

⚠ Buried services located onto the grassed verges (n/b & s/b) and actual locations have been confirmed on site.

Trial pits (No)	Offset from existing "speed limit terminal sign" (m)	Offset from carriageway edge line (mm)	Depth to the top of service duct from ground level (mm)	Description
TP1	3.10	1150	750	1No BT clay pipe
TP2	3.10	2500	800	2No BT plastic ducts
TP3	2.50	2000	400	underground electricity cables
TP4	2.10	2700	400	underground street lighting cables
TP5	6.10	2600	450	underground street lighting cables

Points	Easting	Northing	Level	Position
1	397220.005	823691.793	32.309	bottom outside corner
2	397220.043	823690.193	32.309	bottom outside corner
3	397220.024	823690.993	32.509	middle of the internal base
4	397220.060	823689.449	32.509	middle of the internal base
5	397225.228	823691.714	33.930	top of new road surface
6	397229.372	823692.288	33.975	top of new road surface
7	397234.108	823692.945	33.845	top of new road surface
8	397239.791	823694.535	31.315	bottom outside corner
9	397239.810	823693.735	31.515	middle of the internal base
10	397239.829	823692.935	31.314	bottom outside corner
11	397227.5302	823698.2139	33.794	top of new road surface
12	397235.4140	823696.7050	33.7620	top of new road surface
13	3053.2850	1601.1119	34.0290	top of new road surface
14	3232.4606	1677.0825	34.0255	top of new road surface

Drawing Number: 17/NE/0310/099/001 Rev 2

- Notes:**
- All dimensions are in millimeters unless otherwise stated.
 - The precast box culvert to be designed for full HA loading and 45 units of HB.
 - Fabrication drawings to be submitted for the approval of the designer.
 - Earth sloped to be shaped locally to suit wingwalls.
 - Buried services located onto the grassed verges. Actual locations have been confirmed on site. Contractor to verify location of services using C.A.T Scan for safety reasons.
 - The contractor will be responsible for off-loading box culvert and should provide a suitable crane of adequate capacity. The contractor should ascertain details of the lifting method used by the culvert supplier, and provide all the handling equipment necessary to operate the lifting method on site. Before offloading, contractor to check the box culvert for any damage and report any defects promptly to the supplier.
 - Removal of the 2No terminal signs, and installation of the 2No "Welcome to Foveran" signs, will be undertaken by BEAR. Underground electricity/street lighting cables will be removed, where needed.

Status: As Built

Client: TRANSPORT SCOTLAND

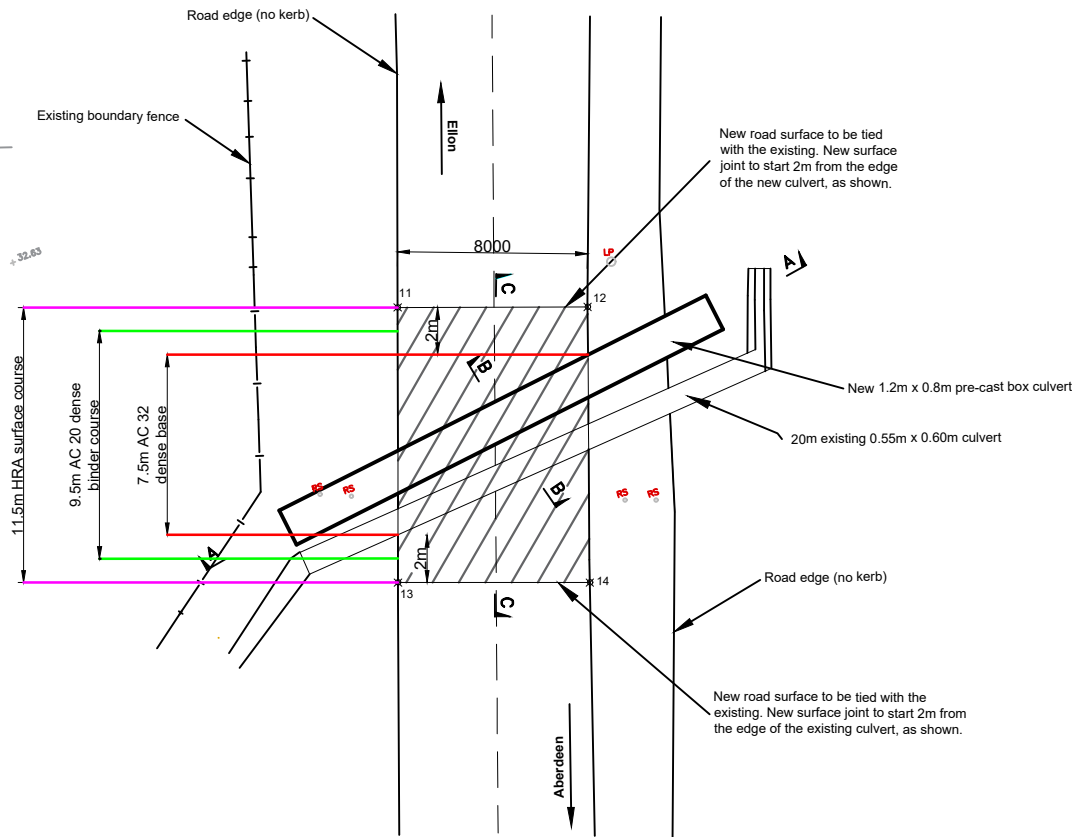
Project: A90 Foveran, Aberdeenshire New Culvert

Title: Top Plan General Arrangement

Designing: 17/NE/0310/099/001 Rev 2
Scale: As shown
Designed: PK Drum PK Checked: AG Approved: MT



Points	Easting	Northing	Level	Position
11	397227.5302	823698.2139	33.794	top of new road surface
12	397235.4140	823696.7050	33.7620	top of new road surface
13	3053.2850	1601.1119	34.0290	top of new road surface
14	3232.4606	1677.0825	34.0255	top of new road surface



TOP PLAN - NEW ROAD SURFACE
SCALE 1:100

Drawing Number 17/NE/0310/099/002

- Notes:
- This drawing to be read in conjunction with drawing 17/NE/0310/099/004.
 - All dimensions are in millimeters unless otherwise stated.
 - New road surface to be tied with the existing. Exact extent of the new surfacing will be agreed with BEAR'S Engineer on site.
 - Surfacing Specification as follows:
 - 45mm Hot Rolled Asphalt (HRA) Surface Course to be recipe mix HRA with pre-coated chips to clause SC2 910.
 - Tack coat bitumen emulsion to BS 434: Class K1-40.
 - 60mm AC 20 dense binder course 40/60 to clause 906 of SHW.
 - 130mm AC 32 dense base course 40/60 to clause 906 of SHW.

Status: **As Built**

Client:

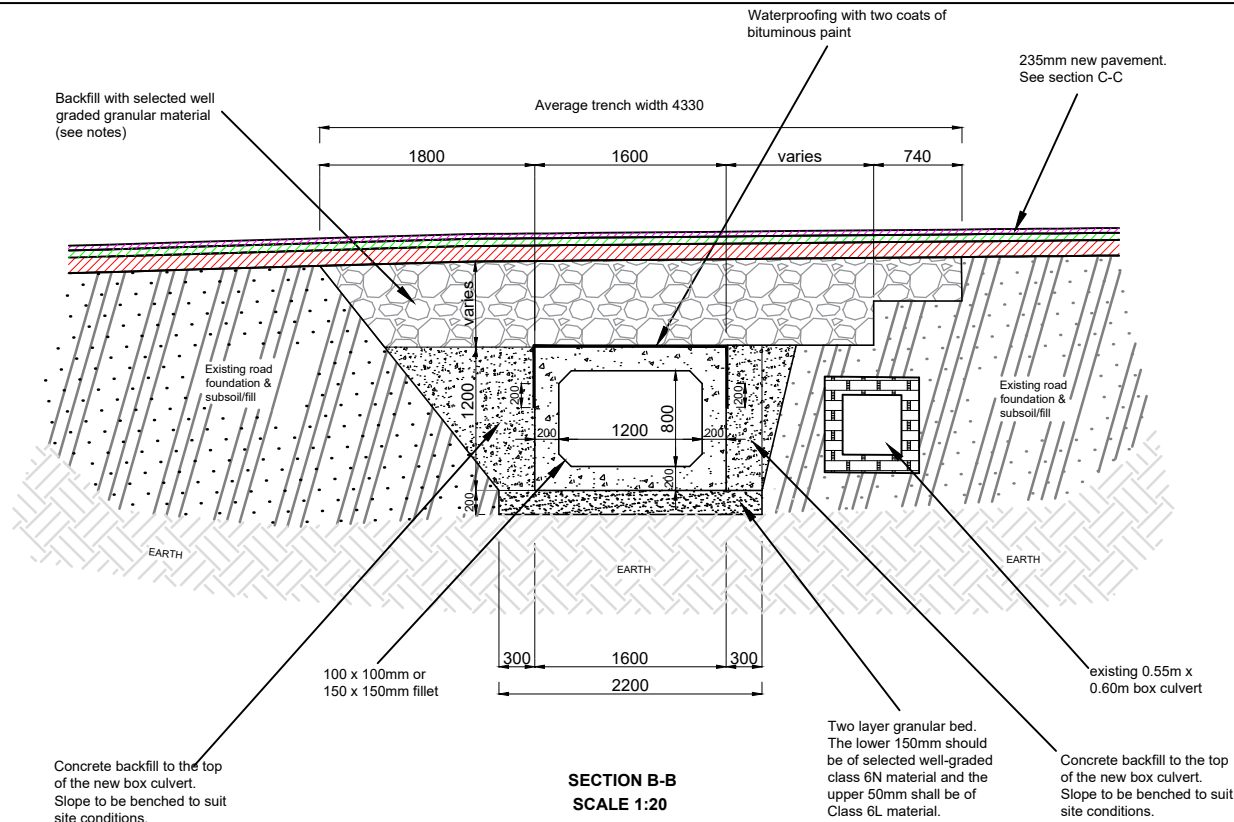
Project: B977 Foveran, Aberdeenshire
New Culvert

Title: Top Plan
New Road Surface

Drawing No. 17/NE/0310/099/002

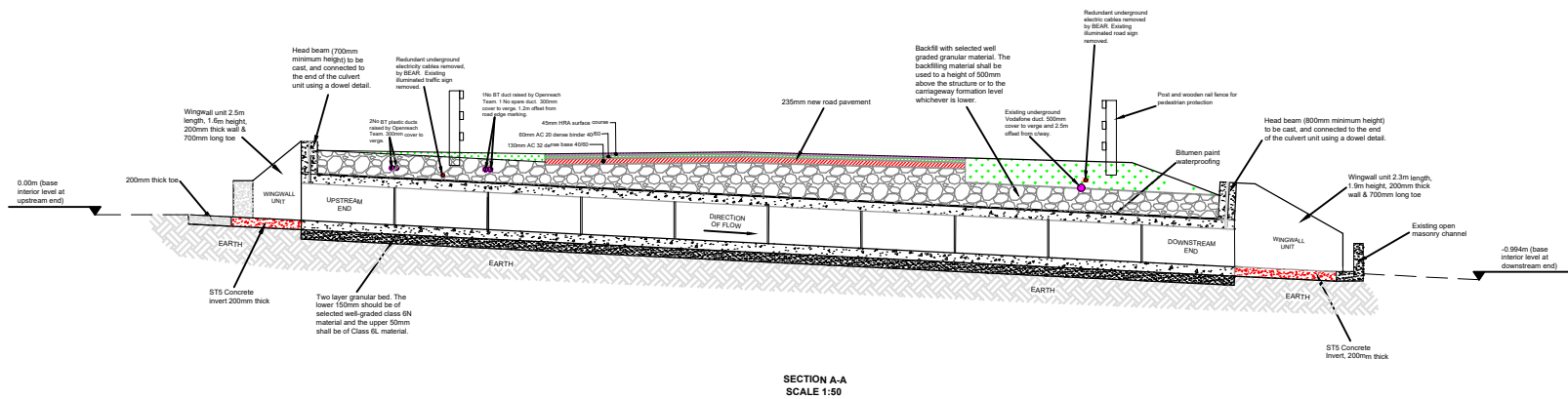
Scale: as shown

Designed: PK Drawn: PK Checked: AC Approved: MT



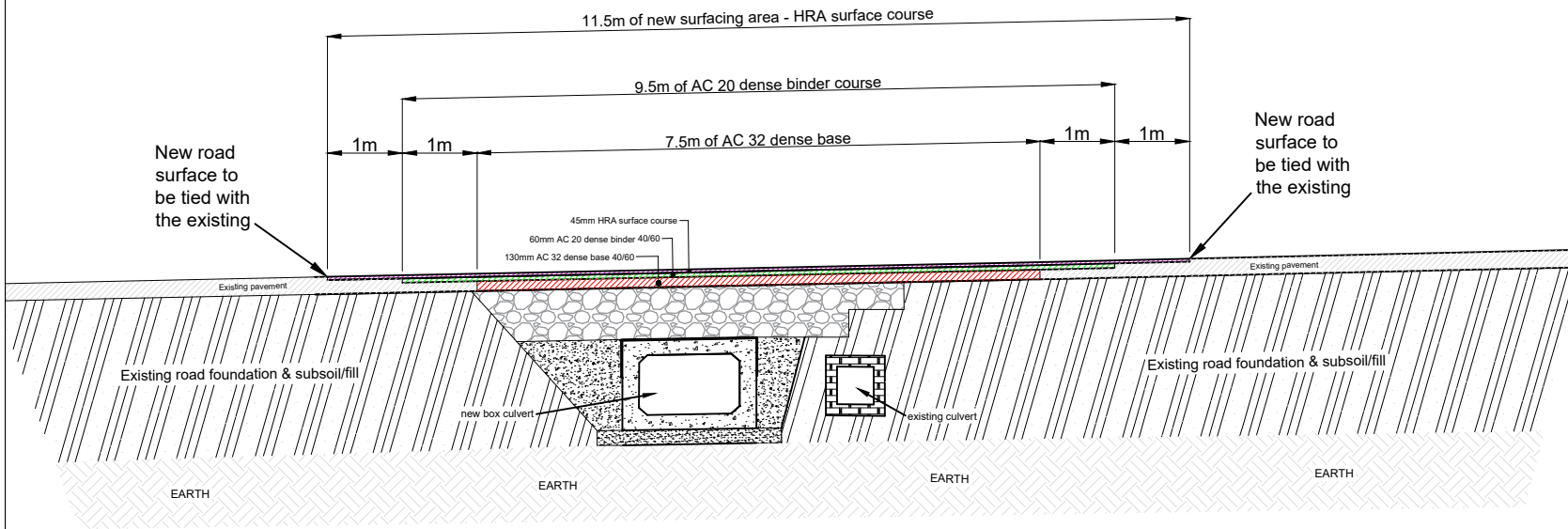
Drawing Number 17/NE/0310/099/003

- Notes:**
- All dimensions are in millimeters unless otherwise stated.
 - The top surface, and the top of the adjoining vertical external surfaces to a level of 200mm below the soffit of the top slab waterproofed with two coats of bitumen paint.
 - Backfilling shall be in accordance with Clause 610 (Fill to Structures) of MCHW1 except that Classes 7A and 7B shall not be used. The backfilling material shall be used to a height of 500mm above the structure or to the carriageway formation level whichever is lower. Backfill material to be well-compacted in layers not exceeding 200mm. Heavy vibratory equipment must be avoided.
 - The box culvert shall be founded on a bedding layer that shall extend at least 300mm beyond the outside wall faces of the structure.
 - The new box culvert shall be laid on a two layer granular bed which shall have a minimum thickness of 200mm. The lower 150mm should be of selected well-graded class 6N material and the upper 50mm shall be of Class 6L material as described in MCHW1 Series 600.
 - Box culvert to be laid from downstream to upstream, with the sockets facing upstream ready to receive the next culvert to be laid.
 - Proprietary jointing material to be used and applied in accordance with the manufacturer's specific instructions in terms of application and substrate preparation.




Status	As Built
Client	TRANSPORT SCOTLAND
Project	ASO Foveran, Aberdeenshire New Box Culvert
Title	Section A-A Section B-B
Drawing No.	17/NE/0310/099/003
Scale	As shown
Designed	PK
Drawn	PK
Checked	MC
Approved	MC

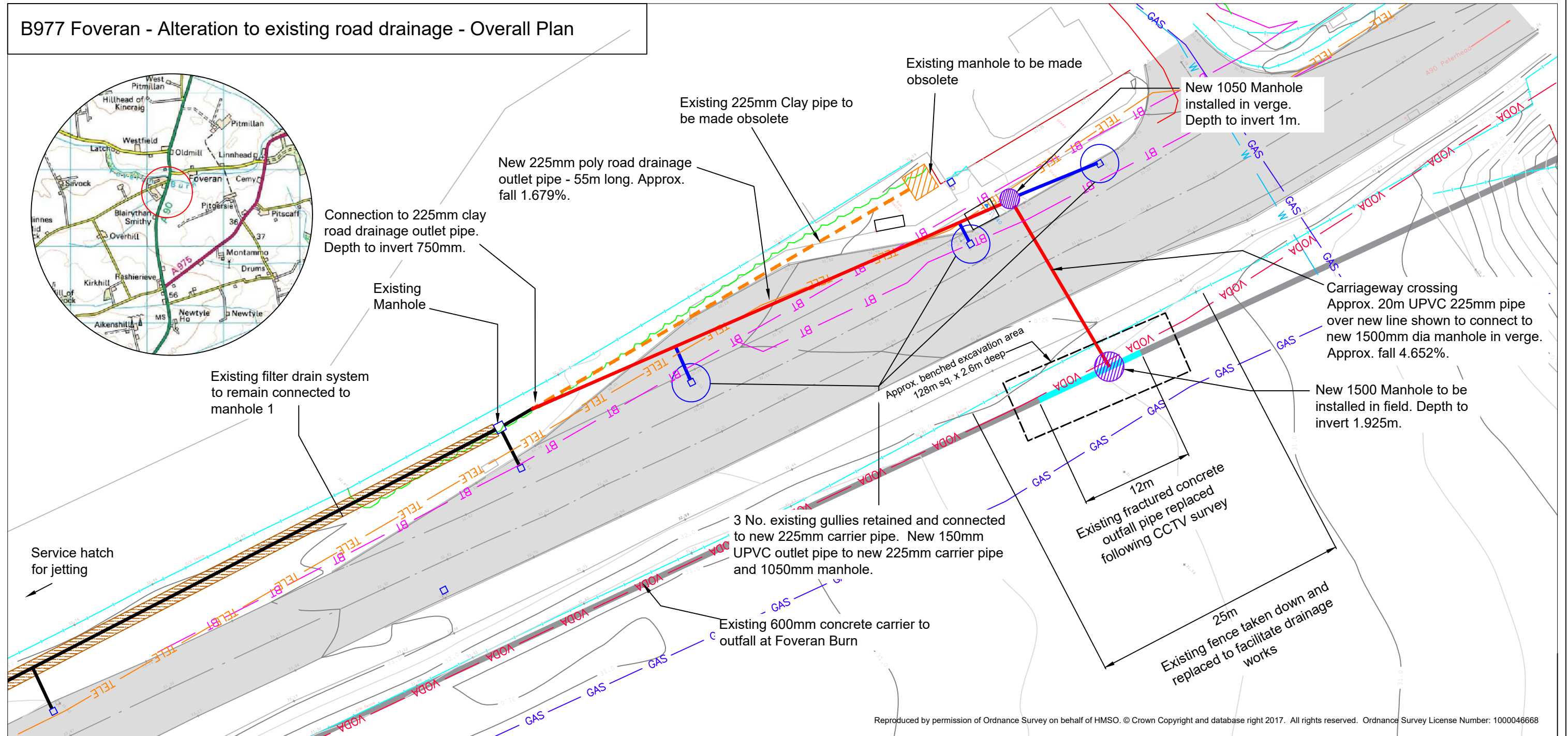
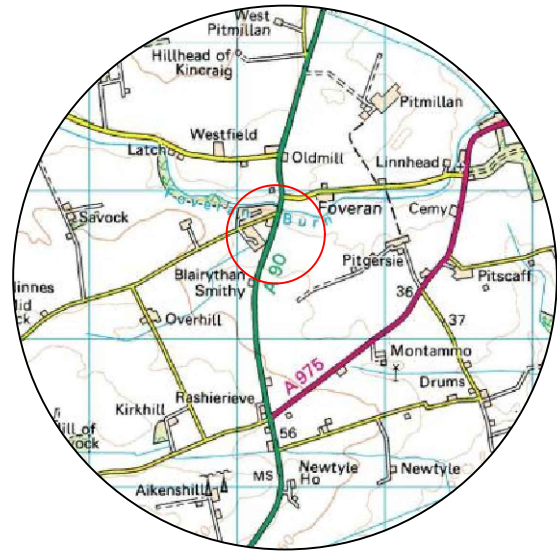
- Notes:**
1. This drawing to be read in conjunction with drawing 17/NE/0310/099/004.
 2. All dimensions are in millimeters unless otherwise stated.
 3. New road surface to be tied with the existing. Exact extent of the new surfacing will be agreed with BEAR's Engineer on site.
 4. Surfacing Specification as follows:
 - 45mm Hot Rolled Asphalt (HRA) Surface Course to be recipe mix HRA with pre-coated chips to clause SC2 910.
 - Tack coat bitumen emulsion to BS 434: Class K1-40,
 - 60mm AC 20 dense binder course 40/60 to clause 906 of SHW,
 - 130mm AC 32 dense base course 40/60 to clause 906 of SHW.



SECTION C-C
SCALE 1:20

Status	
As Built	
Client	
 TRANSPORT SCOTLAND	
Project	
A90 Foveran, Aberdeenshire New Box Culvert	
Title	
Section C-C	
Drawing No.	17/NE/0310/099/004
Scale	As shown
Designed	PK
Drawn	PK
Checked	MC
Approved	MC

B977 Foveran - Alteration to existing road drainage - Overall Plan



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KEY:		Existing Road Gullies: Connected to new 225mm carrier pipe and new 1050mm manhole
		Lay 225mm internal diameter drain in trench depth to invert not exceeding 1.00 metres average depth to invert 0.75 metres within carriageway/footpath/verge & Embankment (approx 65m total length)
		Lay 150mm internal diameter drain in trench depth to invert not exceeding 1.00 metres average depth to invert 0.75 metres within carriageway/footpath & verge (approx 10m total length)
		Existing 225mm Clay Outlet Pipe to be made obsolete
		New manholes installed in verge. Details as shown.
	Existing road drainage network to remain	
	Existing 600mm Concrete Carrier Pipe to remain	
	Existing fractured concrete carrier pipe replaced with 600mm dia polypipe	

	BT	BT fibre optic cable		VODA	Vodafone
	ELEC	Electric		GAS	MP Gas Main
	W	Scottish Water		TELE	SSE Telecolms

NOTES:

- This drawing has been collated using information supplied by utility maps, it is to be used as a guide, it should **NOT** be used as confirmation of the location of services.
- Please ensure that separate Utility maps provided by the utility supplier are referred to on site.
- Other services may be located within area, it is essential that **ALL** areas of below ground activities are CAT scanned prior to any works.
- Works should be set out on site with Engineer or Engineer's Representative.

Client:			Status	AS BUILT	
			Rev.	B	
Project	B977 Foveran Drainage				
Title	Foveran Additional Drainage Works Plan				
Drawing No.	17/NE/0310/099/101		Author	AIB	
Scale	Not to Scale		Date	Aug 19	
Rev	Date	Checked	Designed	AF	Drawn AF
			Checked	AC	Approved MT