

Q10 KERBS/EDGINGS/CHANNELS/PAVING ACCESSORIES

To be read with Preliminaries/General conditions and sections AA31 and AA90.

TYPES OF KERBS/EDGINGS/CHANNELS

- 120 STONE CHANNELS, EDGINGS, KERBS
- REV C4** - Drawing reference: **Architect's 17000 series drawings.**
~~Landscape Consultants drawings ____/____.~~
- Standard: To BS EN 1343.
 - Supplier: Contractor's choice.
 - Types: To match existing granite edging and kerbs.
 - Tolerances on batter: N/A.
 - Stone type: Granite.
- REV C6** - Size (width x height): **Varies: Wide, to match existing as Architect's 17000 series Landscape**
drawings.
- Tolerances on overall width and height (nominal): Class 2.
 - Freeze/ Thaw resistance: No requirement.
 - Special shapes:
 - External radius kerbs.
 - Internal radius kerbs.
 - Transition kerbs.
 - Finish: Flamed or coarse textured.
 - Arrises: None.
 - Bedding: As drawings.
 - Joints generally: Narrow mortar to match existing.
 - Sealant movement joints: At 6m (maximum) centres.
 - Accessories: None.
- REV C6** 121 NEW, EXISTING, AND RECLAIMED STONE/ **GRANITE KERBS** FOR ALL EXTERNAL AREAS:
Note: All existing granite edging and kerbs to be re-used where possible. new additions to match
existing. samples to be provided for approval in all instances channels, edges, kerbs
- REV C6** - Drawing reference: **597-17010 & Architect's 17000 series drawings.**
REV C4 ~~Landscape Consultants drawings ____/____.~~
- Standard: To BS EN 1343.
 - Supplier: Contractor's choice.
 - Types: To match existing granite edging and kerbs.
 - Tolerances on batter: N/A.
 - Stone type: Granite.
- REV C6** - Size (width x height): **Varies: Flush/ raised to match existing as Architect's 17000 series**
Landscape drawings.
- Tolerances on overall width and height (nominal): Class 2.
 - Freeze/ Thaw resistance: No requirement.
 - Special shapes:
 - External radius kerbs.
 - Internal radius kerbs.
 - Transition kerbs.
 - Finish: Flamed or coarse textured.
 - Arrises: To match existing.
 - Bedding: Cement mortar.
 - Joints generally: Narrow mortar or to match existing.
 - Sealant movement joints: Not required.
 - Accessories: Some kerbs/edging to be laid in conjunction with metal edging (as Q10/123).

- REV C4** 123 METAL EDGING:
- Drawing reference: Architect's 17000 series drawings for areas and extent and method of fixing. ~~Landscape Consultants drawings~~ —/—
 - Supplier and reference: Kinley Systems Ltd (01580 830688)
<http://kinleysystems.com>
AluExcel - Aluminium Edge Restraint
 - Types: *AE 150 FM* and *150 RM* to work with granite edging kerbs in lawn areas.
AE 100 for all other areas road jointing and above below-ground Library Extension slab.
- REV C6** ***AE 75 (flush transition) to work with Yorkstone and bonded chippings.***
- Finish and colour: Polyester powder coated - RAL colour to be confirmed.
- REV C5** 175 DRAINAGE CHANNEL SYSTEM WITH LINEAR SLOT GRATING TO PAVED AREAS - **EAST TERRACE**
- Drawing & Schedule reference: 597-17011, 17012, ~~44005~~ 17100, 17101 & 51115.
 - **Slot drain references (East Terrace): ET-SD-01 (a, b & c), ET-SD-02 (a & b), ET-SD-03, ET-SD-04, ET-SD-05, ET-SD-07 & ET-SD-08.**
 - Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
AS 1010 Brickslot Channel
 - Size: ~~400 mm wide channel x 150mm minimum depth with 105 mm grating depth to suit stone paving (TBC).~~ **Refer to drainage channel schedule 597-51115.**
 - **Width of slot/ channel throat: 10 mm (heel-safe aperture).**
 - **Slot/ channel throat position: Offset to drainage channel as Architect's details.**
 - Finish/colour: Stainless steel (**grade 304**).
 - Type of fall: Integral continuous fall **or channel set to falls as noted on drainage channel schedule 597-51115.**
 - Joints: As manufacturer's recommendations.
 - Bedding: Concrete haunching/foundation to suit as Q10/530.
 - Loading grade: ~~C250~~ **B125** to BS EN 124.
 - Accessories:
 1. Inline or junction outfall units to suit drain connections, as Drainage Engineer's drawings.
 2. End caps to suit.
 3. ~~Brickslot Access Unit (500 mm) - Stainless Steel to suit paving finish.~~
 4. **Linear Slot Drain Access Panel/ Cover:**
 - **Manufacturer: ACO (as drainage channel)**
 - **Access Panel Chamber:**
 - **Size: Varies - 300 x 300mm typically. Refer to slot drain access panel schedule 51116 for individual sizes.**
 - **Depth: To suit available terrace build-up – refer to slot drain schedule 597-51115 and slot drain access panel schedule 51116.**
 - **Finish/colour: Stainless steel (grade 304).**
 - **Bedding: Hit-&Miss concrete pads to suit as Q10/530.**
 - **Access Panel Cover:**
 - **Size: Varies - 300 x 300mm typically. Refer to slot drain access panel schedule 51116 for individual sizes.**
 - **Paving Infill: Paving Infill: To be as adjacent paving surface, refer to 51116 and paving layouts 597-17011 & 17012. Note, depth of reclaimed stone infills to be confirmed by site measurements. Note, paving infill is NOT slotted.**
 - **Finish/colour: Stainless steel (grade 304).**
 - **Other Reqs.:**
 - **Finish Infill Tray (S/S) to form flush junction with adjacent paving.**
 - **Drainage connections: As slot drain schedule 597-51115 and slot drain access panel schedule 51116.**
 - **Loading grade: B125 to BS EN 124.**
 - Other requirements:
 - *Brickslot* grating to be located at change of paving materials as drawings.

- Channel throat to be located on paving joint line as per Architect's plans.

REV C1 176 ACO CHANNEL DRAIN WITH GRATING TO WEST WALL OF SUBSTATION

- Drawing reference: 597-15001, 15002, 41003.
- Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
MultiDrain – M100D S
- Size: 135 mm wide channel x 150mm depth with 21 mm grating depth.
- Gratings: Slotted galvanised steel (Product Codes 132885DL / 132886DL 12614/12615, lengths to suit overall run as per Architects details.
- Type of fall: Pre sloped invert.
- Accessories:
 1. Endcap, closing piece
 2. Endcap, inlet/ outlet
 3. Sump Unit (Product Code 24410)
- Joints: As manufacturer's recommendations.
- Bedding: Concrete haunching/foundation to suit as Q10/530.
- Loading grade: C250 to BS EN 1433.

REV C4 177 DRAINAGE CHANNEL SYSTEM WITH LINEAR SLOT TO SOUTHERN TERRACE

- Location: Southern Terrace
- Drawing references: 597-17060, 17061, 17360, 17361, and details 41005, 41023 & 41025
- Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
AS 1010 Brickslot Channel
- Size: 120 mm wide x 100mm deep (Min.) channel. Note: Depth of channel increases in line with fall to channel as Architect's details.
 - Width of slot/ channel throat: 10 mm (heel-safe aperture).
 - Slot/ channel throat position: Central to drainage channel as Architect's details.
- Finish/colour: Stainless steel (grade 304).
- Type of fall: Integral continuous fall @ 1:250 gradient.
- Accessories:
 1. Inline or junction outfall units to suit drain connections, as Drainage Engineer's drawings.
 2. End caps to suit.
 3. Linear Slot Drain Access Panel:
 - Manufacturer: ACO (as drainage channel)
 - Access Panel Chamber:
 - Size: 300 x 300mm. Depth to suit available terrace build-up – refer to Architect's details.
 - Finish/colour: Stainless steel (grade 304).
 - Bedding: Hit-&-Miss concrete pads to suit as Q10/530.
 - Access Panel Cover:
 - Size: To suit chamber below.
 - Infill: Infill to be existing yorkstone as Q25/310C. Depth of stone to be confirmed on site
 - Finish/colour: Stainless steel (grade 304).
 - Other Reqs.: Finish Infill Tray (S/S) to form flush junction with adjacent paving.
 - Drainage connections: Brickslot Channel to feed into access panel, drainage connection out of access panel to Drainage Engineer's design & specification.
 - Loading grade: B125 to BS EN 124.
- Other requirements:
 - Channel throat to be located on paving joint line as per Architect's plans.

REV C4 178 SINGLE PLY MEMBRANE DRAINAGE GULLY ACCESS CHAMBER TO SOUTHERN TERRACE

- **Manufacturer: ACO Technologies Plc**
(1462 66)
www.aco.co.uk
- **Size: 300 x 300mm, depth to suit available terrace build-up – refer to Architect's details.**
- **Finish/colour: Stainless steel (grade 304).**
- **Bedding: Hit-&Miss concrete pads to suit as Q10/530.**
- **Cover: Finish Infill Tray (S/S) to form flush junction with adjacent paving. Infill to be existing yorkstone as Q25/310C. Depth of stone to be confirmed on site.**
- **Base: Aperture in base to be formed to allow inspection of gully in Single Ply Membrane below as per Architect's details.**
- **Drainage connections: Brickslot Channel to feed into access panel, drainage connection out of access panel to Drainage Engineer's design & specification.**
- **Loading grade: B125 to BS EN 124.**

REV C5 179 DRAINAGE CHANNEL ACCESS CHAMBERS TO EAST TERRACE

- **Manufacturer: ACO Technologies Plc**
(1463 66)
www.aco.co.uk
- **Size: Varies - 300 x 300mm typically. Refer to slot drain access panel schedule 51116 for individual sizes.**
- **Depth: To suit available terrace build-up – refer to access panel schedule 597-51116.**
- **Finish/colour: Stainless steel (grade 304).**
- **Bedding: Hit-&Miss concrete pads to suit as Q10/530.**
- **Access Panel Cover:**
 - **Size: Varies - 300 x 300mm typically. Refer to slot drain access panel schedule 51116 for individual sizes.**
 - **Finish Infill Tray: Stainless steel (grade 304). Tray to form flush junction with adjacent paving.**
 - **Paving Infill: To be as adjacent paving surface, refer to 51116 and paving layouts 597-17011 & 17012. Note, depth of reclaimed stone infills to be confirmed by site measurements. Note, paving to be slotted to provide overflow function and visual indication of a blockage within the chamber.**
- **Drainage connections: As access panel schedule 15116.**
- **Loading grade: B125 to BS EN 124.**
- **Other requirements:**
 - **Setting out of access panels to be either centered on a given paving stone, or centrally aligned to one of the edges of a given paving stone unless noted otherwise. Refer to 597-17011 & 17012.**

REV C5 180 GREAT HALL DOWNPIPE ACCESS CHAMBERS TO EAST TERRACE

- **Manufacturer: ACO Technologies Plc**
(1464 66)
www.aco.co.uk
- **Size: 400 x 200mm, refer to slot drain access panel schedule.**
- **Depth: To suit available terrace build-up – refer to access panel schedule 597-51116.**
- **Finish/colour: Stainless steel (grade 304).**
- **Bedding: Hit-&Miss concrete pads to suit as Q10/530.**
- **Access Panel Covers:**
 - **Size: 200 x 200mm, refer to slot drain access panel schedule 51116.**
 - **Finish Infill Tray: Stainless steel (grade 304). Tray to form flush junction with adjacent paving.**
 - **Paving Infill: To be as adjacent paving surface, refer to 51116 and paving layouts 597-17011 & 17012. Note, depth of reclaimed stone infills to be confirmed by site measurements.**
- **NOTE: Two infill panels are required per chamber,**

- One with a solid paving infill with a single hole to accept the Great Hall downpipe (to be measured on site)
- One with a slotted paving infill to provide overflow function and visual indication of a blockage within the chamber.
- Drainage connections: As access panel schedule 15116.
- Loading grade: B125 to BS EN 124.
- Other requirements:
 - Setting out of access panels to suit position of existing downpipes, refer to Architect's details and 597-17011 & 17012.

REV C6 185 DRAINAGE CHANNEL SYSTEM WITH LINEAR SLOT TO LIBRARY THRESHOLDS

- Location: Library Extension
- Drawing references: 597-17250, 597-17013 and details 597-41206, 597-41231, 597-41261, and Schedules: 597-51115, 597-51116
- Slot Drain References: LE-SD-02-A, LE-SD-06A
- Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
MultiDrain M100DS Brickslot Channel
- Size: 135mm wide x 200mm deep overall
 - Width of slot/ channel throat: 10mm (heel-safe aperture)
- Grating: Stainless steel Brickslot grating in lengths to suit drawings.
- Loading grade: C250 to BS EN 1433
- Joints: as manufacturer's recommendations.
- Bedding: Concrete haunching / foundation to suit as Q10/530. Refer to details and manufacturers recommendations.
- Other Requirements:
 - Stainless steel edge rails
 - Integral sloping invert fall, see drawings / schedule.
 - Stainless steel brickslot access cover: 500(l)x123(w)x105(d) on 0.5m constant depth M100DS unit, with closing end cap to enable pipe connection into access chamber / drainage run, see drawings.
 - Finish infill tray with Yorkstone as Q25/310A, finished flush with adjacent paving.
 - Channel throat to be located on paving joint line as per Architect's plans

REV C6 186 DRAINAGE CHANNEL SYSTEM WITH LINEAR SLOT TO LIBRARY LANDSCAPE

- Location: Library Extension
- Drawing references: 597-17250, 597-17013, 597-17014 and details and Schedules: 597-51115, 597-51116
- Slot Drain References: LE-SD-09-A, LE-SD-09B
- Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
MultiDrain M100DS Brickslot Channel
- Size: 135mm wide x 200mm deep overall
 - Width of slot/ channel throat: 10mm (heel-safe aperture)
- Grating: Stainless steel Brickslot grating in lengths to suit drawings.
- Loading grade: D400 to BS EN 1433
- Joints: as manufacturer's recommendations.
- Bedding: Concrete haunching / foundation to suit as Q10/530. Refer to details and manufacturers recommendations.
 - i. Slot drain to be bed against granite edge. Refer to Landscape details.
- Other Requirements:
 - Stainless steel edge rails
 - Integral sloping invert fall & constant depth, see drawings / schedule.

- Stainless steel brickslot access cover: 500(l)x123(w)x105(d) on 0.5m constant depth M100DS unit, with closing end cap to enable pipe connection into access chamber / drainage run, see drawings.
 - Finish infill tray with Bonded Chippings as Q23/181, finished flush with adjacent landscaping.
- Channel throat to be located on granite joint line as per Architect's plans

REV C6 188 DRAINAGE CHANNEL ACCESS CHAMBERS TO LIBRARY EXTENSION

- Location: Library Extension
- Drawing references: 597-17250, and Schedules: 597-51116 and 597-51115
- Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
- Size: Varies - 300 x 300mm typically. Refer to slot drain access panel schedule 51116 for individual sizes.
- Depth: To suit available terrace build-up – refer to access panel schedule 597-51116.
- Finish/colour: Stainless steel (grade 304).
- Bedding: Encased in concrete, refer to drawings.
- Access Panel Cover:
 - Size: Varies - 300 x 300mm typically. Refer to slot drain access panel schedule 51116 for individual sizes.
- Finish Infill Tray: Stainless steel (grade 304). Tray to form flush junction with adjacent paving.
- Paving Infill: To be as adjacent paving surface, refer to 51116 and paving layouts 597-17013 & 17014. Note, paving to be slotted to provide overflow function and visual indication of a blockage within the chamber.
- Drainage connections: As access panel schedule 15116.
- Loading grade: B125 to BS EN 124.
- Other requirements:
Refer to 17250 for setting out of access panels.

REV C6 189 EXISTING LIBRARY DOWNPIPE ACCESS CHAMBERS TO LIBRARY EXTENSION

- Location: Library Extension
- Drawing references: 597-17250, and details 597-40222, 597-41258, 597-41251, 597-41252, and Schedules: 597-51115, and 597-51116
- Manufacturer and reference: ACO Technologies Plc (01462 816666)
www.aco.co.uk
- Size: Varies – 510x375mm & 575x165mm. Refer to slot drain access panel schedule 51116 for individual sizes.
- Depth: To suit available lightwell build-up – refer to access panel schedule 597-51116, and details.
- Chamber to be fixed to lightwell infill roof structure, as H71/255
- Finish/colour: Stainless steel (grade 304).
- Access Panel Covers:
 - Size: 365x155, refer to slot drain access panel schedule 51116.
 - Infill Tray: Stainless steel (grade 304).

NOTE: Two infill panels are required per chamber;

- One with a solid lead infill as H71/255 with one or two holes to accept the existing Library lead downpipe(s) (to be measured on site)
- One with a slotted stainless steel; infill to provide overflow function and visual indication of a blockage within the chamber.
- Drainage connections: As access panel schedule 15116.
- Loading grade: B125 to BS EN 124.
- Other requirements:
 - Setting out of access panels to suit position of existing downpipes, refer to Architect's details and 597-17013 & 17014

250 MATERIAL SAMPLES

- Samples representative of colour and appearance of designated materials: Submit before placing orders.
- Designated materials: all products to be used.

ROADS/PAVING ACCESSORIES/MARKING/DEMARCATIION

415 DEMARCATIION UNITS TO DISABLED PARKING BAYS IN NEW SQUARE AND GARDEN FRONT

- Manufacturer: Contractor's choice.
- Product reference: Demarcation studs to match existing.
- Material/ Standard: Steel.
- Recycled content: Contractor's choice.
- Shape: Circular.
- Size (width x height x length): To match existing.
- Finish: to match existing.
- Colour: to match existing.
- Bedding: fixed in ground using resin -to manufacturers recommendations.
- Joints generally: N/A.
- Sealant movement joints: N/A.

LAYING

510 LAYING KERBS, EDGINGS AND CHANNELS

- Cutting: Neat, accurate and without spalling. Form neat junctions.
 - Long units (450 mm and over) minimum length after cutting: 300 mm.
 - Short units minimum length after cutting: The lower of one third of their original length or 50 mm.
- Bedding of units: Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
- Securing of units: After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

520 ADVERSE WEATHER

- Conditions: Do not construct if the temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.

530 CONCRETE FOR FOUNDATIONS, RACES AND HAUNCHING

- Standard: To BS 8500-2.
- Designated mix: Not less than GEN0 or Standard mix ST1.
- Workability: Very low.

540 CEMENT MORTAR BEDDING

- General: To section Z21.
- Mix (Portland cement:sand): 1:3.
 - Portland cement: Class CEM I 42.5 to BS EN 197-1.
 - Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
- Bed thickness: 12-40 mm.

570 CHANNELS

- Installation: To an even gradient, without ponding or backfall.
- Lowest points of channels: 6 mm above drainage outlets.

580 DRAINAGE CHANNEL SYSTEMS

- Installation: To an even gradient, without ponding or backfall. Commence laying from outlets.
 - Silt and debris: Removed from entire system immediately before handover.
 - Washing and detritus: Safely disposed without discharging into sewers or watercourses.
- 590 DRAINAGE CHANNEL SYSTEMS WITH BUILT IN FALL
- Installation: Top of channels level, installed in correct sequence to form an even gradient without ponding or backfall. Commence laying from outlets.
 - Silt and debris: Removed from entire system immediately before handover.
 - Washings and detritus: Safely disposed without discharging into sewers or watercourses.
- 600 RADIUS KERBS/ CHANNELS
- Usage: Radii of 15 m or less.
- 610 ANGLE KERBS
- Usage: Internal and external 90° changes of direction.
 - Cutting of mitres: Not permitted.
- 620 ACCURACY
- Deviations (maximum):
 - Level: ± 6 mm.
 - Horizontal and vertical alignment: 3 mm in 3 m.
- 625 REGULARITY OF PAVED SURFACES
- Maximum undulation of (non-tactile) paving surface: 3 mm.
 - Method of measurement: Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
 - Difference in level between adjacent units (maximum):
 - Joints flush with the surface: Twice the joint width (with 5 mm max difference in level).
 - Recessed, filled joints: 2 mm.
 - Recess depth (maximum): 5 mm.
 - Unfilled joints: 2 mm.
 - Sudden irregularities: Not permitted.
- 630 NARROW MORTAR JOINTS
- Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled, tightly butted and surplus mortar removed immediately.
 - Joint width: 6 mm.
- 640 TOOLED MORTAR JOINTS
- Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
 - Joint width: 6 mm.
- 650 SEALANT MOVEMENT JOINTS:
- Joint filler: Compressible cellular rubber or plastics compatible with specified sealant.
 - Filler installation: Build in as work proceeds, extending through haunching and foundation. Position filler accurately to fully support sealant at the recommended depth below exposed faces of units.
 - Joint width 10 mm.
 - Sealant: Adshead Ratcliffe & Co Ltd (01773 826661)
<http://www.arbo.co.uk>
Arbokol AK2
 - Colour: Grey.
 - Sealant application: As section Z22.