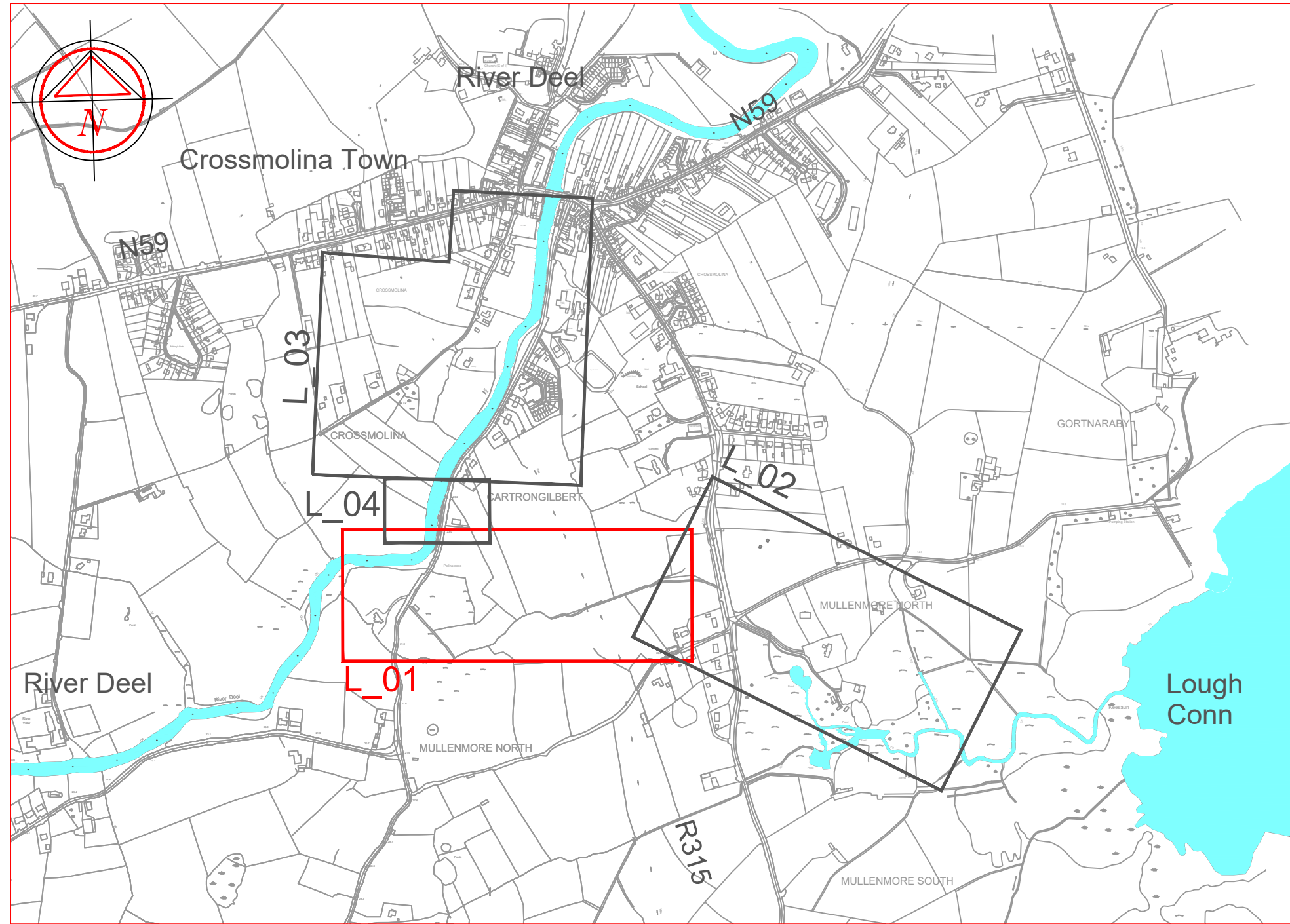


Scale 1:1,000



Scale 1:10,000

NOTES

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LEGEND

Existing watercourse	
Channel Reference (C00) & Chainage (50m)	C00.0050m
Interference Reference	IR
Location & Reference of Cross Section	Sect. CC_No. 50
Scheme Element Chainage	50
Proposed Intake Structure (Spillway Plan Area)	
Proposed Re-grading of Land	
Proposed Rip-Rap Scour Protection	
Road Embankment	
Proposed Channel Embankment	
Proposed Flood Embankment	
Proposed channel bed	
Proposed Access Track	
Road to be raised	
River Deel Flow Direction	
Proposed Diversion Channel Flow Direction (during operation)	
Permanent Fenceline	
Road Safety Barrier	
Safety Fencing	
Access Gate	
Proposed Screening	
Proposed Hedgerow	

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DATE	DRN	DESCRIPTION	CHK	APD
REVISIONS				

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<input type="checkbox"/> EXHIBITION	<input checked="" type="checkbox"/> CONFIRMATION	<input type="checkbox"/> AS CONSTRUCTED	<input type="checkbox"/> DRAFT

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PROJECT

**RIVER DEEL (CROSSMOLINA)
DRAINAGE SCHEME**

TITLE

**LAYOUT PLAN
(Sheet 1 of 4)**

SCALE @ A1

DATE

See Plate

September 2020

DRAWN

RS

CHECKED

JR

APPROVED

MJ

JOB No.

2267

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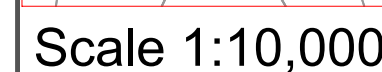
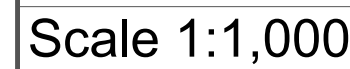
06/Scheme

DRAWING No.

L_01

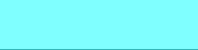





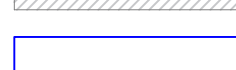
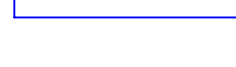


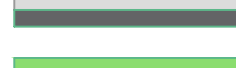




REV.

Interference Reference	Scheme Element Chainage (DSUS)	Location & Channel Chainage	Nature & Extent of Interference	Interference Reference	Scheme Element Chainage (DSUS)	Location & Channel Chainage	Nature & Extent of Interference
C01_C02	N/A	Chainage 11700m to 11750m	Proposed reinforcement of river channel bed and banks to provide scour protection. Proposal to incorporate natural river gravel rip-rap.	C02_M02	N/A	Chainage 0m to 1003m.	General interference - general channel maintenance.
C02_B01	N/A	Chainage 909m to 918m.	Proposed 20m span reinforced concrete vehicle/pedestrian bridge (8.7m deck width)	C02_R01	N/A	Chainage 925m.	Proposed entrance and access track to provide pedestrian access to the intake structure for inspection and maintenance.
C02_C01	N/A	Chainage 264m to 909m.	Proposed grass lined diversion channel. Circa. 28m wide channel at the base sloping to between 30m and 70m at top of bank (2H:1V side slopes) as shown in scheme drawings. Channel depth typically between 3m and 12m.	C02_R02	N/A	Chainage 925m.	Existing access to be extinguished.
C02_C02	N/A	Chainage 900m.	Proposed reinforcement of channel bed and banks to provide scour protection. Proposal to incorporate gravel rip-rap, extending circa. 80m downstream from intake spillway.	C02_R03	N/A	Chainage 925m.	Raise and regrade road (L1105) to tie in with bridge.
C02_C03	N/A	Chainage 1000m	Proposed reinforcement on spillway banks to provide scour protection. Proposal to incorporate gravel rip-rap.	C02_R04	N/A	Chainage 925m.	Proposed new 4m wide access driveway. Driveway to be sufficient distance from bridge to allow for road safety barriers at the bridge.
C02_G01	N/A	Chainage 925m.	67m proposed permanent parapet/ fencing and 4m gate. Proposed hedgerow with native species to be used.	C02_R05	N/A	Chainage 264m to 909m.	Proposed entrance carpark and 664m long 4m wide access track and 2 No. access ramps approx. 15m long to allow vehicular access to the channel for inspection and maintenance. Track minimum of 5m from edge of channel.
C02_G02	N/A	Chainage 925m.	Proposed planting scheme to provide screening for the proposed intake structure. Native species to be used.	C02_R12	N/A	Chainage 913m to 966m.	Proposed 4m wide access track to river side of intake structure, including ramp.
C02_G02	N/A	Chainage 920m to 1003m.	Proposed planting scheme to provide screening for the proposed intake structure. Native species to be used.	C02_S01	N/A	Chainage 925m to 964m	Proposed reinforced concrete spillway. Invert varies 16.6 to 16.5mOD.
C02_G03	N/A	Chainage 926m to 976m.	Proposed raising/regrading of land to the south of the intake structure. Proposed back drain to ensure adequate drainage.	C02_S02	0 to 25	Chainage 945m to 966m	Proposed safety fencing 1.2m above top level of retaining wall.
C02_G04	N/A	Chainage 264m to 911m.	662m proposed permanent 1.2m high post and rail fencing and 4 No. 4m entrance gates. Proposed hedgerow with native species to be used.	C02_S02	0 to 29	Chainage 940m to 957m	Proposed safety fencing 1.2m above top level of retaining wall.
C02_G05	N/A	Chainage 264m to 905m.	706m proposed permanent 1.2m high post and rail fencing. Proposed hedgerow with native species to be used.	C02_W01	0 to 26	Chainage 925m	Proposed reinforced concrete retaining wall (26m length). Top of wall 20.8mOD. Height above spillway varies 4.2m - 4.3m. Proposed wall to include safety fencing (1.2m above wall level).
C02_G16	N/A	Chainage 900m.	Existing entrance to be extinguished.	C02_W01	26 to 96	Chainage 925m	Proposed reinforced concrete intake weir (70m length), incorporating adjustable steel plates. Top of concrete 19.2mOD. Height above upstream riverbed varies 1.2 - 1.4m. Height above spillway 2.6m.
C02_G17	N/A	Chainage 900m.	Construct new entrance sufficient distance from bridge to allow for road safety barriers at the bridge. 20m proposed permanent 1.2m high post and rail fencing and 1 No. entrance 4m gate.	C02_W01	96 to 123	Chainage 925m	Proposed reinforced concrete retaining wall (27m length). Top of wall 20.8mOD. Height above spillway 4.25m. Proposed wall to include safety fencing (1.2m above wall level).
C02_G18	N/A	Chainage 925m.	Proposed road safety barrier.	C02_W02	0 to 32	Chainage 910m	Proposed reinforced concrete retaining wall (32m length). Top of wall 20.8mOD. Height above surrounding ground varies 2.1 - 0m. Proposed wall to include safety fencing (1.2m above wall level).
C02_G19	N/A	Chainage 909m	56m proposed permanent 1.2m high post and rail fencing.	C02_W03	0 to 14	Chainage 945m	Proposed reinforced concrete retaining wall (length 14m). Top of wall varies 18 to 19.4mOD. Height above riverbed varies 0 to 1.4m.
C02_G20	N/A	Chainage 916m to 1003m	136m proposed permanent 1.2m high post and rail fencing and 1 No. entrance 4m gate.	C02_W03	14 to 25	Chainage 945m	Proposed reinforced concrete retaining wall (length 11m). Top of wall varies 19.4mOD.
C02_G22	N/A	Chainage 940m to 1003m	Proposed regrading of ground upstream of intake structure to 18.0mOD.	C02_W04	0 to 13	Chainage 940m	Proposed reinforced concrete retaining wall (length 13m). Top of wall 20.8mOD.
C01_M01	N/A	Chainage 10940m to 11900m on the River Deel.	General interference - Prune back vegetation, provision of temporary access where required, general channel maintenance.	C02_W04	13 to 29	Chainage 940m	Proposed reinforced concrete retaining wall (length 16m). Top of wall varies 20.8 to 19.4mOD.



Interference Reference	Scheme Element Chainage (DSUS)	Location & Channel Chainage	Nature & Extent of Interference
C02_G18	N/A	Chainage 260m.	Proposed road safety barrier.
C02_G21	N/A	Chainage 275m.	32m proposed permanent 1.2m high post and rail fencing. Proposed hedgerow with native species to be used.
C02_G23	N/A	Chainage 100m to 190m	Proposed raising/regrading of land to varying elevation.
C02_M02	N/A	Chainage 0m to 1003m.	General interference - general channel maintenance.
C02_R06	N/A	Chainage 150m to 250m.	298m proposed road realignment (Lake Road).
C02_R07	N/A	Chainage 0m to 200m.	334m proposed local access road realignment
C02_R08	N/A	Chainage 150m.	Local access road extinguished (Lake Road).
C02_R09	N/A	Chainage 0m to 150m.	Existing access road extinguished
C02_R10	N/A	Chainage 0m to 150m.	Existing access road extinguished
C02_R11	N/A	Chainage 100m.	Proposed access route to diversion channel for maintenance.
C02_R13	N/A	Chainage 264m.	Proposed shared access.
C02_S03	N/A	Between Chainage 135m to 155m	Proposed reinforced concrete Energy Dissipation Structure.
C02_W05	N/A	Chainage 275m to 225m.	4 No. Proposed reinforced concrete walls (Wing Walls). 3m high
C02_W06	N/A	Between Chainage 175m and 155m	2 No. Proposed reinforced concrete walls (Wing Walls). 3m high

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4. Location of proposed field entrances to be agreed with landowners.

Existing watercourse	
Channel Reference (C00) & Chainage (50m)	C00.0050m
Interference Reference	IR 
Location & Reference of Cross Section	 Sect. CC_No.
Scheme Element Chainage	50
Proposed Channel Embankment	
Proposed Re-Grading of Land	
Proposed Rip-Rap Scour Protection	
Proposed channel bed	
Proposed Access Track	
Proposed road and verge	
Road Embankment	
Proposed Diversion Channel Flow Direction (during operation)	
Permanent Fenceline	
Road Safety Barrier	
Proposed hedgerow	
Access Gate	

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DATE	DRN	DESCRIPTION	CHK	APD
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☐ EXHIBITION ☒ **CONFIRMATION** ☐ AS CONSTRUCTED ☐ DRAFT

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PROJECT

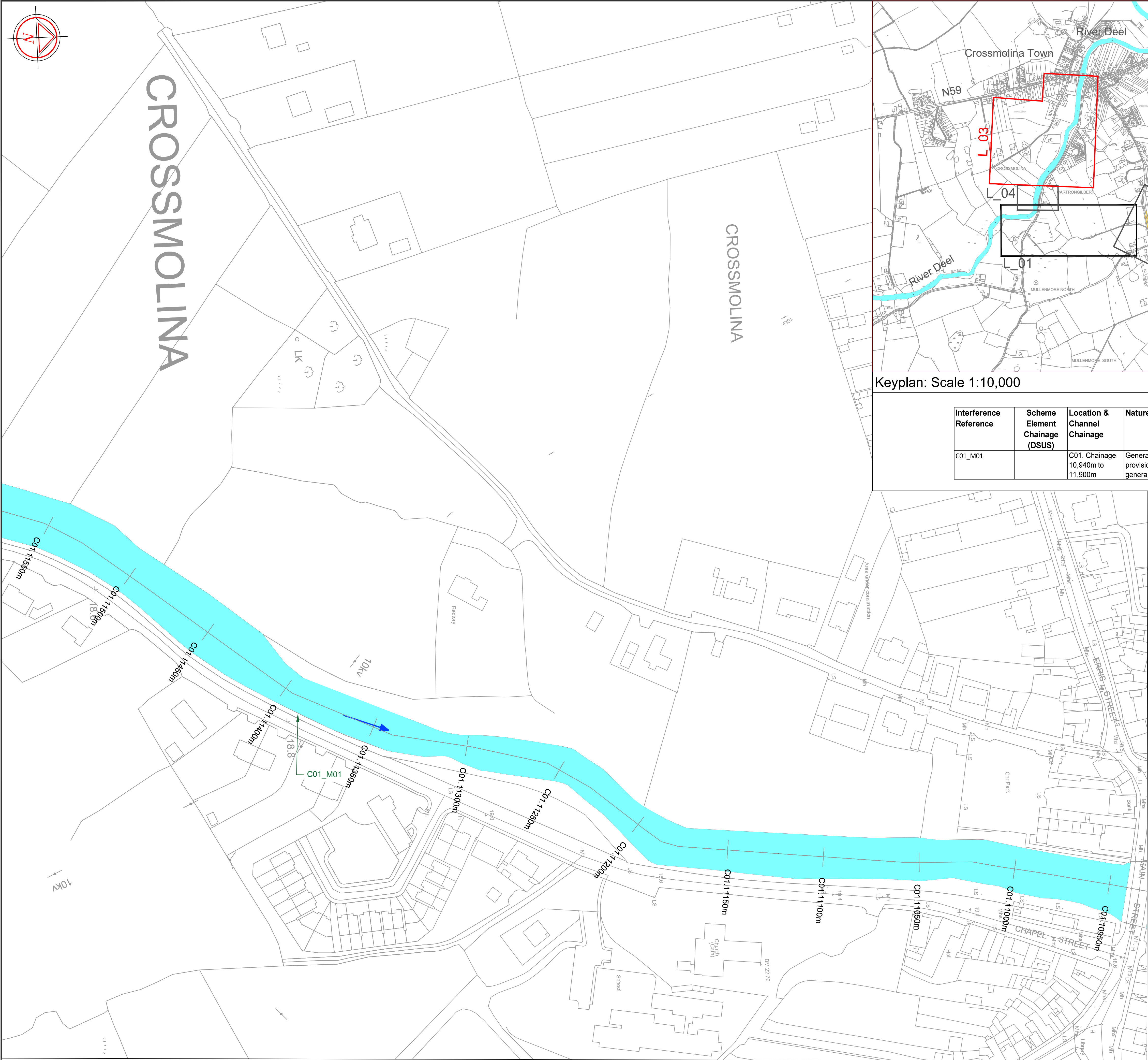
RIVER DEEL (CROSSMOLINA)

DRAINAGE SCHEME

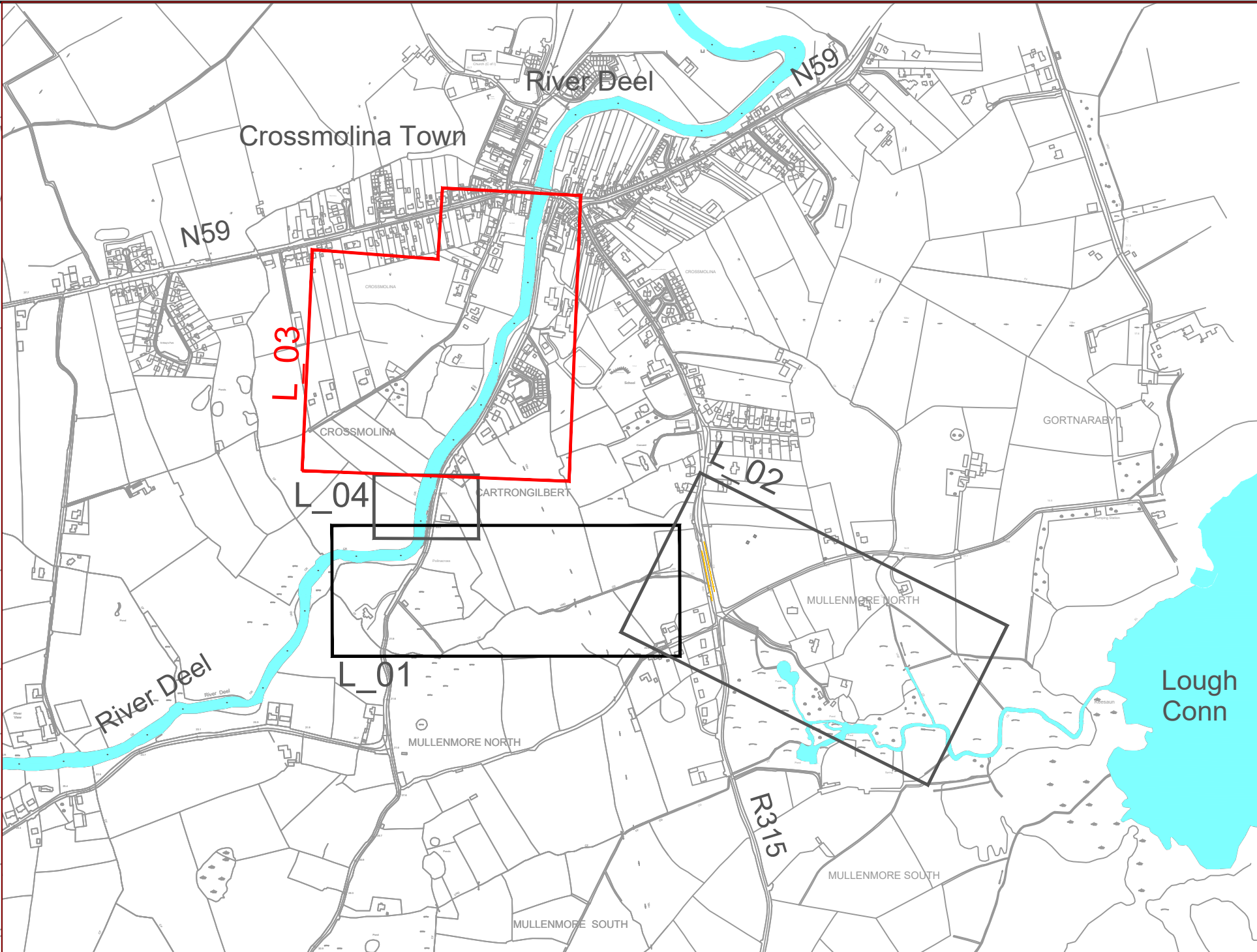
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LAYOUT PLAN
(Sheet 2 of 4)

SCALE @ A1 See Plate	DATE September 2020	DRAWN RS	CHECKED JR	APPROVED MJ
JOB No. 2267	CAD FILE PATH 06/Scheme	DRAWING No. L_02		REV.



Scale 1:1,000



Keyplan: Scale 1:10,000

Interference Reference	Scheme Element Chainage (DSUS)	Location & Channel Chainage	Nature & Extent of Interference
C01_M01		C01. Chainage 10,940m to 11,900m	General interference - Prune back vegetation, provision of temporary access where required, general channel maintenance.

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LEGEND

Existing watercourse

Channel Reference (C00) & Chainage (50m)

Interference Reference

Location & Reference of Cross Section

Rivel Deel Flow Direction

C00.0050m

IR

Sect. CC_No.

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DATE	DRN	DESCRIPTION	CHK	APD
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DRAWING STATUS

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☐ CONTRACT

☐ TENDER

☐ CONSTRUCTION

☐ EXHIBITION

☒ CONFIRMATION

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☐ DRAFT

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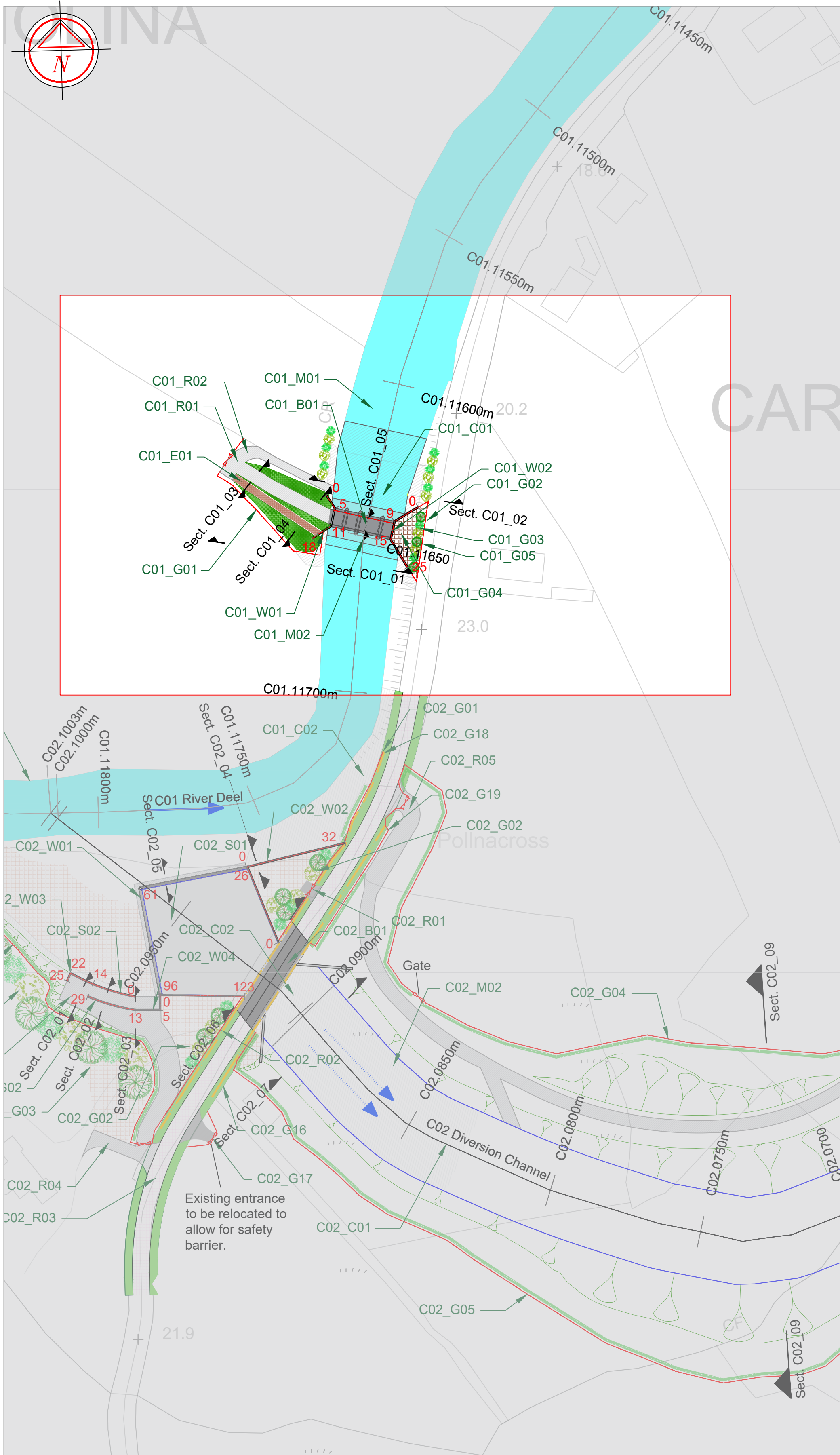
PROJECT

RIVER DEEL (CROSSMOLINA)
DRAINAGE SCHEME

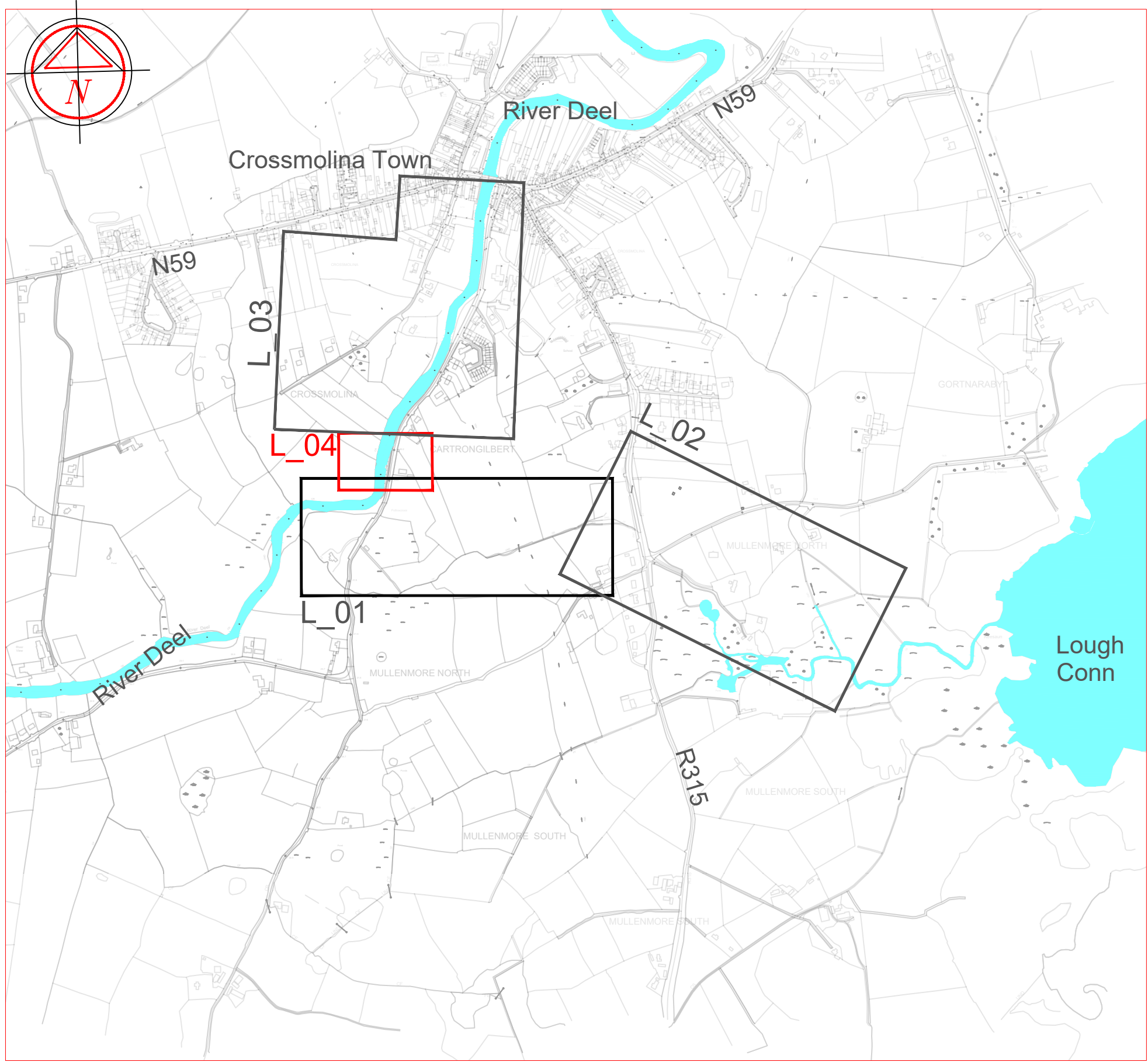
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LAYOUT PLAN
(Sheet 3 of 4)

SCALE @ A1	DATE	DRAWN	CHECKED	APPROVED
See Plate	September 2020	RS	JR	MJ
JOB No.	CAD FILE PATH	DRAWING No.	REV.	
2267	06/Scheme	L_03		



Scale 1:1,000



Scale 1:10,000

Interference Reference	Scheme Element Chainage (DSUS)	Location & Channel Chainage	Nature & Extent of Interference	Interference Reference	Scheme Element Chainage	Location & Channel Chainage	Nature & Extent of Interference
C01_B01	N/A	Chainage 11645m.	Proposed River Flow Control Structure to regulate flow and water levels in Crossmolina Town. Structure will consist of one central 6m wide culvert and two peripheral 3m wide culverts. A fourth 3m wide culvert installed to facilitate maintenance will remain closed by default. Culverts to be baffled internally to promote gravel bed. Maintenance access to deck, 8.7m wide. Flood defence parapet to 20.8mOD on upstream face.	C01_R01	N/A	Chainage 11638m.	Proposed 4.5m wide access track to provide pedestrian and vehicle access to flow control structure and flood defence embankment for inspection and maintenance.
C01_C01	N/A	Chainage 11621m to 11661m.	Proposed reinforcement of river channel bed and banks to provide scour protection. Proposal to incorporate natural river features including low-flow channel, pools, riffles and natural river gravels. Proposed concrete base apron to extend 3m upstream and 3m downstream of River Flow Control Structure. Incorporation of natural material rip-rap to extend 25m beyond concrete apron downstream and 3m beyond concrete apron upstream.	C01_R02	N/A	Chainage 11630m.	Proposed 2.5m wide access track to provide pedestrian and vehicle access to river bank.
C01_E01	N/A	Chainage 11650m.	Proposed flood defence embankment. 21mOD flood defence level. Embankment to tie into existing 21mOD contour line. Side slope grade 2H:1V.	C01_W01	0 to 5	Chainage 11640m.	Proposed reinforced concrete retaining wall (5m length) positioned at 45 degrees to RFCs. Top of wall varies 19.7mOD - 18mOD (GL). Height above surrounding ground varies 0 - 1.7m. Proposed wall to include safety
C01_G01	N/A	Chainage 11628m to 11659m.	95m proposed permanent 1.2m high post and rail fencing with 1 no. 4m entrance gate.	C01_W01	5 to 11	Chainage 11643m.	Proposed reinforced concrete retaining wall (6m length). Top of wall 19.7mOD - in line with bridge deck. Height above riverbed 2.2m.
C01_G02	N/A	Chainage 11634m to 11663m.	Reinstate existing stone wall.	C01_W01	11 to 18	Chainage 11652m.	Proposed reinforced concrete retaining wall (7m length) positioned at 45 degrees to RFCs. Top of wall 21mOD. Proposed wall to include safety fencing 1.2m above wall level.
C01_G03	N/A	Chainage 11634m to 11663m.	Proposed planting scheme to provide screening for the proposed flow control structure. Native species to be used.	C01_W02	0 to 9	Chainage 11637m.	Proposed reinforced concrete retaining wall (9m length) positioned at 45 degrees to RFCs.. Top of wall 20.8mOD. Height above surrounding ground varies 0 - 2.4m. Proposed wall to include safety fencing 1.2m
C01_G04	N/A	Chainage 11634m to 11663m.	Proposed raising/regrading of land on the right bank at the flow control structure. Reinstate to 21mOD and tie into existing 21mOD ground level.	C01_W02	9 to 15	Chainage 11643m.	Proposed reinforced concrete retaining wall (6m length). Top of wall 20.8mOD. Height above RFCs 1.1m. Proposed wall to include safety fencing 1.2m above
C01_M01	N/A	Chainage 10,940m to 11,900m on the River Deel.	General interference - Prune back vegetation, provision of temporary access where required.	C01_W02	15 to 25	Chainage 11650m.	Proposed reinforced concrete retaining wall (10m length) positioned at 45 degree to RFCs. Top of wall 20.8mOD. Height above surrounding ground varies 2.6 - 0m. Proposed wall to include safety fencing 1.2m above
C01_M02	N/A	Chainage 11650m.	General maintenance of Flow Control Structure and ancillary features.				

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LEGEND

Channel Reference (C00) & Chainage (50m)	C00.0050m
Interference Reference	IR
Location & Reference of Cross Section	Sect. CC_No.
Scheme Element Chainage	50
Existing watercourse	
Proposed Intake Structure (Spillway Plan Area)	
Proposed Re-grading of Land	
Proposed Rip-Rap Scour Protection	
Road Embankment	
Proposed Channel Embankment	
Proposed Flood Embankment	
Proposed Reinforced Concrete Riverbed Scour Protection	
Proposed channel bed	
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River Deel Flow Direction	
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Proposed Screening	
Proposed Hedgerow	

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DATE	DRN	DESCRIPTION	CHK	APD
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PROJECT
**RIVER DEEL (CROSSMOLINA)
DRAINAGE SCHEME**

TITLE
**LAYOUT PLAN
(Sheet 4 of 4)**

SCALE @ A1	DATE	DRAWN	CHECKED	APPROVED
See Plate	September 2020	RS	JR	MJ
JOB No.	CAD FILE PATH	DRAWING No.	REV.	
2267	06/Scheme	L_04		