	MAINTENANCE RESPONSIBILITY
(A) SEWER	IRISH WATER
(B-C) SERVICE CONNECTION (INCLUDING SADDLE)	SEE NOTE ABOVE
INSPECTION CHAMBER	PROPERTY OWNER
(C-D) DRAIN	PROPERTY OWNER
INTERNAL PLUMBING	PROPERTY OWNER

SEE NOTE 2 ON STD-WW-03

WITHIN 1m OF BOUNDARY

OOTPATI

MAINTENANCE RESPONSIBILITY OF THE WASTEWATER SERVICE CONNECTIONS FROM THE SEWER TO THE BOUNDARY IS SET OUT IN THE PIPE MAINTENANCE RESPONSIBILITY DIAGRAMS INCLUDED ON THE IW WEBSITE @ WMAN WATE PIE

SERVICE CONNECTION

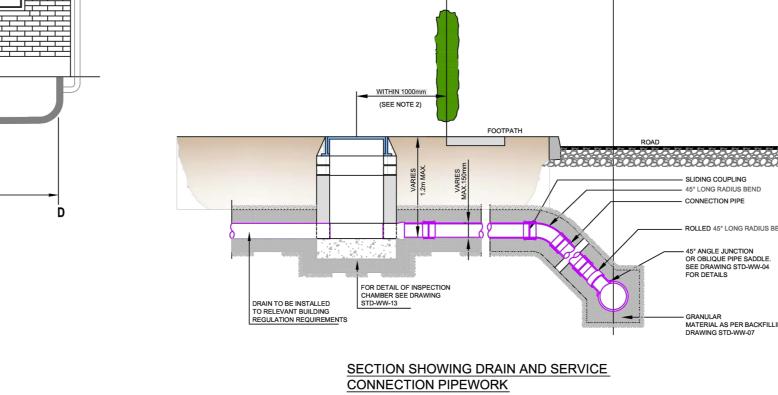
WWW.WATER.IE

A/B

NTS

INSPECTION CHAMBER

PROPERTY OWNER MAINTENANCE RESPONSIBILITY



NT STACK



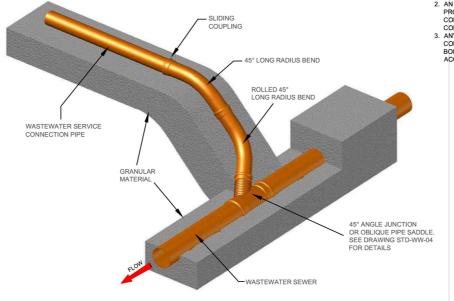
PROPERTY OWNER

MAINTENANCE RESPONSIBILITY

MAINTENANCE RESPONSIBILITY OF THE Y KARTEWATER SERVICE CONNECTIONS

ON THE IW WEBSITE @ WWW.WATER.IE

SET OUT IN THE PIPE MAINTENANCE RESPONSIBILITY DIAGRAMS INCLUDED



ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
 AN INSPECTION CHAMBER SHOULD BE LOCATED AT OR WITHIN 1m OF THE PROPERTY BOUNDARY AT THE UPSTREAM END OF EACH SERVICE CONNECTION ON THE PRIVATE SIDE OF THE CURTILAGE, IF PRACTICABLE, CONSULT WITH IRISH WATER ON ALTERNATIVE LOCATIONS.
 ANY PIPE AND ASSOCIATED ACCESS UPSTREAM OF THE POINT OF CONNECTION TO A PUBLIC SEWER WITHIN THE CONFINES OF A PRIVATE BOUNDARY IS A PRIVATE DRAIN AND SHOULD BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS.

SH WATER RESPONSIBILIT

 SLIDING COUPLING - 45° LONG RADIUS BEND

- CONNECTION PIPE

GRANULAR

ROLLED 45° LONG RADIUS BEND

MATERIAL AS PER BACKFILLING DRAWING STD-WW-07

. Develop detailed desig

of the tree planting with

3. Carry out works under

supervision of Irish Water

. Plant trees at require

distance (as per step 2)

2. Carry out works under

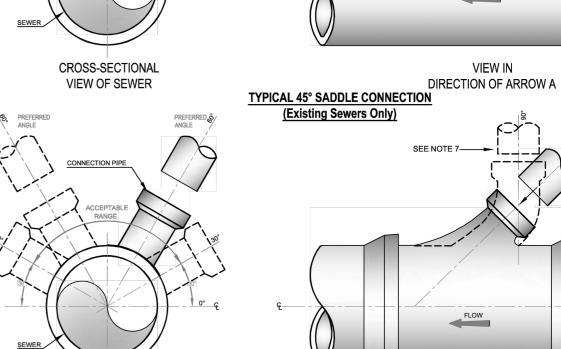
presentative.

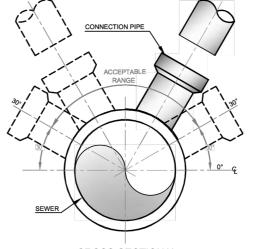
supervision of Irish Water

landscape architect Consult with arborist.

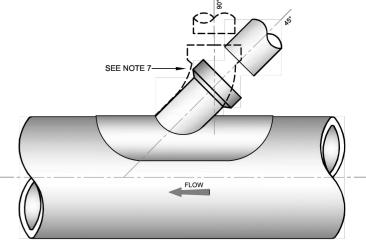
epresentative

- 45° ANGLE JUNCTION OR OBLIQUE PIPE SADDLE. SEE DRAWING STD-WW-04 FOR DETAILS





PREFERRED ANGLE



THE USE OF 90° "Y"-BRANCH OR SADDLE CONNECTIONS TO THE SEWER MAY BE ALLOWED, PROVIDED THE SADDLE OR BRANCH INCORPORATES A SWEPT TEE CONNECTION TOWARDS THE DIRECTION OF FLOW OF THE SEWER.

6. CONNECTION USING SADDLES MAY ONLY BE USED IN EXCEPTIONAL CIRCUMSTANCES AND ONLY TO WHERE THE CONNECTION IS TO AN EXISTING SEWER. CONNECTIONS MADE WITH SADDLE FITTINGS SHALL BE MADE BY CUTTING AND SAFELY REMOVING A CORE FROM THE PIPE AND JOINTING THE SADDLE FITTING TO THE PIPE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS TO ENSURE A WATERTIGHT JOINT. THE CONNECTING PIPE SHALL NOT PROTRUDE INTO THE SEWERS

A. WHERE THE DIAMETER OF THE CONNECTING PIPE IS GREATER THAN HALF THE DIAMETER OF THE SEWER, AN ACCESS MANHOLE SHALL BE CONSTRUCTED TO FORM THE CONNECTION POINT; OR, B. WHERE THE DIAMETER OF THE CONNECTION PIPE IS LESS THAN OR EQUAL TO HALF THE DIAMETER OF THE SEWER, THEN THE CONNECTION SHALL BE MADE USING A PREFORMED Y-BRANCH FITTING WITH A 45 DEG. SLOW BEND TO FORM THE CONNECTION TO THE WORKS.

AS FAR AS PRACTICABLE, JUNCTIONS AND SERVICE CONNECTIONS SHALL BE BUILT IN FOR ALL PLANNED USERS WHEN THE SEWER IS BEING CONSTRUCTED. WHERE IT IS NECESSARY TO MAKE A POST-CONSTRUCTION CONNECTION THE DEVELOPER SHALL BRING THE SERVICE CONNECTION TO THE

INSPECTION CHAMBER, INSTALL THE INSPECTION CHAMBER AND SEAL THE UPSTREAM END UNTIL THE

3. THE VERTICAL ANGLE BETWEEN THE SERVICE CONNECTING PIPE AND THE HORIZONTAL SHALL BE WITHIN

4. WHERE THE SERVICE PIPE CONNECTION WITHIN THE FOOTPRINT OF THE SELF LAY AGREEMENT IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER OF 300mm DIAMETER OR LESS, CONNECTIONS

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE

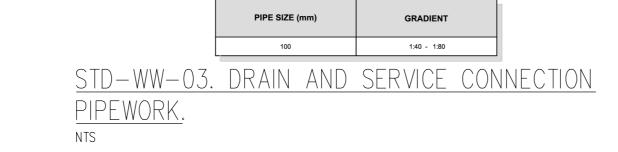
5. WHERE THE CONNECTION IS BEING MADE TO A SEWER WITH A NOMINAL INTERNAL DIAMETER GREATER THAN 300mm, THE FOLLOWING SHALL APPLY :

CONNECTION IS REQUIRED.

THE ACCEPTABLE RANGE OF 30° to 90°.

SHALL BE MADE USING 45° ANGLE JUNCTIONS.

STD-WW-01. WASTEWATER SERVICE CONNECTION CONNECTION MAINTENANCE RESPONSIBILITY.





# METHOD STATEMENTS: ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS 5837 AND INFORMED BY NJUG VOLUME 4

## PRECAUTION AREA:

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS AGREED WITH IRISH WATER. WORKS WITHIN THE PRECAUTION ZONE MUST BE

SUPERVISED BY A QUALIFIED ARBORIST. WORKS SHALL BE SUBJECT OF A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS WHICH IS TO BE PREPARED & AGREED IN ADVANCE OF THE WORKS.

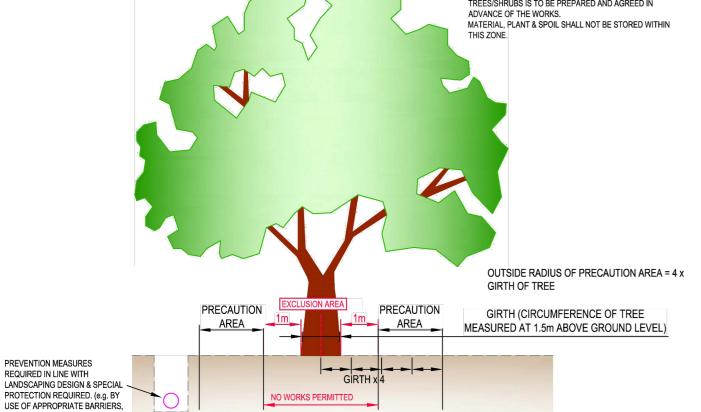
MATERIAL, PLANT & SPOIL SHALL NOT BE STORED WITHIN THIS ZONE.

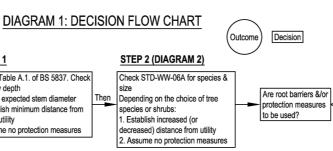
### EXCLUSION AREA:

WORKS IN THIS AREA ARE TO BE AVOIDED, UNLESS ABSOLUTELY NECESSARY & AGREED WITH IRISH WATER.

EXCAVATIONS FOR PIPEWORK SHOULD NOT BE UNDERTAKEN WITHIN THIS AREA, UNLESS NECESSARY AND NO OTHER OPTIONS AVAILABLE. WORKS WITHIN THE EXCLUSION ZONE MUST BE SUPERVISED BY A QUALIFIED ARBORIST AND AGREED WITH IRISH WATER. WORKS SHALL BE SUBJECT OF AN ARBORICULTURAL IMPACT ASSESSMENT AS PER BS 5837 & A CLEAR METHOD STATEMENT OUTLINING ALL WORKS ADJACENT TO THE TREES/SHRUBS IS TO BE PREPARED AND AGREED IN

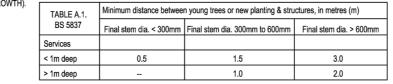
THUS FOR EXAMPLE:





#### THE DISTANCES GIVEN IN TABLE A.1. OF BS 5837 MUST BE FURTHER INFORMED BY THE SPECIES & IN DIAGRAM 2 BELOW. DIAGRAM 1 ABOVE PROVIDES A FLOW CHART TO THE DECISION PROCESS WHILST DIAGRAM 2 BELOW IS TO BE USED TO INFORM THE PLANTING REGIME.

PLEASE NOTE THAT TABLE A 1. OF BS 5837 (BELOW) IS TO BE USED TO CALCULATE THE ABSOLUTE MIMIMUM DISTANCE. BETWEEN NEW TREE PLANTING FROM THE WASTEWATER INFRASTRUCTURE (THE SERVICES). THE DISTANCE IS REQUIRED TO AVOID DIRECT DAMAGE TO THE INFRASTRUCTURE FROM FUTURE GROWTH. THE DISTANCE IS A FUNCTION OF THE DEPTH OF THE SERVICES AND THE (FINAL EXPECTED) STEM DIAMETER OF THE TREE AT MATURITY (i.e. FINAL EXPECTED GROWTH).

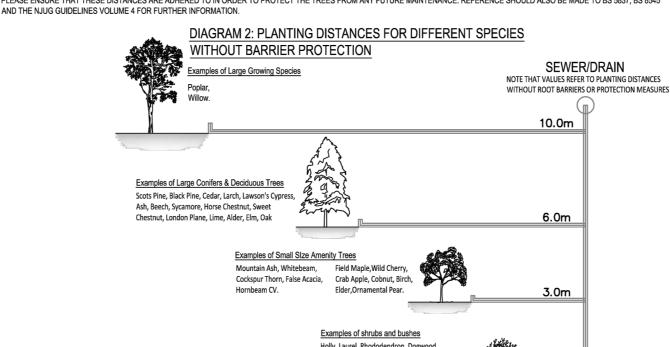


- FOR A SERVICE LESS THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.5m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY. - FOR A SERVICE GREATER THAN 1 METRE DEEP, THE MINIMUM DISTANCE IS TO BE 1.0m FOR A TREE BETWEEN 300 AND 600mm STEM DIAMETER AT MATURITY.

# NOTE: RESTRICTIONS RELATE TO INFRASTRUCTURE WITHOUT ROOT INTRUSION PROTECTION.

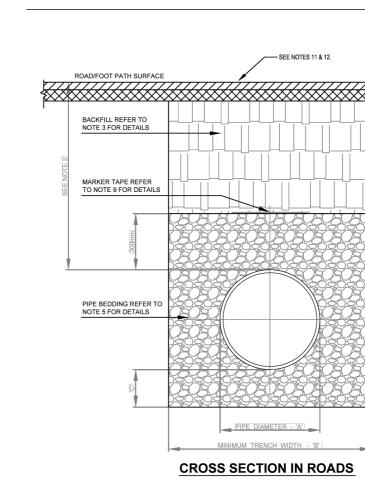
THE DESIGN OF LANDSCAPING SHALL BE UNDERTAKEN IN CONJUNCTION WITH THE DESIGN OF WASTEWATER INFRASTRUCTURE, ETC. THE TREE/BUSH/SHRUB SHALL NOT BE LOCATED CLOSER TO THE WASTEWATER INFRASTRUCTURE THAN INDICATED ABOVE, EXCEPT WHERE SPECIAL PROTECTION MEASURES ARE PROVIDED. WHERE THERE IS A RISK OF TREE/ROOT INTRUSION, THE WASTEWATER INFRASTRUCTURE SHALL BE RESISTANT TO TREE ROOT INGRESS (e.g. BY USE OF APPROPRIATE BARRIERS, HIGH PERFORMANCE JOINTS, OR BY USE OF POLYETHYLENE WITH WELDED JOINTS FOR RISING MAINS). THE LANDSCAPE DESIGN AND DETAILS OF THE SPECIAL PROTECTION MEASURES MUST BE AGREED WITH IRISH WATER A TREE SHALL NOT BE PLANTED DIRECTLY OVER WASTEWATER INFRASTRUCTURE WHERE EXCAVATION OF THE INFRASTRUCTURE WOULD REQUIRE REMOVAL OF THE TREE UNLESS SUCH

PLANTING IS AGREED WITH IRISH WATER AND IN GENERAL ONLY SHALLOW ROOTING SHRUBS SHALL BE PLANTED CLOSE TO WASTEWATER INFRASTRUCTURE. PLEASE ENSURE THAT THESE DISTANCES ARE ADHERED TO IN ORDER TO PROTECT THE TREES FROM ANY FUTURE MAINTENANCE. REFERENCE SHOULD ALSO BE MADE TO BS 5837, BS 8545



Holly, Laurel, Rhododendron, Dogwood,

Christmas Tree, Magnolia, Fruit bushes, Spindle



DEPTH OF ----REINSTATED TOPSOIL TO MATCH EXISTING SELECTED BACKFILL REFER TO NOTE 4 FOR DETAILS MARKER TAPE REFER TO NOTE 9 FOR DETAIL PIPE BEDDING REFER TO NOTE 5 FOR DETAILS

- ALL DIMENSIONS ARE IN MULIMETRES (mm) UNLESS NOTED OTHERWISE.
   THE MINUMUM DEPTH OF COVER FROM THE FINISHEND SURFACE TO THE GROWN OF GRAUTTY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS:
   GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS DEPTH NOT LESS THAN 05 M, (THIS WOULD NORMALLY RELATE TO DRAINS IN PRIVATE FROPERTY, SHALLOW PIPES OF THIS NATURE ARE UNDESIRABLE AND SHOULD BE INSTALLED IN ACCORDANCE WITH THE CURRENT BUILDING REGULATIONS).
   DRIVEWAYS, FOOTWAYS, PARRING AREAS AND VARDOS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITHOUTS, FOOTWAYS, PARRING AREAS AND NARROW
   STREETS WITHOUT FUES THAN 05 76 M.
   DRIVEWAYS, FOOTWAYS, PARRING AREAS AND NARROW
   STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 73 TONNES DEPTH NOT LESS THAN 0 M.
   DEPTHS OF SEWERS IN GATED ESTATES SHALL BE SIMILAR TO THAT OUTLINED ASOVE.
   AGRICULTURAL LAND AND PUBLIC OPEN SPACE DEPTH NOT LESS THAN 0 9 M.
   OTHER ROADWAYS, HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS OF 0 FILOSES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 0 STATES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 0 STATE BOWTH A GROSS VEHICLE WEIGHT IN EXCESS OF 0 STATE AND THE TRENCH IS WITH WIRESTRICTED ACCESS OF 0 STATE AND THE TRENCH IS WITH WIRESTRICTED ACCESS OF 0 STATE OF THE TERENCH IS WITH WIRESTRICTED ACCESS OF 0 STATE OF THE TERENCH IS WITH WIRESTRICTED ACCESS OF 0 STATE OF THE TRENCH IS WITH AND FOR THE PARADED STATE BACKFILL MATERIAL WHERE THE SEWER MINI IS LOCATED IN ROADS FOOTPATHS OR WHENT THE NARRET AND CONTINE TRENCH IS WITH AND FOR THE PARADED OF THE ROADWAY, CLAUSE BOM AND SCIENCE TO THE REVER ENDITION OR ROAD WORKS. CLAUSE BOB IS TO BE USED WITHIN SOMOTH OF COMPACTED AS PRE CLAUSE BOY OF WHENT THE NEARESTRUCTURE RELEAD SOCIOACTED NOT ROAD WORKS. CLAUSE BOB IS TO BE USED WITHIN SOMOTH OF CLAUSE PRODUCTION FOR ROAD WORKS. CLAUSE BO
- SPECIFICATION FOR ROAD WORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID BACKFILL MATERIAL. NON DEGRADABLE MARKER TAPE SHOULD BE INSTALLED AT THE TOP OF PIPE BEDDING LAYER FOR SEWERS AND RISING MAINS. IT SHOULD RUN CONTINUOUSLY AROUND MANHOLES. IN THE CASE OF NON METAL PIPE MATERIAL, THE MARKER TAPE SHOULD INCORPORATE A TRACE WIRE WHICH IS LINKED TO FITTINGS AND TERMINATED AT THE WASTE WATER PUMPING STATION (IF PROVIDED) AND THE DECOMPORE MANHOL
- AND THE DISCHARGE WANHOLE. TRENCH WIDTHS FOR PIPE SIZES \$20mm MAY BE <500mm, SUBJECT TO CONSIDERATION BEING GIVEN TO THE TRENCH DEPTH, HEALTH & SAFETY & CONSTRUCTION ACCESS REQUIREMENTS. NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY DECULIPENDATE 10.
- 11.
- New ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AGTIORITY REQUIREMENTS.
   EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.

PIPE DIAMETER 'A' (mm)	TRENCH WIDTH 'B' (mm)			
≤ 80 RISING MAIN	SEE NOTE 10.			
100	500			
150 - 200	600			
>200 - 350	750			
>350 - 450	900			

#### STEP 1 Main Decision Check Table A.1. of BS 5837. Check . Utility depth Trees required in Yes 2. Final expected stem diameter proximity to - Establish minimum distance from Wastewater tree to utility frastructure - Assume no protection measures



HIGH PERFORMANCE JOINTS, OR

BY USE OF POLYETHYLENE WITH

STD-WW-06. RESTRICTIONS ON WASTEWATER INFRASTRUCTURE WORKS ADJACENT TO TREES NTS

	Tree, Guelder rose, Roses				
NOTE: OTHER SPECIES NOT NAMED TO BE PLANTED TO THE SAME SPACINGS DEPENDING ON ROOT FORMATION.	Examples of hedge plants and ground covers including herbaceous and annuals Hedge plants and ground covers may be placed over the pipeline Privet, Blackthorn, Snowberry, Berberis, Heathers, Cotoneaster & Groundcovers, Herbaceous & Annuals				
STD-WW-06A. RESTRICTIONS	ON NEW TREES/SHRUBS				
PLANTING ADJACENT TO SEWE	ERS.				

Q	
	PIPE DIAMETER - 'A'
	MINIMUM TRENCH WIDTH - 'B'
CF	COSS SECTION IN GRASSED AREAS

	L]
PIPE DIAMETER 'A' (mm)	DEPTH OF BEDDING 'C' (mm)
≤100	100
150 - 450	200

STD-WW-07. TRENCH BACKFILL AND BEDDING. NTS

> PLANNING DRAWING. NOT FOR CONSTRUCTION. ALL LEVELS GIVEN ARE RELATIVE TO ORDNANCE DATUM. THIS DRAWING HAS BEEN ISSUED FOR INFORMATION PURPOSES ONLY AND MUST NOT BE USED FOR CONSTRUCTION UNDER ANY CIRCUMSTANCES

<ol> <li>NOTES</li> <li>For setting out refer to Architect's drawings.</li> <li>This drawing to be read in conjunction with all other Architectural and Engineering drawings and all other relevant drawings and Specifications.</li> <li>DO NOT SCALE THIS DRAWING. Use figured dimensions only.</li> </ol>	P1         16.0           P2         28.0           P3         23.0	te REVISION NOTE 2024 ISSUED FOR STAGE 2 PLANNING 2024 ISSUED FOR STAGE 3 PLANNING 2024 ISSUED FOR REVIEW	Dr J J J	n. By Chkd. By JF GL JS JF JS JF	Client Project Title	Clongriffin Blocks 5 & 6	CS Consulting Group DUBLIN   LONDON   LIMERICK Head Office 19-22 Dame Street, Dublin 2.
<ol> <li>DO NOT SCALE THIS DRAWING. Use figured dimensions only.</li> <li>No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission as copyright holder except as agreed for use on the project for which the document was originally issued.</li> </ol>		.2024     ISSUED FOR REVIEW       .2024     ISSUED FOR PLANNING SUBMISSION	ل ل ا	JF GF JS GF	Dwg. No.	Sheet 1 of 2	T: +353 (0)1 5480863 e: info@csconsulting.ie w: www.csconsulting.ie Quality I.S. EN ISO 9001:2008 Environment I.S. EN ISO 14001:2004
5. Ordnance Survey Ireland Licence Number EN 0074024					Date MAY 20	Drn by Chkd by Aprvd by Scale Revision	NSAI Certified Health & Safety OHSAS 18001:2007

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