Notes & Specification

1. Pavement construction shown below shall be generally constructed in accordance with the current Highways Agency Manual of Contract Documents for Highway Works, Volume 1, Specification for Highway Works (MCHW) and Interim Advice Note 101/07. Bond coats between all construction layers to be in accordance with BS 594987, table 3.

2. Bituminous mixtures shall be to the current BS EN 13108 series, BS 594987 and PD 6691.

3. The sub-base has not been designed to receive construction traffic. Any surface damage to the sub-base due to construction traffic shall be repaired to the satisfaction of the Engineer prior to the placement of the bound materials.

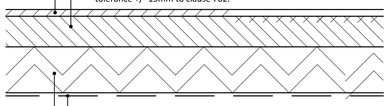
4. The sub grade CBR shall be measured by laboratory tests and reported to the Engineer to check the pavement design prior to construction.

5. Where pavements are constructed on subgrades that have volume change potential and where roots of vegetation are below the pavement formation, there is a risk that movement may occur resulting in cracking being evident in the surface course, particularly during prolonged periods of dry weather. To reduce this risk, the formation depth shall be increased.

Pavement Construction
Bound Materials:

20mm min. Compacted thickness of 6mm dense asphalt concrete surface course, designation AC 6 dense surf 100/150 to clause 909. Finished surface tolerance +/- 6mm to clause 702.

60mm min. Compacted thickness of 20mm open asphalt concrete binder course, designation AC 20 open bin 100/150. Finished surface tolerance +/- 15mm to clause 702.



Terram 1000 or similarly approved. Terram grogrid not permitted unless approved by NCC inspector

Unbound Materials:

100mm min. compacted thickness of type 1 granular sub-base to MCHW clause 803 compacted to MCHW clause 802. Surface level tolerance shall be +10mm and -30mm from the design levels.

Formations / Sub-grade

Subgrade deemed frost susceptible and assumed to exhibit an assumed CBR value of 2% until geotechnical testing has been undertaken on site.

Prior to placement of the sub-base the formation shall be trimmed and rolled to MCHW clause 616. Any soft areas shall be brought to the attention of the Engineer for selection of the appropriate remedial measures. Surface level tolerance be +20mm and -30mm from design levels.

Pavement Loading Limits

1. The pavement is unable to accommodate jockey wheel/pad loads.
2. The surface course material may be subject to damage due to tight maneuvers of heavy vehicles and fork lift trucks particularly in hot weather conditions.

FLEXIBLE FOOTWAY CONSTRUCTION

Notes & Specification

1. Pavement construction shown below shall be generally constructed in accordance with the current Highways Agency Manual of Contract Documents for Highway Works, Volume 1, Specification for Highway Works (MCHW) and Interim Advice Note 101/07. Bond coats between all construction layers to be in accordance with BS 594987, table 3.

2. Bituminous mixtures shall be to the current BS EN 13108 series, BS 594987 and PD 6691.

3. The sub-base has not been designed to receive construction traffic. Any surface damage to the sub-base due to construction traffic shall be repaired to the satisfaction of the Engineer prior to the placement of the bound materials.

4. The sub grade CBR shall be measured by laboratory tests and reported to the Engineer to check the pavement design prior to construction.

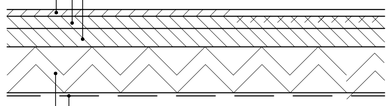
5. Where pavements are constructed on subgrades that have volume change potential and where roots of vegetation are below the pavement formation, there is a risk that movement may occur resulting in cracking being evident in the surface course, particularly during prolonged periods of dry weather. To reduce this risk, the formation depth shall be increased.

Pavement Construction
Bound Materials:

20mm min. Compacted thickness of 6mm dense asphalt concrete surface course, designation AC 6 dense surf 100/150 to clause 909.

40mm min. Compacted thickness of 20mm open asphalt concrete binder course, designation AC 20 dense bin 100/150.

150mm wet lean concrete type ST2 to table 10/1 clause 1001



Terram 1000 or similarly approved. Terram grogrid not permitted unless approved by NCC inspector

Unbound Materials:

100mm min. compacted thickness of type 1 granular sub-base to MCHW clause 803 compacted to MCHW clause 802. Surface level tolerance shall be +10mm and -30mm from the design levels.

Formations / Sub-grade

Subgrade deemed frost susceptible and assumed to exhibit an assumed CBR value of 2% until geotechnical testing has been undertaken on site.

Prior to placement of the sub-base the formation shall be trimmed and rolled to MCHW clause 616. Any soft areas shall be brought to the attention of the Engineer for selection of the appropriate remedial measures. Surface level tolerance be +20mm and -30mm from design levels.

Pavement Loading Limits

1. The pavement is unable to accommodate jockey wheel/pad loads.
2. The surface course material may be subject to damage due to tight maneuvers of heavy vehicles and fork lift trucks particularly in hot weather conditions.

CROSSOVER CONSTRUCTION

1. Pavement construction shown below shall be generally constructed in accordance with the current Highways Agency Manual of Contract Documents for Highway Works, Volume 1, Specification for Highway Works (MCHW) and Interim Advice Note 101/07. Bond coats between all construction layers to be in accordance with BS 594987, table 3.

2. Bituminous mixtures shall be to the current BS EN 13108 series, BS 594987 and PD 6691.

3. The sub-base has not been designed to receive construction traffic. Any surface damage to the sub-base due to construction traffic shall be repaired to the satisfaction of the Engineer prior to the placement of the bound materials.

4. The sub grade CBR shall be measured by laboratory tests and reported to the Engineer to check the pavement design prior to construction.

5. Where pavements are constructed on subgrades that have volume change potential and where roots of vegetation are below the pavement formation, there is a risk that movement may occur resulting in cracking being evident in the surface course, particularly during prolonged periods of dry weather. To reduce this risk, the formation depth shall be increased.

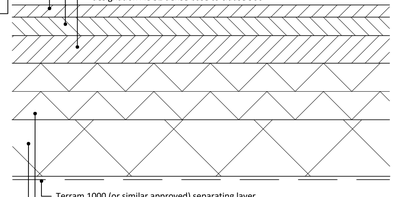
Pavement Construction
Bound Materials:

30mm min. compacted thickness of 10mm asphalt concrete surface course, designation AC 10 close to clause 912

70mm min. Compacted thickness of 20mm asphalt concrete binder course, designation AC 20 dense binder course to clause 906

150mm min. Compacted thickness of 32mm asphalt concrete base, designation AC 32 dense base to clause 906

Note: The minimum total carriageway construction thickness shall be 450mm due to the sub-grade and capping being frost susceptible



Terram 1000 (or similar approved) separating layer.

Unbound Materials:

200mm min. compacted thickness of type 1 granular sub-base to MCHW clause 803 compacted to clause 802. Surface level tolerance shall be +10mm and -30mm from the design levels.

400mm min. compacted thickness of 6F2 capping layer to MCHW clause 613 compacted to clause 612. layer tolerances shall be +20mm and -30mm from design levels.

Formations/Subgrade

Subgrade deemed frost susceptible and assumed to exhibit a CBR value of 2% subject to measurement on site (see note 4)

Prior to placement of the sub-base the formation shall be trimmed and rolled to clause 616. Any soft areas shall be brought to the attention of the Engineer for selection of the appropriate remedial measures. Surface level tolerance be +20mm and -30mm from design levels.

Pavement Loading Limits

1. The pavement is unable to accommodate jockey wheel/pad loads.
2. The surface course material may be subject to damage due to tight maneuvers of heavy vehicles and fork lift trucks particularly in hot weather conditions.

CARRIAGEWAY CONSTRUCTION DETAIL

DETERMINATION OF SUB-BASE THICKNESS

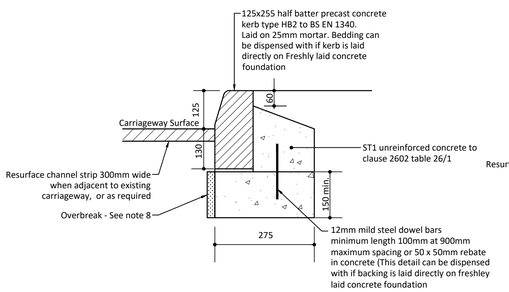
Given the varied nature of the Plate California Bearing Ratios (CBR) across the site as identified in the test results, the depth of sub-base should be determined using the tables below in conjunction with the relevant local ground information.

For Adoptable Roads (All Construction Types)

The following table may be used to determine the thickness of sub-base required.

CBR Value (%)	Sub-base thickness required (mm)	Capping thickness required (mm)
15 and greater	200	-
5 - 15	200	200
4	200	250
3	200	300
2	200	400
Less than 2	To be agreed with the Engineer	

CBR test to be carried out on site and consulted with MCC Clerk of Works and sub-base thickness to be revised to reflect CBR site results



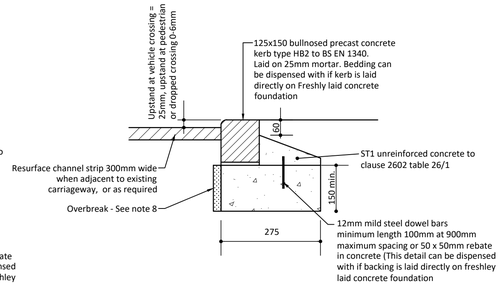
Notes

1. Concrete bedding and backing shall be type ST1 to clause 2602 table 26/1
2. Kerbs shall comply with BS EN 1340
3. Cement shall be ordinary portland cement to BS EN 197-1.
4. Joints to kerbs shall be pointed with class (iii) mortar to clause 2404.
5. Cut lengths of kerb are to be cut using a disc cutter, min. length 450mm.
6. In the case of new carriageway construction the sub-base layer is extended 300mm beyond the back of kerb foundation. The contractor shall allow for filling in between the road sub-base and the footway formation with sub base material in the rate of kerbing.
7. Reconstruction of existing carriageway channel measured seperately
8. Kerbs laid in existing carriageway formation - Rate to include infill of overbreak in front of kerb with concrete type ST1 to binder course finish level.

Limitations of Use

1. For use as an edging to pavements accommodating normal traffic loadings and manoeuvres.
2. Edging may fail or be damaged by direct impact from heavy vehicle loads.

PRECAST CONCRETE HALF BATTERED KERB DETAIL



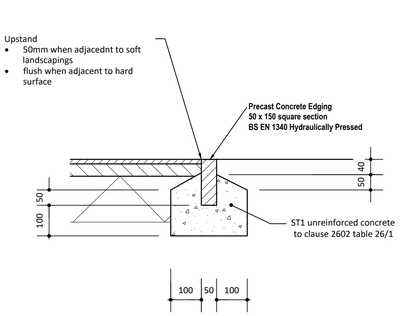
Notes

1. Concrete bedding and backing shall be type ST1 to clause 2602 table 26/1
2. Kerbs shall comply with BS EN 1340
3. Cement shall be ordinary portland cement to BS EN 197-1.
4. Joints to kerbs shall be pointed with class (iii) mortar to clause 2404.
5. Cut lengths of kerb are to be cut using a disc cutter, min. length 450mm.
6. In the case of new carriageway construction the sub-base layer is extended 300mm beyond the back of kerb foundation. The contractor shall allow for filling in between the road sub-base and the footway formation with sub base material in the rate of kerbing.
7. Reconstruction of existing carriageway channel measured seperately
8. Kerbs laid in existing carriageway formation - Rate to include infill of overbreak in front of kerb with concrete type ST1 to binder course finish level.
9. Foundation detail for taper kerbs will be as foundation for 125x150mm and 125x255mm kerbs
10. Kerb upstand to be (i) 0.6mm for pedestrian or cycleway crossings
    (ii) 25mm for vehicular crossings

Limitations of Use

1. For use as an edging to pavements accommodating normal traffic loadings and manoeuvres.
2. Edging may fail or be damaged by direct impact from heavy vehicle loads.

PRECAST CONCRETE BULLNOSED KERB DETAIL



Notes

1. Clauses quoted refer to the Department of Transport Specificataion for Highway Works, amended as appropriate
2. All dimensions are in millimetres
3. Top of edging laid flush with footpath where used on a vehicular crossing
4. Concrete bedding and backing shall be type ST1 to clause 2602 table 26/1
5. Cut lengths of kerb are to be cut using a disc cutter, min. length 450mm.

Limitations of Use

1. For use as an edging to pavements accommodating normal traffic loadings and manoeuvres.

PRECAST CONCRETE FOOTWAY EDGING DETAIL

Rev.	Date	By	Description

SEA
CONSULTING ENGINEERS
[CONSULTING CIVIL & STRUCTURAL ENGINEERS]
E: warren@seace.co.uk
T: 07976310054

PROJECT
RESIDENTIAL DEVELOPMENT
CHAPEL LANE
LEVENHULME, MANCHESTER

DRAWING
ROAD CONSTRUCTION DETAILS

SCALE: NTS	DATE: 18.03.2025
DRAWN BY: WRA	REV: -
STATUS: PRELIMINARY	

DWG No: 00142/H11 -