EXTERNAL WALLS

to be of 100mm facing brick on external skin to match existing.

100mm cavity to be filled with 50mm - 75mm kingspan or 100mm rockwool cavity batt insulation and to contain stainless steel wall ties at not less than 200mm long at no more than 750mm horizontal centres / spacing and 450mm vertical centres / spacing to BS 1243, staggered. ensure insulation extends fully to the top of the walls. where partial fill cavity insulation is present, a minimum clear cavity of 50mm shall be maintained.

internal skin to be of 100mm 4.6N loadbearing concrete blockwork.

internal blockwork skin to be either drylined with a 12.5mm plasterboard and skimmed to a smooth and even finish or finished with a 12mm thick lightweight plaster.

Min U-Value = 0.30W/msq.K

cills at openings shall be of stone to match existing with a dpc behind and beneath together with an insulated cavity closer behind.

a horizontal damp proof course shall be located in all wall skins not less than 150mm above the external finished ground level and linking with the existing dpc.

terra cotta air grates shall be included immediately beneath the dpc with a cavity tray dpc over to ventilate the void below. liners are to be installed within inner block leaf to ventilate floor void, air bricks to be @ 1.5m centres.

lintels at door & window openings shall be formed using steel ig type L1/S80 onto concrete padstones with flexible dpcs, insulation inserts and weep holes as required. reveals and cills are to include thermabate cavity closers or similar.

below ground walls to be formed using either type 1 engineering brick and 7N dense concrete blockwork or solid blockwork in accordance with BS 6073 parts 1 & 2 1982; BS 2028, 1364, 1968 type b.

FOUNDATIONS

existing foundations shall be exposed and checked for suitability prior to commencement. any remedial action shall be agreed with building control following a site inspection.

new foundations shall be 650mm wide trench fill C35 grade concrete taken down to good bearing strata. existing foundations shall not be undermined and if necessary local underpinning shall be agreed.

the foundation to the underside of the east facing side elevation of the two storey extension is to be poured so flush with the face of the proposed east facing side elevation. the foundation to the proposed east facing side elevation wall shall be of either:

650 mm (wide) x 1600 mm (deep)
1500 mm (wide) x 1000 mm (deep)
1200 mm (wide) x 1200 mm (deep)

as per the structural engineers calculations.

building control approval of all foundation excavations is required prior to pouring of concrete.

FLOOR STRUCTURES

upper surface to be of 22mm thick, V313 flooring grade chipboard onto 150mm x 50mm softwood joists at 450mm centres spanning wall to wall on galvanised steel hangers (not built into the walls).

joists to be doubled up and bolted together beneath partitions.

include mid span noggins or herringbone strutting and galvanised steel straps at 2000mm centres nailed to the external walls and taken across at least 3 No. joists.

FIRE PROOFING STEELWORK

supporting steelwork shall be encased in two layers of 12.5mm thick gyproc wallboard and skim onto timber cradles to provide 30 minutes fire protection.

INTERNAL CEILING

12.5mm thick plasterboard and skim to a smooth and even finish generally with a foil backing where applied directly beneath an insulating layer.

PARTITIONS

to be of 100mm x 50mm softwood framing with vertical studs at 400mm centres. finished both sides with 12.5mm thick plasterboard and skim and with 50mm thick mineral quilt insulation in the cavity.

EXTERNAL WINDOW FRAMES AND DOORS

timber window and door frames with double glazed units having a 20mm wide cavity filled with air and pilkington thermal k glass.

each unit shall be fitted with draught strips, security locks, easiclean friction stays at openers (to enable access for external cleaning), draught sealer and trickle vents. any window or door glazing in critical locations or below 800mm above finished floor level shall be in laminated safety glass.

the u-value of the glazing shall be 1.80w/m2k

PITCHED ROOF COVERING & STRUCTURE

single storey rear extension

external roof covering to be of blue welsh slates to match the existing onto tanalised softwood battens and softwood counter battens to create a minimum 50mm deep air space above insulating layer onto one layer of monarflex monofilament permeable breather membrane fixed in accordance with the manufacturers instructions onto a traditional softwood structure as noted on the section. the blue welsh slates are to be of 400mm x 250mm slates with a minimum head lap of 75mm

a steel channel, in accordance with the structural engineers' calculations and as stated on the drawing, is to be fixed to wall plate and strapped to restrict roof spread.

code 5 lead flashing is to be dressed along the existing rear elevation and roof of the proposed single storey extension. the existing structure of the dwelling is to remain intact with the new structure built off.

two storey side extension

external roof covering to be of blue welsh slates to match the existing onto tanalised softwood battens with pointed and bedded red clay ridge tiles to the ridge and hip ridges. blue welsh slates are to be fixed over one layer of monarflex monofilament permeable breather membrane fixed in accordance with the manufacturers instructions onto a traditional softwood structure as noted on the section and below.

the roof structure of the two storey extension shall be an extension of the existing roof structure. the extended roof structure shall be of 100 mm x 50 mm C16 grade timber rafters set at 450 mm centres. the rafters are to be supported by one 225 mm x 75 mm C16 grade timber purlin to each roof slope, including the front roof slope, rear roof slope and the hip end. the timber purlins should be located halfway along the pitch of the roof slopes.

the hip ridges are to be of 225 mm x 50 mm C16 grade timber members. the hip ridges are to be birdmouthed and fixed to the timber wall plates and dragon tied to a 120 mm x 50 mm C16 grade timber angle tie to prevent spread of the wall plates and hip ridges.

three (3 No.) 150 mm x 50 mm C16 grade timber ceiling binders are to be fixed square (at 90 degrees) to the timber ceiling joists. the timber ceiling joists shall be of 120 mm x 50 mm C16 grade timber members that shall be fixed to the feet of the rafters and run from front to rear.

each timber rafter to the hip end of the roof structure shall be fixed to the timber wall plate and every other timber rafter of the hip end is to be strapped / restrained using 1000 mm x 30 mm x 5 mm mild steel straps over a minimum 3 No. ceiling joists, with noggins between the ceiling joists.

the existing roof covering is to be stripped back to enable the works. the existing roof structure is to remain intact with the new structure built off.

INSULATION

cold deck principles apply to the single storey extension

two layers of rigid polystyrene - one layer of 155mm thick Kingspan TP10 fitted tightly between the rafters plus one layer of 37.5mm thick Kingspan TW56 fitted directly beneath the rafters butted tightly to the underside of the TP10 layer.

ensure all joints are tight and sealed. all insulation shall run continuously with unavoidable gaps at eaves and other junctions being filled with glass fibre quilt.

ventilation of the void above the insulating layer is to be provided via the eaves vents.

insulation to floor to be of 110 mm thick Kinspan TF80 insulation or equivalent supported on pegs or similar between timber joists

ADDITIONAL INSULATION REQUIREMENTS

any water services located within the roof void are to be insulated using materials only to BS 5422 : 1977. any cutting of the insulation to allow services to pass shall be filled afterwards.

ROOF VALUES

the u-value of the roof insulation = 0.16/m2k which is to be verified by the insulation manufacturers.

ROOF ANCHORS

the rafters are to be birdto be mouthed and nailed onto a 100mm x 50mm softwood wall plate that is strapped down to the inner skin of the cavity walls at no more than 2000mm centres using glavanised mild steel straps.

ROOF LIGHTS

to be of proprietary velux ggl range with trimmers, upstand and flashings.

EAVES

half round 112mm dia. UPVc gutters fixed directly to the preserved timber fascia boards. fallpipes to be of 68mm dia. UPVc manufacture.

SMOKE DETECTORS

automatic smoke detectors to BS5446 to be fitted and interlinked at ceiling level in the open plan kitchen area and to the lobby to the foot of the staircase at ground floor level and to first floor landing area.

HEATING

installations shall be carried out in accordance with the recommendations in good practice guide 302 (2001) controls for domestic central heating and hot water, brescu.

the heating and hot water systems shall be inspected at completion of installation so as to establish that the specified and approved provisions for efficient operation have been put in place.

responsibility for achieveing compliance with this requirement rests with the installer.

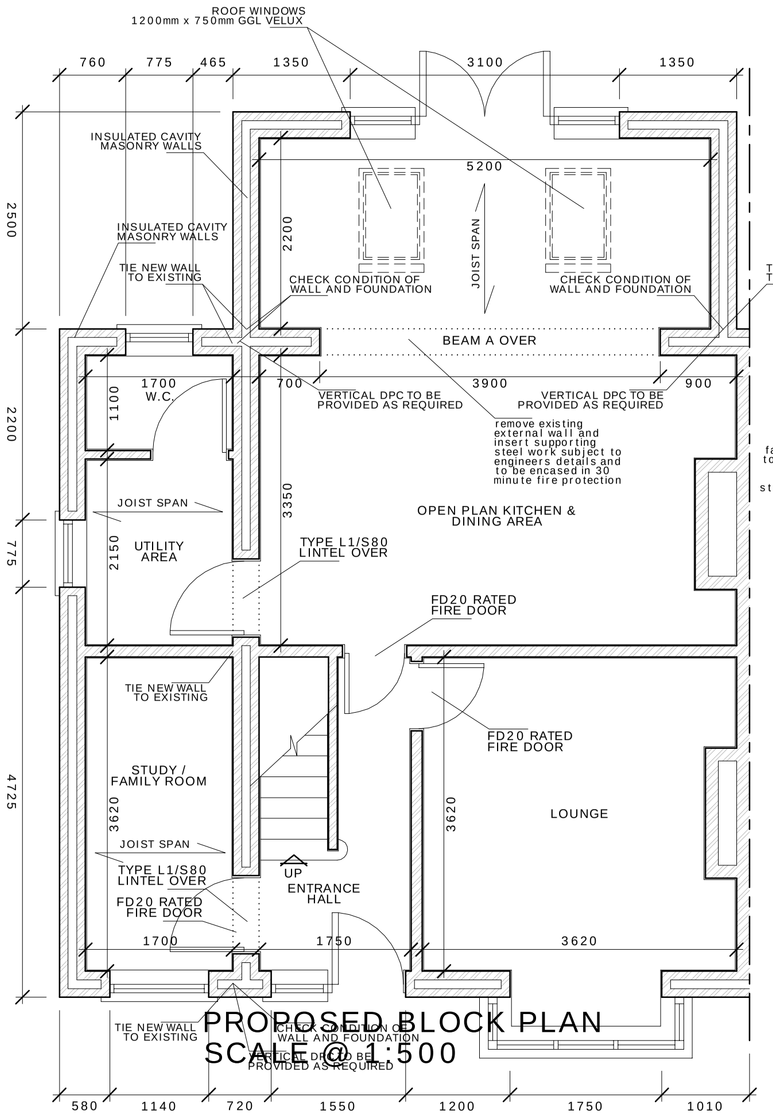
on completion of the installation the building occupier shall be provided with manuals and/or information on the operation and maintenance of the heating and hot water systems.

reasonable provision shall be made for insulating pipes and ducts in the heating and hot water services installations, including vent pipes and the primary flow and return to the heat exchanger, where fitted.

MEANS OF ESCAPE

FD20 rated fire doors are to be provided to each room off the entrance hall at ground floor level and are to be provided to all rooms at first floor level to provide a protected route of escape.

alternatively, the windows at first floor level shall be in accordance with approved document n for means of escape windows.



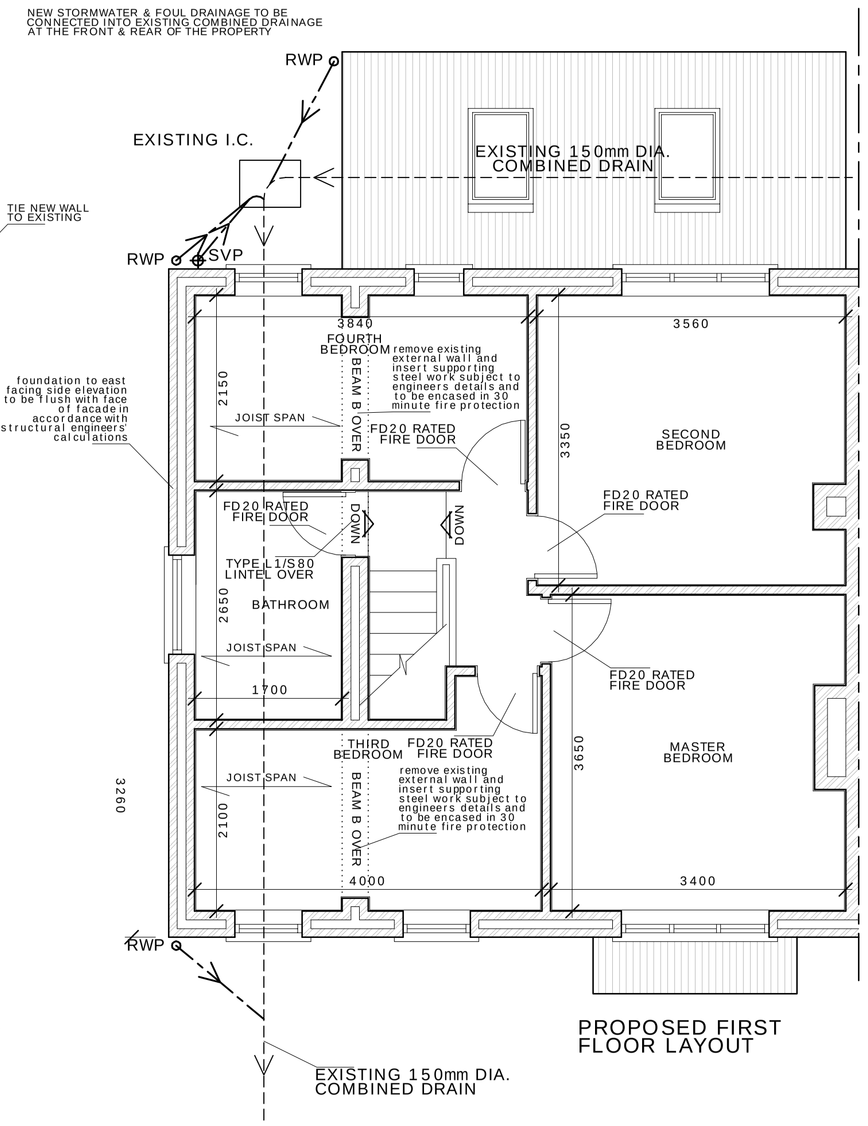
PROPOSED GROUND FLOOR LAYOUT

PROPOSED FLOOR LAYOUTS
SCALE @ 1:50

NOTE:

EXISTING DRAINAGE BENEATH EXTENSION TO BE BRIDGED WITH REINFORCED CONCRETE LINTELS AT FOUNDATIONS AND ANY DOWN PIPES TO BE RE-POSITIONED TO L.A. BUILDING CONTROL APPROVAL.

NEW STORMWATER & FOUL DRAINAGE TO BE CONNECTED INTO EXISTING COMBINED DRAINAGE AT THE FRONT & REAR OF THE PROPERTY

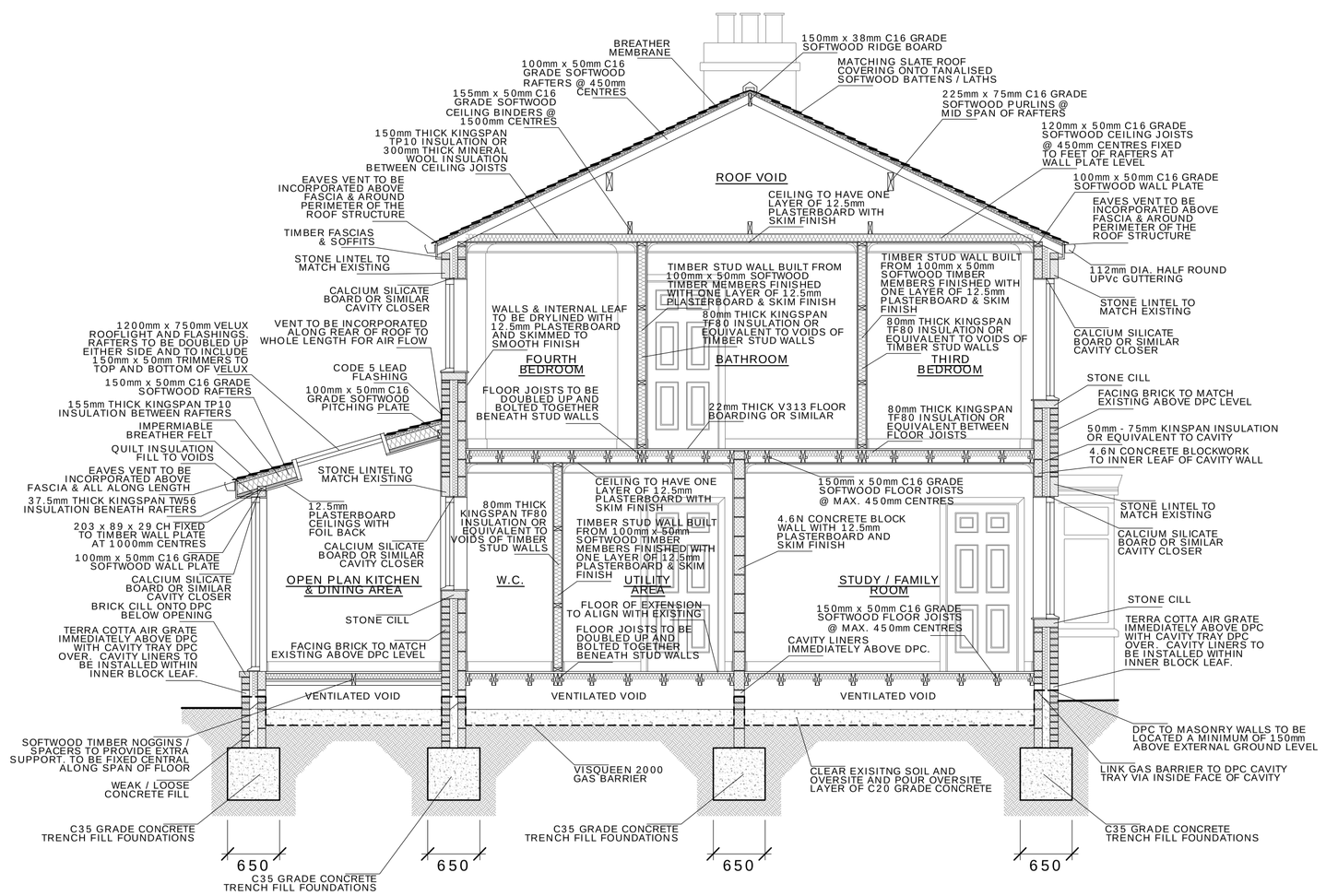


PROPOSED FIRST FLOOR LAYOUT

Revisions

Rev.	Date	Description	By

Do Not Scale From This Drawing
For Construction Purposes



PROPOSED THRU' SECTION
SCALE @ 1:50

ELECTRICAL INSTALLATIONS

all electrical work shall only be carried out in accordance with part p of the building regulations by a person registered with an electrical self certification scheme.

all works shall be carried out in accordance with BS 7671:2001 and shall be inspected and tested both during and at the end of the work.

on completion test certificates shall be handed to the client.

INTERNAL LIGHTING

reasonable provision shall be made for the installation of energy efficient lighting avoiding the use of gls tungsten lamps with bayonet cap or edison screw bases anywhere.

EXTERNAL LIGHTING

reasonable provision shall be made for the installation of energy efficient lighting that automatically extinguishes where there is enough daylight or when not required at night.

SERVICES GENERALLY

electrical and mechanical services shall be installed in consultation with the client and in accordance with current legislation and good practice.

FOUL DRAINAGE

the drainage layout indicatd is notional and subject to further site investigation before work commences. all drainage works shall be subject to specific inspection and testing by the local authority.

existing pipes and gullies within the extension footprint shall be removed and diverted by specific agreement with the local authority building control department.

new pipework shall be in 100mm glazed ware with flexible jointing and bed on pea gravel, falling not less than 1 in 80.

new gullies shall be trapped. drains passing beneath the building shall be protected by reinforced concrete lintels at walls. they shall not pass beneath the foundation level.

INTERNAL FOUL WASTES

discharge of new foul waste pipes shall be into a soil and vent pipe. the w.c. and bathroom shall have a 100mm dia. waste outlet with a 75mm deep seal trap.

all internal pipework runs and connections shall be accessible via panels in flooring and ducts.

MECHANICAL VENTILATION

to the bathroom at first floor level and w.c. at ground floor level to achieve three complete air changes per hour at a minimum rate of 15 litres per second and fitted with a five minute override with the light switches. extracted air shall discharge into the external air.

to the kitchen at ground floor level to achieve six complete air changes per hour at a minimum rate of 30 litres per second. extracted air shall discharge into the external air.

background ventilation to be 5000 sq.mm equivalent area to habitable rooms and 2500 sq.mm equivalent area to wet rooms.

RAINWATER DISPOSAL

roof water and waste water discharge shall be into the existing combined system, via trapped gullies

STRUCTURAL STEELWORK

all structural steelwork and supporting foundations / masonry are to be in accordance with the structural engineers' calculations.

beam a

to be of one (1 No.) 203 x 203 x 46 U.C. with a steel plate welded to the top side of the beam. the steel plate is to be of a 15 mm thick plate to the same width as the wall to be supported above. the single 203 x 203 x 46 U.C. is to be supported on 250 x 200 concrete passtones.

or

alternatively, beam a can be of two (2 No.) 254 x 146 x 37 U.B. bolted together at 600 mm centres with M16 bolts or equivalent. the two 254 x 146 x 37 U.B. are to be supported on 350 x 100 concrete passtones.

beam b

to be of one (1 No.) 127 x 76 x 13 U.B. with a steel plate welded to the top side of the beam. the steel plate is to be of a 15 mm thick plate to the same width as the wall to be supported above. the single 127 x 76 x 13 U.B. is to be supported on 225 x 100 concrete passtones.

or

alternatively, beam a can be of two (2 No.) 127 x 76 x 13 U.B. bolted together at 600 mm centres with M16 bolts or equivalent. the two 127 x 76 x 13 U.B. are to be supported on 200 x 100 concrete passtones.

steel channel

a steel channel is to be provided at wall plate level to to the new single storey rear extension to prevent roof spread. the steel channel is to be of a 203 x 89 x 29 CH and fixed with either 25 mm x 10 mm thick flat bars or 16 mm diameter bars.

all drawings should be read in conjuction with all associated documents and the structural engineers calculations.

all foundations should be checked and approved by the local authority building control officer prior to erecting the steelwork and constructing the supporting piers.

BUILDING REGULATIONS

the descriptions given are for building regulations purposes only and are not intended to represent a full and detailed specification of works. notwithstanding these descriptions and drawings all works are subject to compliance with the building regulations and associated legislation and any modifications are to be agreed with building control as work proceeds. modifications to the specifications may be applied subject to compliance with the relevant requirements and agreement with the building control.

CDM REGULATIONS

notification to the hse under the cdm regulations does not apply and a planning supervisor need not be appointed by the client prior to commencement. however, it is recommended that all works be carried out to prepared method statements and risk assessments and the client must be satisfied that all tradesmen and operatives are competent people.

SITE RESTRICTIONS

access into and from the site is via the existing public highway of care must be taken when entering and leaving the site and when delivering materials, which should not be left on any area outside the site boundary. storing and mixing of materials is to be carried out at locations agreed with the client.

the public access route into and from the site must be kept clean and free of mud etc at all times, especially after commercial vehicle movements. traffic entering and leaving the site should do so only under supervision. existing services routes have been identified where known otherwise care shall be taken in areas where services may be concealed or buried. it may be possible that mains water, gas and electricity service cables and pipework are present beneath the works

N
S

S P J Simmonds Consulting Ltd
A S P J Simmonds Consulting Ltd
1 Clarke Hall Farm
Aberford Road
Wakefield
West Yorkshire
WF1 4AL

Building Regulations

Client

Site Name

Project Title
Proposed Two Storey Side Extension & Single Storey Rear Extension

Drawing Title
Existing & Proposed Elevations & Floor Layouts and Proposed Block Plan

Paper Size	Scale	Drawn By	Checked
A1	As Shown	SS	SS
Drawing No.	Project No.	Date	Revision
SPJS/1851/01	SPJS/1851	01.01.2011	