

## GENERAL NOTES:

**1.0 GROUND CONDITIONS:** The long term performance of a gully installation to sustain vertical and lateral wheel loads depends upon a) ground conditions b) stability of the adjacent pavement and c) a durable concrete bed and surround. NOTE that the stability of the gully/concrete surround to resist lateral loads from maneuvering vehicles should be checked. The dimensions shown on ACO channel installation sketches are those of the laboratory test block and customers should ensure that these minimum dimensions are suitable for the existing ground and service loading conditions. Engineering advice may be necessary.

**2.0 BLOCK PAVEMENTS: THE GULLY MUST BE SUPPORTED LATERALLY** if carrying vehicular traffic and therefore blocks laid directly against a gully must be restrained from movement by bedding securely on the concrete haunch e.g. by using an Epoxy or a Polymer Modified Mortar for bed and perpendicular joints (for example RONAFIX Mortar Mix C from Ronacrete : Tel 01279 638700) or similar. Engineering advice may be required. Blocks or slabs bedded on sand remote from the channel should be set at a higher level to compensate for any possible settlement of the paving in service.

**3.0 SURFACE CRACKS:** Alternate crack control and movement joints transversely within an exposed concrete bed and haunch may reduce unsightly surface cracking. As the design and layout of such joints is a function of the concrete mix design, the concrete curing regime and the contractor's programme (daywork joints for example) then engineering/contractor advice may be required.

**4.0 JOINT SEALANT:** Where ACO channel joints/fittings and channel/concrete/pavement interfaces are to be sealed (where used in foul water or chemical applications for instance) contact a sealant specialist for guidance on the appropriate compound. It should be noted that the preparation of ACO resin concrete channels to receive a sealant does not vary from that required of cement concrete. Guidance on the necessary surface preparation and/or priming should be sought from the sealant manufacturer.

**5.0 SURFACE PROTECTION:** With asphalt pavements avoid contact between compaction equipment and gully/grating. This may be achieved by ensuring that the finished surface level lies above the grating level (by at least 3mm). Stones should be removed from grating prior to laying/rolling wearing course. Covering or protecting the grating, before concreting the haunch or laying asphalt, removes the time, and cost, of cleaning the channel and grating of cement/asphalt material and embedded stones.

**6.0 MOVEMENT JOINTS:** The gully must be isolated from lateral loads resulting from thermal movement of concrete slabs. A joint may be positioned up to 1.0/1.5m from the gully (UK external installations). In internal applications where temperatures are controlled, possibly within a low range of extremes, joints may not be required. Engineering advice may be necessary. If joints are doweled then it is imperative that the dowels are aligned correctly in relation to the joint in both vertical and horizontal planes; that they are effectively debonded (with a proprietary sleeve and capping). Cutting of the joint material (to allow dowel fixing for example) must be made good to prevent the passage of concrete through a joint.

**7.0 TEMPORARY INSTALLATION :** A gully installation is not complete until the final surfacing is laid. In any temporary condition, i.e. with the gully walls projecting above an asphalt base course or concrete sub-base, site traffic **SHOULD NOT CROSS THE GULLY. LOOSE BOARDS, STONE FILL OR COVER PLATES WILL NOT PROTECT THE GULLY WALLS OR GRATING.** A temporary crossing should be formed by raising the asphalt base course locally, to 3 - 5mm above grating level, either side of a gully for a distance of 750 to 1000mm, to form ramps. Concrete ramps should be formed in other pavements. NOTE that the gully LOAD CLASS should be adequate to carry the site traffic.

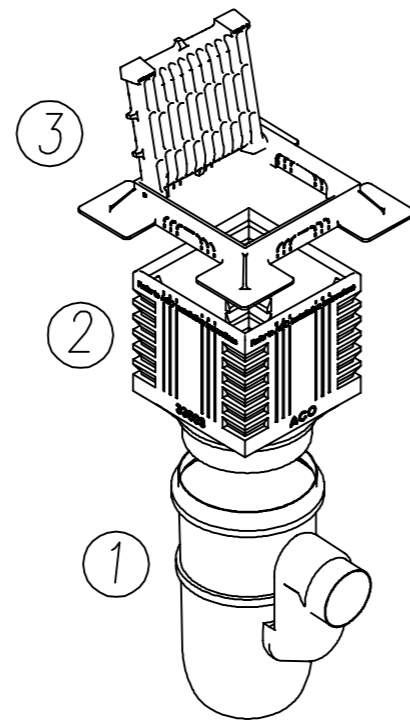
## INSTALLATION NOTES:

(A): Excavate a 150mm-300mm bed and surround dependent on load class, blind where necessary. Form concrete\* bed for base unit ① and set on mortar (or similar) levelling bed. Make pipe connections (PVCu or Supersleve) as appropriate.

(B): Concrete\* surround base unit ① and pipes if required. Position gully intermediate unit ② to level.

(C): Concrete\* bed for channels allowing levelling mortar bed if required. Extend concrete bed around unit ② (see fig 1). Install channels (see separate channel installation recommendations) with taped external joints at junction of unit ② and end of channels.

(D): Complete concrete\* surround to unit ② allowing for frame levelling bed. Cut out knockouts on gully frame ③ and cut profile of the channel from inside of unit ②. Install gully and haunch concrete\* to the sides of channels as recommended in separate channel installation recommendations.



## DESCRIPTIONS:

- 1 - Gully Base Unit. Polyethylene supplied by ACO or base by others
- 2 - Gully Intermediate Unit. Polyethylene
- 3 - Gully Top. Comprising of Frame and Grating.
- \* - Concrete Bed & Haunch Minimum Strength Class C20/25

**8.0 FURTHER ADVICE :** Refer to ACO Technical and Installation Manuals for further information and advice concerning a) Handling b) Health and Safety c) Maintenance and d) Detailed installation guidance etc., etc. Advice, on any aspect of ACO channel systems, may also be obtained from ACO Water Management Design Services Team.

**9.0 BEST PRACTICE AND WORKMANSHIP :** ACO can give guidance with respect to the most suitable methods of installation for each of the products in the ACO range. ACO Universal Gully should be installed using acceptable levels of workmanship and according to the National Code of Practice (UK: BS8000: Part 14: 1989) in keeping with BS EN 1433: 2002 (Drainage channels for vehicular and pedestrian areas). Detailed installation statements and methodologies will vary for all sites as each will have different aspects deserving particular consideration, consequently the relevant approvals should be sought from the consulting engineer and/or the installer.

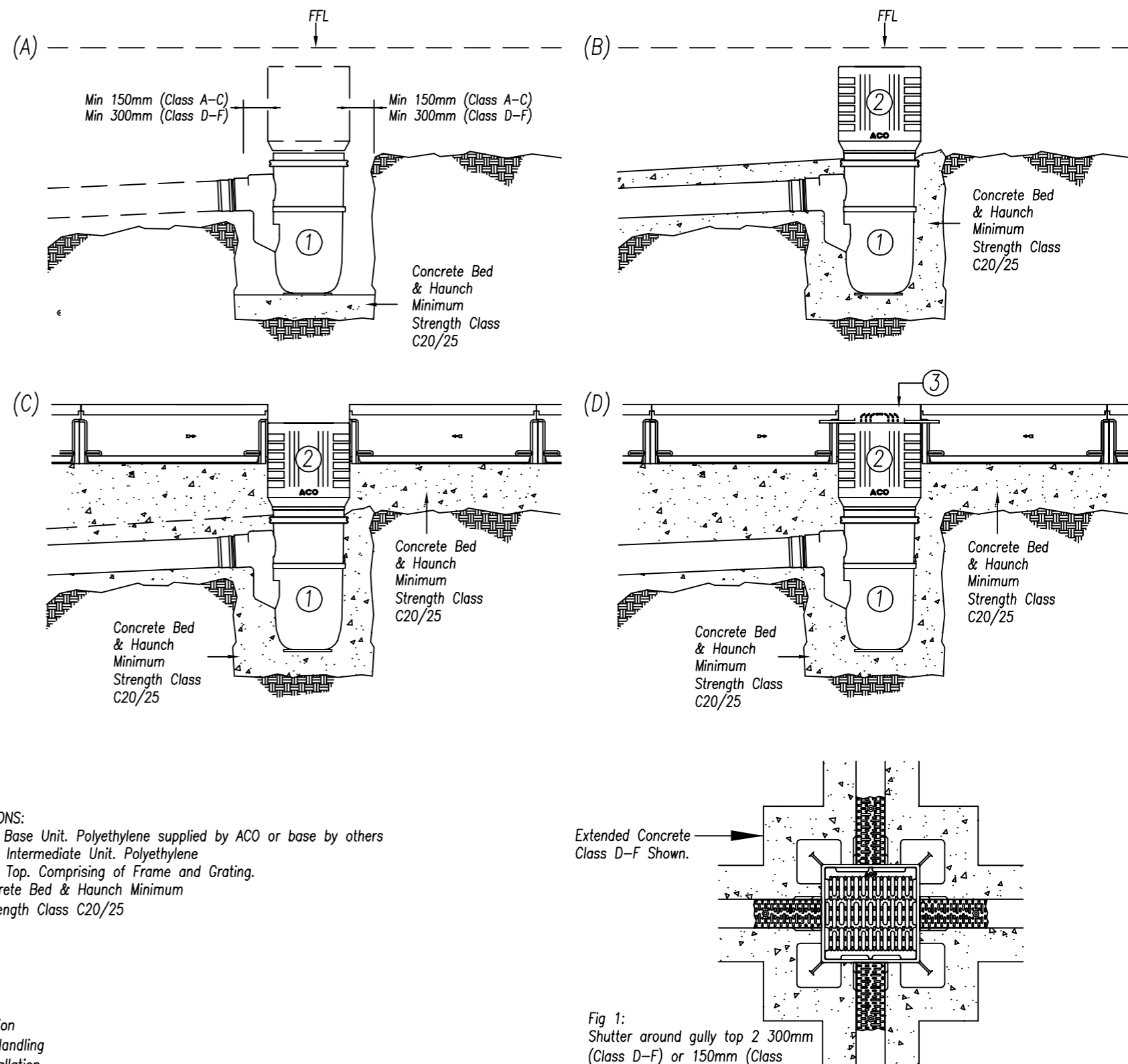


Fig 1:  
Shutter around gully top 2 300mm (Class D-F) or 150mm (Class A-C). Concrete\* the supporting surround for the gully frame 3

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Scale:		Projection: ISO-E		
		N/A @ A3		
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Updated		KS	RK	
Title:	<b>ACO UNIVERSAL GULLY INSTALLATION DETAIL</b>			



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