

Waste Water Treatment Plant

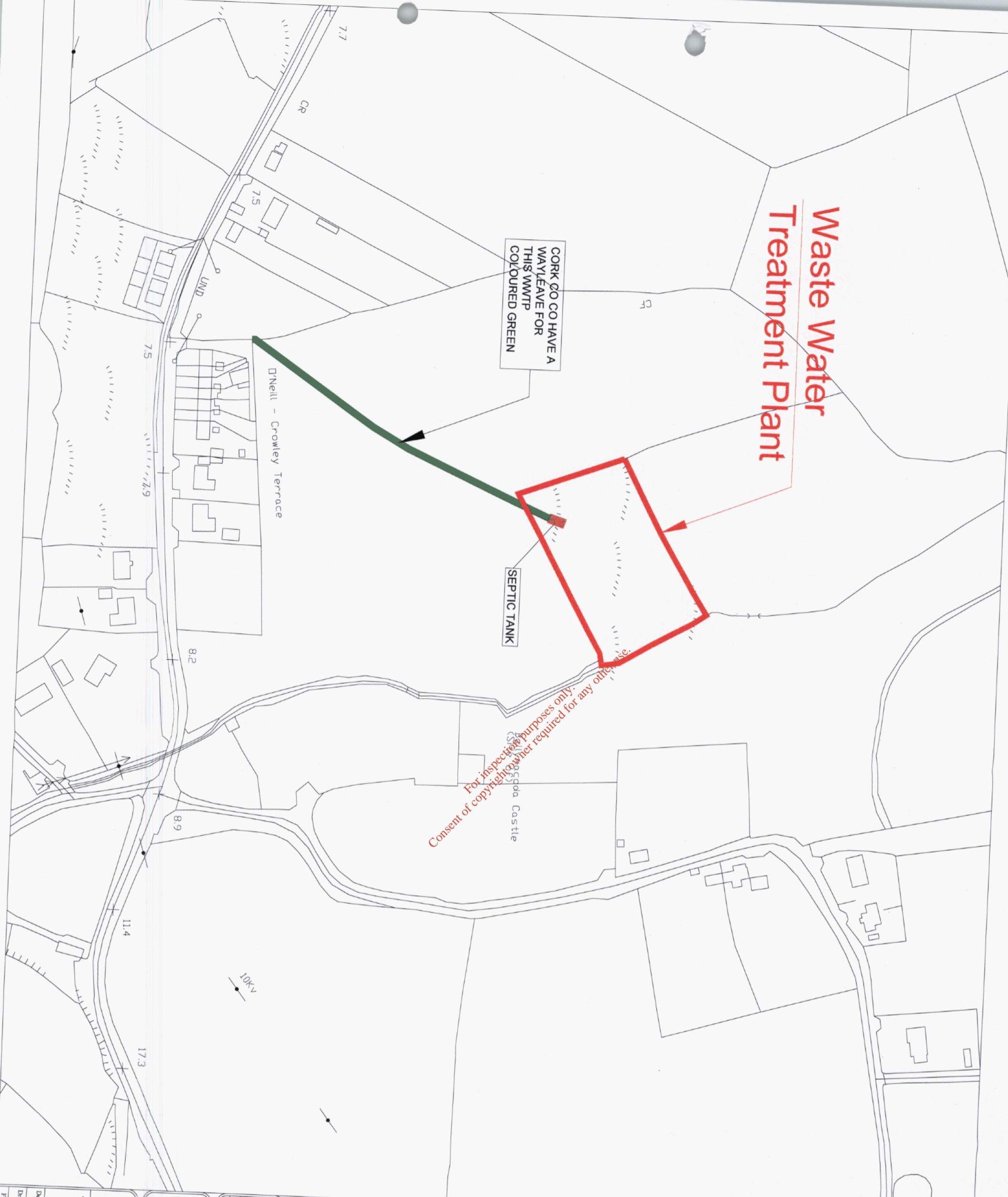
CORK CO CO HAVE A WAYLEAVE FOR THIS WWTP COLOURED GREEN

SEPTIC TANK

D'Neill - Crowley Terrace

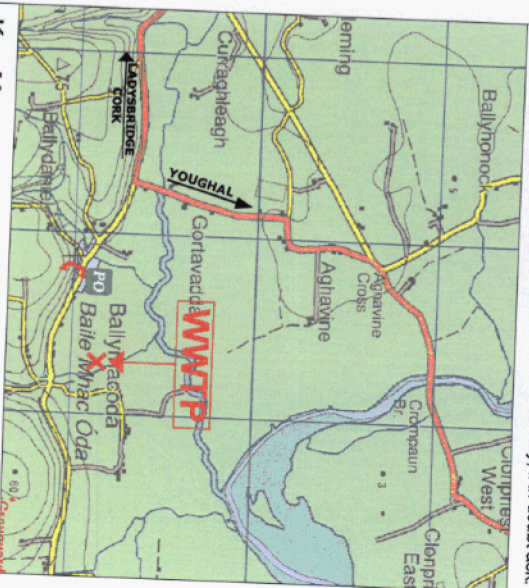
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Ballymacoda Castle

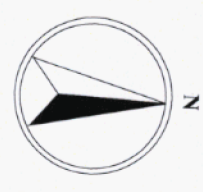


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Key Map
Not to Scale
OS Number: 2006

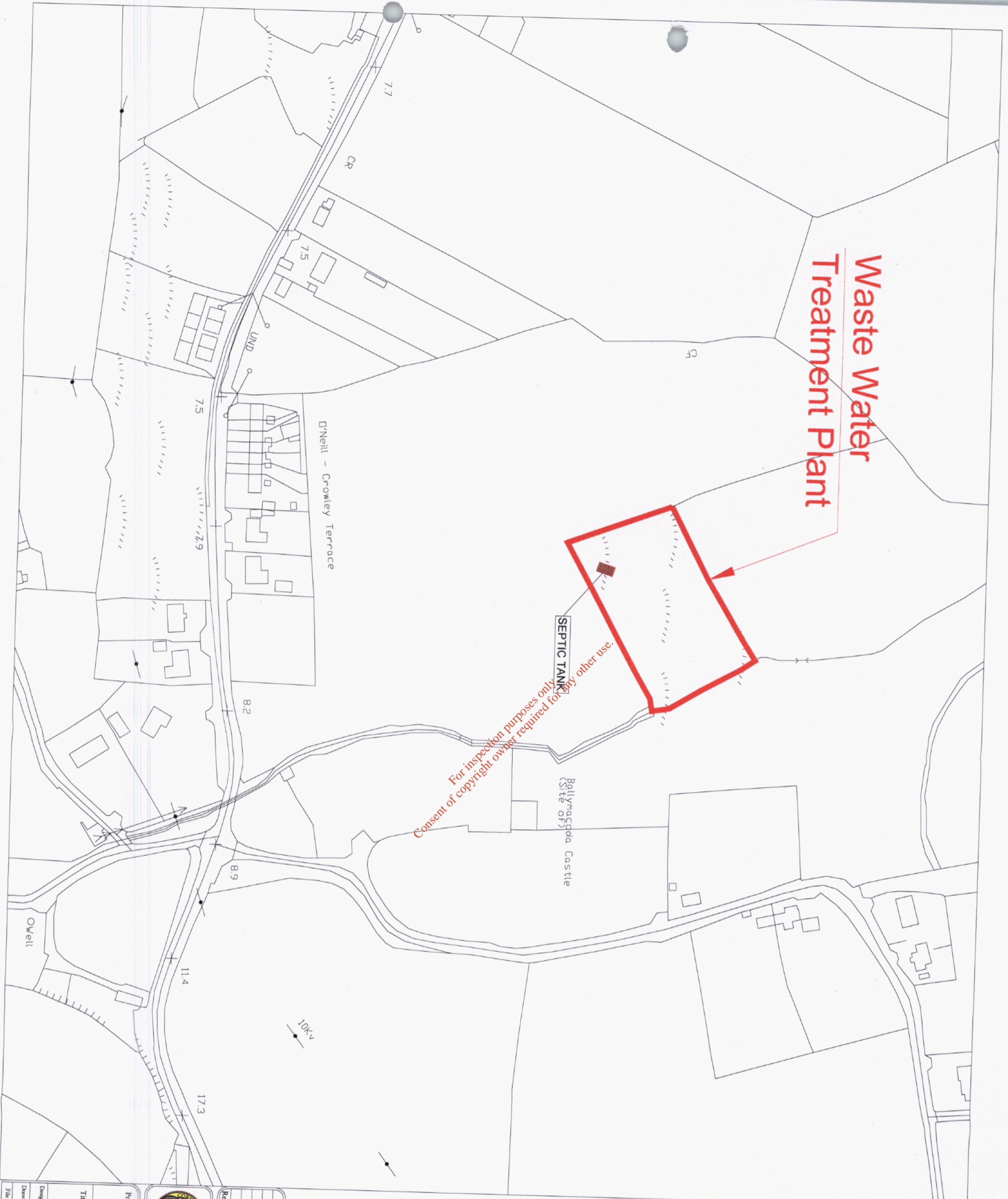


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County Hall, Cork
Patricia Power, Director of Services
Aislinn O'Sullivan, Area Operations South

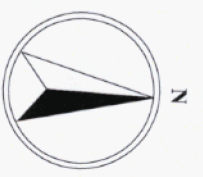

Project: BALLYMACODA WWTP WASTE WATER DISCHARGE LICENCE APPLICATION	
Title: Application Form Attachment A1_Map1 Location Plan of Waste Water Treatment Plan	
Designed: ERMS	Checked: MH
Drawn: MM	Approved: MH
Date: NOV 09	Drawing No: A1_Map1
Scale: 1:2,000 @ A3	Rev: 0

Waste Water Treatment Plant



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Parkara Power,
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Asset Operations South

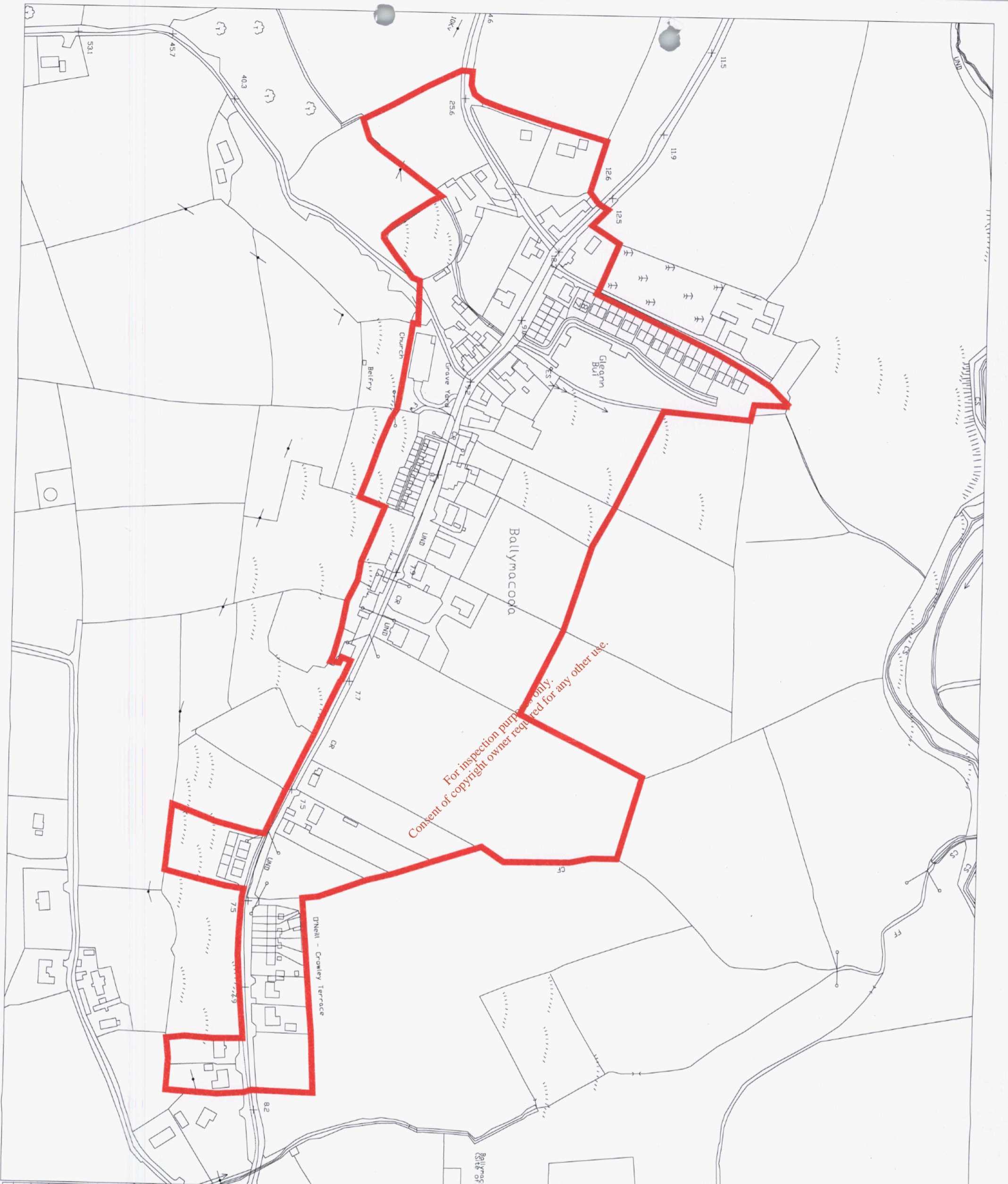
Rev.	Date	By	Description

Project: **BALLYMACODA WWTP**
WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: **Application Form**
Attachment A1_Map2
Location of WWTP

Designed	ERMS	Checked	MH	Scale	1:2,000 @ A3	Drawing No.	A1_Map2
Drawn	MM	Approved	MH	Date	NOV 09	Sheet	0

File Path: _____

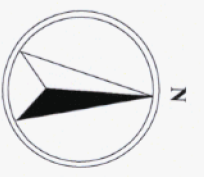


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**AGGLOMERATION
 BOUNDARY**

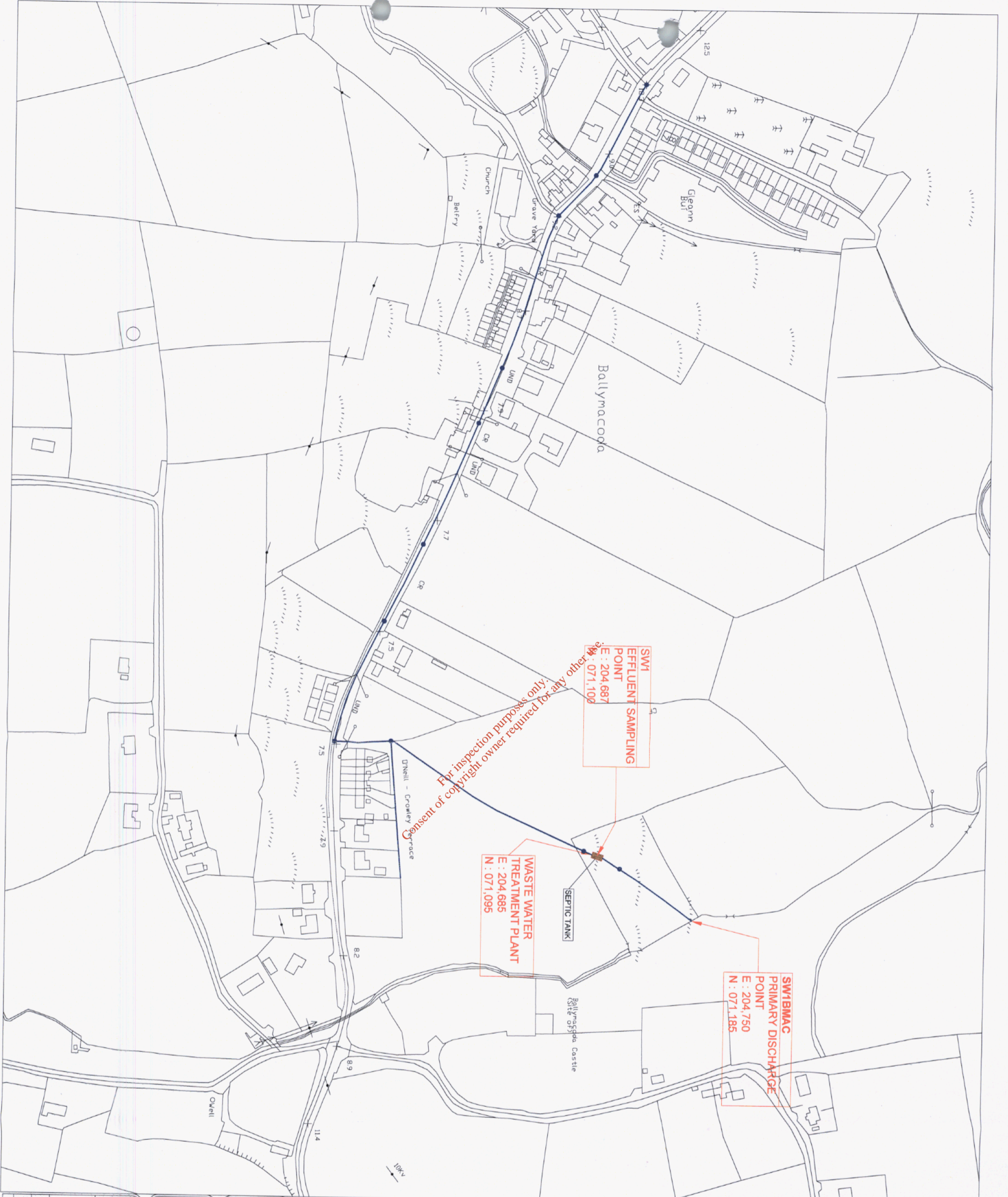


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 Noel O'Riordan, B.E. Chief Executive
 County Hall, Cork.
 Patricia Power, Director of Services, Area Operations South

Project: BALLMACODA WWTP
 WASTE WATER
 DISCHARGE LICENCE APPLICATION

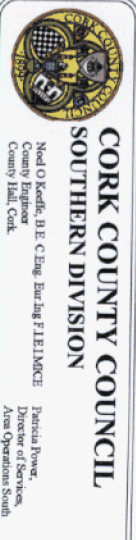
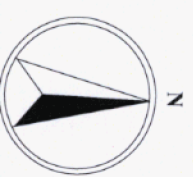
Title: Application Form
 Attachment B1_Maps3
 Agglomeration Boundary Served By
 Waste Water Treatment Works

Designed	ERMS	Checked	MH	Scale:	1:3,000 @ A3	Drawing No:	B1_Maps3
Drawn	MM	Approved	MH	Date:	NOV 09	Rev:	0



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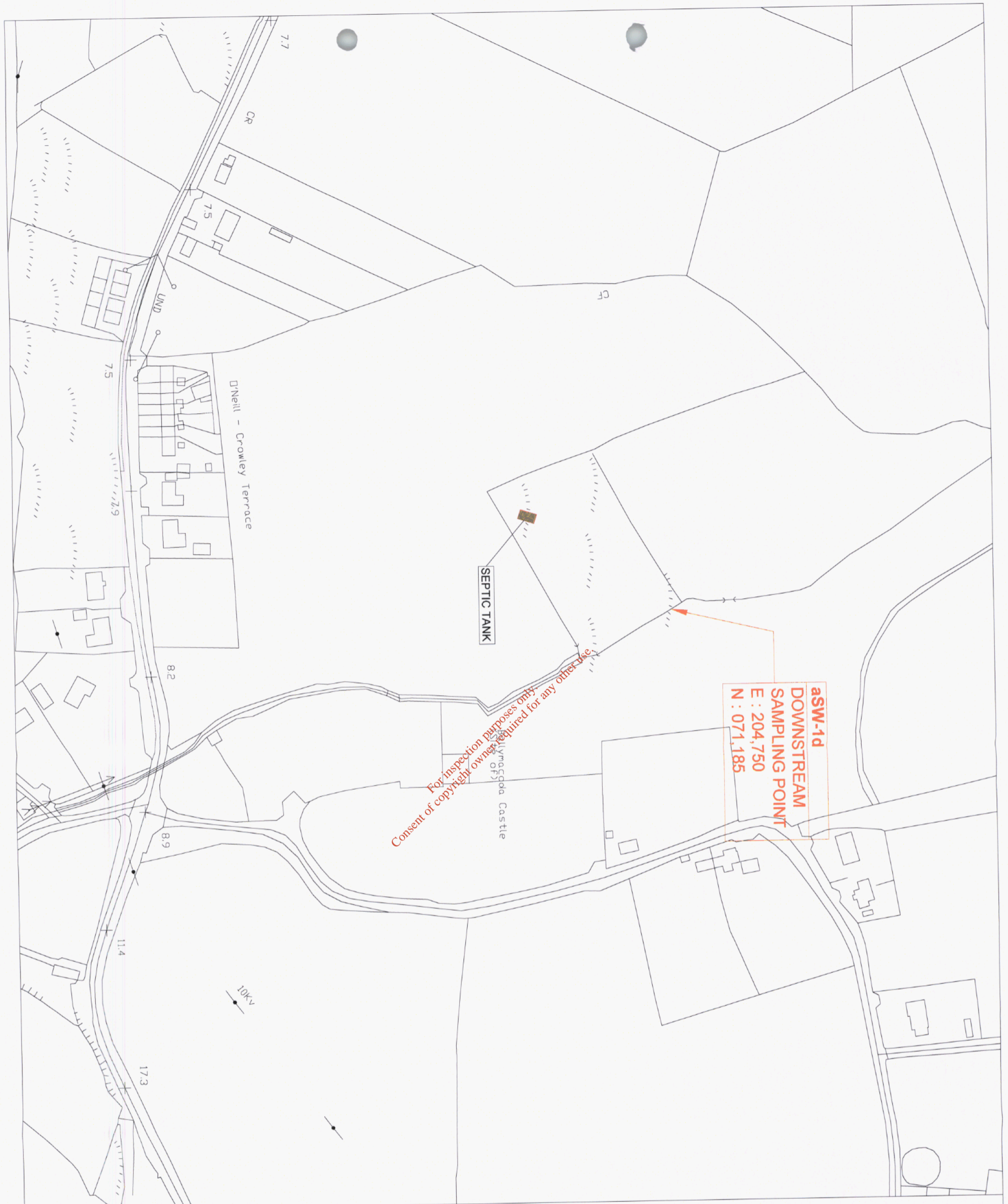


Niall O'Keefe, B.E.C. Eng. Building FIELDWORK
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Director of Services,
Area Operations South

Project: BALLYMACODA WWTP
WASTE WATER
DISCHARGE LICENCE APPLICATION

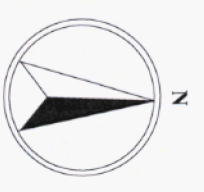
Title: Application Form
Attachment B2_Map4
Location of WWTP

Designed: ERMS	Checked: MH	Scale: 1:3,000 @ A3	Drawing No: B2_Map4
Drawn: MM	Approved: MH	Date: Nov '09	Sheet: 0




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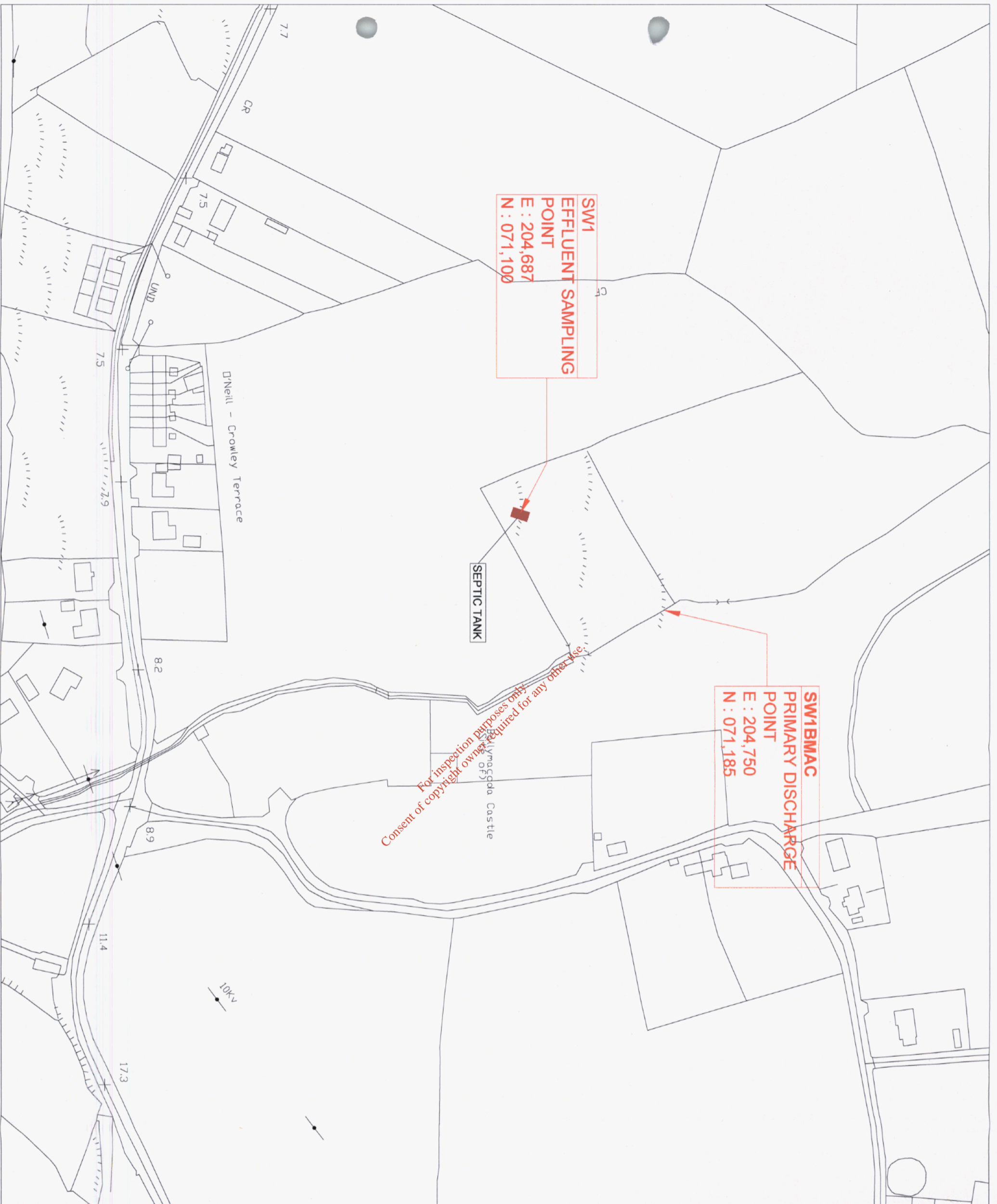
Neil O'Keefe, B.E. C.Eng. Barrng. F.I.E.I.C.E.
County Engineer
County Hall, Cork

Patricia Power,
Director of Services,
Aven Operations South

Project: BALLYMACODA WWTP
WASTE WATER
DISCHARGE LICENCE APPLICATION

Title: Application Form
Attachment B2 Maps
Location of Downstream Monitoring Point

Designed	Checked	Scale	Drawing No.
ERMS	MH	1:2,000 @ A3	B2_Maps
Drawn	Approved	Date	Sheet
MM	MH	NOV 09	0
File Path			



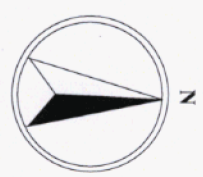
SW1
EFFLUENT SAMPLING
POINT
E : 204,687
N : 071,100

SW1BMAC
PRIMARY DISCHARGE
POINT
E : 204,750
N : 071,185

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County Hall, Cork
Patricia Power,
Director of Services,
Asset Operations South

Project: **BALL YMACODA WWTP
WASTE WATER
DISCHARGE LICENCE APPLICATION**

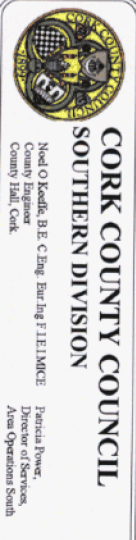
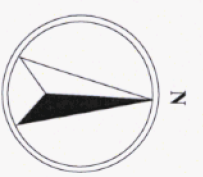
Title: **Application Form
Attachment B3_Maps
Location of Primary Discharge Point**

Designed: ERMS	Checked: MH	Scale: 1:2,000 @ A3	Drawing No: B3_Maps
Drawn: MM	Approved: MH	Date: Nov '09	Sheet: 0
File Path:			Rev: 0



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County Hall, Cork.
Patricia Power,
Area Operations Senior

Project: BALLVMACODA WWTP
WASTE WATER
DISCHARGE LICENCE APPLICATION

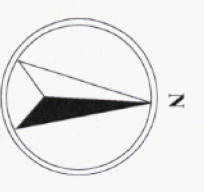

Title: Application Form
Attachment B3_Map7
Location of Downstream Monitoring Point

Designed:	Checked:	Scale:	Drawing No:
Drawn:	Approved:	1: 2,000 @ A3	B3_Map7
File Path:	MM	Date: Nov 09	Rev: 0



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Patricia Power,
Director of Services,
Arec Operations South

Project: **BALL YMACCODA WWTP
WASTE WATER
DISCHARGE LICENCE APPLICATION**

Title: **Application Form
Attachment E2_Map8
Location of Downstream Monitoring Point**

Designed: ERMS	Checked: MH	Scales: 1:2,000 @ A3	Drawing No: E2_Map8
Drawn: MM	Approved: MH	Date: Nov 09	Scale: -
File Path:			Rev: 0

Rev	Date	By	Description

Attachment E4 Ballymacoda Table E4

Sample Date	14/12/2009	14/12/2009	14/12/2009
Sample	Ballymacoda Effluent discharge GT1494	Upstream GT1492	Downstream GT1493
Sample Code			
Flow M ³ /Day	*		
pH	7.3	8.0	*
Temperature °C	*	*	8.1
Conductivity uS/cm 20°C	619	669	*
Suspended Solids mg/L	11	<2.5	667
Ammonia-N mg/L	1.4	0.2	4
BOD mg/L	*	*	0.2
COD mg/L	26	<21	*
TN-N mg/L	*	<0.1	<21
Nitrite-N mg/L	0.123	<0.1	*
Nitrate-N mg/L	3.917	7.6	<0.1
TP-P mg/L	0.398	0.064	7.52
O-P-O4-P mg/L	0.28	<0.05	0.082
SO4 mg/L	<30	<30	0.06
Phenols µg/L	*	*	<30
Atrazine µg/L	*	*	*
Dichloromethane µg/L	*	*	*
Simazine µg/L	*	*	*
Toluene µg/L	*	*	*
Tributyltin µg/L	*	*	*
Xylenes µg/L	*	*	*
Arsenic µg/L	*	*	*
Chromium µg/L	*	*	*
Copper µg/L	*	*	*
Cyanide µg/L	*	*	*
Fluoride µg/L	*	*	*
Lead µg/L	*	*	*
Nickel µg/L	*	*	*
Zinc µg/L	*	*	*
Boron µg/L	*	*	*
Cadmium µg/L	*	*	*
Mercury µg/L	*	*	*
Selenium µg/L	*	*	*
Barium µg/L	*	*	*

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NOTE - FULL SCREEN ANALYSIS TO BE COMPLETED IN January 2010