

Appendix IV
Proposed Surface Water
Drainage Works



BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS

LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME

DRAWING SERIES NUMBER(S)	DRAWING SERIES DESCRIPTION
BCIDB-JAC-DNG_IX-0007_XX_00-DR-CR-0001	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. PROPOSED SURFACE WATER DRAINAGE WORKS. COVER SHEET
BCIDB-JAC-DNG_KP-0007_XX_00-DR-CR-0001	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. PROPOSED SURFACE WATER DRAINAGE WORKS. KEY PLAN
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1001 to 1004	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. CATCHMENT DRAWINGS
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0003 to 0028	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME. PROPOSED SURFACE WATER DRAINAGE WORKS

PROPOSED SURFACE WATER DRAINAGE WORKS

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Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

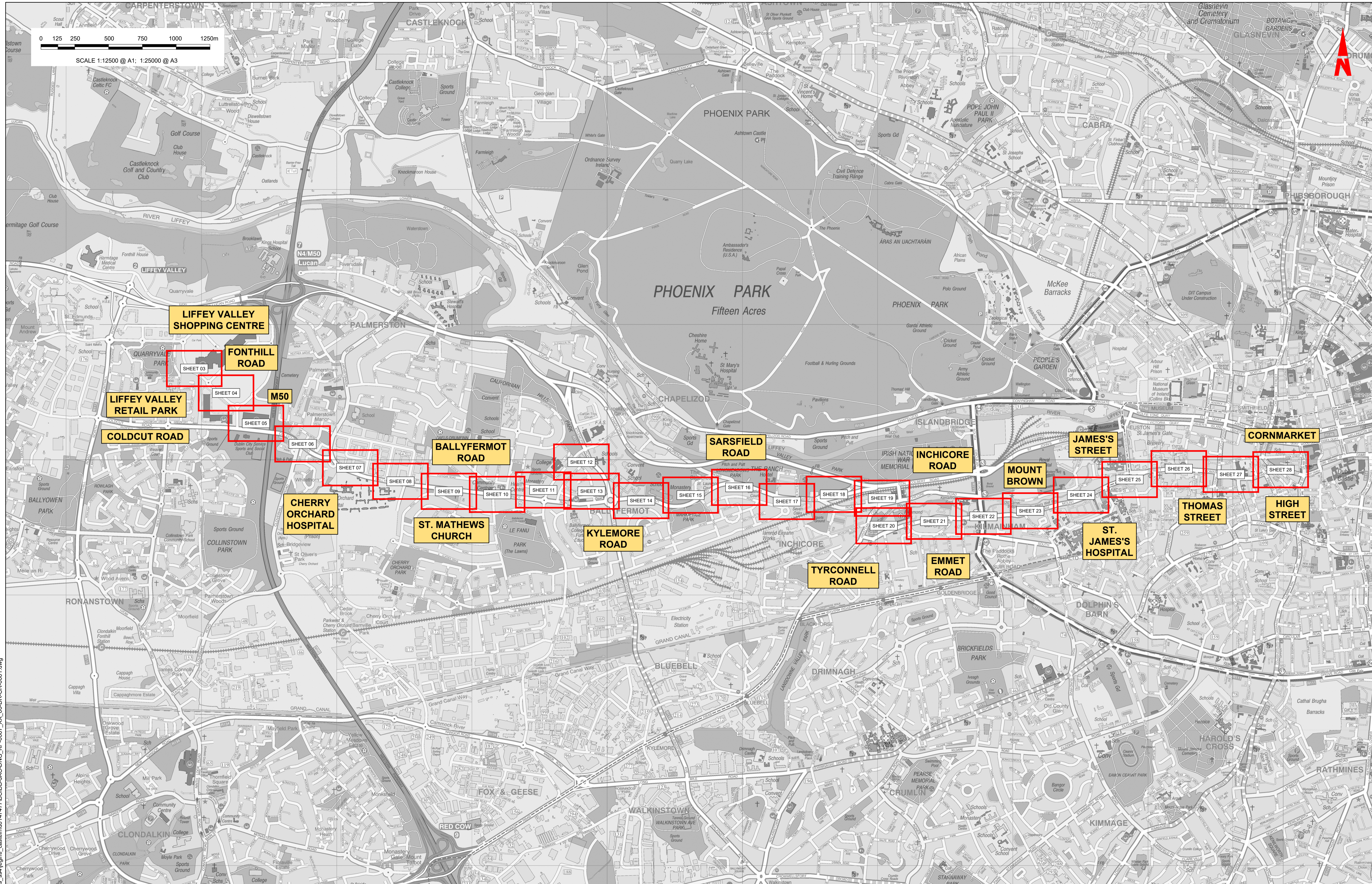
 Údarás Náisiúnta Iompair National Transport Authority	 Engineering Designer		
	Date	Scale	NTS @ A1 NTS @ A3
Project Code	Originator Code	QMS Code	Drawn PT
BCIDB	JAC		Checked KM
			Approved JB

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS COVER SHEET			
Drawing File Name	Sheet Number	Status	Rev
BCIDB-JAC-DNG_IX-0007_XX_00-DR-CR-0001	01 of 01	A	M01

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SCALE 1:12500 @ A1: 1:25000 @ A3



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 Údarás Náisiúnta Iompair
 National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:12500 @ A1
 1:25000 @ A3

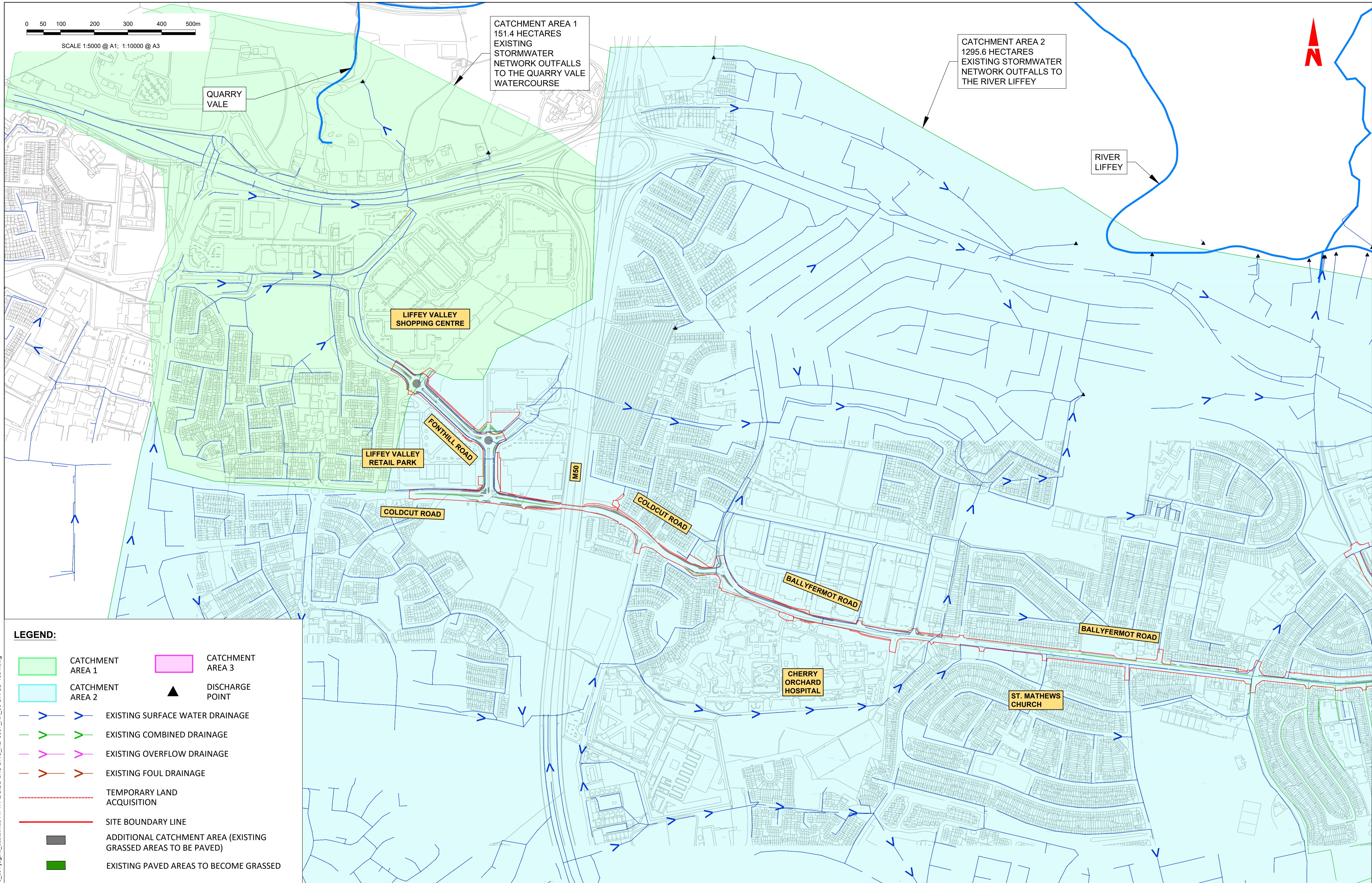
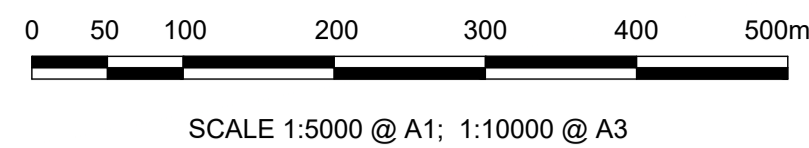
Project Code: BCIDB Originator Code: JAC

Drawn	Checked	Approved
PT	KM	JB

QMS Code

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS KEY PLAN			
Drawing File Name: BCIDB-JAC-DNG_KP-0007_XX_00-DR-CR-0001	Sheet Number: 01 of 01	Status: A	Rev: M01

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LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
- SITE BOUNDARY LINE
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREAS TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED

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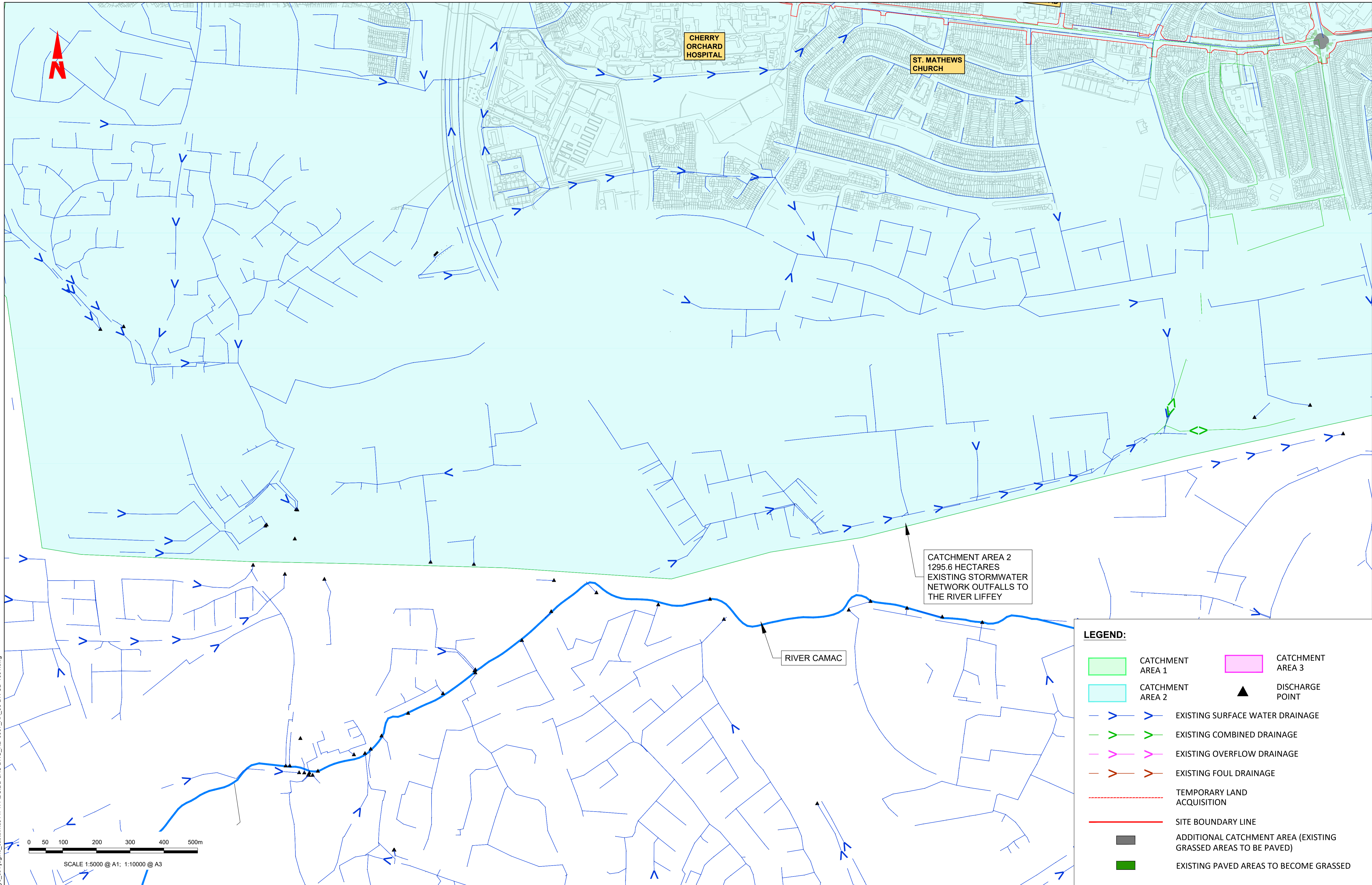
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 Date: 07/06/2022 Project Code: BCIDB		 Engineering Designer Drawn: PT Checked: KM Approved: JB	
Scale: 1:5000 @ A1 1:10000 @ A3	Originator Code: JAC	QMS Code:	

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1001	Sheet Number: 01 of 04	Status: A	Rev: M01

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LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
- SITE BOUNDARY LINE
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREAS TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED

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Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date	Scale	Drawn	Checked	Approved
07/06/2022	1:5000 @ A1 1:10000 @ A3	PT	KM	JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS			
Drawing File Name: BCIDB-JAC-DWG_RD-0007_XX_00-DR-CD-1002	Sheet Number: 02 of 04	Status: A	Rev: M01

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0 50 100 200 300 400 500m

SCALE 1:5000 @ A1; 1:10000 @ A3

CATCHMENT AREA 2
1295.6 HECTARES
EXISTING STORMWATER
NETWORK OUTFALLS TO THE
RIVER LIFFEY

RIVER LIFFEY

CATCHMENT AREA 3
509.1 HECTARES
EXISTING STORMWATER DRAINS
TO RINGSEND WwTP VIA
COMBINED SEWER NETWORK.
THERE ARE SOME SEPARATE
STORMWATER DISCHARGES TO
THE RIVER CAMAC.
THERE ARE COMBINED SEWER
OVERFLOWS TO THE RIVER
LIFFEY ALONG THE EXISTING
COMBINED NETWORK.

ST. JAMES'S
HOSPITAL

BALLYFERMOT ROAD

SARSFIELD ROAD

INCHICORE ROAD

EMMET ROAD

OLD KILMAINHAM

MOUNT BROWN

TYRCONNELL
ROAD

RIVER CAMAC

LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
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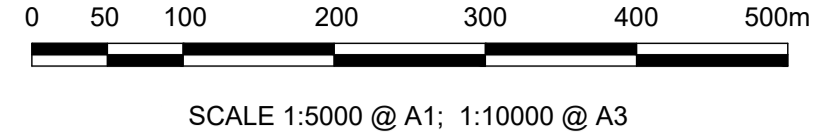
Engineering Designer: **Jacobs**

Date: 07/06/2022	Scale: 1:5000 @ A1 1:10000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
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Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1003	Sheet Number: 03 of 04	Status: A	Rev: M01

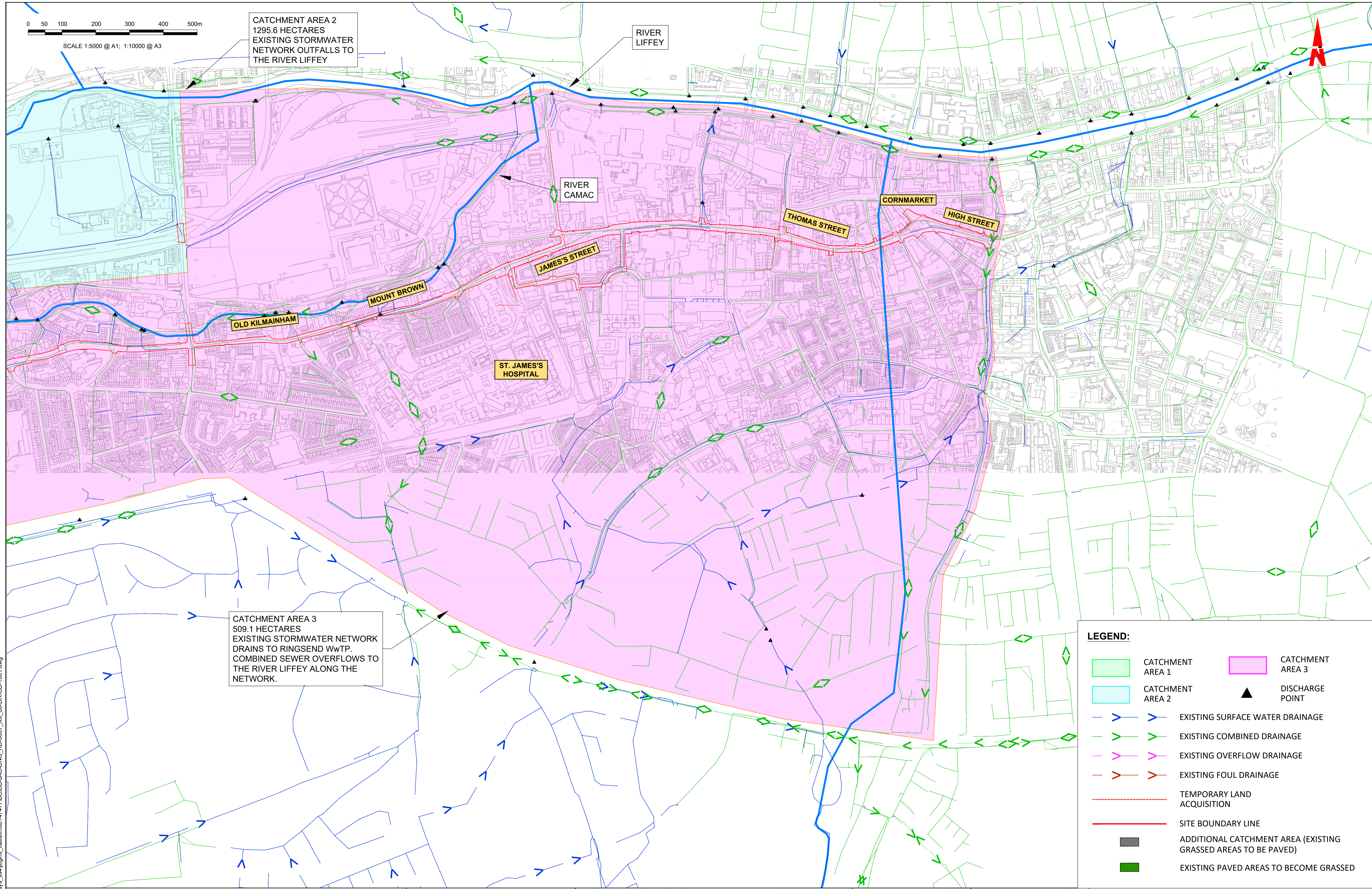
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CATCHMENT AREA 2
1295.6 HECTARES
EXISTING STORMWATER
NETWORK OUTFALLS TO
THE RIVER LIFFEY

CATCHMENT AREA 3
509.1 HECTARES
EXISTING STORMWATER NETWORK
DRAINS TO RINGSEND WwTP.
COMBINED SEWER OVERFLOWS TO
THE RIVER LIFFEY ALONG THE
NETWORK.



LEGEND:

- CATCHMENT AREA 1
- CATCHMENT AREA 2
- CATCHMENT AREA 3
- DISCHARGE POINT
- EXISTING SURFACE WATER DRAINAGE
- EXISTING COMBINED DRAINAGE
- EXISTING OVERFLOW DRAINAGE
- EXISTING FOUL DRAINAGE
- TEMPORARY LAND ACQUISITION
- SITE BOUNDARY LINE
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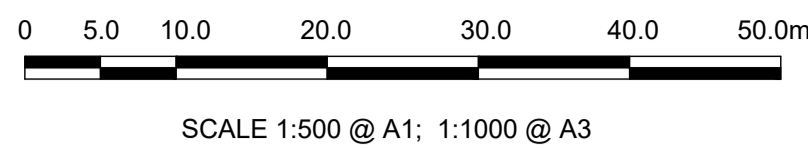
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BCIDB	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME CATCHMENT DRAWINGS			
Drawing File Name BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-1004	Sheet Number 04 of 04	Status A	Rev M01

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GREENFORT LAWNS

Dublin
Baile Átha
Cliaith

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LIFFEY VALLEY SHOPPING CENTRE

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2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND REPORTS.
3. STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

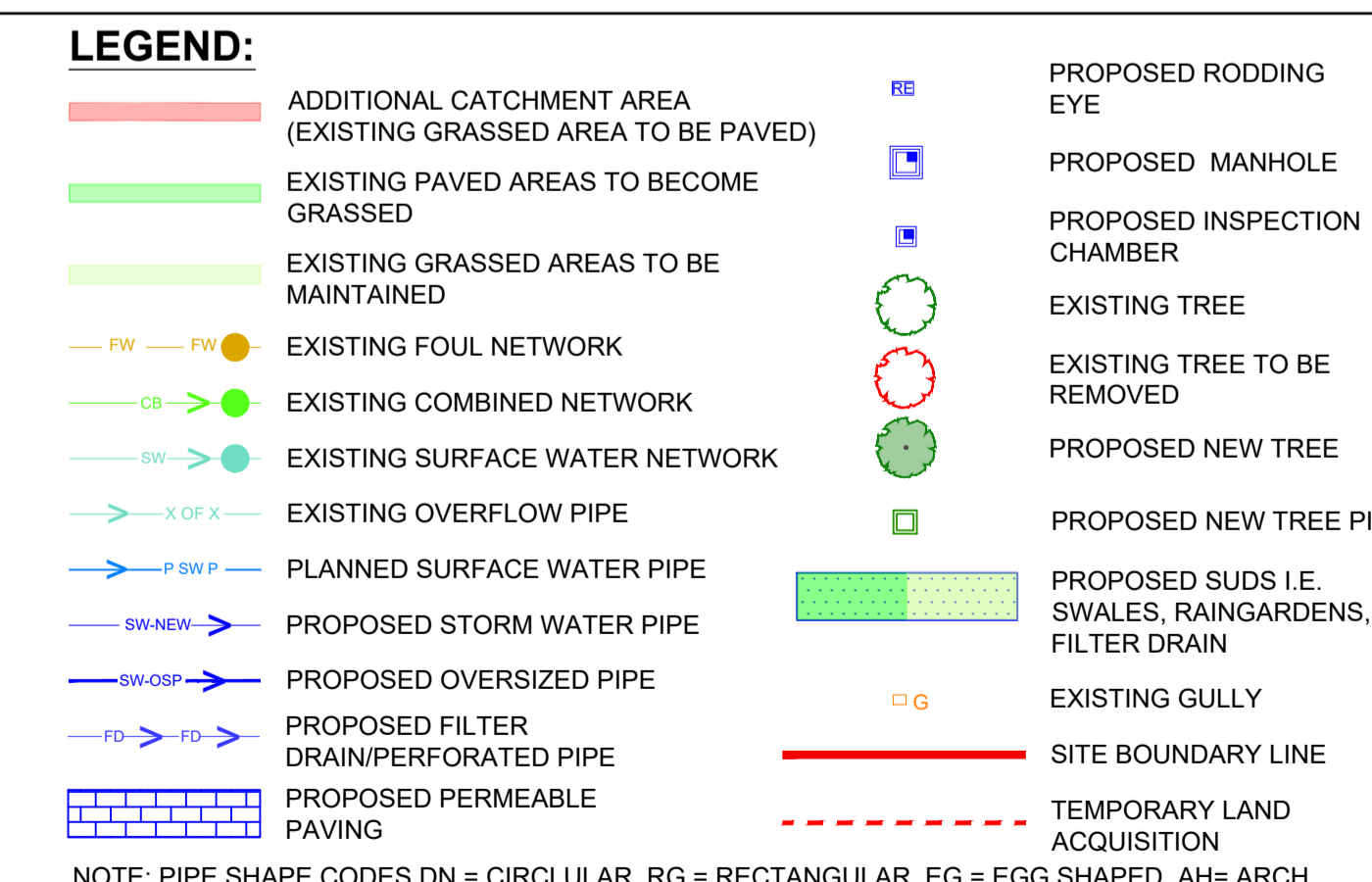


LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

GREENFORT GARDENS



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Building Ireland's Future

Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

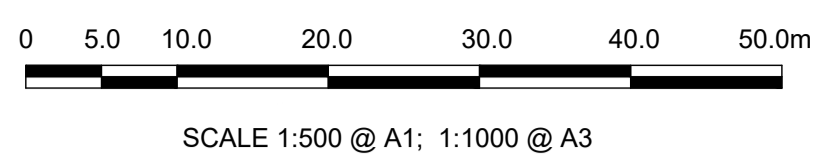
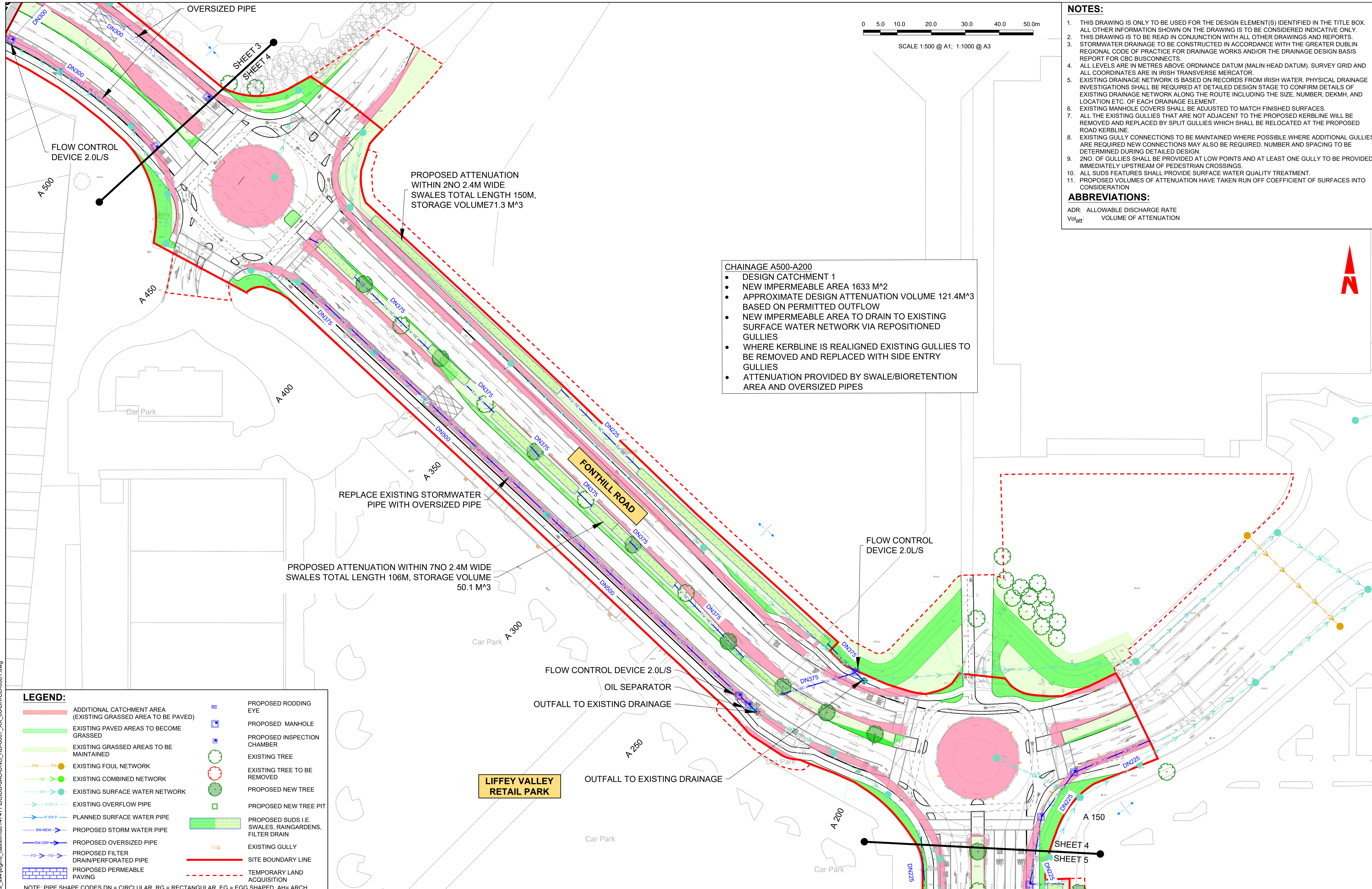
Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

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

Drawing Title: **LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS**

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0003 | Sheet Number: 03 of 28 | Status: A | Rev: M01



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 - STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
 - ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
 - EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
 - EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
 - ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
 - EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
 - 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
 - ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 - PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION
- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

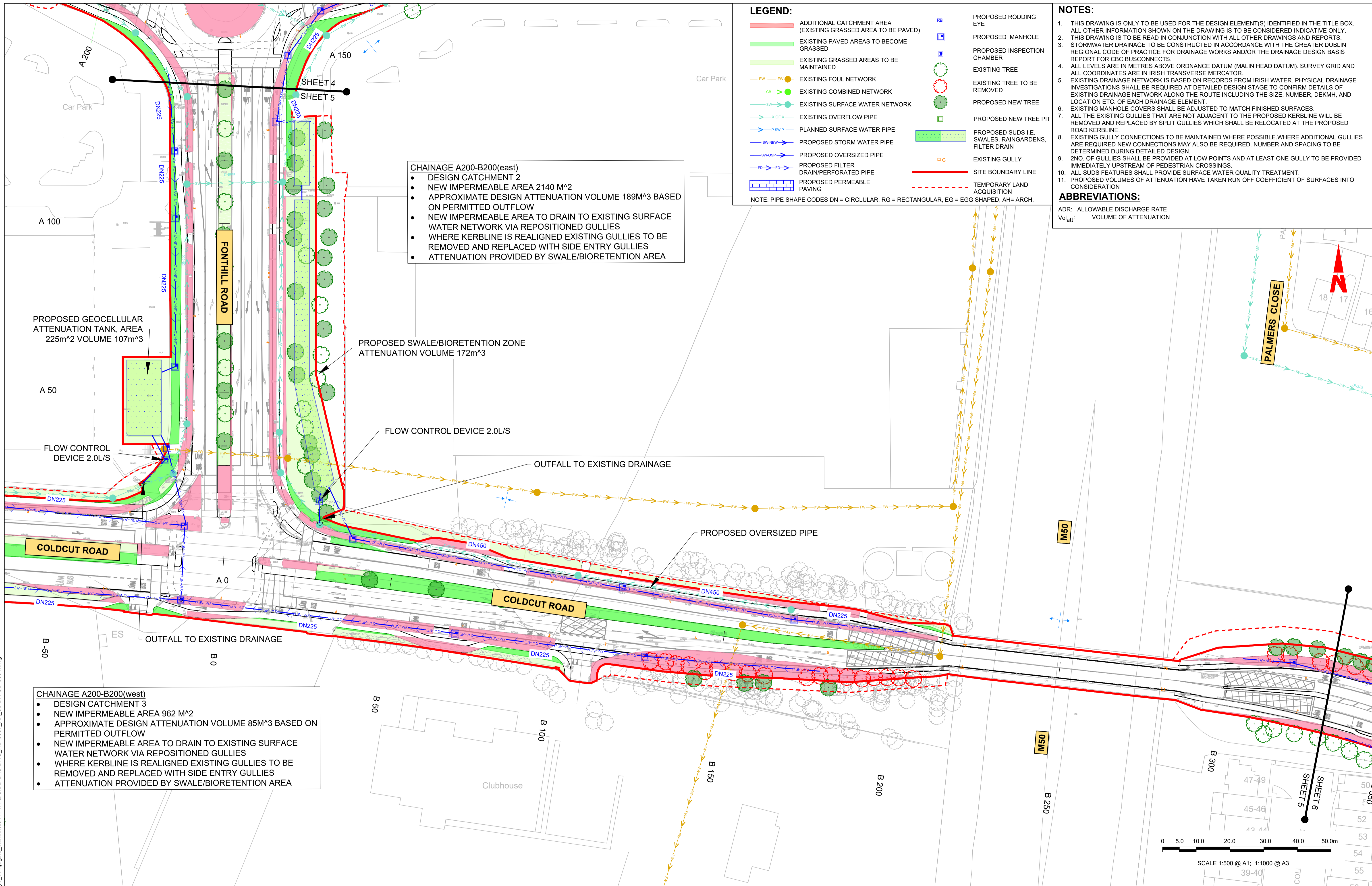
- CHAINAGE A500-A200**
- DESIGN CATCHMENT 1
 - NEW IMPERMEABLE AREA 1633 M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 121.4M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY SWALE/BIORETENTION AREA AND OVERSIZED PIPES

- LEGEND:**
- | | |
|---|--|
| ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED) | PROPOSED RODDING EYE |
| EXISTING PAVED AREAS TO BECOME GRASSED | PROPOSED MANHOLE |
| EXISTING GRASSED AREAS TO BE MAINTAINED | PROPOSED INSPECTION CHAMBER |
| EXISTING FOUL NETWORK | EXISTING TREE |
| EXISTING COMBINED NETWORK | EXISTING TREE TO BE REMOVED |
| EXISTING SURFACE WATER NETWORK | PROPOSED NEW TREE |
| EXISTING OVERFLOW PIPE | PROPOSED NEW TREE PIT |
| PLANNED SURFACE WATER PIPE | PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN |
| PROPOSED STORM WATER PIPE | EXISTING GULLY |
| PROPOSED OVERSIZED PIPE | SITE BOUNDARY LINE |
| PROPOSED FILTER DRAIN/PERFORATED PIPE | TEMPORARY LAND ACQUISITION |
| PROPOSED PERMEABLE PAVING | |
- NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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<p>Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3 Drawn: PT Checked: KM Approved: JB</p>					<p>Project Code: BCIDB Originator Code: JAC QMS Code:</p>		<p>Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS</p>								
<p>Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0004</p>					<p>Sheet Number: 04 of 28</p>		<p>Status: A</p>		<p>Rev: M01</p>						

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



CHAINAGE A200-B200(east)

- DESIGN CATCHMENT 2
- NEW IMPERMEABLE AREA 2140 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 189M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY SWALE/BIORETENTION AREA

PROPOSED GEOCELLULAR ATTENUATION TANK, AREA 225m² VOLUME 107m³

PROPOSED SWALE/BIORETENTION ZONE ATTENUATION VOLUME 172m³

FLOW CONTROL DEVICE 2.0L/S

OUTFALL TO EXISTING DRAINAGE

PROPOSED OVERSIZED PIPE

OUTFALL TO EXISTING DRAINAGE

CHAINAGE A200-B200(west)

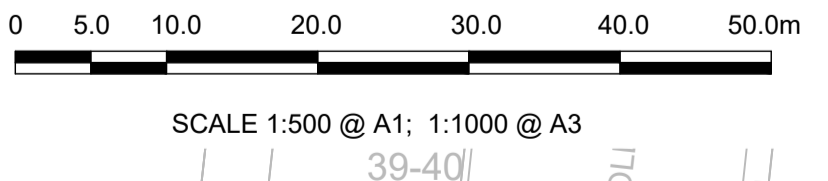
- DESIGN CATCHMENT 3
- NEW IMPERMEABLE AREA 962 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 85M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY SWALE/BIORETENTION AREA

LEGEND:

[Pink shaded area]	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)	[Blue square]	PROPOSED RODDING EYE
[Green shaded area]	EXISTING PAVED AREAS TO BECOME GRASSED	[Blue square]	PROPOSED MANHOLE
[Light green shaded area]	EXISTING GRASSED AREAS TO BE MAINTAINED	[Blue square]	PROPOSED INSPECTION CHAMBER
[Orange line]	EXISTING FOUL NETWORK	[Green circle]	EXISTING TREE
[Green line]	EXISTING COMBINED NETWORK	[Red circle]	EXISTING TREE TO BE REMOVED
[Blue line]	EXISTING SURFACE WATER NETWORK	[Green circle]	PROPOSED NEW TREE
[Blue line with 'X']	EXISTING OVERFLOW PIPE	[Green square]	PROPOSED NEW TREE PIT
[Blue line with 'P-SW-P']	PLANNED SURFACE WATER PIPE	[Green rectangle]	PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
[Blue line with 'SW-NEW']	PROPOSED STORM WATER PIPE	[Orange square]	EXISTING GULLY
[Blue line with 'SW-OSP']	PROPOSED OVERSIZED PIPE	[Red dashed line]	SITE BOUNDARY LINE
[Blue line with 'FD']	PROPOSED FILTER DRAIN/PERFORATED PIPE	[Red dashed line]	TEMPORARY LAND ACQUISITION
[Blue brick pattern]	PROPOSED PERMEABLE PAVING		

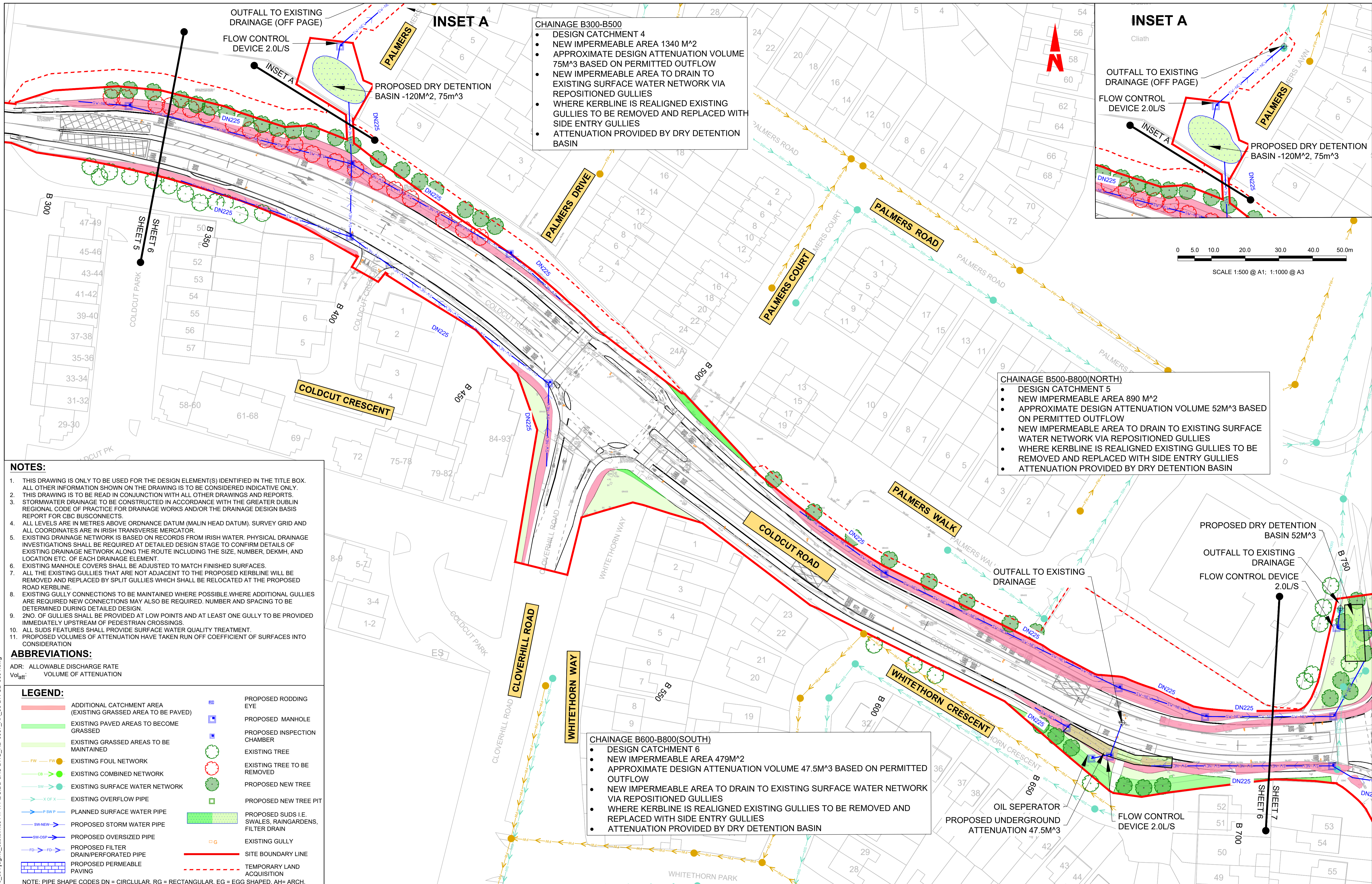
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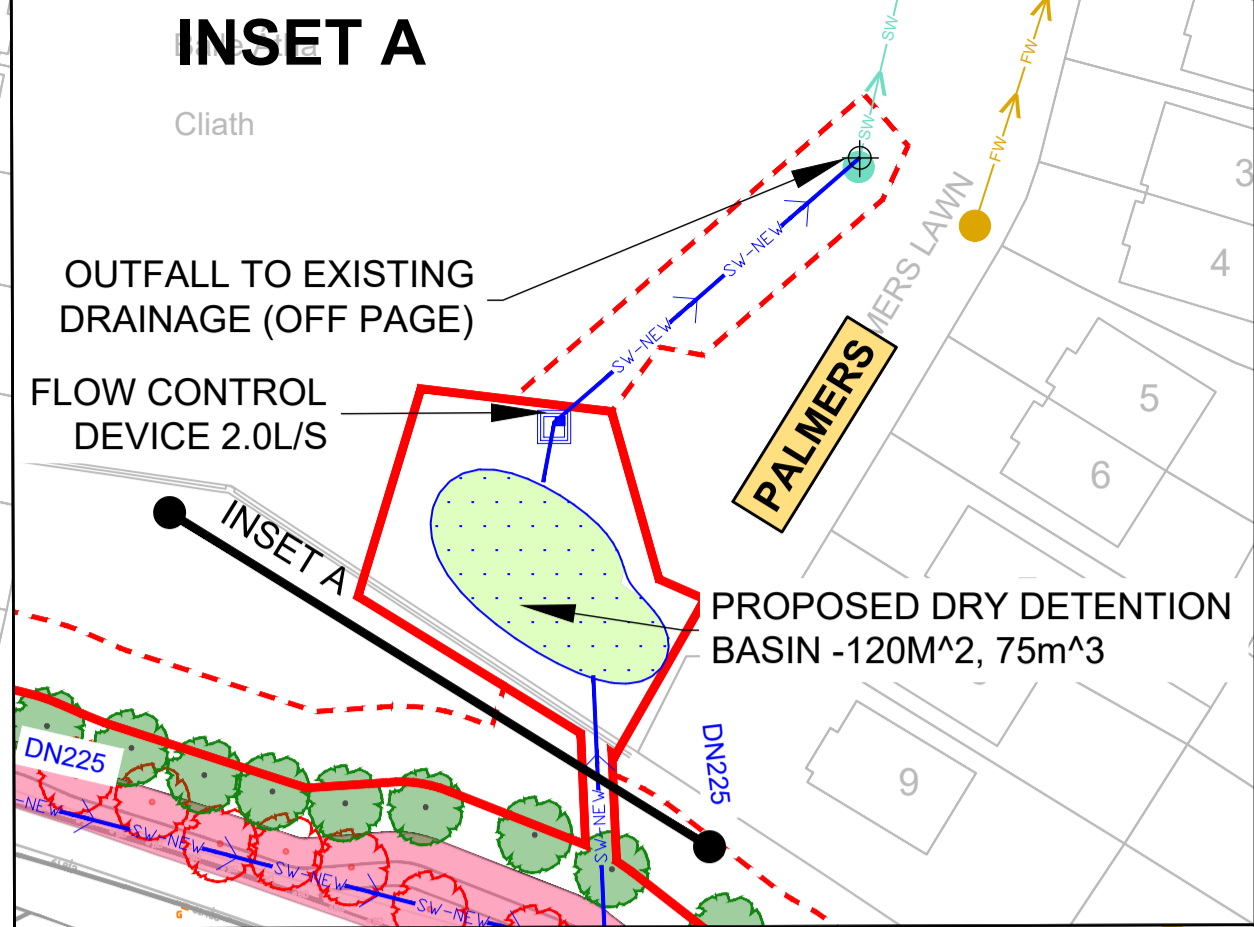
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CHAINAGE B300-B500

- DESIGN CATCHMENT 4
- NEW IMPERMEABLE AREA 1340 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 75M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN



CHAINAGE B500-B800(NORTH)

- DESIGN CATCHMENT 5
- NEW IMPERMEABLE AREA 890 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 52M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

CHAINAGE B600-B800(SOUTH)

- DESIGN CATCHMENT 6
- NEW IMPERMEABLE AREA 479M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 47.5M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

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 10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

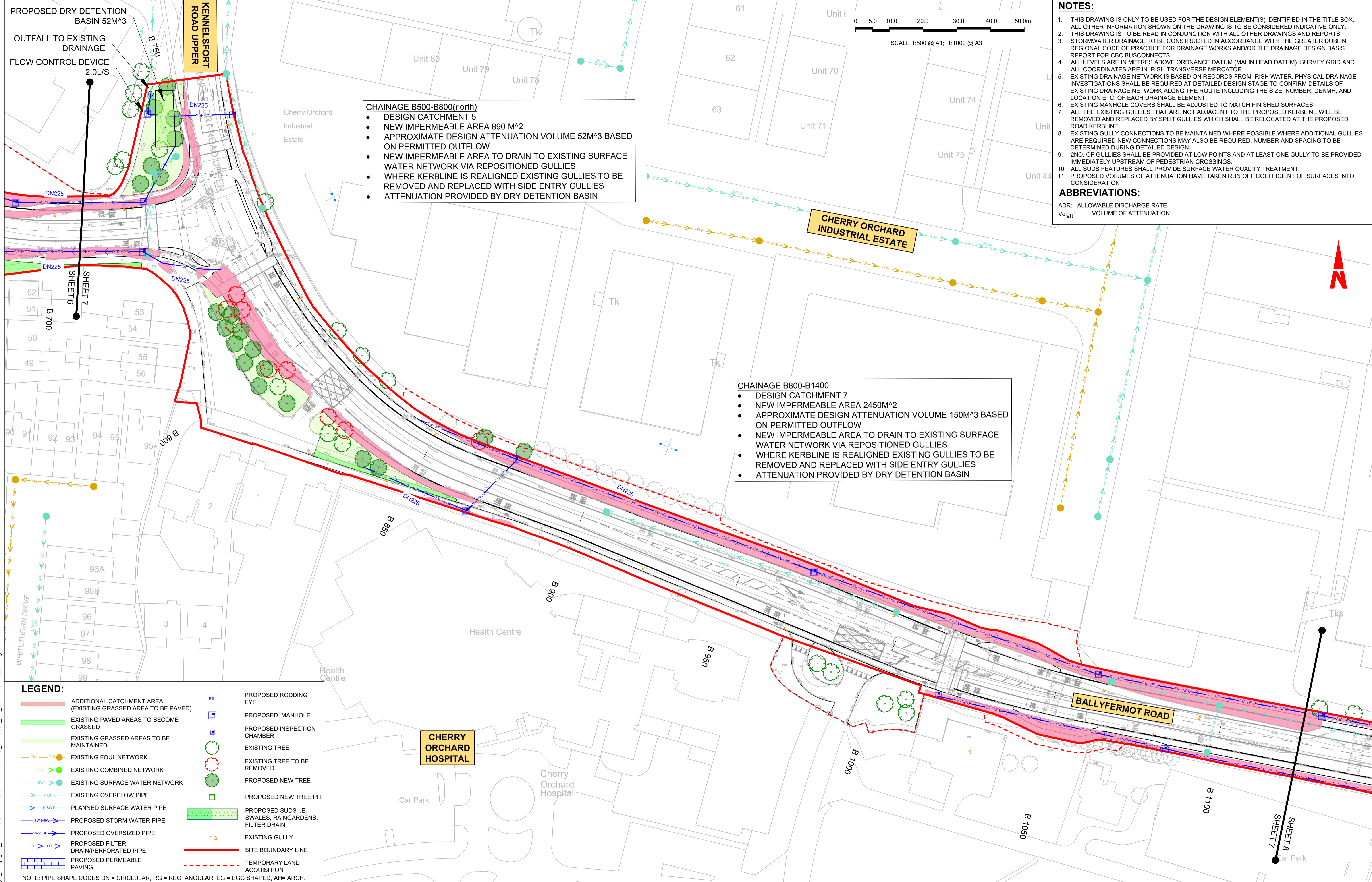
ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
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	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
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<p>Project Code: BCIDB</p>		<p>QMS Code:</p>		<p>Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0006</p>		<p>Sheet Number: 06 of 28 Status: A Rev: M01</p>	



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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Volatt: VOLUME OF ATTENUATION

CHAINAGE B500-B800(north)

- DESIGN CATCHMENT 5
- NEW IMPERMEABLE AREA 890 M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 52M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

CHAINAGE B800-B1400

- DESIGN CATCHMENT 7
- NEW IMPERMEABLE AREA 2450M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 150M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

- LEGEND:**
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
 - EXISTING GRASSED AREAS TO BE MAINTAINED
 - EXISTING FOUL NETWORK
 - EXISTING COMBINED NETWORK
 - EXISTING SURFACE WATER NETWORK
 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
 - PROPOSED STORM WATER PIPE
 - PROPOSED OVERSIZED PIPE
 - PROPOSED FILTER DRAIN/PERFORATED PIPE
 - PROPOSED PERMEABLE PAVING
 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE
 - PROPOSED INSPECTION CHAMBER
 - EXISTING TREE
 - EXISTING TREE TO BE REMOVED
 - PROPOSED NEW TREE
 - PROPOSED NEW TREE PIT
 - PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
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 - SITE BOUNDARY LINE
 - TEMPORARY LAND ACQUISITION
- NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0007	Sheet Number: 07 of 28	Status: A	Rev: M01

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3

CHAINAGE B800-B1400

- DESIGN CATCHMENT 7
- NEW IMPERMEABLE AREA 2450M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 150M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

CHERRY ORCHARD INDUSTRIAL ESTATE

OUTFALL TO EXISTING DRAINAGE

FLOW CONTROL DEVICE 2.0L/S

BALLYFERMOT ROAD

CHERRY ORCHARD HOSPITAL

PROPOSED DRY DETENTION BASIN 235M², 150M³

BALLYFERMOT PRIMARY CARE CENTRE

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3. STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE. WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
VolAtt: VOLUME OF ATTENUATION

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- EXISTING FOUL NETWORK
- EXISTING COMBINED NETWORK
- EXISTING SURFACE WATER NETWORK
- EXISTING OVERFLOW PIPE
- PLANNED SURFACE WATER PIPE
- PROPOSED STORM WATER PIPE
- PROPOSED OVERSIZED PIPE
- PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3 Drawn: PT, Checked: KM, Approved: JB

Project Code: BCIDB Originator Code: JAC QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0008	Sheet Number: 08 of 28	Status: A	Rev: M01

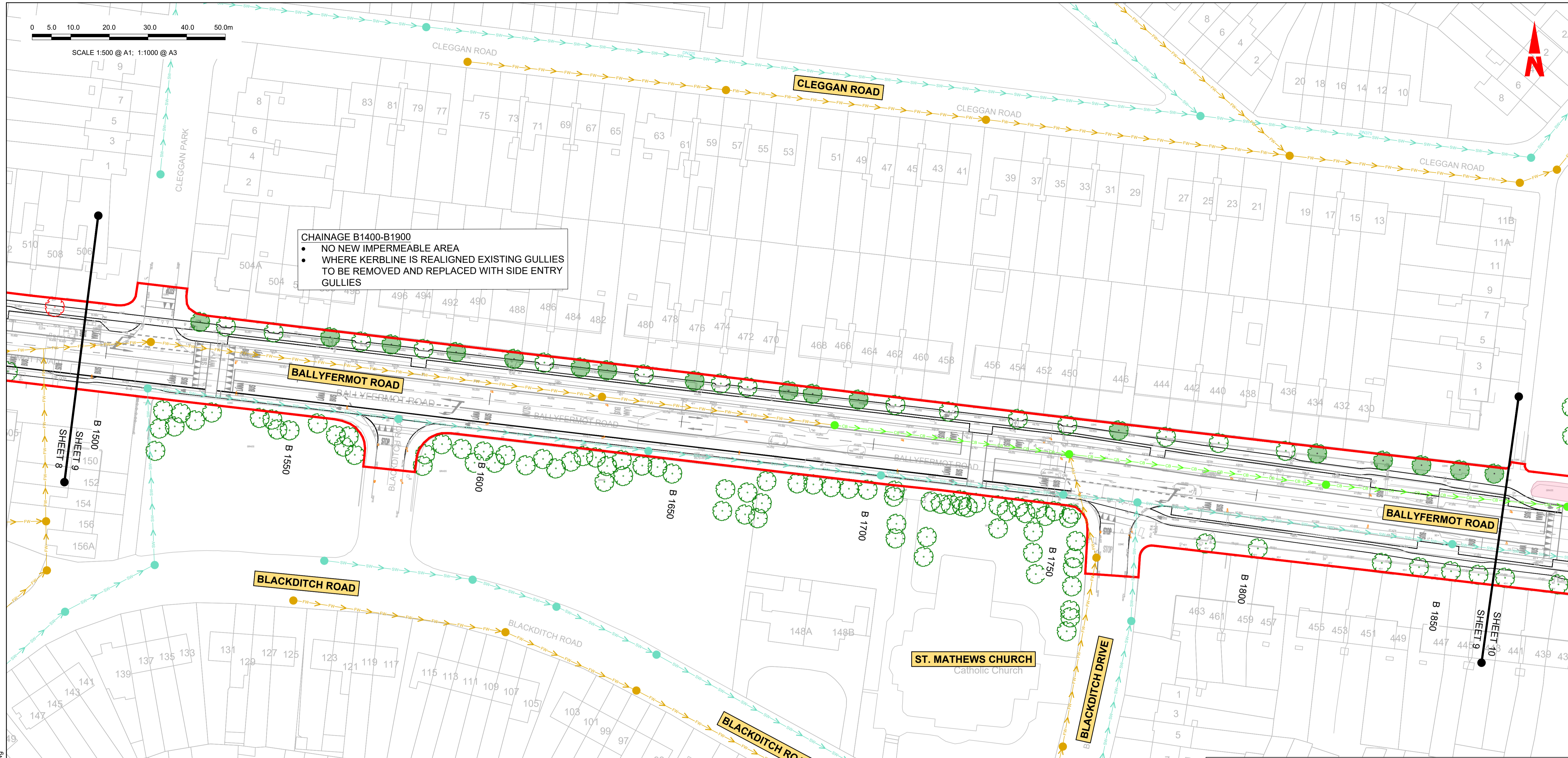
DO NOT SCALE USE FIGURED DIMENSIONS ONLY

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE B1400-B1900
• NO NEW IMPERMEABLE AREA
• WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODING DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

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- ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3
Drawn: PT, Checked: KM, Approved: JB

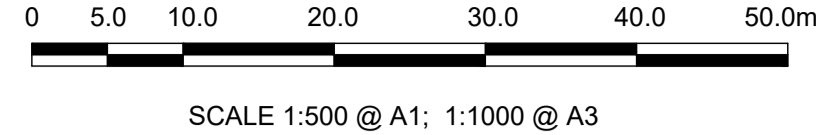
Project Code: BCIDB, Originator Code: JAC, QMS Code:

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

Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0009, Sheet Number: 09 of 28, Status: A, Rev: M01

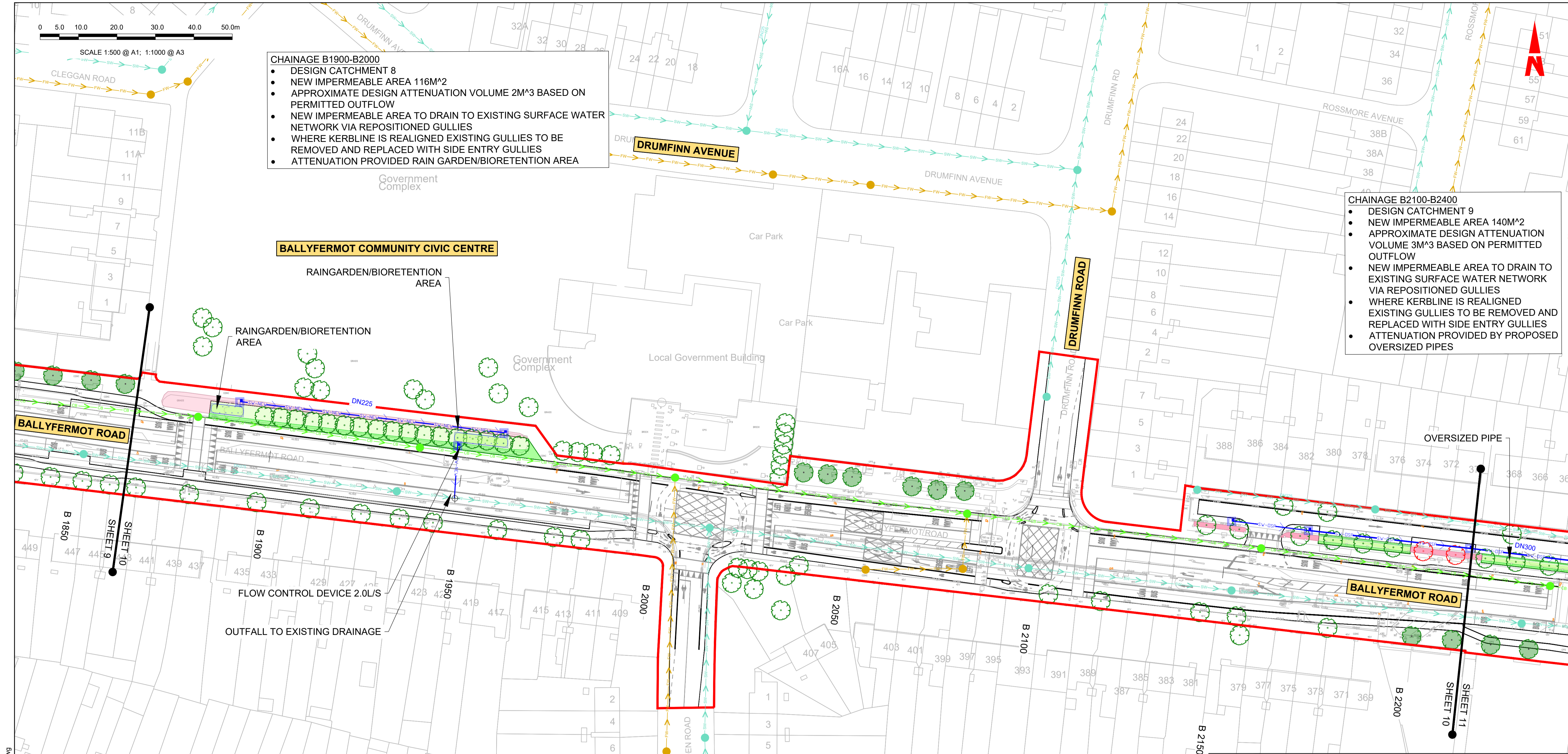
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- CHAINAGE B1900-B2000**
- DESIGN CATCHMENT 8
 - NEW IMPERMEABLE AREA 116M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 2M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED RAIN GARDEN/BIORETENTION AREA

- CHAINAGE B2100-B2400**
- DESIGN CATCHMENT 9
 - NEW IMPERMEABLE AREA 140M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 3M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY PROPOSED OVERSIZED PIPES

BALLYFERMOT COMMUNITY CIVIC CENTRE



- LEGEND:**
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
 - EXISTING GRASSED AREAS TO BE MAINTAINED
 - EXISTING FOUL NETWORK
 - EXISTING COMBINED NETWORK
 - EXISTING SURFACE WATER NETWORK
 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
 - PROPOSED STORM WATER PIPE
 - PROPOSED OVERSIZED PIPE
 - PROPOSED FILTER DRAIN/PERFORATED PIPE
 - PROPOSED PERMEABLE PAVING
 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE
 - PROPOSED INSPECTION CHAMBER
 - EXISTING TREE
 - EXISTING TREE TO BE REMOVED
 - PROPOSED NEW TREE
 - PROPOSED NEW TREE PIT
 - PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
 - EXISTING GULLY
 - SITE BOUNDARY LINE
 - TEMPORARY LAND ACQUISITION
- NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

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 - PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION
- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

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Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0010	Sheet Number: 10 of 28	Status: A	Rev: M01

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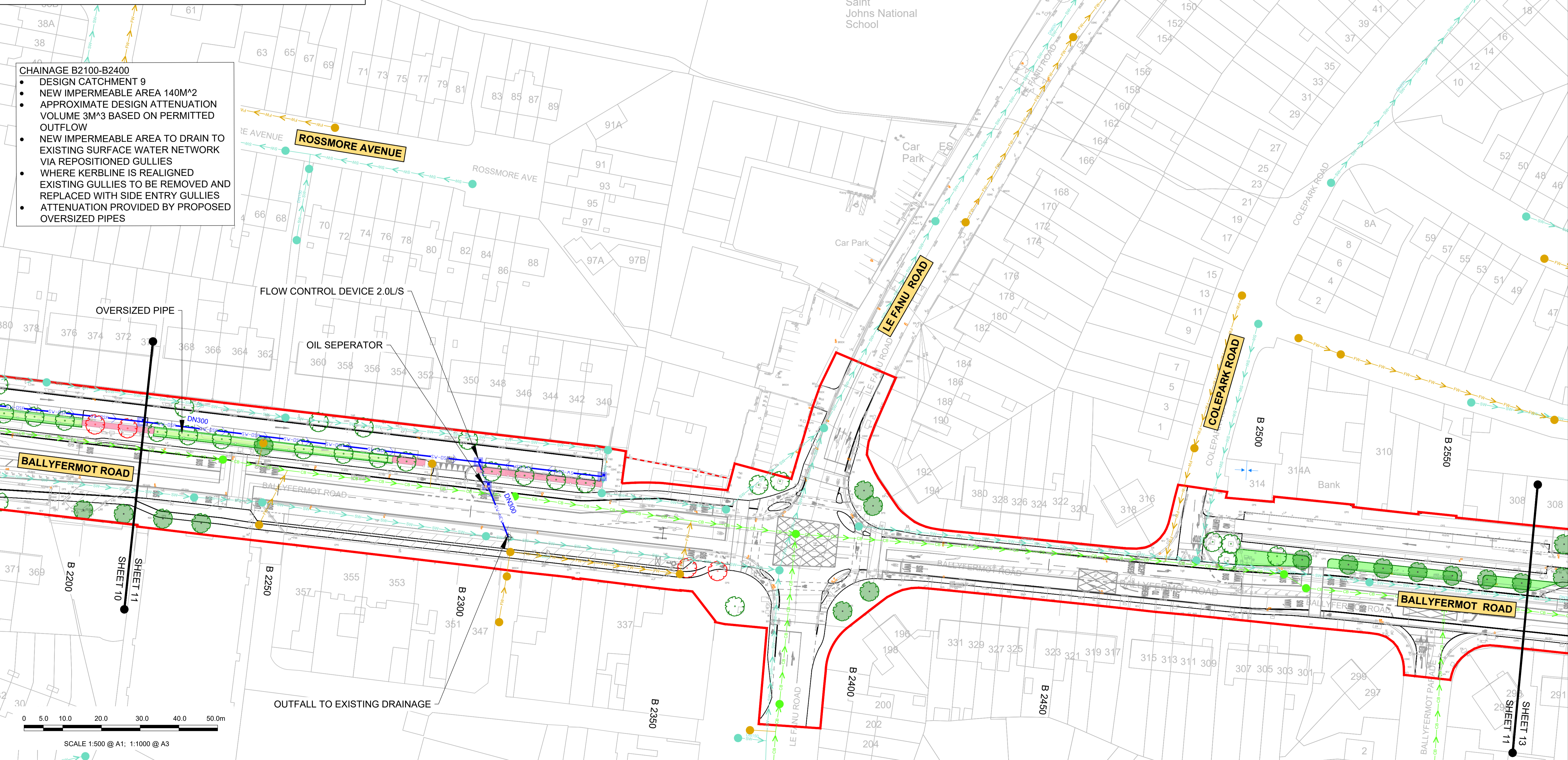
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- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — FW EXISTING FOUL NETWORK
- CB — CB EXISTING COMBINED NETWORK
- SW — SW EXISTING SURFACE WATER NETWORK
- X OF X EXISTING OVERFLOW PIPE
- P SW P PLANNED SURFACE WATER PIPE
- SW NEW — PROPOSED STORM WATER PIPE
- SW OSP — PROPOSED OVERSIZED PIPE
- SW F — PROPOSED FILTER DRAIN/PERFORATED PIPE
- SW P — PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
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CHAINAGE B2100-B2400

- DESIGN CATCHMENT 9
- NEW IMPERMEABLE AREA 140M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 3M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY PROPOSED OVERSIZED PIPES



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Project Ireland 2040
 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

Client	Engineering Designer	Programme Title
NTA Údarás Náisiúnta Iompair National Transport Authority	Jacobs	BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS
Date: 07/06/2022	Scale: 1:500 @ A1 1:1000 @ A3	Drawing Title
Project Code: BCIDB	Originator Code: JAC	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS
QMS Code	Drawn: PT	Drawing File Name
	Checked: KM	BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0011
	Approved: JB	Sheet Number: 11 of 28
		Status: A
		Rev: M01

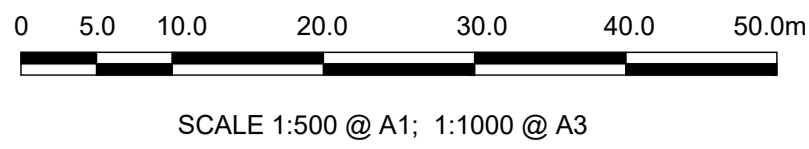
DO NOT SCALE USE FIGURED DIMENSIONS ONLY

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11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION



CHAINAGE C400

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



LEGEND:

- | | | | |
|--|---|--|--|
| | ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED) | | PROPOSED RODDING EYE |
| | EXISTING PAVED AREAS TO BECOME GRASSED | | PROPOSED MANHOLE CHAMBER |
| | EXISTING GRASSED AREAS TO BE MAINTAINED | | EXISTING TREE |
| | EXISTING FOUL NETWORK | | EXISTING TREE TO BE REMOVED |
| | EXISTING COMBINED NETWORK | | PROPOSED NEW TREE |
| | EXISTING SURFACE WATER NETWORK | | PROPOSED NEW TREE PIT |
| | EXISTING OVERFLOW PIPE | | PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN |
| | PLANNED SURFACE WATER PIPE | | EXISTING GULLY |
| | PROPOSED STORM WATER PIPE | | SITE BOUNDARY LINE |
| | PROPOSED OVERSIZED PIPE | | TEMPORARY LAND ACQUISITION |
| | PROPOSED FILTER DRAIN/PERFORATED PIPE | | |
| | PROPOSED PERMEABLE PAVING | | |

NOTE: PIPE SHAPE CODING DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

 Údarás Náisiúnta Iompair National Transport Authority		Engineering Designer 		
Date	Scale	Drawn	Checked	Approved
07/06/2022	1:500 @ A1 1:1000 @ A3	PT	KM	JB
Project Code	Originator Code	QMS Code		
BCIDB	JAC			

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name	Sheet Number	Status	Rev
BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0012	12 of 28	A	M01

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- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

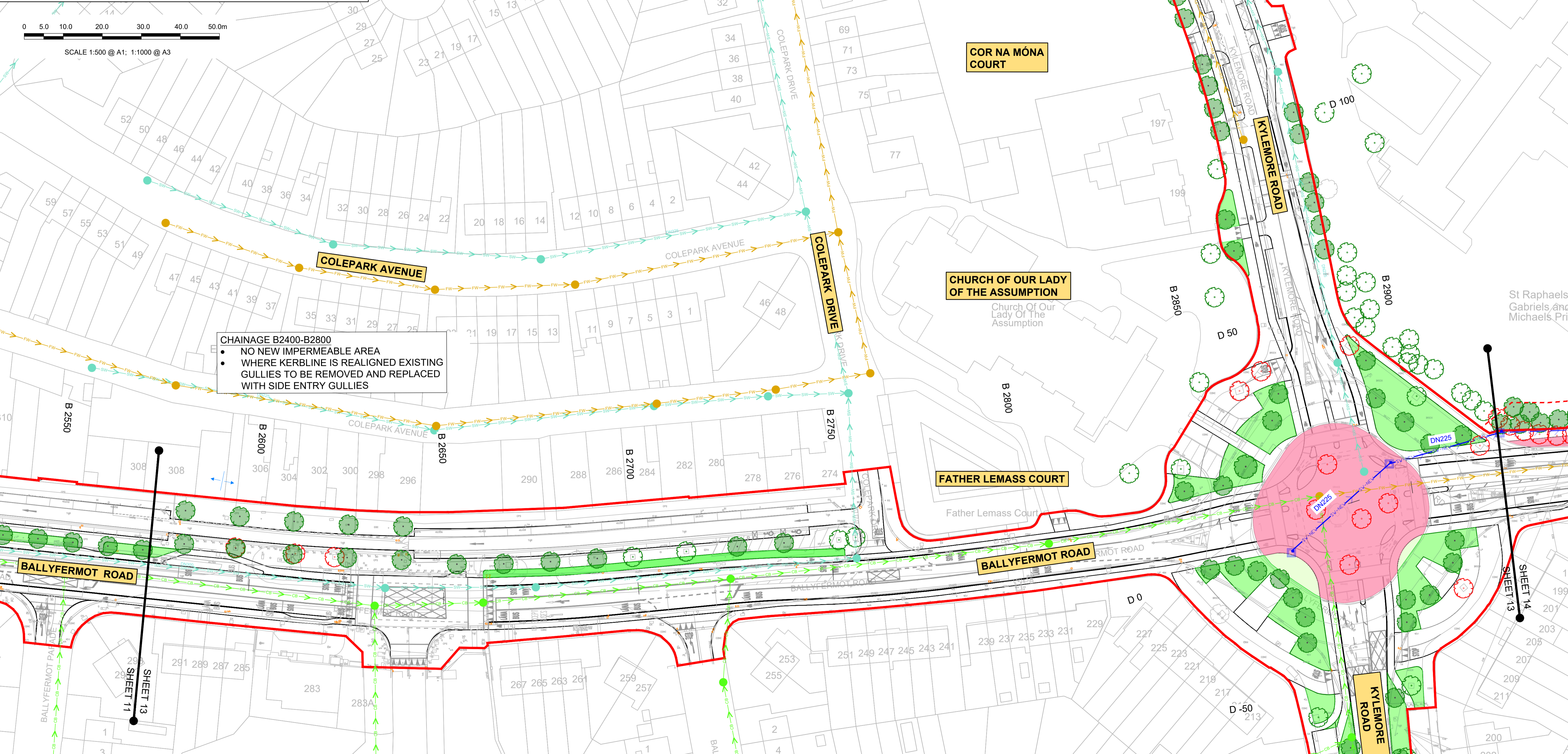
ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — EXISTING FOUL NETWORK
- CB — EXISTING COMBINED NETWORK
- SW — EXISTING SURFACE WATER NETWORK
- X OF X — EXISTING OVERFLOW PIPE
- P SW P — PLANNED SURFACE WATER PIPE
- SW-NEW — PROPOSED STORM WATER PIPE
- SW-OSP — PROPOSED OVERSIZED PIPE
- FD — PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- - - TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



CHAINAGE B2400-B2800

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

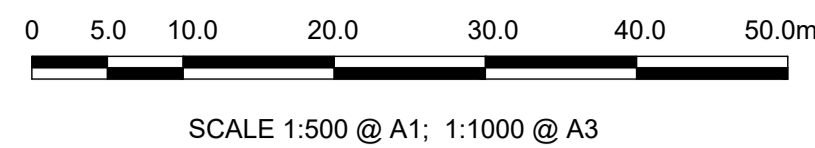
Client: **NTA**
 Údarás Náisiúnta Iompair
 National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0013	Sheet Number: 13 of 28	Status: A	Rev: M01



CHAINAGE B2800-B3600

- DESIGN CATCHMENT 10
- NEW IMPERMEABLE AREA 3358M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 298M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN AND FILTER DRAINS

PROPOSED 0.5M FILTER DRAIN
TOTAL LENGTH 200M
ATTENUATION VOLUME 29M³

ST GABRIEL'S NATIONAL SCHOOL

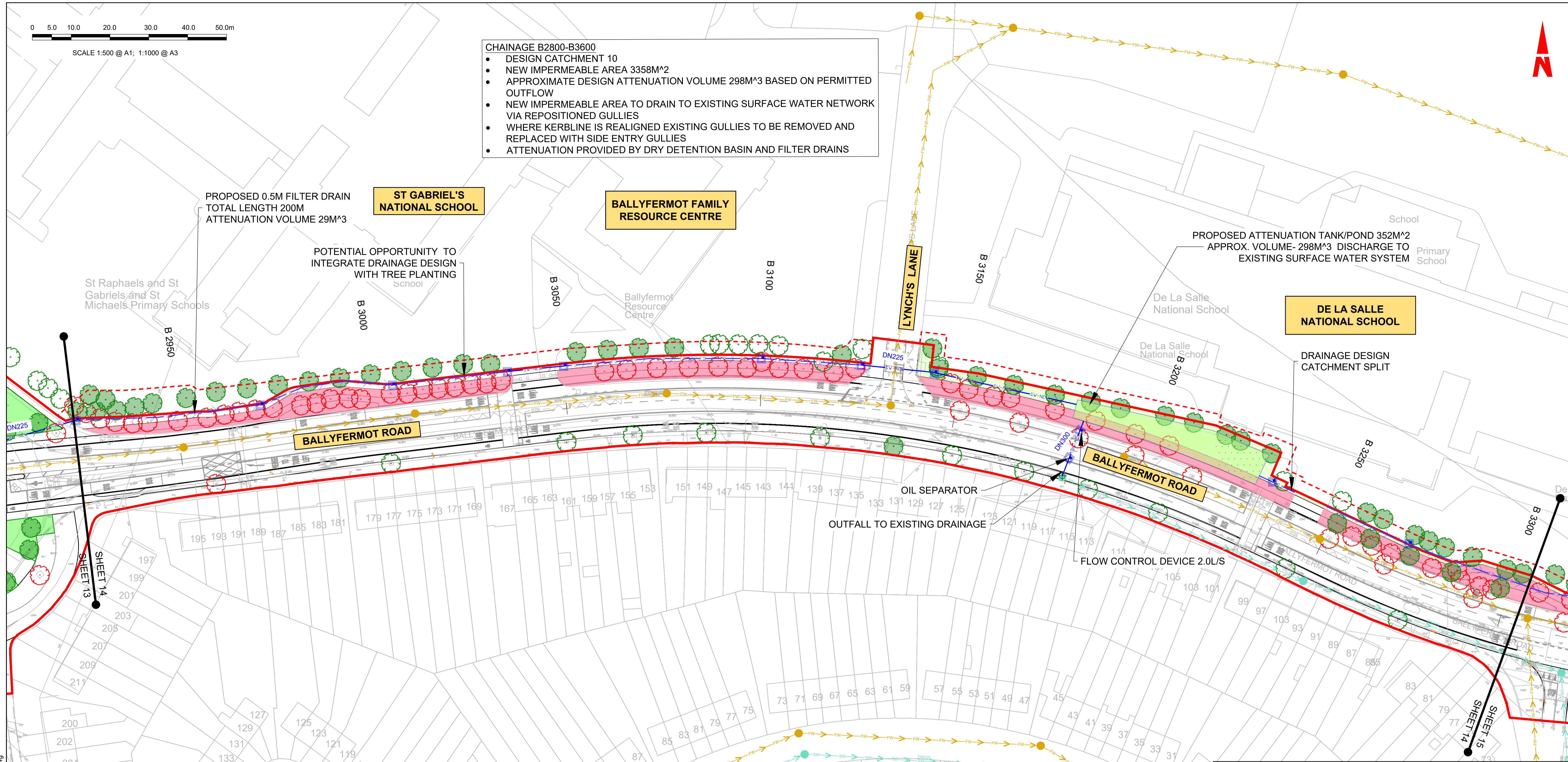
BALLYFERMOT FAMILY RESOURCE CENTRE

PROPOSED ATTENUATION TANK/POND 352M²
APPROX. VOLUME- 298M³ DISCHARGE TO EXISTING SURFACE WATER SYSTEM

DE LA SALLE NATIONAL SCHOOL

POTENTIAL OPPORTUNITY TO INTEGRATE DRAINAGE DESIGN WITH TREE PLANTING

DRAINAGE DESIGN CATCHMENT SPLIT



LEGEND:

- | | |
|---|--|
| ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED) | PROPOSED RODDING EYE |
| EXISTING PAVED AREAS TO BECOME GRASSED | PROPOSED MANHOLE |
| EXISTING GRASSED AREAS TO BE MAINTAINED | PROPOSED INSPECTION CHAMBER |
| EXISTING FOUL NETWORK | EXISTING TREE |
| EXISTING COMBINED NETWORK | EXISTING TREE TO BE REMOVED |
| EXISTING SURFACE WATER NETWORK | PROPOSED NEW TREE |
| EXISTING OVERFLOW PIPE | PROPOSED NEW TREE PIT |
| PLANNED SURFACE WATER PIPE | PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN |
| PROPOSED STORM WATER PIPE | EXISTING GULLY |
| PROPOSED OVERSIZED PIPE | SITE BOUNDARY LINE |
| PROPOSED FILTER DRAIN/PERFORATED PIPE | TEMPORARY LAND ACQUISITION |
| PROPOSED PERMEABLE PAVING | |
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ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

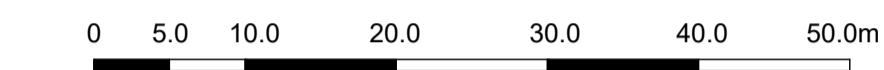
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0014	Sheet Number: 14 of 28	Status: A	Rev: M01

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SCALE 1:500 @ A1; 1:1000 @ A3

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CHAINAGE B2800-B3600

- DESIGN CATCHMENT 10
- NEW IMPERMEABLE AREA 3358M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 298M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
- ATTENUATION PROVIDED BY DRY DETENTION BASIN

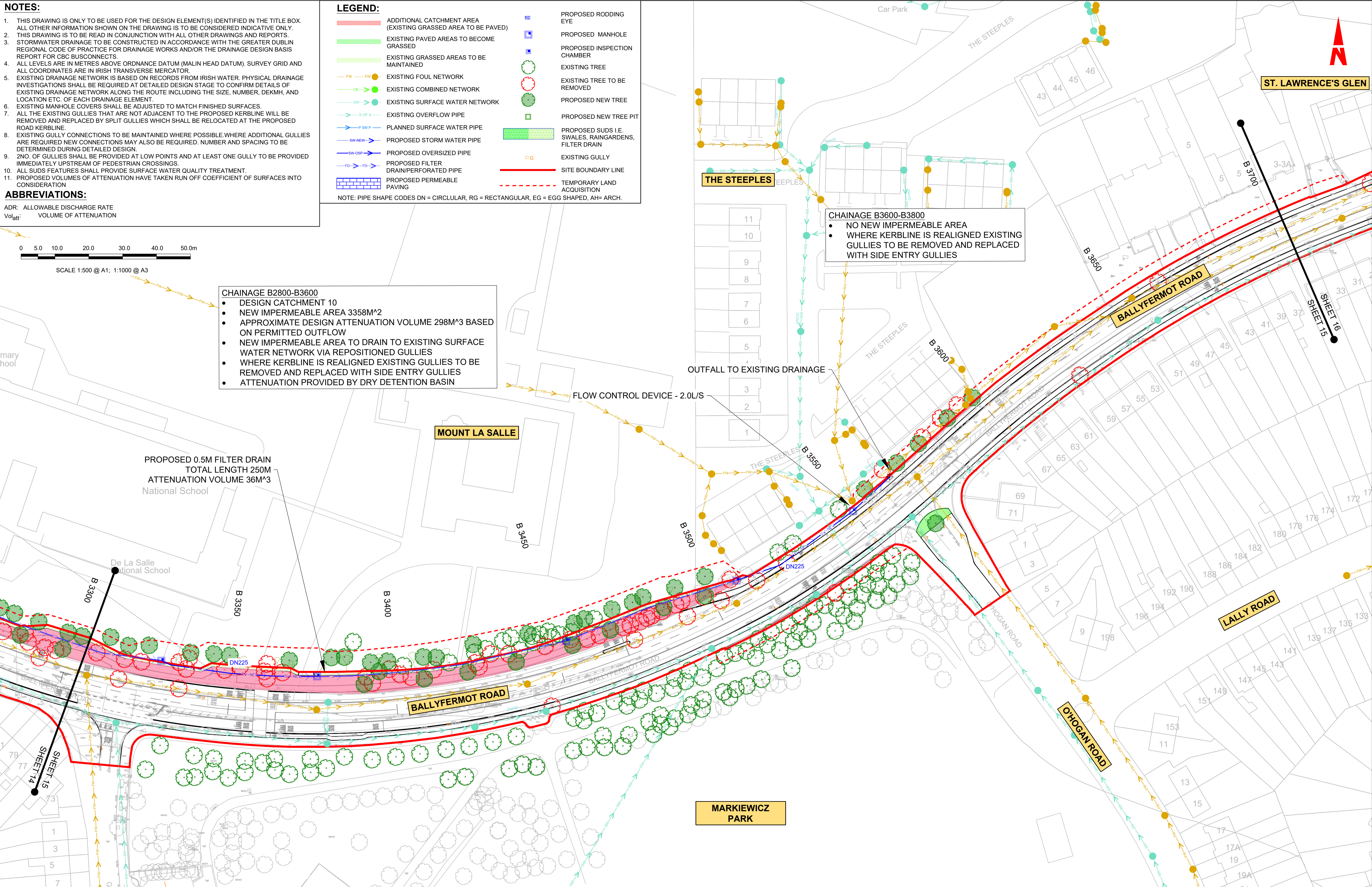
PROPOSED 0.5M FILTER DRAIN
TOTAL LENGTH 250M
ATTENUATION VOLUME 36M³
National School

CHAINAGE B3600-B3800

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

FLOW CONTROL DEVICE - 2.0L/S

OUTFALL TO EXISTING DRAINAGE



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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0015	Sheet Number: 15 of 28	Status: A	Rev: M01

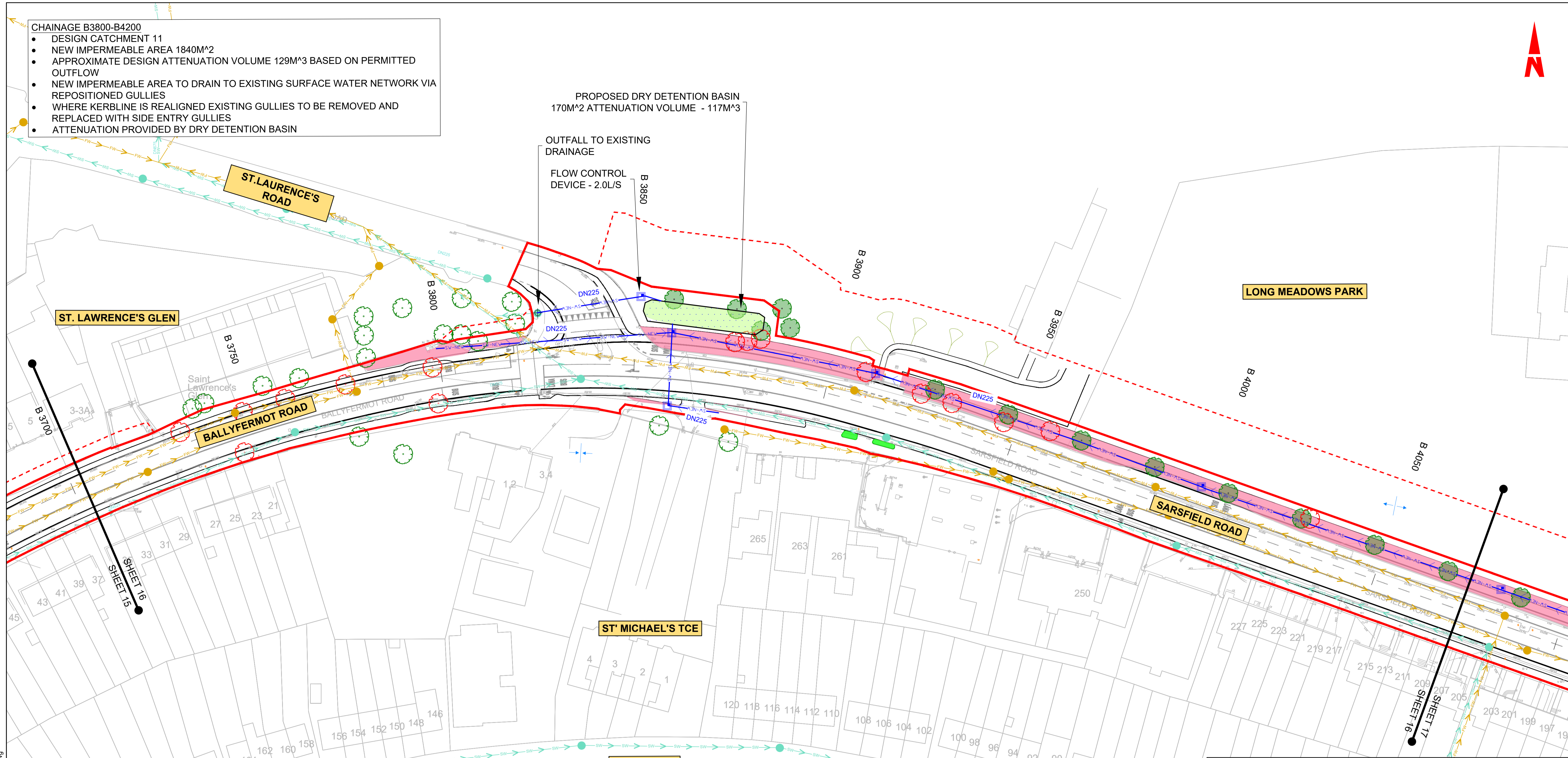


- CHAINAGE B3800-B4200
- DESIGN CATCHMENT 11
 - NEW IMPERMEABLE AREA 1840M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 129M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY DRY DETENTION BASIN

PROPOSED DRY DETENTION BASIN
170M² ATTENUATION VOLUME - 117M³

OUTFALL TO EXISTING DRAINAGE

FLOW CONTROL DEVICE - 2.0L/S



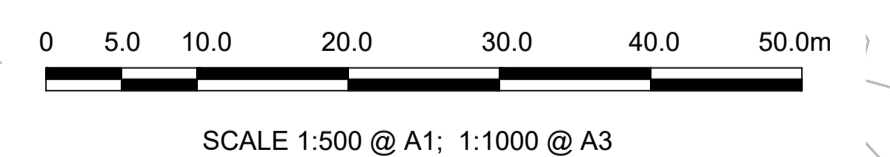
- LEGEND:**
- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
 - EXISTING PAVED AREAS TO BECOME GRASSED
 - EXISTING GRASSED AREAS TO BE MAINTAINED
 - EXISTING FOUL NETWORK
 - EXISTING COMBINED NETWORK
 - EXISTING SURFACE WATER NETWORK
 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
 - PROPOSED STORM WATER PIPE
 - PROPOSED OVERSIZED PIPE
 - PROPOSED FILTER DRAIN/PERFORATED PIPE
 - PROPOSED PERMEABLE PAVING
 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE CHAMBER
 - EXISTING TREE
 - EXISTING TREE TO BE REMOVED
 - PROPOSED NEW TREE
 - PROPOSED NEW TREE PIT
 - PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
 - EXISTING GULLY
 - SITE BOUNDARY LINE
 - TEMPORARY LAND ACQUISITION
- NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH = ARCH.

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ABBREVIATIONS:

- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION



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M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

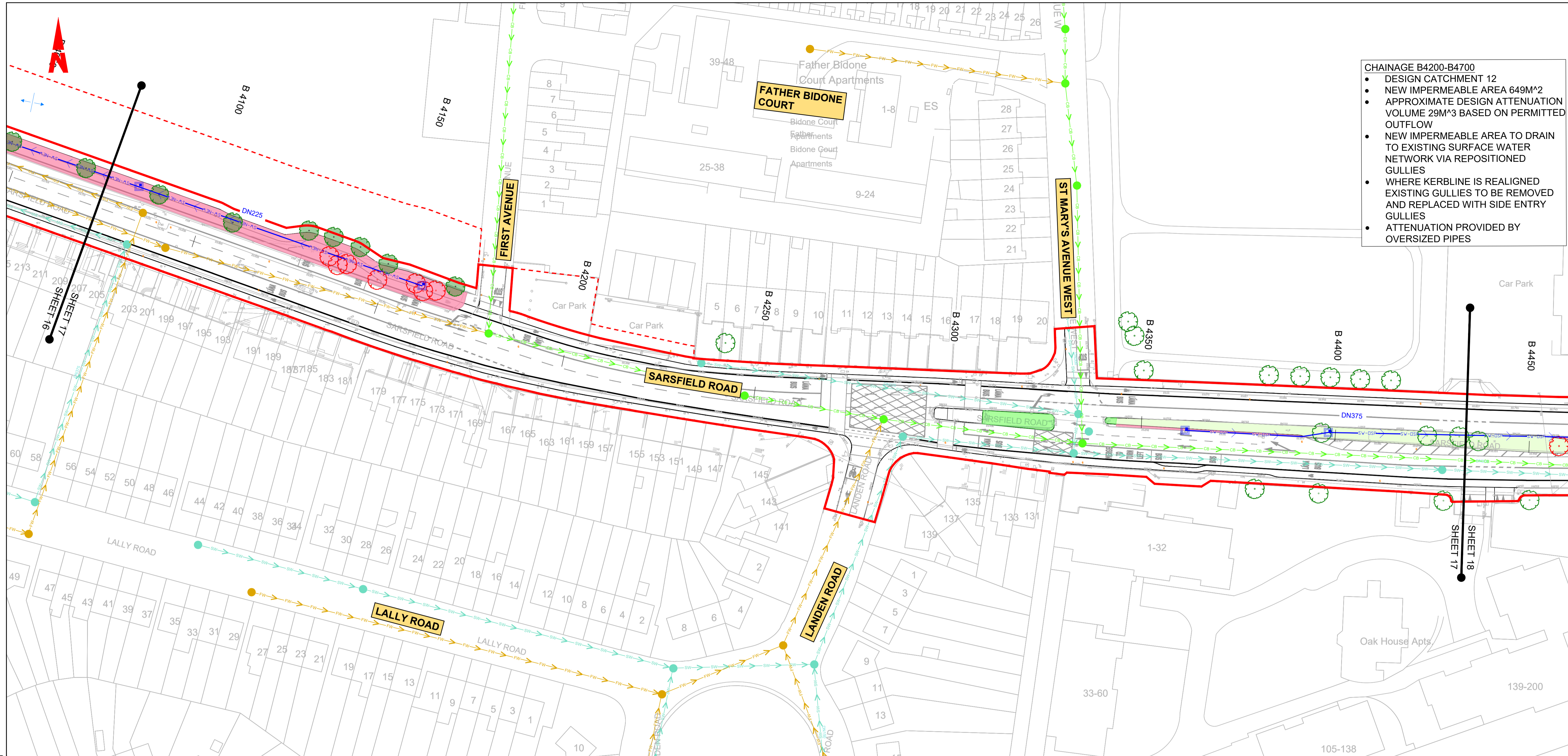
Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

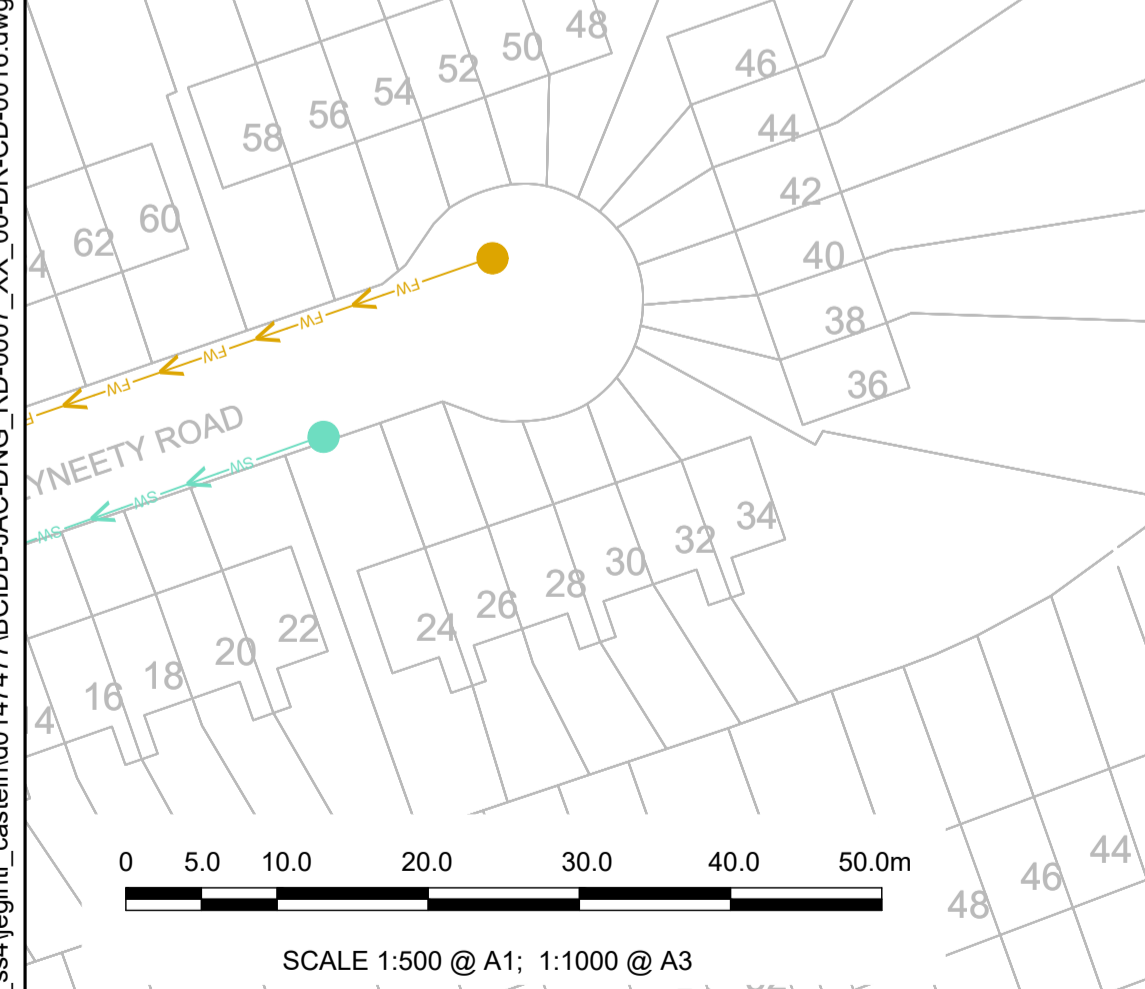
Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0016	Sheet Number: 16 of 28	Status: A	Rev: M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



- CHAINAGE B4200-B4700**
- DESIGN CATCHMENT 12
 - NEW IMPERMEABLE AREA 649M²
 - APPROXIMATE DESIGN ATTENUATION VOLUME 29M³ BASED ON PERMITTED OUTFLOW
 - NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
 - WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES
 - ATTENUATION PROVIDED BY OVERSIZED PIPES



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		EGG SHAPED, AH= ARCH.

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 11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION.
- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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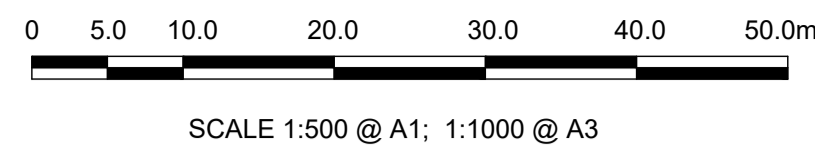
Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022	Scale: 1:500 @ A1 1:1000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0017	Sheet Number: 17 of 28	Status: A	Rev: M01



LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — FW EXISTING FOUL NETWORK
- CB — CB EXISTING COMBINED NETWORK
- SW — SW EXISTING SURFACE WATER NETWORK
- X OF X EXISTING OVERFLOW PIPE
- P-SW P PLANNED SURFACE WATER PIPE
- SW-NEW PROPOSED STORM WATER PIPE
- SW-OSP PROPOSED OVERSIZED PIPE
- PROPOSED FILTER DRAIN/PERFORATED PIPE
- FD — FD
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
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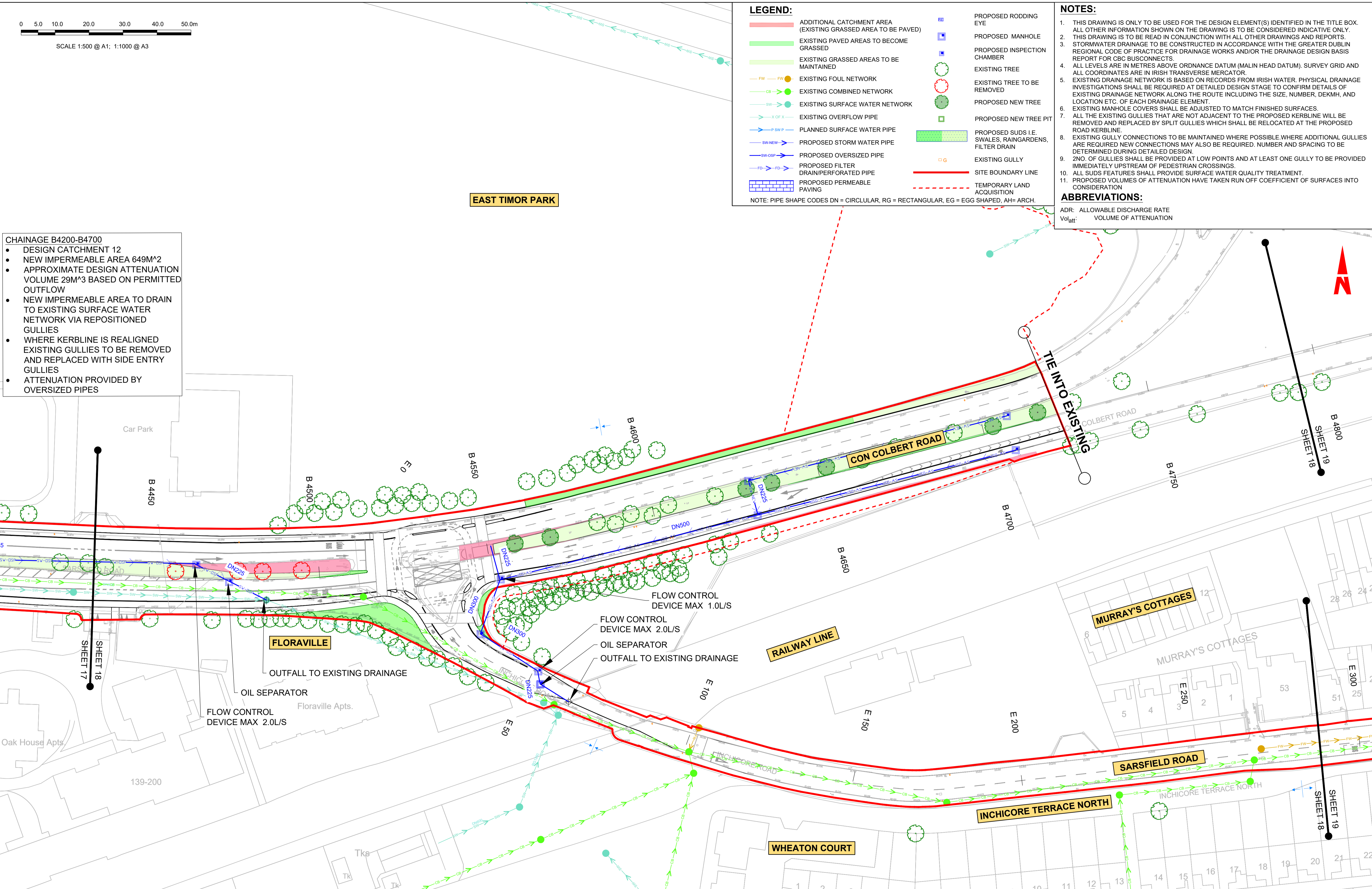
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ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

CHAINAGE B4200-B4700

- DESIGN CATCHMENT 12
- NEW IMPERMEABLE AREA 649M²
- APPROXIMATE DESIGN ATTENUATION VOLUME 29M³ BASED ON PERMITTED OUTFLOW
- NEW IMPERMEABLE AREA TO DRAIN TO EXISTING SURFACE WATER NETWORK VIA REPOSITIONED GULLIES
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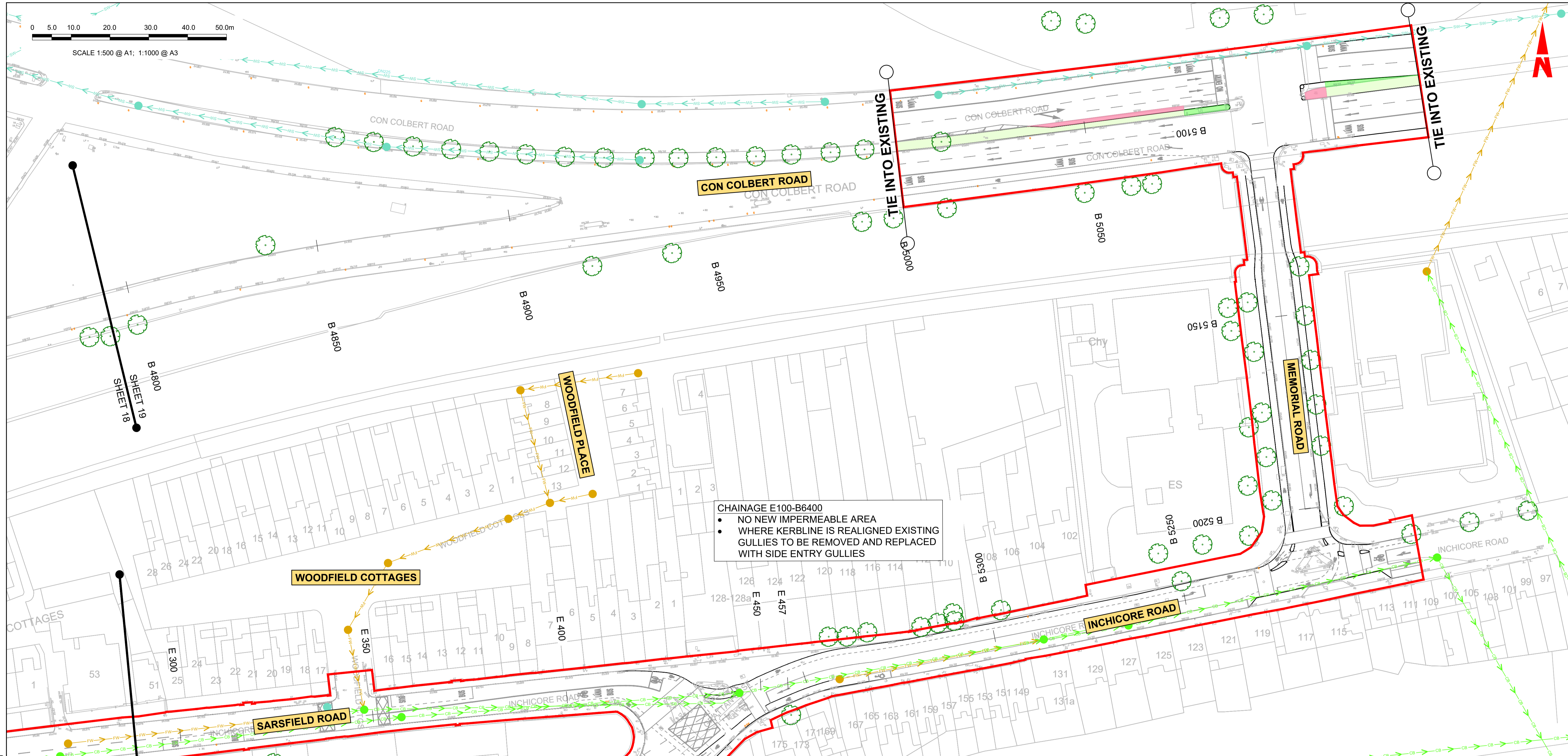
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0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3



CON COLBERT ROAD

WOODFIELD PLACE

WOODFIELD COTTAGES

SARSFIELD ROAD

INCHICORE ROAD

MEMORIAL ROAD

ALTHAM COURT

CHAINAGE E100-B6400

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
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 - EXISTING OVERFLOW PIPE
 - PLANNED SURFACE WATER PIPE
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 - PROPOSED OVERSIZED PIPE
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 - PROPOSED RODDING EYE
 - PROPOSED MANHOLE
 - PROPOSED INSPECTION CHAMBER
 - EXISTING TREE
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Project Ireland 2040
 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Date: 07/06/2022 Scale: 1:500 @ A1
 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Engineering Designer: **Jacobs**

Drawn	Checked	Approved
PT	KM	JB

QMS Code

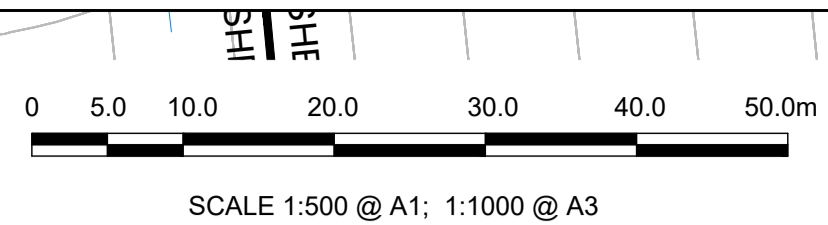
Programme Title: **BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS**

Drawing Title: **LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS**

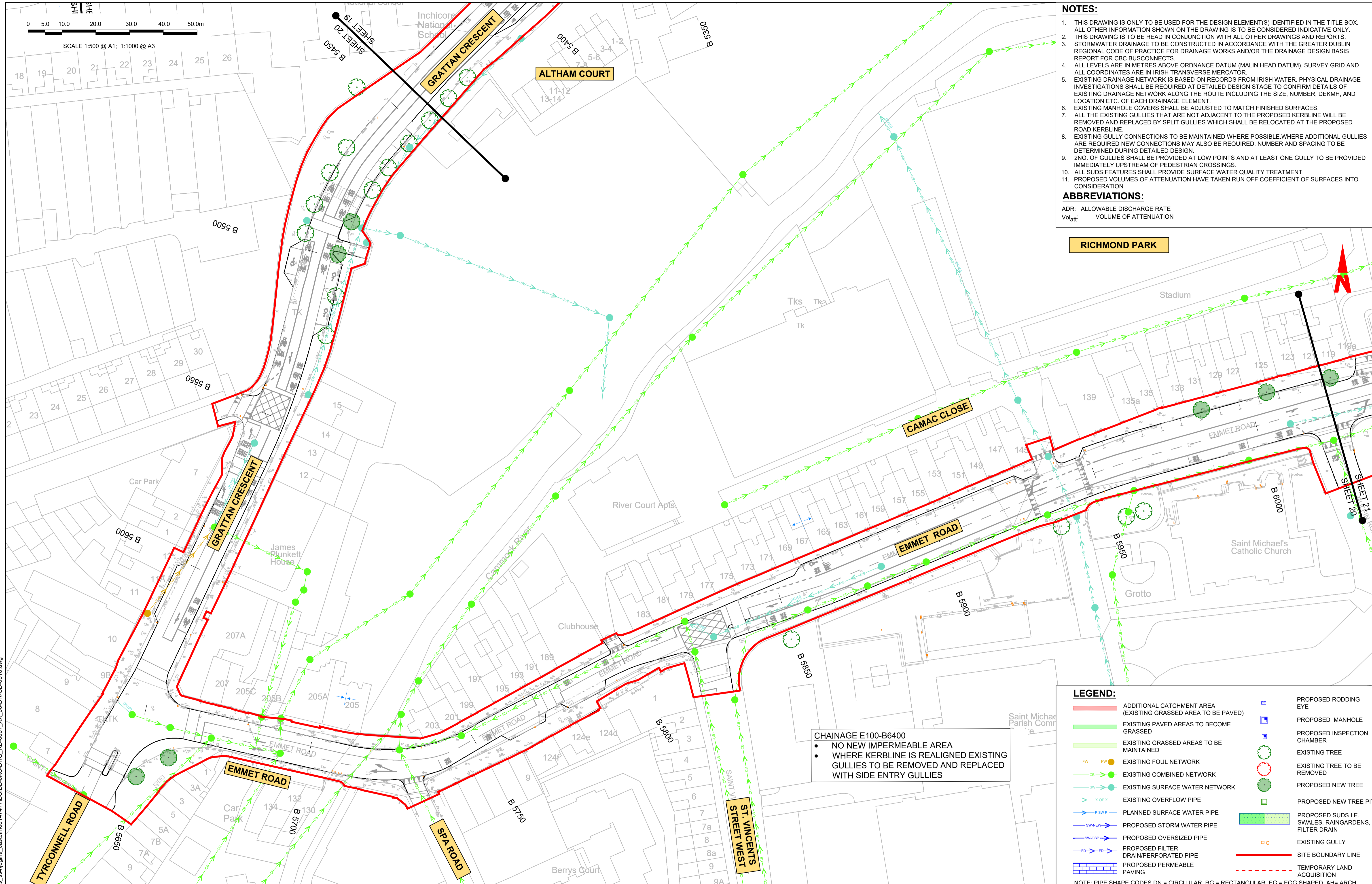
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0019

Sheet Number: 19 of 28 Status: A Rev: M01

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 - ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 - PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION
- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
VolAtt: VOLUME OF ATTENUATION



CHAINAGE E100-B6400
 • NO NEW IMPERMEABLE AREA
 • WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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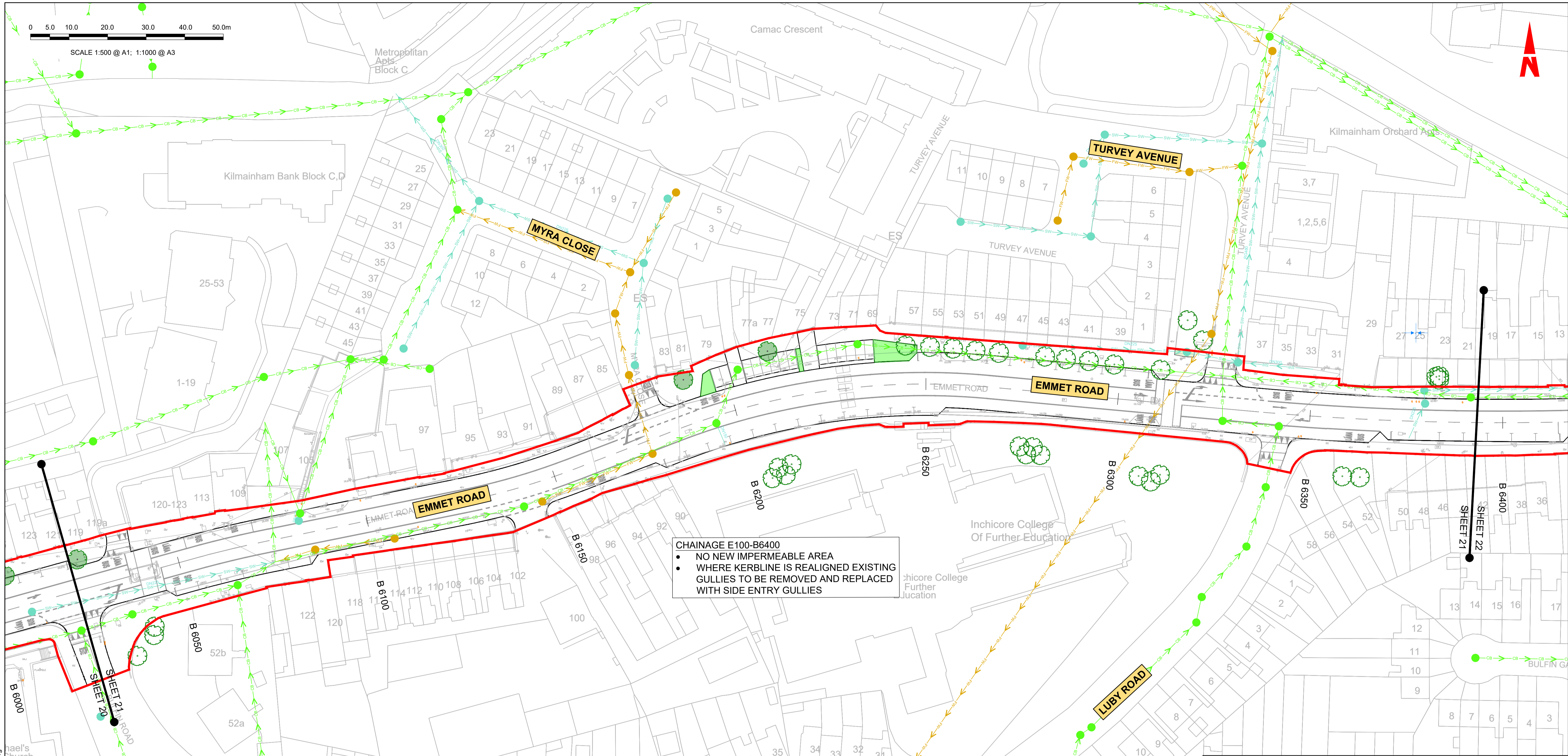
Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date	07/06/2022	Scale	1:500 @ A1 1:1000 @ A3	Drawn	PT	Checked	KM	Approved	JB
Project Code	BCIDB	Originator Code	JAC	QMS Code					

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name	BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0020	Sheet Number	20 of 28
Status	A	Rev	M01

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CHAINAGE E100-B6400

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

LEGEND:

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	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

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- ABBREVIATIONS:**
- ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

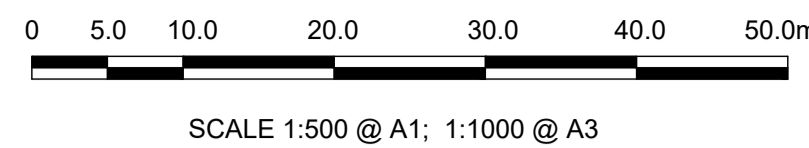
Client: **NTA**
Údarás Náisiúnta Iompair
National Transport Authority

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

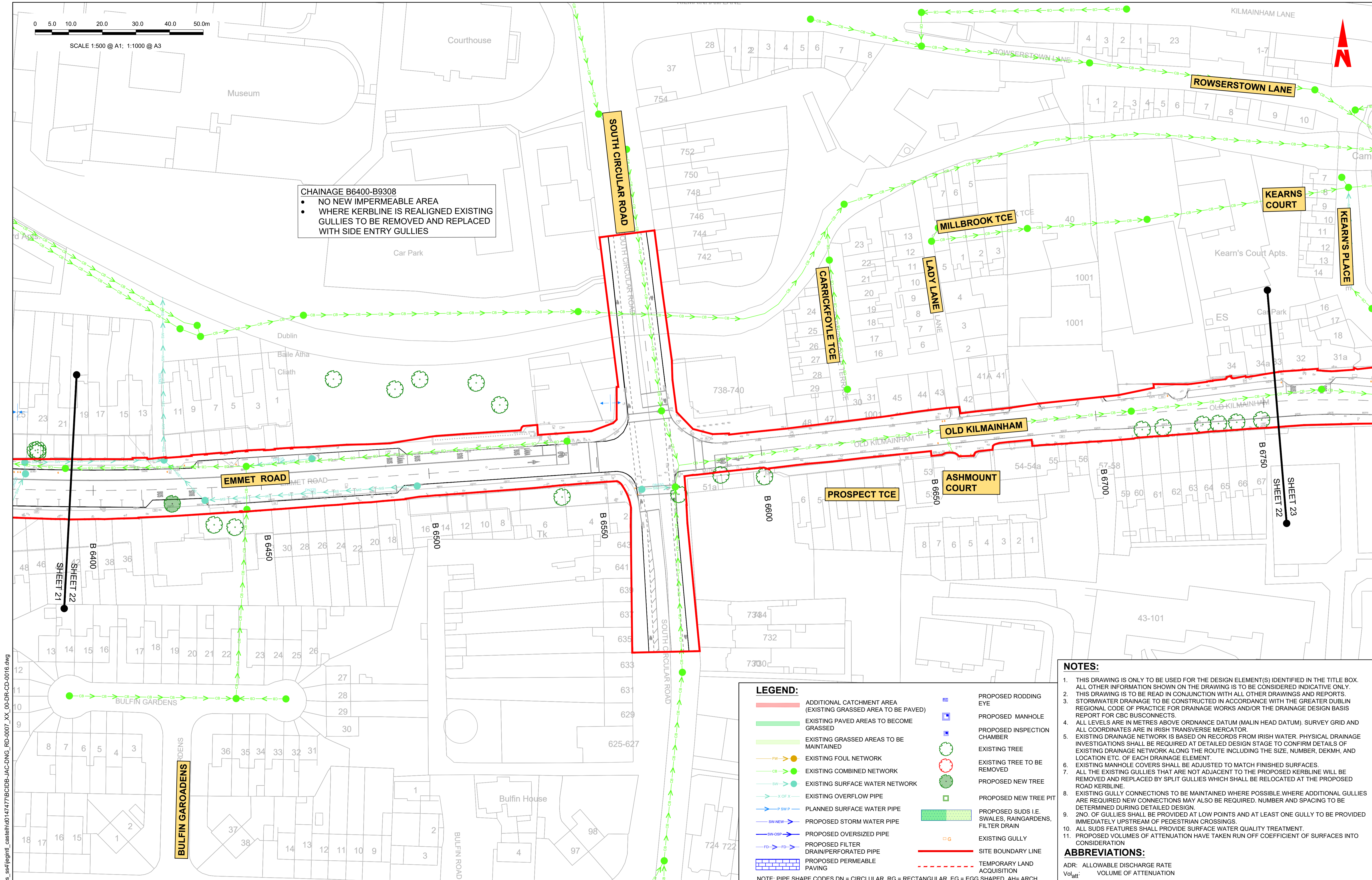
Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0021	Sheet Number: 21 of 28	Status: A	Rev: M01



CHAINAGE B6400-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		EGG SHAPED, AH= ARCH.

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Údarás Náisiúnta Iompair
National Transport Authority

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Engineering Designer: **Jacobs**

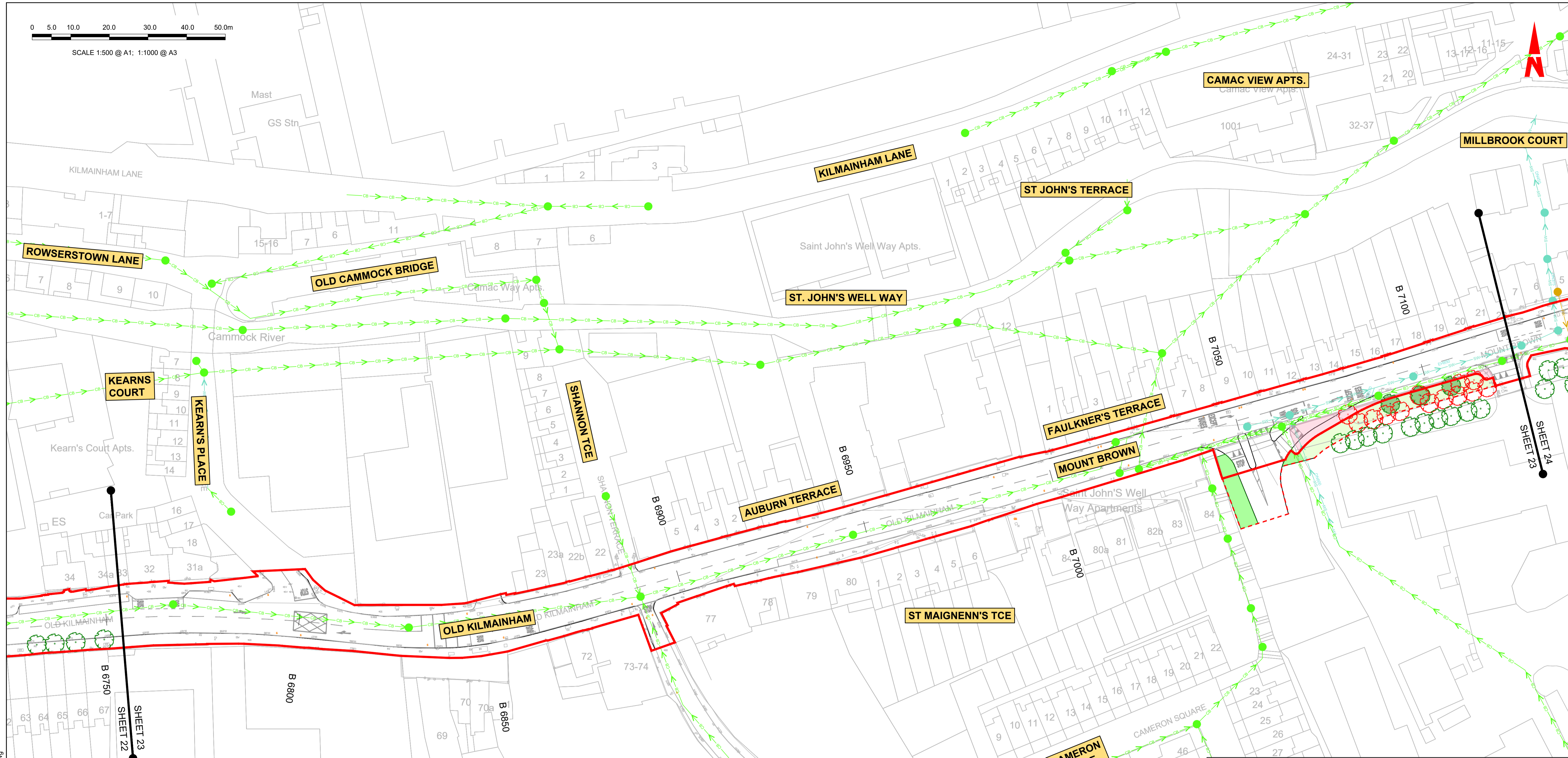
Drawn	Checked	Approved
PT	KM	JB

QMS Code

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0022	Sheet Number: 22 of 28	Status: A	Rev: M01

0 5.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 @ A1; 1:1000 @ A3



LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSSED
- EXISTING GRASSSED AREAS TO BE MAINTAINED
- EXISTING FOUL NETWORK
- EXISTING COMBINED NETWORK
- EXISTING SURFACE WATER NETWORK
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CHAINAGE B6600-B9308

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ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Drawn: PT Checked: KM Approved: JB

QMS Code

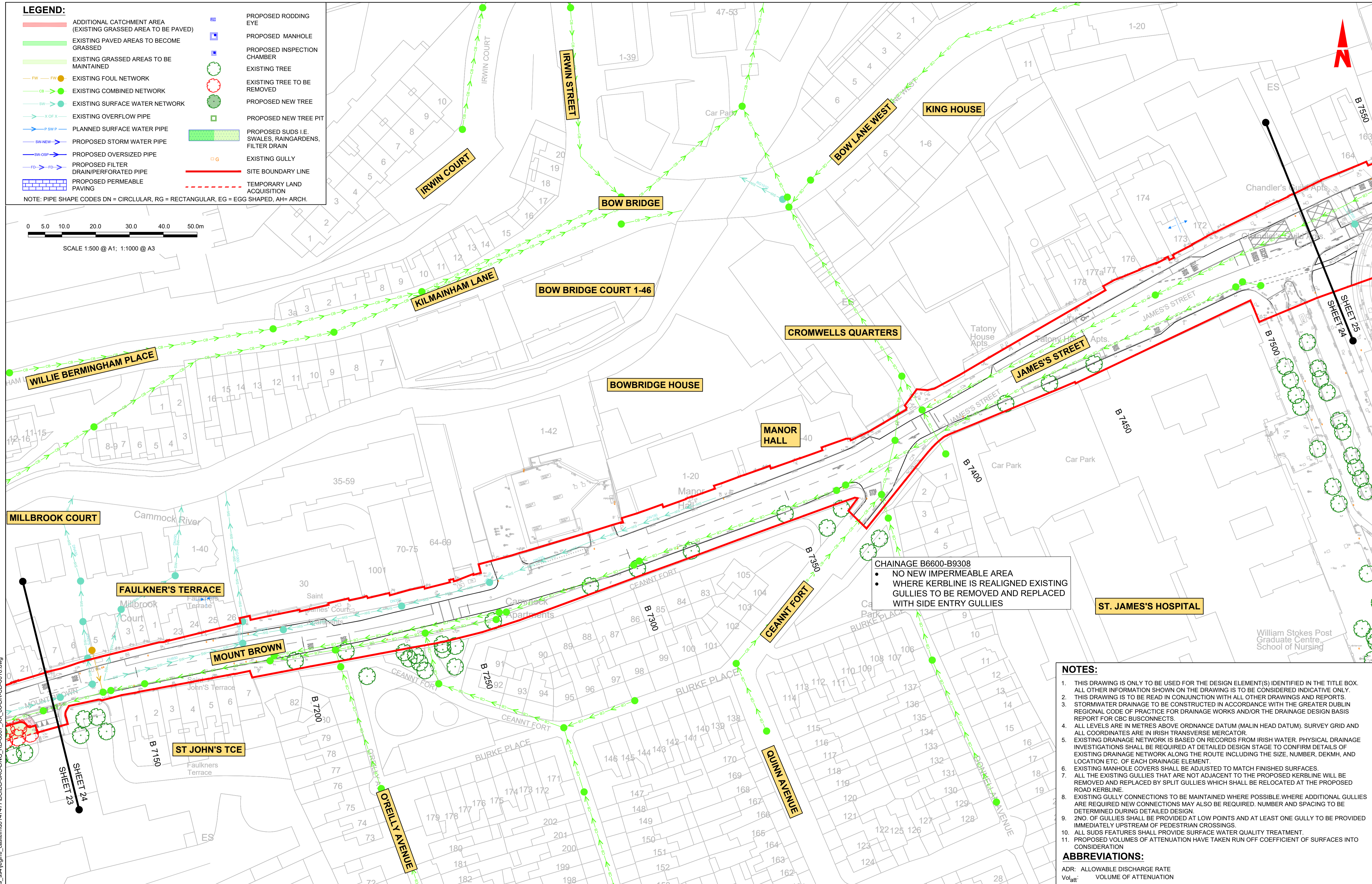
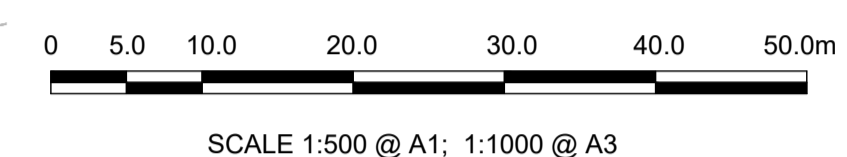
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0023	Sheet Number: 23 of 28	Status: A	Rev: M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
	PROPOSED OVERSIZED PIPE		SITE BOUNDARY LINE
	PROPOSED FILTER DRAIN/PERFORATED PIPE		TEMPORARY LAND ACQUISITION
	PROPOSED PERMEABLE PAVING		

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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 6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
 7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
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 9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
 10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
 11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol^{att}: VOLUME OF ATTENUATION

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Project Ireland 2040
Building Ireland's Future

Rev	Date	Dm	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0024	Sheet Number: 24 of 28	Status: A	Rev: M01

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- PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

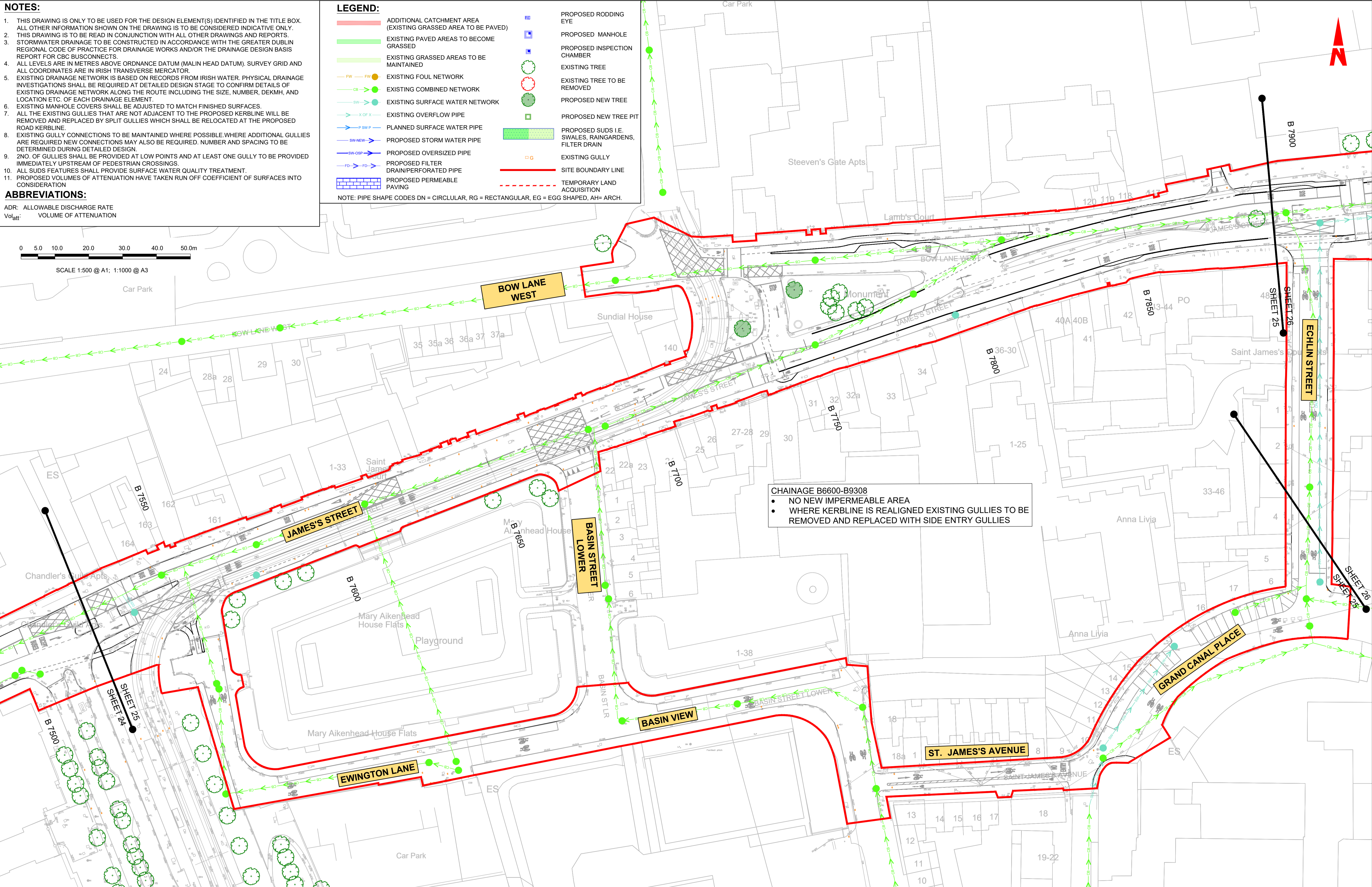
LEGEND:

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- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- FW — EXISTING FOUL NETWORK
- CB — EXISTING COMBINED NETWORK
- SW — EXISTING SURFACE WATER NETWORK
- X OF X — EXISTING OVERFLOW PIPE
- P SW P — PLANNED SURFACE WATER PIPE
- SW-NEW — PROPOSED STORM WATER PIPE
- SW-OSP — PROPOSED OVERSIZED PIPE
- FD — PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- - - TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCLULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.



SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE B6600-B9308
 • NO NEW IMPERMEABLE AREA
 • WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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Building Ireland's Future

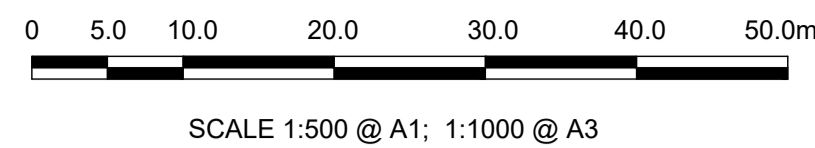
Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022	Scale: 1:500 @ A1 1:1000 @ A3	Drawn: PT	Checked: KM	Approved: JB
Project Code: BCIDB	Originator Code: JAC	QMS Code:		

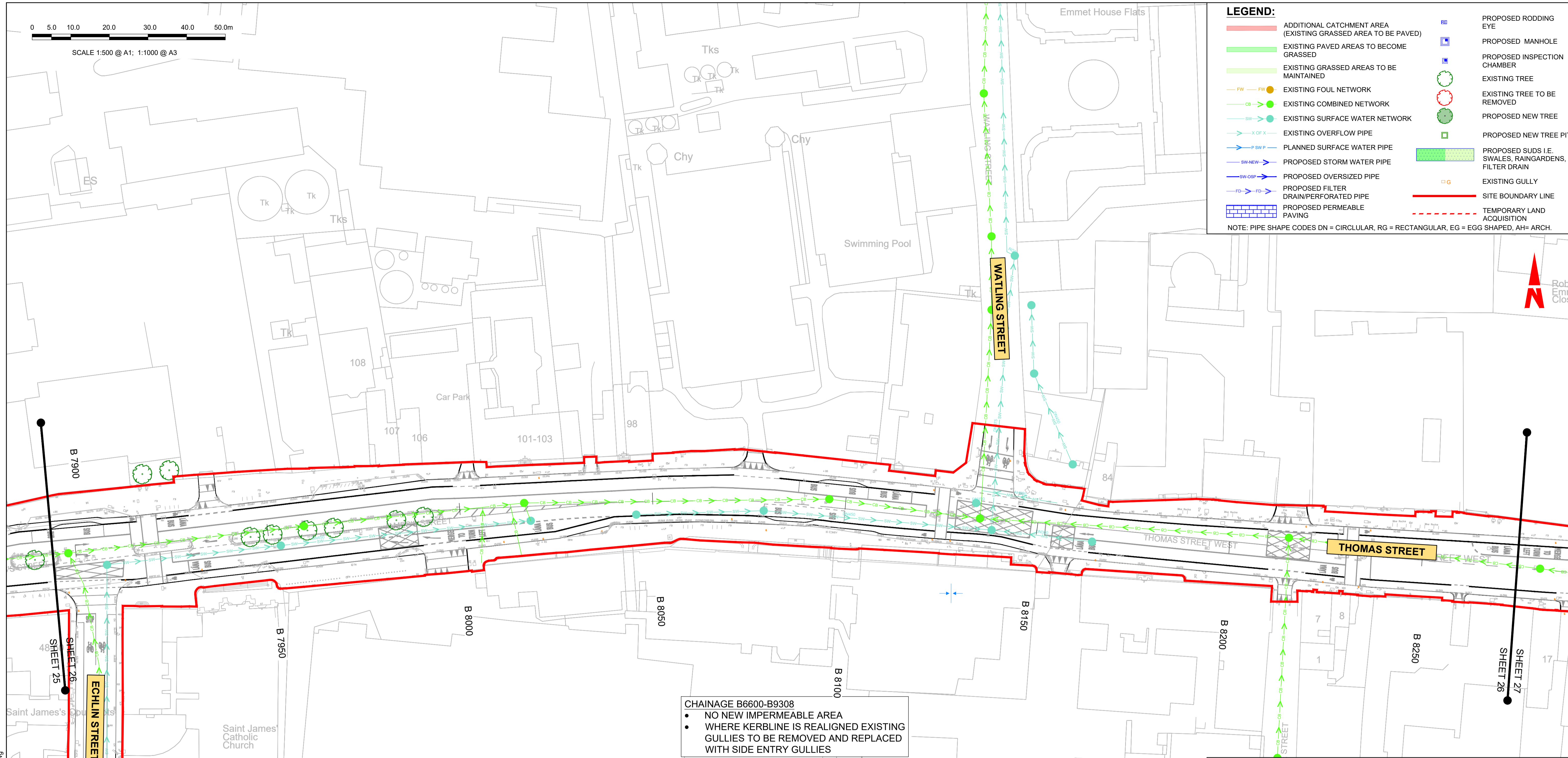
Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0025	Sheet Number: 25 of 28	Status: A	Rev: M01



LEGEND:

	ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)		PROPOSED RODDING EYE
	EXISTING PAVED AREAS TO BECOME GRASSED		PROPOSED MANHOLE
	EXISTING GRASSED AREAS TO BE MAINTAINED		PROPOSED INSPECTION CHAMBER
	EXISTING FOUL NETWORK		EXISTING TREE
	EXISTING COMBINED NETWORK		EXISTING TREE TO BE REMOVED
	EXISTING SURFACE WATER NETWORK		PROPOSED NEW TREE
	EXISTING OVERFLOW PIPE		PROPOSED NEW TREE PIT
	PLANNED SURFACE WATER PIPE		PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
	PROPOSED STORM WATER PIPE		EXISTING GULLY
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	PROPOSED PERMEABLE PAVING		

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CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

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ABBREVIATIONS:

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 Vol_{att}: VOLUME OF ATTENUATION

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Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

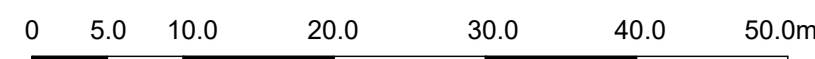
Engineering Designer: **Jacobs**

Date: 07/06/2022 | Scale: 1:500 @ A1, 1:1000 @ A3 | Drawn: PT | Checked: KM | Approved: JB

Project Code: BCIDB | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS			
Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0026	Sheet Number: 26 of 28	Status: A	Rev: M01

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SCALE 1:500 @ A1; 1:1000 @ A3

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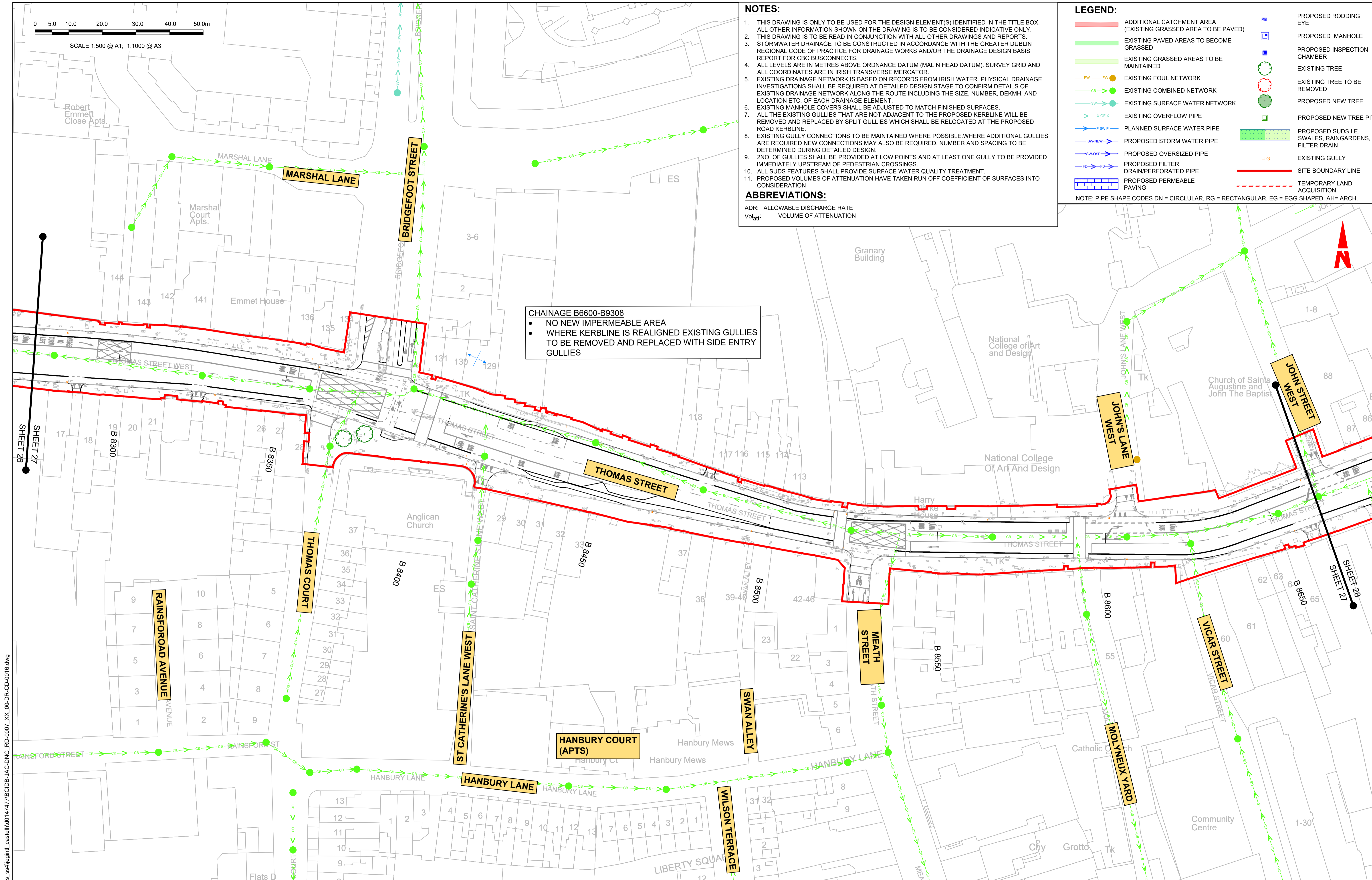
LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
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CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES



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Project Ireland 2040
 Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Engineering Designer: **Jacobs**

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3
 Drawn: PT, Checked: KM, Approved: JB

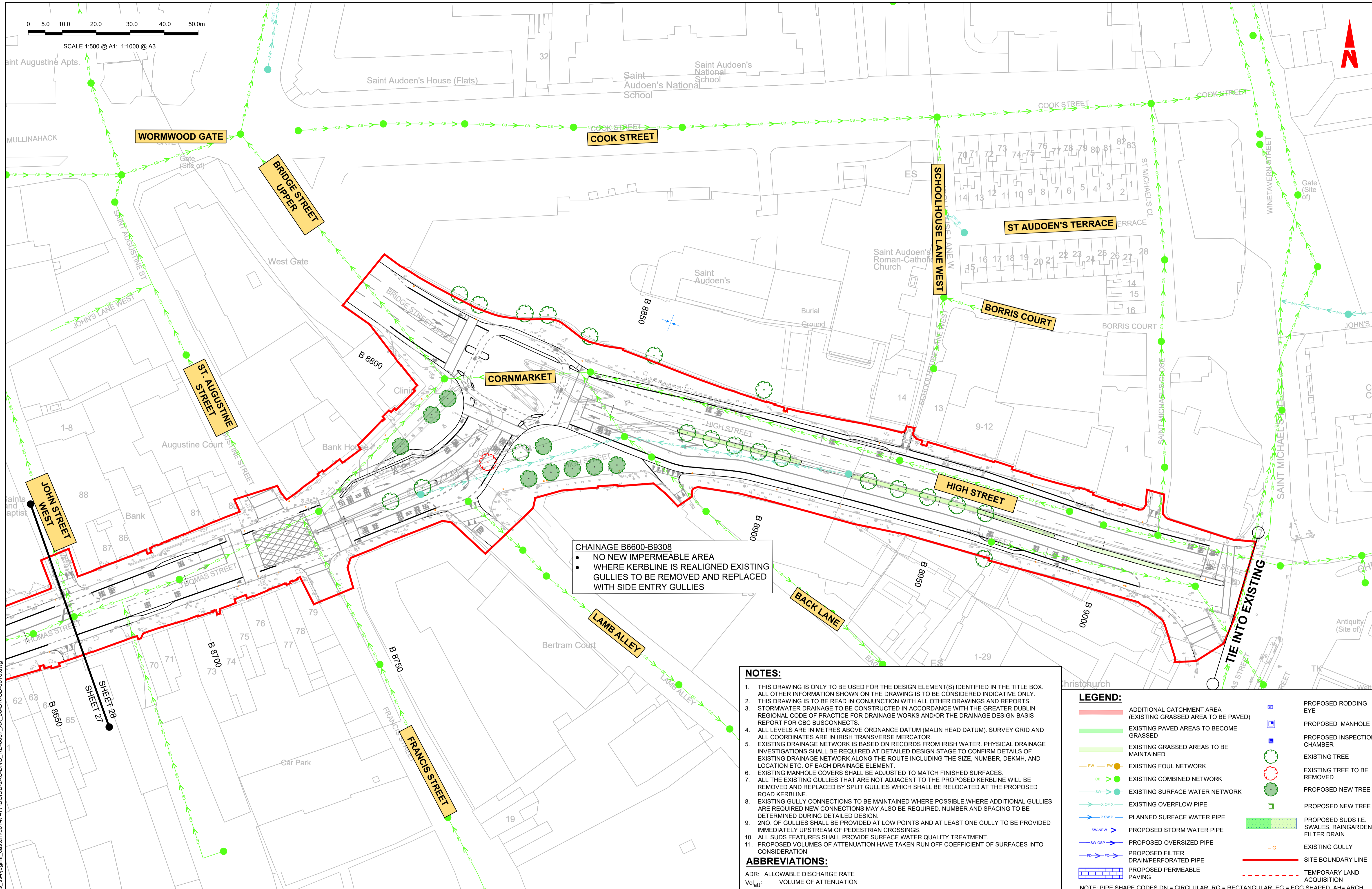
Project Code: BCIDB, Originator Code: JAC, QMS Code:

Programme Title	Drawing Title	Drawing File Name	Sheet Number	Status	Rev
BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS	LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS	BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0027	27 of 28	A	M01

DO NOT SCALE USE FIGURED DIMENSIONS ONLY



SCALE 1:500 @ A1; 1:1000 @ A3



CHAINAGE B6600-B9308

- NO NEW IMPERMEABLE AREA
- WHERE KERBLINE IS REALIGNED EXISTING GULLIES TO BE REMOVED AND REPLACED WITH SIDE ENTRY GULLIES

NOTES:

1. THIS DRAWING IS ONLY TO BE USED FOR THE DESIGN ELEMENT(S) IDENTIFIED IN THE TITLE BOX. ALL OTHER INFORMATION SHOWN ON THE DRAWING IS TO BE CONSIDERED INDICATIVE ONLY.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND REPORTS.
3. STORMWATER DRAINAGE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS AND/OR THE DRAINAGE DESIGN BASIS REPORT FOR CBC BUSCONNECTS.
4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (MALIN HEAD DATUM). SURVEY GRID AND ALL COORDINATES ARE IN IRISH TRANSVERSE MERCATOR.
5. EXISTING DRAINAGE NETWORK IS BASED ON RECORDS FROM IRISH WATER. PHYSICAL DRAINAGE INVESTIGATIONS SHALL BE REQUIRED AT DETAILED DESIGN STAGE TO CONFIRM DETAILS OF EXISTING DRAINAGE NETWORK ALONG THE ROUTE INCLUDING THE SIZE, NUMBER, DEKMH, AND LOCATION ETC. OF EACH DRAINAGE ELEMENT.
6. EXISTING MANHOLE COVERS SHALL BE ADJUSTED TO MATCH FINISHED SURFACES.
7. ALL THE EXISTING GULLIES THAT ARE NOT ADJACENT TO THE PROPOSED KERBLINE WILL BE REMOVED AND REPLACED BY SPLIT GULLIES WHICH SHALL BE RELOCATED AT THE PROPOSED ROAD KERBLINE.
8. EXISTING GULLY CONNECTIONS TO BE MAINTAINED WHERE POSSIBLE WHERE ADDITIONAL GULLIES ARE REQUIRED NEW CONNECTIONS MAY ALSO BE REQUIRED. NUMBER AND SPACING TO BE DETERMINED DURING DETAILED DESIGN.
9. 2NO. OF GULLIES SHALL BE PROVIDED AT LOW POINTS AND AT LEAST ONE GULLY TO BE PROVIDED IMMEDIATELY UPSTREAM OF PEDESTRIAN CROSSINGS.
10. ALL SUDS FEATURES SHALL PROVIDE SURFACE WATER QUALITY TREATMENT.
11. PROPOSED VOLUMES OF ATTENUATION HAVE TAKEN RUN OFF COEFFICIENT OF SURFACES INTO CONSIDERATION

ABBREVIATIONS:

ADR: ALLOWABLE DISCHARGE RATE
Vol_{att}: VOLUME OF ATTENUATION

LEGEND:

- ADDITIONAL CATCHMENT AREA (EXISTING GRASSED AREA TO BE PAVED)
- EXISTING PAVED AREAS TO BECOME GRASSED
- EXISTING GRASSED AREAS TO BE MAINTAINED
- EXISTING FOUL NETWORK
- EXISTING COMBINED NETWORK
- EXISTING SURFACE WATER NETWORK
- EXISTING OVERFLOW PIPE
- PLANNED SURFACE WATER PIPE
- PROPOSED STORM WATER PIPE
- PROPOSED OVERSIZED PIPE
- PROPOSED FILTER DRAIN/PERFORATED PIPE
- PROPOSED PERMEABLE PAVING
- PROPOSED RODDING EYE
- PROPOSED MANHOLE
- PROPOSED INSPECTION CHAMBER
- EXISTING TREE
- EXISTING TREE TO BE REMOVED
- PROPOSED NEW TREE
- PROPOSED NEW TREE PIT
- PROPOSED SUDS I.E. SWALES, RAINGARDENS, FILTER DRAIN
- EXISTING GULLY
- SITE BOUNDARY LINE
- TEMPORARY LAND ACQUISITION

NOTE: PIPE SHAPE CODES DN = CIRCULAR, RG = RECTANGULAR, EG = EGG SHAPED, AH= ARCH.

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b. This drawing is to be used for the design element identified in the title box. Other information shown is to be considered indicative only. The drawing is to be read in conjunction with all other relevant design drawings.
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Project Ireland 2040
Building Ireland's Future

Rev	Date	Drn	Chk'd	App'd	Description
M01	07/06/2022	PT	KM	JB	ISSUED FOR PHASE 4: PLANNING

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

Date: 07/06/2022 Scale: 1:500 @ A1, 1:1000 @ A3

Project Code: BCIDB Originator Code: JAC

Engineering Designer: **Jacobs**

Drawn	Checked	Approved
PT	KM	JB

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

Drawing Title: **LIFFEY VALLEY TO CITY CENTRE CORE BUS CORRIDOR SCHEME PROPOSED SURFACE WATER DRAINAGE WORKS**

Drawing File Name: BCIDB-JAC-DNG_RD-0007_XX_00-DR-CD-0028

Sheet Number: 28 of 28 Status: A Rev: M01