FOUNDATIONS

THE CONTRACTOR SHOULD ASCERTAIN GROUND CONDITIONS BEFORE WORK COMMENCES, BY DIGGING TEST HOLES

CONCRETE DEEP STRIP FOUNDATIONS 600 x 250 (1:3:6 MIX)
UNDER ALL CAVITY WALLS & INTERNAL LOAD BEARING PARTITIONS
DEPTH TO BE A MINIMUM OF 1000 mm BELOW GROUND LEVEL OR
TO SUIT GROUND CONDITIONS & BE AGREED BY THE LOCAL AUTHORITY
TRENCHES ARE TO BE BACKFILLED INTERNALLY WITH HARDCORE
"CELCON" FOUNDATION BLOCKS BELOW DPC LEVEL

FOUNDATIONS TO EXISTING WALLS TAKING ADDITIONAL LOADS
ARE TO BE EXPOSED AND UNDERPINNED IF DEEMED NECESSARY
BY THE LOCAL AUTHORITY BUILDING CONTROL INSPECTOR

PRECAUTIONS TO BE TAKEN WHEN DRAINS ARE LAID CLOSE
TO THE BUILDING (REFER TO BUILDING REGS.)

SOLID GROUND FLOOR

EXCAVATE TOP SOIL & REMOVE ALL VEGETATION
LAY HARDCORE (MIN 150 mm CONSOLIDATED THICK LAYER)
BLINDED WITH 25 mm SHARP SAND.
LAY 1200 g 'VISQUEEN' DPM OR SIMILAR APPROVED WITH 150 mm
LAPS UNITED WITH DPC IN WALLS. INSERT 80 mm THK 'CELOTEX'
DOUBLE-R GA2000 TO GIVE A 'U' VALUE NOT EXCEEDING
0.22 W/M2/K. COVER WITH VAPOUR CONTROL LAYER (1000g)
LAY 100 mm OVERSITE CONCRETE, LEVEL WITH 65 mm SCREED
READY TO RECEIVE TILES OR OTHER FLOOR FINISHES AS PER
THE CLIENTS SPECIFICATIONS.

CAVITY WALL

CAVITY WALL WITH TIES TO BS 1243
BUILT IN AT 900 mm HORIZ. & 450 mm VERT. STAGGERED.
AT OPENINGS & CORNERS 300 mm VERT.
ALL CAVITIES ARE TO BE MAINTAINED
BUILT IN FACING BRICK TO MATCH COLOUR & TYPE OF EXTG.
100 mm CAVITY WITH ROCKWOOL INSULATION FULL CAVITY FILL
AND 100 mm AIRCRETE 7.0 N/mm² BLOCK INNER SKIN (DENSITY 750 Kg/m³)
IN MORTAR DESIGNATION (i) POINTED AS WORK PROCEEDS
TO GIVE A 'U' VALUE NOT EXCEEDING 0.30 W/M²K.
PROVIDE 'THERMABATE' OR SIMILAR INSULATED CAVITY CLOSURES
AROUND ALL OPENINGS FOR DOORS AND WINDOWS.
DPC TO BE 'VISQUEEN' BRICKGRIP TO BS 6515 OR SIMLAR
APPROVED & BE A MINIMUM OF 150 mm ABOVE GROUND LEVEL.
DPC ALSO TO ALL VERT. & HORIZ. OPENINGS.
'CATNIC' OR SIMILAR APPROVED GALVANISED STEEL LINTELS
OVER NEW OPENINGS TYPE CN14 IN EXTERNAL WALLS, WITH A
MINIMUM END BEARING OF 150 mm.
LATERAL RESTRAINTS TO BRICKWORK TO BE PROVIDED BY
GALVANISED MILD STEEL STRAPS, FIXED ACROSS JOISTS AT
CEILING LEVEL AT 1200 mm CENTRES. SIMILAR RESTRAINTS TO
BE PROVIDED AT ROOF VERGE AT 2000 mm CENTRES.

EXISTING LINTELS

LINTELS OVER EXISTING OPENINGS WHICH MAY TAKE ADDITIONAL
LOADS, BY VIRTUE OF THE NEW BUILDING PROPOSALS.
ARE TO BE EXPOSED & REPLACED. IF DEEMED NECESSARY
BY THE LOCAL AUTHORITY BUILDING CONTROL INSPECTOR.

FIRE DETECTION & ALARM SYSTEMS

PROVIDE & INSTALL A FIRE DETECTION & FIRE ALARM SYSTEM
IN ACCORDANCE WITH THE RELAVANT RECOMMENDATIONS OF BS 5839-6:2004
TO AT LEAST GRADE D CATEGORY LD3 STANDARD
THE SMOKE & HEAT ALARMS SHOULD BE MAINS OPERATED & CONFORM TO
BS5446-1:2000 OR BS5446-2:2003 RESPECTIVELY
THEY SHOULD BE FITTED WITH A STANDBY POWER SUPPLY SUCH AS A BATTERY
(RECHARGEABLE OR NON RECHARGEABLE) OR A CAPACITOR
THE ELECTRICAL INSTALLATION SHOULD COMPLY WITH APPROVED DOCUMENT P
(ELECTRICAL SAFETY)
IT IS ESSENTIAL THAT FIRE DETECTION & FIRE ALARM SYSTEMS ARE PROPERLY
DESIGNED, INSTALLED & MAINTAINED. WHERE A FIRE ALARM IS INSTALLED AN
INSTALLATION & COMMISSIONING CERTIFICATE SHOULD BE PROVIDED.

(HD) HEAT DETECTORS (S) INTER-LINKED OPTICAL SMOKE DETECTORS

ALARM LOCATIONS

TO BE LOCATED WITHIN 7 METRES OF KITCHEN/LIVING ROOMS
& 3 METRES OF BEDROOMS, MEASURED HORIZONTALLY
AT LEAST 300 mm FROM ANY WALL OR LIGHT FITTING
IF FIXED TO CEILING
150 - 300 mm BELOW CEILING IF DESIGNED TO BE WALL MOUNTED

FOUL DRAINAGE

ALL DRAINAGE OTHER THAN NOTED IS EXISTING.
PROVIDE & INSTALL SINK, WASH BASIN, SHOWER & WC TO POSITIONS
SHOWN ON DRAWING. FIT TRAPS TO ALL WASTE INSTALLATIONS.
(ANTI-SIPHONIC TRAPS WHERE WASTE PIPES EXCEED 2000 mm
IN LENGTH)
RUN 40 mm WASTE PIPES TO NEW OR EXTG SOIL VENT PIPE.
WC WASTE THROUGH 110 mm TO SVP VIA BOSS FITTING WITH ACCESS
FOR RODDING.
HEAD OF DRAIN RUN TO BE VENTED TO OPEN AIR
SOIL VENT PIPE TO EXTEND THROUGH ROOF & FINISH A MINIMUM OF
900 mm ABOVE ANY OPENING WITHIN 3000 mm.
NEW SVP OR STUB STACKS TO INCORPORATE A LONG RADIUS BEND &
BE RUN TO NEW OR EXISTING INSPECTION CHAMBER.
FOUL UNDERGROUND DRAINAGE IN 110 mm UPVC PIPES WHICH SHOULD
BE LAID ON A GRANULAR BED (150 mm MIN THK) TO FALLS 1 : 40.

UPVC PIPES

EXISTING DRAINAGE PIPES PASSING UNDER PROPOSED EXTENSION TO BE
TESTED, REPAIRED AND REPLACED AS NECESSARY AND PROTECTED AS NOTED.
ALL PIPES PASSING UNDER BUILDING TO BE SURROUNDED WITH 100 mm
MINIMUM OF GRANULAR OR OTHER FLEXIBLE MATERIAL FILLING.
ALL PIPES PASSING UNDER WALL TO BE BRIDGED OVER BY 150 mm
RC LINTEL. LEAVE A 50 mm GAP AROUND PIPE WHICH SHOULD BE
FILLED WITH A MINERAL FIBRE.

EXISTING INSPECTION CHAMBER

BREAK INTO EXISTING INSPECTION CHAMBER AT INVERT LEVEL PROVIDE
NEW HALF CHANNEL AT BASE. CONSTRUCT STEEP BENCHING AROUND
NEW SYSTEM, WHICH SHOULD BE TROWELLED SMOOTH.

WC/SHOWER ROOM

FIT FLAT ENTRY SHOWER WITH NON SLIP SURFACE
SHOWER AREA 1200 mm SQUARE
SHOWER AREA TO BE DISHED TO CORNER GULLY 40 mm DROP
FALLS SHOULD BE ADEQUATE TO DISPEL ALL SOILED WATER
INSTALL ELECTRICALLY OPERATED INSTANTANEOUS SHOWER UNIT
THERMOSTATICALLY CONTROLLED WITH WATER PRESSURE SAFETY VALVE
A WALL MOUNTED FAN HEATER TO BE FITTED TO PROVIDE TOP UP HEATING
ALL TO CURRENT SAFETY STANDARDS
FIX FLEXIBLE HOSE WITH FIXING POLE FOR HEIGHT ADJUSTMENT
EXTENDED CONTROLS TO BE ACCESSIBLE FROM A SEATED POSITION
FIX TWO NUMBER GRAB RAILS WITHIN SHOWER AREA 445 mm LONG
SEATING WITHIN SHOWER AREA TO BE WALL MOUNTED
& HAVE SUPPORT LEGS, BACK RESTS & ARM RESTS
SHOWER CURTAINS TO BE FITTED TO SUIT CONDITIONS
FIX WC & BASIN TO APPROPRIATE HEIGHTS PROVIDE FIXED GRAB BARS
NON SLIP FLOORING IN BATHROOM TO BE ALTRO MARINE SAFETY FLOORING

WATER SERVICES

HOT & COLD WATER SUPPLIES ARE TO BE PROVIDED TO NEW
SANITARY FITTINGS BY EXTENSION FROM MAINS SUPPLY (COLD)
& FROM EXTG. HEATING SYSTEM (HOT)

HEATING

HEATING TO BE PROVIDED TO NEW EXTENSION VIA RADIATORS,
EXTENDED FROM EXTG. SYSTEM (TYPE 2 APPLIANCE)
INCORPORATE ZONE CONTROLS IN ACCORDANCE WITH BLDG. REGS. 2000
Eg ROOM THERMOSTATS OR INDIVIDUAL THERMOSTATIC RADIATOR VALVES
PIPES DUCTS & VESSELS TO BE INSULATED TO STANDARDS AS SET OUT
IN THE DOMESTIC HEATING COMPLIANCE GUIDE

VENTILATION

SYSTEMS TO BE INSTALLED AS DESCRIBED IN GPG268. SPECIFIERS
GUIDE TO ENERGY EFFICIENT VENTILATION OF DWELLINGS.
MECHANICAL VENTILATION TO BE PROVIDED TO SANITARY ACCOMODATION
TO GIVE A MINIMUM INTERMITTENT EXTRACT RATE OF 6 LITRES/SEC.
MECHANICAL VENTILATION TO BE PROVIDED TO WC/BATHROOM TO
GIVE A MINIMUM INTERMITTENT EXTRACT RATE OF 15 LITRES/SEC.
MECHANICAL VENTILATION TO BE PROVIDED TO UTILITY ROOM TO
GIVE A MINIMUM INTERMITTENT EXTRACT RATE OF 30 LITRES/SEC.
MECHANICAL VENTILATION TO BE PROVIDED TO KITCHEN TO
GIVE A MINIMUM INTERMITTENT EXTRACT RATE OF 60 LITRES/SEC.
OR 30 LITRES/SEC. IF AN ADJACENT COOKER HOOD IS FITTED.
MECHANICAL EXTRACTORS TO WC, BATHROOM & UTILITY TO HAVE
A 15 MINUTE OVERRUN & BE CONNECTED TO LIGHT SWITCH
MECHANICAL EXTRACT TERMINALS & EXTRACT FANS SHOULD BE
PLACED AS HIGH AS PRACTICABLE, PREFERABLY LESS THAN
400 mm BELOW CEILING.
MECHANICAL SUPPLY TERMINALS TO BE LOCATED & DIRECTED
TO AVOID DRAUGHTS.
ANY AUTOMATIC CONTROL TO PROVIDE MANUAL OVERIDE

Rev	Date	Description
A	Nov'07	Amendments as required by local authority (Building Regulations Dept.)

Drawing Title: **GENERAL NOTES**

Client/Site Address:
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As Shown	August 2007	
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WINDOWS & DOORS

NEW DOUBLE GLAZED WINDOWS & DOORS TYPE & STYLE TO CLIENTS SPECIFICATION.

NEW FITTINGS

U/VALUE = 1.8 W/M^2K
OR WINDOW ENERGY RATING BAND 'D'
CENTRE PANE U/VALUE = 1.2 W/M^2K
DOORS WITH MORE THAN 50% OF INTERNAL FACE AREA GLAZED
2.2 W/M^2K OR CENTRE PANE U/VALUE = 1.2 W/M^2K

REPLACEMENT FITTINGS IN EXISTING DWELLING

U/VALUE = 2.0 W/M^2K
OR WINDOW ENERGY RATING BAND 'E'
CENTRE PANE U/VALUE = 1.2 W/M^2K
DOORS WITH MORE THAN 50% OF INTERNAL FACE AREA GLAZED
2.2 W/M^2K OR CENTRE PANE U/VALUE = 1.2 W/M^2K

DPC TO ALL JAMBS & CILLS.
FRAMES TO BE FIXED TO BRICKWORK WITH GALVANISED TIES AT 300 mm CENTRES. THE GAP BETWEEN BRICKWORK & FRAME TO BE SEALED WITH MASTIC (COLOUR TO MATCH FRAMES).
TOTAL VENTILATION OPENINGS TO BE NOT LESS THAN 1/20th OF FLOOR AREA.
TRICKLE VENTS IN ALL NEW WINDOWS & DOORS TO HAVE A MIN AREA OF 8000 mm^2 FOR HABITABLE ROOMS & 4000 mm^2 ELSWHERE. LOCATED TYPICALLY 1750 mm ABOVE FLOOR LEVEL.
TOTAL WINDOW AREA INCL. LINTELS NOT TO EXCEED 25% OF FLOOR AREA.
LINTELS ARE TO CONFORM TO BUILDING REGS HAVING A 'U' VALUE NOT EXCEEDING 1.2 W/M^2K.
SAFETY GLAZING TO CONFORM TO BS6206 CLASS B & C IN CRITICAL LOCATIONS. (DOOR & SIDE PANELS FROM FLOOR LEVEL TO 1500 mm WINDOWS UP TO 800 mm ABOVE FLOOR LEVEL. SINGLE PANELS NOT MORE THAN 0.5 M^2 IN AREA NOT EXCEEDING 250 mm WIDTH TO BE 6 mm ANNEALED GLASS).

ESCAPE WINDOWS

GROUND FLOOR STOREY

ALL HABITABLE ROOMS EXCEPT FOR KITCHENS & UTILITY ROOMS WHICH DO NOT OPEN ONTO A HALL LEADING TO AN ENTRANCE TO BE PROVIDED WITH AN ESCAPE WINDOW OR EXTERNAL DOOR

UPPER STOREY(S)

ALL HABITABLE ROOMS IN THE UPPER STOREY(S) OF A HOUSE SERVED BY ONLY ONE STAIR SHOULD BE PROVIDED WITH AN ESCAPE WINDOW OR EXTERNAL DOOR.

ESCAPE WINDOWS

SHOULD COMPLY WITH THE FOLLOWING CONDITIONS
ESCAPE WINDOWS SHOULD HAVE A MINIMUM UNOBSTRUCTED OPENING OF 0.33 M^2
(UNOBSTRUCTED BY 'EASY CLEAN' HINGES)
& BE AT LEAST 450 mm HIGH x 450 mm WIDE.
HEIGHT TO BOTTOM OF OPENING FROM FLOOR 800 mm MIN, 1100 mm MAX. 600 mm FROM A ROOF LIGHT IN A LOFT CONVERSION.
WINDOW SHOULD NOT BE LOCKABLE WITH A KEY

DRAUGHT PROOFING

SEAL ALL GAPS AT OPENINGS SUCH AS WINDOWS, DOORS, JUNCTIONS WITH FLOORS & CEILINGS. ALSO INCLUDES HATCHES & SERVICE PIPES WHICH PENETRATE VOIDS. ALL WITH AN APPROVED SEALANT.
FIT DRAUGHT STRIPPING IN THE FRAMES OF OPENABLE ELEMENTS OF WINDOWS, DOORS & ROOFLIGHTS ETC.

INTERNAL LIGHTING

PROVIDE LIGHTING FITTINGS (INCLUDING LAMP, CONTROL GEAR AND AN APPROPRIATE HOUSING, REFLECTOR, SHADE OR DIFFUSER OR OTHER DEVICE FOR CONTROLLING THE OUTPUT LIGHT) THAT ONLY TAKE LAMPS HAVING A LUMINOUS EFFICIACY GREATER THAN 40 LUMENS PER CIRCUIT-WATT. FLUORESCENT AND COMPACT FLUORSCENT LIGHTING WOULD MEET THIS STANDARD. LIGHTING FITTINGS FOR GLS TUNGSTEN LAMPS WITH BAYONET CAP OR EDISON SCREW BASES, OR TUNGSTEN HALOGEN LAMPS WOULD NOT.
PROVIDE IN AREAS AFFECTED BY THE BUILDING WORK, FIXED ENERGY EFFICIENT LIGHT FITTINGS THAT NUMBER NOT LESS THAN:
ONE PER 25 M^2 OF DWELLING FLOOR AREA OR PART THEREOF (EXCL.GARAGES) OR ONE PER FOUR FIXED LIGHTING FITTINGS.
A LIGHT FITTING MAY CONTAIN ONE OR MORE LAMPS.
LIGHTING FITTINGS IN LESS USED AREAS LIKE CUPBOARDS AND OTHER STORAGE AREAS WOULD NOT COUNT TOWARDS THE TOTAL.
CONSULT GIL 20 FOR GUIDANCE ON IDENTIFYING SUITABLE LOCATIONS FOR ENERGY EFFICIENT LUMINAIRES.

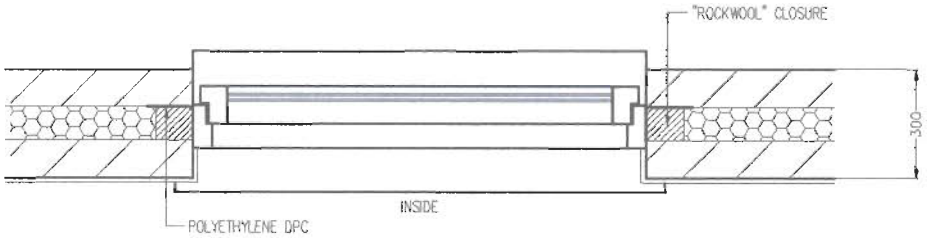
FIXED EXTERNAL LIGHTING

PROVIDE FIXED EXTERNAL LAMPS CAPACITY NOT TO EXCEED 150 WATTS.
LAMPS TO SWITCH OFF WHEN THERE IS ENOUGH DAYLIGHT AND WHEN NOT REQUIRED AT NIGHT.
OR LIGHT FITTINGS TO HAVE SOCKETS THAT CAN ONLY BE USED WITH LAMPS HAVING AN EFFICIACY GREATER THAN 40 LUMENS PER CIRCUIT-WATT. COMPACT FLUORESCENT LAMP TYPES WOULD MEET THE STANDARD, BUT GLS TUNGSTEN LAMPS WITH BAYONET CAP OR EDISON SCREW BASES, LAMPS WOULD NOT.

PERMITTED UNPROTECTED AREAS IN SMALL RESIDENTIAL BUILDINGS

MIN DISTANCE BETWEEN SIDE OF BUILDING AND RELEVANT BOUNDARY (M)	MAXIMUM TOTAL AREA OF UNPROTECTED AREAS (M^2)
1 Metre	5.60 M^2
2 Metres	12.00 M^2
3 Metres	18.00 M^2
4 Metres	24.00 M^2
5 Metres	30.00 M^2
6 Metres	NO LIMIT

ALLOWABLE MAXIMUM UNPROTECTED AREA WITHIN 1 M OF BOUNDARY IS 1 M^2
WHICH MUST BE AT LEAST 4 METRES AWAY FROM ANY OTHER UNPROTECTED AREA IN THE SAME SIDE



DETAIL (Cavity Closers)
(Scale 1 :20)

Rev	Date	Description

Drawing Title
GENERAL NOTES & DETAILS

Client/Site Address
Mr & Mrs R Littlecott
14 Shorts Road
Fair Oak
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Scale	As Shown	Date	August 2007	
Project Number		Drawing Number		Rev
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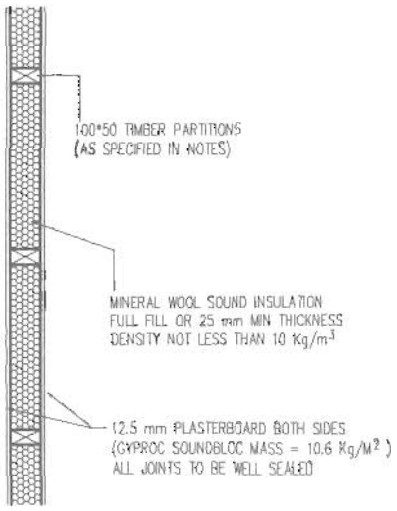
SOUND INSULATION

PROVIDE ADEQUATE SOUND RESISTANCE TO THE FOLLOWING NEW ELEMENTS
a) ALL INTERNAL FLOORS
b) ALL INTERNAL WALLS SEPERATING A ROOM FROM A WC (UNLESS EN-SUITE OR CONTAINING A DOOR)
c) ALL INTERNAL WALLS SEPARATING A BEDROOM FROM ANOTHER ROOM (UNLESS CONTAINING A DOOR)

IT IS RECOMMENDED THAT DOOR SETS ARE USED AT DOOR OPENINGS WITH A GOOD PERIMETER SEALING

WALL TYPE B
TIMBER OR METAL LININGS TO BE PROVIDED ON EACH SIDE OF THE FRAME EACH LINING TO CONSIST OF A SINGLE LAYER OF PLASTERBOARD WHICH HAS A MASS PER UNIT AREA OF 10 Kg/m^2 OR MORE
A MIN OF 75 mm IF FIXED TO A TIMBER FRAME A MIN OF 45 mm IF FIXED TO A METAL FRAME
UNFACED WOOL BATTS OR QUILT WITH: THICKNESS OF 25 mm OR MORE; AND DENSITY OF 10 Kg/m^3 OR MORE SUSPENDED IN THE CAVITY THE ABSORBENT LAYER MAY BE WIRE REINFORCED
ALL JOINTS TO BE WELL SEALED



TYPICAL SECTION THROUGH WALL TYPE B
(Scale 1 : 25)

ELEMENT	WALL TYPE C
CORE STRUCTURE	CONCRETE BLOCK WALL
REQUIRED MASS PER UNIT AREA	A MASS PER UNIT AREA, EXCLUDING FINISH OF 120 Kg/m^2 OR MORE
SURFACE FINISH	PLASTER OR PLASTERBOARD ON BOTH SIDES
OTHER REQUIREMENTS	ALL JOINTS TO BE WELL SEALED
RESTRICTIONS	NO SPECIFIC RESTRICTIONS

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A	Nov'07	Amendments as required by local authority (Building Regulation Dept.)

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SURFACE DRAINAGE

PROVIDE & FIX 100 mm HR EAVES GUTTERS WITH APPROPRIATE STOP ENDS & OUTLETS TO FACIAS WITH APPROVED BRACKETS.
PROVIDE & FIX DOWN PIPES OR CONNECT TO EXISTING RAIN WATER PIPES AT POSITIONS SHOWN ON DRAWING. CONNECT TO B.I.GULLIES. RUN TO EXISTING DISPOSAL POINT OR TO NEW SOAKAWAY.

MAX ROOF AREA	GUTTER SIZE	OUTLET SIZE	FLOW CAPACITY
6 Metres^2	Not Required	Not Required	
18 Metres^2	75 mm Dia.	50 mm Dia	0.38 Litres per Second
37 Metres^2	100 mm Dia.	63 mm Dia	0.78 Litres per Second
53 Metres^2	115 mm Dia.	63 mm Dia	1.11 Litres per Second
65 Metres^2	125 mm Dia.	75 mm Dia	1.37 Litres per Second
103 Metres^2	150 mm Dia.	89 mm Dia	2.16 Litres per Second

FLAT ROOF	PLAN AREA
PITCHED ROOF 30 DEGREES	PLAN OF AREA x 1.29
PITCHED ROOF 45 DEGREES	PLAN OF AREA x 1.5
PITCHED ROOF 60 DEGREES	PLAN OF AREA x 1.87
PITCHED ROOF 70 DEGREES	ELEVATIONAL AREA x 0.5

SOAKAWAY

NEW SOAKAWAYS TO BE A MIN 5000 mm FROM ANY BUILDING OR ROAD TO BE BLOCK LINED WITH OPEN PERPENDICULAR JOINTS & HAVE A CONCRETE COVER. MIN VOLUME ONE METRE CUBED.

PERCOLATION TEST

A PERCOLATION TEST TO BE CARRIED OUT BY THE CONTRACTOR TO DETERMINE THE CAPACITY OF THE SOIL.

TEST PROCEDURE

A TRIAL HOLE IN A SIMILAR LOCATION & TO THE SAME DEPTH AS THE PROPOSED SOAKAWAY WILL GIVE A MEASURED RATE OF PERCOLATION.

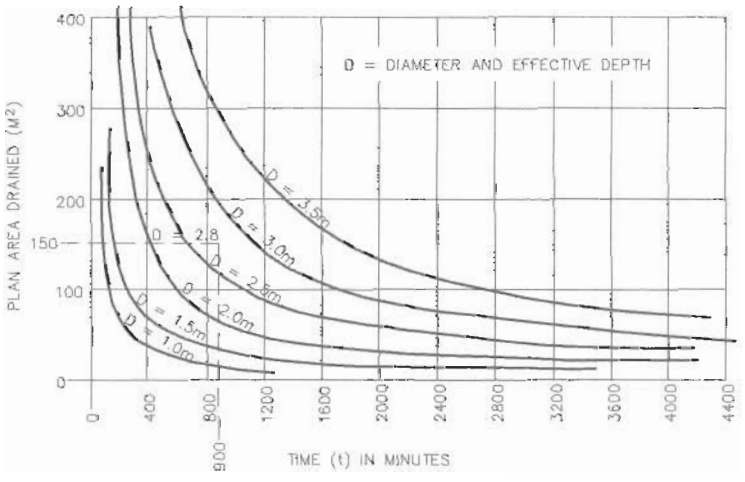
1. BORE A HOLE 150 mm DIAMETER TO A DEPTH OF 1000 mm.
2. FILL WITH WATER TO A DEPTH OF 300 mm ABOVE THE BOTTOM
3. OBSERVE THE TIME TAKEN IN MINUTES FOR THE WATER TO SOAK AWAY
4. IF POSSIBLE REPEAT THE TEST AND USE AN AVERAGE TIME.
5. A SECOND GROUP OF TESTS SHOULD BE CARRIED OUT AFTER THE HOLE HAS BEEN BORED OUT TO A DEPTH OF 2000 mm, STILL USING 300 mm OF WATER ABOVE THE BOTTOM OF THE HOLE.
6. IF THE SOIL APPEARS TO BECOME MORE PERMEABLE WITH DEPTH, IT MAY BE USEFUL TO DEEPEN& RETEST THE BORE IN ONE METRE STAGES.

DESIGN OF SOAKAWAY

THE RELATIONSHIP BETWEEN THE DIAMETER OR EFFECTIVE DEPTH REQUIRED FOR A SOAKAWAY TO SUIT A GIVEN AREA OF ROOF AND/OR PAVED AREA, AND THE AVERAGE TIME (t) GIVEN BY THE TEST OUTLINED ABOVE IS SHOWN ON THE GRAPH BELOW. THE DIAMETER AND EFFECTIVE DEPTH BELOW INVERT LEVEL ARE ASSUMED TO BE THE SAME DIMENSION (D).

DESIGN EXAMPLE

TEST TIME (t) = 900 MINUTES
PLAN AREA TO DRAIN = 150 M^2
THEREFORE USING THE GRAPH, THE DIAMETER AND EFFECTIVE DEPTH OF THE SOAKAWAY (D) ARE BOTH 2.8 M



REFER TO MHBC STANDARDS CHAPTER 5.3

Rev	Date	Description

Drawing Title
DETAILS SURFACE DRAINAGE

Client/Site Address
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Scale	As Shown	Date	August 2007	
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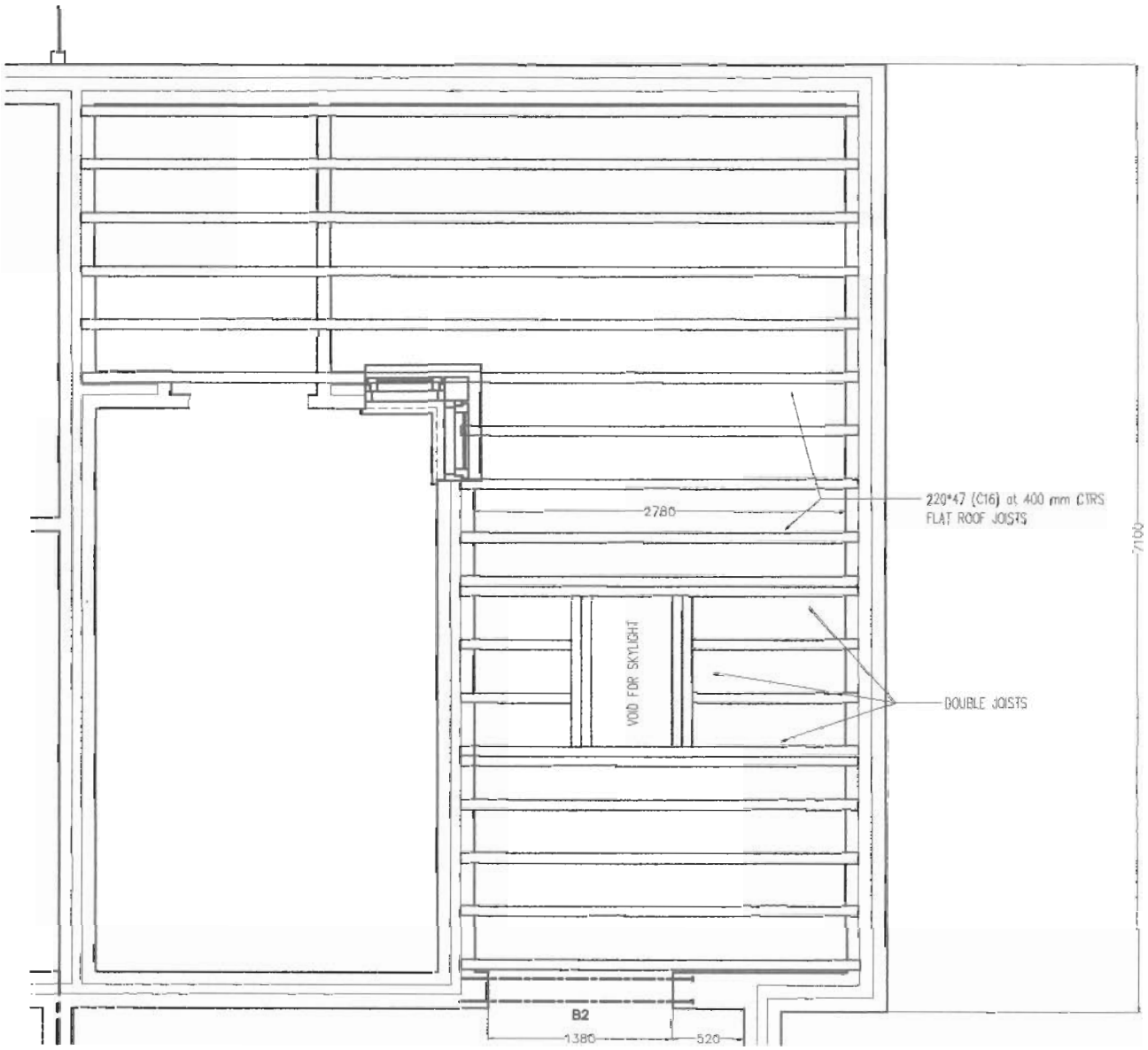

Rev	Date	Description
A	June'10	Amendments as required by client

Drawing Title
FLAT ROOF JOIST LAYOUT

Client/Site Address
Mr & Mrs R Littlecott
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Hants SO50 7EH

Scale	Date	
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Project Number	**Drawing Number**	**Rev**
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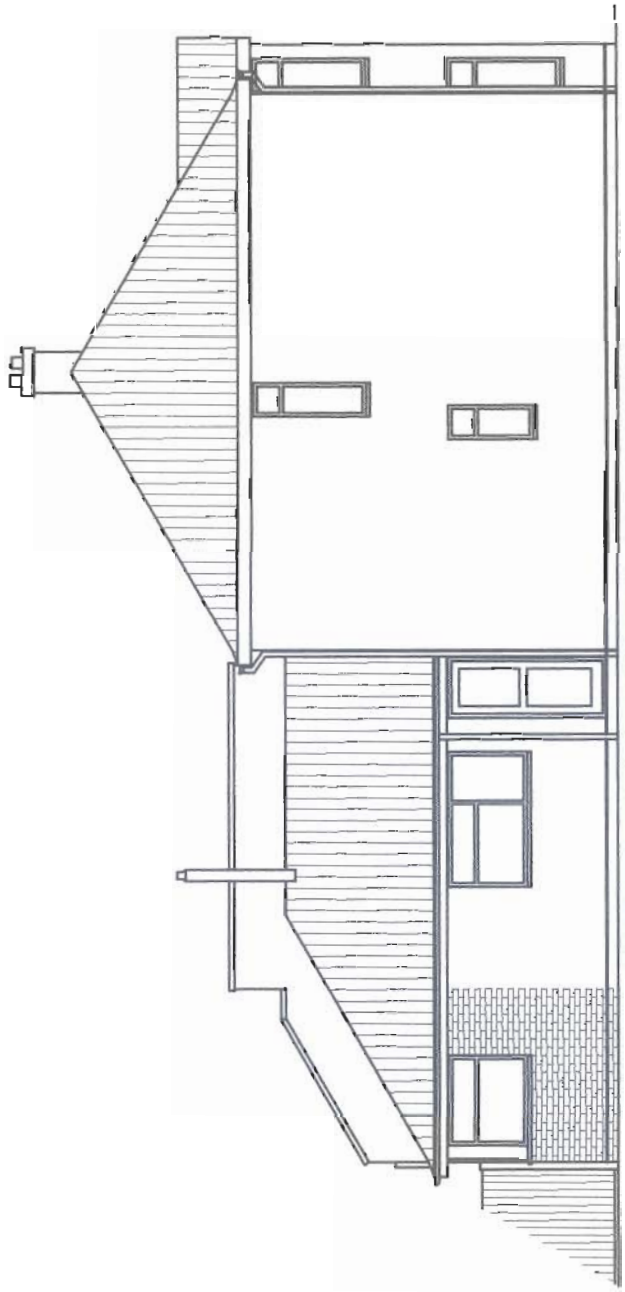

PROPOSED SIDE ELEVATION
(Scale 1 :100)

Rev	Date	Description
A	June'10	Amendments as required by client

Drawing Title
SIDE ELEVATION
(VIEWED FROM 16 SHORTS ROAD)

Client/Site Address
Mr & Mrs R Littlecott
14 Shorts Road
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Scale	1:50	Date	August 2007	
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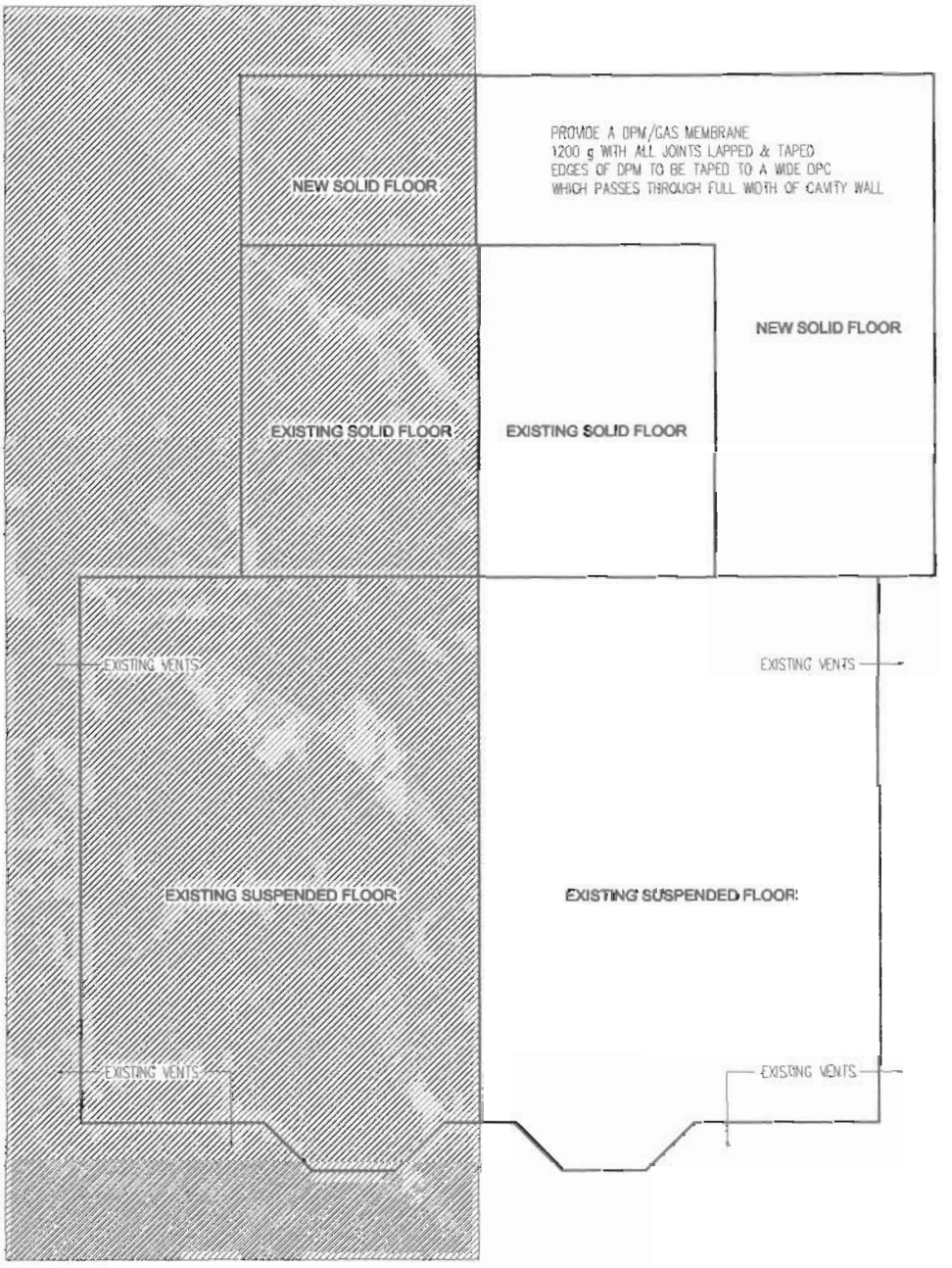

PROPOSED GROUND FLOOR PLAN
(Scale 1 :100)

Rev	Date	Description
A	June'10	Amendments as required by client

Drawing Title
GAS MEMBRANE DETAILS

Client/Site Address
Mr & Mrs R Littlecott
14 Shorts Road
Fair Oak
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Scale	Date	
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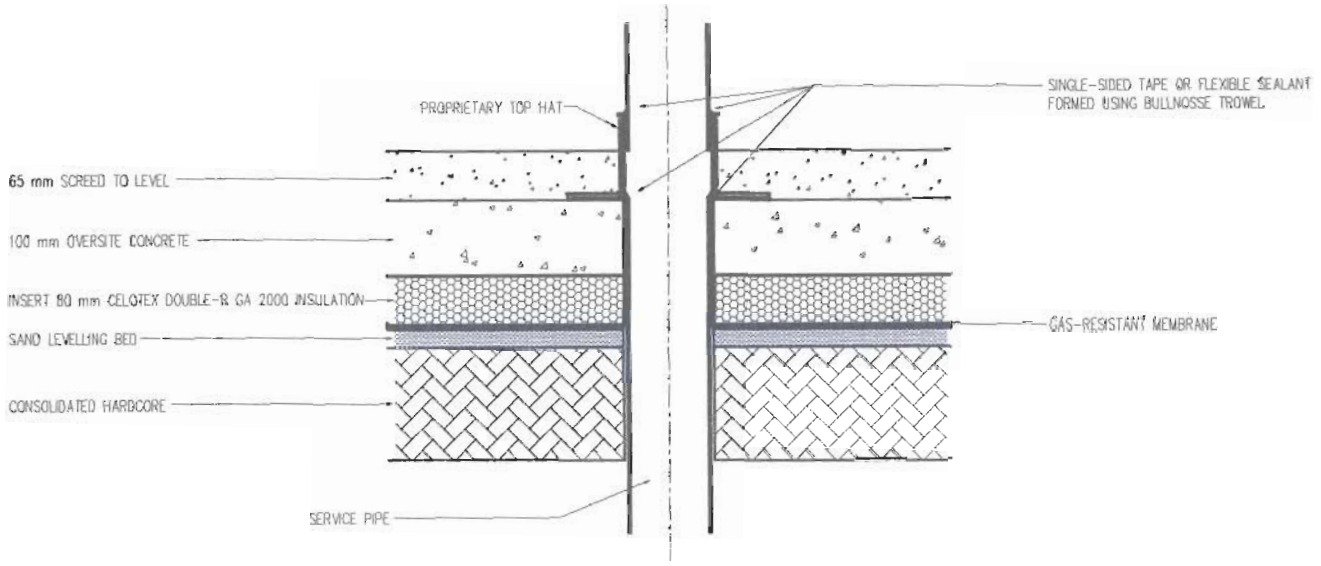
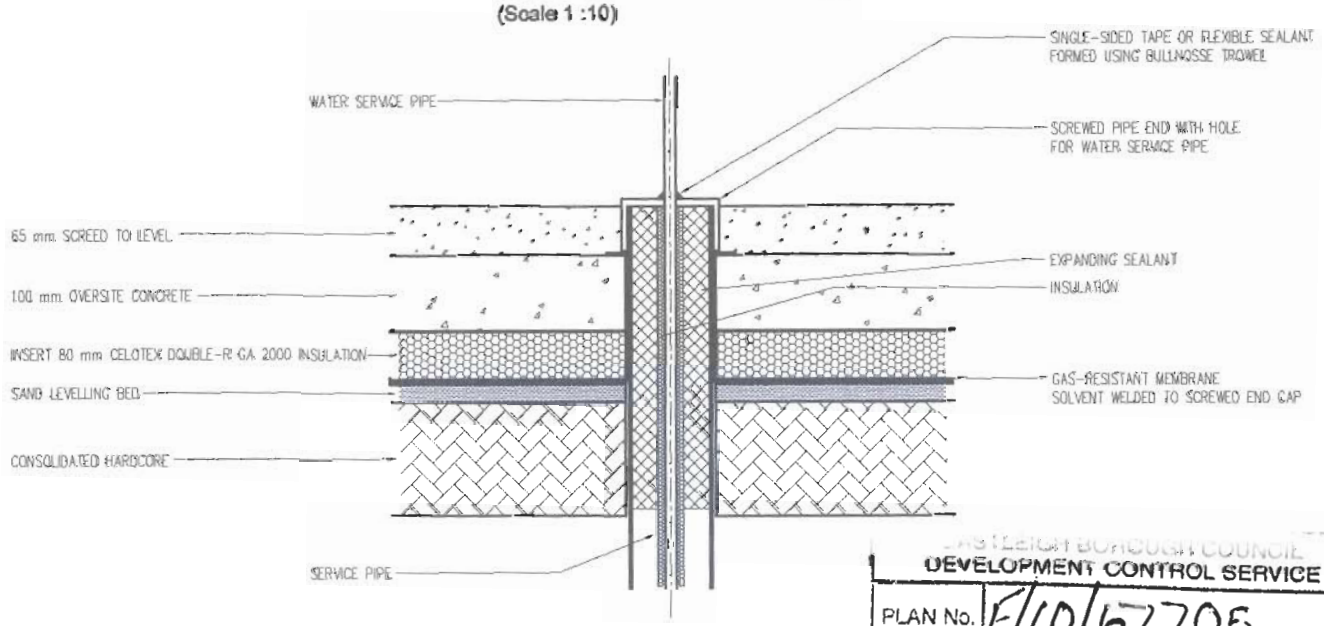


SOIL VENT PIPE ENTRY
(Scale 1 :10)



WATER SERVICE ENTRY
(Scale 1 :10)

EASTLEIGH BOROUGH COUNCIL
DEVELOPMENT CONTROL SERVICE
PLAN No. F/10/67705
Date Rec'd: 13 AUG 2010
Decision:

WHERE SERVICE ENTRIES PASS THROUGH THE FLOOR SLAB, THEY ARE OFTEN LOCATED CLOSE TO WALLS. THE TOP-HAT SHOULD BE INSTALLED BEFORE THE WALL IS CONSTRUCTED ABOVE SLAB LEVEL. THE 'RIM' OF THE TOP-HAT IS LAID IN THE BED JOINT AND SEALED TO THE DAMP-PROOF COURSE BEFORE THE NEXT COURSE OF MASONRY IS LAID.

IF THE SERVICE ENTRY MUST BE CLOSE TO A WALL, ENSURE THAT THE OUTSIDE OF THE PIPE IS AT LEAST 50 mm FROM THE FACE OF THE WALL. THE 'RIM' OF THE TOP-HAT IS CUT AT THE FACE OF THE WALL AND SEALED TO THE GAS-RESISTANT MEMBRANE.

TOP-HAT DIAMETER SHOULD MATCH SERVICE PIPE DIAMETER.

TOP-HAT MAY NEED TO BE INSTALLED IN SECTIONS OVERLAPPED AND TAPED OR SITTE WELDED.

Rew	Date	Description

Drawing Title
GAS MEMBRANE DETAILS

Client/Site Address
Mr & Mrs R Littlecott
14 Shorts Road
Fair Oak
Hants SO50 7EH

Scale	As Shown	Date	April 2008	
Project Number		Drawing Number		Rev
0708-103		16		/

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GAS MEMBRANE

TYPES OF GAS MEMBRANE

POLYETHYLENE IS THE PRINCIPAL MATERIAL USED AS A GAS RESISTANT MEMBRANE. IT IS MARKETED IN A VARIETY OF THICKNESSES AND CAN BE REINFORCED WITH GRIDS OR SCREENS OF HIGH-DENSITY POLYETHYLENE, POLYPROPYLENE OR POLYESTER TO IMPROVE THE DURABILITY OF THE MATERIAL DURING THE CONSTRUCTION PROCESS. THE PERMEABILITY OF THE MEMBRANE CAN BE REDUCED BY INTRODUCING A LAYER OF ALUMINIUM FOIL.

PRE INSTALLATION

BEFORE INSTALLING A MEMBRANE, THE MANUFACTURER SHOULD BE INFORMED OF THE SITE CONDITIONS SO THAT THE MANUFACTURER CAN SUPPLY A MEMBRANE SUITABLE FOR THE SPECIFIC SITE CONDITIONS. BEFORE THE MEMBRANE IS INSTALLED THE MANUFACTURERS INSTRUCTIONS SHOULD BE CONSULTED AND ANY SPECIFIC DETAILS AND SPECIFICATIONS MADE AVAILABLE TO THE SITE OPERATIVES.

TYPICAL THICKNESSES IN mm ARE:

POLYETHYLENE	0.3 TO 1.0
REINFORCED POLYETHYLENE	0.3
REINFORCED POLYETHYLENE WITH ALUMINIUM FOIL	0.3 TO 0.8
REINFORCED POLYETHYLENE WITH ALUMINIUM FOIL & POLYMERISED BITUMEN	0.3 TO 1.5

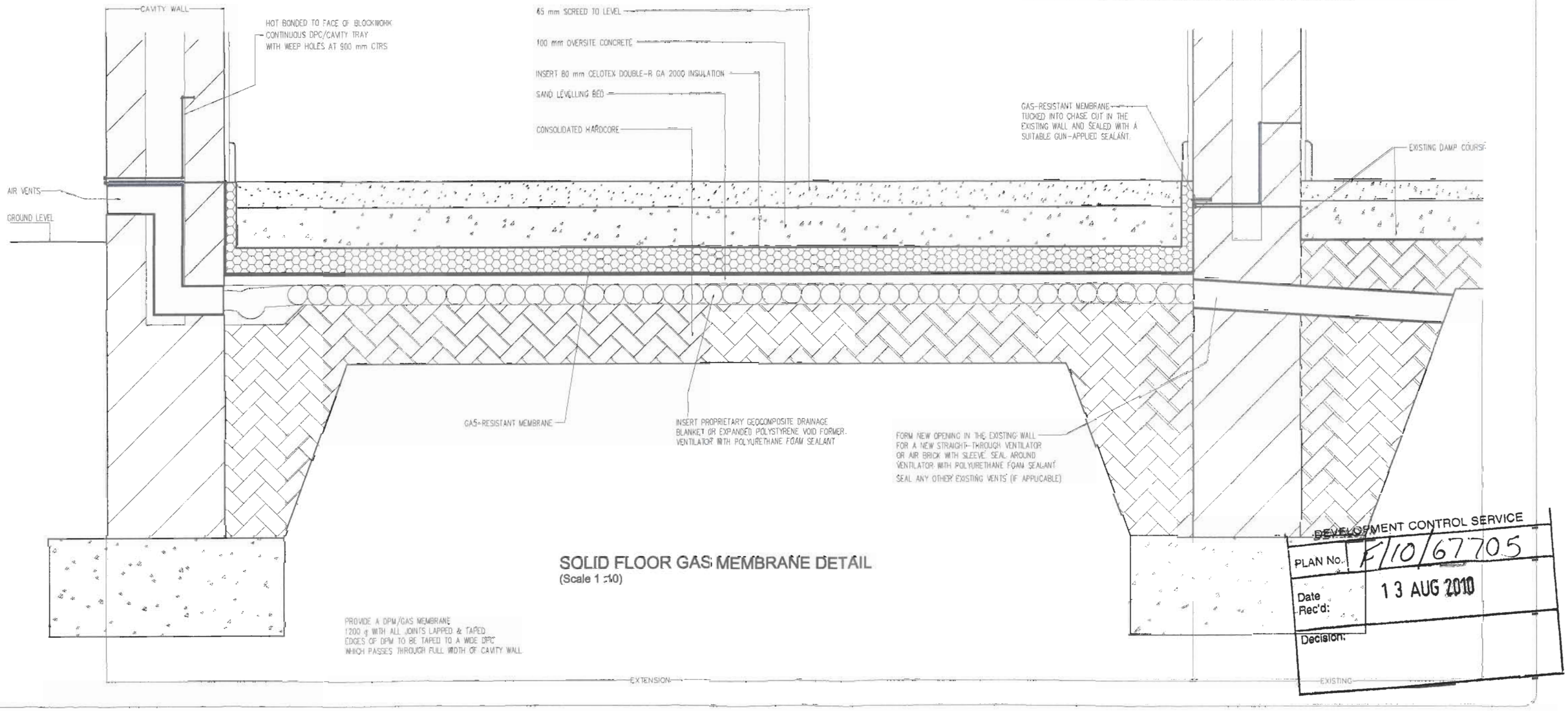
THE MINIMUM THICKNESS OF POLYETHYLENE USED AS A GAS-RESISTANT MEMBRANE IS 1200 GAUGE OR 0.3 mm THICK.

THE PERFORMANCE OF A GAS-RESISTANT MEMBRANE IS DEPENDENT UPON ITS ABILITY TO WITHSTAND THE RIGOURS OF INSTALLATION RATHER THAN PERMABILITY. THEREFORE, THE MEMBRANE MUST BE RESISTANT TO PUNCTURE, ABRASION AND TEARING, AND ULTRAVIOLET LIGHT WHICH MAY CAUSE EMBRITTLEMENT OF THE MEMBRANE IF IT IS LEFT EXPOSED FOR LONGER THAN THE NORMAL CONSTRUCTION PERIOD

INTEGRITY TESTING

THE NEED FOR HIGH QUALITY WORKMANSHIP DURING THE INSTALLATION OF THE GAS-RESISTANT MEMBRANE SHOULD NOT BE UNDER-ESTIMATED: THE HEALTH AND SAFETY OF THE OCCUPANTS OF THE BUILDING IS DEPENDANT ON ITS SATISFACTORY PERFORMANCE. THE MOST EFFECTIVE METHOD OF ACHIEVING HIGH QUALITY WORKMANSHIP IS TO EMPLOY SPECIALLY TRAINED QUALITY ASSURED TEAMS WHO FOLLOW BEST PRACTICE GUIDANCE. IDEALLY THEIR WORK SHOULD BE SUBJECT TO THIRD PARTY INSPECTION, FOR EXAMPLE BY THE BUILDING CONTROL INSPECTOR

IF THERE ARE DOUBTS UPON THE QUALITY OF THE INSTALLATION, POST-INSTALLATION INTEGRITY TESTING OF THE MEMBRANE AND JOINTS MAY BE UNDERTAKEN. ANY LEAKS FOUND IN THE MEMBRANE OR THE JOINTS SHOULD BE SEALED BEFORE CONSTRUCTION CONTINUES. ALTHOUGH THERE ARE SEVERAL NON-DESTRUCTIVE TEST METHODS, EG. VACUUM BOX, AIR PRESSURE, ULTRSONIC OR AIR LANCE, THEY ALL HAVE SHORTCOMINGS WHEN APPLIED TO POST-INSTALLATION GAS MEMBRANES. THE MOST EFFECTIVE POST-INSTALLATION TEST METHOD IS TO PRESSURISE THE UNDERSIDE OF THE MEMBRANE WITH AN APPROPRIATE TRACER GAS AND THEN SWEEP THE TOP SURFACE WITH A SUITABLE GAS-DETECTION DEVICE. THE ADVANTAGE OF THIS METHOD IS THAT THE WHOLE MEMBRANE INCLUDING JOINTS ARE TESTED: IT HAS BEEN DEMONSTRATED THAT THIS TEST METHOD CAN DETECT EVEN VERY SMALL MIGRATION ROUTES IN THE MEMBRANE.



SOLID FLOOR GAS MEMBRANE DETAIL
(Scale 1 :10)

DEVELOPMENT CONTROL SERVICE
PLAN No. F/10/67705
Date Rec'd: 13 AUG 2010
Decision:

All new works to be carried out in accordance with Building Regs 2000 and all current codes of practice.

This drawing is intended for Planning & Building Regulation applications only. This drawing is not a detailed working drawing. Methods of Construction & Materials Used are the Responsibility of the Building Contractor Assigned to this Project. Measurements shown are in millimeters.

Rev	Date	Description

Drawing Title: GAS MEMBRANE DETAILS

Client/Site Address: Mr & Mrs R Littlecott, 14 Shorts Road, Fair Oak, Hants SO50 7EH

Scale: As Shown | Date: April 2008

Project Number: 0708-103 | Drawing Number: 15 | Rev: /

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