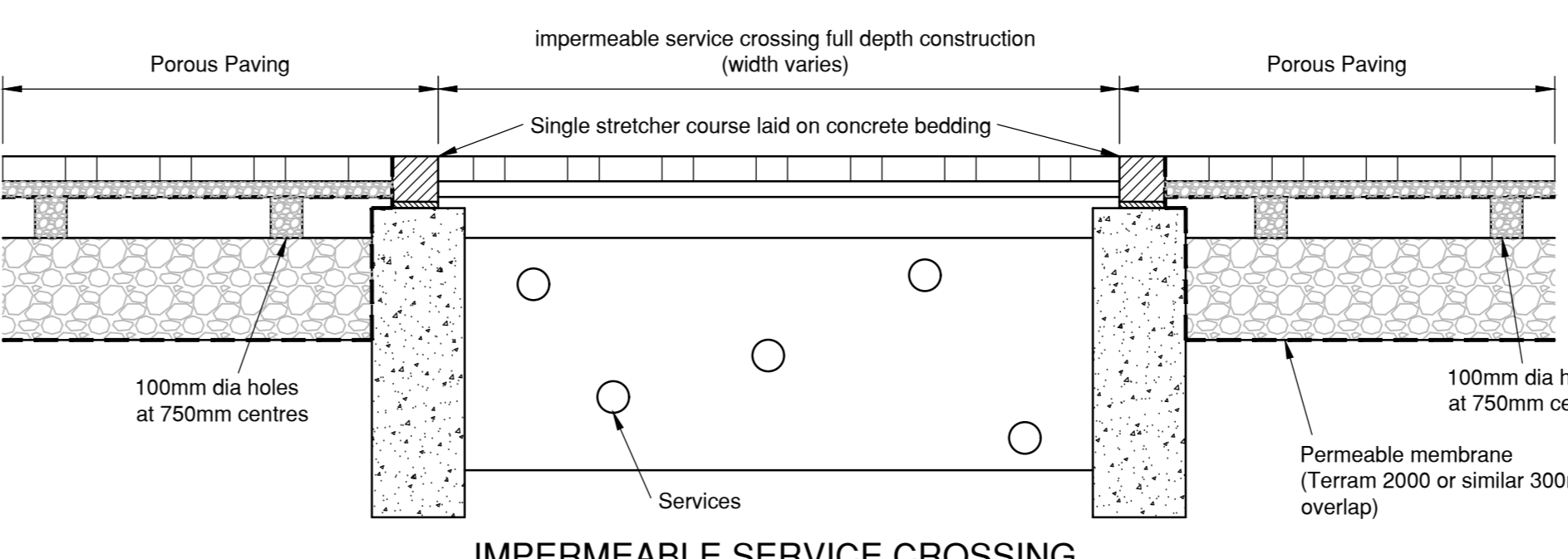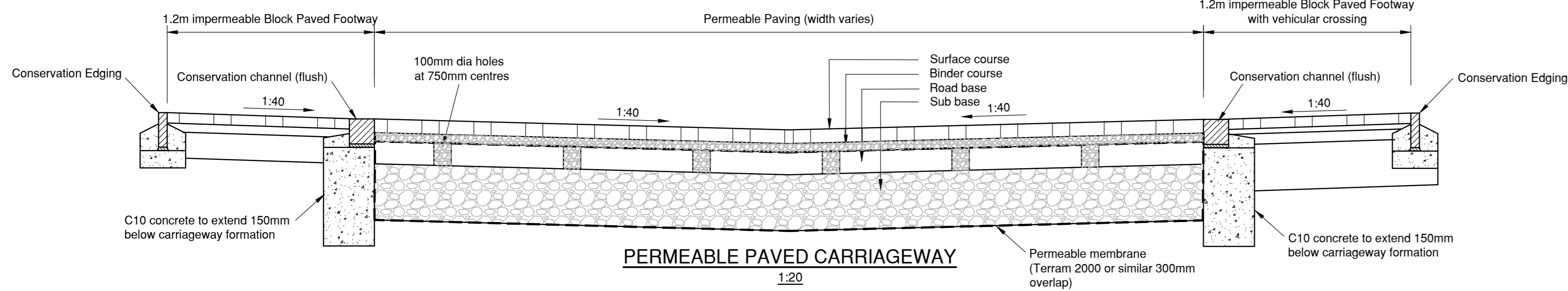## BITUMINOUS ROAD
1:20

IMPERMEABLE SERVICE CROSSING
1:20

PERMEABLE PAVED CARRIAGEWAY
1:20

CARRIAGEWAY SPECIFICATION

	BITUMINOUS ROAD	PERMEABLE BLOCK PAVED ROAD
SURFACE COURSE	40mm thick HRA 30/14 F Surf 40/60 pen 50 to BS EN 13108-4, 2006 deign mixes to be approved coated chippings 14/20mm aggregate PSV 55 AAV 12. Clause 910 / 911 & 915.	80mm permeable block paving laid in 45 degree herringbone.
BINDER COURSE	70mm thick AC 20 Dense Bin 40/60 Rec pen 50 to Clause 3.4.8 table B.11 Annex B of BSI PD6691. Design mixes to be approved.	50mm of 6mm course graded aggregate to comply with table 2.
BASE COURSE	90mm thick AC 32 Dense Base 40/60 Rec pen 50 to Clause 3.4.8 table B.11 Annex B of BSI PD6691. Design mixes to be approved.	130mm thick AC 32 Dense Base 40/60 Rec pen 50 to Clause 3.4.8 table B.11 Annex B of BSI PD6691. Design mixes to be approved. Running course to be cleaned and core drilled (or removed) with 100mm dia holes @ 750mm centres. Holes to be backfilled with 6mm course graded aggregate.
SUB BASE / CAPPING	See foundation options A and B.	325mm OGCR sub base to comply with table 1.

FOUNDATION OPTION A

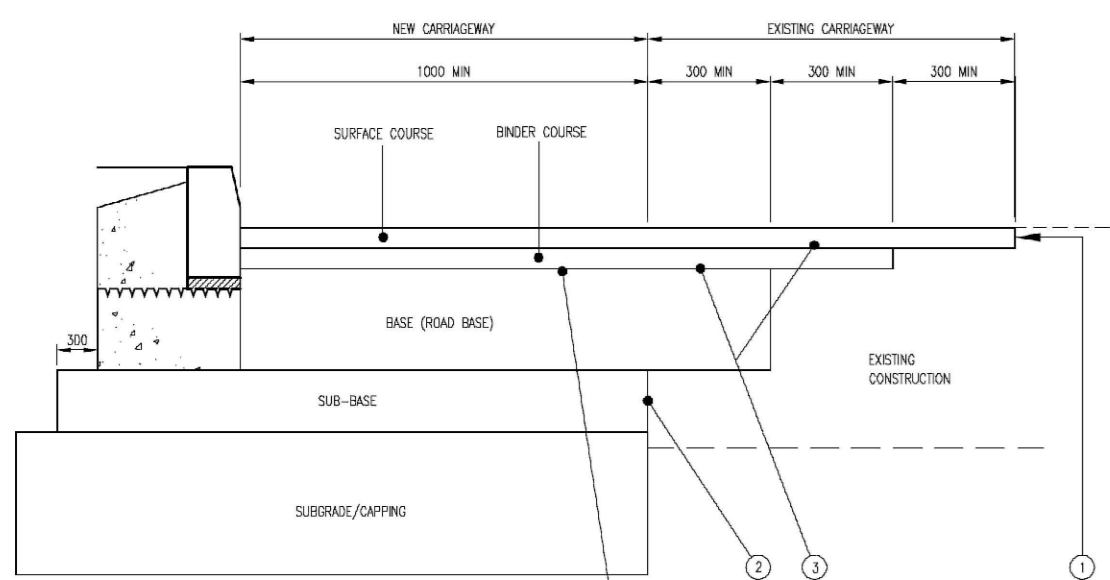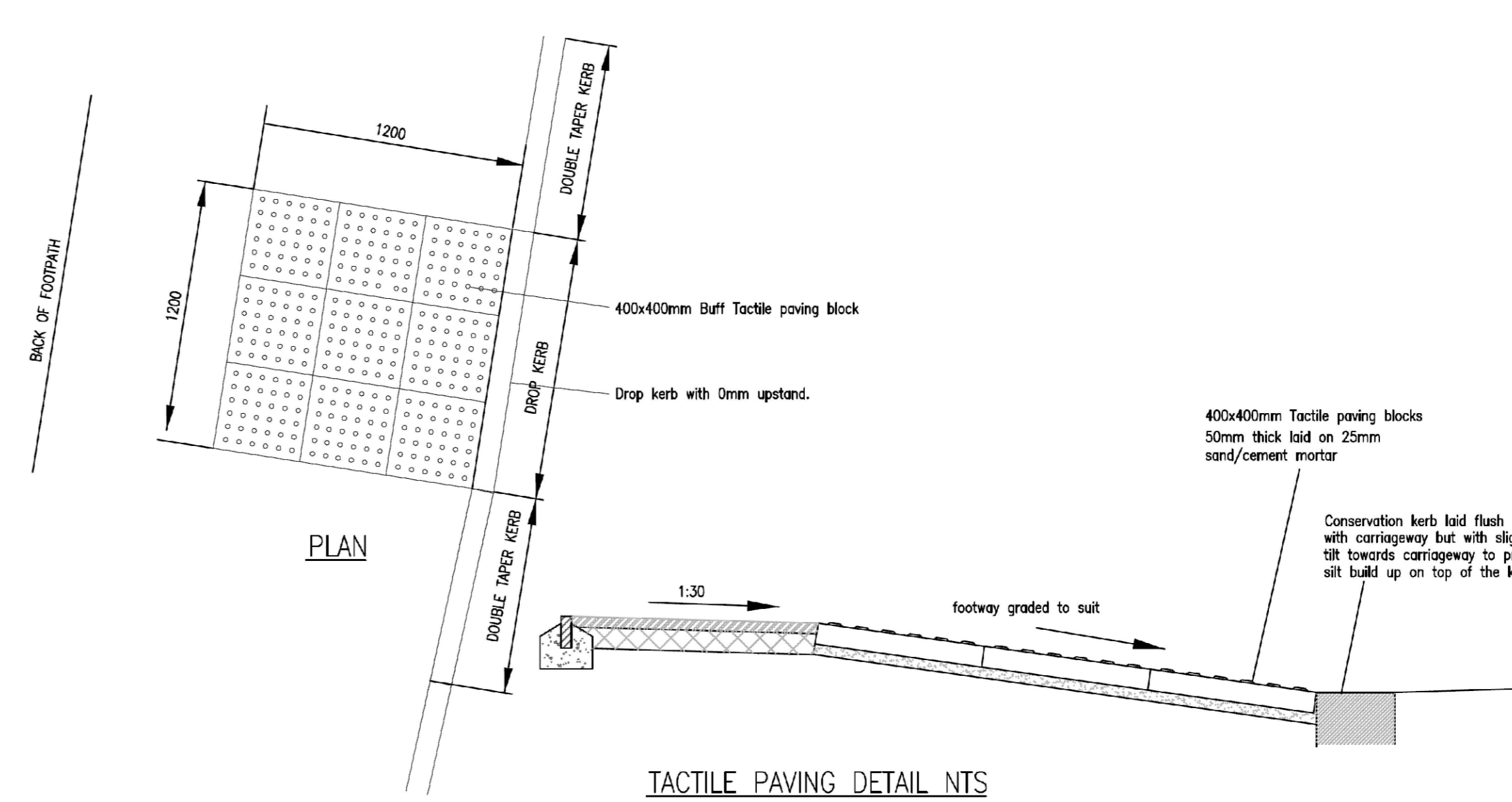| SUB BASE ONLY	SUB BASE - Type 1 material to clause 803 (250mm thick based on a CBR of 10%)
SUB BASE / CAPPING	SUB BASE - Type 1 material to clause 803 (170mm thick based on a CBR of 10%)) CAPPING - 6F1 - 6F5 material (170mm thick based on a CBR of 10%)

FOUNDATION OPTION B

SUB BASE ONLY	SUB BASE - Type 1 material to clause 803 (450mm thick based on a CBR of 2.5%))
SUB BASE / CAPPING	SUB BASE - Type 1 material to clause 803 (350mm thick based on a CBR of 2.5%)) CAPPING - 6F1 - 6F5 material (250mm thick based on a CBR of 2.5%)

Table 1

OGCR Grading	
Sieve size	Percentage by mass passing
100	100
63	90-100
37.5	60-80
20	15-30
10	0-5

Table 2

Course aggregate Grading	
Sieve size	Percentage by mass passing
14	100
10	98-100
6	80-99
2	0-20
1	0-5
0.063	0-2

FOOTWAY & VEHICULAR CROSSING SPECIFICATION CONCRETE SLABS
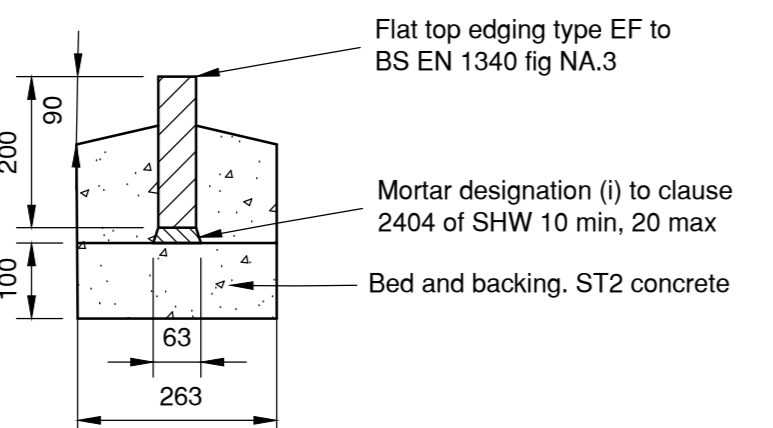
	FOOTWAY	FOOTWAY AND VEHICULAR CROSSING
SURFACE COURSE	450mm x 450mm buff concrete paving slabs to BS EN 1339:2001	450mm x 450mm buff concrete paving slabs to BS EN 1339:2001
BINDER COURSE	50mm thick bedding layer to clause 1104 and BS 7533 part 4.	50mm thick bedding layer to clause 1104 and BS 7533 part 4.
BASE COURSE		60mm thick AC 32 Dense Base 160/220 Rec pen 190 to Clause 3.4.8 table B.11 Annex B of BSI PD6691. Design mixes to be approved.
SUB BASE	150mm thick Type 1 Sub base to DTP Specification Cl 803	270mm thick Type 1 Sub base to DTP Specification Cl 803

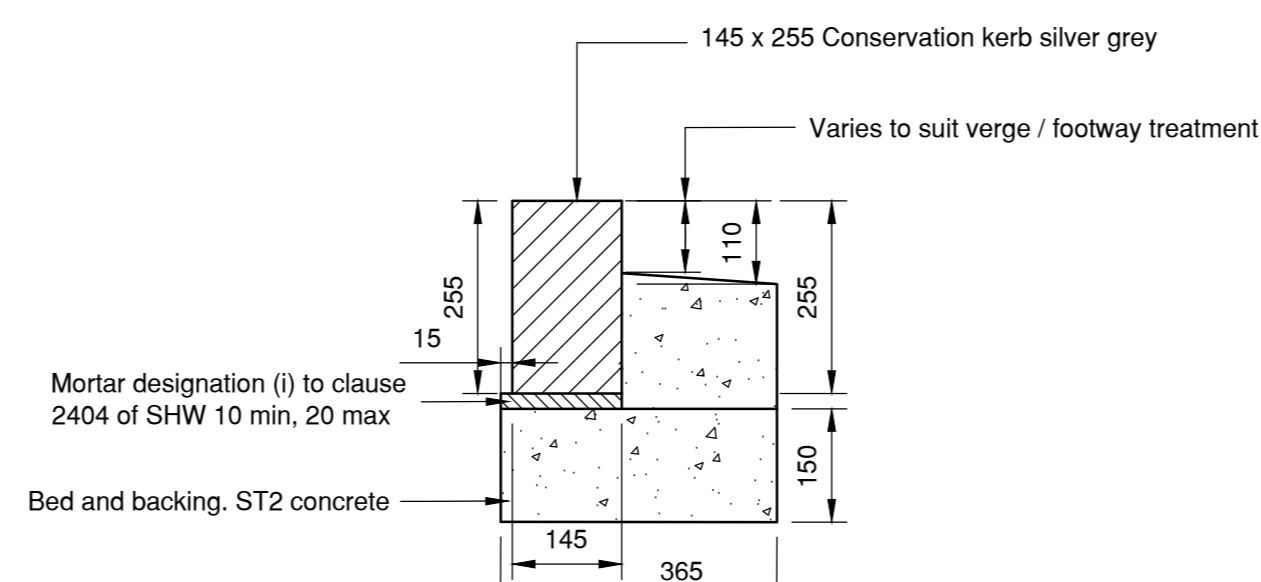## FOOTWAY & VEHICULAR CROSSING SPECIFICATION CONCRETE BLOCKS

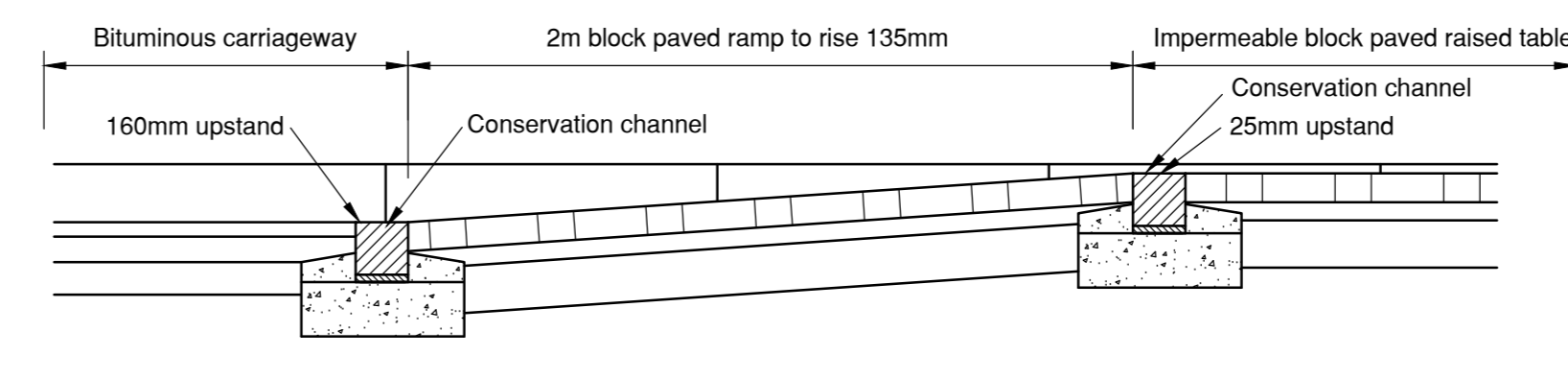|	FOOTWAY	FOOTWAY AND VEHICULAR CROSSING
SURFACE COURSE	80mm impermeable block pavers laid in 45 degree herringbone.	80mm impermeable block pavers laid in 45 degree herringbone.
BINDER COURSE	30mm thick bedding sand	30mm thick bedding sand
BASE COURSE		60mm thick AC 32 Dense Base 160/220 Rec pen 190 to Clause 3.4.8 table B.11 Annex B of BSI PD6691. Design mixes to be approved.
SUB BASE	150mm thick Type 1 Sub base to DTP Specification Cl 803	270mm thick Type 1 Sub base to DTP Specification Cl 803

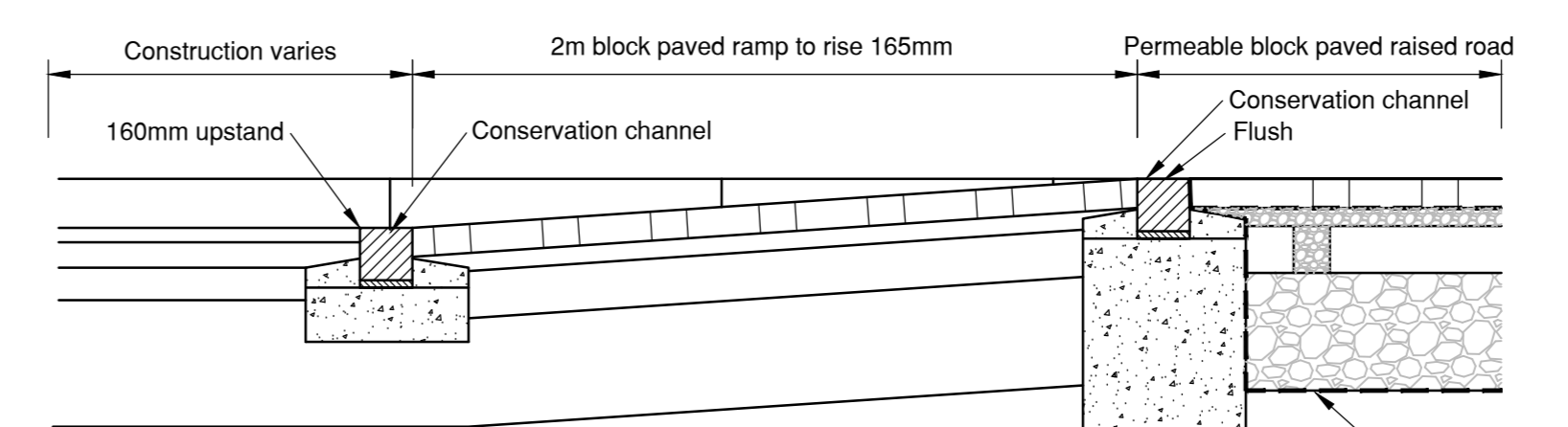## TACTILE PAVING DETAIL NTS
PLAN

CONSERVATION EDGING
SCALE 1:10

CONSERVATION SQUARE CHANNEL
SCALE 1:10

CONSERVATION KERB
SCALE 1:10

RAISED TABLE DETAIL
1:20

RAMP INTO PERMABLE ROAD DETAIL
1:20

Catchpits: Design Group C5 — cover to sump upto 4m (precast concrete)

PRECAST CONCRETE DESIGN

NOTES
1. All annotations and dimensions on this drawing complement or supersede the Highways England Specification for Highways which shall otherwise apply (along with appropriate Appendices) to all works and materials required for this Standard Detail.
2. All dimensions are in millimetres unless shown otherwise.
3. Covers to catchpits to be positioned on side furthest from the carriageway where possible.
4. Standard frame to have clear opening of 600x600 min.
5. Finish to internal concrete to be F2 on formed surfaces and U2 on unformed surfaces.
6. When gratings are provided as covers to the catchpits, the gratings shall be hinged on the side nearest the carriageway.
7. The length of articulated pipe shall be as required by Table 5/6 of clause 507 at inlet and outlet.
8. Where pipes are of 600mm dia. or greater a safety chain shall be provided across the ends of the pipe.
9. Where chambers are constructed in existing carriageway or footway the brickwork support and frame bedding mortar shall be a proprietary mortar with a compressive strength exceeding 30 N/mm² in 3 Hrs, and tensile strength exceeding 5 N/mm² in 3 Hrs. Trafficking will not be permitted until a compressive strength of 20 N/mm² has been achieved.

Drainage and Service Ducts
SCALE Nts
DRAWING No. HSD/500/130

Catchpits: Design Group C6 — cover to sump greater than 4m (precast concrete)

PRECAST CONCRETE DESIGN

NOTES
1. All annotations and dimensions on this drawing complement or supersede the Highways England Specification for Highways which shall otherwise apply (along with appropriate Appendices) to all works and materials required for this Standard Detail.
2. All dimensions are in millimetres unless shown otherwise.
3. Covers to catchpits to be positioned on side furthest from the carriageway where possible.
4. Standard frame to have clear opening of 600x600 min.
5. Finish to internal concrete to be F2 on formed surfaces and U2 on unformed surfaces.
6. The length of articulated pipe shall be as required by Table 5/6 of clause 507 at inlet and outlet.
7. Where pipes are of 600mm dia. or greater a safety chain shall be provided across the ends of the pipe.
8. Where chambers are constructed in existing carriageway or footway the brickwork support and frame bedding mortar shall be a proprietary mortar with a compressive strength exceeding 30 N/mm² in 3 Hrs, and tensile strength exceeding 5 N/mm² in 3 Hrs. Trafficking will not be permitted until a compressive strength of 20 N/mm² has been achieved.

Drainage and Service Ducts
SCALE Nts
DRAWING No. HSD/500/140

Gullies

Gully Group G2 (PCC)
Gully Group G5 (CHUTE)
Gully Group G9 (PLASTIC)

NOTES
1. All annotations and dimensions on this drawing complement or supersede the Highways England Specification for Highways which shall otherwise apply (along with appropriate Appendices) to all works and materials required for this Standard Detail.
2. All dimensions are in millimetres unless shown otherwise.
3. Permitted materials for precast gully pots are:-
Concrete to BS 5911—6
Vitrified clay to BS EN295
4. The first metre of each gully connection adjacent to the outlet shall be surrounded with 150mm minimum thickness of C10 concrete. Greater lengths with this concrete surround may be required.
5. Pedestrian freindly gratings to be used in shared areas.
6. The minimum nominal width of grating shall be 450.
7. Gully grating to be set 15mm below road at kerb face and 5mm at front of grating.
8. Where gullies are constructed in existing carriageway or footway the brickwork support and frame bedding mortar shall be a proprietary mortar with a compressive strength exceeding 30 N/mm² in 3 Hrs, and tensile strength exceeding 5 N/mm² in 3 Hrs. Trafficking will not be permitted until a compressive strength of 20 N/mm² has been achieved.

Drainage and Service Ducts
SCALE Nts
DRAWING No. HSD/500/170

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PJS CONSULTING ENGINEERS

Client: BOVIS HOMES
Project: BICESTER KME
Drawing Title: ADOPTABLE HIGHWAY DETAILS
Status: TENDER
Size & Scale: A0 @ As Shown
Project No.: PJS17-06
Drawing No.: 112