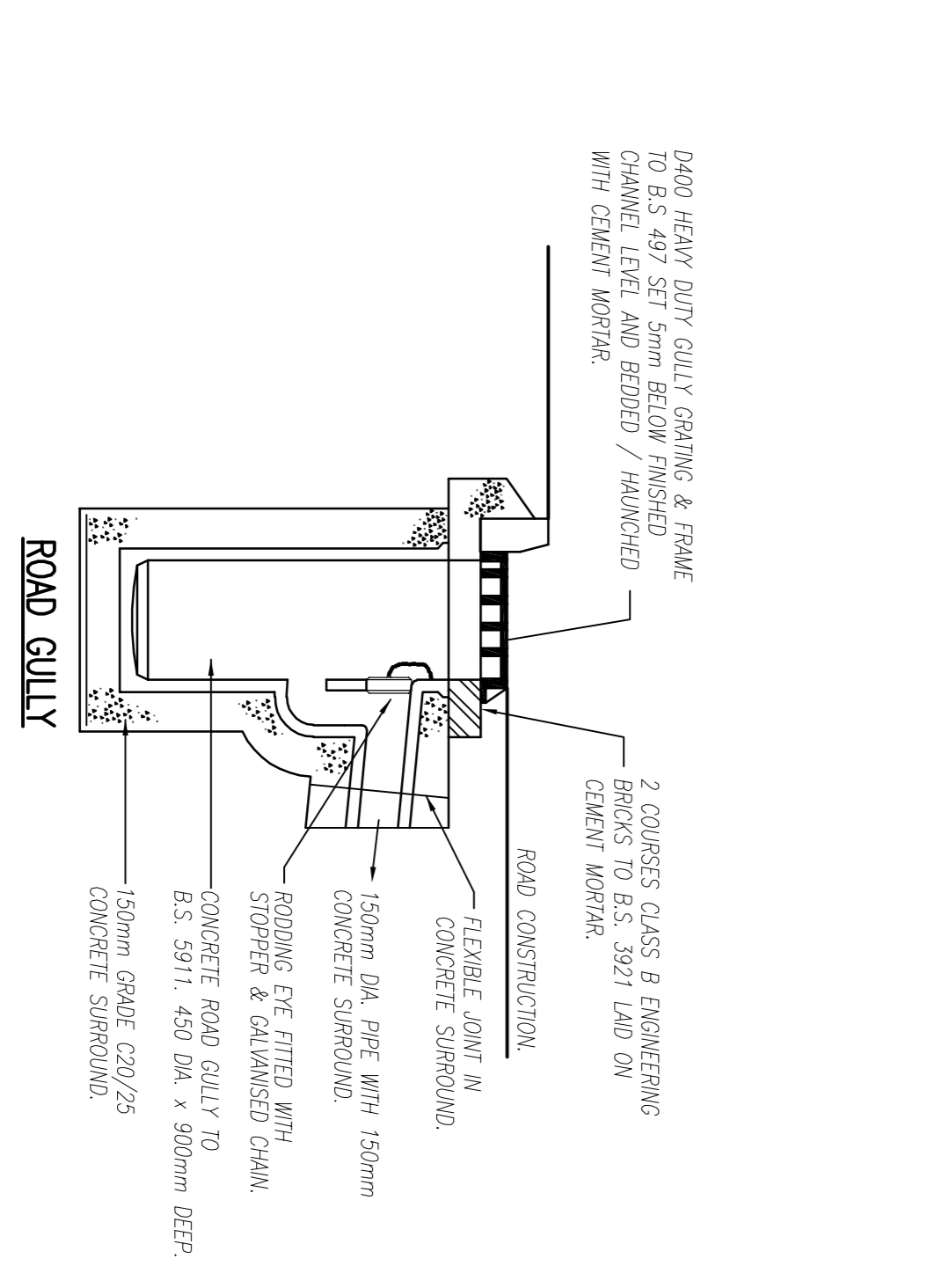


TYPICAL MANHOLE DETAIL, TYPE A
(FOR LAST PRIVATE MANHOLES WHERE DEPTH TO INVERT IS 1m OR LESS)

TYPICAL MANHOLE DETAIL, TYPE B
(FOR LAST PRIVATE MANHOLES WHERE DEPTH TO INVERT IS 1m TO 3m)



TYPICAL SADDLE CONNECTION DETAIL TO PUBLIC SEWER



ROAD GULLY

- NOTES:
- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
 - ALL WORKS SHALL BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS OF DUBLIN CITY COUNCIL (WEBSITE: www.dublincity.ie)
 - GRANULAR FILL SHALL COMPLY WITH CLASS 508 COMPACTED IN 150mm LAYERS UNLESS OTHERWISE SPECIFIED BY THE ROADS MAINTENANCE ENGINEER.
 - ALL BRICK TO BE ENGINEERING BRICK.
 - PIPE TYPES - FOR TANKS IN CHANGE CONCRETE SEWER PIPES WITH SLOPE AND SOCKET JOINTS AND RUBBER RINGS FITTING TO IS 61974 CLASS A OR CLASS H.
 - CONCRETE BED AND SURROUND SHALL BE USED ON ALL PIPES WHERE COVER TO THE SOFT OF THE PIPE IS LESS THAN 1.2m IN ROADS, FOOTPATHS AND GRASS MARGINS AND 0.9m IN OPEN SPACES AND FIELDS.
 - ALL CONCRETE FOR PIPE BEDDING, HAUNCHING AND SURROUNDS SHALL BE GRADE 20/20 UNLESS OTHERWISE STATED.
 - ALL PIPE TRENCHES / EXCAVATIONS SHALL BE BACKFILLED AND COMPACTED STRICTLY IN ACCORDANCE WITH REQUIREMENTS OF CLASS 505, DEPARTMENT OF THE ENVIRONMENT, SPECIFICATION FOR ROAD WORKS, WITH BUILDING REGULATIONS 1997 TABLE 7.
 - ALL FOLL SEWER MANHOLES SHALL BE EITHER IN-SITU CONCRETE OR CAST IN PLACE CONCRETE. ALL OTHER MANHOLES SHALL BE CAST IN PLACE CONCRETE UNLESS OTHERWISE STATED.
 - CONNECTIONS FROM TO ENTERING PUBLIC SEWERS.
 - CONNECTIONS FROM TO ENTERING PUBLIC SEWERS WHERE BACKSAP DEPTH IS 1.5m OR DEEPER SHALL BE CAST IN PLACE CONCRETE AT BASE OF TUMBLE BAY.
 - PREPARED HALF CIRCLE CHANNEL PRESS. THE PRESSURE LAY WHERE PRACTICABLE, BE Laid THROUGH THE MANHOLE AND THE CROWN CUT OUT TO HALF DIAMETER, PROVIDED FLEXIBLE JOINTS ARE SITUATED ON EACH SIDE NO FURTHER THAN 600mm FROM THE INNER FACE OF MANHOLE WALL.
 - FOR SURFACE WATER MANHOLES HIGH DENSITY BLOCKS TO CL 510 OF BLOCKWORK SHALL BE BEDDED AND JOINTED USING MORTAR DESIGNATION 3 TO 1.5:4.06. BEDS AND VERTICAL JOINTS SHALL BE COMPLETELY FILLED WITH MORTAR AS THE BLOCKS ARE Laid.
 - JOINTS SHALL BE FLUSH POINTED AS THE WORK PROCEEDS. ALL FOLL MANHOLES MUST BE FACED IN SOLID ENGINEERING BRICK (MUN. CLASS A OR B) OR IN-SITU SOLID ENGINEERING BRICK (MUN. CLASS A OR B) OR BLOCKWORK USING ENGLISH GARDEN WALL BOND. JOINTS PER DRAWING.
 - RELIEFING ARCHES USED IN BRICK OR BLOCKWORK MANHOLES TO EXTEND OVER FULL THICKNESS OF WALL. DOUBLE ARCH TO BE FORMED FOR PIPE DIAMETERS GREATER THAN 600mm.
 - REINFORCING AND PIPE CHANNEL. PIPE SURROUND - CL. 20/20 CONCRETE.
 - REINFORCING FINISHED IN 2:1 SAND-GRANIT MORTAR WITH A SLOTTED TROWEL FINISH. LEVEL WITH PIPE TOP AND 1 IN 30 SLOPE TOWARD CHANNEL.
 - STANDARD RINGS AT 300c/c VERTICALLY AND GALVANISED TO BS 729.
 - 600mm SQUARE ONE IN ROOF SLAB POSITIONED OVER RING/LADDER POSITION.
 - 200mm THICK PRECAST R.C. ROOF SLAB IN CL. 30/20 CONCRETE COVER POSITION.
 - 1 TO 2 NO. ENGINEERING BRICKS CL. B TO IS. 91: 1983 SET IN 1:3 (CEMENT SAND MORTAR).
 - CLASS PA00 MANHOLE COVER AND FRAME TO S/EN 124, 150mm DEEP FRAME FOR ROADS, 100mm DEEP FOR FOOTPATHS AND GREEN AREAS. NON-SLIP DESIGN. CLOSED KEYWAYS. MANUFACTURED FROM SPHERULOID OPENING. COVER AND FRAME COATED IN BITUMEN OR OTHER APPROVED MATERIAL. COVER TO HAVE A MINIMUM MASS OF 140g/m². FRAME BRASS AREA SHALL BE 80,000mm² MIN. FRAMES SHALL BE DESIGNED TO PREVENT COVERS FALLING INTO MANHOLE. FRAMES SHALL BE BEDDED ON PREPARED SAND.
 - BACKPROP MANHOLES SHALL HAVE A HEAVY DUTY CLASS PA00 COVER AND FRAME FITTED AT GROUND LEVEL TO THE INLET PIPE ON THE BACKPROP.
 - SHORT LENGTH PIPE. PIPE JOINT EXTERNAL TO MANHOLE SHALL NOT EXCEED 600mm FROM THE INNER FACE OF THE MANHOLE WALL. SHORT LENGTH PIPES SURROUNDED IN 150mm THICK CL. 20/20 CONCRETE AND SHALL BE CUT FLUSH WITH INSIDE SURFACE OF THE WALL.
 - WHEN DEPTH OF MANHOLES TO INVERT IS GREATER THAN 3.0m, LADDERS SHALL BE USED INSTEAD OF RINGS. TO BS 4211 EXCEPT THAT STRINGERS SHALL BE 25mm THICK WITH 100mm SPACING. DIM. RING LADDERS SHOULD MEET THE DIMENSIONAL REQUIREMENTS OF BS-4211.
 - FOR MANHOLES >3m DEPTH TO INVERT USE 30N/20 IN-SITU CONCRETE. REINFORCING MESH REF. A339@618kg/m³ TO BE FITTED AT MID POINT OF WALL. ADDITIONAL REINFORCEMENT TO BE SUPPLIED OVER PIPE CROWN.
 - ALL GRANITE WORKS INCLUDING OUTLET MANHOLES WITHIN PRIVATE AREAS, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GREATER DUBLIN REGIONAL CODE OF PRACTISE FOR DRAINAGE WORKS.
 - REINFORCEMENT TO SLABS TO ENGINEERS DETAILS.
 - FOR MANHOLES >3m DEPTH TO INVERT USE 30N/20 IN-SITU CONCRETE. REINFORCING MESH REF. A339@618kg/m³ TO BE FITTED AT MID POINT OF WALL. ADDITIONAL REINFORCEMENT TO BE SUPPLIED OVER PIPE CROWN.
 - FINISH TO THE TOP OF SLABS SHALL COMPLY TO TYPE A, SECTION 6.2.7, BS 8110 - PART 1: 1997.
 - PLAN DIMENSIONS OF MANHOLES ARE BASED ON BLOCKWORK HAVING A CO-ORDINATING SIZE OF 450 X 225 X 100.
 - MANHOLES ARE DESIGNED TO BS 8805 AND WALL THICKNESSES TO IS 3235 BLOCKWORK DESIGN CODE TAKING GRANULAR FILL PRESSURE AND H.B. SURCHARGE.
 - REINFORCEMENT TO SLABS TO ENGINEERS DETAILS.
 - FOR MANHOLES >3m DEPTH TO INVERT USE 30N/20 IN-SITU CONCRETE. REINFORCING MESH REF. A339@618kg/m³ TO BE FITTED AT MID POINT OF WALL. ADDITIONAL REINFORCEMENT TO BE SUPPLIED OVER PIPE CROWN.
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CLIENT	GERARD GANNON PROPERTIES		
ARCHITECT	CONROY CROWE KELLY		
PROJECT	CLONGRIFIN SHD APPLICATION 2		
TITLE	PUBLIC SURFACE WATER DRAINAGE CONSTRUCTION DETAILS		
DRAWN	DESIGNED	APPROVED	DATE
PDJ	MD	NOV 18'	
SCALE	JOB NO.	PRG. NO.	REVISION
1:25 @ A1	18-059	12210	A