

WATERMAIN NOTES IN ACCORDANCE WITH IRISH WATER DESIGN CHECKLIST:

- (i) Watermain layout shall be arranged in loops or rings so as to avoid 'dead ends' or terminal points. All mains shall terminate in a loop or ring to accommodate one directional flushing of the network. Loops shall have a minimum of four connected houses and one hydrant.
- (ii) The minimum pipe size shall be 100mm internal diameter in housing developments of 40 houses and up to 100 houses.
- (iii) The minimum pipe size shall be 150mm in industrial or commercial development.
- (iv) Every property should have a separate service connection. Long service connections (in excess of 15m) will not be allowed. Service connections shall be a minimum pipe size of 25mm outside diameter & 20mm internal diameter.
- (v) Watermains should be sited to provide the optimum situation in the local water network. Watermains may be sited in a street only with Irish Water approval. In the event of a street water main, the water main shall be provided with a chamber of access, shall be provided at the dead end.
- (vi) The location of hydrants should be such that they can be accessed in an emergency. Hydrants should not be located in roads or parking areas.
- (vii) Where possible, a hydrant should be located within 20m of each junction.
- (viii) No domestic property within a development shall be more than 60m from a hydrant. A hydrant shall not be closer than 6m to a property. Fire hydrants should not be supplied from watermains less than 100mm in diameter.
- (ix) Surface Water attenuation tanks shall not be constructed over Watermains.
- (x) Light Water requires the developer to provide bulk metering of the water supply commencing 20 cubic metres per day, with the bulk meter linked to an Irish Water telemetry data collection system in cases where the water demand exceeds 200 cubic metres per day. Developments with water demands less than 20 cubic metres per day will not require a flow meter. Irish Water will choose and supply the bulk meter and associated equipment based on the range of flow at the development.
- (xi) Pressure control shall be provided at the take-off point of the new connection. It required to control high pressures by way of a pressure reducing valve (PRV). The meter for PRV shall be agreed with Irish Water.
- (xii) Meter supply mains shall be laid in common areas and not through individual private gardens or driveways (with any redundant water services shall be traced back to the Irish Water supply main by the developer and shall be blanketed off by Irish Water at the developer's expense).
- (xiii) Watermain bends and road crossings should be kept to an absolute minimum.
- (xiv) A three-way slider valve arrangement shall be provided at all watermain junctions.
- (xv) The Watermain pipework to new developments should be located at the right hand side of the entrance to the new development (from a view facing into the development) if possible, and where the properties served are equally or reasonably distributed at both sides of the estate roadway.
- (xvi) When specifying cover to pipes, the design shall relate to finished surface levels.

PROPOSED FIRE HYDRANTS TO BE DOUBLE FLANGED DRILLED TO PN16 & COMPLY WITH THE REQUIREMENTS OF IS EN 14339, IS EN 1074, PART 6 AND BS 750. HYDRANTS TO BE TYPE 2 AND HAVE AN 80mm DIAMETER FLANGE PN16 RATED. HYDRANT TO INCORPORATE A SCREW-DOWN GATE VALVE, UNDERGROUND, "GUIDE TO HEAD" TYPE WITH SCREW CONNECTION OUTLET AND FALSE SPINDLE CAP AND IRON CHAIN. THE DEPTH OF HYDRANT CAP TO BE 350mm AT MOST FROM FINISHED GROUND LEVEL.

BUTT FUSION WELDING & ELECTRO-FUSION JOINING OF PIPES SHALL BE ONLY CARRIED OUT BY TRAINED OPERATIVES IN POSSESSION OF A CURRENT TRAINING CERTIFICATE. JOINTING FULLY AUTOMATIC APPROVED JOINTING MACHINES IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS. THE IDENTITY OF THE PIPE MANUFACTURER SHALL BE MADE KNOWN TO IRISH WATER PRIOR TO COMMENCEMENT OF THE INSTALLATION. CERTIFICATION AND TESTING (INCLUDING IDENTIFICATION THIRD PARTY CERTIFICATION) SHALL BE PROVIDED TO CONFIRM QUALITY ASSURANCE COMPLIANCE. EACH JOINT SHALL BE CLEARLY MARKED WITH THE JOINT LOGGED AUTOMATICALLY ON THE JOINTING MACHINE. A PRINTOUT OF THE JOINT DETAILS WITH A GPS LOCATION OF EACH JOINT SHALL BE PROVIDED AND RETAINED FOR QUALITY ASSURANCE PURPOSES.

THE MINIMUM DEPTH OF COVER FROM THE FINISHED GROUND LEVEL OF PIPES SHALL BE 750mm FOR SERVICE CONNECTIONS (FROM WATER MAINS, GREATER DEPTHS OF COVER AND/OR PIPE STRENGTH AND/OR A HIGHER CLASS OF BEDDING MATERIAL MAY BE REQUIRED WHERE HIGH TRAFFIC LOADING IS ANTICIPATED). THE MAXIMUM COVER SHOULD NOT EXCEED 1.2m WHERE PRACTICABLE.

CLAUSE 503 MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS SHOULD BE USED AS BACKFILL MATERIAL WHERE FOOTPATHS OR WHEN THE NEAREST PART OF THE FRENCH IS WITHIN 1m OF THE PAVED EDGE OF THE ROADWAY. CLAUSE 808 IS TO BE COMPLETED AS PER CLAUSE 802 OF THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS. SELECTED EXCAVATED MATERIAL MAY BE USED IN GREEN FIELD AREAS ABOVE SPECIFIED PIPE SLOPES AND SHALL BE SUBJECT TO THE APPROVAL OF IRISH WATER. PIPE BEDDING SHALL COMPLY WITH BS 4496-2 AND BS 4496-1. GRANULAR, GRADED AGGREGATE OR OTHER SINGLE SIZED AGGREGATE TO IS 8732. PIPES SHALL NOT BE SUPPORTED ON STONES OR ROCKS OR ANY HARD OBJECT AT ANY POINT ALONG THE FRENCH. ROCK SHALL BE EXCAVATED TO A DEPTH OF THE FRENCH TO THE VOID FILL WITHIN 100mm OF MATERIAL IN ACCORDANCE WITH THE NATIONAL ROADS AUTHORITY SPECIFICATION FOR ROADWORKS. THE GRANULAR MATERIAL SHALL BE LAID ABOVE THIS VOID ABOVE ALL MATERIAL SHOULD MINIMUM COVER NOT BE ACHIEVABLE. CONCRETE GRADE COURSE SHALL BE USED AS BACKFILL MATERIAL. MARKER PIPES TO BE 100mm WIDE BLUE POLYETHYLENE (PE) IN PLASTIC. PRESS SHALL BE IDENTIFYING FACE INCORPORATED AND IDENTIFIED AND BRACING WIRE. SERVICE PIPES SHALL HAVE 200mm WIDE MESH TAPE. MARKER TAPE TO BE Laid AT TOP OF PIPE BEDDING LAYER.

INDICATOR PLATES IN RELATION TO THE PROPOSED WATERMAIN NETWORK TO BE LOCATED TO THE APPROVAL OF BOTH IRISH WATER AND THE ROADS AUTHORITY FOR THE AREA. THE PLATES ARE TO BE MOUNTED ON MARKER POSTS IN THE BACK OF COURTYARDS OR ON THE THROUGH-FRAME NEARBY THE HYDRANT OR VALVE.

DISMANTLING JOINTS TO BE INSTALLED ON ALL WATERMAIN EQUIPMENT AS PER DEVELOPER SERVICES WATER INFRASTRUCTURE STANDARD DETAILS. DOCUMENT NUMBER: IW-CDS-5020-01.

CONNECTING TO EXISTING MAINS IS TO BE CARRIED OUT BY IRISH WATER OR AN APPROVED IRISH WATER AGENT.

SERVICE CONNECTIONS TO BE A MINIMUM PIPE SIZE OF 25mm OUTSIDE DIAMETER AND 20mm INTERNAL DIAMETER.

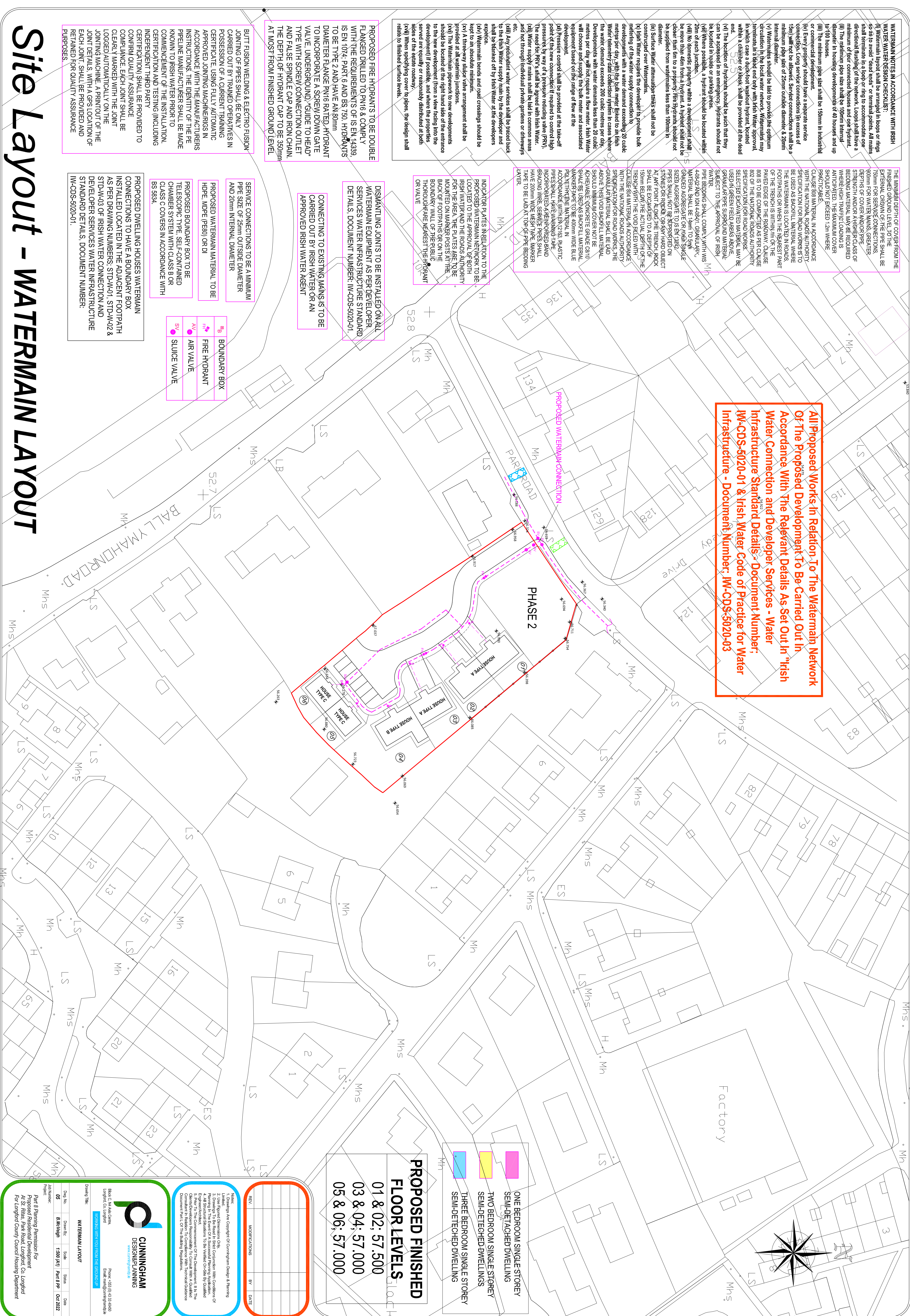
PROPOSED WATERMAIN MATERIAL TO BE HDPE, MDPE (PE80) OR DI.

PROPOSED BOUNDARY BOX TO BE TELESCOPIC TYPE, SELF-CONTAINED CHAMBER SYSTEM WITH CLASS B OR CLASS C COVERS IN ACCORDANCE WITH BS 5834.

PROPOSED DWELLING HOUSES WATERMAIN CONNECTIONS TO HAVE A BOUNDARY BOX INSTALLED LOCATED IN THE ADJACENT FOOTPATH AS PER DRAWING NUMBERS: STD-W-01, STD-W-02 & STD-W-03 OF IRISH WATER CONNECTION AND STANDARD DETAILS. DOCUMENT NUMBER: IW-CDS-5020-01.

All Proposed Works In Relation To The Watermain Network Of The Proposed Development To Be Carried Out In Accordance With The Relevant Details As Set Out In "Irish Water Connection and Developer Services - Water Infrastructure Standard Details" Document Number: IW-CDS-5020-01 & Irish Water Code of Practice for Water Infrastructure - Document Number: IW-CDS-5020-03

Site Layout - WATERMAIN LAYOUT



Bg	BOUNDARY BOX
Hg	FIRE HYDRANT
Av	AIR VALVE
Sv	SLUICE VALVE

ONE BEDROOM SINGLE STOREY SEMI-DETACHED DWELLING
TWO BEDROOM SINGLE STOREY SEMI-DETACHED DWELLINGS
THREE BEDROOM SINGLE STOREY SEMI-DETACHED DWELLING

PROPOSED FINISHED FLOOR LEVELS

01 & 02: 57.500
 03 & 04: 57.000
 05 & 06: 57.000

REV	MODIFICATIONS	BY	DATE

CUNNINGHAM DESIGN & PLANNING

Part 8 Planning Permission For Proposed Residential Development At St. Riias, Park Road, Longford, Co. Longford For Longford County Council Housing Department

Project: WATERMAIN LAYOUT

Drawn By: [Name] Date: [Date]

Checked By: [Name] Date: [Date]

Scale: 1:500 (A1) Part 8 PP Oct 2022

Block 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100