HEALTH AND SAFETY

1. ALL WORKS TO BE CARRIED OUT BY A CONTRACTOR COMPETENT TO UNDERTAKE THE CONSTRUCTION OF WORKS AS INDICATED ON THIS DRAWING. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE JOB SPECIFIC RISK ASSESSMENT. THE HAZARDS NOTED ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPE OF WORKS DETAILED ON THIS DRAWING.
2. THE CONTRACTOR AND THE GROUNDWORKS SUBCONTRACTOR ARE TO READ THE RECOMMENDATIONS OF THE SOIL REPORT, IN PARTICULAR WITH REGARD TO WATER INGRESS, GROUND CONTAMINATION AND GROUND GASES.
3. MAN ENTRY INTO UNSUPPORTED EXCAVATIONS DEEPER THEN 1.2m SHOULD NOT BE PERMITTED. EXCAVATIONS DEEPER THAN 1.2m MUST BE SUPPORTED OR BENCHED AT A SUITABLE STABLE SLOPE ANGLE TO PERMIT ACCESS.
4. ENSURE THAT ALL EXISTING LIVE SERVICES ARE IDENTIFIED AND MARKED ON SITE. CONSULT RECORDS OF EXISTING SERVICES AND PROPOSED SERVICES, AND BE AWARE OF ANY NEW SERVICES THAT HAVE BEEN INSTALLED PRIOR TO COMMENCEMENT OF EXCAVATION IN ANY GIVEN AREA. WHERE HEAVY PLANT – FOR EXAMPLE PILING RIGS OR MOBILE CRANES – EXPECTED ON SITE, PROVIDE SUITABLE PROTECTION FOR EXISTING SERVICES BY PLATING OR OTHER MEANS.

GENERAL

1. ALL DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS', ENGINEERS' AND SPECIALISTS' DRAWINGS.
2. ALL SETTING OUT IS TO BE IN ACCORDANCE WITH THE ARCHITECTS' DRAWINGS. ANY DISCREPANCIES BETWEEN THE ENGINEERS AND THE ARCHITECTS DRAWINGS ARE TO BE REFERRED TO THE ARCHITECT BEFORE PROCEEDING. DIMENSIONS MUST NOT BE SCALED.
3. ALL BDC DRAWINGS HAVE BEEN PRODUCED ARE BASED UPON LAYOUTS COMPILED AND SUPPLIED IN ELECTRONIC FORMAT, NO RESPONSIBILITY IS TAKEN FOR INACCURACIES AND/OR OMISSIONS IN THE INFORMATION AS SUPPLIED TO BDC.
4. ABBREVIATIONS:
   FFL–FINISHED FLOOR LEVEL
   FGL–FINISHED GROUND LEVEL
   SSL–STRUCTURAL SLAB LEVEL
   SOP–SETTING OUT POINT
   TYP–TYPICAL
   UNO–UNLESS NOTED OTHERWISE
5. REFER TO ARCHITECTS' DRAWINGS FOR INFORMATION ON FINISHES, DOORS, WINDOWS, LIGHTING, NON STRUCTURAL WALLS, LANDSCAPING, PAVING, WATERPROOFING AND FIRE PROTECTION OF STRUCTURAL MEMBERS. ALL BRACKETS AND FIXINGS FOR THE SUPPORT OF THE FINISHES ARE SHOWN ON THE ARCHITECT'S DRAWINGS.
6. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE AND SETTING OUT DIMENSIONS, INCLUDING 'AS BUILT' POSITIONS OF TEMPORARY WORKS, BEFORE COMMENCING THE WORKS.
7. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND THEIR PROPOSALS MUST BE SUBMITTED TO THE STRUCTURAL ENGINEER SUFFICIENTLY IN ADVANCE OF THE WORKS STARTING TO PERMIT COMMENT. UNDER NO CIRCUMSTANCES WILL ANY STRUCTURAL ALTERATIONS BE CARRIED OUT PRIOR TO THE STRUCTURAL ENGINEER COMMENTING ON THE CONTRACTOR'S TEMPORARY WORKS PROPOSALS.
8. ALL SPECIALIST NAMED MATERIALS AND PROPRIETARY PRODUCTS ARE TO BE USED AND FULLY FIXED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALTERNATIVE PRODUCTS TO THOSE NAMED ON THE DRAWINGS ARE SUBJECT TO APPROVAL BY THE ENGINEER AND MUST BE PROVED TO BE SUITABLE BY THE CONTRACTOR, IF REQUESTED.
9. THE CONTRACTOR SHALL ENSURE THAT THE STABILITY OF THE BUILDING, AND ADJOINING STRUCTURE, IS MAINTAINED AT ALL STAGES OF THE WORKS.

REINFORCED CONCRETE (BELOW GROUND)

1. ALL CONCRETE TO BE IN ACCORDANCE WITH THE NATIONAL STRUCTURAL CONCRETE SPECIFICATION FOR BUILDING CONSTRUCTION.
2. ALL REINFORCED CONCRETE TO BE A MINIMUM STRENGTH C32/40 WITH 20mm.ø MAX. AGGREGATE IN ACCORDANCE WITH THE REQUIREMENTS OF B.S.8500–2 AND B.S.EN 206–1.
3. IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE S.I. REPORT, BURIED CONCRETE TO BE IN ACCORDANCE WITH B.S.8500 DESIGN SULPHATE CLASS DS–2, AND A SITE CLASSIFICATION OF AC–2.
4. MINIMUM 50mm.thk. BLINDING TO UNDERSIDE OF REINFORCED CONCRETE TO BE CLASS GEN1 MASS CONCRETE IN ACCORDANCE WITH THE REQUIREMENTS OF B.S.8500–2 AND B.S.EN 206–1 OR COMPACTED SAND.
5. COVER TO STEEL IN REINFORCED CONCRETE SHALL BE AS FOLLOWS:

   CONCRETE IN THE GROUND:

   –50mm TO TOP OF GROUND BEAMS.
   –75mm TO BOTTOM OF GROUND BEAMS.
   –50mm TO SIDE OF GROUND BEAMS (ASSUMING BEAM FORM IS USED. IF NOT THEN COVER TO BE INCREASED TO 75mm, GROUND BEAM/PILE CAP WIDENED ACCORDINGLY).
   –40mm TO TOP RAFT SLABS.
   –50mm TO BOTTOM OF RAFT SLABS.
6. WHERE PLY STOP ENDS ARE USED AT CONSTRUCTION JOINTS, THE PLY SHOULD BE REMOVED WHILE THE CONCRETE IS STILL GREEN AND THE CONSTRUCTION JOINTS SHOULD BE JET WASHED OR SCABBLED TO PROVIDE A SUITABLE JOINT. WHERE HY–RIB OR OTHER EXPANDED METAL JOINTS ARE USED, ALL METAL SHOULD BE CUT OUT OF THE COVER ZONE PRIOR TO PLACING SUBSEQUENT ADJOINING POURS, ALL JOINTS SHOULD BE WETTED PRIOR TO PLACING FRESH CONCRETE AGAINST SET CONCRETE.
7. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STABILITY OF THE WORKS AND ADJOINING STRUCTURES, WORKS AND SERVICES AT ALL STAGES OF CONSTRUCTION.

BEAM GRILLAGE FOUNDATIONS

1. ~~FOUNDING STRATA AS INDICATED~~ IN THE ARUP GROUND INVESTIGATION REPORTS – ASH–P12–V3b & ASH–P13–V2 WITH AN ALLOWABLE BEARING CAPACITY OF 100 ~~kPa AT A MINIMUM 1.5m BELOW~~ EXISTING GROUND LEVEL FOR PARCEL 12 & A MINIMUM OF 1.0m BELOW EXISTING GROUND LEVEL FOR PARCEL 13. GEOTECHNICAL DUE DILIGENCE REPORTS HAVE ALSO BEEN PRODUCED BY RSK CONFIRMING THE ARUP DESIGN GUIDELINES ABOVE, REPORT REFERENCE 52768–R01(00) & 52768–R02(00). C2
2. LEVELS FOR BOTTOM OF FOUNDATIONS REPRESENT THE <u>MINIMUM</u> DEPTH AT WHICH THE FOUNDATIONS SHOULD BE FOUNDED. IN THE EVENT THAT DESICCATION IS EVIDENT AT THE PROPOSED FORMATION LEVEL, OR THE GROUNDWORKS CONTRACTOR ENCOUNTERS SOFT GROUND, OR THE GIVEN FORMATION IS NOT PROVEN, THE FOUNDATIONS SHALL BE MADE DEEPER TO ENSURE THEY ARE PLACED IN COMPETENT GROUND WITHIN THE FIRM CLAY. CONTACT THE ENGINEER IF IN DOUBT AS TO THE ADEQUACY OF THE FORMATION LEVEL OR CONDITIONS UNDER WHICH CONCRETE IS BEING POURED.
3. FOUNDATIONS SHALL BE TAKEN DOWN TO THE SPECIFIED DEPTH. VISAUL FOUNDATION FORMATION INSPECTION AND EXCAVATION IS REQUIRED BY THE ENGINEER AND THE LOCAL AUTHORITY PRIOR TO CASTING CONCRETE OR LAYING OF HARDCORE TO ASSESS WHETHER ANY SOFT SPOTS ARE PRESENT.
4. ALL CONCRETE TO BE IN ACCORDANCE WITH THE NATIONAL STRUCTURAL CONCRETE SPECIFICATION FOR BUILDING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE STABILITY OF THE WORKS AND ADJOINING STRUCTURES, WORKS AND SERVICES AT ALL STAGES OF CONSTRUCTION.
6. ALL MASS CONCRETE TO BE FND2 (DC–2) WITH 20mm.ø MAX. AGGREGATE IN ACCORDANCE WITH THE REQUIREMENTS OF B.S.8500–2 AND B.S.EN 206–1.
7. IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE S.I. REPORT, BURIED CONCRETE TO BE IN ACCORDANCE WITH B.S.8500 DESIGN SULPHATE CLASS DS–2 AGGRESSIVE CHEMICAL ENVIRONMENT FOR CONCRETE (ACEC) OF AC–2. CONCRETE GRADE FOR REINFORCED STRIP FOOTINGS TO BE C25/30 & FND2 FOR ADDITIONAL MASS FILL (REFER LN65–321–030 FOR DETAILS).
8. BEAM GRILLAGES HAVE BEEN DESIGNED TO SPAN 1.5m ON AN UNSUPPORTED END (CANTILEVERED) AND 3m IN SPAN IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERS RECOMMENDATIONS FROM ARUP & RSK. SEE LN65–321–030 FOR DETAILS.

EARTHWORKS

1. ANY EXCAVATIONS FOR UNDERPINNING OR ANY EXCAVATIONS ADJACENT TO EXISTING OR PROPOSED FOUNDATIONS SHALL BE CARRIED OUT AND SUPPORTED IN SUCH A MANNER AS TO PREVENT DAMAGE TO ADJACENT STRUCTURES AND AVOID AVERSELY AFFECTING THE GROUND UPON WHICH IT IS INTENDED TO BUILD.
2. THE CONTRACTOR SHALL COMPLY WITH ALL THE REQUIREMENTS OF THE LOCAL AUTHORITY/APPROVED INSPECTOR REGARDING THE NOTIFICATION, INSPECTION AND APPROVAL OF ALL EXCAVATIONS AND FORMATION LEVELS.
3. THE BACKFILLING TO WORKING SPACES GENERALLY SHALL BE FILLED WITH TYPE 2 GRANULAR MATERIAL, UNLESS OTHERWISE INSTRUCTED/AGREED.
4. A LAYER OF BLINDING CONCRETE, MINIMUM 50mm THICK, SHALL BE PLACED ON EVERY FOUNDATION FORMATION AS SOON AS POSSIBLE AND NOT MORE THAN FOUR HOURS AFTER BEING UNCOVERED AND OFFERED FOR INSPECTION. BLINDING CONCRETE IS ALSO TO BE PLACED UNDER ALL GROUND SLABS, MINIMUM 50mm THICK.

REINFORCEMENT

1. ALL REINFORCEMENT TO BE GRADE 500 TYPE 2 UNLESS NOTED OTHERWISE.

   ALL REINFORCEMENT IS TO BE TO BS 4449 ABBREVIATIONS:

   T1 = EXTREME TOP OUTER LAYER
   T2 = TOP SECOND LAYER
   B2 = BOTTOM SECOND LAYER
   B1 = EXTREME BOTTOM OUTER LAYER
   ABR = ALTERNATE BARS REVERSED
   STGD = STAGGERED

   WALLS:
   NF = NEAR FACE
   FF = FAR FACE
   EF = EACH FACE
   EW = EACH WAY

   T1 T2 B2 B1
2. ALL REINFORCEMENT SHOULD BE ADEQUATELY TIED AND SECURED SUCH THAT IT DOES NOT MOVE DURING THE POUR..
3. THE CONTRACTOR SHALL MAKE AN APPROPRIATE ALLOWANCE FOR THE PROVISION OF PROPRIETARY CHAIRS TO SEPARATE LAYERS OF REINFORCEMENT. CHAIRS WILL NOT BE SCHEDULED OR SPECIFIED ON DRAWINGS. THE COVER TO REINFORCEMENT THAT IS SPECIFIED MUST BE ACHIEVED. NO EXCESSIVE COVER IS PERMITTED, OTHERWISE THIS WILL AFFECT STRUCTURAL CAPACITY.
4. ALL REINFORCEMENT MUST BE CLEAN AND FREE OF GREASE PRIOR TO PLACING CONCRETE. ALL TIE WIRE AND OTHER DEBRIS SHALL BE REMOVED FROM THE POUR PRIOR TO PLACING CONCRETE.

SUBSTRUCTURE MASONRY

1. WALLS ARE SHOWN FOR ILLUSTRATION ONLY. LOCATION, SETTING OUT AND DETAILS ARE TO BE TAKEN FROM THE ARCHITECT'S DRAWINGS.
2. ALL SLEEPER WALLS TO BE PROVIDED WITH AIR BRICKS, TO ALLOW CROSS–VENTILATION WITH THE AIR BRICKS IN THE OUTER MASONRY WALLS. REFER TO ARCHITECT'S DRAWINGS.
3. D.P.C. TO EXTERNAL MASONRY WALLS – TO ARCHITECT'S AND CIVIL ENGINEER'S DETAILS.
4. BLOCKWORK BELOW D.P.C LEVEL TO BE MEDIUM DENSE BLOCK >1500kg/m³ OR HAVE A MINIMUM COMPRESSIVE STRENGTH OF 7.3N/mm² TO BS EN 771 UNLESS NOTED OTHERWISE.
5. CONCRETE BRICKWORK OF MINIMUM DENSITY OF 1500kg/m³ AND A MINIMUM COMPRESSIVE STRENGTH OF 22.0N.
6. MORTAR IN ALL MASONRY BELOW DPC TO BE M6 TO BS EN 1996–1–1 USING SULPHATE–RESISTANT CEMENT OR M12.
7. PROVISION TO BE MADE FOR INSTALLATION OF DRAINAGE AND SERVICES BELOW GROUND FLOOR. OPENINGS TO BE FORMED IN ACCORDANCE WITH NHBC STANDARDS.

BEAM AND BLOCK FLOORS AND THERMAL FLOORS

1. FLOOR DESIGN AND LAYOUT BY SPECIALIST FLOOR MANUFACTURER TO BS EN 1992–1–1. FLOOR TO BE INSTALLED IN ACCORDANCE WITH FLOOR MANUFACTURER'S INSTRUCTIONS. DIRECTION OF SPAN INDICATED ON RESPECTIVE GENERAL ARRANGEMENTS.

   HOUSES – 150dp. BEAM
   APARTMENTS – 150dp. BEAM
2. LOADING:–

   IMPOSED LOAD: 1.50kN/m² – GENERAL RESIDENTIAL
   IMPOSED LOAD: 2.5kN/m² – GARAGES
   IMPOSED LOAD: 3.0kN/m² – BIN/CYCLE/PLANT
   PARTITION LOADS: 0.50kN/m²
   CONCRETE TOPPING 75mm: 1.80kN/m²
3. ALL FLOOR VOIDS TO BE STRIPPED OF VEGETATION AND OTHER DELETERIOUS MATTER AND CHEMICALLY TREATED TO PREVENT FURTHER GROWTH.
4. PRODUCTION OF PRECAST CONCRETE FLOOR BEAMS SHALL NOT COMMENCE UNTIL THE SUPPLIER'S DRAWINGS HAVE BEEN COMMENTED UPON IN WRITING BY STRUCTURAL ENGINEERS AND ARCHITECT.
5. 250mm MINIMUM CLEAR VOID TO BE PROVIDED TO UNDERSIDE OF PCC BEAM AND BLOCK GROUND FLOOR.
6. ADDITIONAL ALLOWANCES SHOULD BE MADE FOR CONCENTRATED LOADS FROM STAIR NEWELL POSTS, LOADS FROM LOAD BEARING TIMBER PARTITIONS OR WALLS AND LOADS FROM PLY REINFORCED STUD PARTITIONS USED AS EXTERNAL WALL WIND RESTRAINTS WHERE THOSE LOADS DO NOT HAVE UNDERLYING LOAD PATHS (i.e. ARE LOADING THE FLOOR). SUPPLIER TO SEEK ADVICE FROM THE ENGINEER AS REQUIRED.
7. WHERE EXPANDED POLYSTYRENE BLOCKS ARE UTILISED AND A STRUCTURAL TOPPING IS REQUIRED THIS IS TO COMPRISE A MINIMUM OF 75mm.thk. C28/35 CAST IN SITU CONCRETE TOPPING UTILISING 10mm AGGREGATE REINFORCED WITH A142 MESH. ALTERNATIVE DESIGNS INCORPORATING, BUT NOT LIMITED TO, FIBRE REINFORCED TOPPINGS MAY BE PROPOSED FOR REVIEW BY THE SUPPLIER UPON AGREEMENT WITH DANDARA.
8. DESIGN AND SPECIFICATION OF STRUCTURAL TOPPING OVER EPS TO SUPPLIER'S DESIGN AS PART OF FLOORING SYSTEM TO INCLUDE SPECIFICATION OF CONCRETE, REINFORCEMENT, AND IF NECESSARY SUGGESTED LOCATION OF JOINTS TO BRITISH PRECAST FLOOR FEDERATION GUIDANCE FOR REVIEW AND COMMENT.

SUPERSTRUCTURE MASONRY

1. WALLS ARE SHOWN FOR ILLUSTRATION ONLY. LOCATION, SETTING OUT AND DETAILS ARE TO BE TAKEN FROM THE ARCHITECTS' DRAWINGS.
2. MORTAR IN TRADITIONAL LOAD–BEARING WALLS TO BE DESIGNATION (M4) TO BS EN 1996–1–1.
3. M.J. DENOTES MOVEMENT JOINTS IN BRICKWORK.
4. ALL PADSTONES TO BE 440lg.x215dp. WIDTH TO MATCH WALL CONCRETE UNLESS NOTED OTHERWISE.
5. PROVIDE BED JOINT REINFORCEMENT FOR 2 COURSES ABOVE AND BELOW ALL OPENINGS WITH SBF30W60 EXTENDING 600mm BEYOND REVEALS OF OPENINGS.
6. ALL STEEL BEAMS TO REMAIN PROPPED UNTIL ALL GROUTING OF PRECAST SLAB UNITS HAS BEEN UNDERTAKEN.
7. ALL STEELWORK TO BE SECURED TO PADSTONES/P.C. CONC. LINTELS WITH 2No. M12 RESIN FIXINGS PRIOR TO PLACEMENT OF FLOOR UNITS.
8. W.P. DENOTES WINDPOST BY ANCON OR SIMILAR APPROVED REFER TO DRAWING FOR PRODUCT REFERENCE.
9. B.P. DENOTES LOCATION OF BRACING PARTITION.
10. ALL INTERNAL LINTELS TO BE PRECAST CONCRETE OR STEEL – TO SPECIALISTS' DETAILS. ALL EXTERNAL LINTELS TO BE PROPRIETARY CAVITY WALL TYPE – TO SPECIALISTS' DETAILS.
11. LOAD–BEARING BLOCKWORK TO HAVE A MINIMUM CHARACTERISTIC COMPRESSIVE STRENGTH OF 3.6N/mm² TO BS EN 1996–1–1 UNLESS NOTED OTHERWISE. FURTHER DETAILS TO ARCHITECT'S SPECIFICATIONS.
12. NON–LOAD–BEARING BLOCKWORK UNDER TO HAVE 'AEROFIL' OR SIM. SOFT–PACK TO SOFFIT OF SLAB WITH MILD STEEL ANGLE (OR SIM. APPROVED) HEAD RESTRAINTS.
13. ALL EMBEDDED ITEMS SHALL BE STAINLESS STEEL GRADE 3.18 FOR EXTERNAL WALLS AND GALVANISED STEEL FOR INTERNAL WALLS. GALVANISING TO BE Z275 COATING TO BS EN 10327.
14. ALL RETURNS SHALL BE FULLY BONDED.
15. ALL EXPOSED BLOCKWORK MASONRY SHALL BE LIGHT WEIGHT AGGREGATE BLOCKWORK, THICKNESS AS SHOWN ON THE DRAWINGS. WORKMANSHIP, MATERIALS AND COMPONENTS TO BE IN ACCORDANCE WITH BS EN 1996–1–1.
16. CONSTRUCTION MATERIALS SHOULD NOT BE STACKED ON THE FLOORS UNLESS AGREED IN ADVANCE WITH THE ENGINEER. REFER TO FLOOR DESIGN NOTES FOR DESIGN PARAMETERS.
17. STEEL BEAMS USED TO SUPPORT FLOORS AND MASONRY WALLS SHOULD BE LOADED EVENLY WHERE POSSIBLE, AND PROPPED WHERE NECESSARY TO ENSURE STABILITY DURING CONSTRUCTION. IF IN DOUBT, CONSULT THE ENGINEER.
18. LINTELS SHOULD BE PROPPED DURING CONSTRUCTION AS RECOMMENDED BY SUPPLIER.

STEELWORK

1. ALL STEELWORK TO BE IN ACCORDANCE WITH THE CURRENT NATIONAL STRUCTURAL STEELWORK SPECIFICATION FOR BUILDING CONSTRUCTION.
2. END CONNECTIONS TO BE DESIGNED BY THE STEELWORK CONTRACTOR TO THE LOADINGS PROVIDED BY THE ENGINEER TO MEET THE REQUIREMENTS OF BS EN 1993–1–1.
3. ALL BOLTED CONNECTIONS TO HAVE A MINIMUM OF 2No. BOLTS WITH WASHERS PLACED UNDER BOTH HEAD AND NUT U.N.O. ALL BOLTS TO BE GRADE 8.8 TO BS 3692 AND MINIMUM BOLT SIZE TO BE M16 UNLESS NOTED OTHERWISE.
4. THE CONTRACTOR IS TO ENSURE THE USE OF NEOPRENE WASHERS OR SIMILAR SEPARATION MEDIUMS TO PREVENT BI–METALLIC REACTIONS AS APPROPRIATE.
5. STEELWORK CONTRACTOR TO COORDINATE WITH THE MAIN CONTRACTOR AND CLADDING CONTRACTOR TO PROVIDE ALL NECESSARY SECONDARY STEELWORK, TRIMMING ETC. AS REQUIRED AROUND ALL DOORS, WINDOWS AND THE LIKE.
6. ALL CONNECTION PLATES TO BE A MINIMUM OF 10mm THICK TO STEELWORK CONTRACTORS DESIGN IN ACCORDANCE WITH BS EN 1993–1–1.
7. ALL WELDS ARE TO BE A MINIMUM 6mm FULL PROFILE CONTINUOUS FILLET WELD IN ACCORDANCE WITH BS EN 1011 UNLESS NOTED OTHERWISE. WHERE A WELD IS CALLED UP AS FULL STRENGTH BUTT WELD (FSBW) IT IS ASSUMED THAT IT WILL BE FULL PENETRATION.
8. FIRE PROTECTION TO STEELWORK TO BE IN ACCORDANCE WITH THE ARCHITECT'S SPECIFICATION.
9. DRILLING HOLES FOR BOLTS/ANCHORS IN EXISTING REINFORCED CONCRETE: LOCAL EXISTING REINFORCEMENT TO BE LOCATED WITH A COVER METER AND DRILL HOLES TO AVOID CLASHES.
10. INSERTS SHALL BE PROVIDED AS NECESSARY, INCLUDING SUPPORT FOR MASONRY AND SERVICES. REINFORCEMENT SHALL BE ADJUSTED TO SUIT. PLASTIC TAPE SHALL BE USED TO PREVENT CONTACT OF DISSIMILAR METALS.
11. THE STEELWORK SUBCONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY SITE MEASUREMENTS PRIOR TO FABRICATION TO ENSURE THE CORRECT FIT OF THE NEW WORKS ON SITE.
12. ALL STEELWORK TO BE MINIMUM GRADE S275 FOR SECTIONS OTHER THAN HOLLOW SECTIONS UNLESS OTHERWISE NOTED.
13. SITE WELDING WILL NOT BE ACCEPTABLE.
14. ALL FABRICATION DRAWINGS ISSUED FOR APPROVAL WILL BE COMMENTED ON WITHIN TEN WORKING DAYS. ANY ITEMS FABRICATED PRIOR TO APPROVAL SHALL BE AT THE CONTRACTOR'S RISK.
15. <u>ALL</u> STEELWORK LOCATED IN INTERNAL, HEATED, CONDITIONS SHALL BE STEEL QUALITY JR. STEELWORK LOCATED EXTERNALLY, OR IN UNHEATED ENVIRONMENTS SHALL BE STEEL QUALITY JO.
16. FROM GALVANISERS ASSOCIATION INTERACTIVE MAP AVERAGE CORROSION RATE 1.0 MICRONS PER YEAR. DESIGN LIFE REQUIRED 60 YEARS.
17. PROTECTIVE TREATMENT – FABRICATOR TO PROVIDE PROPOSALS TO COMPLY WITH ENVIRONMENT CATEGORY AS NOTED BELOW AND TO BE NO LESS THAN SPECIFIED PROTECTION SYSTEM.

LOCATION	DESCRIPTION	ENVIRONMENT CATEGORY	PROTECTION SYSTEM REF	SURFACE PREPARATION TO BS EN ISO 8501–1	FACTORY APPLIED COATINGS
COLUMN IN CAVITY WALL	FULL FILLED CAVITY / IN CONTACT WITH OUTER LEAF	C5	PW–C2–B	–	HOT DIP GALVANISE TO BS EN ISO 1461 GALVANISED min 605 gms/m² + 2 COATS HEAVY DUTY BITUMEN 200microns
INTERNAL BEAM	DRY HEATED SPACE	C2	IH–C2–B	BLAST CLEAN TO Sa 2½	ZINC PHOSPHATE EPOXY PRIMER 80microns
INTERNAL COLUMN	DRY HEATED SPACE	C2	IH–C2–B	BLAST CLEAN TO Sa 2½	ZINC PHOSPHATE EPOXY PRIMER 80microns
EXTERNAL STEELWORK	WITHIN 150mm OF GROUND LEVEL	C5	HOT DIP GALVANISE TO BS EN ISO 1461	–	HOT DIP GALVANISE TO BS EN ISO 1461 GALVANISED min 605 gms/m² + 2 COATS HEAVY DUTY BITUMEN 200microns
EXTERNAL STEELWORK	ABOVE GROUND	C4	HOT DIP GALVANISE TO BS EN ISO 1461	–	GALVANISED Min 775 gms/m²
EXTERNAL STEELWORK	IN CONTACT WITH, OR EMBEDDED IN AN EXTERNAL MASONRY WALL	C5	HOT DIP GALVANISE TO BS EN ISO 1461	–	HOT DIP GALVANISE TO BS EN ISO 1461 GALVANISED min 605 gms/m² + 2 COATS HEAVY DUTY BITUMEN 200microns

TIMBER FLOORS

1. ALL FLOOR JOISTS TO BE 240mm DEEP AND DESIGNED BY TIMBER SPECIALIST, ACCOUNTING FOR ALL PENETRATIONS REQUIRED BY THE BUILDING SERVICES ENGINEERS.
2. THE FOLLOWING LOADINGS SHALL BE USED FOR THE TIMBER FLOOR DESIGN:

   –IMPOSED LOAD: 1.5kN/m²
   –PARTITION LOADS: 0.5kN/m²
3. WHERE WIND POST CONNECTIONS NEED TO BE MADE TO THE FLOOR, ADDITIONAL NOGGINGS SHALL BE PROVIDED TO GIVE A SUFFICIENT FIXING MEDIUM FOR THE POST CONNECTIONS.
4. CONSTRUCTION LOADS MUST NOT EXCEED 150kg/m².
5. TIMBER JOISTS SPANNING ONTO WALLS SHALL BE STRAPPED TO THE WALLS WITH 30x5mm GALVANIZED M.S. LATERAL RESTRAINT STRAPS AT LEAST 1200mm LONG AT NO MORE THAN 2.0m CENTERS.
6. TIMBER JOISTS SPANNING PARALLEL TO WALLS SHALL BE STRAPPED ON THE WALLS WITH 30mmx5mm GALVANIZED M.S. STRAPS FIXED ACROSS 3No. JOISTS AND 2No. NOGGINGS AT NO MORE THAN 2.0m CENTERS. NOGGINGS TO BE MINIMUM 38mm WIDE AND AT LEAST HALF THE DEPTH OF THE JOISTS.
7. LATERAL RESTRAINT STRAPS SHALL BE TURNED DOWN TO THE BLOCKWORK FOR AT LEAST 100mm IN ACCORDANCE WITH B.S.8103 PART 1, AND SHALL BE SECURED WITH A MINIMUM OF 4 FIXINGS, AT LEAST ONE OF WHICH SHOULD BE IN THE THIRD JOIST. THE FIRST CONNECTION SHALL NOT BE LESS THAN 115mm FROM THE END FACE OF THE TIMBER MEMBER. FIXINGS SHALL COMPRISE 50mm LONG x No.10 WOOD SCREWS OR 75mmx4mm ROUND NAILS AT NOT LESS THAN 110mm CENTERS.
8. NOGGINGS SHALL BE AS INDICATED ON THE SPECIALIST FLOOR SUPPLIERS IN LENGTHS THAT CAN BE CUT TO SUIT ON SITE FOR A TIGHT FIT.
9. PERIMETER NOGGINGS SHALL BE USED IN BETWEEN JOISTS TO SUPPORT THE PLY FLOORING AT THE FLOOR PERIMETER WHERE THE JOISTS BEAR ONTO WALLS.

TIMBER ROOFS

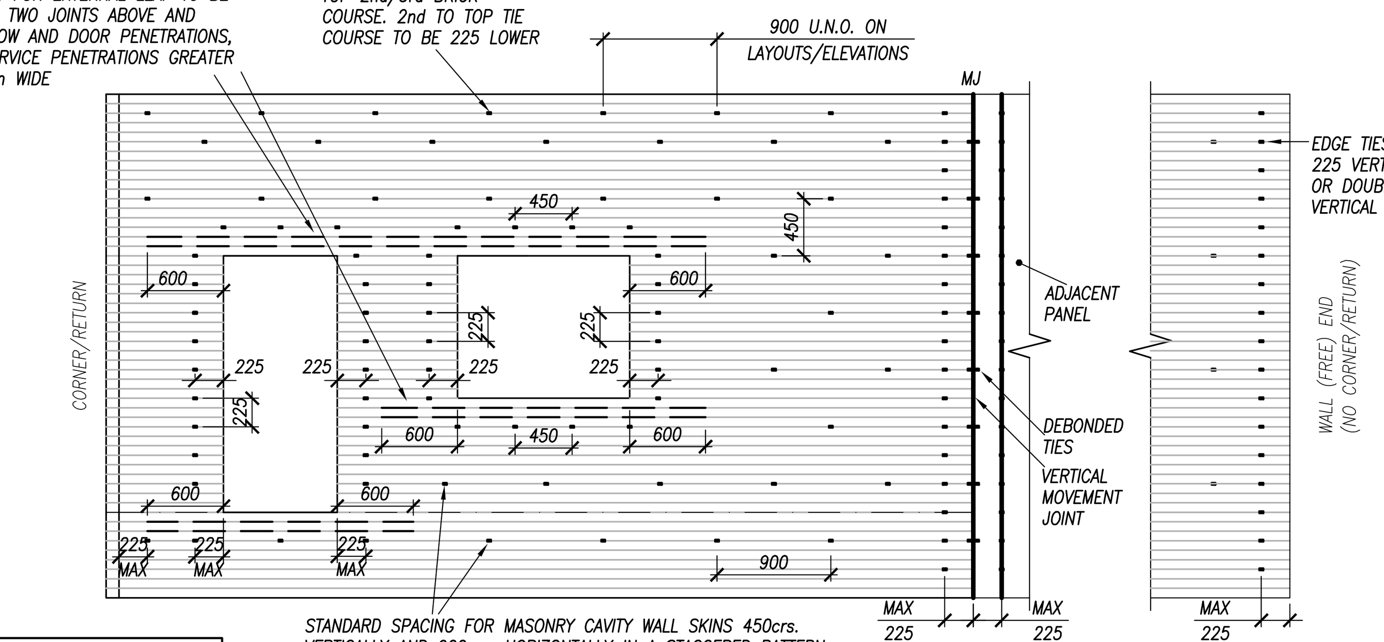
1. <u>ALL</u> TIMBER ROOFS TO BE DESIGNED BY THE SUPPLIER.
2. SUPPLIER SHOULD CHECK ALL TIMBER ROOFS FOR UPLIFT AND PROVIDE VERTICAL STRAPS WHERE NECESSARY. VERTICAL STRAP POSITIONS TO BE AGREED WITH THE ENGINEER. PROVISION SHOULD BE MADE AT TENDER STAGE FOR VERTICAL STRAPS AT 2.0m CENTERS.
3. PROVISION FOR BRACING AT RAFTER AND/OR CEILING LEVELS NEEDS TO BE MADE BY THE ROOF SUPPLIER IN ACCORDANCE WITH BS EN 1995–1–1. WHERE NO STANDARD BRACING DETAIL IS APPLICABLE A BRACING SYSTEM (e.g. WIND GIRDERS) SHOULD BE DESIGNED TO PROVIDE ROOF. BRACING DETAILS TO BE AGREED WITH THE ENGINEER.
4. ROOF DESIGNER TO ENSURE WALL STABILITY BRACING IS PROVIDED TO ASSIST IN BRACING THE GABLE WALLS, CHIMNEYS AND OTHER STRUCTURES ABOVE CEILING LEVEL AGAINST WIND LOADS, AND THAT THE IMPOSED FORCED ARE TRANSMITTED SAFELY TO OTHER SUITABLY BRACED PARTS OF THE BUILDING. RESTRAINT STRAPS TO BE PROVIDED FOR ALL GABLE WALLS AND CHIMNEYS.
5. WALL PLATE DETAILS TO BE PROVIDED BY ROOF SUPPLIER. WALL PLATE LEVEL TO BE AGREED WITH THE ARCHITECT.
6. IN THE AREAS WHERE PV PANELS/SOLAR PANELS ARE PROPOSED A MINIMUM LOAD ALLOWANCE OF 0.5kN/m² (ON PLAN) NEEDS TO BE MADE BY THE ROOF DESIGNER UNLESS SPECIFIC LOADINGS ARE AVAILABLE FROM THE PV PANEL SUPPLIER.
7. APPROPRIATE SNOW LOADING AND DRIFT PROVISION TO BE MADE BY ROOF DESIGNER.
8. ROOF DESIGNER TO PROVIDE THE ENGINEER WITH END REACTIONS OF MAIN STRUCTURAL ELEMENTS IN ORDER TO CHECK THE REQUIREMENTS FOR PADSTONES AND HEAVY DUTY LINTELS.
9. ROOF DESIGNER TO ENSURE THAT INDIVIDUAL MEMBER DEFLECTIONS AS WELL AS CUMULATIVE DEFLECTIONS WOULD NOT HAVE AN ADVERSE EFFECT ON THE STRUCTURE AND FINISHES OR RESULT IN AREAS OF STANDING WATER.
10. NOGGINGS SHOULD BE PROVIDED BY ROOF SUPPLIER FOR FLAT ROOF SPANS OVER 2.5m UNLESS ROOF DESIGNER PROVES OTHERWISE.
11. LATERAL RESTRAINT STRAP REQUIREMENTS FOR ROOF JOINTS ARE THE SAME AS THE REQUIREMENTS FOR FLOOR JOISTS.

PRECAST WIDESPAN (HOLLOW CORE OR OTHER) FLOOR UNITS

1. PRECAST FLOORS SHOULD BE INSTALLED IN ACCORDANCE WITH THE GUIDANCE SET OUT IN PRECAST FLOORING FEDERATION CODE OF PRACTICE.
2. FLOOR DESIGN AND LAYOUT BY SPECIALIST FLOOR MANUFACTURER TO BS EN 1992–1–1.
3. DIRECTION OF SPAN INDICATED ON RESPECTIVE GENERAL ARRANGEMENTS.
4. LOADING:–

   <u>FLOORS</u>
   IMPOSED LOAD: 1.50kN/m² – GENERAL RESIDENTIAL
   IMPOSED LOAD: 3.0kN/m² – COMMUNAL AREAS
   PARTITION LOADS: 0.50kN/m²
   SCREED 65mm: 1.65kN/m²
   SOFFIT & SERVICES: 0.15kN/m²

   <u>STAIRS</u>
   IMPOSED LOAD: 3.0kN/m²
   SCREED & FINISHES: REFER ARCHITECTS DRAWINGS
5. MINIMUM DENSITY OF FLOOR UNITS TO BE 300kg/m²
6. ADDITIONAL ALLOWANCES SHOULD BE MADE FOR CONCENTRATED LOADS FROM POSTS, LOADS FROM LOAD BEARING TIMBER PARTITIONS OR BRACING WALLS USED AS EXTERNAL WALL WIND RESTRAINTS WHERE THOSE LOADS DO NOT HAVE UNDERLYING LOAD PATHS (i.e. ARE LOADING THE FLOOR).
7. ALL FLOOR UNITS MUST HAVE MINIMUM OF 90mm BEARING AT EACH END WHEN SUPPORTED ON MASONRY AND 75mm BEARING WHEN SUPPORTED ON STEEL BEAMS. FLOOR UNITS SHOULD BE MANUFACTURED AT A LENGTH THAT WILL ENSURE THAT THIS MINIMUM BEARING IS ACHIEVED.
8. WHERE BEARINGS MUST BE PROVIDED INTO SHELF ANGELS IN BEAM WEBS, THE FLOOR SUPPLIER SHALL CHECK THE AVAILABLE DIMENSION AND INFORM THE ENGINEER IF A SUITABLE BEARING CAN BE ACHIEVED. CHAMFER OR NOTCHING DETAILS INDICATED AT THE ENDS OF PRECAST FLOOR UNITS ON THE ENGINEER'S DRAWINGS IS INDICATIVE ONLY.
9. CORES OF PRECAST UNITS TO BE INFILLED DURING MANUFACTURE WHERE NOTED ON PLAN.
10. FLOOR UNITS SHALL BE FULLY BEDDED INTO WALLS ALONG THE EDGES. THE CAMBER ALONG THE SPAN EDGE SHALL BE FULLY GROUTED.
11. WHERE FLOOR TO FLOOR BEARINGS ARE REQUIRED, THE SHELF ANGLES AND THE CAST IN CONNECTIONS FOR THOSE ANGELS SHALL BE DESIGNED AND SUPPLIED BY THE FLOOR SUPPLIERS.
12. SVPs AND OTHER PENETRATIONS THROUGH THE FLOOR UNITS SHALL BE SET OUT AS INDICATED ON THE ARCHITECT'S DRAWINGS.
13. GROUTING FOR FLOOR UNITS SHALL BE MINIMUM GRADE C35 WITH 6mm AGGREGATE, AND SHOULD BE OF A SUFFICIENT WORKABILITY TO FLOW ONTO JOINTS BETWEEN FLOOR UNITS.
14. STAIRS SHALL BE MANUFACTURED USING THE DIMENSIONS INDICATED ON THE ARCHITECT'S DRAWINGS.
15. DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND THE ARCHITECT FOR COMMENT PRIOR TO MANUFACTURE. REVIEW UNDERTAKEN BY THE ENGINEERS DO NOT RELIEVE THE FLOOR DESIGNER OF THE RESPONSIBILITY FOR THE DESIGN AND ACCURACY OF THE FLOORS.
16. AT WINDPOST LOCATIONS (BASE AND HEAD) CORE TO BE LOCALLY BROKEN DOWN ON SITE AND INFILLED WITH C40 CONCRETE OR INCORPORATED AS PART OF THE MANUFACTURING PROCESS.



TYPICAL TIE CENTRES FOR MASONRY CONSTRUCTION – STAGGERED BY 450 IN EACH LAYER

SPACING FOR MASONRY CAVITY WALL TIES EITHER SIDE OF MOVEMENT JOINT TO BE 225crs. VERTICALLY AND 225mm FROM LINE OF MJ AS DETAILED

AT WINDOW AND DOOR OPENINGS WHERE COURSING REQUIRES A BRICK HALF. THE BRICK IS TO BE CUT AND NOT SNAPPED TO ENSURE THE CUT BRICK WILL PROVIDE ADEQUATE SUPPORT AT THE LINTEL BEARING. (WHERE APPROPRIATE FROGS ARE TO BE FULLY FILLED WITH MORTAR) . LINTELS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

NOTES:

1. DO NOT SCALE, IF IN DOUBT ASK.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL ENGINEER'S DRAWINGS AND DETAILS, THE SPECIFICATION FOR THE WORKS, THE RELEVANT ARCHITECT'S DRAWINGS AND ANY OTHER SPECIALIST'S DRAWINGS.

RISK SCHEDULE	
	DESCRIPTION OF RISK & ACTION
ITEM	SPECIFIC HEALTH & SAFETY RISKS ASSOCIATED WITH THIS BUILDING ARE HIGHLIGHTED WITH THE CAUTION SYMBOL ADJACENT TO THE ITEM OF RISK.
⚠	PLEASE REFER TO RISK SCHEDULE CONTAINED ON INDIVIDUAL DRAWING.
	UNLESS HIGHLIGHTED THERE ARE NO SPECIFIC HEALTH AND SAFETY RISKS ASSOCIATED WITH THIS BUILDING, AS A DIRECT RESULT OF OUR DESIGN, APART FROM THE COMMON ISSUES ASSOCIATED WITH CONSTRUCTION THAT WILL NEED TO BE ASSESSED BY A CONTRACTOR PRIOR TO THE UNDERTAKING OF ANY WORKS.

Revision Details	By / Check	Date	Suffix
REVISED GEOTECHNICAL REPORT REFERENCE	AG / TA	28.08.26	C2
CONSTRUCTION ISSUE	AG / TA	24.07.26	C1
NOTES AMENDED AS CLOUDED	AG / TA	10.07.26	T2
TENDER ISSUE	AG / TA	22.04.26	T1
PRELIMINARY ISSUE	AG / TA	02.04.26	P1

Drawing Status
CONSTRUCTION

Client
dandara

Project Name
ASHMERE PHASE 12 & 13
EBBSFLEET

Drawing Title
GENERAL NOTES

Scale at A1	Client Project Number
N.T.S.	LN65
Drawn: AG	BDC Project Number: 25191
Approved: JD	Date: MARCH 26

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