ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE KNOWSLEY METROPOLITAN BOROUGH COUNCIL "SECTION 38 DESIGN GUIDANCE"

ON SITE CBR TESTING TO BE UNDERTAKEN TO VERIFY PROPOSED CONSTRUCTION DEPTHS

5.5m Wide 'Neighbourhood Street' Construction

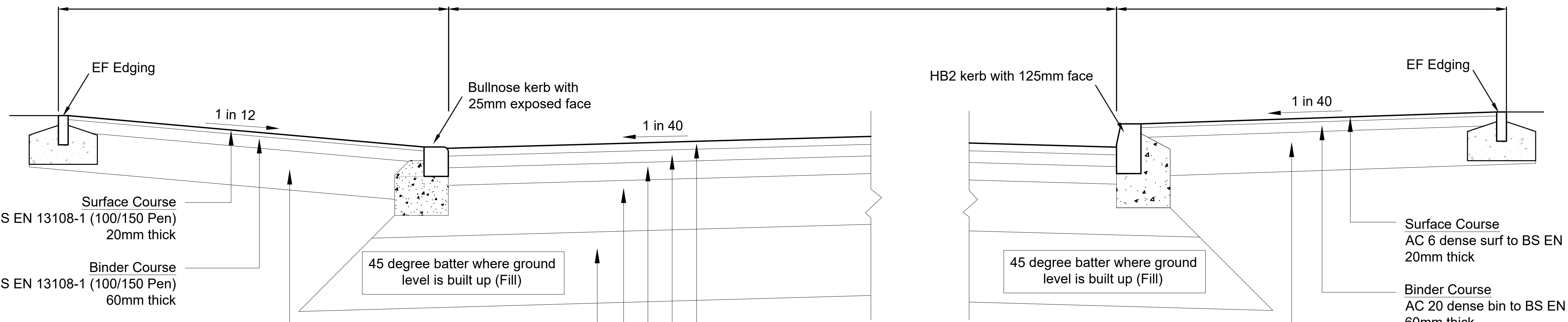
Refer to Layouts for road camber / crossfall

Vehicular Crossover Construction

2m wide Crossover Construction

Footway Construction

2m wide Footway Construction


EF Edging
1 in 12
Bullnose kerb with 25mm exposed face
1 in 40
HB2 kerb with 125mm face
EF Edging
1 in 40
45 degree batter where ground level is built up (Fill)
45 degree batter where ground level is built up (Fill)

Surface Course
AC 6 close surf to BS EN 13108-1 (100/150 Pen)
20mm thick

Binder Course
AC 20 dense bin to BS EN 13108-1 (100/150 Pen)
60mm thick

Sub Base
Granular sub-base material Type 1 to Cl.803
200mm thick

PCC edgings to footways shall be laid flush with the footway except where immediately adjacent to specific landscaped areas where a 50mm upstand is to be used

Surface Course
HRA 30/14 F surf to BS EN 13108-4
(40/60 Pen) 40mm Thick (Min. PSV 60)

Binder Course
AC 20 dense bin to BS EN 13108-1
(100/150 Pen) 60mm thick.

Base Course
AC 32 dense base to BS EN 13108-1
(100/150 Pen) 90mm thick.

Sub Base
Granular sub-base material Type 1 to
Cl.803 260mm thick (>4-5% CBR)

Capping
6F2 to Cl.613 as required

Alternate Surface Finishing at Raised Tables and Feature Areas - refer to 20040-BGC-D-PH2 - 141 - Adoptable Kerbing & Surfaces Finishes Plan

Surface Course
200mm x 100mm x 80mm Concrete Block Paving Marshall Keyblok (or similar approved) laid 45° herringbone pattern with stack bonded edge detail. Concrete Block colour to suit Architects Hard Surfacing Plans.

Laying Base
50mm compacted thickness clean sharp sand to BS 7533 Part 3 with joints filled with sand (30mm thick after compaction).

Base Course
AC 20 dense bin to BS EN 13108-1
(100/150 Pen) 70mm thick.

Sub Base
Granular sub-base material Type 1 to Cl.803
270mm thick (>4-5% CBR)

Capping
6F2 to Cl.613 as required

Surface Course
AC 6 dense surf to BS EN 13108-1 (100/150 Pen)
20mm thick

Binder Course
AC 20 dense bin to BS EN 13108-1 (100/150 Pen)
60mm thick

Sub Base
Granular sub-base material Type 1 to Cl.803
200mm thick

PCC edgings to footways shall be laid flush with the footway except where immediately adjacent to specific landscaped areas where a 50mm upstand is to be used

4.8m Wide Shared Surface Road Construction

ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE KNOWSLEY METROPOLITAN BOROUGH COUNCIL "SECTION 38 DESIGN GUIDANCE"

ON SITE CBR TESTING TO BE UNDERTAKEN TO VERIFY PROPOSED CONSTRUCTION DEPTHS

4.8m Wide 'Local Street' Construction

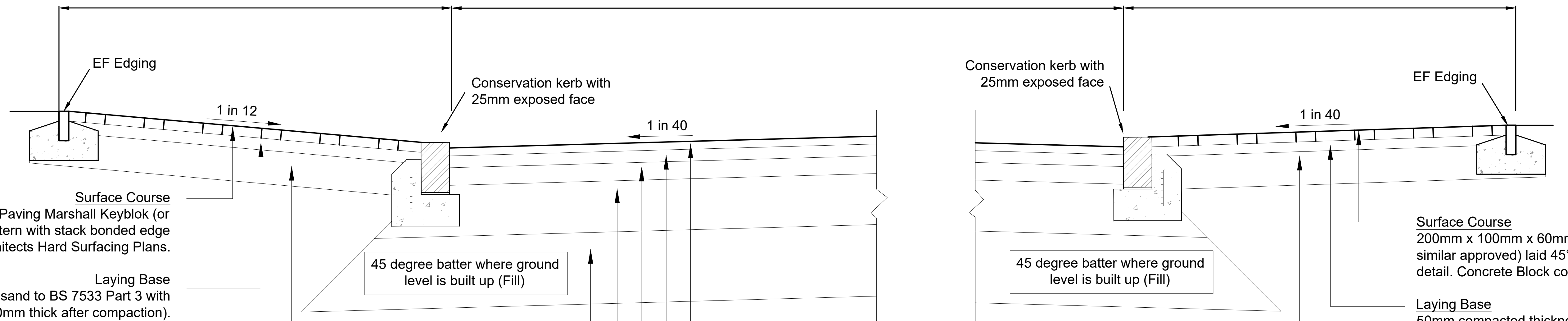
Refer to Layouts for road camber / crossfall

Block Paved Vehicular Crossover Construction

2m wide Crossover Construction

Block Paved Footway Construction

2m wide Footway Construction


EF Edging
1 in 12
Conservation kerb with 25mm exposed face
1 in 40
Conservation kerb with 25mm exposed face
1 in 40
EF Edging
45 degree batter where ground level is built up (Fill)
45 degree batter where ground level is built up (Fill)

Surface Course
200mm x 100mm x 60mm Concrete Block Paving Marshall Keyblok (or similar approved) laid 45° herringbone pattern with stack bonded edge detail. Concrete Block colour to suit Architects Hard Surfacing Plans.

Laying Base
50mm compacted thickness clean sharp sand to BS 7533 Part 3 with joints filled with sand (30mm thick after compaction).

Sub Base
Granular sub-base material Type 1 to Cl.803
200mm thick

PCC edgings to footways shall be laid flush with the footway except where immediately adjacent to specific landscaped areas where a 50mm upstand is to be used

Surface Course
HRA 30/14 F surf to BS EN 13108-4
(40/60 Pen) 40mm Thick (Min. PSV 60)

Binder Course
AC 20 dense bin to BS EN 13108-1
(100/150 Pen) 60mm thick.

Base Course
AC 32 dense base to BS EN 13108-1
(100/150 Pen) 90mm thick.

Sub Base
Granular sub-base material Type 1 to
Cl.803 260mm thick (>4-5% CBR)

Capping
6F2 to Cl.613 As required

Alternate Surface Finishing at Raised Tables and Feature Areas - refer to 20040-BGC-D-PH2 - 141 - Adoptable Kerbing & Surfaces Finishes Plan

Surface Course
200mm x 100mm x 80mm Concrete Block Paving Marshall Keyblok (or similar approved) laid 45° herringbone pattern with stack bonded edge detail. Concrete Block colour to suit Architects Hard Surfacing Plans.

Laying Base
50mm compacted thickness clean sharp sand to BS 7533 Part 3 with joints filled with sand (30mm thick after compaction).

Base Course
AC 20 dense bin to BS EN 13108-1
(100/150 Pen) 70mm thick.

Sub Base
Granular sub-base material Type 1 to Cl.803
270mm thick (>4-5% CBR)

Capping
6F2 to Cl.613 as required

Surface Course
200mm x 100mm x 60mm Concrete Block Paving Marshall Keyblok (or similar approved) laid 45° herringbone pattern with stack bonded edge detail. Concrete Block colour to suit Architects Hard Surfacing Plans.

Laying Base
50mm compacted thickness clean sharp sand to BS 7533 Part 3 with joints filled with sand (30mm thick after compaction).

Sub Base
Granular sub-base material Type 1 to Cl.803
200mm thick

PCC edgings to footways shall be laid flush with the footway except where immediately adjacent to specific landscaped areas where a 50mm upstand is to be used

The Contractor is to check and verify in conjunction with the Architects details all setting out points, building and site dimensions, levels and sewer invert levels at connection points and ensure that they are fully conversant with the contents and requirements of the site investigation report before work starts. The Contractor is to comply in all respects with current building legislation, British Standard Specifications, Building Regulations etc.,whether or not specifically stated on this drawing.
This drawing is not intended to show details of ground conditions or ground contaminants. Each area of ground relied upon to support any structure depicted (including drainage) must be investigated by the Contractor any areas of formation for said structures which do not accord with the anticipated conditions as described in the site investigation report are to be immediately notified to the Engineer, where applicable. Any suspect fluid ground or ground contaminants on or within the ground should be further investigated by a suitable expert. Any earthworks shown indicate typical slopes for guidance only and should be investigated further by a suitable geotechnical expert. Where existing trees are shown to be retained they should be subject to a full Arboricultural inspection for safety. All trees are to be planted so as to ensure they are a minimum of 5 metres from buildings and 3 metres from drainage and services, where applicable. A foundation is to be provided to accommodate the proposed tree planting, where applicable.
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GENERAL NOTES

1. This drawing is to be read in conjunction with all relevant approved Architects/Planning/Designers drawings and details.
2. Construction details for adopted roads to be in accordance with:-
(i) Knowsley Metroplitan Borough Council
3. The Contractor shall comply with the following:-
(a) All operations should be carried out in accordance with the General Health and Safety Policy of the Developer as required by Sections 2 of the Health and Safety at Work Act 1974 and in particular the Construction (General Provisions) Regulations.
(b) The Local Authority and service companies are to be notified prior to commencement of work on site.
(c) Prior to construction the actual positions and depths of services likely to be affected by the works should be established by means of hand dig in close liaison with the service companies. The Contractor shall immediately advise the Adopting Engineer of any services exposed which may affect the design.
(d) All operatives working on the highway must have street works accreditation which must be first checked and approved by the Highways Authority before any works are commenced.
4. The Contractor and/or Developer are entirely responsible for compliance with the Health and Safety at Work Act. He shall be specifically responsible for all temporary works and for the stability of the affected land and structures.
5. CBR values to be determined on site with the Highways Authority at the time of construction and CBR testing carried out as necessary by an independent UKAS laboratory. This will be required on formation level, capping layer and sub-base layers at a minimum spacing of 20m and/or as instructed by the Adopting Engineer.
6. The Contractor shall check all road and pavement levels before commencing the permanent adoptable works. The Adopting Engineer shall be informed immediately if any levels do not tie-in or will lead to areas of standing water. If this occurs the Developer will have to correct such problems, at his own cost, after first agreeing the necessary remedial measures required with the Adopting Engineer.
7. Clauses for materials refer to the latest DTP specification for highway works published by HMSO.
8. Vertical steps in the existing carriageway are to be formed by saw cutting.
9. Nuclear density tests must be undertaken on all layers of the road and base course layers by an independent UKAS accredited laboratory whilst the materials are being laid.
10. All bituminous materials are to be machine laid unless otherwise directed by the Engineer.
11. No limestone aggregate to be permitted in any wearing courses whether permanent wearing course or temporary.
12. Recycled material can only be used with the approval of the Adopting Engineer.
13. All highway works must be signed and guarded in accordance with Chapter 8.
14. All materials to be kite marked where applicable.
15. All existing kerbing and footway to the entrance of the site shall be renewed and made good to the satisfaction of the Adopting Engineer. As per the extents shown on the Section 38 Layout.
16. All final wearing courses must only be laid once construction operations on site have been completed, this being done in one continuous operation without any breaks/joints or as agreed with the Adopting Engineer.
All permanent kerbing shall not be installed until the final wearing course is ready for laying and all permanent kerb lines must first be approved in writing by the Adopting Engineer accordingly. All delivery tickets will be provided for all wearing course material laid.
17. Delivery tickets must be provided for other materials used in the construction process where requested by the Adopting Engineer.
18. No loose bound materials to be used adjacent to the Adoptable Highway.
19. Any retaining walls within 4m of the proposed adoptable highway and greater than 1.5m in height will need to be checked and structurally approved by the Authority prior to construction. These may need to be adopted by the Authority with an appropriate commuted sum being paid.
20. No boundary fences or walls will be adopted by the Authority. Under no circumstances should these be used to retain the adoptable highway in any way.
21. No private gates/doors/windows/or other projections to open onto the adoptable highway.
22. All ironwork within block paved areas is to be a minimum of 150mm deep.
23. Service margins to remain clear of all planting, walls, fences etc. including any other obstructions deemed unacceptable by the Adopting Engineer.
24. Where disabled access needs to be provided to private properties and the adoptable highway needs to be adapted and altered to facilitate this. The Adopting Engineer must be informed and this must be done in full consultation with them. All costs associated with such works are to be borne by the Developer.

CAPPING LAYER REQUIREMENTS

1	2	3	4
SUBGRADE CBR (%)	CAPPING LAYER THICKNESS (mm)	SUB-BASE THICKNESS (mm)	KMBC STANDARD MINIMUM SUB-BASE (mm)
<2	600	150	-
2 - 2.5	450	150	-
>2.5 - 3	-	-	350
>3 - 4	-	-	300
>4 - 5	-	-	260
>5	-	-	230

Notes:
1. For subgrades of 2.5% or less, a combination of 150mm Type 1 sub-base together with a capping layer as indicated in columns 2&3 above shall be used.
2. For very weak subgrades a geotextile may be required.
3. For subgrades greater than 2.5%, the sub-base thickness to be used shall be the greater of:
   a) That indicated in column 4 above
   b) That shown in the section above

Rev.	Description	Date	By
A	Updated to reference masterplan	09.05.2023	DA
-	First Issue	08.07.2022	DA

Drawing Status
PLANNING
SUBJECT TO DETAILED DESIGN

Client
REDROW

Project
Lower Road, Halewood
Phase 3

Title
Adoptable Highway Construction Details
Sheet 2 of 3

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Scale: NTS (A1)
Drawn: DA
Date: July 2022
Checked: OB
File: 20040/dwgs/civiis/current/planning/PH3
Drawing: 20040 - PH3 / PL12 A