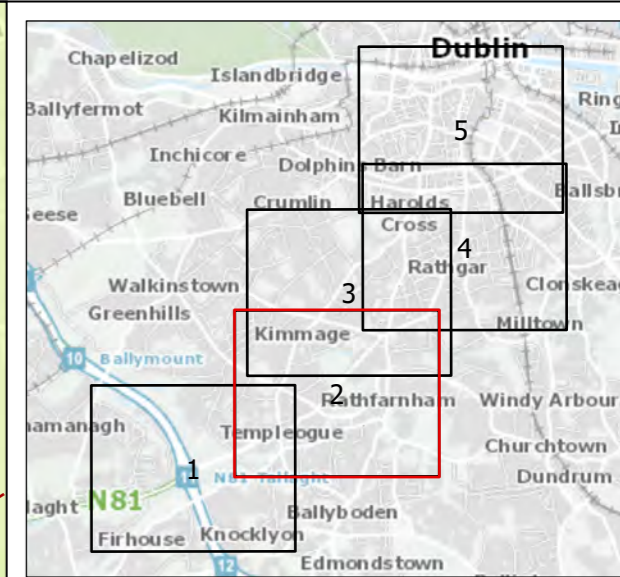
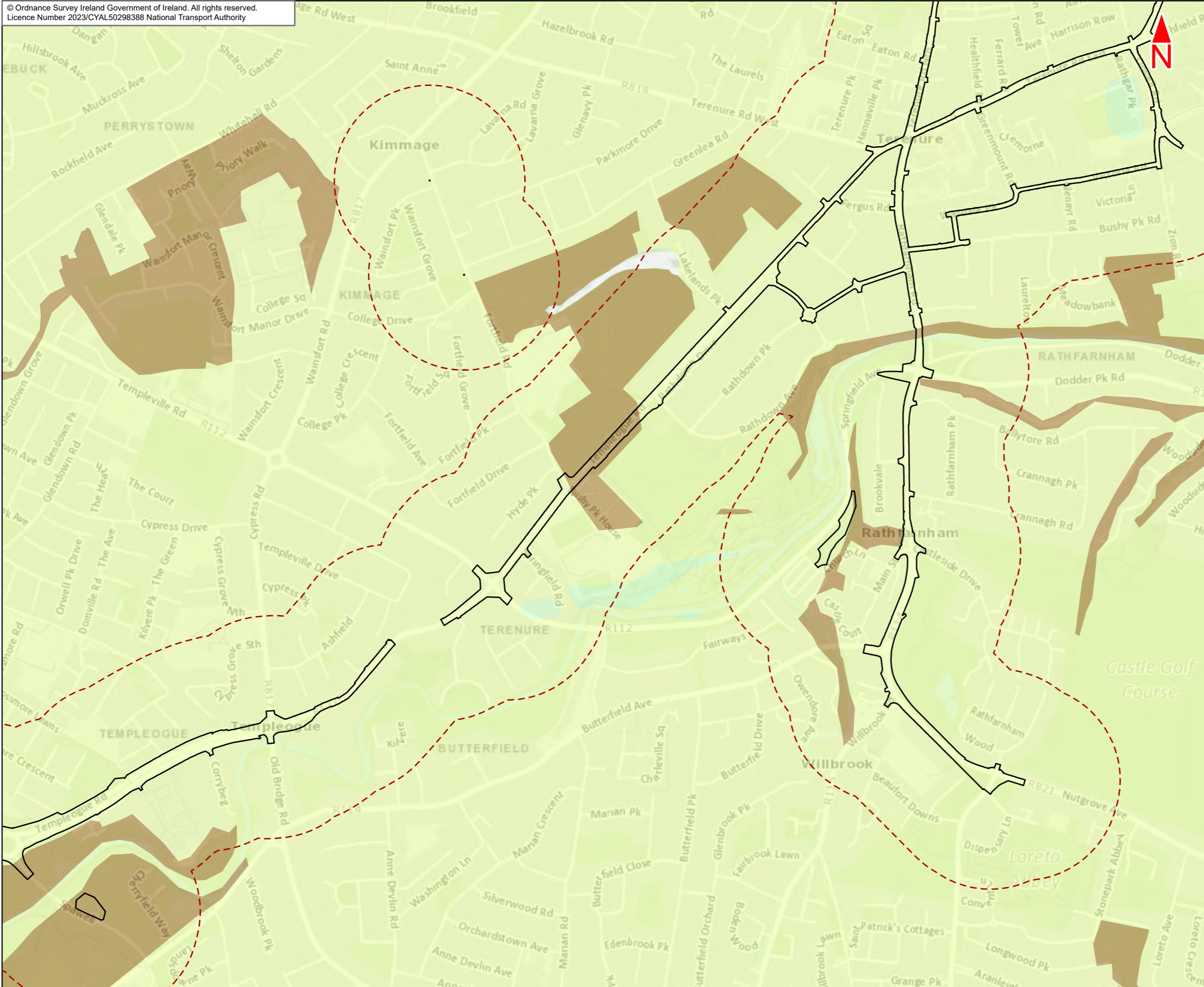
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

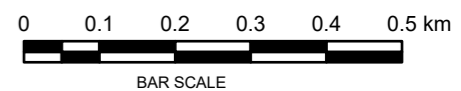
Date	21/02/2023	Scale @ A3	1:10000	Drawn	FG	Checked	PW	Approved	DK
Project Code	BCIDE	Originator Code	JAC	QMS Code					

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS					
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge					
Drawing File Name	BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0901	Sheet Number	1 of 5	Rev	M01



- Legend :**
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
 - - - 250m Study Area
 - GSI Groundwater Recharge**
 - Annual Recharge (mm)**
 - 151-200 mm
 - 51-100 mm
 - 1-50 mm

This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

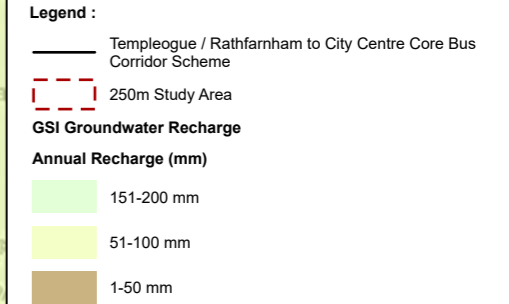
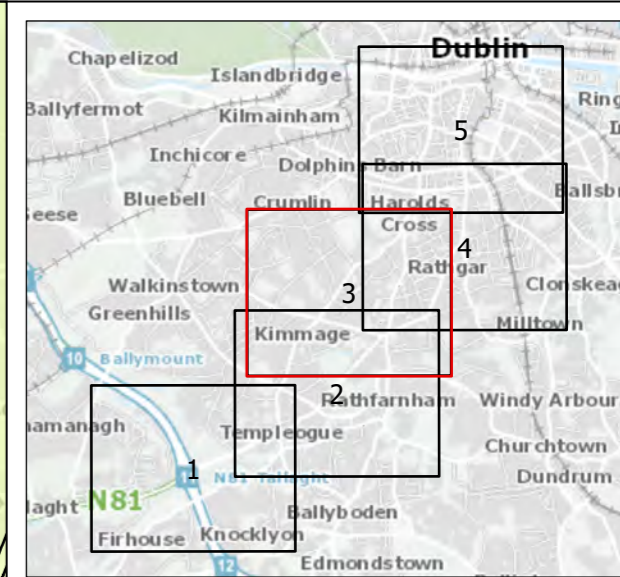
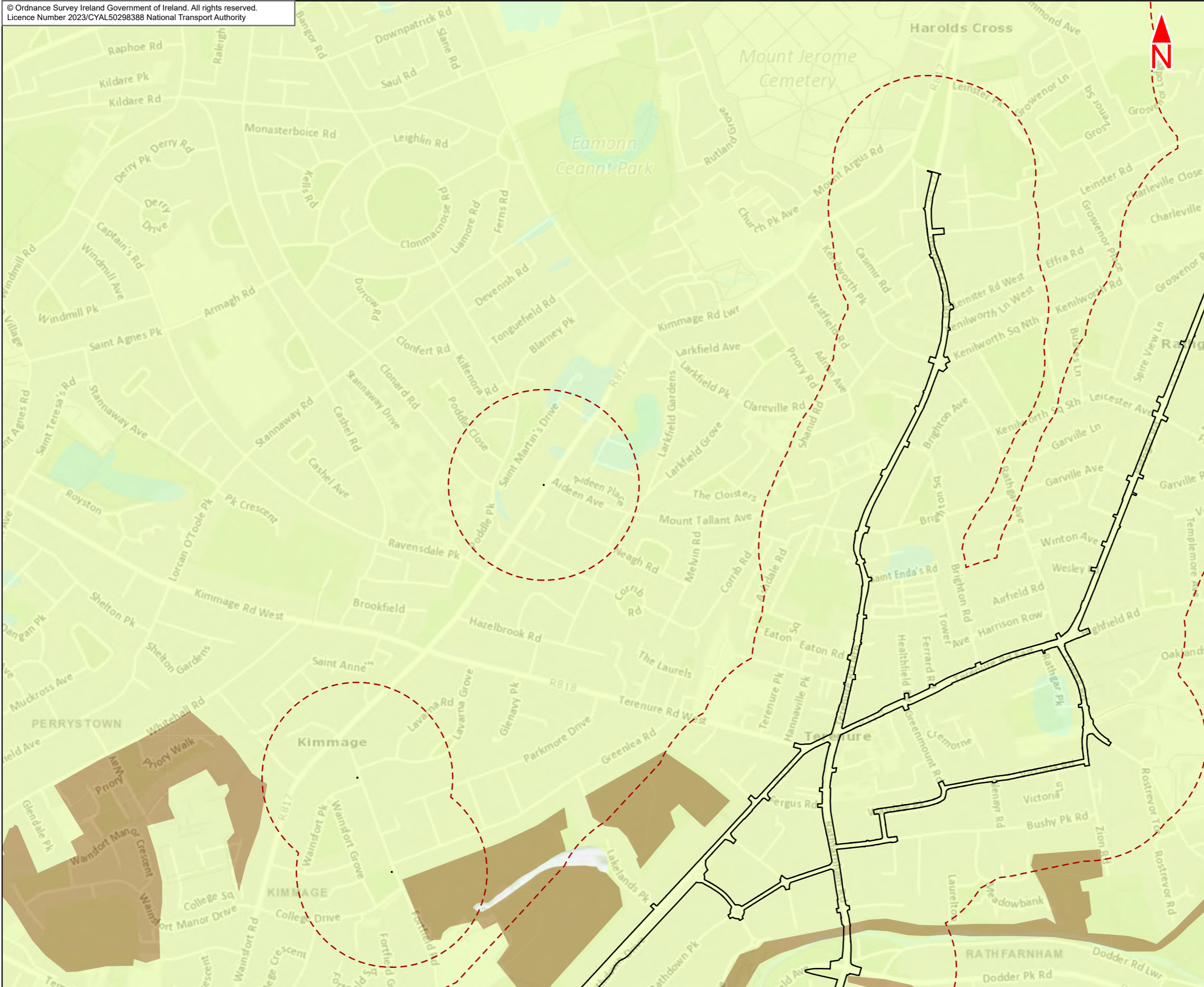
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



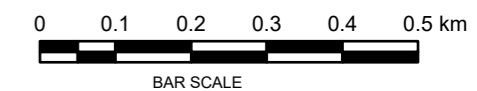
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client NTA Udarás Náisiúnta Iompair National Transport Authority		Consultant JACOBS ARUP SYSTRA		
Date 21/02/2023	Scale @ A3 1:10000	Drawn FG	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0902	Sheet Number 2 of 5	Status A	Rev M01	



This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Malin Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSI active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

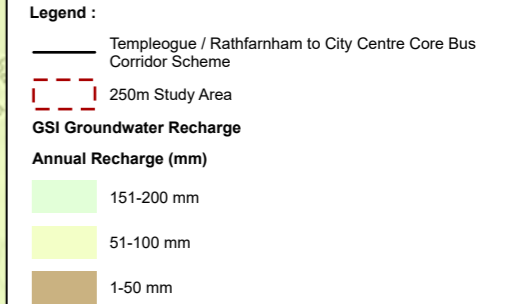
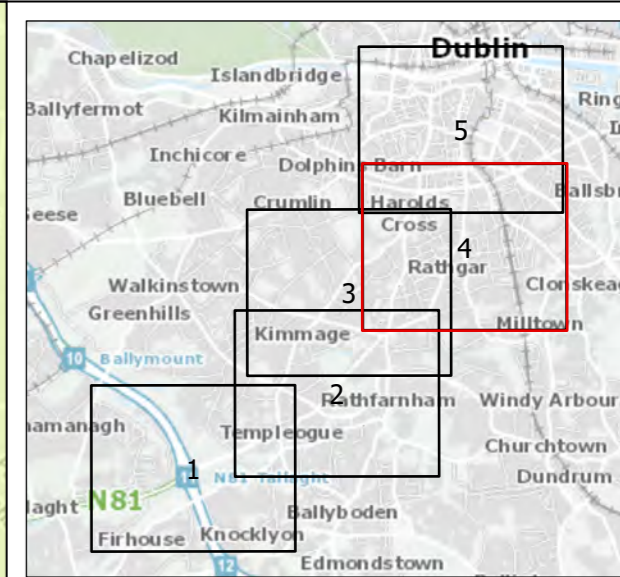
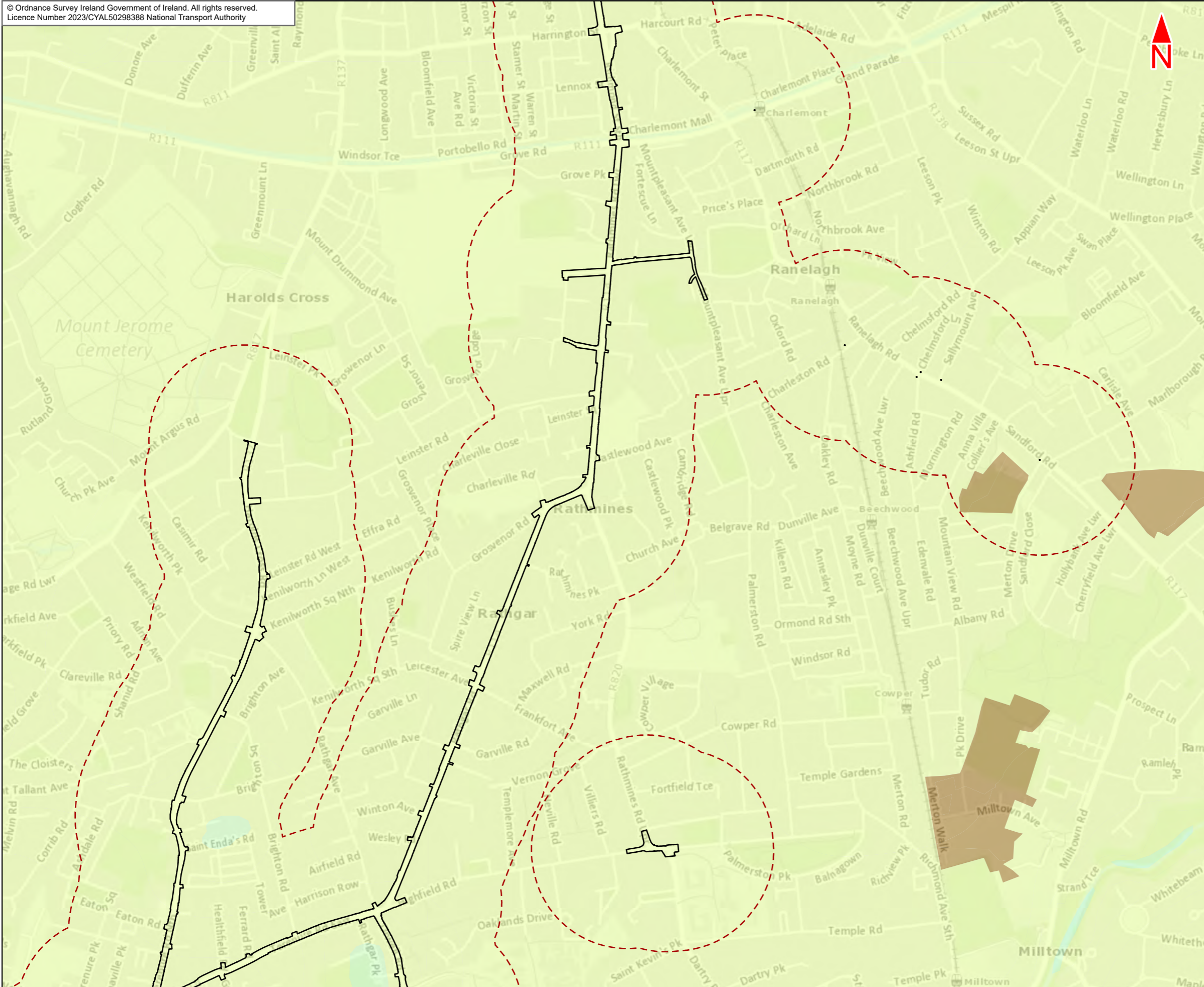
e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



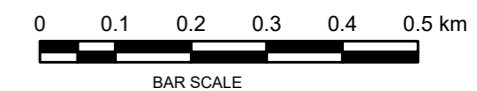
Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client Udarás Náisiúnta Iompair National Transport Authority		Consultant 		
Date	Scale @ A3	Drawn	Checked	Approved
21/02/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0903	3 of 5	A	M01	



This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the title block. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

d. Transverse Mercator Grid (ITM) as defined by OSi active local information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

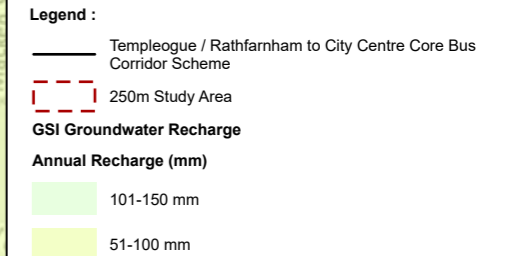
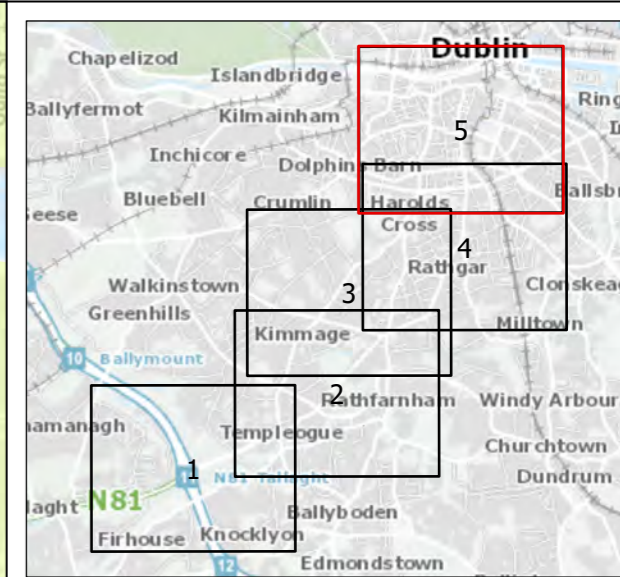
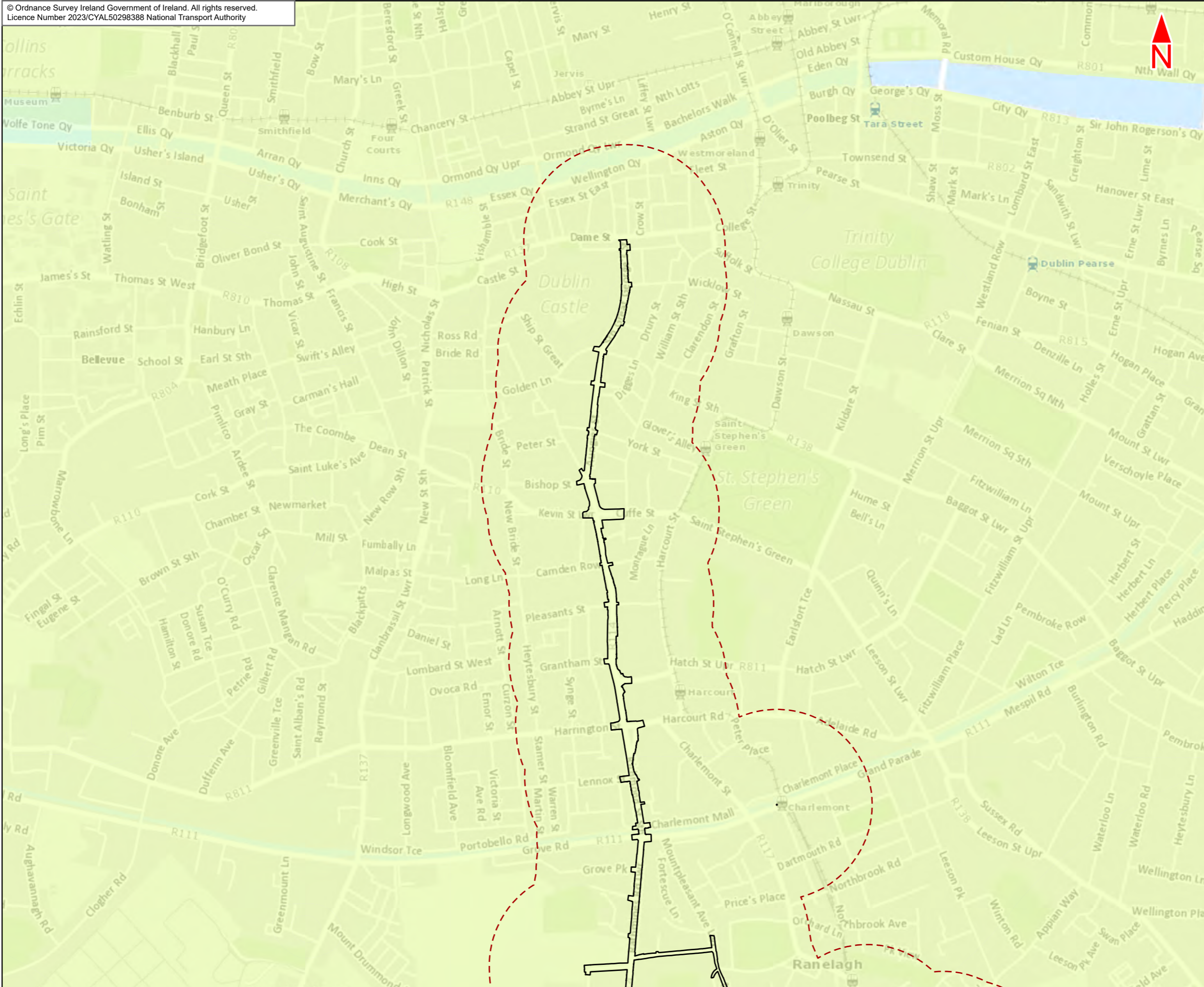
Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

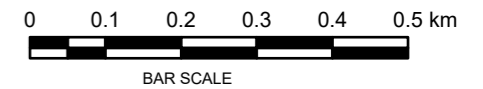
Date: 21/02/2023 Scale @ A3: 1:10000
Project Code: BCIDE Originator Code: JAC

Drawn: FG Checked: PW Approved: DK
QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title: Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name: BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0904	Sheet Number: 4 of 5	Status: A	Rev: M01	



This drawing is not to be used in whole or in part other than for the intended purpose and project as defined on this drawing. Contains Irish Public Sector Data licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence



Disclaimer
a. © National Transport Authority (NTA) 2023. This drawing is confidential and the copyright in it is owned by NTA. This drawing must not be either loaned, copied or otherwise reproduced in whole or in part or used for any purpose without the prior permission of NTA.
b. This drawing is to be used for the design element identified in the titleblock. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
c. O.S. data used for plans are printed under © Ordnance Survey Ireland Government of Ireland. All rights reserved. Licence Number 2023/CYAL50298388 National Transport Authority. All elevations are in metres and relate to OSi Geoid Model (OSGM15) Mean Head. All Co-ordinates are in Irish

Transverse Mercator Grid (ITM) as defined by OSi active local GPS station.
d. Information concerning the position of apparatus shown on this drawing is based on drawings supplied by the utility owners and/or the utility works contractor, whilst every care has been taken in the preparation of this drawing, positions should be taken as approximate and are intended for general guidance only and no representation is made by the NTA as to the accuracy, completeness, sufficiency or otherwise of this drawing and the position of the apparatus. The information contained herein does not purport to be comprehensive or final as the apparatus is subject to being altered and/or superceded. Recipients should not rely on this information. Any liabilities are hereby expressly disclaimed.

e. The information contained herein has been provided by the NTA but does not purport to be comprehensive or final. Recipients should not rely on the information. Neither the NTA nor any of its directors, officers, employees, agents, stakeholders or advisers make any representation or warranty as to, or accept any liability or responsibility in relation to, the adequacy, accuracy, reasonableness or completeness of the information provided as part of this document or any matter on which the information is based (including but not limited to loss or damage arising as a result of reliance by recipients on the information or any part of it. Any liabilities are hereby expressly disclaimed.



Rev	Date	Drn	Chk'd	App'd	Description
M01	Feb 23	FG	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Date	Scale @ A3	Drawn	Checked	Approved
21/02/2023	1:10000	FG	PW	DK
Project Code	Originator Code	QMS Code		
BCIDE	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme Figure 14.15 Groundwater Recharge				
Drawing File Name	Sheet Number	Status	Rev	
BCIDE-JAC-ENV_GT-1012_XX_00-DR-GG-0905	5 of 5	A	M01	