DS.132
Vehicle crossings and H-bar markings

Rev.	Status	Created by	Date	Approved by	Date
A	Final	D.Farnham/R.Mahama	07.02.12	D.Waters	08.02.12
B	Final	D.Farnham	28.09.12	D.Waters	02.10.12
C	Final	D.Farnham	29.01.13	D.Waters	08.02.13
D	Final	D.Farnham	08.12.13	M.Hill	12.12.13
E	Final	D.Farnham	06.07.16	M Hill	12.09.16
F	Final	G Lake	15. 05.19	D Foden	19.06.19
G	Final	G Lake	15. 09.23	D Foden	15.09.23

1 Applications for new Vehicle crossings

1.1 Notes

a. This standard explains requirements about the use and design of crossings for motor vehicles over footways and cycle tracks to allow them to reach private land from the carriageway. These are known as vehicle crossings. It does not apply to crossings to allow pedal cyclists access over footways. It also explains requirements about white H-bar markings. These are sometimes introduced in front of vehicle crossings to deter people from parking in front of them.

b. See the SSDM webpages at Southwark SSDM about the design of streets and spaces.

1.2 Discussion

a. Vehicle crossings are features that allow motorised vehicles access over footways so that they can reach driveways or other hard-standing areas on private land. They need to be carefully located and designed so that, amongst other things,
   i. footways aren't damaged as vehicles pass over them
   ii. vehicles do not overhang the highway when parked on private land or dwell on the highway when entering/exiting it, thereby causing an obstruction
   iii. their visual impact is minimised and, wherever possible, a sense of continuity of the footway and pedestrian priority is maintained
   iv. potential conflict with pedestrians (and in the case of emerging vehicles) other vehicles in the carriageway is safely managed.

b. White 'H-bar' line markings are sometimes installed along the edges of carriageways in front of vehicle crossings and other features like dropped kerbs for pedestrians. This is normally done to deter vehicles from parking in front of them. However, they have no legal status and are purely advisory. Section 56 of the Traffic Management Act 2002 (TMA) makes it automatically an offence to park in front of vehicle crossings or pedestrian dropped kerbs. The need for H-Bars is therefore questionable and they are often identified as an instance of street clutter. See DS 007 regarding the use of H-bars.

1.3 Design and construction by the Highway Authority

1.3.1 General

a. Residential property owners may apply to the Highway Authority to design and construct new vehicle crossings to serve their properties. Applicants should contact Highways@southwark.gov.uk. If the crossing will serve commercial premises then applicants are advised that the Highway Authority are likely to require them to enter into agreements under section 278 of the Highways Act 1980. Fees are payable for both of these services.

b. If the Highway Authority agrees to provide the above design and construction services it does not guarantee that a design for a Vehicle crossing will be accepted and/or its subsequent construction authorised. Design acceptance remains subject to the requirements in section 1.5 whilst construction authorisation is subject to those in section 1.6.

1.3.2 Exclusions

a. Residential applicants should note that the Highway Authority will not undertake the following actions. Applicants must arrange and undertake these themselves at their own expense.
   i. Obtaining Town & Country planning permission where this is necessary. Examples where this may be required are listed below. However, applicants are advised to check with the Council acting in its capacity as Local Planning Authority for formal details (see note).
      - The premises to be served is either located on a classified road (an A or B road), is not a single dwelling or is a commercial property.

- The hard-standing to be provided on the private land is not constructed out of permeable material and is > 5m^2.
- The premises to be served is a listed building and the proposals require a private wall, railing or fence or gate to be demolished or modified or other works that would affect its character.
- The premises to be served is located in a conservation area and the proposals require all or part of a boundary wall, railing, fence, gate or similar to be demolished or removed where they exceed one metre in height.
- The proposals require a tree to be felled that is subject to a tree preservation order or which is within a conservation area.

ii. Obtaining the owner of the premises' written consent to any necessary legal agreements as section 1.4 if the applicant is not the owner.

iii. Designing and constructing works on private land to meet the design requirements in section 2.4.

NOTE: See the 'Sustainable Transport' (Southwark Council, 2010) supplementary planning document for details of the council acting as Local Planning Authority's requirements for the assessment of applications to create private accesses.

1.4 Legal conditions

a. The Highway Authority imposes the following conditions on applicants and their successors when it authorises new vehicle crossings.
   i. They shall not allow any vehicle parked on their premises to overhang the footway. See section 2.4.1 for further information.
   ii. They shall not construct any gates over the private drive unless they are set back ≥ 6m from the interface with the highway. See section 2.4.4 for further information.
   iii. Vehicles shall exit the vehicle crossing in forward gear. Wherever practical they shall also be required to enter in forward gear too. This is mandatory in certain circumstances. Where it is not mandatory and it is not possible for them to both exit *and* enter the crossing in forward gear then preference will be given to the former. They will be required to reverse in so they can later exit in forward gear. See 2.5.7 for further information.
   iv. They shall not obstruct visibility splays within their premises at the interface between the private hard-standing and highway for vehicle users emerging onto the highway. See section 2.5.2 for further information.

   These will be specified in the authorisation letter and are made under section 184(b) of the Highways Act 1980.

1.5 Approving designs for new vehicle crossings

a. New vehicle crossings must be designed and accepted in accordance with SSDM requirements. These are not limited to the requirements in this standard. They include also requirements in other SSDM standards and procedures.

b. For the avoidance of doubt, the Highway Authority will not accept designs for proposed new vehicle crossings until the following actions are complete (as appropriate).
   i. Town & Country planning consent is obtained as necessary (see section 1.3.2). Applicants are responsible for demonstrating to the Highway Authority that this is unnecessary or providing evidence that it has been obtained.
   ii. Any affected property owner's permission is obtained (see section 1.3.2). Applicants are responsible for providing evidence to the Highway Authority that they have this.
   iii. A Stage 1+2 Road Safety Audit is complete if one is required (see 'c').
   iv. (If the Highway Authority has been appointed to design and construct the vehicle crossing as section 1.3) Any fees owed to the Highway Authority that are due by this stage are paid.
   v. (For crossings to serve commercial premises) Details about the type and frequency of vehicles that will use the

vehicle crossing are provided (see note). This should be included in a Transport Statement or Traffic Impact Assessment (as appropriate) associated with the related Planning submission.

NOTE: This information is necessary to determine both the minimum size for the hard-standing on private land (see section 2.4.1) and the standard detail to be used for the crossing (see section 2.5.1).

c. Road safety audit as per Southwark's procedure is required for designs for proposed new vehicle crossings when any of the following apply. Acceptance of designs is subject to the outcomes of this.
   i. The vehicle crossing is located on a classified road (an A or B road).
   ii. The vehicle crossing serves a commercial premises.
   iii. The proposed position of the vehicle crossing both
      - conflicts with a location criteria as Table 1, so requiring a Departure to be agreed; and
      - Table 1 states that Departure from that location criteria is subject to Road Safety Audit.
   iv. Any departure from that criteria will first be accepted in principle only. Full acceptance of the departure will not be confirmed (such that the wider design proposal may be accepted) until the stage 2 (or 1+2) road safety audit process is complete.
   v. In other instances the Highway Authority will confirm the need for road safety audit on a case specific basis (see note).

1.6 Authorising construction of new vehicle crossings

a. Everywhere a design for a new vehicle crossing has been accepted, the Highway Authority will not authorise it to be constructed until all the following actions are complete (as applicable).
   i. The applicant has completed any necessary works on their private land as section 4.1. Applicants are advised that Highway Inspectors will conduct checks to confirm this. In cases of doubt, applicants will be required to provide proof of the adequacy of the works (for instance, that private hard-standings are permeable where this is required or that surface water does not shed onto the highway).
   ii. All necessary traffic management orders are successfully made (see note).
   iii. Any consents required by statutory undertakers to relocate or modify their equipment, if necessary, as section 2.5.2 have been obtained.
   iv. Any design fees owed to the Highway Authority have been paid by the applicant/team.

NOTE: In certain instances this standard may require parking restrictions (including yellow lines), kerb side parking bays and the like to be introduced, removed or adjusted to accommodate new vehicle crossings. Where this is the case then authorisation of new crossings will almost always be subject to traffic management orders (TMOs) being confirmed as per statutory and constitutional order making procedures. This is a separate process to the Town & Country planning process. They require the public to be consulted by advertising the proposed TMO. Applicants are responsible for all costs associated with making and advertising TMOs.

2 Design requirements

2.1 Vehicle crossing or road junction?

a. Accesses to properties from the highway for motor vehicles should be designed as vehicle crossing in accordance with the requirements in this and other standards when both of the following apply.
   i. Combined vehicle movements in and out of the access in any hour are estimated to be ≤ 6 commercial vehicles movements and/or ≤12 vehicles movements of any kind.
   ii. ≤ 12 individual premises share the access (see note).

NOTE: This might include instance where 7 or fewer back-land properties share a private drive that is not highway but which is accessed from the highway carriageway via a vehicle crossing. See Section 2.4.2 for related design requirements.

b. In instances other than 'a', road junctions should be introduced to provide access to properties as part of the highway network. They should be designed and treated as carriageways, with a raised table or traffic Carpet as standard DS.111 applied at the junction. An internal road designed to adoptable standards is also required.

2.2 Number of vehicle crossings per property

a. Residential properties may only be served by a single vehicle crossing. The same applies to commercial properties. However, for larger commercial premises, arrangements involving linked in-and-out crossings (e.g. carriageway drives) will be considered on a case specific basis and may be permitted by level 1 departure. To obtain this, both of the following must be demonstrated.
   i. The arrangement will resolve an unacceptable road safety issue that cannot be otherwise adequately addressed.
   ii. The arrangement will not negatively impact on accessibility, priority or convenience for pedestrians. These concerns are most likely to be satisfied when the length of footway between the two crossings is ≥8m.

2.3 Locating vehicle crossings

a. Table 1 explains major constraints for locating new vehicle crossings. Crossings should not be sited where they will conflict with these.

NOTE: Further design requirements that may have a secondary influence on location are explained elsewhere in this standard. However, all of these can be resolved through engineering, albeit that this may sometimes prove costly. Examples include relocating lighting columns or drainage gullies and strengthening chamber covers to resolve conflict.

Criteria	Requirement	Departure from requirement is subject to RSA as '1.5c.iii'
A Proximity to other vehicle crossings	New vehicle crossings should be located so that a minimum 1.2m length of standard footway is provided between it and any other neighbouring vehicle crossing. That length of footway should be delineated by a full height upstand kerb at its interface with the carriageway for its full duration. Lengths that include flares associated with crossing ramps are excluded.	No
B Pedestrian crossings	New vehicle crossings should not be located within 2.5m (measured along the street) of any uncontrolled Formal crossing for pedestrians, as defined the limits of associated tactile surfacing. They should also not be located within the confines of zig-zag lines associated with controlled Formal crossings. Adjusting lines is subject to the requirements of standard DS.308.	Yes
C Bus stop cages	New vehicle crossings should not be located within bus cages or closer than 10m to one on the same side of the street. The Highway Authority reserves the right to extend this distance if the frequency of bus services or the number of queuing passengers warrant it. Relocating existing bus cages requires Level 1 Departure.	Yes
D Raised tables, speed cushions, speed humps and traffic islands	New vehicle crossings should not be located adjacent to any of these features. The Highway Authority will consider reasonable proposals to relocate existing features at the applicant or team's expense.	Yes
E Existing prescribed parking bays	New vehicle crossings should not be located where they will conflict with existing prescribed parking bays for waiting or loading (either in respect to the physical location of the proposed access or by obstructing related visibility splays). The Highway Authority will consider reasonable proposals to relocate bays or, exceptionally, remove them without replacement. However, as this will require existing traffic management orders (TMOs) to be adjusted it is subject to statutory and constitutional procedures (see note to '1.6a').	No
F Close proximity to side roads	New vehicle crossings should not be located within 15m of a side road junction to the same side of the street. This is measured from the projected edge of the nearest kerb of the interfacing road (prior to any corner radii) to the nearest edge of the private access. On classified roads (A and B roads) the minimum distance should be 24m. If the property to be served is located at a junction between two roads then the crossing should emerge onto the minor road to concentrate turning movements on one arm.	Yes
G Segregated cycle lanes	If there is an existing cycle track on the footway or physically segregated cycle lane on the carriageway in the vicinity then introducing a new vehicle crossing on the same side of the street requires level 1 departure. Local adjustments to the cycling facility are likely to be necessary. Road safety audit is required in all instances.	Yes
H Locations with poor visibility for road users	New vehicle crossings should not be introduced on the inside of bends if the radius of curvature at the centre line of the carriageway is ≤ 90 metres unless visibility requirements as per standard DS.114 are met.	Yes
I Street trees	New vehicle crossings should not be introduced where they will require existing trees to be removed or will otherwise impact unacceptably upon them. See also note 1.	No
J Green verges	New vehicle crossings should not be introduced where they will require existing grassed or planted verges or other soft landscaped areas to be replaced with a paved area. See also note 2.	No
K Land ownership	Private hard-standings (and associated visibility splays for vehicles emerging from these onto the highway – see section 2.5.2) should normally be within the applicant's freehold ownership. If this is not the case then the Applicant must obtain the freeholder's consent. See also section 2.4.	No

NOTES

1) Examples of unacceptable impact include (a) risk of colliding with trunks due to the vehicle crossing width or (b) damaging rooting zones due to vehicle overrun. Constructing vehicle crossings over previously soft landscaped areas of any tree's root protection area is unlikely to be permitted. See also note 2.
2) As per standard DS.601, the Highway Authority will not normally permit 'no-dig' constructions to be used as a means of allowing existing soft landscaped areas within the highway to be paved over whilst avoiding impacting on drainage or root protection areas.

Table 1 – Major location constraints for new vehicle crossings

2.4 Requirements for private land

2.4.1 Hard-standings

a. Vehicle crossings must lead to a hard-standing on private land that complies with the following requirements.
   i. It must be large enough to allow the vehicles likely to use it to park perpendicular to the carriageway without overhanging the highway and causing an obstruction in breach of section 137 of the Highways Act 1980 (in relation to which see also section 1.4). For crossings to serve residential premise, the size should be as Table 2. For those to serve commercial premise, size will be considered on a case specific basis but must satisfy the following.

      - Size must not be less than the values in Table 2.

      - Size must be sufficient to accommodate the vehicles that will use the crossing, as evidenced in a transport statement or transport impact assessment as '1.5b.v'.

      - Its width at the highway interface (measured along the highway) must not exceed that of the vehicle crossing as Table 5. This is to prevent vehicles from driving over parts of the footway that have not been strengthened. That is an offence under section 184 of the Highways Act 1980. If the hard-standing exceeds the permitted crossing width then the Highway Authority will require permanent barriers to be erected to reduce it (e.g. walls, railings or bollards).

   ii. It must be at grade with the proposed level of the crossing at the interface between the highway and the private land. This is an important point of detail as the Highway Authority will not normally lower footways to meet existing private land levels. Applicants are solely responsible for carrying out works within their land to achieve this.
   iii. If it has an area >5m^2 then, as per changes to permitted development rights made in 2008, either it must be constructed out of permeable materials else town and country planning consent must be obtained.

b. Subject to the following, hard-standings for two vehicles may span and be shared by two neighbouring properties (such that each has a space for a single vehicle on the part that is on their land).
   i. Both property owners must consent to it.
   ii. A double crossing must then be provided as section 2.5.2.

Dimension	Length(m) of hard-standing intended to accommodate 1 vehicle	Length(m) of hard-standing intended to accommodate 2 vehicles
Internal depth back from the highway edge	≥4.8 where vehicles will not park in front of doors into properties and ≥6.0 where they will (see note 1)	≥4.8 where vehicles will not park in front of doors into properties and ≥6.0 where they will (see note 1)
Internal width along the highway	≥3.0	≥5.0
Width along the highway at interface with the highway edge (see note 2)	3.0	5.0

NOTE

1) See '2.4.1a.i' and section 1.4 about legal restrictions on vehicles overhanging the highway when they are parked on hard-standings. Property owners are responsible for providing even greater depths than the minimum permitted here to ensure this.
2) Additional pedestrian paths and gates may be located beside the vehicle access at the highway interface. However, they must be physically separated from it at that point if necessary to prevent the width at the interface from exceeding the permit value.

Table 2 - Hard-standing dimensions for vehicle crossings serving residential premises

2.4.2 Access drives to back-land properties

a. Where properties are located in back-land then up to 12 may be accessed via a common drive. This does not prevent single back-land properties also being served by such a drive.

b. Drives should meet the following requirements.
   i. They should be on private-land.
   ii. They should be paved (see note).
   iii. Their width should be as Table 3.
   iv. If they are longer than 45m then they must include a turning head. This must provide for both construction vehicles and likely service vehicles that will visit the properties when the drive is in operation. As a minimum, the latter should include refuse vehicles.

NOTE: Applicants for new vehicle crossing should note that, as a town & country planning requirement, hard-standings on private land are normally required to use a pervious construction.

No. of properties served (see note 1)	Required minimum width, metres
1	3.0 if ≤45m long 3.7 if > 45 long (see note 2)
2-5	4.25 for the first 5m Thereafter may be reduced to 3.7
6-10	4.8

NOTE
1) As per section 2.1 drives may not serve greater than 12 properties.
2) This is so that emergency response vehicles can access properties.

Table 3 – Width requirements for drives

2.4.3 Visibility for vehicles as they emerge onto footways

a. Visibility splays must be provided at the interface between the hard-standing (or drive) and the vehicle crossing. These must comply with the requirements in standard DS.114. See also the following.
   i. Section 1.4 about legal agreements to ensure that these are not obstructed in future.
   ii. Section 2.5.7 about the direction of movement when vehicles emerge onto footways.
   iii. Section 1.3.2 about the possible requirement for town and country planning permission to amend boundary walls, fences and railings associated with properties that are listed buildings or located within conservation areas.

NOTE: See also Section 2.5.6 about providing separate visibility splays within the highway at the interface between crossings and the carriageway.

2.4.4 Gates

a. If applicants wish to gate either existing or proposed new vehicle crossings then the gates must comply with the following requirements. These apply equally to drives that serve back-land properties.
   i. They may not open onto the highway. This is as per section 153 of the Highways Act 1980.
   ii. They must be set back by ≥ 6m from the limit of the highway in order to prevent vehicles from obstructing the footway or carriageway whilst they are opened. This is as per section 137 of the Highways Act 1980.

b. See also section 1.4 about legal agreements relating to gates.

2.4.5 Drainage

a. As per section 163 of the Highways Act 1980, surface water from private land may not fall or be shed onto the Highway. Applicants and property owners must implement suitable measures on private land to ensure this.

NOTE 1: The easiest way to achieve this is by profiling private hard-standings and drives to fall away from the highway. However, if this is not possible then it may be necessary to install a linear grid drain or similar along the highway interface.

NOTE 2: Applicants for new vehicle crossing should note that, as a town & country planning requirement, hard-standings on private land are normally required to use a pervious construction.

2.5 Requirements for the highway (existing and proposed)

2.5.1 Standard Details

a. Vehicle crossings should conform to drawings LBS/1100/42 to LBS/1100/48 (see Appendix A). The type of paving used to the surface should be as required in the SSDM surfacing materials palette for the relevant specification area (as defined in the SSDM regulating plan. Variations to these details may be permitted by level 1 departure. One of the following must be demonstrated in order for this to be granted.
   i. Existing constraints prevent the normal detail from being used. The alternative detail must then conform with the normal detail as closely as possible.
   ii. The normal detail would not be in keeping with the typical design of other existing crossings on the streets that are of substantial townscape value. This will be judged by the Highway Authority on a case specific basis.

   In either instance, alternative details must be consistent with the council's duties in respect to road safety and equality.

NOTE: The detail in drawings LBS/1100/42 - 48 requires the footway to remain at-grade as it passes over the crossing plateau (as opposed to dropping down to carriageway level). Interface grades on private land must be designed to allow this. The detail use a Type 2 profile kerb to take up the majority of the kerb height at the front of footway. This has an ~20° battered face.

b. Any existing vehicle crossings that are encountered within scheme areas should be updated to conform to drawings LBS/1100/42 to LBS/1100/48. All the other requirements in 'a' also apply, including those for varying from the detail.

2.5.2 Plateau widths and gradients

a. Table 4 explains requirements for the width of the plateaus of new vehicle crossings, measured across the footway. This is the area of footway between the interface with the private land and the start of the ramp that leads down to the carriageway. Lesser widths and stepper cross-fall gradients require level 2 departure. These are only likely to be approved if supported by groups representing disabled and other vulnerable pedestrians.

SSDM/RP Specification Area	Pedestrian plateau Cross fall gradient, measured across the footway	Pedestrian plateau Width, measured across the footway or cycleway (m) Existing streets and spaces (see note 2)	Pedestrian plateau Width, measured across the footway or cycleway (m) New streets and spaces
World Centre	1:30 -1:60 (1:40 preferred)	1.8	2.1
Town Centre - Zone A(see note 1)	1:30 -1:60 (1:40 preferred)	1.8	2.1
Town Centre - Zone B (see note 1)	1:30 -1:60 (1:40 preferred)	1.5	1.8
Heritage	1:30 -1:60 (1:40 preferred)	1.5	1.8
Village	1:30 -1:60 (1:40 preferred)	1.5	1.8
Docks	1:30 -1:60 (1:40 preferred)	1.5	1.8
General	1:30 -1:60 (1:40 preferred)	1.5	1.8

NOTE
1) See standard DS.208 for definitions of Zone A and Zone B within Town Centre Specification Areas.
2) If new vehicle crossings are proposed in existing streets and spaces then (where necessary) footways and other non-carriageway pavements should be widened so that the plateau widths and gradients in this Table are achieved. Any requests for departure to not do so must demonstrate that widening is unfeasible owing to restrictions on street width or engineering constraints. Notwithstanding this, widths below 1.5 m and gradients steeper than 1:30 are only likely to be approved when they are supported by representatives of disabled and elderly pedestrians

Table 4 – Width and gradient requirements for plateaus

2.5.3 Crossing width along the street (single and double crossings)

a. Table 5 explains width requirements for new vehicle crossings, measured along the street.

Circumstance	Type of properties severed (see note 1)	Radius ≥600 mm Transition ramp ends (see note 2) Required crossing width, excluding ramp transitions (m)	Radius <600 mm or Dropper/other Transition ramp ends (see note 2) Required crossing width, excluding ramp transitions (m)
Crossing serves a single property	Residential	3.0	3.3
Crossing serves a single property	Commercial	3.5	3.8
Crossing serves one or more rear properties that are accessed via a drive as section 2.4.2.	Residential	3.0 - 5.0 to match the drive width as Table 3	3.3 - 5.0 to match the drive width as Table 3
Crossing serves one or more rear properties that are accessed via a drive as section 2.4.2.	Commercial	3.5 - 5.0 to match the drive width as Table 3	3.8 - 5.0 to match the drive width as Table 3
Crossing serves 2 neighbouring residences sharing a common hard-standing for 2 vehicles that spans both as 2.4.1.b.	Residential	5.0	5.3
Crossing serves 2 neighbouring residences sharing a common hard-standing for 2 vehicles that spans both as 2.4.1.b.	Commercial	N/A	N/A

NOTE

1) Where a crossing serves 2 or more premises and these are a mix of residential and commercial properties then requirements shall be as if all were commercial.

2) The required transition type differs between the various standard details discussed in 2.5.1.

Table 5 - Crossing width requirements

2.5.4 Statutory undertaker and highway drainage equipment

a. Wherever possible, vehicle crossing should be positioned to avoid equipment owned by Statutory Undertakers (e.g. below-ground chambers, pipes, drains and ducts and above-ground cabinets). Where this is not possible then, to accommodate both vehicle overrun and the proposed design levels, the equipment must be strengthen and reset to new levels (as necessary).

b. Wherever possible, Highway drainage gullies (and similar) should not be located immediately in front of vehicle crossings that serve Commercial premises (or vice versa if the crossing is new). Where new vehicle crossings are proposed that would serve commercial premises, the Highway Authority reserves the right to require gullies to be relocated to avoid damage to iron work and/or carriageways to be re-profiled to shed surface water to these.

2.5.5 Street furniture and lighting columns

a. Neither street furniture nor street lighting columns should be located within 1.2m of the edge of a vehicle crossing.

b. Where new vehicle crossings are proposed and their locations conflict as above with any existing items, that conflict must be addressed as follows.

i. Street furniture
Items should be reviewed to determine whether they are still required to serve a purpose and then removed or relocated as appropriate. To ensure that review occurs both these things require level 1 departure acceptance.

ii. Street lighting columns
Items must be relocated as part of a revised street lighting design. Teams are advised that, in some instances, achieving satisfactory light distribution may require repositioning of columns elsewhere on the street too.

2.5.6 Visibility for vehicles as they emerge onto the carriageway

a. Where required, visibility splays meeting the requirements in standard DS.114 must be provided at the interface between the vehicle crossing and the carriageway at the base of the ramp. This is so that drivers emerging onto the carriageway from the crossing can be seen by approaching traffic.

NOTE: In general, for vehicle crossings that serve residential premises, standard DS.114 only requires visibility splays at carriageway interfaces where they are located on Classified Roads (A and B roads). However, they are required in all instances for vehicle crossings that serve commercial premises.

2.5.7 Direction of movement of entering and exiting vehicles

Residential Premises

a. Requirements about the direction of vehicle movements for vehicle crossings that serve residential premises are as follows.
   i. Vehicles must be able to exit private land in forward gear. If it is not possible to provide a turning head on private land then a legal agreement as 'iii' to permit vehicles to reverse into the crossing may sometimes be acceptable.
   ii. If the vehicle crossing is on a classified road (an A or B road) or serves 2 or more back-land properties (see section 2.4.2) then vehicles must be able to enter the private land in forward gear.
   iii. In instances other than 'ii', wherever possible vehicles should be able to enter private land in forward gear. However, where this is not possible then reversing into the vehicle crossing from the carriageway may be acceptable subject to local traffic conditions. If it is it will be included in the conditions attached to the crossing authorisation (see section 2 attached to the crossing authorisation (see section 2.2). This will not normally be considered in the vicinity of pedestrian entrances to schools and nurseries.

Commercial Premises

b. Where vehicle crossings serve commercial premises then vehicles should be able to both enter and exit private land in forward gear. Turning facilities should be provided on private land as necessary.

2.5.8 H-bar markings in front of vehicle crossings

New H-bars

a. No new H-bar markings should be introduced, irrespective of the presence of any existing instances in the near vicinity. See DS 007.

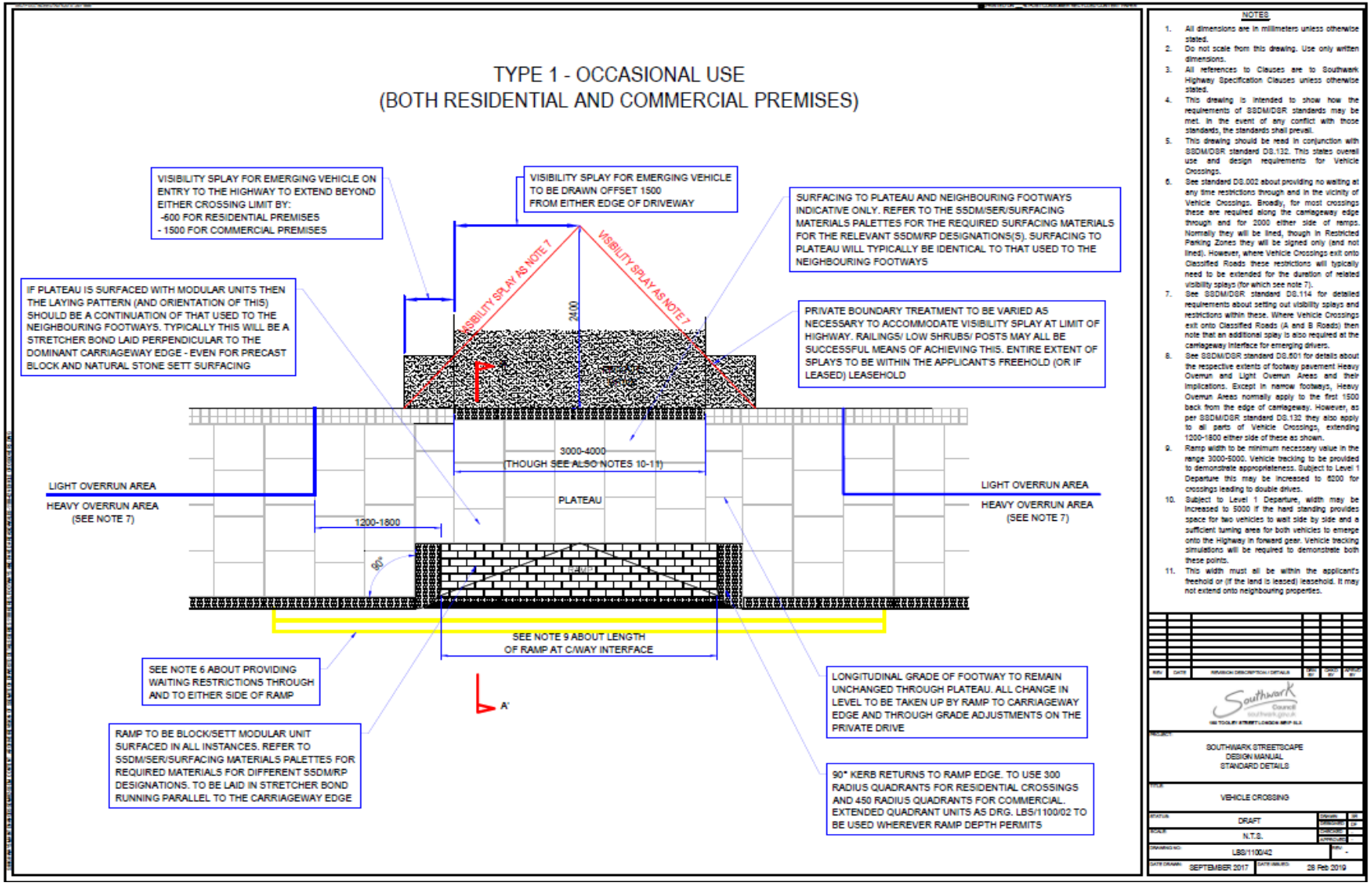
Existing H-bars

b. If existing H-Bar markings are encountered within the scheme area then how they should be treated depends upon their individual age.
   i. Where an instance was installed ≤ 3 years ago then it should be retained unless approval in writing to remove it is obtained from the property owner to which the related vehicle crossing or other access leads. However, such existing markings may not be refreshed unless a level 1 departure is agreed (i.e. be re-lined if they are fading).
   ii. Where an instance was installed >3 years ago then it should be removed unless a level 1 departure is agreed to retain it. It will need to be demonstrated that it serves a legitimate purpose that could not be reasonably achieved through other approaches. See DS 007.

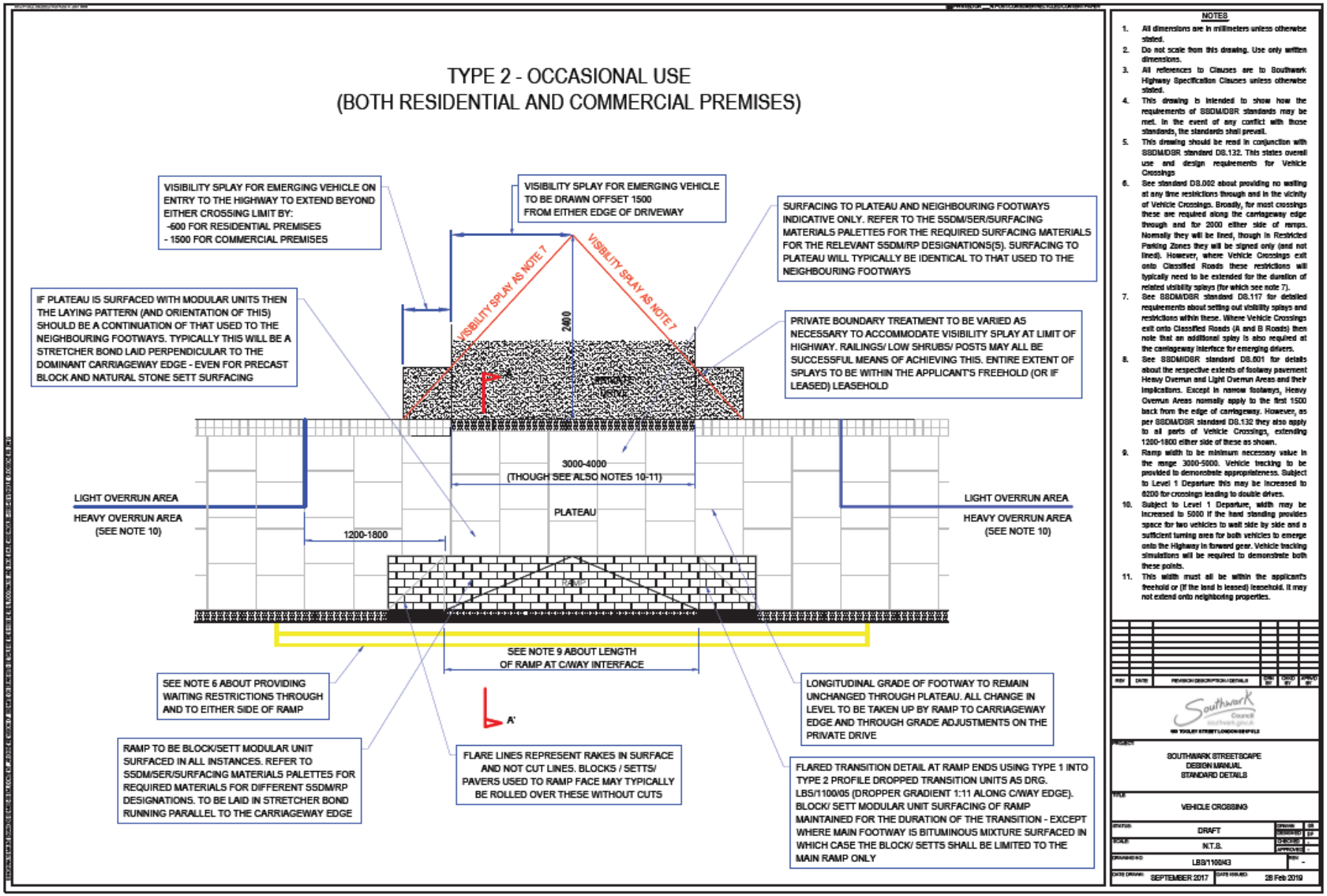
2.5.9 Yellow line waiting restrictions in the vicinity of vehicle crossings

a. See standard DS.002 about providing yellow line waiting restrictions in the vicinity of vehicle crossings. In general, restrictions are required for residential vehicle crossings, extending ≥ 2m either side of the crossing. However, they are required for commercial vehicle crossings in all instances. Where they are required then restrictions normally need to extend to the entire length of related visibility splays, for which see standard DS.114.

Appendix A


TYPE 1 - OCCASIONAL USE
(BOTH RESIDENTIAL AND COMMERCIAL PREMISES)
VISIBILITY SPLAY FOR EMERGING VEHICLE ON ENTRY TO THE HIGHWAY TO EXTEND BEYOND EITHER CROSSING LIMIT BY:
-600 FOR RESIDENTIAL PREMISES
- 1500 FOR COMMERCIAL PREMISES
VISIBILITY SPLAY FOR EMERGING VEHICLE TO BE DRAWN OFFSET 1500 FROM EITHER EDGE OF DRIVEWAY
SURFACING TO PLATEAU AND NEIGHBOURING FOOTWAYS INDICATIVE ONLY. REFER TO THE SSDM/SER/SURFACING MATERIALS PALETTES FOR THE REQUIRED SURFACING MATERIALS FOR THE RELEVANT SSDM/RP DESIGNATIONS(S). SURFACING TO PLATEAU WILL TYPICALLY BE IDENTICAL TO THAT USED TO THE NEIGHBOURING FOOTWAYS
IF PLATEAU IS SURFACED WITH MODULAR UNITS THEN THE LAYING PATTERN (AND ORIENTATION OF THIS) SHOULD BE A CONTINUATION OF THAT USED TO THE NEIGHBOURING FOOTWAYS. TYPICALLY THIS WILL BE A STRETCHER BOND LAID PERPENDICULAR TO THE DOMINANT CARRIAGEWAY EDGE - EVEN FOR PRECAST BLOCK AND NATURAL STONE SETT SURFACING
PRIVATE BOUNDARY TREATMENT TO BE VARIED AS NECESSARY TO ACCOMMODATE VISIBILITY SPLAY AT LIMIT OF HIGHWAY. RAILINGS/ LOW SHRUBS/ POSTS MAY ALL BE SUCCESSFUL MEANS OF ACHIEVING THIS. ENTIRE EXTENT OF SPLAYS TO BE WITHIN THE APPLICANT'S FREEHOLD (OR IF LEASED) LEASEHOLD
VISIBILITY SPLAY AS NOTE 7
VISIBILITY SPLAY AS NOTE 7
2400
3000-4000
(THOUGH SEE ALSO NOTES 10-11)
PLATEAU
LIGHT OVERRUN AREA
HEAVY OVERRUN AREA
(SEE NOTE 7)
LIGHT OVERRUN AREA
HEAVY OVERRUN AREA
(SEE NOTE 7)
1200-1800
90°
SEE NOTE 9 ABOUT LENGTH
OF RAMP AT C/WAY INTERFACE
A
A'
SEE NOTE 6 ABOUT PROVIDING WAITING RESTRICTIONS THROUGH AND TO EITHER SIDE OF RAMP
RAMP TO BE BLOCK/SETT MODULAR UNIT SURFACED IN ALL INSTANCES. REFER TO SSDM/SER/SURFACING MATERIALS PALETTES FOR REQUIRED MATERIALS FOR DIFFERENT SSDM/RP DESIGNATIONS. TO BE LAID IN STRETCHER BOND RUNNING PARALLEL TO THE CARRIAGEWAY EDGE
LONGITUDINAL GRADE OF FOOTWAY TO REMAIN UNCHANGED THROUGH PLATEAU. ALL CHANGE IN LEVEL TO BE TAKEN UP BY RAMP TO CARRIAGEWAY EDGE AND THROUGH GRADE ADJUSTMENTS ON THE PRIVATE DRIVE
90° KERB RETURNS TO RAMP EDGE. TO USE 300 RADIUS QUADRANTS FOR RESIDENTIAL CROSSINGS AND 450 RADIUS QUADRANTS FOR COMMERCIAL. EXTENDED QUADRANT UNITS AS DRG. LBS/1100/02 TO BE USED WHEREVER RAMP DEPTH PERMITS
NOTES
1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard DS.132. This states overall use and design requirements for Vehicle Crossings.
6. See standard DS.002 about providing no waiting at any time restrictions through and in the vicinity of Vehicle Crossings. Broadly, for most crossings these are required along the carriageway edge through and for 2000 either side of ramps. Normally they will be lined, though in Restricted Parking Zones they will be signed only (and not lined). However, where Vehicle Crossings exit onto Classified Roads these restrictions will typically need to be extended for the duration of related visibility splays (for which see note 7).
7. See SSDM/DSR standard DS.114 for detailed requirements about setting out visibility splays and restrictions within these. Where Vehicle Crossings exit onto Classified Roads (A and B Roads) then note that an additional splay is also required at the carriageway interface for emerging drivers.
8. See SSDM/DSR standard DS.501 for details about the respective extents of footway pavement Heavy Overrun and Light Overrun Areas and their implications. Except in narrow footways, Heavy Overrun Areas normally apply to the first 1500 back from the edge of carriageway. However, as per SSDM/DSR standard DS.132 they also apply to all parts of Vehicle Crossings, extending 1200-1800 either side of these as shown.
9. Ramp width to be minimum necessary value in the range 3000-5000. Vehicle tracking to be provided to demonstrate appropriateness. Subject to Level 1 Departure this may be increased to 6200 for crossings leading to double drives.
10. Subject to Level 1 Departure, width may be increased to 5000 if the hard standing provides space for two vehicles to wait side by side and a sufficient turning area for both vehicles to emerge onto the Highway in forward gear. Vehicle tracking simulations will be required to demonstrate both these points.
11. This width must all be within the applicant's freehold or (if the land is leased) leasehold. It may not extend onto neighbouring properties.
SOUTHWARK STREETSCAPE DESIGN MANUAL
STANDARD DETAILS
VEHICLE CROSSING
DRAFT
N.T.S.
LBS/1100/42
SEPTEMBER 2017
28 Feb 2019

TYPE 2 - OCCASIONAL USE
(BOTH RESIDENTIAL AND COMMERCIAL PREMISES)



NOTES

1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard D8.132. This states overall use and design requirements for Vehicle Crossings
6. See standard D8.002 about providing no waiting at any time restrictions through and in the vicinity of Vehicle Crossings. Broadly, for most crossings these are required along the carriageway edge through and for 2000 either side of ramps. Normally they will be lined, though in Restricted Parking Zones they will be signed only (and not lined). However, where Vehicle Crossings exit onto Classified Roads these restrictions will typically need to be extended for the duration of related visibility splays (for which see note 7).
7. See SSDM/DSR standard D8.117 for detailed requirements about setting out visibility splays and restrictions within these. Where Vehicle Crossings exit onto Classified Roads (A and B Roads) then note that an additional splay is also required at the carriageway interface for emerging drivers.
8. See SSDM/DSR standard D8.601 for details about the respective extents of footway pavement Heavy Overrun and Light Overrun Areas and their implications. Except in narrow footways, Heavy Overrun Areas normally apply to the first 1500 back from the edge of carriageway. However, as per SSDM/DSR standard D8.132 they also apply to all parts of Vehicle Crossings, extending 1200-1800 either side of these as shown.
9. Ramp width to be minimum necessary value in the range 3000-5000. Vehicle tracking to be provided to demonstrate appropriateness. Subject to Level 1 Departure this may be increased to 6200 for crossings leading to double drives.
10. Subject to Level 1 Departure, width may be increased to 5000 if the land standing provides space for two vehicles to wait side by side and a sufficient turning area for both vehicles to emerge onto the Highway in forward gear. Vehicle tracking simulations will be required to demonstrate both these points.
11. This width must all be within the applicant's freehold or (if the land is leased) leasehold. It may not extend onto neighboring properties.

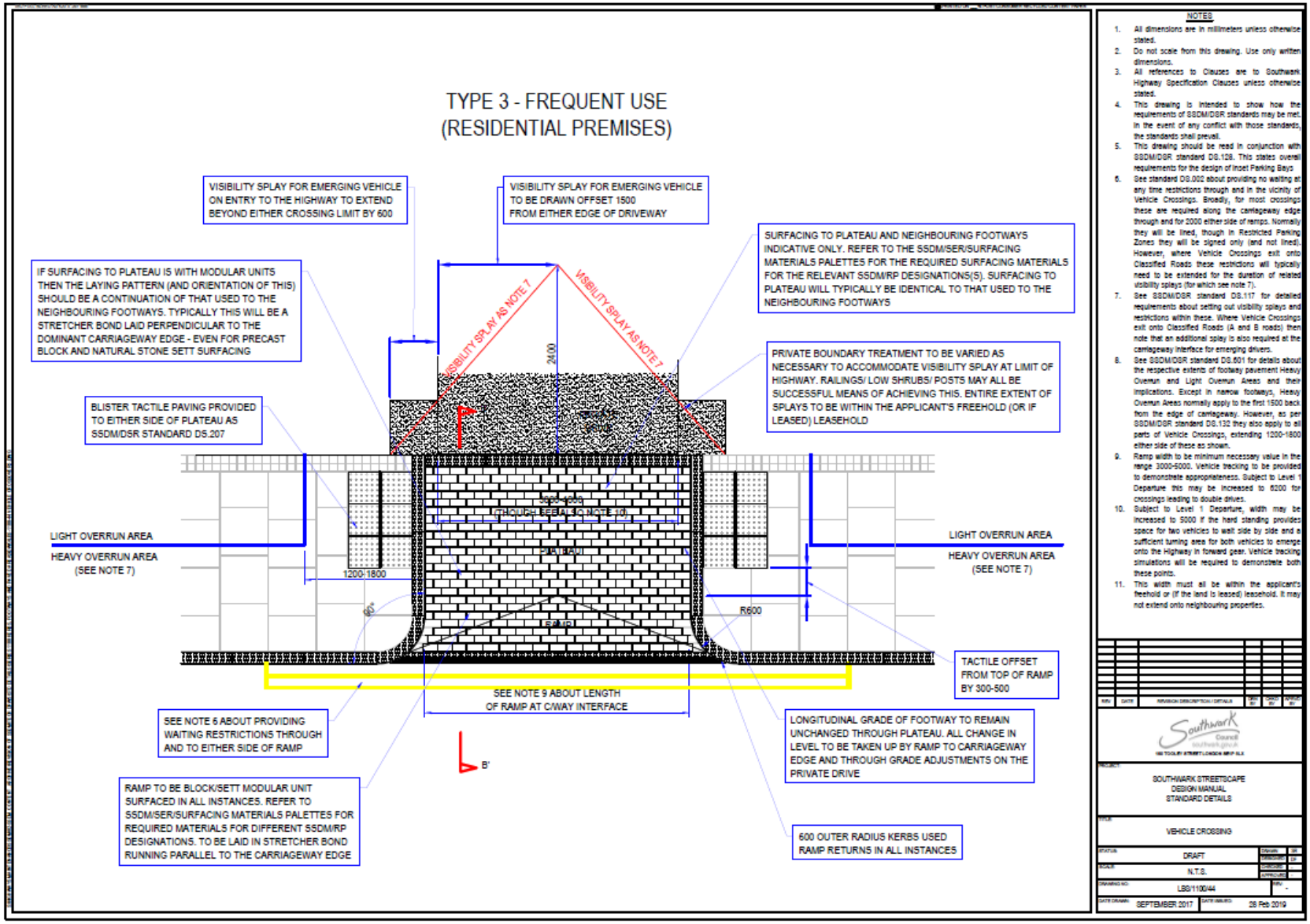
REV	DATE	REVISION DESCRIPTION / DETAILS	DRN BY	CHKD BY	APPROVED BY

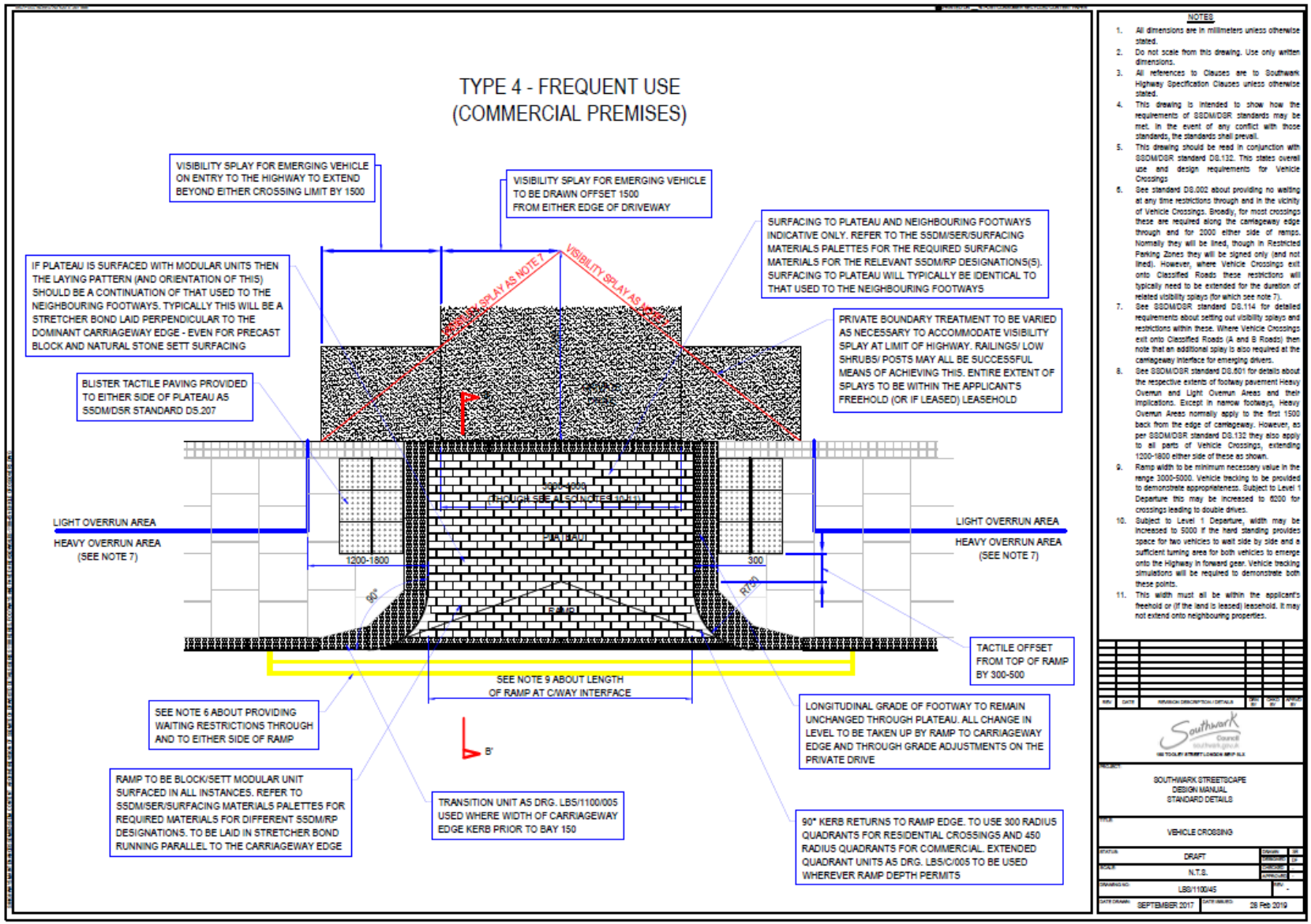
Southwark Council
160 TOOLEY STREET LONDON SE1 2QH

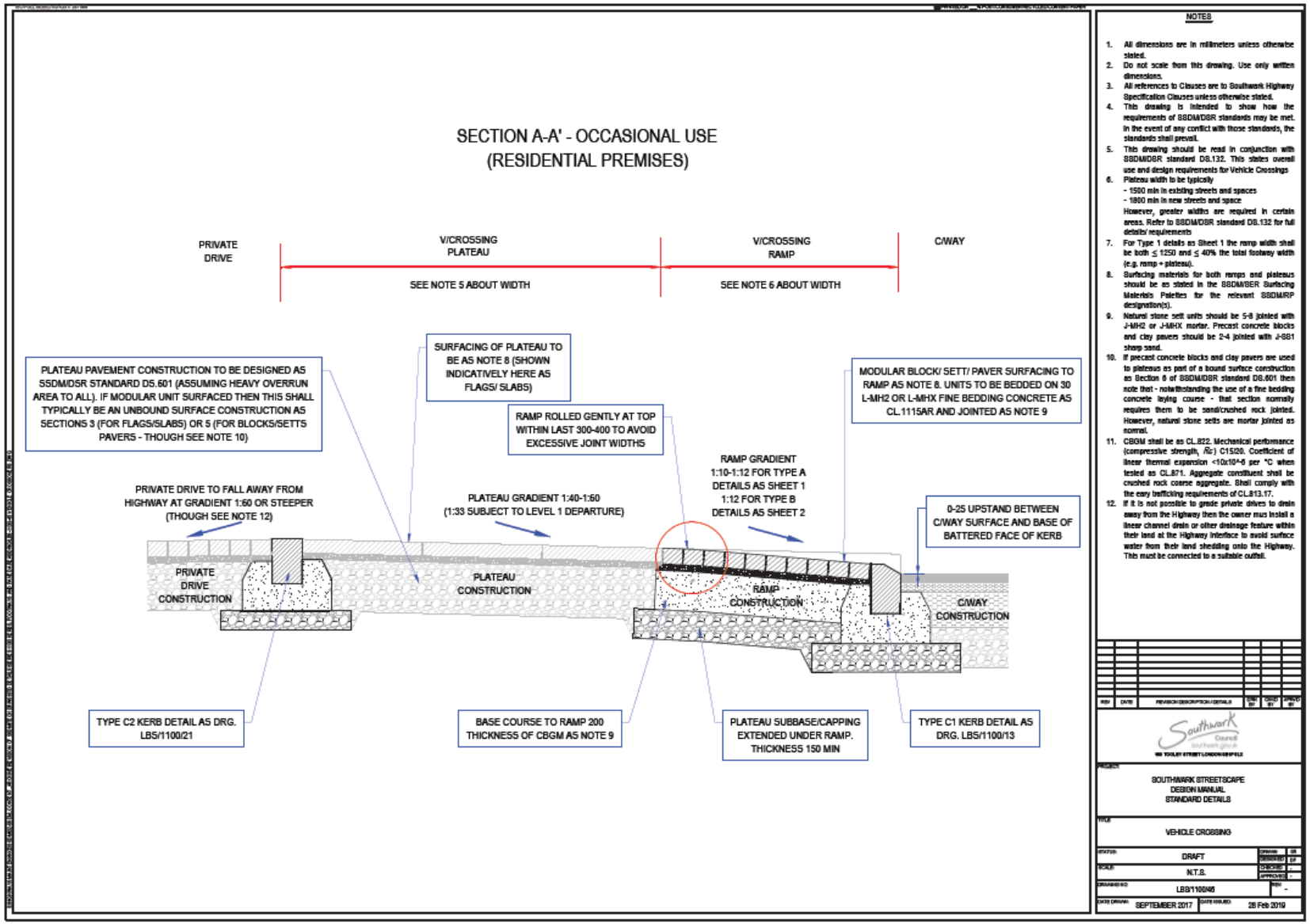
PROJECT: SOUTHWARK STREETSCAPE DESIGN MANUAL STANDARD DETAILS

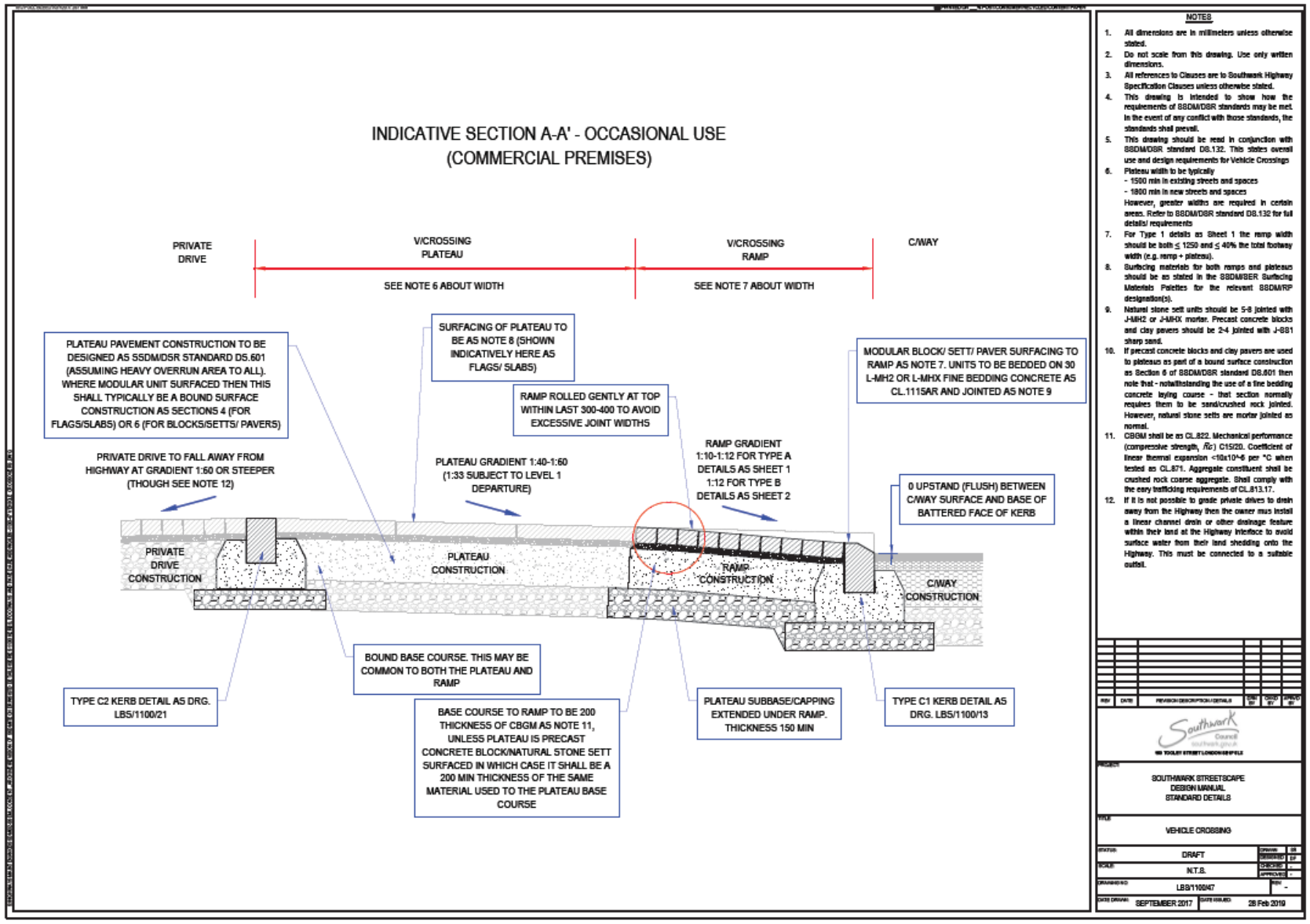
TITLE: VEHICLE CROSSING

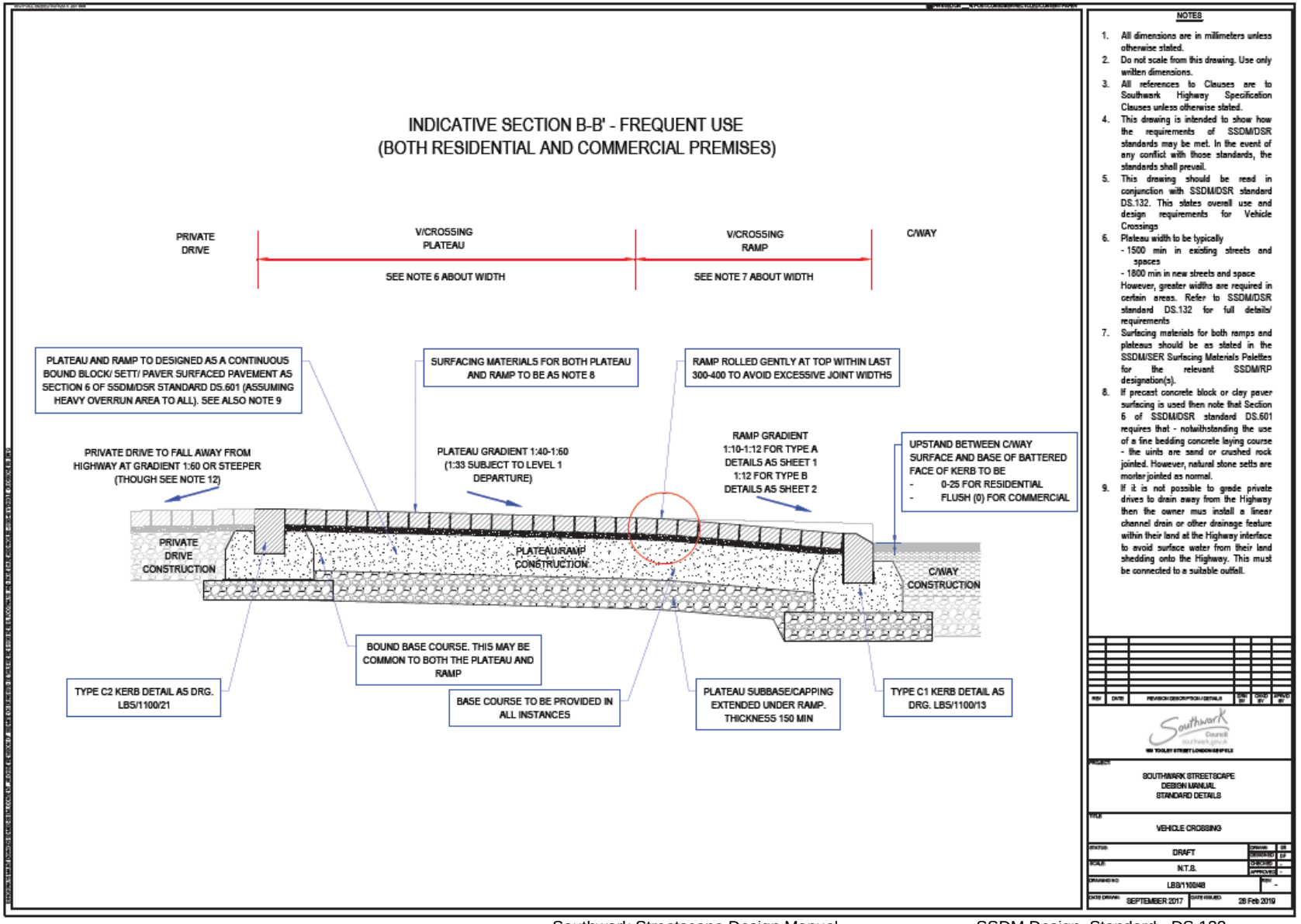
STATUS:	DRAFT	DRAWN	SB
		CHECKED	EP
SCALE:	N.T.S.	CHECKING	-
		APPROVED	-
DRAWING NO:	LBS/1100/43	REV	-
DATE DRAWN:	SEPTEMBER 2017	DATE ISSUED	28 Feb 2019


TYPE 3 - FREQUENT USE
(RESIDENTIAL PREMISES)
VISIBILITY SPLAY FOR EMERGING VEHICLE ON ENTRY TO THE HIGHWAY TO EXTEND BEYOND EITHER CROSSING LIMIT BY 600
VISIBILITY SPLAY FOR EMERGING VEHICLE TO BE DRAWN OFFSET 1500 FROM EITHER EDGE OF DRIVEWAY
SURFACING TO PLATEAU AND NEIGHBOURING FOOTWAYS INDICATIVE ONLY. REFER TO THE SSDM/SER/SURFACING MATERIALS PALETTES FOR THE REQUIRED SURFACING MATERIALS FOR THE RELEVANT SSDM/RP DESIGNATIONS(5). SURFACING TO PLATEAU WILL TYPICALLY BE IDENTICAL TO THAT USED TO THE NEIGHBOURING FOOTWAYS
IF SURFACING TO PLATEAU IS WITH MODULAR UNITS THEN THE LAYING PATTERN (AND ORIENTATION OF THIS) SHOULD BE A CONTINUATION OF THAT USED TO THE NEIGHBOURING FOOTWAYS. TYPICALLY THIS WILL BE A STRETCHER BOND LAID PERPENDICULAR TO THE DOMINANT CARRIAGEWAY EDGE - EVEN FOR PRECAST BLOCK AND NATURAL STONE SETT SURFACING
PRIVATE BOUNDARY TREATMENT TO BE VARIED AS NECESSARY TO ACCOMMODATE VISIBILITY SPLAY AT LIMIT OF HIGHWAY. RAILINGS/ LOW SHRUBS/ POSTS MAY ALL BE SUCCESSFUL MEANS OF ACHIEVING THIS. ENTIRE EXTENT OF SPLAYS TO BE WITHIN THE APPLICANT'S FREEHOLD (OR IF LEASED) LEASEHOLD
BLISTER TACTILE PAVING PROVIDED TO EITHER SIDE OF PLATEAU AS SSDM/DSR STANDARD DS.207
VISIBILITY SPLAY AS NOTE 7
VISIBILITY SPLAY AS NOTE 7
2400
LIGHT OVERRUN AREA
HEAVY OVERRUN AREA (SEE NOTE 7)
LIGHT OVERRUN AREA
HEAVY OVERRUN AREA (SEE NOTE 7)
1200-1800
PLATEAU
RAMP
R600
60°
TACTILE OFFSET FROM TOP OF RAMP BY 300-500
SEE NOTE 9 ABOUT LENGTH OF RAMP AT C/WAY INTERFACE
SEE NOTE 6 ABOUT PROVIDING WAITING RESTRICTIONS THROUGH AND TO EITHER SIDE OF RAMP
LONGITUDINAL GRADE OF FOOTWAY TO REMAIN UNCHANGED THROUGH PLATEAU. ALL CHANGE IN LEVEL TO BE TAKEN UP BY RAMP TO CARRIAGEWAY EDGE AND THROUGH GRADE ADJUSTMENTS ON THE PRIVATE DRIVE
RAMP TO BE BLOCK/SETT MODULAR UNIT SURFACED IN ALL INSTANCES. REFER TO SSDM/SER/SURFACING MATERIALS PALETTES FOR REQUIRED MATERIALS FOR DIFFERENT SSDM/RP DESIGNATIONS. TO BE LAID IN STRETCHER BOND RUNNING PARALLEL TO THE CARRIAGEWAY EDGE
600 OUTER RADIUS KERBS USED RAMP RETURNS IN ALL INSTANCES
B'
NOTES
1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard DS.128. This states overall requirements for the design of Inset Parking Bays
6. See standard DS.002 about providing no waiting at any time restrictions through and in the vicinity of Vehicle Crossings. Broadly, for most crossings these are required along the carriageway edge through and for 2000 either side of ramps. Normally they will be lined, though in Restricted Parking Zones they will be signed only (and not lined). However, where Vehicle Crossings exit onto Classified Roads these restrictions will typically need to be extended for the duration of related visibility splays (for which see note 7).
7. See SSDM/DSR standard DS.117 for detailed requirements about setting out visibility splays and restrictions within these. Where Vehicle Crossings exit onto Classified Roads (A and B roads) then note that an additional splay is also required at the carriageway interface for emerging drivers.
8. See SSDM/DSR standard DS.601 for details about the respective extents of footway pavement Heavy Overrun and Light Overrun Areas and their implications. Except in narrow footways, Heavy Overrun Areas normally apply to the first 1500 back from the edge of carriageway. However, as per SSDM/DSR standard DS.132 they also apply to all parts of Vehicle Crossings, extending 1200-1800 either side of these as shown.
9. Ramp width to be minimum necessary value in the range 3000-5000. Vehicle tracking to be provided to demonstrate appropriateness. Subject to Level 1 Departure this may be increased to 6200 for crossings leading to double drives.
10. Subject to Level 1 Departure, width may be increased to 5000 if the hard standing provides space for two vehicles to wait side by side and a sufficient turning area for both vehicles to emerge onto the Highway in forward gear. Vehicle tracking simulations will be required to demonstrate both these points.
11. This width must all be within the applicant's freehold or (if the land is leased) leasehold. It may not extend onto neighbouring properties.
SOUTHWARK STREETSCAPE DESIGN MANUAL
STANDARD DETAILS
VEHICLE CROSSING
DRAFT
N.T.S.
LBS/1100/44
SEPTEMBER 2017
28 Feb 2019


TYPE 4 - FREQUENT USE
(COMMERCIAL PREMISES)
VISIBILITY SPLAY FOR EMERGING VEHICLE ON ENTRY TO THE HIGHWAY TO EXTEND BEYOND EITHER CROSSING LIMIT BY 1500
VISIBILITY SPLAY FOR EMERGING VEHICLE TO BE DRAWN OFFSET 1500 FROM EITHER EDGE OF DRIVEWAY
SURFACING TO PLATEAU AND NEIGHBOURING FOOTWAYS INDICATIVE ONLY. REFER TO THE SSDM/SER/SURFACING MATERIALS PALETTES FOR THE REQUIRED SURFACING MATERIALS FOR THE RELEVANT SSDM/RP DESIGNATIONS(S). SURFACING TO PLATEAU WILL TYPICALLY BE IDENTICAL TO THAT USED TO THE NEIGHBOURING FOOTWAYS
IF PLATEAU IS SURFACED WITH MODULAR UNITS THEN THE LAYING PATTERN (AND ORIENTATION OF THIS) SHOULD BE A CONTINUATION OF THAT USED TO THE NEIGHBOURING FOOTWAYS. TYPICALLY THIS WILL BE A STRETCHER BOND LAID PERPENDICULAR TO THE DOMINANT CARRIAGEWAY EDGE - EVEN FOR PRECAST BLOCK AND NATURAL STONE SETT SURFACING
PRIVATE BOUNDARY TREATMENT TO BE VARIED AS NECESSARY TO ACCOMMODATE VISIBILITY SPLAY AT LIMIT OF HIGHWAY. RAILINGS/ LOW SHRUBS/ POSTS MAY ALL BE SUCCESSFUL MEANS OF ACHIEVING THIS. ENTIRE EXTENT OF SPLAYS TO BE WITHIN THE APPLICANT'S FREEHOLD (OR IF LEASED) LEASEHOLD
BLISTER TACTILE PAVING PROVIDED TO EITHER SIDE OF PLATEAU AS SSDM/DSR STANDARD DS.207
VISIBILITY SPLAY AS NOTE 7
VISIBILITY SPLAY AS NOTE 7
CARRIAGEWAY
FOOTWAY
PLATEAU
LIGHT OVERRUN AREA
HEAVY OVERRUN AREA (SEE NOTE 7)
LIGHT OVERRUN AREA
HEAVY OVERRUN AREA (SEE NOTE 7)
1200-1800
300
RAMP
TACTILE OFFSET FROM TOP OF RAMP BY 300-500
SEE NOTE 9 ABOUT LENGTH OF RAMP AT C/WAY INTERFACE
LONGITUDINAL GRADE OF FOOTWAY TO REMAIN UNCHANGED THROUGH PLATEAU. ALL CHANGE IN LEVEL TO BE TAKEN UP BY RAMP TO CARRIAGEWAY EDGE AND THROUGH GRADE ADJUSTMENTS ON THE PRIVATE DRIVE
SEE NOTE 6 ABOUT PROVIDING WAITING RESTRICTIONS THROUGH AND TO EITHER SIDE OF RAMP
RAMP TO BE BLOCK/SETT MODULAR UNIT SURFACED IN ALL INSTANCES. REFER TO SSDM/SER/SURFACING MATERIALS PALETTES FOR REQUIRED MATERIALS FOR DIFFERENT SSDM/RP DESIGNATIONS. TO BE LAID IN STRETCHER BOND RUNNING PARALLEL TO THE CARRIAGEWAY EDGE
TRANSITION UNIT AS DRG. LBS/1100/005 USED WHERE WIDTH OF CARRIAGEWAY EDGE KERB PRIOR TO BAY 150
90° KERB RETURNS TO RAMP EDGE. TO USE 300 RADIUS QUADRANTS FOR RESIDENTIAL CROSSINGS AND 450 RADIUS QUADRANTS FOR COMMERCIAL. EXTENDED QUADRANT UNITS AS DRG. LBS/C/005 TO BE USED WHEREVER RAMP DEPTH PERMITS
NOTES
1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard DS.132. This states overall use and design requirements for Vehicle Crossings
6. See standard DS.002 about providing no waiting at any time restrictions through and in the vicinity of Vehicle Crossings. Broadly, for most crossings these are required along the carriageway edge through and for 2000 either side of ramps. Normally they will be lined, though in Restricted Parking Zones they will be signed only (and not lined). However, where Vehicle Crossings exit onto Classified Roads these restrictions will typically need to be extended for the duration of related visibility splays (for which see note 7).
7. See SSDM/DSR standard DS.114 for detailed requirements about setting out visibility splays and restrictions within these. Where Vehicle Crossings exit onto Classified Roads (A and B Roads) then note that an additional splay is also required at the carriageway interface for emerging drivers.
8. See SSDM/DSR standard DS.601 for details about the respective extents of footway pavement Heavy Overrun and Light Overrun Areas and their implications. Except in narrow footways, Heavy Overrun Areas normally apply to the first 1500 back from the edge of carriageway. However, as per SSDM/DSR standard DS.132 they also apply to all parts of Vehicle Crossings, extending 1200-1800 either side of these as shown.
9. Ramp width to be minimum necessary value in the range 3000-5000. Vehicle tracking to be provided to demonstrate appropriateness. Subject to Level 1 Departure this may be increased to 6200 for crossings leading to double drives.
10. Subject to Level 1 Departure, width may be increased to 5000 if the hard standing provides space for two vehicles to wait side by side and a sufficient turning area for both vehicles to emerge onto the Highway in forward gear. Vehicle tracking simulations will be required to demonstrate both these points.
11. This width must all be within the applicant's freehold or (if the land is leased) leasehold. It may not extend onto neighbouring properties.
SOUTHWARK STREETSCAPE DESIGN MANUAL STANDARD DETAILS
VEHICLE CROSSING
DRAFT
N.T.S.
LBS/1100/45
SEPTEMBER 2017
28 Feb 2019


SECTION A-A' - OCCASIONAL USE
(RESIDENTIAL PREMISES)
PRIVATE DRIVE
V/CROSSING PLATEAU
SEE NOTE 5 ABOUT WIDTH
V/CROSSING RAMP
SEE NOTE 6 ABOUT WIDTH
C/WAY
PLATEAU PAVEMENT CONSTRUCTION TO BE DESIGNED AS SSDM/DSR STANDARD DS.601 (ASSUMING HEAVY OVERRUN AREA TO ALL). IF MODULAR UNIT SURFACED THEN THIS SHALL TYPICALLY BE AN UNBOUND SURFACE CONSTRUCTION AS SECTIONS 3 (FOR FLAGS/SLABS) OR 5 (FOR BLOCKS/SETTS PAVERS - THOUGH SEE NOTE 10)
SURFACING OF PLATEAU TO BE AS NOTE 8 (SHOWN INDICATIVELY HERE AS FLAGS/ SLABS)
RAMP ROLLED GENTLY AT TOP WITHIN LAST 300-400 TO AVOID EXCESSIVE JOINT WIDTHS
MODULAR BLOCK/ SETT/ PAVER SURFACING TO RAMP AS NOTE 8. UNITS TO BE BEDDED ON 30 L-MH2 OR L-MHX FINE BEDDING CONCRETE AS CL.1115AR AND JOINTED AS NOTE 9
PRIVATE DRIVE TO FALL AWAY FROM HIGHWAY AT GRADIENT 1:60 OR STEEPER (THOUGH SEE NOTE 12)
PLATEAU GRADIENT 1:40-1:60 (1:33 SUBJECT TO LEVEL 1 DEPARTURE)
RAMP GRADIENT 1:10-1:12 FOR TYPE A DETAILS AS SHEET 1 1:12 FOR TYPE B DETAILS AS SHEET 2
0-25 UPSTAND BETWEEN C/WAY SURFACE AND BASE OF BATTERED FACE OF KERB
PRIVATE DRIVE CONSTRUCTION
PLATEAU CONSTRUCTION
RAMP CONSTRUCTION
C/WAY CONSTRUCTION
TYPE C2 KERB DETAIL AS DRG. LBS/1100/21
BASE COURSE TO RAMP 200 THICKNESS OF CBGM AS NOTE 9
PLATEAU SUBBASE/CAPPING EXTENDED UNDER RAMP. THICKNESS 150 MIN
TYPE C1 KERB DETAIL AS DRG. LBS/1100/13
NOTES
1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard DS.132. This states overall use and design requirements for Vehicle Crossings
6. Plateau width to be typically
- 1500 min in existing streets and spaces
- 1800 min in new streets and space
However, greater widths are required in certain areas. Refer to SSDM/DSR standard DS.132 for full details/ requirements
7. For Type 1 details as Sheet 1 the ramp width shall be both ≤ 1250 and ≤ 40% the total footway width (e.g. ramp + plateau).
8. Surfacing materials for both ramps and plateaus should be as stated in the SSDM/BER Surfacing Materials Palettes for the relevant SSDM/RP designation(s).
9. Natural stone sett units should be 5-8 jointed with J-MH2 or J-MHX mortar. Precast concrete blocks and clay pavers should be 2-4 jointed with J-SB1 sharp sand.
10. If precast concrete blocks and clay pavers are used to plateaus as part of a bound surface construction as Section 6 of SSDM/DSR standard DS.601 then note that - notwithstanding the use of a fine bedding concrete laying course - that section normally requires them to be sand/crushed rock jointed. However, natural stone setts are mortar jointed as normal.
11. CBGM shall be as CL.822. Mechanical performance (compressive strength, Rc) C15/20. Coefficient of linear thermal expansion <10x10^-6 per °C when tested as CL.871. Aggregate constituent shall be crushed rock coarse aggregate. Shall comply with the carry trafficking requirements of CL.813.17.
12. If it is not possible to grade private drives to drain away from the Highway then the owner must install a linear channel drain or other drainage feature within their land at the Highway interface to avoid surface water from their land shedding onto the Highway. This must be connected to a suitable outfall.
SOUTHWARK STREETSCAPE DESIGN MANUAL
STANDARD DETAILS
VEHICLE CROSSING
DRAFT
N.T.S.
LBS/1100/46
SEPTEMBER 2017
28 Feb 2019


INDICATIVE SECTION A-A' - OCCASIONAL USE
(COMMERCIAL PREMISES)
PRIVATE DRIVE
V/CROSSING PLATEAU
SEE NOTE 6 ABOUT WIDTH
V/CROSSING RAMP
SEE NOTE 7 ABOUT WIDTH
C/WAY
PLATEAU PAVEMENT CONSTRUCTION TO BE DESIGNED AS SSDM/DSR STANDARD DS.601 (ASSUMING HEAVY OVERRUN AREA TO ALL). WHERE MODULAR UNIT SURFACED THEN THIS SHALL TYPICALLY BE A BOUND SURFACE CONSTRUCTION AS SECTIONS 4 (FOR FLAGS/SLABS) OR 6 (FOR BLOCKS/SETTS/ PAVERS)
SURFACING OF PLATEAU TO BE AS NOTE 8 (SHOWN INDICATIVELY HERE AS FLAGS/ SLABS)
RAMP ROLLED GENTLY AT TOP WITHIN LAST 300-400 TO AVOID EXCESSIVE JOINT WIDTHS
MODULAR BLOCK/ SETT/ PAVER SURFACING TO RAMP AS NOTE 7. UNITS TO BE BEDDED ON 30 L-MH2 OR L-MHX FINE BEDDING CONCRETE AS CL.1115AR AND JOINTED AS NOTE 9
PRIVATE DRIVE TO FALL AWAY FROM HIGHWAY AT GRADIENT 1:60 OR STEEPER (THOUGH SEE NOTE 12)
PLATEAU GRADIENT 1:40-1:60 (1:33 SUBJECT TO LEVEL 1 DEPARTURE)
RAMP GRADIENT 1:10-1:12 FOR TYPE A DETAILS AS SHEET 1 1:12 FOR TYPE B DETAILS AS SHEET 2
0 UPSTAND (FLUSH) BETWEEN C/WAY SURFACE AND BASE OF BATTERED FACE OF KERB
PRIVATE DRIVE CONSTRUCTION
PLATEAU CONSTRUCTION
RAMP CONSTRUCTION
C/WAY CONSTRUCTION
BOUND BASE COURSE. THIS MAY BE COMMON TO BOTH THE PLATEAU AND RAMP
TYPE C2 KERB DETAIL AS DRG. LBS/1100/21
BASE COURSE TO RAMP TO BE 200 THICKNESS OF CBGM AS NOTE 11, UNLESS PLATEAU IS PRECAST CONCRETE BLOCK/NATURAL STONE SETT SURFACED IN WHICH CASE IT SHALL BE A 200 MIN THICKNESS OF THE SAME MATERIAL USED TO THE PLATEAU BASE COURSE
PLATEAU SUBBASE/CAPPING EXTENDED UNDER RAMP. THICKNESS 150 MIN
TYPE C1 KERB DETAIL AS DRG. LBS/1100/13
NOTES
1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard DS.132. This states overall use and design requirements for Vehicle Crossings
6. Plateau width to be typically
- 1500 min in existing streets and spaces
- 1800 min in new streets and spaces
However, greater widths are required in certain areas. Refer to SSDM/DSR standard DS.132 for full details/ requirements
7. For Type 1 details as Sheet 1 the ramp width should be both ≤ 1250 and ≤ 40% the total footway width (e.g. ramp + plateau).
8. Surfacing materials for both ramps and plateaus should be as stated in the SSDM/SER Surfacing Materials Palettes for the relevant SSDM/RP designation(s).
9. Natural stone sett units should be 5-8 jointed with J-MH2 or J-MHX mortar. Precast concrete blocks and clay pavers should be 2-4 jointed with J-SB1 sharp sand.
10. If precast concrete blocks and clay pavers are used to plateaus as part of a bound surface construction as Section 6 of SSDM/DSR standard DS.601 then note that - notwithstanding the use of a fine bedding concrete laying course – that section normally requires them to be sand/crushed rock jointed. However, natural stone setts are mortar jointed as normal.
11. CBGM shall be as CL.822. Mechanical performance (compressive strength, fck) C15/20. Coefficient of linear thermal expansion <10x10^-6 per °C when tested as CL.871. Aggregate constituent shall be crushed rock coarse aggregate. Shall comply with the eary trafficking requirements of CL.813.17.
12. If it is not possible to grade private drives to drain away from the Highway then the owner mus install a linear channel drain or other drainage feature within their land at the Highway interface to avoid surface water from their land shedding onto the Highway. This must be connected to a suitable outfall.
SOUTHWARK STREETSCAPE DESIGN MANUAL
STANDARD DETAILS
VEHICLE CROSSING
DRAFT
N.T.S.
LBS/1100/47
SEPTEMBER 2017
28 Feb 2019


INDICATIVE SECTION B-B' - FREQUENT USE
(BOTH RESIDENTIAL AND COMMERCIAL PREMISES)
PRIVATE DRIVE
V/CROSSING PLATEAU
SEE NOTE 6 ABOUT WIDTH
V/CROSSING RAMP
SEE NOTE 7 ABOUT WIDTH
C/WAY
PLATEAU AND RAMP TO DESIGNED AS A CONTINUOUS BOUND BLOCK/ SETT/ PAVER SURFACED PAVEMENT AS SECTION 6 OF SSDM/DSR STANDARD DS.601 (ASSUMING HEAVY OVERRUN AREA TO ALL). SEE ALSO NOTE 9
SURFACING MATERIALS FOR BOTH PLATEAU AND RAMP TO BE AS NOTE 8
RAMP ROLLED GENTLY AT TOP WITHIN LAST 300-400 TO AVOID EXCESSIVE JOINT WIDTHS
PRIVATE DRIVE TO FALL AWAY FROM HIGHWAY AT GRADIENT 1:60 OR STEEPER (THOUGH SEE NOTE 12)
PLATEAU GRADIENT 1:40-1:60 (1:33 SUBJECT TO LEVEL 1 DEPARTURE)
RAMP GRADIENT 1:10-1:12 FOR TYPE A DETAILS AS SHEET 1 1:12 FOR TYPE B DETAILS AS SHEET 2
UPSTAND BETWEEN C/WAY SURFACE AND BASE OF BATTERED FACE OF KERB TO BE
- 0-25 FOR RESIDENTIAL
- FLUSH (0) FOR COMMERCIAL
PRIVATE DRIVE CONSTRUCTION
PLATEAU/RAMP CONSTRUCTION
C/WAY CONSTRUCTION
BOUND BASE COURSE. THIS MAY BE COMMON TO BOTH THE PLATEAU AND RAMP
TYPE C2 KERB DETAIL AS DRG. LBS/1100/21
BASE COURSE TO BE PROVIDED IN ALL INSTANCES
PLATEAU SUBBASE/CAPPING EXTENDED UNDER RAMP. THICKNESS 150 MIN
TYPE C1 KERB DETAIL AS DRG. LBS/1100/13
NOTES
1. All dimensions are in millimeters unless otherwise stated.
2. Do not scale from this drawing. Use only written dimensions.
3. All references to Clauses are to Southwark Highway Specification Clauses unless otherwise stated.
4. This drawing is intended to show how the requirements of SSDM/DSR standards may be met. In the event of any conflict with those standards, the standards shall prevail.
5. This drawing should be read in conjunction with SSDM/DSR standard DS.132. This states overall use and design requirements for Vehicle Crossings
6. Plateau width to be typically
- 1500 min in existing streets and spaces
- 1800 min in new streets and space
However, greater widths are required in certain areas. Refer to SSDM/DSR standard DS.132 for full details/ requirements
7. Surfacing materials for both ramps and plateaus should be as stated in the SSDM/SER Surfacing Materials Palettes for the relevant SSDM/RP designation(s).
8. If precast concrete block or clay paver surfacing is used then note that Section 6 of SSDM/DSR standard DS.601 requires that - notwithstanding the use of a fine bedding concrete laying course - the units are sand or crushed rock jointed. However, natural stone setts are mortar jointed as normal.
9. If it is not possible to grade private drives to drain away from the Highway then the owner mus install a linear channel drain or other drainage feature within their land at the Highway interface to avoid surface water from their land shedding onto the Highway. This must be connected to a suitable outfall.
SOUTHWARK STREETSCAPE DESIGN MANUAL STANDARD DETAILS
VEHICLE CROSSING
DRAFT
N.T.S.
LBS/1100/48
SEPTEMBER 2017
28 Feb 2019