BUILDING REGULATIONS
All dimensions are to be checked by contractor prior to work commencing. Any discrepancies are to be reported to the Architect. This drawing to be Read in Conjunction with all associated Architects or Consultants Details & Specifications.

DESIGN AND LEGISLATION
The following notes are intended to be used for Building Regulation Approval and construction purposes. Any discrepancies in dimensions or constructional information should be reported immediately to the Project Designer before any further work is carried out. Do not scale from the drawings, work to figured dimensions only.

All works are to be carried out to the satisfaction of the supervising Building Inspector in accordance with the
Building Regulations, Approved Documents, Robust Details and NHBC buildmark standards.

Architects.
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These notes should be read in conjunction with the working drawings, trade and workmanship specifications and finishing specifications. Any discrepancies identified within these documents should be identified at tender stage and your tender qualified accordingly.

GENERAL NOTE
Workmanship and materials to comply with:
Building Regulations, N.H.B.C. Requirements, British Standards or Codes of Practice other authoritative documents or technical approval certification including:
Construction Products Directive (89/106/EEC).
The International Standards Organisation (ISO).
The European Committee for Standardisation (CEN).
The British Board of Agrement

All materials shall be fixed, applied or mixed in accordance with manufacturers instructions and specification. All materials shall be suitable for the purpose they are used. Subject to confirmation of the Project Designer – similar "approved" materials of equal performance may be substituted where those specified are not available.
The Contractor shall take into account everything necessary for the proper execution of the works, to the satisfaction of the "Inspector" whether or not indicated on the accompanying drawings or in the specification.

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BUILDING ACCESS
Provide level approach and access at entrance storey in accordance with AD PART M to Local Authority Approval. Where site conditions dictate provide 1000mm high balustrade and guarding. Guarding to withstand 0.36Kn/m horizontal force.

LEVEL APPROACH
Level approach to have a firm and even surface 900mm minimum width and a maximum permitted gradient of 1 in 20, cross fall to level approach to be 1 in 40 maximum.

DRAINAGE
Above ground drainage to comply with BS 5572 1978.
75mm dia. vent pipes to single storey buildings, 100mm dia. to two storey. All vent pipes unless stated otherwise to terminate at roof level with cowl or roof tile outlet. Vent pipe outlets within 3m of adjacent windows to terminate 900mm above. Lead flashing where passes through roof.
40mm dia wastes to sink & bath, 32mm to wash basin. Pipes exceeding 2m in length to be 50mm in dia. All fittings to have 75mm anti–siphon straps.
Stub stacks to terminate above flood level of highest fitting with Durgo valve or similar automatic air admittance valve

SERVICES
All work and installations to comply with the regulations and recommendations of the respective "BOARD" or "AUTHORITY" or the satisfaction of the "Inspector"

Service entry ducts: Where service entry duct passes through internal or external walls, form opening with precast concrete lintel over. Provide 50mm min clearance around duct or pipe to allow for movement, seal around pipe with self–expanding foam filler.
Telecom intake position: To be as agreed with supply undertaking.

WATER METER: within adopted service strip in accordance with service supplies specification. Alternative water intake position to be agreed with supply undertaking.

GAS INTAKE POSITION: To be agreed with supply undertaking

ELECTRIC INTAKE POSITION: To be agreed with supply undertaking. Bricklayer to build into cavity electric rising duct – draw string to be inserted prior to building in.

INTERNET INTAKE POSITION
There will be an input and output duct of suitable size for the internet connection appliances.

FOUNDATIONS & SUBSTRUCTURE
Foundations to comply to Section A1/A2 Stability Part E of A D with a min cover in accordance with CP2004:(B.S.8110) for Foundation and Substructure Foundations:

Basement Concrete Raft Foundation to S.E Specification

BASEMENT FLOOR INSULATION
100mm Celotex FI5000 insulation over concrete floor with 75mm screed on top.

Max U–Value 0.15W/m²K

BASEMENT WALLS
AMVIC ICF Block Construction to specialist manufacturers and installers details.

Max U–Value 0.28W/m²K TBC on completion.

BASEMENT WATERPROOFING
AMVIC ICF Contractor to waterproof as per their details.

DAMP PROOF COURSES
Horizontal DPC to BS 743 to be inserted in all new walls and be positioned 150mm minimum above finished ground level.

GROUND LEVEL CONCRETE BEAM and BLOCK CONSTRUCTION
75mm thick reinforced insulated floor screed on vapour check/ separation layer on 75mm Celotex FI5000 insulation taken up the edge around the perimeter walls to prevent cold bridging.
Beam and block flooring to structural engineers details.

Dwelling Ground floor construction to give max U value 0.24 W/m²K. Insulation to be installed in accordance with manufacturers instructions.
ALTERNATIVE FLOOR TO SPECIALIST DETAIL.

INTERMEDIATE UPPER FLOORS
Constructed to Robust Detail E–FC–11,

10mm TRANQUILT® with minimum 65mm screed.
Concrete Beam & Block Construction to S.E drawings.

WALLS ABOVE DPC
Structural Calculations:

All external / internal walls including cavity walls are to conform to A.D.Section A1/A2 Stability – Supported by Structural Engineers calculations.

EXTERNAL WALLS
AMVIC ICF Contractor install external walls as per their details.
Externally brick slips will be applied to give masonry finish.
Internally 15mm plasterboard sealed around openings and at junctions with floors and ceilings to reduce air leakage, and a 3mm skim finish. Construction to give max U value 0.15W/m²K.

PARTY WALLS
To be constructed as per Robust Detail E–WM–3 using ONLY 1850–2300kg/m³ density concrete blocks leaving a 100mm cavity to be fully filled with Isover RD Party Wall Roll to achieve a U–value of 0.0 W/m²K and to prevent Heat Loss up the Cavity. Prior to filling the cavity, sleeved, flexible mineral wool cavity barriers to be installed at the junction of the party wall and external wall and the junction of the party wall and the roof.

CAVITY CLOSERS
Provide insulated vertical DPC or Thermabate proprietary cavity closer.
Provide RMC Panel Products Ltd Thermabate 100mm wide vertical cavity closers to all windows, doors and other structural openings installed in accordance with the manufacturer's instructions. All cavities to be closed at wallplate level with 6mm Masterboard bedded in mortar. All cavities to be closed with 6mm Masterboard or similar along verges.

WALL TIES
To be Approved Document E 'Tie Type A' Ancon Staifix HRT4 fixed at 450mm centres vertically and 750mm centres horizontally staggered and at 225mm vertical centres around door and window openings.

EXTERNAL WALLS BELOW GROUND
All external and internal walls including cavity walls are to conform to AD A Section A1/A2 Stability.

Foundation Walls:
FOUNDATION GRADE concrete trench blocks or equal approved with a minimum compressive strength as specified by Structural Engineer.

MASONRY CONSTRUCTION
Ensure continuous ribbons of adhesive are used to fix to dry lining at perimeters of external walls, openings, and services on external walls. The importance of correct sealing of drylining on dabs needs to be stressed, as this is a key area of air infiltration and can seriously effect the overall ventilation rate. Seal under skirting boards or on suspended floors use joist hangers to support joists.

INTERNAL WALLS: LOADBEARING MASONRY
Internal load bearing walls to be:
100mm approved concrete block with 15mm plasterboard and skim or
For minimum compressive strength see Structural Engineers details

MOVEMENT PROVISION
Movement joints to be provided in accordance with BS 5628:Part 3: 1985 – Clause 20.and NHBC Standards: see Structural Engineers details.
10mm thick Aerofil x 12mm wide vertical expansion joints, sealing one edge with acrylic non–hardening mastic sealant.

LINTELS
Provide suitable insulated combined steel lintels to openings in external walls and include dpc over in accordance with manufacturer's detail. Or provide Artstone heads to outer leaf and suitable rf pc concrete or insulated steel
box lintels to openings in external walls and include dpc over in accordance with manufacturers detail. Provide rf pc concrete or steel lintels over all openings in internal walls. All lintels to have minimum end bearings as specified by manufacturer or 150mm minimum see Structural Engineers details.
All lintels to be encased to give half–hour fire resistance
SEE CONSULTANT ENGINEERS DRAWINGS

STEEL BEAMS
Structural Steelwork by Structural Engineer.
All internal steel beams will be boxed in with plasterboard to achieve fire resistance.
SEE CONSULTANT ENGINEERS DRAWINGS

TIMBERS
Structural timbers are to be vacuum/pressure treated with Tanalth THE/B1 preservative for internal building timbers.

STUD PARTITIONS
NON LOAD BEARING
Form stud partition walls out of 100x50mm sw components. Stud spacing to be up to 600mm max centres, glued and screwed onto joists with noggins at 900mm centres. Finish walls with 15mm plasterboard fixed to studs with Drywall screws. All joints to be taped and finished with 3mm–plaster skim.
Partitions between habitable rooms and bathrooms, ensuites, sanitary accommodation and kitchens to have 75mm Rockwool RWA45 or equivalent mineral wool insulation fixed between studding and face of partition to habitable room side and to be finished both sides with 15mm soundblock plasterboard and sealed with two coats of drywall sealer.
To achieve 45dB sound reduction between rooms.

GLAZING
ALL GROUND FLOOR GLAZING TO INCORPORATE ONE PANE OF LAMINATED GLASS RATED AS P1A UNDER EN 356 IN A DOUBLE GLAZED UNIT – THE OTHER PANE CAN BE TOUGHENED.

All WINDOWS must be compliant with and certified to BS PAS 24:2012
REFER TO SECURED BY DESIGN REPORT FOR ADDITIONAL MEASURES

All glazing to be installed in accordance with Manufacturers Specification by a FENSA registered installer.
All glazing to be in accordance with PART 'K' of the BUILDING REGULATIONS & comply with BS 6206:1981. Provide toughened safety glazing to all entrance doors & internal doors including any side light frames.
Safety glazing to BS6206:1981 to be installed in all critical locations ie. between finish floor level and 800mm above that level in all wall and partitions; and between finish floor level and 1500mm above that level in all doors and door side panels within 300mm of either edge of the door. Glazing in windows to give a maximum u–value of 1.2Wm²K and Door to 1.0Wm²K
In Accordance with Part Q, all Doors & Windows must comply to BS PAS 24:2012 or demonstrate compliance to 'Secured by Design'

NATURAL VENTILATION:
Windows to all rooms to have opening lights equal to 5% min room floor area.

BACKGROUND VENTILATION:
All rooms to be provided with at least 8000mm2^ background ventilation this will be achieved with a combination of MVHR and all windows will have night latches.

No Trickle Vents.

EXTRACTOR FANS: VENTILATION PROVISION
KITCHEN–COOKER HOOD
Kitchen to be fitted with a mechanical extractor vent providing not less than 60 litres / second intermittent ventilation. Ceiling mounted extractor to kitchen to be switch controlled.
UTILITY
Utility to be fitted with a ceiling or wall mounted mechanical extractor vent providing 30 litres / second intermittent ventilation. Extractor to be switch controlled. Duct outlet to be insulated when routed through roof spaces to tile outlet.
BATHROOMS
Ceiling or wall mounted mechanical extractor vent providing 15 litres / second intermittent ventilation with pull switch control. Duct outlet to be insulated when routed through roof spaces to tile outlet

FIRE SAFETY
Provide GRADE B LD1 Smoke and or Heat Detector Alarms with mains power supply and battery backup. System to be interlinked and installed in accordance with BS 5446. Smoke detectors to be within 3.0m of all bedrooms & within 7.0m of living room or kitchen door.

PLUMBER
Soil and Vent Pipes
Soil and vent pipes to be 100mm UPVC. 40mm diameter UPVC waste pipes to showers, sinks and baths with 32mm diameter to basins. Internal SVP to be taken up to a ridge terminal or roof vent tile outlet. External svp's to terminate with wire bird guard to top and a minimum of 900mm above any opening light within 3m. Provide rodding eyes or removable traps to give access to all runs of the soil system. All traps are to be 76mm deep sealed anti–vac traps. All the plumbing installations are to comply with BS: 5572.SVP penetrating internal floors to have 30min fire collars or similar to retain 30min fire protection.

ROOF STRUCTURE
A mixture of steel and timber infill to Structural Engineers Designs.

WALLPLATES
100x75mm sw wall plates bedded on gauged mortar with 30x5mmx1000 long MS Straps at 2000mm Max ctrs, fixed 6 times to blockwork or fixed to top of stud walls at dormer positions.
Hyload or similar approved damp proof course to BS 743 Type A, bedded in gauged mortar laid horizontally below timber wallplates, not exceeding 225mm wide.

ROOF COVERINGS
Approved Tiles laid in accordance with manufacturers recommendations on sw treated battens on Glidevale Protect VP400 breathable felt or similar draped over rafters in horizontal runs. Holroyd & Jones U5 Eaves protection felt to be installed on the roof at the eaves level lapped into the gutter.

EAVES
Follow separate detail

INSULATION TO HORIZONTAL CEILING AREAS
Insulation to be Rockwool Roll. The first layers fitted between ceiling joists 100mm. The additional layer 200mm to be cross layered over ceiling joists, with all joints to be closely butted.
Construction to give max U value 0.15 W/m²K.

INSULATION TO SLOPING CEILING AREAS
Where the ceiling follows the line of the rafters these areas are to be insulated using 100mm Celotex GA4000 fixed between the rafters so underside of the insulation is level with the underside of the rafters, rafters. Underdrawn with 40mm Celotex TB4000 under rafters to achieve max U–value of 0.18Wm²K.

VELUX ROOF LIGHTS:
Fixed to manufacturers instructions, provide sw trimming and patent Code 4 lead flashings around double glazed, draught proofed roof light.

RAINWATER GOODS:
Rainwater Goods Capacity: To comply with AD H3 Rainwater & Drainage Section 1

AS PART OF THE SECURED BY DESIGN REQUIREMENT RAINWATER GOODS SHOULD BE SQUARE IN PROFILE & FIXED BACK TO THE BUILDING FABRIC TO PREVENT CLIMBING TO UPPER FLOOR WINDOWS

STONE WORK
Stone where indicated, non–load bearing and to Structural Engineers or Stonemasons details.

PLASTERER
15mm plasterboard to all External perimeter walls and door/window reveals and heads.
15mm plasterboard and skim to all internal walls, door/window reveals and heads.
15mm plasterboard and skim to underside of suspended ceilings and direct to underside of first floor ceilings.
Ensure moisture resistant plasterboard is used to all shower

STAIRCASE
Prefabricated sw timber staircase with closed flights, designed in accordance with BS 5395. Minimum clear width to be 900mm between handrails. Rise to be 220mm max. Going to be 220mm min to regular treads. Maximum pitch to be 42°. Clear headroom over stairway to be 2000mm min. measured vertically above pitch line. See Information on individual staircases on Sections.
Staircase winder should be a min 50mm at narrowest side & centre line should have equal width to either side in accordance with
BS 5395–2

GUARDING TO STAIRCASE / LANDING
Provide Handrail 900mm above nosings to both sides of staircase together with 900mm minimum high guarding as required
Provide 1100mm high balustrade and guarding to landings. All balusters to be vertical and be so constructed to give 99mm maximum gap between any balusters in open balustrades. Guarding to withstand 0.36Kn/m horizontal force.
Headroom over the stairs should be 2metres continuous.

SECURITY
**REFER TO SECURED BY DESIGN REPORT FOR THIS SITE **
All new doorsets, including garage doors and communal entrance doors to dwellings should be manufactured to meet PAS24. Windows positioned to the basement/ground floor and other easily accessible windows should be designed to ensure security provisions are considered.
The main doors for entering a dwelling should include multipoint locking devices.
Letter plates and ironmongery should meet the specification of DHF's TS008:2012.

ALARM INSTALLATIONS SHOULD COMPLY WITH THE FOLLOWING BRITISH STANDARDS

BS EN 50131 AND PD 6662 FOR WIRED SYSTEMS

BS 6799 FOR WIRELESS SYSTEMS

SAP RATINGS
The Contractor is to comply with all stated minimum 'U' values and provide to the Local Authority details including SAP rating calculations to show compliance with Approved Document L1A of the Building Regulations prior to occupation of the building.

HEATING AND VENTILATION DESIGN and INSTALLATION
All design and installation work relating to Heating and Ventilation to be undertaken by Specialist Engineer with appropriate recognised qualification
Operating and Maintenance instructions need to be given to the owner/ occupier on completion.

Heating system to be zone controlled heating and humidity control to Kitchen to be given special consideration to eliminate any condensation.
All radiators sizes and positions are to be in accordance with Engineers Schedule.
System to have inhibitor added after the system has been flushed out twice, once cold once hot.
System to be balanced on 110C temperature drop by use of a digital thermometer.
Pump to be as specified by Engineer.
Boiler gas fired type; as specified by Engineer all boilers to be gas fired Gas Council Approved.

Provide high level gas and electric power points where applicable.
Boiler to be left on high setting. System to comply with Materials & Installation Specification for Domestic Central Heating & Hot Water by British Gas current edition. System to comply with all local regulations.
Hot & Cold water service must comply with BS 6700 1987 and AMD.
Draincocks on all pipe drops. (Type 1 draincocks only).
SEE M&E CONSULTING ENGINEERS DRAWINGS FOR DETAILS

HEAT PRODUCING APPLIANCES: GAS FIRED CENTRAL HEATING
Legislation:
To comply with Clean Air Act & Building Regulations Approved Document J1/2/3.
Gas Fired Central Heating:
All central heating systems to be vented and to be designed and installed to comply with AD J1/2/3 Section 2 Part A B C. NHBC requirements and British Gas Council Regulations.
Gas boiler will have a minimum SEDBUK efficiency of 90% for example Potterton Promax 24 System ERP with 250 litre cylinder with minimum heat loss factor 1.61kWh/day or similar boiler.

All boilers to be either:–
Wall mounted balanced flue types boilers fitted with durable on combustible terminal guard. Terminal to be located 300mm minimum from any openings with free intake of air to ensure safe dispersal of products of combustion or floor mounted open flue type boilers fitted with durable non–combustible terminal guard. Terminal to be located in accordance with manufacturers specification to ensure safe dispersal of products of combustion.
Provide free intake of air to ensure safe combustion.
Provide permanent ventilation for combustion air supply in accordance with Boiler Manufacturers specific details.
All floors mounted boilers to be positioned on a 12.5mm min thickness non–combustible hearth. Non combustible hearth to extend 150mm on all sides.
Provide gas point and electrical supply adjacent to all boiler positions.
Gas Appliance and Combustible Materials: To comply to AD J3 Section 2 Part C, 2 27

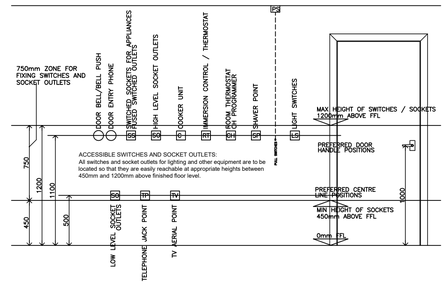
SPACE HEATING SYSTEM CONTROLS:
Legislation:
To comply with Clean Air Act & Building Regulations Approved Document L1.
Space Heating System Controls:
All space heating system controls to be designed and installed to comply with AD L1 Section 1 and British Gas Council Regulations.
The provision of zone controls, timing controls and boiler control interlocks shall be included within the installation.
Zone Controls: to comply with L1A
To be provided for all hot water heating systems, to control the temperatures independently in those areas that require different temperatures.
Control devices to be Room thermostats (Roomstat) and or any other suitable temperature sensing devices.
Timing Controls: to comply with L1A. Timing devices are to be provided to control the periods when the heating system operates, 7 day timer.
Boiler Control Interlocks: to comply with L1A
Gas fired hot water central heating system controls to switch off when no heat is required and is to be controlled by Roomstats.
a) Systems controlled by thermostats to fire only when a space heating or cylinder thermostat is calling for heat.
b) Systems controlled by TRVs to be fitted with flow control or other devices to prevent unnecessary boiler cycling.

HOT WATER STORAGE CONTROLS:
Legislation:
To comply with Building Regulations Approved Document L1A
Hot Water Storage System Controls:
All hot water storage system controls to be designed and installed to comply with AD L1A Section 1 and British Gas Council Regulations.
The requirement hot water storage controls will be met if:
a) The heat exchanger in the storage vessel has sufficient heating capacity for effective control i.e.: vessels complying with BS 1566 or BS 3198 or equivalent.
b) A thermostat that shuts off the supply of heat when the storage temperature is reached and which in the case of a hot water central heating system is inter connected with the Roomstat(s) to switch the boiler off when no heat is required; and
c) A timer is provided either as part of the central heating system or as a local device, which enables the supply of heat to be shut off for periods when water heating is not required.

Water Efficiency for appliances and Sanitary fittings to allow for 125litres/person/day for proposed dwelling as related to Part G

HEAT LOSSES:
All hot water storage vessels to be insulated with 50mm factory applied coating of PU–foam.
All hot water storage vessels, central heating pipes and hot water supply pipes where possible are to be located within the 'warm envelope' of the home to prevent freezing and heat loss.
All hot water storage vessels, central heating pipes and hot water supply pipes in cold environments are to be insulated to be BS 5422 or BS 5615.
Where water services are in unheated spaces they are to be:
a) Placed on the warm side of the insulation to protect from frost.
b) Placed at least 100mm away from external walls.
c) Protected by insulation of suitable thickness.

ELECTRICAL SERVICES:
The installation of all electrics is to be undertaken by a specialist engineer with Part P qualifications to the electrical layout drawing.
All installations to comply with latest edition of I.E.E. Regulations for Electrical Installations, including the latest amendments.
Electrical services shall be installed to comply with relevant codes and standards and ensure safe and satisfactory operation
All fittings to comply with British Standards. Quantity, quality and position of fittings in accordance with N.H.B.C. requirements as shown on individual house type drawing.



STATUTORY REQUIREMENTS FOR POSITIONING ELECTRICAL FITTINGS (NTS)

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015 DESIGNERS' IDENTIFICATION AND ASSESSMENT OF RISKS WHICH CAN REASONABLY BE FORESEEN, AND AS NOTED ON CONSTRUCTION DRAWINGS.
GENERAL BUILDING OPERATIONS deemed to be hazardous with LOW RISK attached, except where stated otherwise. Refer to individual notes applying to specific operations with HIGH RISK attached.

GENERAL NOTE REGARDING THE USE OF LADDERS
The use of ladders must take into account their length and their stability and security at the top and bottom. Ladders are to be used for tempoarary access ONLY

CDM HIGH RISK ASSESSMENT

ITEM	RECOMMENDATION
Roof timbers, felt, battens and tiles.	To prevent falls scaffolding and boarding of joists required. To reduce manual handling, mechanical measures as appropriate.
Verges, fascias soffits and barge boards.	To prevent falls, scaffolding required.
Windows above gf level.	To prevent falls, scaffolding required.
Plumbing in loft.	Scaffolding/boarding required.
Plastering in area of stairwell.	Scaffolding/boarding required.
Beams and lintels.	Mechanical measures as appropriate except where reasonably impracticable, when Manual Handling Regulations must be observed,
Gutters, rwp's and svp's.	To prevent falls, scaffolding required.
Gables.	To prevent falls, scaffolding required. Ensure both leaves built together to reduce effect of high winds.
Upper floor & roof joists.	To prevent falls during construction scaffolding and boarding of joists required. To reduce manual handling use mechanical
Glazing.	To prevent falls, scaffolding required.
Mastic pointing.	To prevent falls, scaffolding required.
External decoration.	To prevent falls, scaffolding required. Do not stand on bay roofs. Do not use lean–to roofs.
High level cleaning. Windows, doors, etc.	To prevent falls, scaffolding required.
FOR ALL OTHER RISKS, REFER TO DESIGNERS' RISK ASSESSMENT DOCUMENT	

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Date.	Revision.	By.	No.

TRINITY ARCHITECTURE

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Proposed development at. Land at the Corner of Greenwood & Gladeside Road, Wythenshawe.

Client. Maxtretti Group Limited

Drawing title. Building Regulations Notes

Status. Construction	Date. November 2018	
Scale. NTS @ A1	Drawn. VJP	Checked. TA&D
Job No. T18-86	Drawing No. CDP 20	Revision. .

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