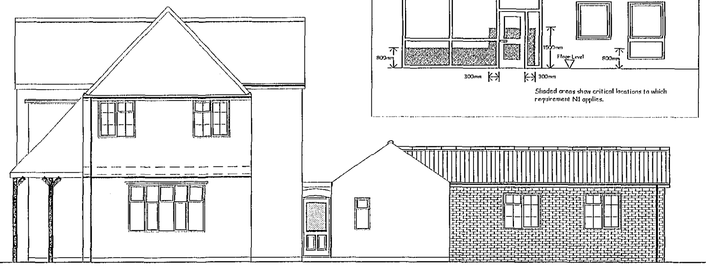
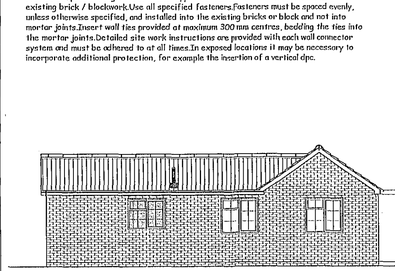
Contractor to check all Dimensions on site prior to ordering materials / commencing work.Do Not Scale from this Drawing - If in doubt then please ask





PROPOSED SIDE ELEVATION
Scale 1:100

PROPOSED REAR ELEVATION
Scale 1:100



PROPOSED SIDE ELEVATION
Scale 1:100

MASONRY WALL CONNECTORS
Provide Simpson Strong – Tie or similar approved wall connectors to connect new & existing brick / blockwork.Use all specified fasteners.Fasteners must be spaced evenly, unless otherwise specified, and installed into the existing bricks or block and not into mortar joints.Insert wall ties provided at maximum 300 mm centres, bedding the ties into the mortar joints.Detailed site work instructions are provided with each wall connector system and must be adhered to at all times.In exposed locations it may be necessary to incorporate additional protection, for example the insertion of a vertical dpc.

FOUNDATIONS
Existing building area to be stripped of all vegetable matter and rubbish to a minidepth of 150mm before excavation commences.Concrete mix for foundations to be GEN3 in accordance with BS5328:1981.Foundations to external wall to be min.700mm wide x 225mm deep.Excavate down to solid firm strata i.e 750mm deep (min.1000mm if soil is of a shrinkable nature).Exact depth to suit conditions on site and to the strict approval of the L.A Building Inspector.Any irregularities in subsoil during excavation to be brought to the immediate attention of the Building Inspector & advice to be sought from a Chartered Structural Engineer.

WALLS BELOW D.P.C
3no.Courses of Class B brickwork below D.P.C on outer face and 1no.course of 7N/mm2 on inner skin of cavity face.Elsewhere to be either 7N/mm2 concrete blockwork or full width trench blocks.Both to be within 225mm of DPC level.Cavity to be filled to within 225mm min. of below DPC with lean concrete mix.

DAMP PROOF COURSE (D.P.C)
Horizontal heavy duty polythene DPC "Hyload" or similar approved to all walls in accordance with BS 6915 and set min.150mm above all external ground levels.DPC in walls must be lisked / lapped with DPM in ground floor.Provide perforated cavity wall trays above windows & doors with weep vents at a max of 2m centres with a min of 2no.per opening.

EXTERNAL WALLS
All external walls to be 275mm overall thickness comprising of:
-100mm Thermalite Shield insulating blockwork.
-75mm cavity filled with Crown Dritherm (or equal approved) built in as work progresses.Insulation batts should be kept clean and free from mortar droppings, all joints should be closely butted. Any cutting and fitting should be neatly done and not distort the layers of glass wool which comprise the material. All DPC's should be installed to ensure that penetrating water is directed only to the outer leaf.
-100mm Thermalite Shield insulating blockwork with 20mm sand / cement two coat finish.
Continue wall insulation at least 150mm below top of perimeter floor insulation and support off wall ties.
External wall to achieve a min 'U' value of 0.35w/m²K.

CAVITIES
Close all cavity walls at jambs with Thermabate or similar approved Insulated cavity closers fitted strictly in accordance with manufacturers instructions. Roof insulation to be continuous with wall cavity insulation.Install Insulated Cavity Closers by Thermabate or equal approved, 25mm thick x 75mm wide (to equal cavity width) at jambs and cills of all openings in masonry cavity walls. Secure with the proprietary clips provided at maximum 500mm centres. Ensure that closers fit tightly to each other and to the lintel. The closer at the jamb must completely lap the closer at the cill.

WALL TIES
Stainless steel cavity wall ties to BS1243:1978.To be built into cavity wall as works proceeds and spaced at 750mm centres horizontally,450mm centres vertically and 300mm staggered around all openings.Ensure wall ties are level or at least sloping to the outside leaf.Bed ties a minimum of 50mm into each leaf and ensure wall ties are completely free from mortar droppings.

LINTELS
All lintels to cavity wall to be factory insulated Birtley Supergalv range unless noted otherwise or equalled approved.All lintels must have a min.150mm endbearing and installed in accordance with manufacturer's instructions.Do not allow masonry to overhang lintel by more than 25mm. Note: lintels are not to have a continuous baseplate.

WINDOWS & DOORS
All windows to be uPVC to clients requirements based on styles shown on elevations.Fit with 4000mm² trickle ventilators to Kitchen, Utility,Bathroom & En-Suite windows and 8000mm² elsewhere all in accordance with manufacturer's recommendations.Patio doors to be fitted with 10000mm² ventilators.Opening vents to give 1/20 th of floor area rapid ventilation to all rooms.All glazing within 800mm of floor level and within 300mm of a door to a height of 1500mm of ground level to have toughened glass in accordance with Section N of the Building Regulations and BS6206 class B.All double glazed units to be installed in accordance with BS 6262 and to have a 16mm Air gap with a soft Low 'E' coating on glass inner pane to achieve a min 'U' value of 2.0 w/m²K.Note all windows to have a perimeter weatherseal both internally and externally and to be fully draught sealed.Provide frosted glass to all Bathroom, W.C's and En-suite windows.Ensure windows & doors are fitted within masonry reveal to overlap cavity closer by min. 40mm to avoid cold bridging.

TIMBER WALLPLATES
All timber wallplates supporting roof trusses to be 100mm x 50mm bedded on top of wall.Timber to be SC3 grade and use a min. length of 3m and half-lap plates at joints and corners. Provide anchor straps as described in notes elsewhere.

LATERAL RESTRAINT STRAPS
Tie roof structure to blockwork wall with 30X5 galvanised mild steel straps at max 1.8m ctrs where rafters and ceiling joists run parallel to blockwork walls.Also fit at max 1.8m ctrs to anchor wallplate to blockwork wall with min 3no. fixings per strap.Horizontal lateral restraint straps should be spaced not more than 2m centres and attached to at least 3 timber members through the use of noggings and packing. Attach to timber members with four steel screws or four 4 mm x 75 mm round nails for roofs and two into each joist for floors. The turn down end should be 100 mm at the centre of an uncut block or brick.Vertical restraint strapping should be at least 1m long. Where straps are fixed to masonry, hardened nails 8SW6 x 75 mm long or wood screws into plugs No 12 x 50 mm long should be used. The number
of fixings should be in accordance with the design plans and the lowest fixing should be located within 150 mm of the bottom of the vertical strap.

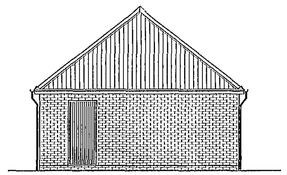
BLOCK COMPARISON TABLE (to achieve a 'U' value of 0.35W/m²K)		
Manufacturer	100mm thk Block type	Full Fill Cavity Insulation thickness
Thermalite	Shield	65mm
Plasmor	Fibolite	80mm
	Aglite	85mm
	Stranlite	85mm
	Plascon	100mm
Tarmac Topblock	Hemelite	85mm
	Lignacite	85mm
	Toperete	100mm
	Durox Supabloc	65mm

ROOF INSULATION - FLAT CEILINGS
The whole area of the ceiling to be insulated with two layers of Crown Wool Mineral Fibre Insulation or equal approved of a total thickness 300mm to achieve a 'U' value of 0.16w/m²K. Width of first layer of insulation to be appropriate to the joist spacings and of a thickness equal to joist depth (100mm). The insulation to be laid between the joists to finish over the wall plate on external walls and pushed up tight to roofing membrane. The second layer (200mm) of Crown Wool to be laid at right angles to the first layer.All joints between the rolls of insulation to be close butted.

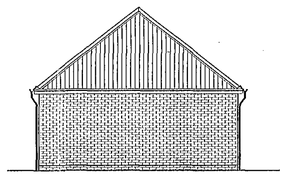
ROOF VENTILATION
Install Tyvek® or similar approved Breathable Membrane in accordance with manufacturers instructions which are briefly described below & BBA certificate 99/3635 (fourth issue) breather membranes in non-ventilated pitched roofs of any plan, any shape or any size under all types of roof coverings including tight jointed and fully interlocking tiles and synthetic slates. Installing Tyvek® underlay in accordance with the above certificate will enable a roof to meet all the requirements of the Building Regulations.
Installation Guidelines
Tyvek® SUPRO should be installed with min. 150mm overlaps as a standard bituminous felt underlay and secured with stainless steel staples or large headed galvanised clout nails.
Eaves:
There is no need to provide any vents into the loft at eaves, because a Tyvek® non-ventilated roof system does not rely upon air movement beneath the membrane to avoid damage by condensation.To avoid water ponding behind the fascia of closed eaves and to prevent prolonged exposure of the membrane to ultra-violet radiation, use a Tyvek® Eaves Carrier. Stop the membrane short of the fascia and lap it onto the Eaves Carrier.Pack closed eaves with fibrous insulation to reduce thermal bridging.
Verge detail:
Lap the Tyvek® underlay 50mm onto the gable or flying rafter.
Ridge/ hip detail:
Extend the Tyvek® underlay 150mm from each slope and overlap it at the ridge/ hip line. There is no need to provide vents at the ridge.
Valley detail:
Extend the Tyvek® Underlay from each slope by 150mm beyond the valley centre line and seal the lap using Tyvek® Butyl Tape to form a watertight seal.
Abutments:
Turn up the Tyvek® underlay beneath flashings not less than 150mm.
Penetrations:
Seal around all penetrations using Tyvek® Butyl Tape.

ROOF FINISH
Concrete Interlocking Pantiles to match existing fixed in accordance with manufacturers instructions and in accordance with BS 5534:Parts 1 and 2.Set out to give true lines and regular appearance, fitting neatly at all edges, junctions and features.Fix roof covering to make the building sound and weathertight at the earliest opportunity.Repair any defects as quickly as practicable to minimise damage and nuisance & keep gutters and pipes free of debris and clean out at completion.Provide 50x25 preservative treated timber battens.Tiling battens should be not less than 1.2m long and continuous over at least 3 trusses. They should be fixed to every rafter member which they cross, or on which they are joined, with nails in accordance with BS5534: Part 1. The ends of the battens should be sawn square and butt jointed centrally on a rafter member so that adequate bearing and nailing can be provided for each end of each batten.Butt joints in battens should be arranged so that not more than one batten in four is joined on any one rafter.Generally all tiles at perimeter of roof to be clipped and nailed. Use Code 4 Lead flashing to any abutments with min.75mm upstand.

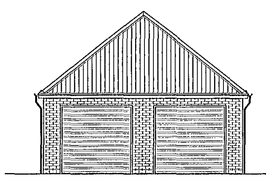
CEILINGS
All ceilings to be 15mm plasterboard to BS1230.
Ceilings to be have Coving and skim finish to clients requirements.Plasterboard sheets to be fixed with joints staggered and must be layed perpendicular to all joist runs.Fix boards at a min.150mm centres.



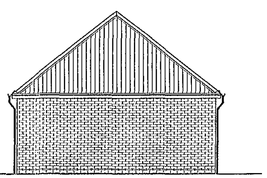
PROPOSED GARAGE SIDE ELEVATION
Scale 1:100



PROPOSED GARAGE SIDE ELEVATION
Scale 1:100



PROPOSED GARAGE FRONT ELEVATION
Scale 1:100



PROPOSED GARAGE REAR ELEVATION
Scale 1:100

ROOF / LOFT ACCESS
Provide insulated roof access trap door with a fully weathered sealed frame and a 38mm brass bolt or to clients requirements.

RAINWATER DRAINAGE
uPVC guttering and downpipes to clients approval.Falls for guttering to be 1:600 and brackets fixed at max. 2m ctrs.Downpipes to be connected into underground drains via reducing adapter.Underground drains to be 110mm Ø Osma uPVC or similar approved with flexible joints laid on 100mm peargravel and min 150mm surrounds laid to 1:100 falls to new soakaway.Soakaway specification detailed elsewhere.

HEATING SYSTEM
Provided from existing but all radiators are to be fitted with thermostatic radiator valves. All space heating pipework located outside the building fabric insulation layers to be wrapped with insulation material having a thermal conductivity at 10°C not exceeding 0.035 W/m°K and a thickness equal to the outside diameter of pipe upto max. of 40mm.It should be noted that central heating and hot water pipework in unheated areas may need increased insulation thicknesses for the purpose of protection against frost, refer to BRE Report No. 262 2002 Edition.

ELECTRICAL INSTALLATION
All electrical work required to meet the requirements of Part P must be designed, installed, inspected and tested by a person competent to do so. Prior to completion of the works the council Building Control Officers must be satisfied that either:
1. An electrical installation certificate issued under a competent persons scheme has been issued or
2. An appropriate electrical installation certificate has been issued for the work, and that it has been signed by a person competent to do so.The Engineer is to advise if any appliance or position of appliance does not conform to regulations. Owner to be advised in this event with regard to lighting requirements.

BUILDING CONTROL
14 JUL 2005
REF 0743/05

WASTE SIZES FOR NEW PLUMBING
All new plumbing to have the following waste sizes:
W.C=100mm o /Multikwik or similar approved
W.H.B=32mm o uPVC with 75mm Deep sealed trap
SINK=40mm o uPVC with 75mm Deep sealed trap
SHOWER=40mm o uPVC with 75mm Deep sealed trap
Provide access points to all changes in direction.Provide anti-siphon traps where pipe runs exceed 3m and W.H.B pips run exceeds 1.8m.

SOAKAWAYS
All rainwater to discharge into soakaways and to be min.of 5m from any building & a min.of 1m³ filled with rubble to within 450mm of external ground level.Overlay rubble with polythene sheet and backfill with clean topsoil.Note the soakaway inlet pipe must discharge to the centre of the soakaway in all directions.The contractor should carry out percolation tests to determine the feasibility prior to constructing the soakaways. Detailed below is guidance on how to carry out the tests:
1. Excavate a trial pit to the same depth as the anticipated soakaway below the invert of the drain.
2. The trial pit should be 300mm - 1000mm wide and 1000 - 3000mm long.
3.It should have vertical sides trimmed square and, if necessary for stability filled with granular material.
4.When no granular material is used, it is advisable to place pegs into the trial pit at the 75% & 25% levels. This allows the water level readings to be taken accurately.
5.The trial pit should then be filled and allowed to drain three times to near empty, with readings taken for:
-The time taken for the water level to lower to the 75% level
-The time taken for the water level to lower to the 25% level
6.When granular material is used, a full height, perforated, vertical observation tube should be positioned in the pit so that the water levels can be monitored with a dip tape.
7.The trial pit should be filled on three separate occasions to give a true reading on the ground conditions. Available at this office is a Soil Infiltration check sheet to be completed on site and a copy issued to the L.A Building Control Officer upon completion.

NOGGINGS
Fix 38x38mm timber noggings to all potential loose plasterboard ceiling edges and light fittings.Position of light fittings to be advised by client on site.

INTERNAL JOINERY ,SKIRTING & ARCHITRAVES
All internal finished timber to be free from all defects and to clients approval prior to ordering any materials.

"A" - 07.07.05 - Building Control Specification added & Garage roof amended to a Hipped Roof to suit Planning

GENERAL CONDITIONS
Contractors are responsible for checking all dimensions on site when work commences and before ordering any materials.Any discrepancies should be brought to the attention of the Client for remedial action before commencing further

All details shown are based on typical site conditions for that area, any abnormal conditions should be brought to the attention of the Client and Local Authority.

The notes shown are mainly to cover the requirements of Building Regulations and should not be treated as full specification.

No allowance has been made for any Structural Calculations,a "SAP" calculation, Soil Investigation or Flood Risk Assessment.If deemed necessary then these will be a chargeable extra.All steel beam sizes shown on drawing are all subject to confirmation from Structural Engineer.

All materials not specified to be of a standard suitable for the work proposed and be fit for purpose.All work to be in accordance with good building practise and all necessary BS codes for Workmanship on Building Sites.

Client :
Mr D Roberts
14 Welbeck Drive
Spalding
PE11 1PD

Site :
Proposed Detached Double Garage

remway design Ltd
3, Rembrandt Way
Spalding
Lincs
PE11 3HX
Tel: 07815 112 059
Fax: 01775 768 921
e-mail: jason@remwaydesign.co.uk

Date : jun05 | Scale : 1:50 / 1:100

Drawing No:
rem 992 - 03 "A"

SHDC
Planning & Development
15 JUL 2005
Ref: 0743/05

DETERMINED PLAN

AMENDED PLAN
Ref. A2