

EXTERNAL FINISHES

External Finishes	336
Street Scene	337
Footpaths & Roads	338
External Envelope	339
Driveways	340
Access	341
Part M: Access	342
Gutters & Downpipes	343
Canopies & Doors	344
External Vents & Cavities	345
Ground Conditions & Turf	346
Gardens	347



EXTERNAL FINISHES

- 1 The street scene encompasses several rules but ultimately states that the general environment of the development must be suitable for the use of occupying customers.
- 2 It is important that street scene and externals are completed as the build progresses, and should not be an after thought.
- 3 At point of inception, consideration should be given to early delivery of the Public Open Spaces (POS) to assist in the community engagement and other focal areas such as tree lined avenues and front gardens.
- 4 There should be no significant health and safety risk to occupiers now or in the planned future. All paths, roads and open areas in which the customer has access should be in place prior to the Home quality inspection.
- 5 In England and Wales, Approved Document M: access to and use of buildings and in Scotland, section 4.1 of the Technical Handbook for accessibility ensures that dwellings provide reasonable access and that the approach route to the dwelling should be both safe and convenient for any visitors, as well as ambient disabled users.
- 6 Driveways should be topped with level access and should be clean prior to HQL.
- 7 Brickwork, render, paint and / or cladding is to be clean and complete to a high standard.
- 8 Expansion joints including boundary walls should be filled with compressible filler, sealant and installed down to the ground level. The joints should be filled neatly and should be clean.

As part of TW's Environment Strategy, we will be delivering the following wildlife enhancements on our sites:

Hedgehog highways (from 2021 onwards)

Bug hotels and bee bricks (from 2021 onwards)

Bat boxes (from 2022 onwards)

Bird boxes (from 2023 onwards)

Wildlife ponds (from 2024 onwards)

Amphibian and reptile hibernation sites (from 2025 onwards)

Hedgehog highways should be included in all sites, unless there is a demonstrable absence of hedgehogs or the costs or technical challenges of installing the highway are significant.

The highway is a 13cm x 13cm hole cut at ground-level in the garden fencing that separates plots. The highway should be signposted so that customers are aware it is for hedgehogs.

Bug hotels and/or bee bricks should be included on all new sites wherever possible. The number of hotels and/or bee bricks installed should equal 20% of the total number of plots on the site once it is completed – i.e. if a site has 200 units when completed, we should install as a minimum 40 bug hotels and/or bee bricks.

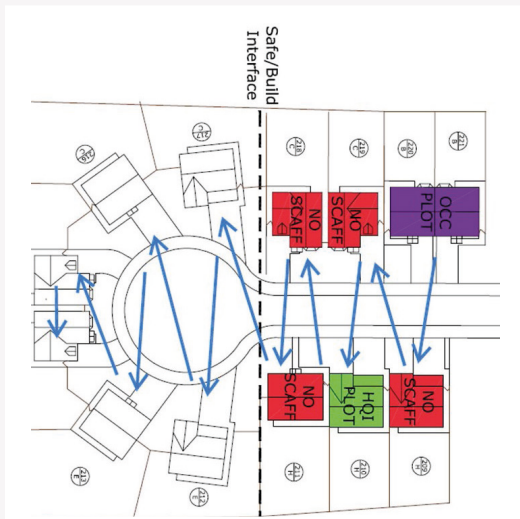
STREET SCENE



- 1 POS should be considered in the very first stages of a development, so that sign off can be obtained. POS should be easily accessible, tidy and well maintained. It may require early engagement with the management company / managing agent or local authority to ensure the process is completed. The certification once in place should be forwarded to the management company / managing agent or local authority for their records.



- 2 Roads and access ways should be kept clean and free from parked vehicles to ensure access to property's drives is possible.



- 3 Measures are to be in put in place during the design stage and when planning build routes to ensure that no scaffolding is opposite the plot, a plots distance adjacent and within the plot boundary now or in the future for the HQL.



- 4 In exceptional circumstances, such as at the end of a phase or there are plots opposite an apartment block then permanent hoarding should be in place around the scaffolding. Therefore, this will minimise the possibility of scaffolding being fed near occupying plots.



FOOTPATHS & ROADS



- 1** There is a responsibility and duty of care for occupations to have adequate street lighting in place. If it is not possible for the permanent street lighting to be in place, temporary lighting must be in place. Ensure an access panel is the opposite side of street lighting column for oncoming traffic.
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- 2** The minimum standard for the HQI are for footpaths to be at base layer with no trip hazards.
-

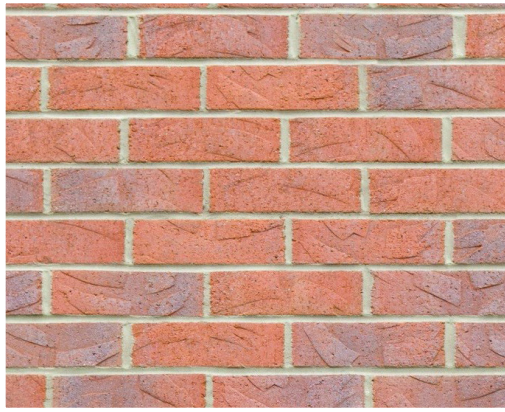


- 3** The minimum standards for the HQI are for roads to be at base layer with no trip hazards. Ensure a visual check is undertaken to ensure that road cambers and road gully positions are correct to avoid standing water.
-



- 4** Street signs must be in place. If it is not possible for the permanent signage to be in place, temporary signage should be in position.
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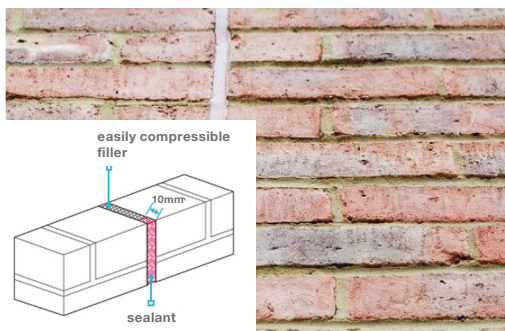
EXTERNAL ENVELOPE



- 1 Brickwork is to be clean and tidy with any excess mortar to be removed and all pointing to be complete. Brick cleans (if required) should be undertaken prior to landscaping. Consideration should also be given to brick tinting where needed, as this should be completed prior to landscaping.

NEW

Note: 3 palettes of bricks should be used and adequately mixed to avoid colour banding across the bricks.



- 3 Expansion joints including boundary walls should be filled neatly and clean. Consideration to positioning of expansion joints should be completed early in the build with appropriate measures to ensure the property remains damage free. They should be installed as per design, constructed behind a downpipe where possible, with a minimum of 550mm from the internal corner to ensure the necessary buttressing. The joint should be filled with a compressible filler with 10mm left at the face of the brickwork to allow for a depth of 10mm of sealant.

NEW



- 2 Render, paint or any cladding is to be complete to a high standard with a consistent shade in colour around the property.



- 4 Mastic is to be clean and tidy around any windows fitted ensuring end caps are fitted.

Consideration to the size of mastic bead should be given and an awareness of the product type, installation instructions and checks to ensure the product's fitness for purpose.

NEW

NEW

NHBC accepts a maximum gap for application of a sealant not exceeding 10mm for openings up to 3m wide and 15mm for wider openings. Gaps 5mm wide or more should have a backing strip to the sealant and the depth of sealant should be at least 5mm. Where frames are tight to the opening, such as with a checked reveal or the joint width is less than 5mm, the sealant should form a fillet with an overlap of 6mm to non porous surfaces and 10mm to porous surfaces



DRIVEWAYS



- 1 Driveways should be topped with level access and cleaned prior the HQI. Once HQI has been achieved, it is important that no trade vehicles park or use the drive.



- 2 Paths and steps should be in place, clean and protected until completion.



- 3 Drainage channels should be laid in accordance with the specification and design.

NEW



NEW

- 4 Driveways should have adequate rainwater drainage and disposal. The water should drain away from the house (and garage) or drain to a channel or other means of collection adjacent to the home.

ACCESS



- 1** Pedestrian access must be provided via a path within the boundary of each house to the main entrance and to the secondary where present. Where appropriate, a drive can be regarded as a path for the provision of access. Paths should have a max slope of 1:6. On steeper sloping ground, steps may be required.



- 2** The path to the main entrance of the property should be 900mm or wider (refer to engineering drawings). The path used for the removal of refuse to the collection point should be 900mm.

NEW

In unavoidable circumstances, approval can sometimes be given locally for a 750mm gap where obstructions are no more than 1m and on a straight run.

NEW



- 3** To ensure every length of drain can be rodded, the design should include appropriately located access points such as rodding eyes, access chambers, inspection chambers and manholes.



NEW

- 4** Consideration should be given to the location of manholes and should be level and aesthetically pleasing.



PART M: ACCESS



- 1 Part M is a section of Building Regulations that ensures that dwellings provide reasonable access. The entrance door of the dwelling needs to comply with the following: clear opening width of 775mm for England and Wales.

In Scotland, section 4.1 of the Technical Handbook for accessibility must be adhered to and the clear opening width is 800mm.



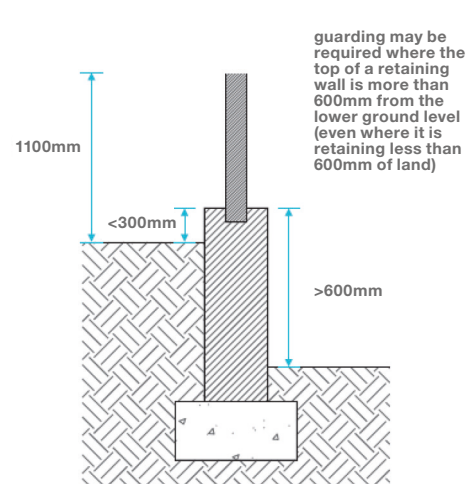
- 2 The approach route to the dwelling should be both safe and convenient. Where possible, the approach should be step free and adopt the shallowest gradient. Where necessary, the approach should also be ramped, and gently sloping. If the plot itself is steeply sloping, then a stepped approach can be used.

NEW

Please refer to External Works Design.



- 3 External steps that are considered under building regulations should have a minimum rise of 75mm and a maximum rise of 150mm, a minimum going of 280mm and should be reasonably uniform. Where there are three or more risers, a handrail should be provided. Steps should be kept clean and accessible.



- 4 Guarding may be required where structures are retaining land more than 600mm high to which people have access. A retaining structure is more than 600mm high and the dimension from the top of the retaining wall to the higher ground level.

PART M: ACCESS



ACCESS TO AND USE OF BUILDINGS - DWELLINGS

Where no parking is provided, the point of access would be considered to be the plot boundary.

Whichever type of approach is adopted, careful consideration must be given to the surface specification. The key issue is whether the material used provides a surface that is firm and even. Loose or uneven surfaces such as gravel or cobbles would not be suitable.

An accessible approach is required from the point of access to the principal entrance. The principal entrance is best defined as the door most likely to be approached by a visitor to the home. The plot gradient (Diagram 2) will determine the type of provision that can be provided. It is measured from finished floor level to the point of access.

Level approach – the preferred solution is for a level approach with a gradient of 1 in 20 or shallower and provides the easiest method of showing compliance with the requirements of the building regulations. As an example a level approach can be achieved with an even gradient over three metres from the point of access to the principal entrance for a difference in floor levels of 150mm.

Ramped approach – If the route from the point of access towards the principal entrance has a plot gradient exceeding 1 in 20 but does not exceed 1 in 15, then a ramp may be provided in accordance with Diagram 3. Usually the ramp would run directly towards the principal entrance but if this cannot be accommodated it may also be possible to run the ramp parallel to the external wall of the dwelling (subject to any planning restrictions). If this is the case, suitable provisions should be made for the damp proofing arrangements for the external wall.

Where it is not possible to provide a ramp to the principal entrance in accordance with Diagram 3 either head on or by running the ramp parallel to the dwelling, Table 1 provides some alternative options which could be considered. These options provide for smaller landings and steeper but shorter ramps and may allow for a ramp as an option rather than a stepped approach. On plots where any of these options are proposed, this should always form part of the Access Strategy and be discussed as early as possible with NHBC Building Control.

Stepped approach – Where the plot gradient exceeds 1 in 15 a stepped approach will be acceptable. Where steps are unavoidable on the approach they must be designed to meet the needs of ambulant disabled people (Diagram 4):

- unobstructed clear width 900mm
- the rise of flights between landings is no greater than 1.8m
- top, bottom and intermediate landings that are a minimum 900mm long (the bottom landing can form part of a public footpath provided there are no obstructions)

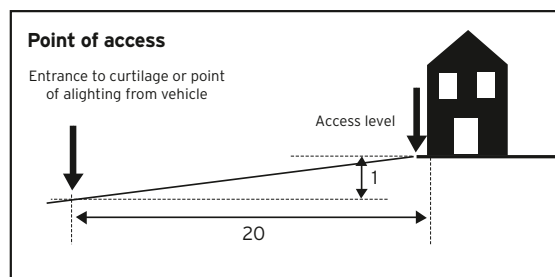


Diagram 2 – Plot gradient

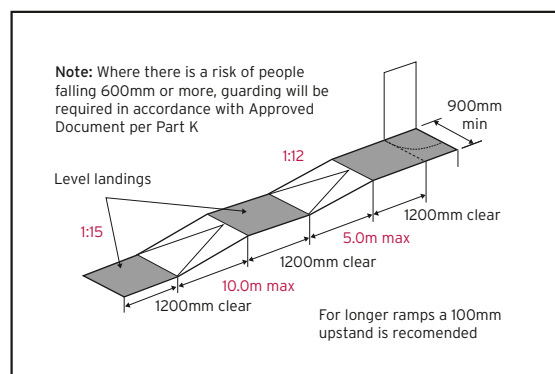


Diagram 3 – Ramped approach

TABLE OF ALTERNATIVE RAMP OPTIONS

Distance from point of access	Landing size	Length of ramp (on plan)	Gradient
3000	Level access		1 in 20
2900	1100	1800	1 in 12
2800	1000	1800	1 in 12
2700	900	1800	1 in 12
2600	1100	1500	1 in 10
2500	1000	1500	1 in 10
2400	900	1500	1 in 10

Table 1 – Alternative Ramp options assuming 150mm maximum rise into dwelling

- a suitable handrail to one side where the flight comprises three or more risers
- step profiles should be designed to avoid tripping hazards (for example, no contrasting nosings).

For further advice, please contact an NHBC surveyor on 0844 633 1000 and ask for 'Building Control'.



PART M: ACCESS

ACCESS TO AND USE OF BUILDINGS - DWELLINGS

Dwellings accessed directly from the public highway

Where the principal entrance to a dwelling is accessed directly from the public highway (pavement) and the finished floor level is set no more than 150mm above the level of the public highway, the plot gradient will clearly exceed 1:15. In this case, it would be reasonable to consider if access arrangements can be provided to an alternative entrance such as a side or rear door. If this cannot be achieved, a single step to the principal entrance is acceptable provided the step is no more than 150mm (maximum rise for external steps). This step should be located at the door cill. An accessible threshold to the door must be provided. On plots where this solution is proposed this should always form part of the Access Strategy and be discussed as early as possible with NHBC Building Control.

Access into the dwelling

The detailing around the entrance door is critical both in terms of providing accessibility and preventing the ingress of water.

Where a ramp or conventional stepped approach is used, a landing must be provided. In order to ensure water run-off, there needs to be a slope of between 1:60 and 1:40 away from the threshold. In all but the most sheltered locations, an adjacent drainage slot or channel is also needed to protect the entrance.

Improved performance can be achieved through specification of a proprietary threshold, many of which interlock with flexible brush sets fitted to the base of the door (Diagram 5).

Further reference should be made to the publication 'Accessible thresholds in new housing - Guidance for house builders and designers' published by The Stationery Office.

The entrance should have a minimum clear width of 775mm and an accessible threshold. The clear width is measured between the doorstep and the face of the open door; the weatherboard and door furniture can project into this width (Diagram 6).

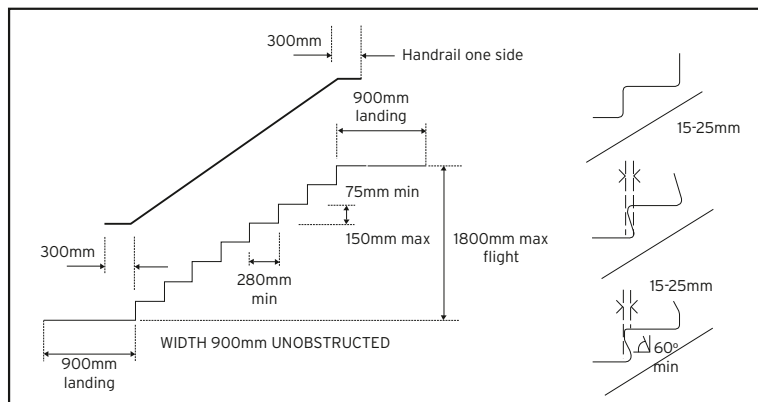


Diagram 4 - Stepped approach

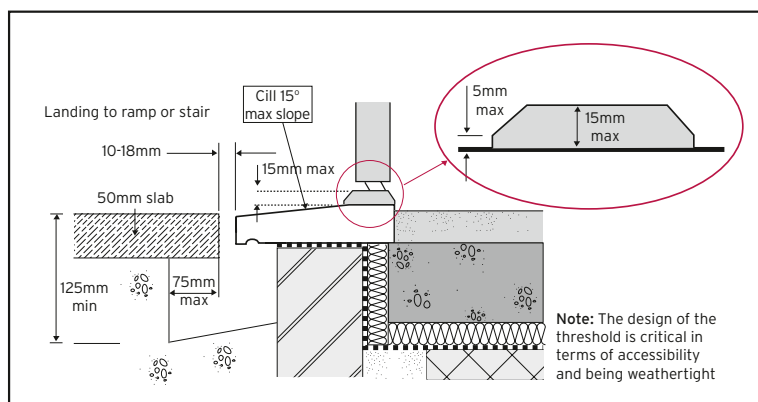


Diagram 5 - Accessible threshold

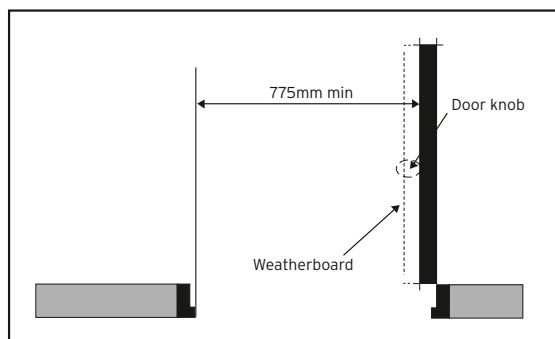


Diagram 6 - Entrance door

For further advice, please contact an NHBC surveyor on 0844 633 1000 and ask for 'Building Control'.

ACCESS TO AND USE OF BUILDINGS - DWELLINGS

Flats over garages (FOGs)

Where flats are provided over garages (i.e. no habitable accommodation is provided at ground level) and are accessed from a single or shared staircase, a single step into the entrance lobby is acceptable provided it is no more than 150mm. The step should be provided at the door cill. An accessible threshold to the door should also be provided.

Internal circulation

Inside the dwelling, reasonable access must be provided to habitable rooms and a room containing a WC. The WC will normally be on the same storey as the front door where there are habitable rooms at this level. Where there is no habitable accommodation on the entrance storey the WC can be located on either the entrance or principle storey.

Corridors and passageways in the entrance storey should be wide enough to allow circulation by wheelchair users (Diagram 7).

Short obstructions such as radiators are permitted in passageways, however a clear width of 750mm must be maintained. The area opposite a door opening should be kept free of all obstructions (Diagram 8). Table 2 provides clear openings achieved from different door leaf sizes.

TABLE OF MINIMUM DOOR LEAF DIMENSIONS

	Clear opening required	Minimum door width dimension (imperial)	Minimum door width dimension (metric)
Internal	750mm	2'9"	826mm
Internal	775mm	2'9"	826mm
Internal	800mm	3'0"	926mm
Entrance	775mm	2'9"	906mm
Note: Clear width will be affected by door thickness and stop thickness			

Table 2 - Table of minimum door width dimensions

Internal arrangements for houses on steep sites

In exceptional circumstances, such as steeply sloping sites, steps can be provided within the entrance storey but they must be at least 900mm wide with a suitable handrail on one side and on both sides if the flight comprises more than three or more risers. Approved Document K provides for all other stairs within the dwelling.

Controls and switches

Switches and socket outlets should be located in an accessible zone between 450-1200mm above floor level in all habitable rooms regardless of where they are located within the dwelling. These accessible controls will include light switches,

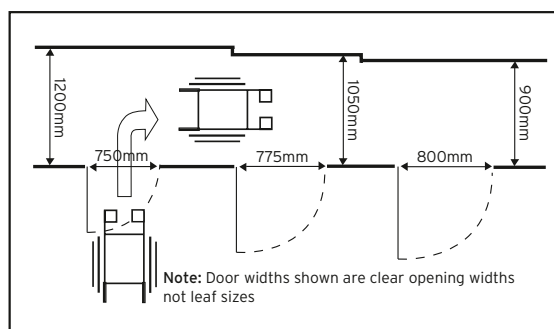


Diagram 7 - Door widths

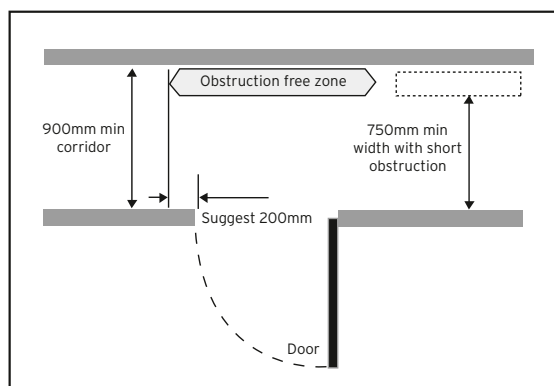


Diagram 8 - Obstruction free zone

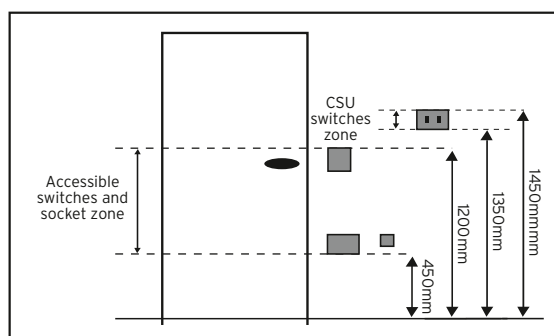


Diagram 9 - Controls and switches

power sockets, TV and telephone points as well as doorbells and entry phones. The general approach should be to provide controls, switches, locks, etc. that are used on a regular basis within the zone illustrated in Diagram 9. Consumer units (CSU) should be located so that the switches are between 1350mm and 1450mm from finished floor level (England only. Best practice in Wales).

For further advice, please contact an NHBC surveyor on 0844 633 1000 and ask for 'Building Control'.



PART M: ACCESS

ACCESS TO AND USE OF BUILDINGS - DWELLINGS

COMMON AREAS OF FLATS

Lifts

A lift is the preferred method of access to flats above ground level. Where a lift is provided, it must be accessible (Diagram 13). Further guidance on lifts can be found in Approved Document M.

Common staircase

Where it is not possible to provide a lift, the rise, going and handrails of stairs are all specified. Contrasting nosings are required on the stairs regardless of whether a lift is provided (Diagram 14):

- max rise 170mm, min going 250mm
- nosing profiles must avoid trip hazards and be contrasting

Flats - internal circulation/wc provision

Internal circulation space requirements and the provisions for accessible WCs apply to flats at all levels regardless of whether lift access is provided.

DEFINITIONS

Accessible threshold

A threshold at the doorway which should have a maximum 15mm up-stand.

Entrance storey

The storey that contains the principal entrance to the dwelling.

Plot gradient

The gradient measured between the finished floor level of the dwelling and the point of access (Diagram 1).

Point of access

The point at which a visitor would alight from a vehicle; may be within or outside the plot.

Principal entrance

The entrance which a visitor unfamiliar with the dwelling would normally be expected to approach; also the common entrance to a block of flats.

Principal storey

The storey nearest to the entrance storey that contains a habitable room (this will also be the entrance storey in most houses).

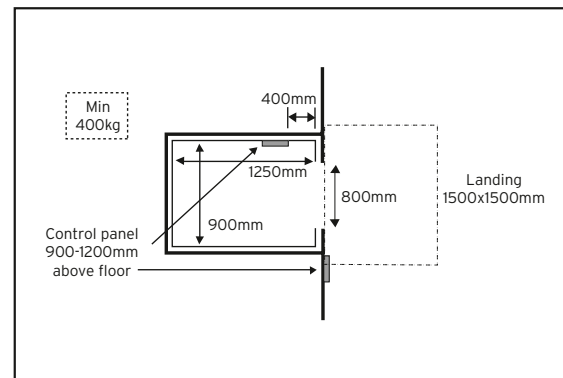


Diagram 13 - Lifts

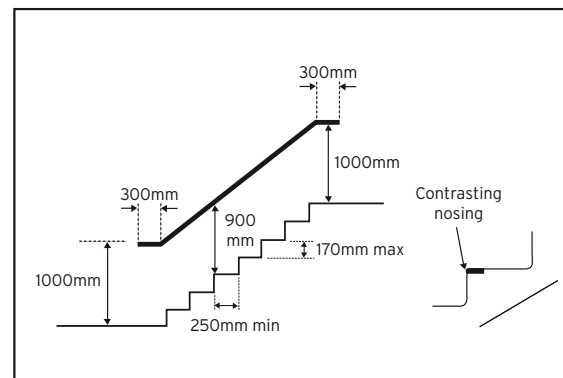
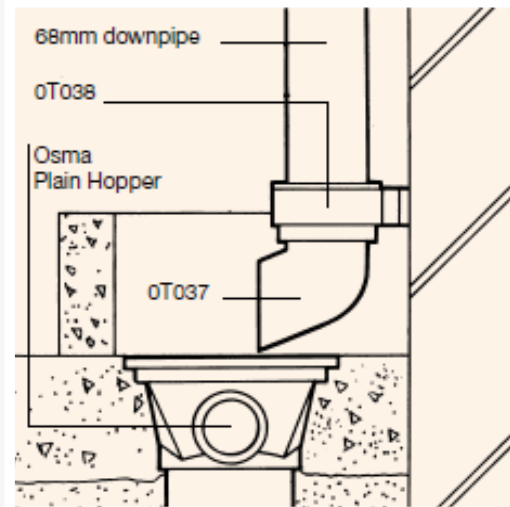
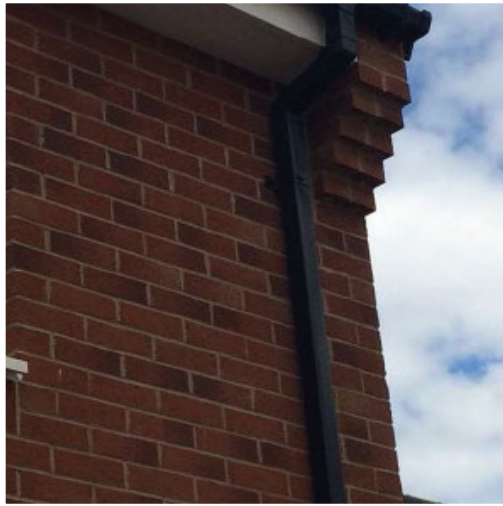


Diagram 14 - Common staircase

For further advice, please contact an NHBC surveyor on 0844 633 1000 and ask for 'Building Control'.

GUTTERS & DOWNPIPES



NEW

- 1** Soffits, fascias, gutters and downpipes to be complete, level and fixed. The example in the photograph must be applied to the full property. Downpipe fixings should be placed in accordance with manufacturers' guidance using dome-headed screws and top bracket to be placed as close to the offset coupling as possible.

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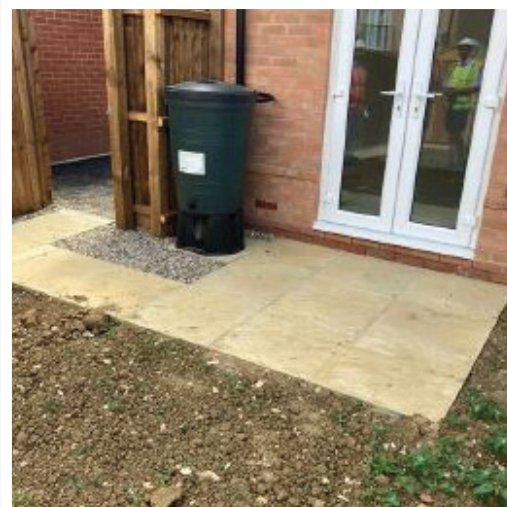
- 2** Shoes should be fitted to downpipes where it falls over a gully.

For more information refer to the
Osma Rainwater Guide.

<https://www.wavin.com/en-gb/about/our-brands/osma/above-ground>



- 3** Where parking is allocated to a property, numbers and letters can be used to denote a property's bay position.



NEW

- 4** Water butts will be located as per the design but will be positioned where the downpipe is located.

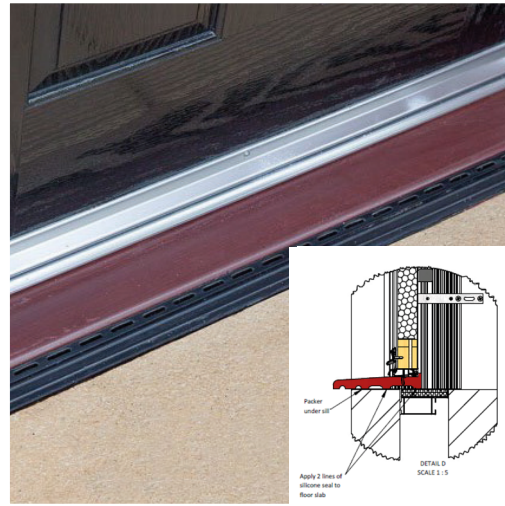
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CANOPIES & DOORS

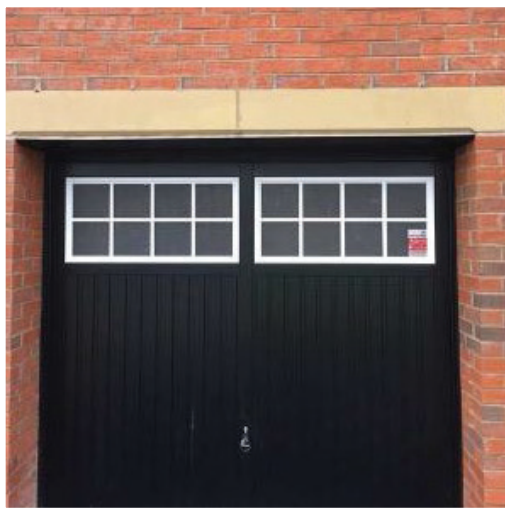


- 1 Door is to be complete without any damage. The paint work should be finished to a high standard and consistent across the whole door. Doors should be protected until final clean. Temporary ironmongery should be used during construction and replaced at Final Fix.



- 2 Door threshold should be complete, level, undamaged and free from debris. These should be protected until final clean.

The cill on external doors should project to allow the drip on the underside to be functional. Ensure door is located in the correct position in the reveal and not too far forward to prevent cold bridging.

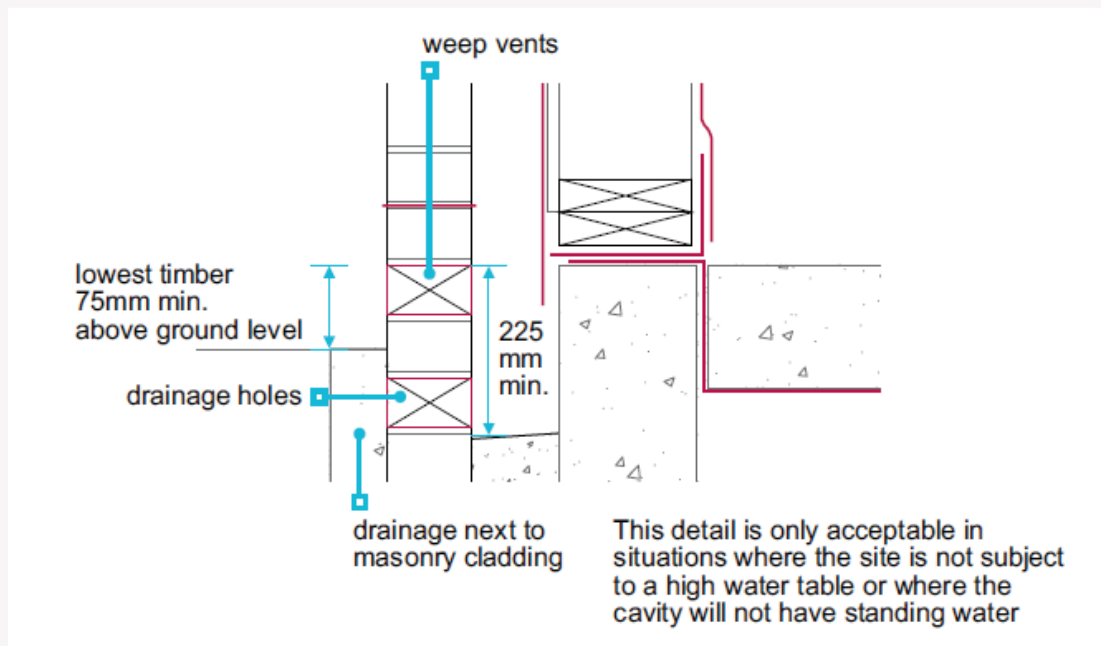


- 3 Garage doors should have a 25mm x 328mm chamfered threshold formed below the door with the DPM turned up at the front edge of the concrete toe.



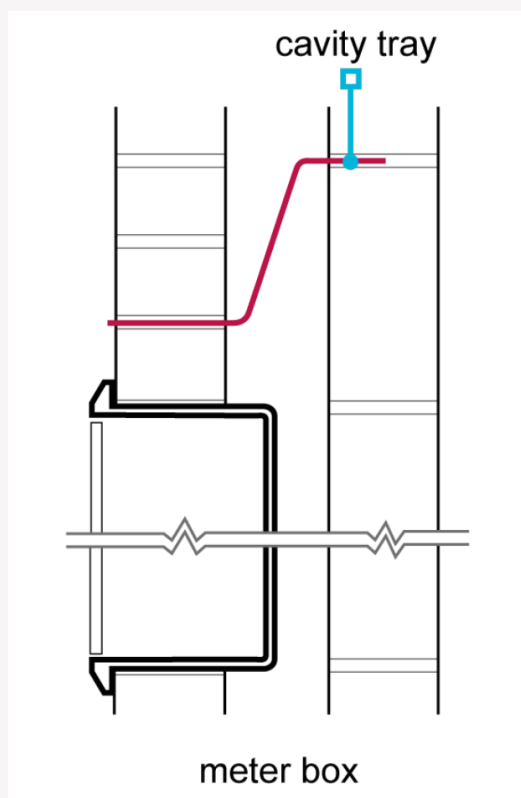
- 4 Canopy and supports are complete, level and tidy. Canopy fixings should be installed with the fixings provided by the manufacturer. Attention to fixing bolts sizes.

EXTERNAL VENTS & CAVITIES



- 1 With partial fill cavity and timber frame, perp ventilation / weep vents should be in place at 900mm centres around the perimeter of the substructure as per detail above and 450mm above lintels.

NEW



- 3 Gas and electric meter boxes should be securely fixed, sealed and appropriately earthed. Gas boxes should be a minimum of 150mm from air bricks. Hockey sticks should be vertical, level and undamaged.

Where appropriate on wall mounted boxes, NHBC guidance should be used for weep vents.



GROUND CONDITIONS & TURF

NEW



- 1 When installing a retaining wall, key considerations are the height of wall above The Finished Floor Level (FFL), the materials being retained and drainage should be considered when installing a retaining wall. The wall should be installed as per design.

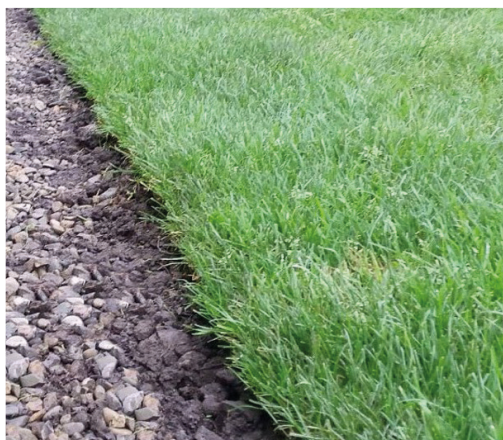
NEW

Further guidance can be found InHouse in the Technical Manual accessed via the Design and Technical page.



- 2 After reaching the specified height for retaining walls, these are backfilled with compacted earth that has an additional layer of granular material (gravel / aggregate) for drainage and to provide structural support to the wall. The amount and type of soil used will be as per the specification and depend on ground conditions. Ensure there is no rubbish or debris before beginning.

Concrete gravel boards can be used to retain up to a max of 600mm of soil, but typically not more than 450mm. This would introduce the requirement for concrete posts. Ensure that TW design is followed.



- 3 Land drainage strips should be as per engineering design. If it is clear that a drainage issue is likely to occur then a proactive approach is preferential to a reactive approach. If it's foreseeable, it's avoidable.

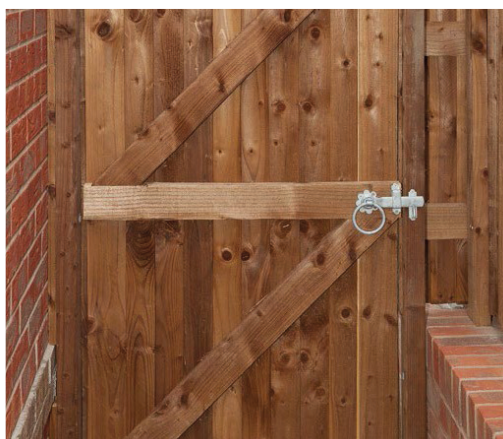
Guidance should be sought from the Site Engineer in regards to garden drainage.

GROUND CONDITIONS & TURF



- 4** Turf or rotavating should be complete to improve compaction of soil to allow drainage. Rotavated gardens should have any large stones (larger than a golf ball) and builder's debris removed 300mm from the finished surface; it should be of the standard ready for the customer to lay their own turf. Turf is to be watered and cut prior to Home Move In. A minimum of 100mm topsoil, and areas up to 3m of the home should not be water logged. Warm weather laying should be avoided particularly at the end of the week as watering may not be available over the weekend.

GARDENS



- 1** Boundary walls, fences and gates are to be in place. Check fixing of boards, fence is level and gate is operational.



- 2** Groundworkers must mark out the boundary line of the plot for the fencer using the supplied GPS coordinates on the SiteM to complete visual check against setting out drawing.