

- DO NOT SCALE
 - This drawing is to be read in conjunction with all other relevant drawings and details.
 - Should there be any conflict between the details indicated on this drawing and those indicated on other drawings the Engineer should be informed PRIOR to construction on site.
 - Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the contractor commence site work prior to such approval being given, it is entirely at his own risk.
 - All dimensions are in millimetres unless otherwise stated.
- The Hazard Identification and Risk Assessment information for this project must be reviewed and understood by the contractor PRIOR to the commencement of any works on site.

- The Contractor shall check all the fits for line and level with existing before commencing any works. The Engineer should be notified immediately in writing, should any errors be found.
- The positions of soil & vent pipes & rainwater pipes etc on this drawing are indicative only - Please refer to current Architects Plans (satellite) & rainwater and soil and vent pipes to be complete with rodding access.
- All private drainage to be constructed in accordance with Building Regulations Part H.
- All private drains/sewers to be 100 mm diameter except, where shown otherwise.
- Refer to Building Regulations Part H for details of pipes penetrating walls and pipe runs near buildings.
- All workmanship is to be to the most current British Standards.
- The layout of pipelanes, manholes etc. is designed to suit the permanent case. Additional loads over & above those designed for may arise during the construction process. The Contractor shall provide any necessary temporary protection to ensure that pipelanes, manholes etc. are not damaged as a result of his method of working.

Rev	Description	Date	Drawn	Appr

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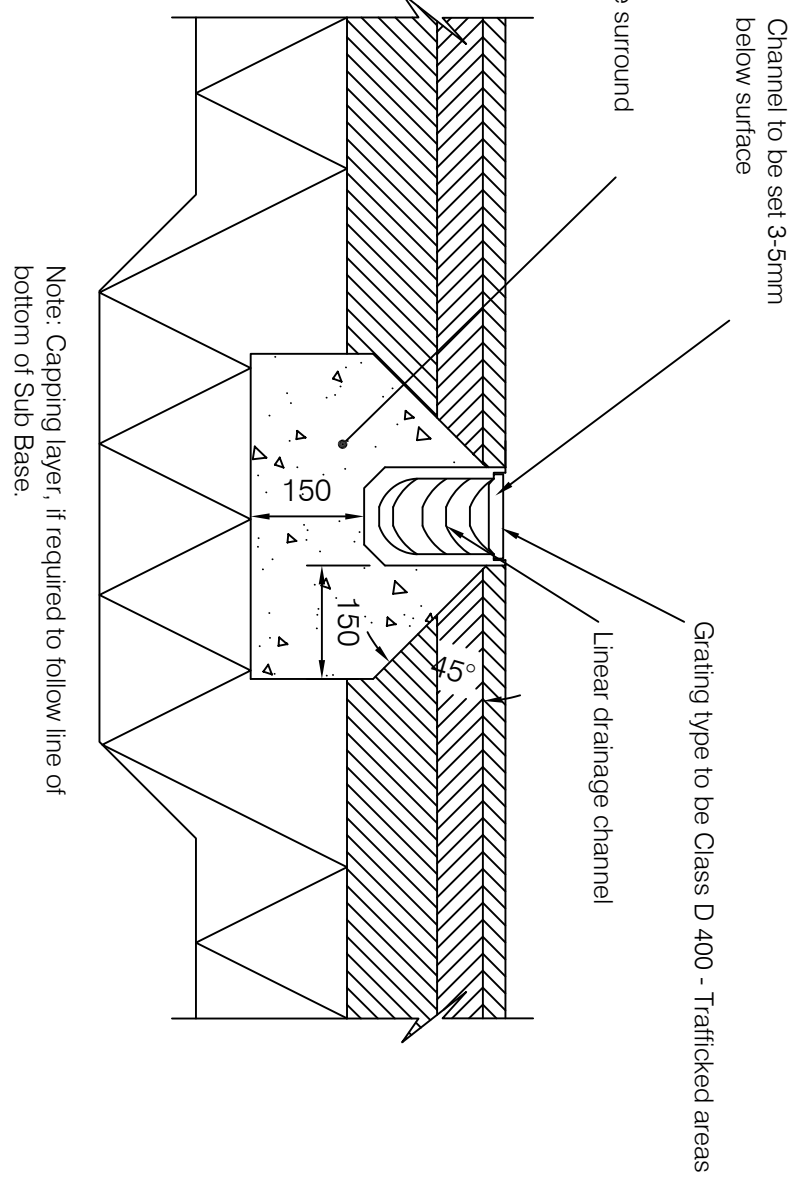
FOR APPROVAL

Client
ELLISTOWN LANE
STANTON UNDER BARDON

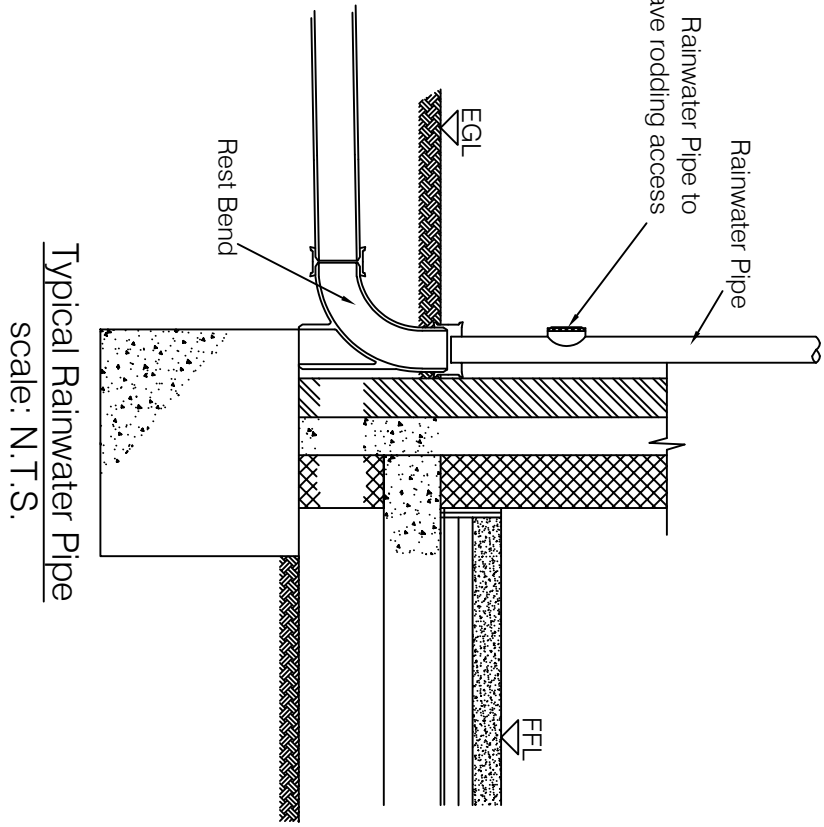
Project Title
M T BAINES & Sons

PRIVATE DRAINAGE DETAILS

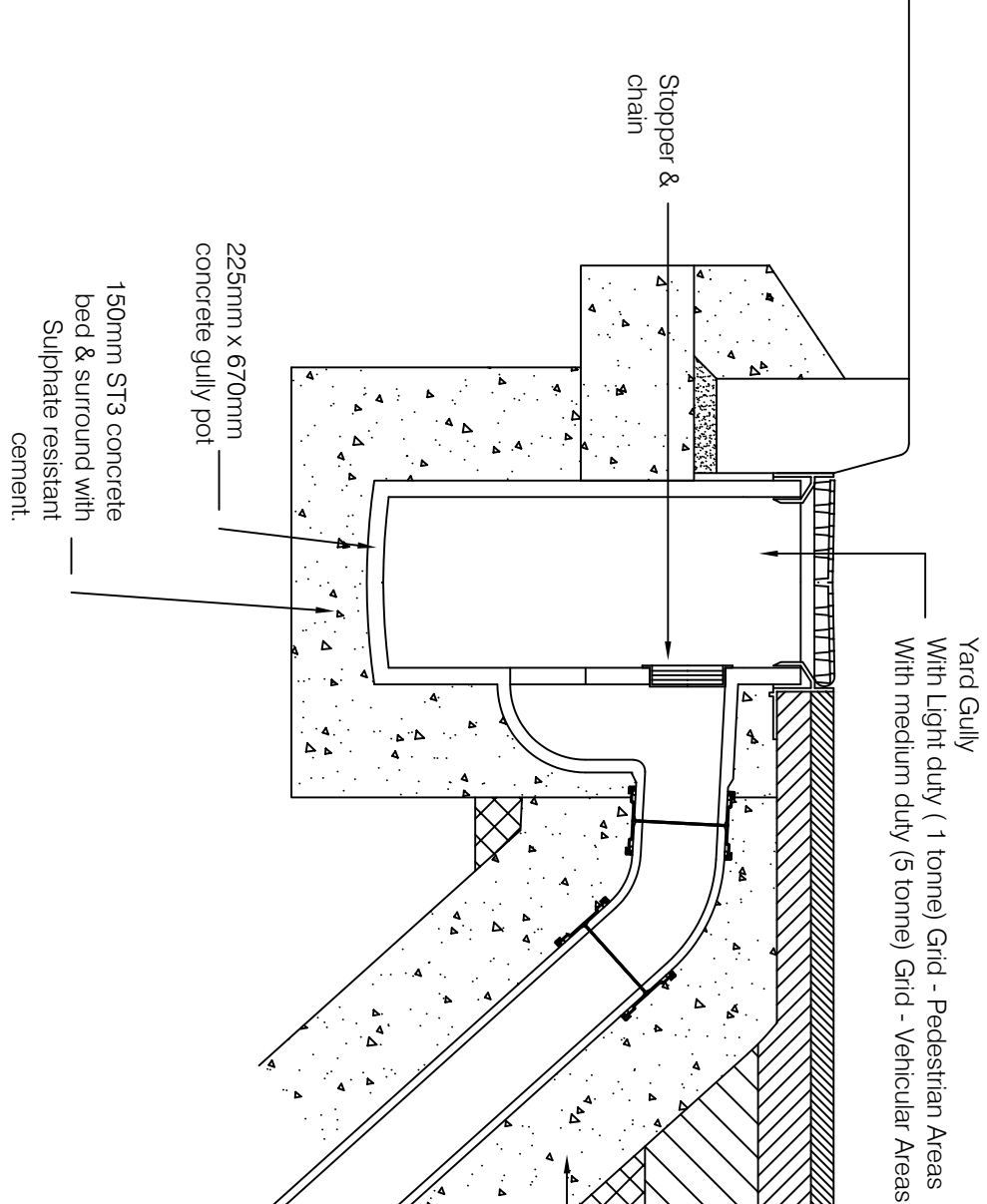
Drawn By:	MMC	Approved	MMC	Scale:	NIS
Drawing Number:	E19-32-032	Date:	MAR 22	Revision:	.



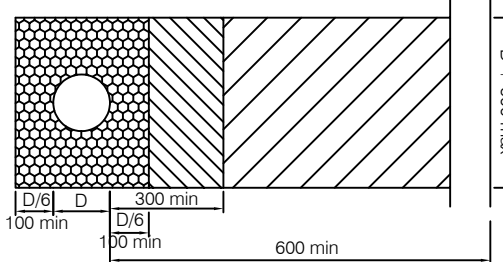
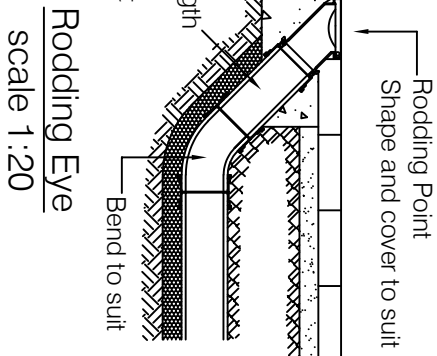
Linear Drain Detail



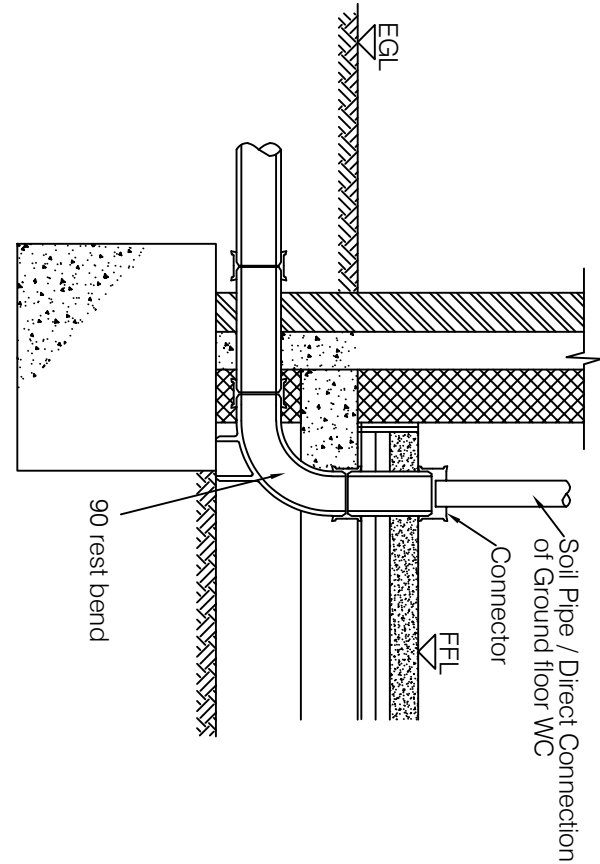
Outfall Pipes Laid Through Foundation Detail
scale 1:20



Yard Gully Detail



Soil and Vent Pipe/Direct Connection
scale: N.T.S.



Pipe Bedding
For pipes with greater than 600mm COVER

Table 1 Recommended minimum Cover	Best practice
Loading	Cover to avoid service clasps
Fields / gardens	0.6 m
Light traffic/parking areas	0.9 m
Heavy Traffic areas	1.2 m

Table 2 Granular bedding Material	Aggregate size [mm]	Single sized
Nominal pipe diameter [mm]	Graded	
100	14/5	10
Over 100 to 150	10, 14	10, 14, 20
Over 150 to 300	14/5, 20/5	14, 20
Over 300 to 550	14/5, 20/5, 40/5	14, 20, 40

Granular materials to include aggregates to BS 882 air-cooled blastfurnace slag to BS 1047 and light aggregates to BS 3707

- Material key:
- Imported Granular Material: See Table 2
 - General Excavated Material: The material shall consist of clean, hard, durable material uniformly graded from 200mm-20mm and be free from extraneous matter. If the excavated material is not suitable, imported granular material will have to be used.
 - Selected Excavated Material: Whether selected from locally excavated material or imported, shall consist of uniform readily compactable material, free from vegetable matter, building rubbish and frozen material, or materials susceptible to spontaneous combustion, and excluding clay of liquid limit greater than 60 and/or plastic limit greater than 55, and materials of excessively high moisture content. Clay lumps and stone retained on 75 mm and 37.5 mm sieves respectively shall be excluded.

- Notes:
- The fill material shall be placed and compacted over the full width of the trench in layers not exceeding 150 mm before the final bedding is placed.
 - The bedding shall be 225mm thick and 150mm wide of the pipe.
 - Construction traffic and loads due to construction processes.
 - The contractor shall provide any necessary temporary protection to ensure that pipelanes, manholes etc. are not damaged as a result of heavy construction traffic or to other loads due to construction processes.

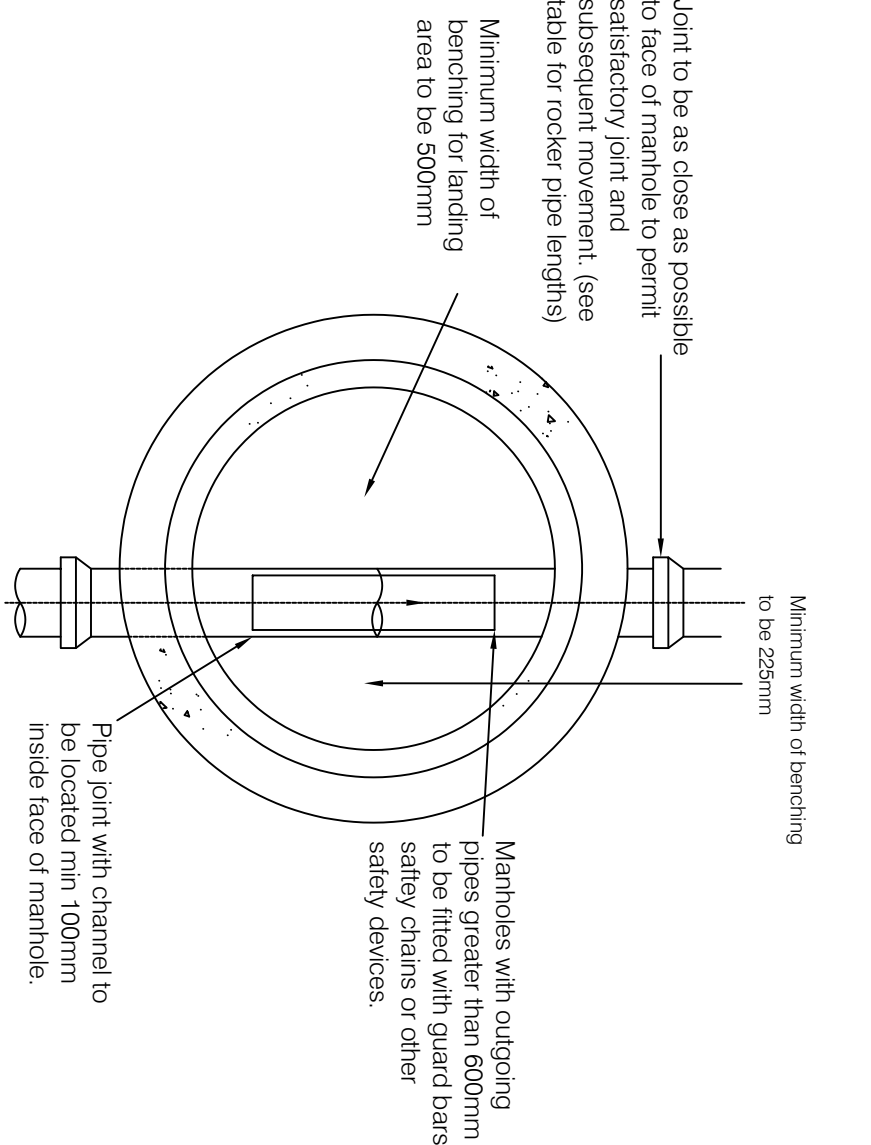
DIMENSIONS TABLE				
Type	Size of Largest Pipe (DN)	Circular Diameter	Min clear opening Rectangular Diameter	Circular Diameter
150	1050	750 x 675	na	na
225	1200	1200 x 675	na	na
<1.5m to soffit	>300	Larger of 1800 or (DN+450)	na	na
225	300	1200	600 x 600	600
>1.5m to soffit	375-450	1200	na	na
>450	1200	1200	na	na
Length of 1800 or (DN+775)	1200	1200	na	na

ROCKER PIPE LENGTHS		
NOMINAL DIAMETER (mm)	EFFECTIVE LENGTH (m)	
150-600	0.6	
675-750	1.0	
over 750	1.25	

- Notes:
- Larger sizes may be required for manholes on bends or where there are junctions
 - May be reduced to 600 by 600 where required by highway loadings considerations, subject to a safe system of working
 - Not applicable due to working space needed
 - The minimum size of any manhole serving a sewer (i.e any drain serving more than one property) should be 1200mm x 675mm rectangular or 1200mm diameter.

Non Adoptable Circular Precast concrete manhole, (PCC)
Depth from cover level to soffit of pipe Less than 3.0m

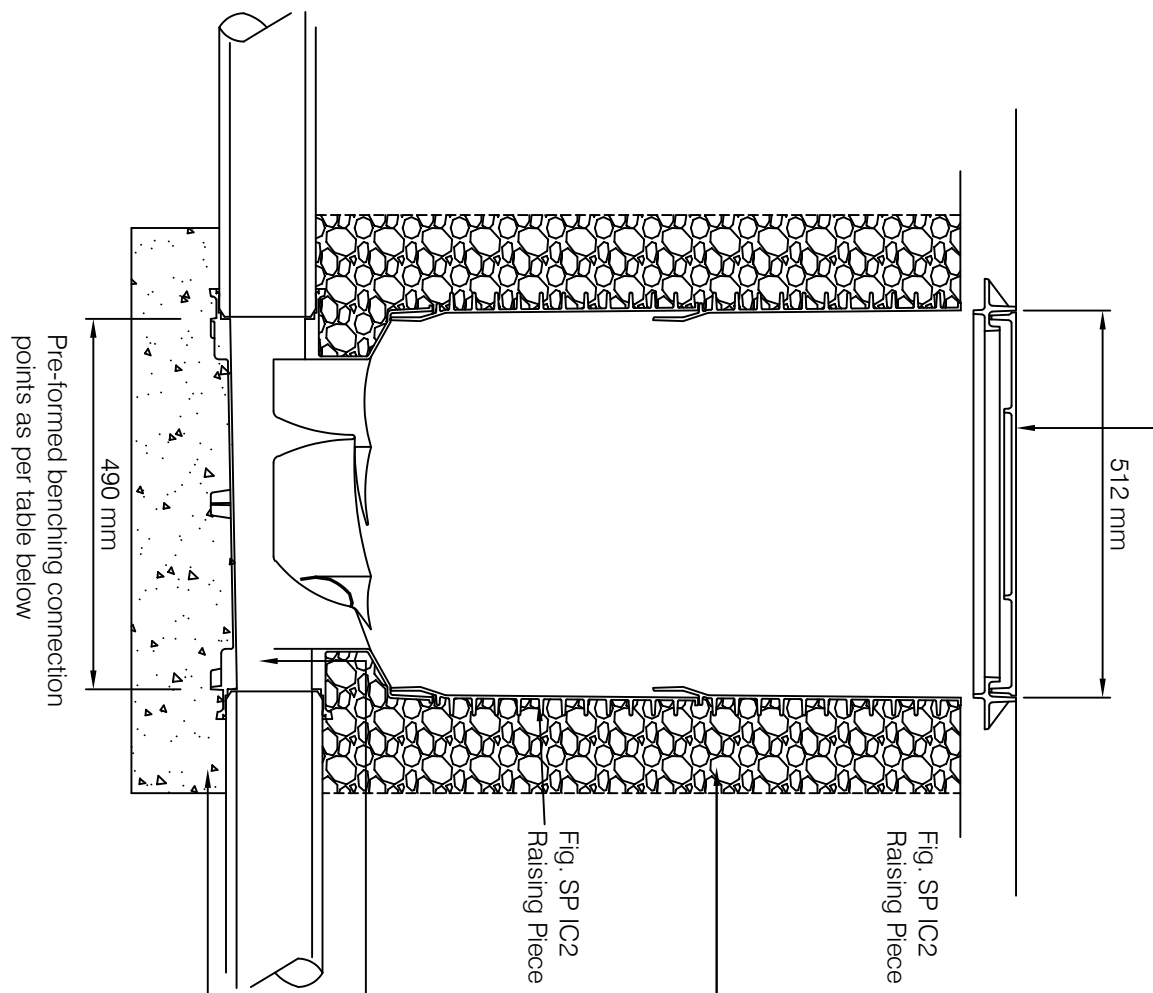
scale 1:25



Standard circular ductile iron cover and frame Fig IDC7 (IDC4, IDC6, IDC2 or IDC1 for specific locations)

This type of cover is not suitable where loads will exceed 1 tone (For loads exceeding 1 tone see detail below)

Note: All figures references are to Hepworth products - Refer to manufacturers literature.



Base unit type	Pipe size	No of connections
SP IC1/1	1000	6
SP IC1/2	1000	6
SP IC2/1	1500	4

225mm x 225mm ST3 concrete collar to receive cover & frame, where load exceeds 1 tone and frame suitably specified.

PCC
scale 1:10