

*** NOTE - in areas of fill, Settlement fittings to be utilised on all vertical drops/bends to allow for upto 150mm movement**

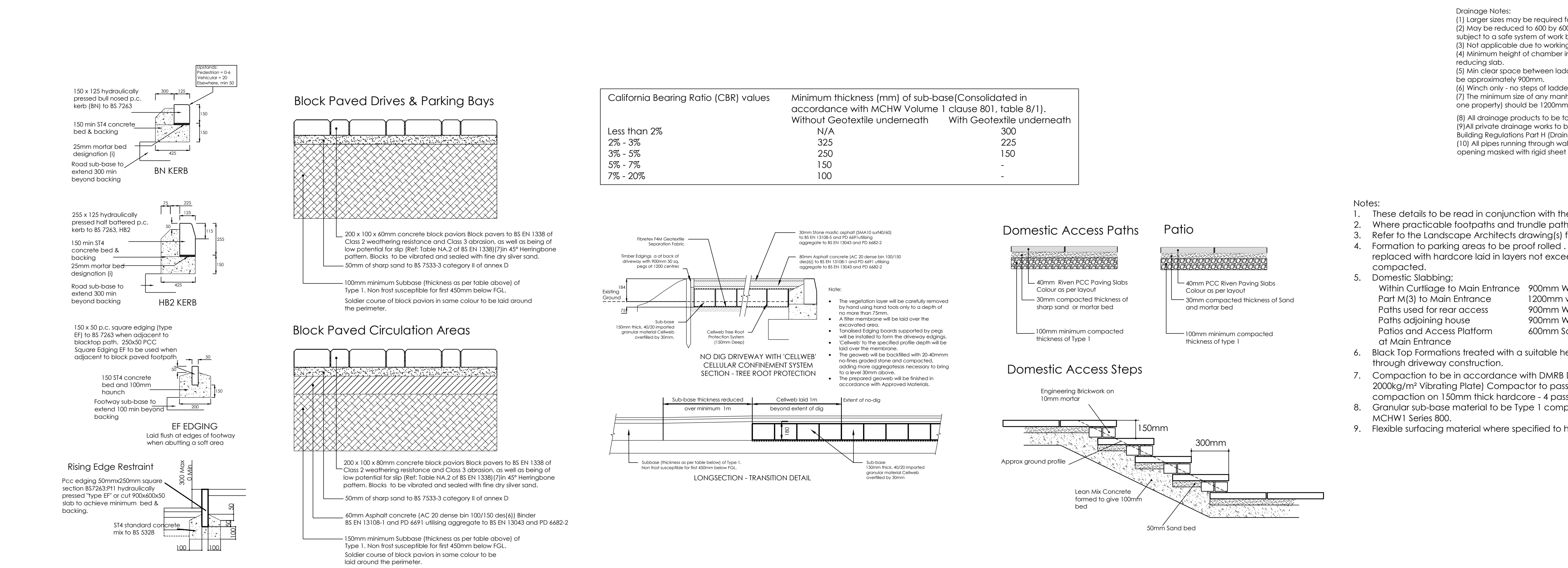
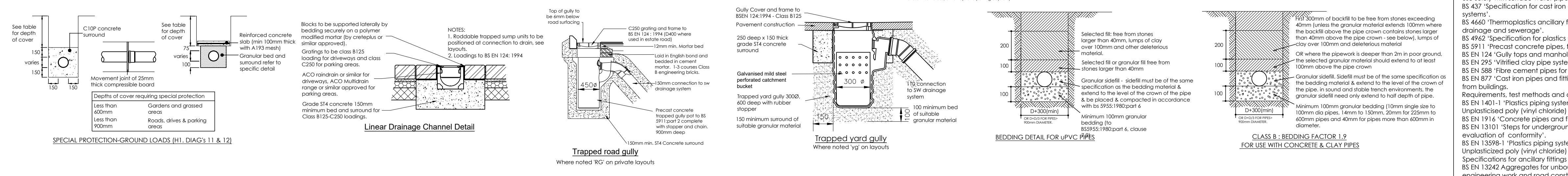
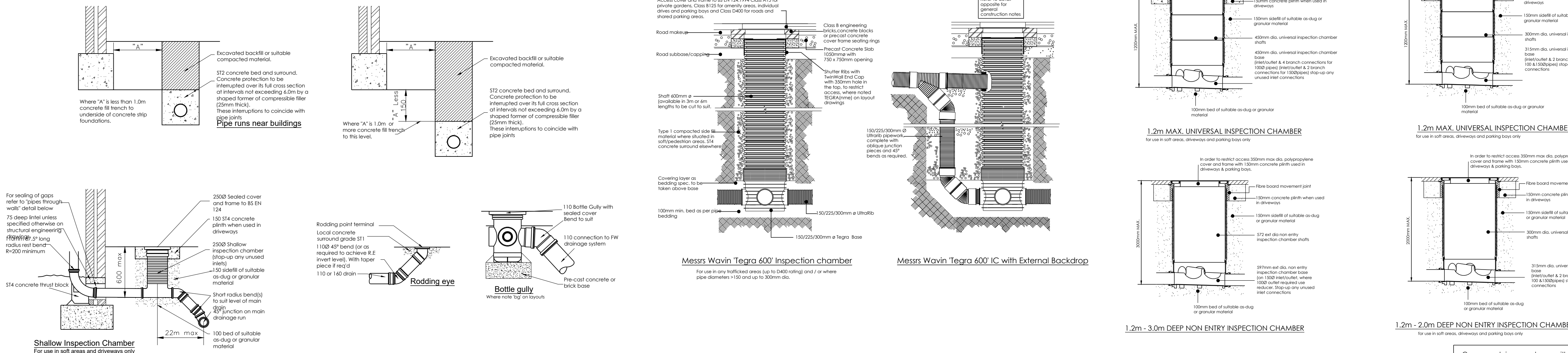


TABLE 11 MIN. DIMENSIONS FOR ACCESS FITTINGS AND INSPECTION CHAMBERS					
TYPE	DEPTH TO INVERT FROM COVER LEVEL (m)	INTERNAL SIZES		COVER SIZES	
		RECTANGULAR LENGTH AND WIDTH	CIRCULAR DIAMETER	RECTANGULAR LENGTH AND WIDTH	CIRCULAR DIAMETER
Rodding Eye		As drain but min 100			Same size as pipework (1)
Access Fittings small	150 dia 150x100	0.6 or less, except where situated in a chamber	150x100	150	150x100 (1)
large	225x100		225x100	225	225x100 (1)
Inspection Chamber Shallow	0.6 or less	225x100	190 (3)	190	190 (3)
Deep	1.2 or less	450x450	300 (3)	300	300 (3)
	>1.2	450x450	300 (3)	300	300 (3)

Notes:
(1) The clear opening may be reduced by 20mm in order to provide proper support for the cover and frame.
(2) Drains upto 150mm.
(3) A larger clear opening may be used in conjunction with a restricted access. The size is restricted for health and safety reasons to deter entry.
(4) 300mm diameter inspection chamber complying with BS EN 13598-1.
(5) 300mm diameter Adaptable Inspection chamber complying with BS EN 13598-2.

TABLE 12 MINIMUM DIMENSIONS FOR MANHOLES					
TYPE	SIZE OF LARGEST PIPE (DN)	MIN. INTERNAL DIMENSIONS (1)		MIN. CLEAR OPENING SIZE (1)	
		RECTANGULAR LENGTH AND WIDTH	CIRCULAR DIAMETER	RECTANGULAR LENGTH AND WIDTH	CIRCULAR DIAMETER
MANHOLE <1.5m deep to soffit	<= 150	750 x 675 (7)	1000 (7)	750 x 675 (2)	na (3)
	>150	1200 x 675	1200	1200 x 675 (2)	
	>225	1200 x 750	1200		
	>300	1800 x (DN+450)	The larger of 1800 or (DN+450)		
>1.5m deep to soffit	<= 225	1200 x 1000	1200	600 x 600	600
	>225	1200 x 1075	1200		
	>375-450	1350 x 1225	1200		
	>450	1800 x (DN+775)	The larger of 1800 or (DN+775)		
MANHOLE SHAFT (4)	Steps (5)	1050 x 800	1050	600 x 600	600
	Ladder (5)	1200 x 800	1200		
	Winch (6)	900 x 800	900	600 x 600	600

- All private drainage works to be constructed in accordance with the latest edition of the Building Regulations Part H (Drainage & Waste Disposal) and to BS EN 752 (Building Drainage).
- All pipes running through walls to have at least 50mm clearance all round and the opening masked with rigid sheet material.

Components in accordance with the following standards will generally be acceptable:
BS 65 'Specification for vitrified clay pipes, fittings and ducts, also flexible mechanical joints for use solely with surface water pipes and fittings'.
BS 477 'Specification for cast iron drain pipes, fittings and their joints for socketed and socketless systems'.
BS 4660 'Thermoplastic ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage'.
BS 4962 'Specification for plastics pipes and fittings for use as subsoil field drains'.
BS 5911 'Precast concrete pipes, fittings and ancillary products'.
BS EN 124 'Gully tops and manhole tops for vehicular and pedestrian areas'.
BS EN 295 'Vitrified clay pipe systems for drains and sewers'.
BS EN 588 'Fibre cement pipes for sewers and drains'.
BS EN 877 'Cast iron pipes and fittings, their joints and accessories for the evacuation of water from buildings. Requirements, test methods and quality assurance'.
BS EN 1401 'Plastics piping systems for non-pressure underground drainage and sewerage - Unplasticized poly (vinyl chloride) (PVC-U)'.
BS EN 1916 'Concrete pipes and fittings, unreinforced, steel fibre and reinforced'.
BS EN 13101 'Steps for underground man entry chambers. Requirements, marking, testing and evaluation of conformity'.
BS EN 13598-1 'Plastics piping systems for non-pressure underground drainage and sewerage. Unplasticized poly (vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE). Specifications for ancillary fittings including shallow inspection chambers'.
BS EN 13242 'Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction'.

- Drainage 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 loading considerations, subject to a safe system of work being specified.
 - Not applicable due to working space needed.
 - Minimum height of chamber in shafted manhole 2m from benching to underside of reducing slab.
 - Min clear space between ladder or steps and the opposite face of the shaft should be approximately 900mm.
 - Winch only - no steps of ladders, permanent or removable.
 - 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.
 - All drainage products to be to be approved by the Client
 - All private drainage works to be constructed in accordance with the latest edition of the Building Regulations Part H (Drainage & Waste Disposal) and to BS EN 752 (Building Drainage).
 - All pipes running through walls to have at least 50mm clearance all round and the opening masked with rigid sheet material.

A	Amended to Clients comments	02.12.25						
REV	DESCRIPTION	DATE						
STATUS:								
PRELIMINARY								
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SCALE:	NTS							
DATE:	OCT 25							
DRAWN:	IDL							
TITLE:								
Private External Works details								
PROJECT:								
London Road, St Ippolys								
DRG. No: 1331-06-05 Rev A								
FILE REF:								
1331-06-05								
33 The Point Rockingham Road Market Harborough Leicestershire LE16 7QU Tel: 01858 411570 Fax: 01858 411571 Email: info@infraades.co.uk URL: www.infraades.co.uk								
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 NABC The National Association of Building Contractors								
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