

THE OFFICE OF PUBLIC WORKS
MAYO COUNTY COUNCIL

Arterial Drainage Acts, 1945 and 1995

RIVER DEEL (CROSSMOLINA) - DRAINAGE SCHEME
CONFIRMATION DRAWINGS

SEPTEMBER 2020

_____/ /2020
DIRECTOR OF ENGINEERING SERVICES
JOHN CURTIN

TRUE COPY



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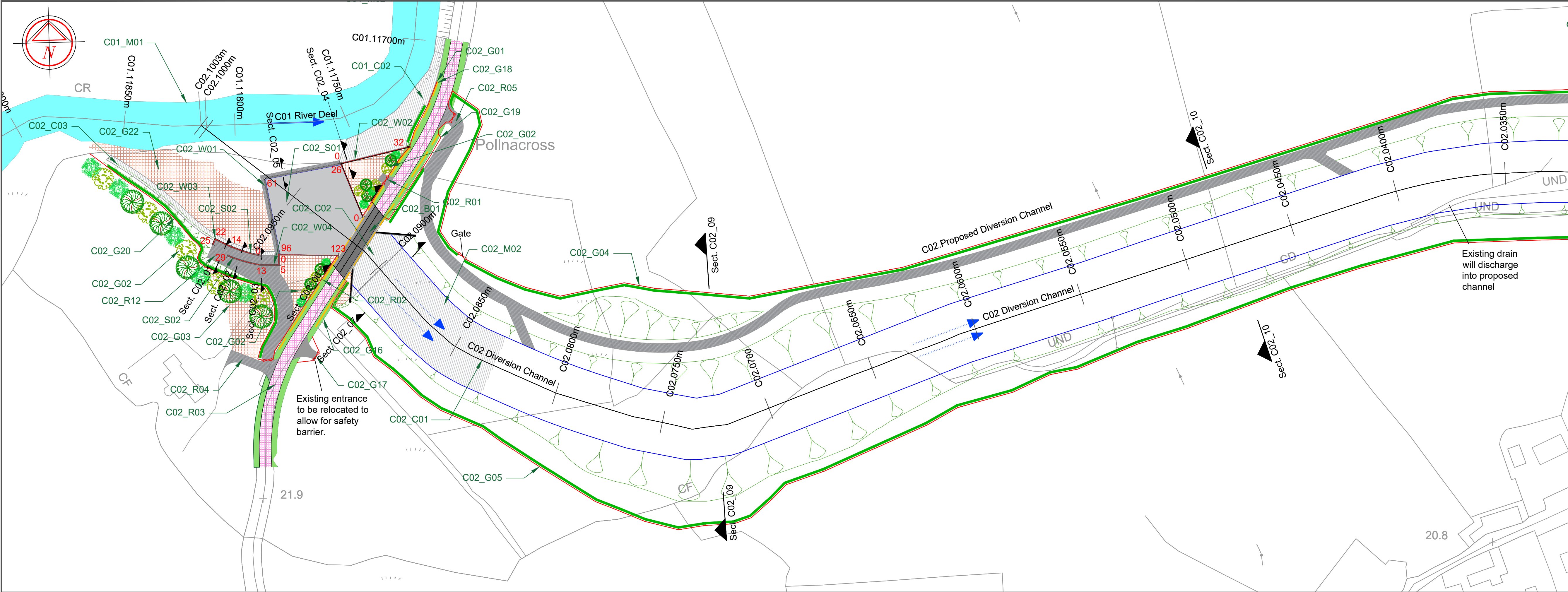


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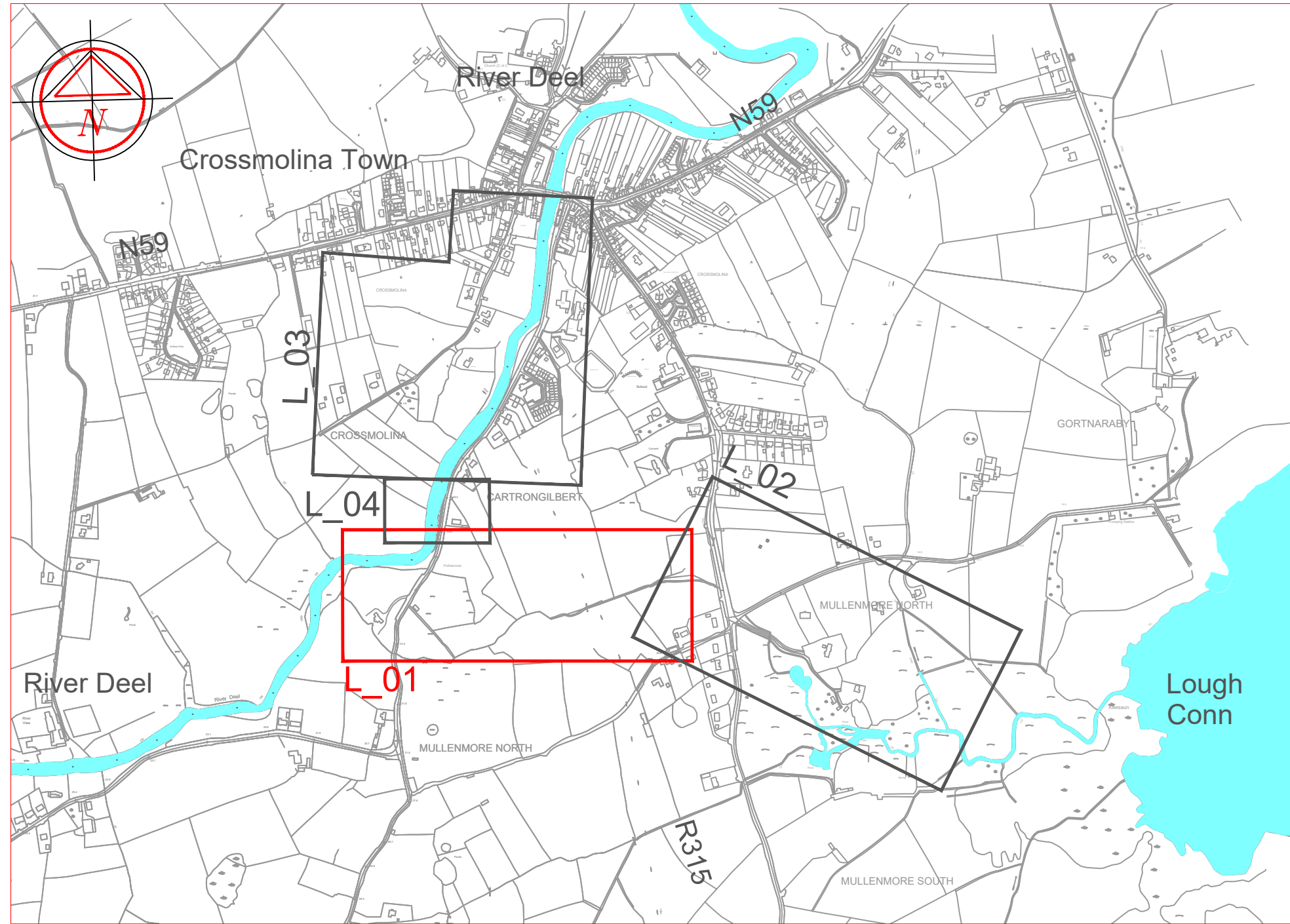
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Scale 1:1,000



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
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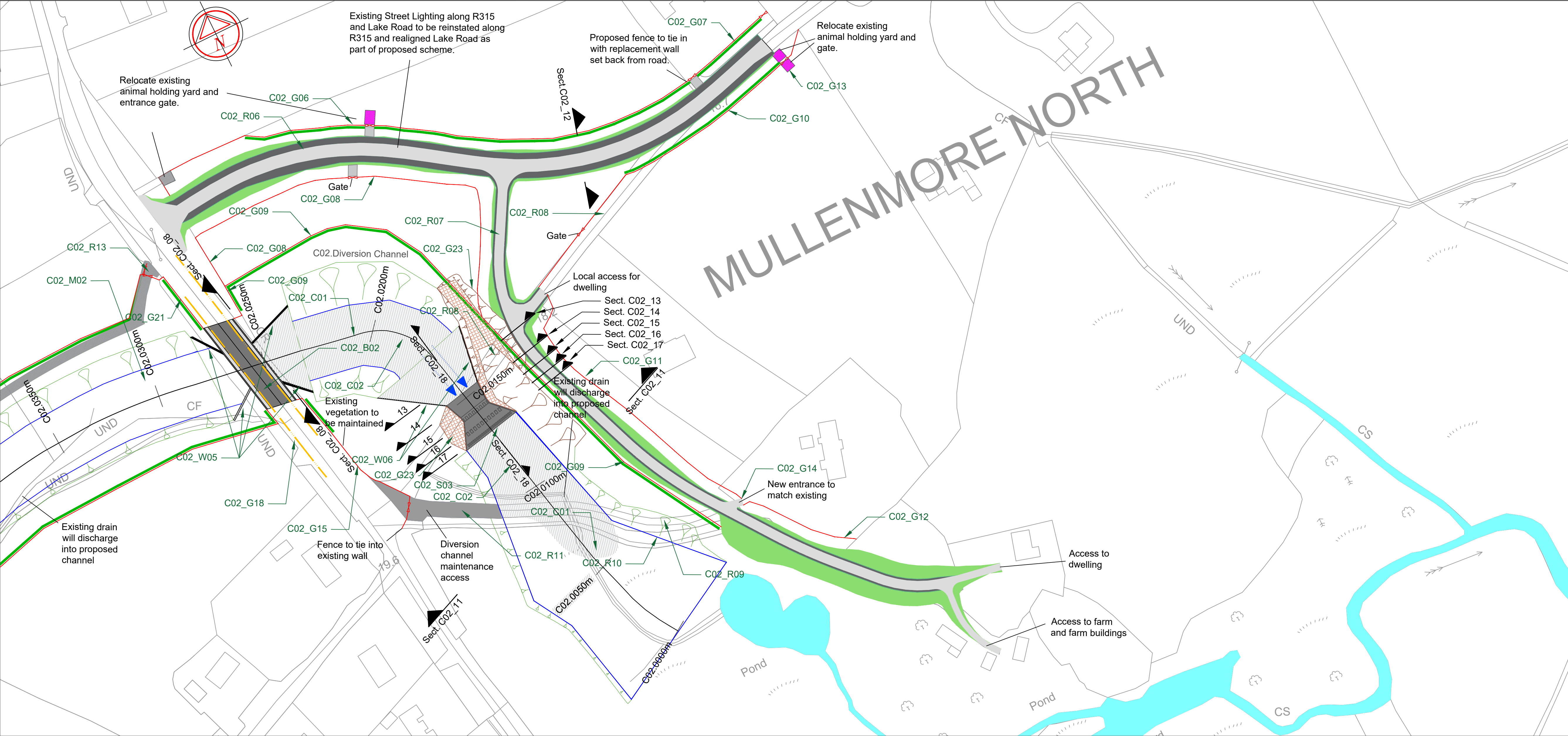
PROJECT

**RIVER DEEL (CROSSMOLINA)
DRAINAGE SCHEME**

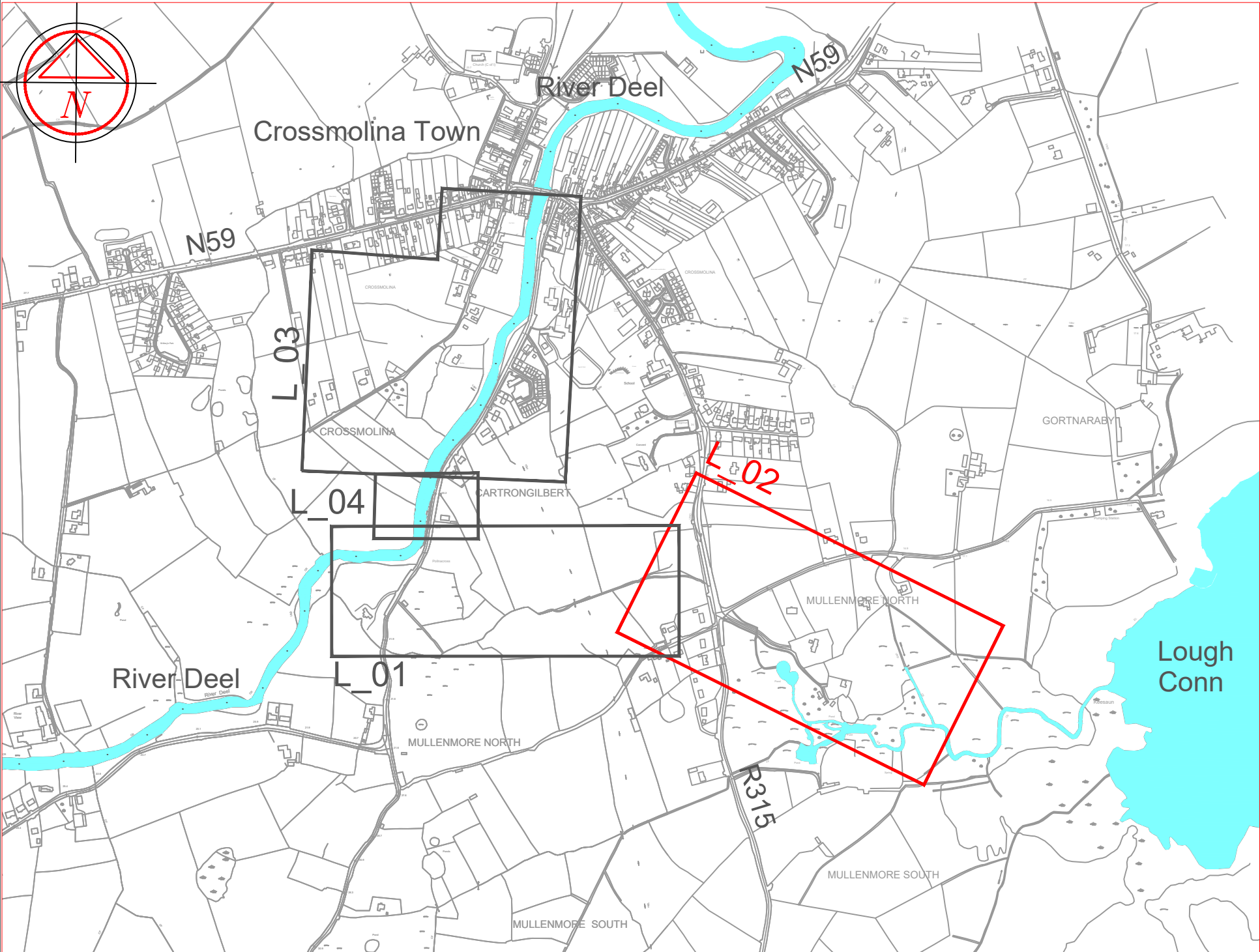
TITLE

**LAYOUT PLAN
(Sheet 1 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_01		



Scale 1:1,000



Scale 1:10,000

Interference Reference	Scheme Element Chainage (DSUS)	Location & Channel Chainage	Nature & Extent of Interference
C02_B02	N/A	Chainage 250m to 263m.	Proposed 20m span reinforced concrete vehicle/pedestrian bridge (13.3m width).
C02_C01	N/A	Chainage 175m to 240m.	Proposed grass lined diversion channel. Circa. 28m wide channel at the base sloping to between 30m and 50m at top of bank (2H:1V side slopes) as shown in scheme drawings. Channel depth typically between 3m and 10m.
C02_C01	N/A	Chainage 0m to 137m.	Proposed grass lined diversion channel. Circa. 28m wide channel at Chainage 125m channel increasing to 75m wide at Chainage 0m. Channel sloping to between 40m and 77m at top of bank (2H:1V side slopes) as shown in scheme drawings. Channel depth typically between 3m and 5m.
C02_C02	N/A	Chainage 250m to 160m.	Proposed reinforcement of channel bed and banks to provide scour protection. Proposal to incorporate gravel rip-rap, extending circa. 90m downstream from R315 bridge.
C02_C02	N/A	Chainage 130m to 80m	Proposed reinforcement of channel bed and banks to provide scour protection. Proposal to incorporate gravel rip-rap, extending circa. 80m downstream from Energy Dissipation Structure.
C02_G06	N/A	Chainage 150m to 249m.	260m proposed permanent 1.2m high post and rail fencing and 1 No. entrance 4m entrance gate. Proposed hedgerow native species to be used. Decommission existing animal handling yard and entrance gate and replace with equivalent.
C02_G07	N/A	Chainage 150m.	39m existing stone wall and 2 No. gates to be demolished and replaced with an equivalent wall and gates set back from the proposed road.
C02_G08	N/A	Chainage 150m to 249m.	220m proposed permanent 1.2m high post and rail fencing and 1 No. entrance 4m entrance gate.
C02_G09	N/A	Chainage 0m to 249m.	304m proposed permanent 1.2m high post and rail fencing. Proposed hedgerow with native species to be used.
C02_G10	N/A	Chainage 150m.	165m proposed permanent 1.2m high post and rail fencing and 1 No. entrance 4m entrance gate. Proposed hedgerow with native species to be used.
C02_G11	N/A	Chainage 0m to 150m.	136m proposed permanent 1.2m high post and rail fencing.
C02_G12	N/A	Chainage 0m.	55m proposed permanent 1.2m high post and rail fencing.
C02_G13	N/A	Chainage 150m.	Decommission existing animal handling yard and entrance gate and replace with equivalent.
C02_G14	N/A	Chainage 0m.	Relocate existing entrance, replacing with equivalent.
C02_G15	N/A	Chainage 125m to 200m.	76m proposed permanent 1.2m high post and rail fencing and 1 No. entrance 4m gate. Proposed hedgerow with native species to be used.

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 Disipation 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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LEGEND

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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PROJECT

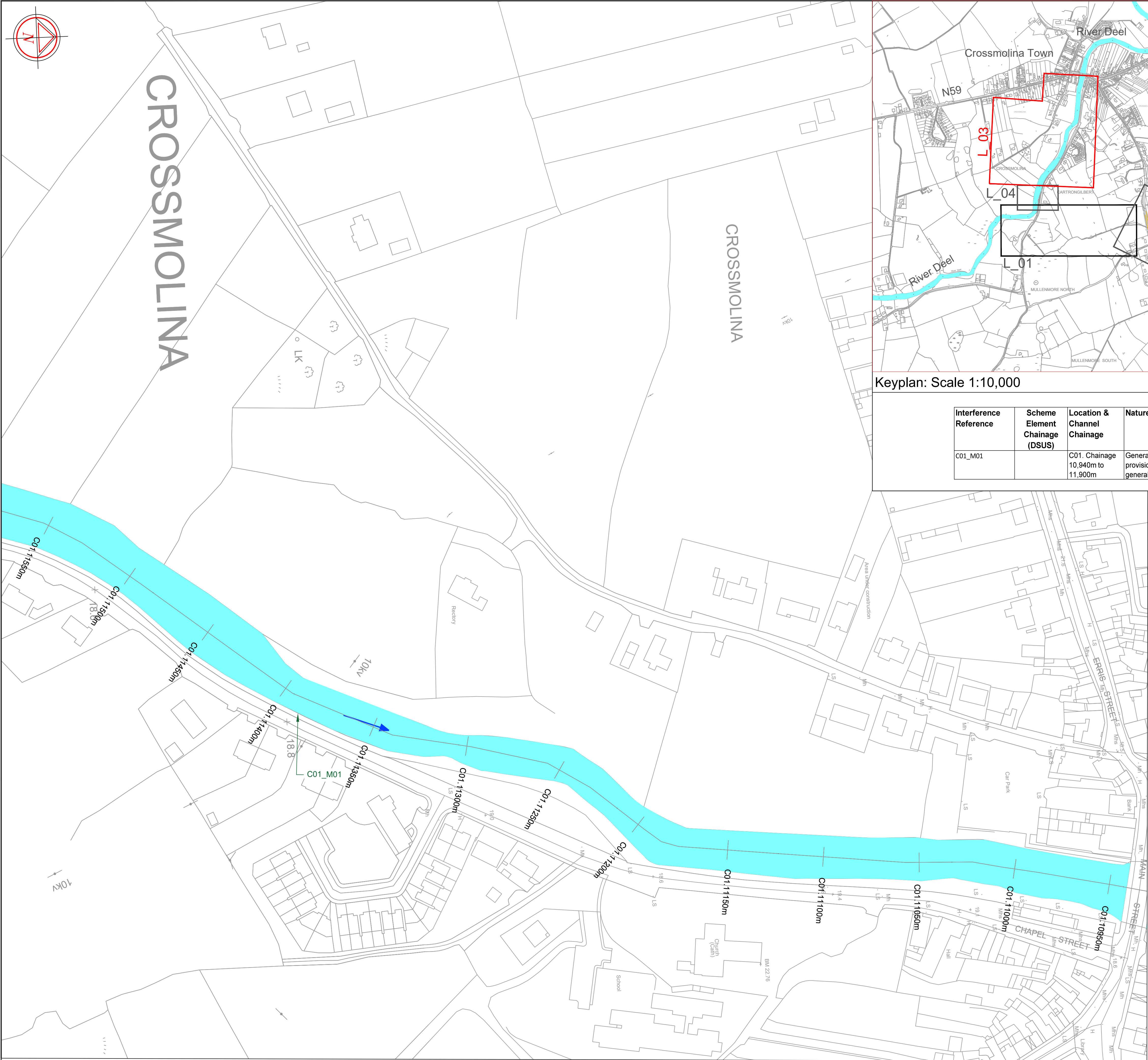
**RIVER DEEL (CROSSMOLINA)
DRAINAGE SCHEME**

TITLE

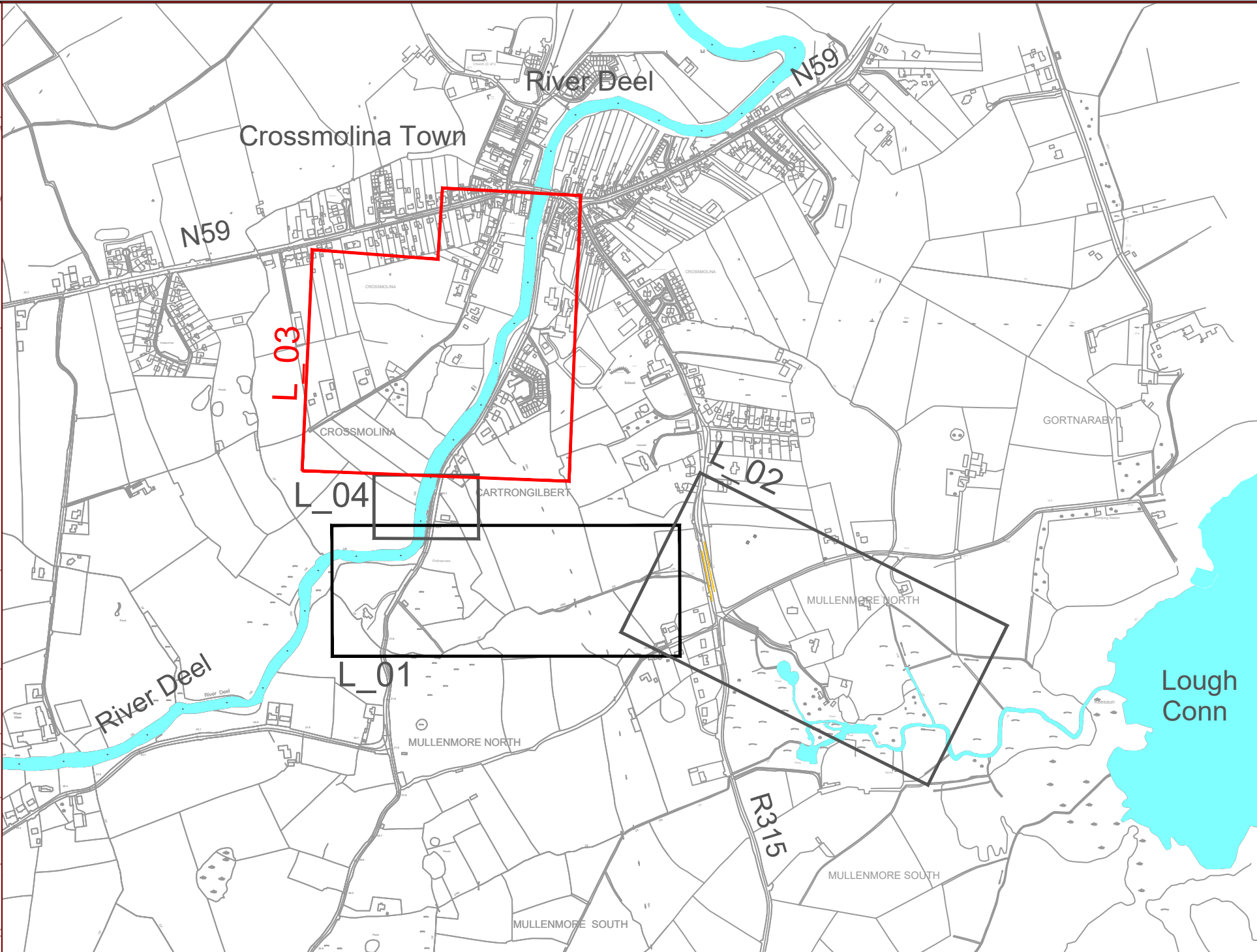
**LAYOUT PLAN
(Sheet 2 of 4)**

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_02	



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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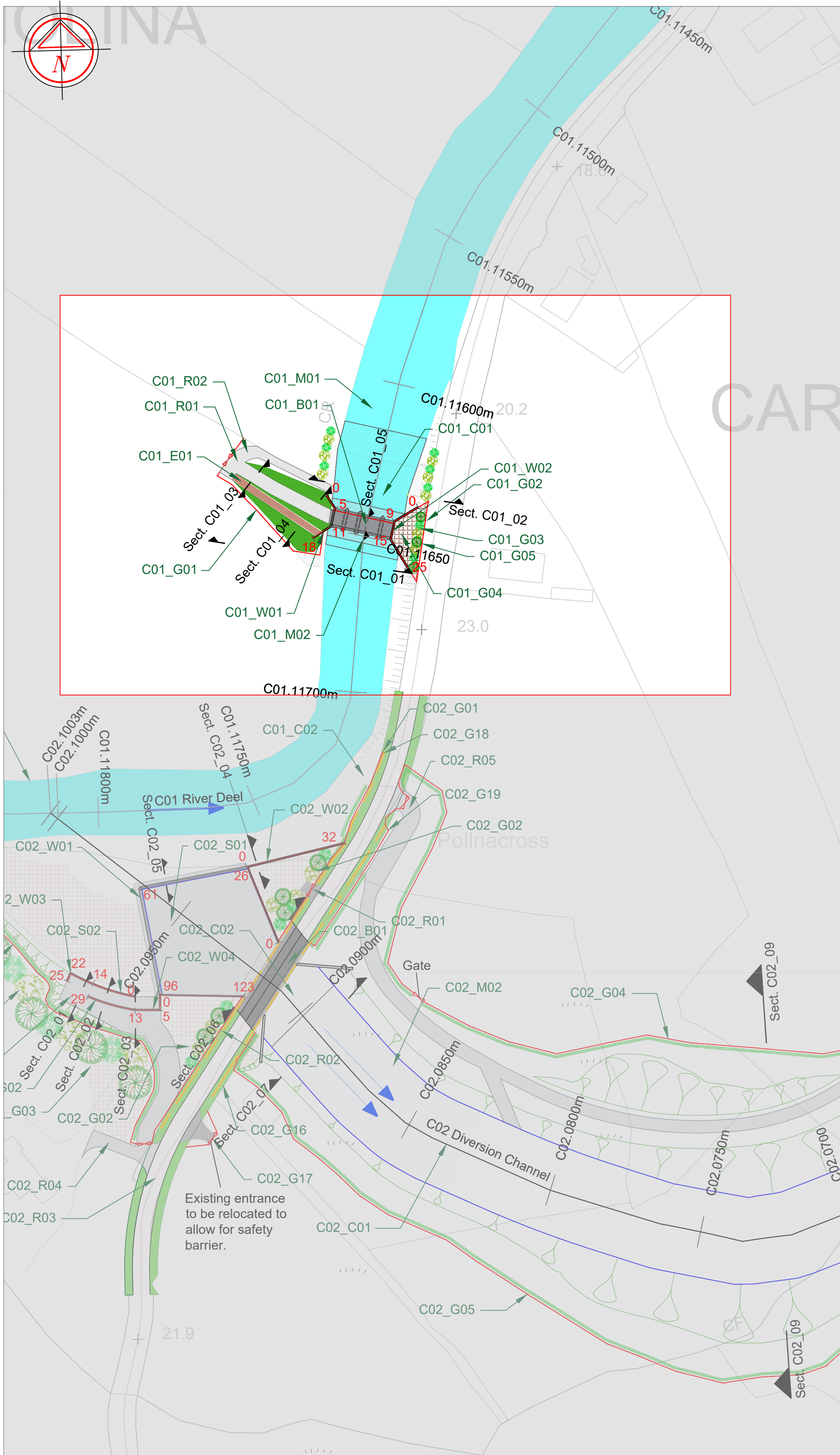
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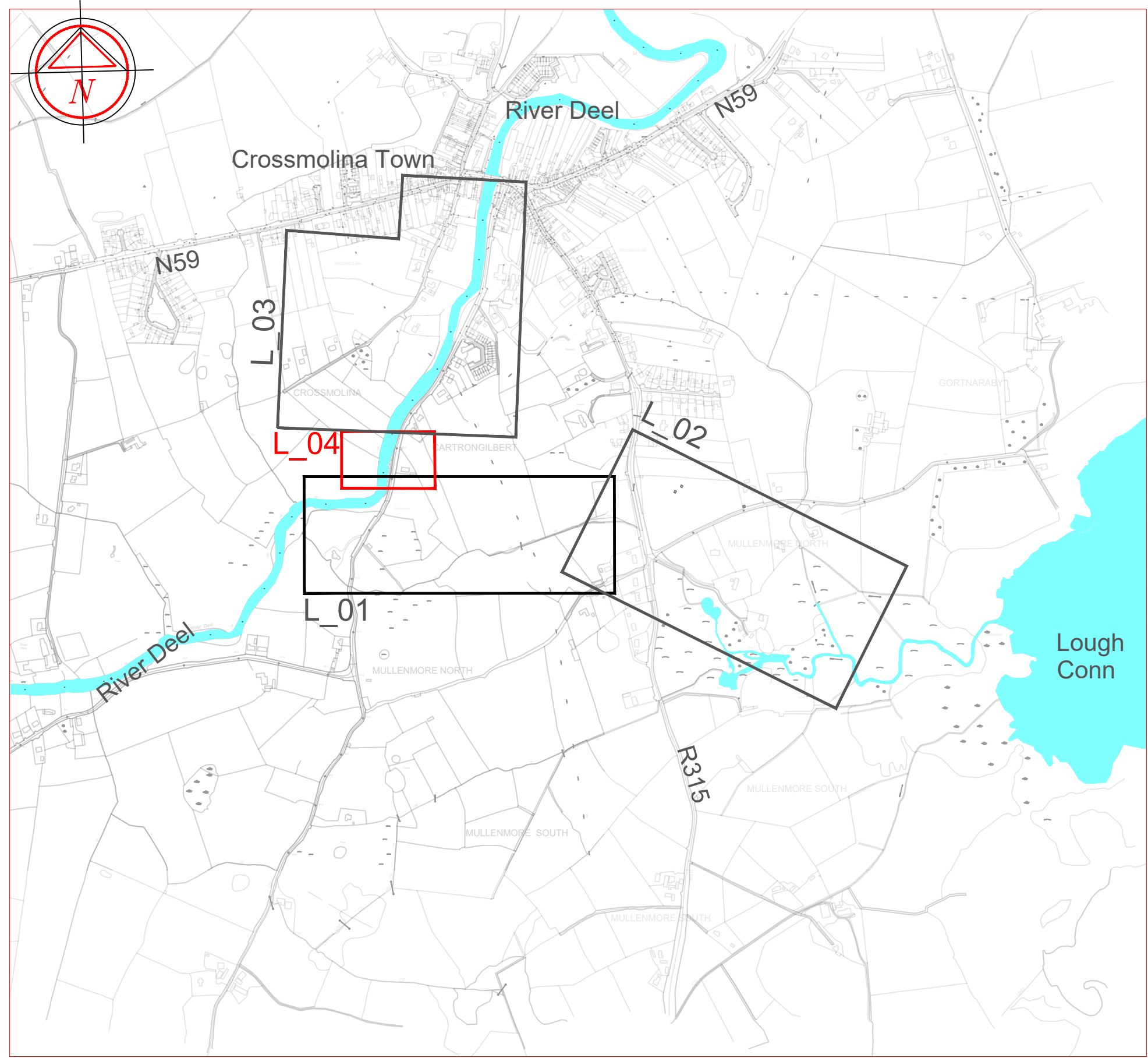
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DRAINAGE SCHEME**

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**LAYOUT PLAN
(Sheet 3 of 4)**

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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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