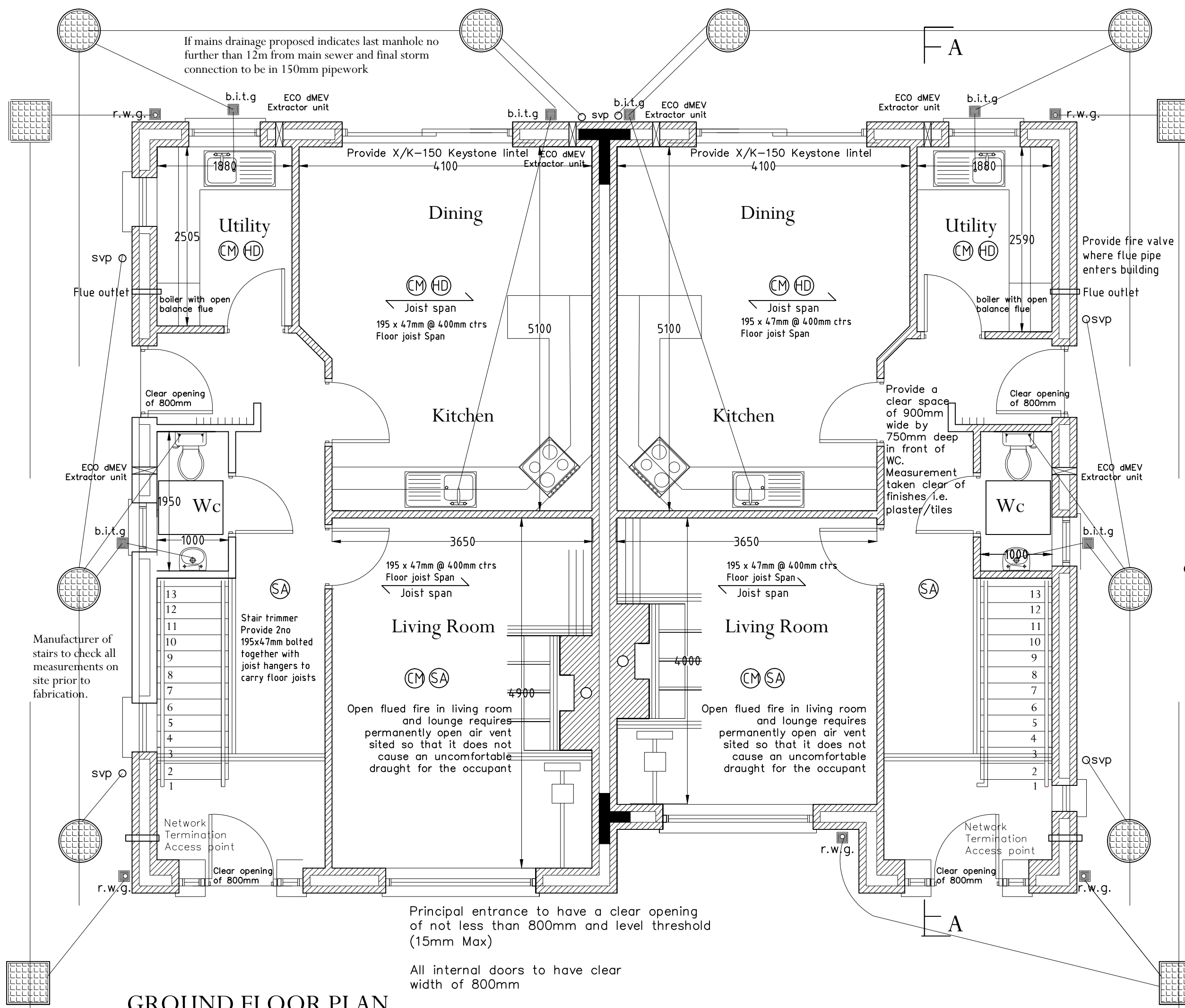
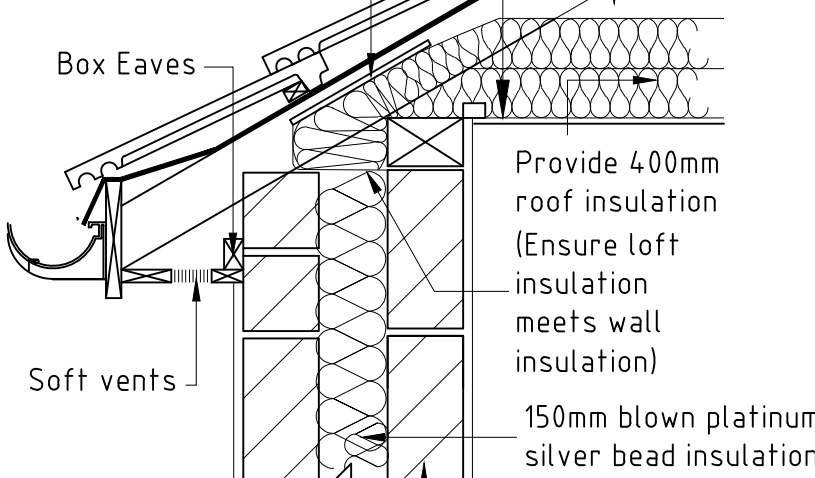


FIRST FLOOR PLAN



GROUND FLOOR PLAN

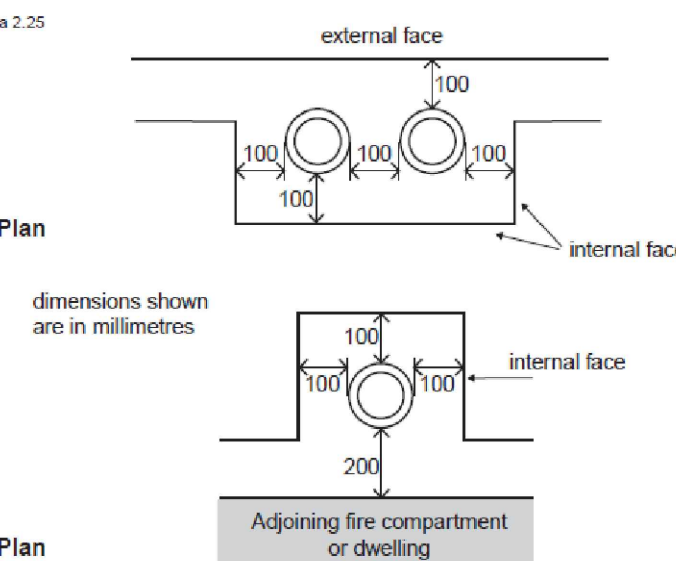
Fix ceiling first and seal all gaps between the ceiling and masonry wall with either plaster, adhesives or flexible sealant
Tile or Slate Roof
Ventilated loft space
Roof Membrane
Use proprietary crossflow ventilation or ensure (min) air gap



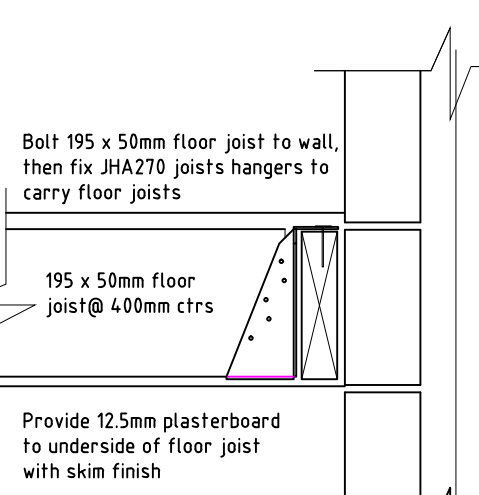
Eaves Detail (scale 1:10)

Where studwalls are used:-
New studwall between Bedroom 1 and Bedroom 2 and between Bedroom 1 and bathroom to have 1no layer of 15mm gyproc wallboard premium, with mineral wool battens between studs with a mass per unit area of 10 kg/m². All linings fixed to timber frame with a minimum distance between linings of 75 mm, all joints well sealed.

see para 2.25



Floor joist support at Separating walls



Jamb Detail (scale 1:10)

Heights of switches and socket outlets

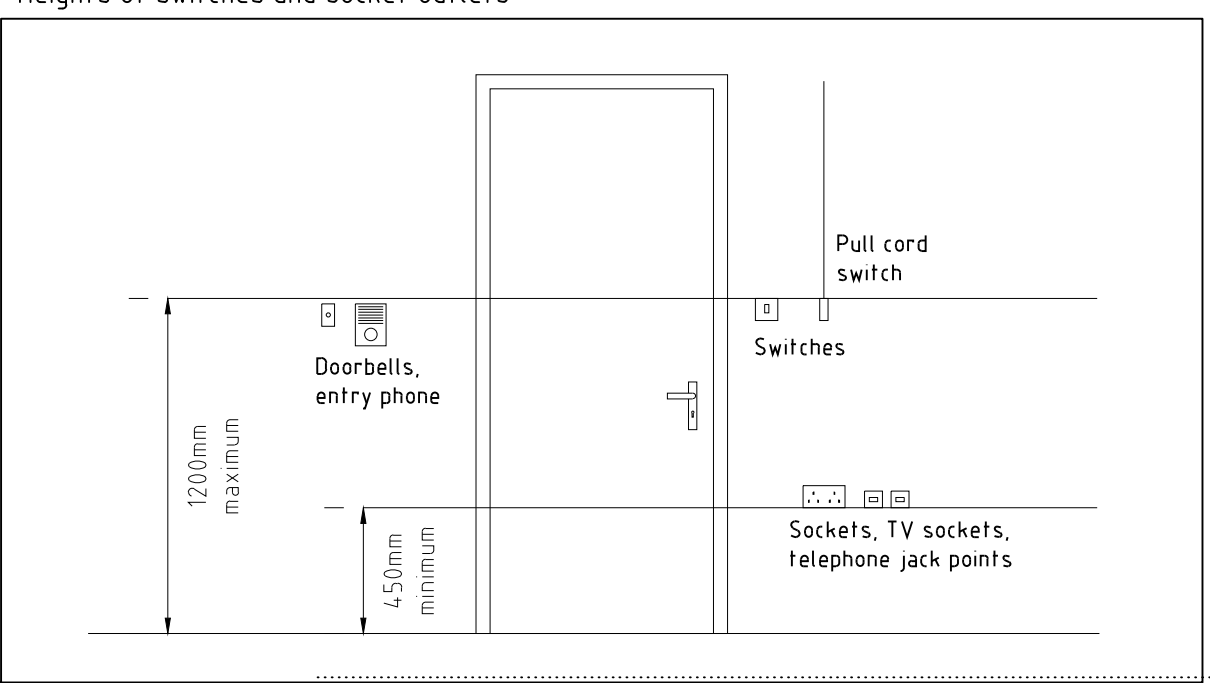
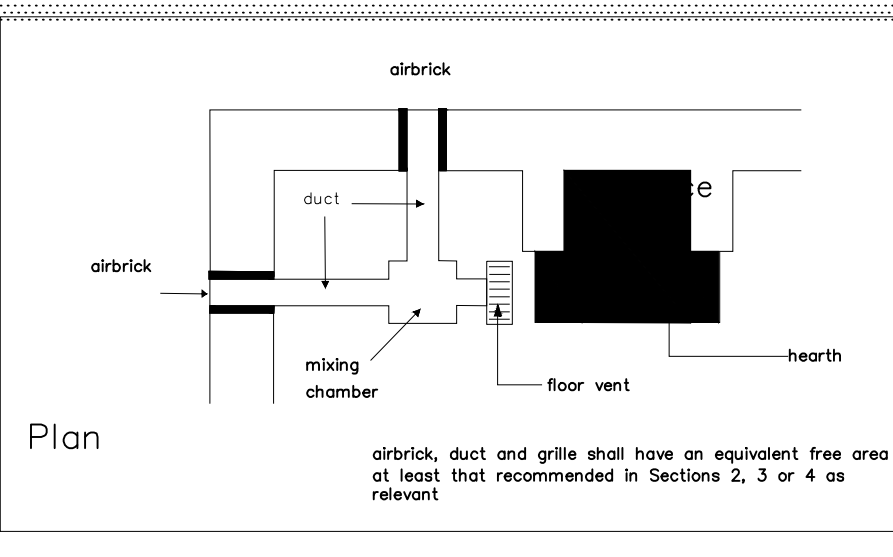


Figure 4: Permanent vent openings in a solid floor



Plan

airbrick, duct and grille shall have an equivalent free area at least that recommended in Sections 2, 3 or 4 as relevant

Walls:
Wall Construction:-
Provide 350mm cavity wall with interior skin of 100mm concrete block, 150mm cavity with 150mm blown platinum silver bead insulation, outer skin of 100mm blockwork.
Blocks
All block work to be Northstone dense aggregate block to BS EN 771-3:2003 with compressive strength of 10.4N/mm². Mortar to be class iii throughout
Wall Insulation
Provide 150mm blown platinum silver bead insulation.
Wall ties:-
Wall ties to be Power-tie wall ties to comply with BS EN 845-1 Type B D1725 complete with SSCD insulation retaining discs to be positioned at 750mm horizontally and 450mm vertically. Ties should be evenly distributed over the wall area, except around openings and should preferably be staggered with extra ties provided at openings. Ties to be embedded into wall between 62.5 and 75mm. Wall ties should be installed in accordance with BS 5628-3, the code of practice for the use of masonry, Part 3
Exterior wall finish:-
Provide Scratch coat with Roughcast plaster coat (Painted). Provide raised plaster bands around windows and doors. Provide smooth plastered plinth. All to be painted
Internal wall Finish:-
Provide smooth plaster finish to all walls
Foundations:-
All foundations must be taken down to firm bearing strata and be minimum of 750mm below finished ground level/pavement level.
No foundation concrete to be poured until inspected by Building Control Officer & to be notified 48 hours prior to pouring
All walls must be centrally located on foundation
Concrete to be Design mix to BS 5328, Grade 35N/mm², normal maximum size of aggregate: 20mm
Foundation Sizes:-
To all 350-465mm cavity walls provide 900x450mm mass concrete strip foundation. Foundations greater than 750mm wide requires A393 mesh (bottom)
To all 100mm and 215 internal walls provide 750x300mm mass concrete strip foundations
Ground Floor Construction:-
Floor Construction:
100mm sand/cement screed (1:3) laid
100mm Xtratherm Thin-R XT/UF insulation and at wall/floor junctions provide upstands of Xtratherm Perimeter insulation 25mm thick
150mm thick concrete sub floor
Radon Barrier MONARFLEX RMB 400 o.s.e.a.a. in accordance with manufacturers instructions, including all slip joint and overlaps to dpc's
50mm minimum sand blinding on hardcore mechanically compacted in 225mm layers to a maximum depth of 600mm
Floor Insulation:-
The floor insulation shall be Xtratherm Thin-R XT/UF 100mm thick manufactured to EN ISO 9001:2000 by Xtratherm, comprising a CFC/HCFC rigid polyisocyanurate (PIR) core between low emissivity foil facings. The floor insulation to be installed in accordance with Xtratherm instructions
Hardcore:-
The hardcore is to consist of durable hardstone graded from 75mm to dust. It is to be thoroughly consolidated in layers and if any soft spots are encountered, they are to be removed and replaced with hardcore compacted in layers. Each layer is not to exceed 225mm after compaction. A fine layer of quarry dust is to be provided and thoroughly rolled in, ready to receive the radon barrier
Radon Barrier:-
If possible, services should enter the building above the radon membrane level. Where this is not possible a RPS Radon universal pipe seal should be used to provide a gas-impermeable seal around all service pipes and sleeves which penetrate the membrane. A fine layer of quarry dust is to be provided and thoroughly rolled in, ready to receive the radon barrier
Dpc/Dpm:-
Provide D.P.C to cavity walls min 150mm above ground level and to concrete block internal walls at D.P.M. level. Cavity to be filled to 150mm below D.P.C level with C15/20 lean concrete. D.P.C to be bonded to D.P.M at internal leaf of cavity walls also provide stepped D.P.C between lintels which has in excess of 400mm exposed wall above. Provide D.P.C to jambs of windows and doors in external cavity wall min 150mm wide. Concrete cills to be placed on D.P.C, and returned up at back and sides. Provide D.P.C and lead to flashing to chimney
Stud Walls (where sound proofing studwork is not required):-
Use 75x50 C16 studs @ 400mm ctrs with 75x50 noggin @ 600mm vert. crs. doubled up at 0 external wall fixed to inner leaf of blockwork with m8 anchors @ 450mm vert. crs with 9.5mm plasterboard and skim to each side and 100mm fibreglass insulation between studs
Studs which run parallel to floor joists. Provide double joists to support the studwalls
Provide hangers and binders to ceiling joists over studwalls to provide additional support
Drainage Notes:-
Gutters/drainpipes
Provide Aquadine extruded aluminum gutters (moulded) and 63mm square flushjoint aluminum downpipes (black), discharging into Brett roddable back inlet gully traps, connected to 100mm diameter pvc storm drain laid at 1:40 falls and surrounded in pea gravel
Pipes passing through or around structures:-
A drain which is at a level lower than the foundations of a building should either
(a) where the trench is within 1 m of the foundations, be filled with concrete up to the level of the underside of the foundations as shown in Diagram 3.7(a); or
(b) where the trench is more than 1 m from the foundations, be filled with concrete to a level, below the level of the underside of the foundations, equal to the distance from the foundations less 150 mm as shown in Diagram 3.7(b).
Flexible pipes should be wrapped in polythene before surrounding in concrete. The minimum thickness of the concrete surround should be 150 mm or the diameter of the pipe whichever is the greater.
A drain which runs under a building should be surrounded by at least 100 mm of granular or other flexible filling.
A drain which passes through a wall or foundation clearance all round as shown in Diagram 3.6(a); or (b) be built in with, on each side, flexible joints within 150 mm and rocker pipes of maximum length 600 mm as shown in Diagram 3.6(b).

Drainage Notes:-
Where a flexible pipe has less than 300 mm depth of cover under an area other than a vehicular area, it should have concrete paving slabs laid as bridging on granular or other flexible filling at least 75 mm above the top of the pipe. Where a flexible pipe has less than 600 mm depth of cover under a vehicular area it should have a reinforced concrete slab laid as bridging in a similar manner (see Diagram 3.5).
Where pipes pass through floor joists they shall pass through the central neutral axis to avoid the weakening of the floor joists
Access to drainage
Access should be provided for clearing a blockage in any length of drain, though access need not necessarily be provided for rodding in the direction of flow.
An access point should be provided at the following -
(a) at or near the head of each length of drain;
(b) at a bend;
(c) at a change of gradient;
(d) at a change of pipe size;
(e) at a junction;
(f) on long lengths of drain at not greater than the distance given in Table 3.5; and
(g) within 12 m of the connection to a sewer unless access is provided at the connection.
Pipe types / sizes:-
All pvc drain pipes to be of the standard of BS 4660:1973 and to be laid on a bed of pea gravel
100mm diameter plastic storm and foul sewer pipes, fall 1 in 40 laid in gravel filled trench and bed with minimum cover 600mm
Diameter of plastic wastes:-
100mm from W.C.
65mm from w.h.b. and sink unit
50mm from both
100mm from shower
Overflow pipes:-
Where an overflow pipe discharges to a branch pipe or a stack it shall do so through a trap. In all other cases an overflow pipe shall discharge on a visible location and shall not cause dampness in, or damage to, any part of a building
Branch Pipes:-
A branch pipe should be at least the same diameter as the appliance trap and where it serves more than one appliance and is unvented, it should be of at least the diameter and gradient given in Table 2.4. A bend in a branch pipe should have as large a radius as possible and never be less than 75 mm centre line radius. A junction on a branch pipe should be made either at 45° or with a minimum sweep of 25 mm radius. The connection of a branch pipe of 75 mm or more in diameter to a stack should be made either at 45° or with a minimum sweep of 50 mm radius. A branch pipe should discharge into a stack -
(a) in a way which prevents cross-flow into another branch pipe (see Diagram 2.1); and
(b) not less than the relevant height, above the invert level at the foot of the stack, given in Diagram 2.1.
Roddng points shall be provided to give access to any length of branch which cannot be reached by removing a trap
Water seals/traps:-
All points of discharge into a system should be fitted with a water seal (trap) to prevent air from the system entering the building. The minimum size of trap and depth of seal for an appliance should be as given in Table 2.3.
S.V.P.
The ventilation pipe shall terminate either:-
A ventilation stack should provide ventilation to branch ventilation pipes and may also provide ventilation to underground foul drainage (see paragraph 3.5). The lower end of a ventilation stack may be connected to a ventilated discharge stack below the lowest branch pipe connection
The upper end of a ventilation stack should -
(a) terminate in the external air at least 900 mm above any opening into a building within 3 m, with a cage or cover which does not restrict the air flow (see Diagram 2.3);
(b) terminate with an air admittance valve which complies with BS EN 12056: Part 2 and BS EN 12380; or
(c) connect to a ventilated discharge stack above the "spillover" level of the highest appliance served.
Manholes etc:-
Provide 600mm diameter manhole chamber base with appropriate number of connection outlets, bedded in granular bedding material. Fix 600mm dia manhole chamber risers to achieve required height. Provide suitable well compacted backfill around risers and provide 150mm minimum concrete around top of risers to provide support for the manhole cover and frame.
Manhole covers to be either Grade A or Grade B cover depending on the application. Class A15 should be used in areas which can only be accessed by pedestrians and pedal cyclists. Class B125 covers are for footways, pedestrian areas and comparable areas, car parks or car parking decks.
Roddng eyes to be provided at all changes in direction of sanitary pipework
An inspection chamber is required on private drains, within 12 metres of a connection to or at its junction with a public sewer
All storm water to be connected to main storm system
All sewer waste to be connected to existing main sewer system
Client to forward copy of consent to discharge to be submitted to building control on receipt by client

Access to drainage
Access should be provided for clearing a blockage in any length of drain, though access need not necessarily be provided for rodding in the direction of flow.
An access point should be provided at the following -
(a) at or near the head of each length of drain;
(b) at a bend;
(c) at a change of gradient;
(d) at a change of pipe size;
(e) at a junction;
(f) on long lengths of drain at not greater than the distance given in Table 3.5; and
(g) within 12 m of the connection to a sewer unless access is provided at the connection.

Pipe types / sizes:-
All pvc drain pipes to be of the standard of BS 4660:1973 and to be laid on a bed of pea gravel
100mm diameter plastic storm and foul sewer pipes, fall 1 in 40 laid in gravel filled trench and bed with minimum cover 600mm
Diameter of plastic wastes:-
100mm from W.C.
65mm from w.h.b. and sink unit
50mm from both
100mm from shower

Overflow pipes:-
Where an overflow pipe discharges to a branch pipe or a stack it shall do so through a trap. In all other cases an overflow pipe shall discharge on a visible location and shall not cause dampness in, or damage to, any part of a building
Branch Pipes:-
A branch pipe should be at least the same diameter as the appliance trap and where it serves more than one appliance and is unvented, it should be of at least the diameter and gradient given in Table 2.4. A bend in a branch pipe should have as large a radius as possible and never be less than 75 mm centre line radius. A junction on a branch pipe should be made either at 45° or with a minimum sweep of 25 mm radius. The connection of a branch pipe of 75 mm or more in diameter to a stack should be made either at 45° or with a minimum sweep of 50 mm radius. A branch pipe should discharge into a stack -
(a) in a way which prevents cross-flow into another branch pipe (see Diagram 2.1); and
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Roddng points shall be provided to give access to any length of branch which cannot be reached by removing a trap
Water seals/traps:-
All points of discharge into a system should be fitted with a water seal (trap) to prevent air from the system entering the building. The minimum size of trap and depth of seal for an appliance should be as given in Table 2.3.

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The ventilation pipe shall terminate either:-
A ventilation stack should provide ventilation to branch ventilation pipes and may also provide ventilation to underground foul drainage (see paragraph 3.5). The lower end of a ventilation stack may be connected to a ventilated discharge stack below the lowest branch pipe connection
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(b) terminate with an air admittance valve which complies with BS EN 12056: Part 2 and BS EN 12380; or
(c) connect to a ventilated discharge stack above the "spillover" level of the highest appliance served.

Manholes etc:-
Provide 600mm diameter manhole chamber base with appropriate number of connection outlets, bedded in granular bedding material. Fix 600mm dia manhole chamber risers to achieve required height. Provide suitable well compacted backfill around risers and provide 150mm minimum concrete around top of risers to provide support for the manhole cover and frame.
Manhole covers to be either Grade A or Grade B cover depending on the application. Class A15 should be used in areas which can only be accessed by pedestrians and pedal cyclists. Class B125 covers are for footways, pedestrian areas and comparable areas, car parks or car parking decks.
Roddng eyes to be provided at all changes in direction of sanitary pipework
An inspection chamber is required on private drains, within 12 metres of a connection to or at its junction with a public sewer
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(c) at a change of gradient;
(d) at a change of pipe size;
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(f) on long lengths of drain at not greater than the distance given in Table 3.5; and
(g) within 12 m of the connection to a sewer unless access is provided at the connection.

Pipe types / sizes:-
All pvc drain pipes to be of the standard of BS 4660:1973 and to be laid on a bed of pea gravel
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50mm from both
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Where an overflow pipe discharges to a branch pipe or a stack it shall do so through a trap. In all other cases an overflow pipe shall discharge on a visible location and shall not cause dampness in, or damage to, any part of a building
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A branch pipe should be at least the same diameter as the appliance trap and where it serves more than one appliance and is unvented, it should be of at least the diameter and gradient given in Table 2.4. A bend in a branch pipe should have as large a radius as possible and never be less than 75 mm centre line radius. A junction on a branch pipe should be made either at 45° or with a minimum sweep of 25 mm radius. The connection of a branch pipe of 75 mm or more in diameter to a stack should be made either at 45° or with a minimum sweep of 50 mm radius. A branch pipe should discharge into a stack -
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Pipe types / sizes:-
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65mm from w.h.b. and sink unit
50mm from both
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(a) in a way which prevents cross-flow into another branch pipe (see Diagram 2.1); and
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(a) terminate in the external air at least 900 mm above any opening into a building within 3 m, with a cage or cover which does not restrict the air flow (see Diagram 2.3);
(b) terminate with an air admittance valve which complies with BS EN 12056: Part 2 and BS EN 12380; or
(c) connect to a ventilated discharge stack above the "spillover" level of the highest appliance served.

Manholes etc:-
Provide 600mm diameter manhole chamber base with appropriate number of connection outlets, bedded in granular bedding material. Fix 600mm dia manhole chamber risers to achieve required height. Provide suitable well compacted backfill around risers and provide 150mm minimum concrete around top of risers to provide support for the manhole cover and frame.
Manhole covers to be either Grade A or Grade B cover depending on the application. Class A15 should be used in areas which can only be accessed by pedestrians and pedal cyclists. Class B125 covers are for footways, pedestrian areas and comparable areas, car parks or car parking decks.
Roddng eyes to be provided at all changes in direction of sanitary pipework
An inspection chamber is required on private drains, within 12 metres of a connection to or at its junction with a public sewer
All storm water to be connected to main storm system
All sewer waste to be connected to existing main sewer system
Client to forward copy of consent to discharge to be submitted to building control on receipt by client

Access to drainage
Access should be provided for clearing a blockage in any length of drain, though access need not necessarily be provided for rodding in the direction of flow.
An access point should be provided at the following -
(a) at or near the head of each length of drain;
(b) at a bend;
(c) at a change of gradient;
(d) at a change of pipe size;
(e) at a junction;
(f) on long lengths of drain at not greater than the distance given in Table 3.5; and
(g) within 12 m of the connection to a sewer unless access is provided at the connection.

Pipe types / sizes:-
All pvc drain pipes to be of the standard of BS 4660:1973 and to be laid on a bed of pea gravel
100mm diameter plastic storm and foul sewer pipes, fall 1 in 40 laid in gravel filled trench and bed with minimum cover 600mm
Diameter of plastic wastes:-
100mm from W.C.
65mm from w.h.b. and sink unit
50mm from both
100mm from shower

Overflow pipes:-