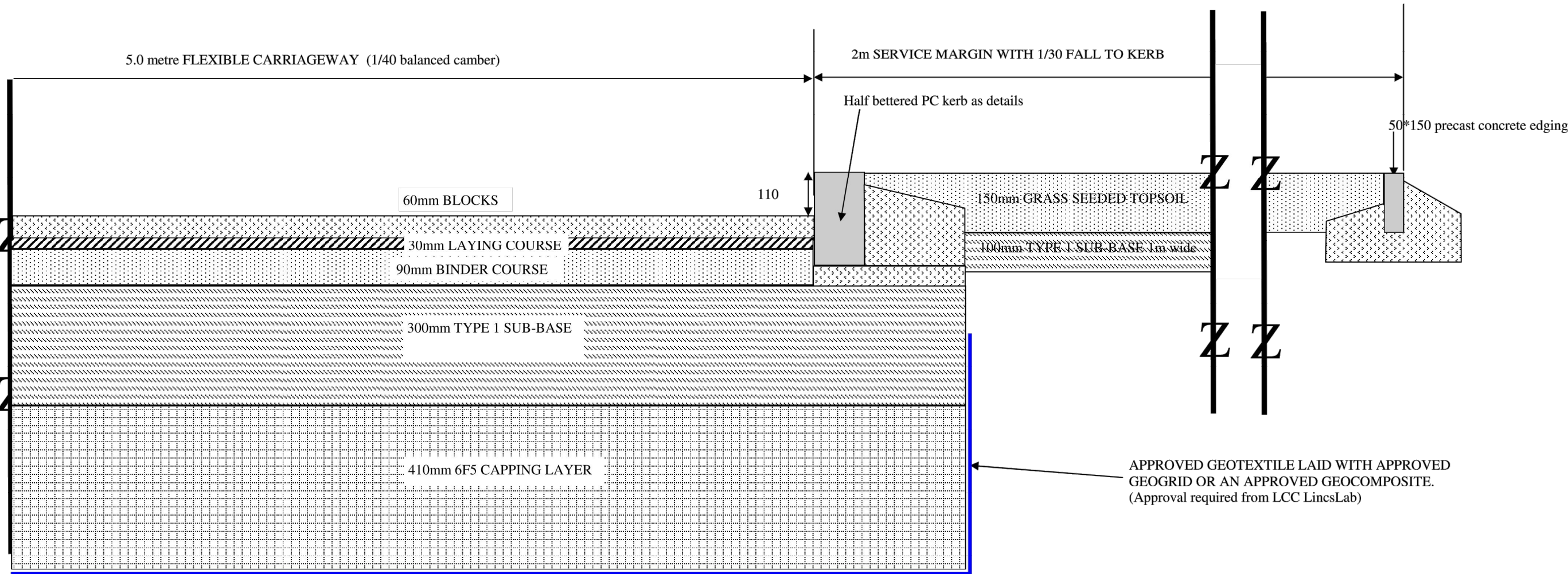
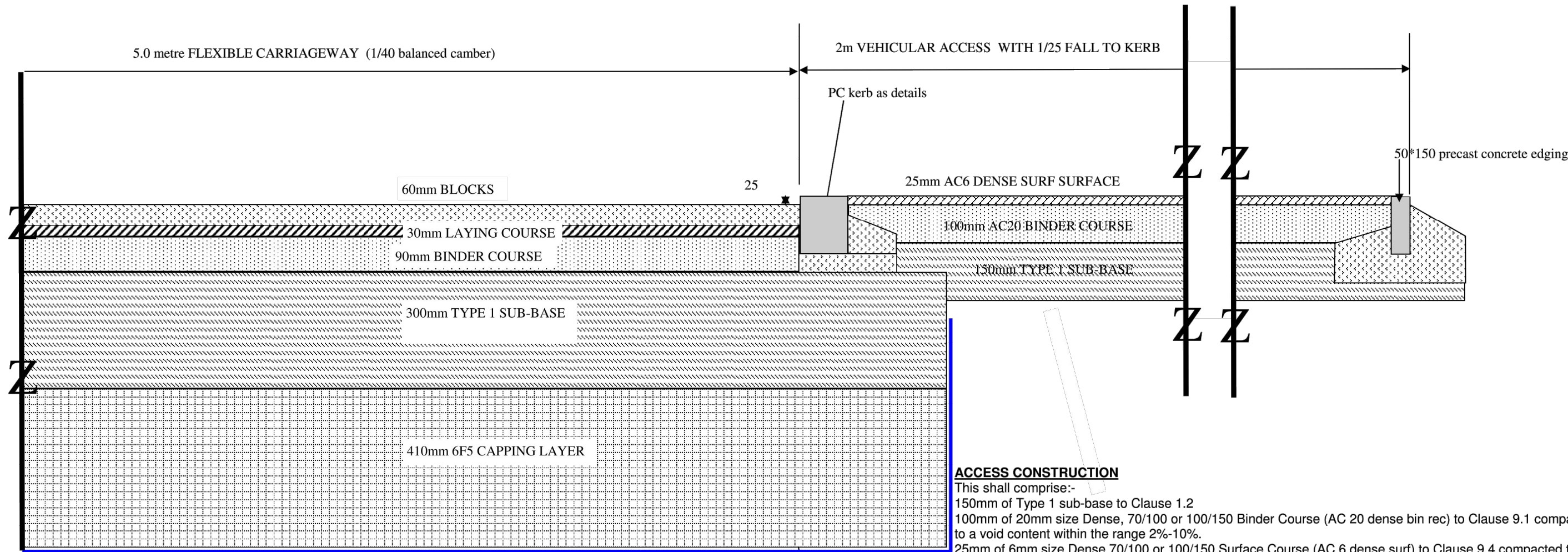
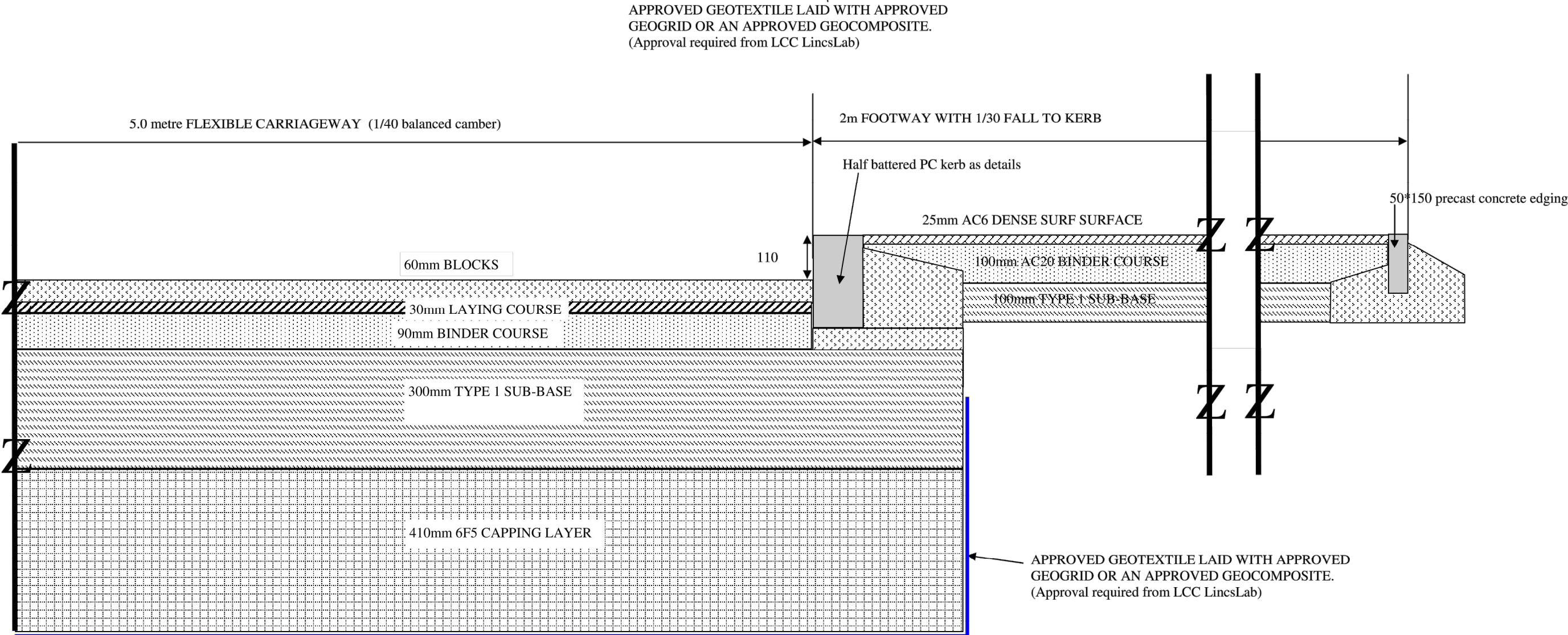




DETAIL OF CARRIAGEWAY Scale 1/10



DETAIL OF CARRIAGEWAY Scale 1/10



DETAIL OF CARRIAGEWAY Scale 1/10

S38 DETAILS

LCC DRS GENERAL NOTES:

- The specification in all respects shall be in accordance with the current Lincolnshire "Development Road and Sustainable Drainage Design Guide" and "Development Road and Sustainable Drainage Specification and Construction" publications in force in the county at the time of construction.
- The minimum longitudinal fall for highways, without channel blocks shall be 1 in 150, and with channel blocks 1 in 250 (see Clause 10.1).
- In addition, ensure that the first section of any side road falls away from the road to which it is connecting. If general topography requires it to rise, this change of direction should take place after the first set of gullies. This is to ensure a 'false channel' with associated drainage problems is not created in the bedmouth of junctions.
- General deterioration of the existing highway/footway/verges created through construction of the new Section 38 Development will be reinstated to the current Development Road Specification at the developers' own cost at the agreement of the inspecting Highway and Flood Authority Officer.
- "No Private surface water shall discharge onto the adoptable highway"
- "No private, structural features shall overhang the adoptable highway".
- "No private retaining walls exceeding 1.37m shall be within 3.66m of the highway boundary".

CONSTRUCTION DETAILS

S38 ADOPTABLE ROAD

60mm CONCRETE 200x100mm BLOCKS ON 30mm LAYING COURSE ON 90mm BINDER COURSE ON 300mm TYPE 1 SUB-BASE ON 410mm 6F5 CAPPING LAYER ALL IN ACCORDANCE WITH CURRENT EDITION OF LCC's DEVELOPMENT ROAD SPECIFICATION (THIS IS BASED ON A CBR BELOW 1.5%. THIS MAY BE REDUCED IF CBRs ARE PROVEN TO BE GREATER IN ACCORDANCE WITH CONSTRUCTION CHART 3, LCC's DEVELOPMENT ROAD SPECIFICATION - See below)

S38 ADOPTABLE FOOTWAYS / PATHS

25mm OF 6mm SIZE DENSE 70/100 OR 100/150 SURFACE COURSE (AC 6 DENSE SURF) TO CLAUSE 9.4 COMPACTED TO A VOID CONTENT WITHIN THE RANGE 2%-10% ON 100mm OF TYPE 1 SUB-BASE TO CLAUSE 1.2 ON 100mm OF 20mm SIZE DENSE, 70/100 OR 100/150 BINDER COURSE (AC 20 DENSE BIN REC) TO CLAUSE 9.1 COMPACTED TO A VOID CONTENT WITHIN THE RANGE 2%-10%

THE SURFACE COURSE MUST BE BONDED TO THE BINDER COURSE.

CONSTRUCTION CHART 3

NON PERVIOUS

ROADS UP TO 0.25 m.s.a. - BLOCK PAVER CONSTRUCTION (See Clause 1.9)

SUB-GRADE ^{NOTE 1}	SUB-BASE (mm)		SURFACING (mm)			TOTAL THICKNESS REQUIRED (mm)	
	Without geotextile	With geotextile	Binder Course (Note 5)	Laying Course	Block Paver	Without geotextile	With geotextile
Below 1½% & soft spots	<i>Not suitable</i>	710 ^{NOTES 2&3}	90	30	60	<i>Not suitable</i>	890 ^{NOTE 2&3}
1½%	<i>Not suitable</i>	440	90	30	60	<i>Not suitable</i>	620
2%	400	340	90	30	60	580	520
3%	310	300	90	30	60	490	480
4% ^{NOTE 5}	270	270 ^{NOTE 5}	90	30	60	450	450 ^{NOTE 5}
5% ^{NOTE 5}	270	270 ^{NOTE 5}	90	30	60	450	450 ^{NOTE 5}
6-15% ^{NOTE 5}	270	270 ^{NOTE 5}	90	30	60	450	450 ^{NOTE 5}
Above 15% ^{NOTE 5}	270	270 ^{NOTE 5}	90	30	60	450	450 ^{NOTE 5}

Note 1

See Clauses 1.1.6, 1.1.7 and 1.1.8

Note 2

See Clauses 1.1.6 - Assumes no improvement is possible using either sub-soil drainage or soil strengthening technique. 710mm is 410mm of 6F5 Capping Layer Granular Fill to clause 6.8 and 300mm of Type 1 sub-base. The thickness of 710mm can be reduced to 620mm if all Type 1 sub-base is used.

Note 3

For soft-spots and sub-grades with a CBR of less than 1½%, the geotextile shall be laid with an approved geogrid or shall be an approved geocomposite. Approved specialist design can be used with the agreement of the authority.

Note 4

See Clause 1.9

Note 5

The use of a geosynthetic with a sub-grade with this bearing capacity offers no advantage or economy. Ref: BS7533 Guide for structural design of pavements constructed with Clay or concrete block pavers.

SMALL BLOCK PAVERS

CONCRETE BLOCKS AND CLAY PAVERS SHALL COMPLY WITH CLAUSE 10.2 AND CLAUSE 10.3. THEY SHALL BE LAID IN ACCORDANCE WITH THE REQUIREMENTS OF BS7633-3

HERRINGBONE PATTERN IS REQUIRED FOR ALL BLOCK PAVED AREAS OTHER THAN WHEN USED AS TACGTILE PAVING. ONLY RECTANGULAR SHAPED BLOCKS WILL BE PERMITTED.

THE LAYOUT OF BLOCKS / PAVERS AND DETAILS AT EDGES, MANHOLES, GULLIES AND OTHER OPENINGS SHALL BE AS RECOMMENDED BY THE SUPPLIER AND AGREED WITH THE HIGHWAY INSPECTOR ON SITE PRIOR TO LAYING.

THE DEVELOPER MAY TRAFFIC THE C'WAY AFTER THE PLACEMENT OF THE BITUMINOUS BINDER LAYER COURSE ACROSS THE FULL WIDTH OF THE C'WAY PROVIDED THAT THE THICKNESS OF BINDER COURSE IS IN ACCORDANCE WITH THE RELEVANT CONSTRUCTION CHART

WHEN THE BLOCK PAVER CONSTRUCTION IS TO BE COMPLETED PRIOR TO BUILDING BEING COMMENCED THEN THE THICKNESS OF BINDER COURSE LAYER QUOTED IN CONSTRUCTION CHART 3 FOR ROADS UPTO 0.25msa MAYBE REDUCED TO 60mm. THE SUB-BASE SHALL BE CORRESPONDINGLY INCREASED BY 30mm IN SUCH CASES

LAYING COUSE (BEDDING) AND JOINTING SAND USED IN CONJUNCTION WITH SMALL BLOCK PAVERS SHALL BE IN ACCORDANCE WITH CLAUSE 10.4

FILTER MEMBRANE (GEOTEXTILE)

All membranes, textiles and liners should be designed, manufactured and installed in accordance with the relevant Standards, Codes of Practice and Manufacturers Guidance. They should be selected in accordance with specific site conditions and be fit for purpose. All proposals need written technical approval from the Highway and Flood Authority prior to installation and use.

Geotextiles used in infiltration features shall be selected on the infiltration rate confirmed in the ground investigation stage. This shall also be compatible with the soil particle size on site.

All woven geotextiles shall have a minimum tensile strength of 30kN/m in each direction. Non-woven geotextiles shall have a minimum tensile strength of 15kN/m when tested in accordance with BS EN ISO 10319: 1996.

For woven geotextiles the pore size shall be 90% finer than 200µm. Non-woven geotextiles shall have a pore size 90% finer than 100µm

All Geotextiles shall have a CBR puncture resistance of 3 kN.

SERVICE AND SERVICE DUCTS

Utility services and service ducts shall not be installed within the carriageway or footway construction. They shall be placed within the underlying subgrade. Capping layers classified as part of the construction. The location of dedicated service crossing points requires approval in order to limit/control the number in road construction

DELIVERY TICKETS FOR APPROVED MATERIALS

Delivery tickets and, when applicable, evidence of C E Marking, shall be available on request by the Highway and Flood Authority Officer.

TREE PLANTING and ROOT BARRIERS

Where trees are to be planted within 5m of footways or highways a root barrier is required between the tree root system and the highway structure. A proprietary, high strength, photo and bio degradation resistant root barrier 2mm thick with a minimum width of 1.0m should be used. Where individual trees are to be planted in tree pits with highway or footways adjacent, the use of preformed root directors may be more appropriate.

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rev.	date	Description				
			MPS	PS		
			MPS	PS		
			Drawn	Chk.		

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Gosberton, Lincs.

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NTS@A1

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