

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

ALL LEVELS ARE IN METRES AND RELATE TO ORDNANCE DATUM.

ALL BURHOUPHOLD ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND BUILDING SERVICES DRAWINGS AND SPECIFICATIONS.

DO NOT SCALE FROM BURHOUPHOLD ENGINEERING DRAWINGS.

DO NOT DERIVE DIMENSIONS FROM DIGITAL MEDIA.

FOR DETAILS OF BUILDING SETTING OUT REFER TO ARCHITECTS DRAWINGS. ALL GRID SETTING OUT, DIMENSIONS AND LEVELS SHOWN ON BURHOUPHOLD ENGINEERING DRAWINGS SHOULD BE CONFIRMED BY THE ARCHITECT PRIOR TO START ON SITE.

ALL COLUMNS TO BE SET OUT WITH GRID UNO.

ALL BEAMS AND BRACING SUPPORTED AT COLUMNS TO BE SET OUT TO COLUMN CENTRE LINES UNO.

ALL DIMENSIONS RELEVANT TO EXISTING BUILDINGS AND ANY OTHER EXISTING FEATURES SHALL BE CONFIRMED BY THE CONTRACTOR BEFORE CONSTRUCTION OR FABRICATION WORKS ARE COMMENCED.

CONTRACTOR OR STEEL FABRICATOR TO CARRY OUT FULL DIMENSIONAL AND/OR DIGITAL SURVEY IN ADVANCE OF ANY STEELWORK FABRICATION TO ALL LEVELS.

REFER TO THE ARCHITECTS DRAWINGS FOR THE ABOVE GROUND WATERPROOFING / WEATHERPROOFING / TANKING DETAILS.

MATERIALS AND PRODUCTS SPECIFIED ON ALL DRAWINGS SHALL BE AS STATED OR EQUAL APPROVED AND TO BE INSTALLED FULLY IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EUROCODES AND CODES OF PRACTICE.

THE STRUCTURES SHOWN ON THE STRUCTURAL DRAWINGS AND DESCRIBED IN THE STRUCTURAL SPECIFICATION CONSTITUTES ALL PRIMARY STRUCTURE. ADDITIONAL STRUCTURE REQUIRED BY THE CONTRACTOR FOR SUPPORTING ITEMS, PLANT AND CRANAGE ETC. IS REFERRED TO AS 'SECONDARY STRUCTURE' AND DESIGN AND DETAILING SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR. ALL PROPRIETARY PRODUCTS TO BE USED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. ALL INSULATION, DPM'S AND DPC'S ARE TO BE SPECIFIED BY THE ARCHITECT. REFER TO ARCHITECTS DRAWINGS, DETAILS AND SPECIFICATIONS.

SUBSTRUCTURE - GENERALLY

REFER TO THE BURHOUPHOLD ENGINEERING EXCAVATION AND FILLING SPECIFICATION FOR ALL RELEVANT NOTES.

REFER TO THE SITE SPECIFIC GROUND INVESTIGATION REPORT FOR DETAILS OF EXISTING FOUNDATIONS BASED ON TRIAL PIT DATA.

ALL FOUNDATIONS TO BE POSITIONED CENTRALLY ABOUT COLUMN UNO.

30MM BLINDING CONCRETE IS REQUIRED UNDER ALL REINFORCED CONCRETE ELEMENTS CAST ON THE GROUND, CAST WITH A SMOOTH AND LEVEL FINISH.

WHERE HARDWARE IS TO BE USED THE MATERIAL SHOULD BE WELL GRADED WITH A MAXIMUM NOMINAL SIZE OF 75MM UNLESS SPECIFIED OTHERWISE IN THE BURHOUPHOLD ENGINEERING EXCAVATION AND FILLING SPECIFICATION IT SHALL BE COMPACTED IN 150MM MAXIMUM LAYERS AS SOON AS POSSIBLE AFTER SPREADING. BACKFILLING AROUND FOUNDATIONS, DUCTS ETC. IS TO BE CARRIED OUT IN ACCORDANCE WITH THE BURHOUPHOLD ENGINEERING EXCAVATION AND FILLING SPECIFICATION.

ALLOWANCE TO BE MADE IN THE METHOD OF CONSTRUCTION FOR GROUNDWATER CONTROL MEASURES AND TEMPORARY SUPPORT TO ALL EXCAVATIONS AS REQUIRED.

SUBSTRUCTURE - SHALLOW FOUNDATIONS

IF THE STATED ALLOWABLE BEARING PRESSURE IS NOT ACHIEVED, OVERLOAD THE BEARING STRATA UNTIL THE ALLOWABLE BEARING PRESSURE IS ACHIEVED AND UP FILL WITH MASS CONCRETE.

FOUNDATION DEPTHS PROVIDED ARE THE REQUIRED STRUCTURAL DEPTH TO ACHIEVE LOAD SPREAD, AND ON WHICH REINFORCEMENT DETAILS ARE BASED. AS NOTED ABOVE, OVERLOAD AND UP FILL WITH MASS CONCRETE MAY BE REQUIRED IN ALL CASES TO REACH THE REQUIRED BEARING STRATA AND ACHIEVE THE REQUIRED ALLOWABLE BEARING PRESSURE TO CONTROL SETTLEMENT.

FOUNDATION SIZES PROVIDED ON THE DRAWINGS ARE BASED ON ACHIEVING THE ALLOWABLE BEARING PRESSURES STATED.

THE CONTRACTOR SHALL EXCAVATE TO SUFFICIENT DEPTH TO ACHIEVE THE ALLOWABLE BEARING PRESSURE STATED ON THE DRAWINGS. THE CONTRACTOR SHALL INSPECT THE BEARING FORMATION IN ACCORDANCE WITH THE SPECIFICATION AND CARRY OUT A PLATE BEARING TEST OR OTHER EQUIVALENT TEST TO ENSURE THE ALLOWABLE BEARING PRESSURE IS ACHIEVED.

A COMPETENT ENGINEER FROM THE CONTRACTORS TEAM IS TO INSPECT ALL FOUNDATION FORMATIONS, WHERE RELEVANT THE STRUCTURAL ENGINEER AND THE CONTRACTORS ENGINEER ARE TO AGREE AN ACCEPTABLE LEVEL OF FORMATION ON SITE. THEREAFTER, NOTIFICATION MUST BE GIVEN TO THE ENGINEER THAT THE CONTRACTOR IS SATISFIED WITH THE PROCEEDING FORMATIONS BEFORE LAYING ANY FOUNDATION CONCRETE.

THE ENGINEER/CONTRACT ADMINISTRATOR MAY VARY THE LEVEL OF ANY FOUNDATION IF THEY CONSIDER THE BEARING STRATA IS NOT SUITABLE.

THE FINAL SURFACE OF ALL FORMATIONS SHALL BE WELL ROLLED, SMOOTH AND FREE FROM MOVEMENT UNDER COMPACTION PLANT, RIDGES, CRACKS, LOOSE MATERIALS, ROOTS OR OTHER DEFECTS AND CLEAN, FREE OF DETRITUS. ANY OPEN FRACTURE/JOINT SHOULD BE FILLED. FORMATION MUST ALSO BE PROTECTED FROM INCLEMENT WEATHER AND MUST BE DRY PRIOR TO POURING BLINDING.

EXCAVATIONS FOR NEW FOUNDATIONS WILL BE IN CLOSE PROXIMITY TO EXISTING FOUNDATION. THE CONTRACTOR MUST TAKE EXTREME CARE NOT TO UNDERMINE EXISTING FOUNDATIONS.

ABBREVIATIONS

ACEC	AGGRESSIVE CHEMICAL ENVIRONMENT CONCRETE
BH	BURHOUPHOLD ENGINEERING LIMITED
EGL	EXTERNAL GROUND LEVEL
FGL	FINISHED GROUND LEVEL
GA	GENERAL ARRANGEMENT
GWL	GROUND WATER LEVEL
I	INVERT LEVEL
MAX	MAXIMUM
MIN	MINIMUM
NO	NUMBER
NTS	NOT TO SCALE
OD	ORDNANCE DATUM
PC	PRE-CAST CONCRETE
RC	REINFORCED CONCRETE
SSL	STRUCTURAL SLAB LEVEL
SW	SELF WEIGHT
TBC	TO BE CONFIRMED
TOP	TOP OF CONCRETE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
Ø	DIAMETER

IN-SITU CONCRETE

REFER TO BURHOUPHOLD ENGINEERING IN-SITU CONCRETE SPECIFICATION FOR ALL RELEVANT NOTES.

CONCRETE GRADE FOR ALL RC ELEMENTS C30/40 UNO.

ALL DIMENSIONS TO SLAB EDGE TO BE CONFIRMED BY THE ARCHITECT.

ALL COLUMNS ARE POSITIONED CENTRALLY ABOUT GRIDLINES UNO.

PENETRATIONS LESS THAN 300MM SQUARE OR DIAMETER ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS - REFER TO IME SUB-CONTRACTORS BUILDERS WORK DRAWINGS FOR DETAILS. BUILDINGS WORK DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR COMMENT. WHERE REQUIRED PENETRATIONS OF THIS SIZE SHOULD BE FORMED PRIOR TO POURING AND REINFORCEMENT LOCALLY DISPLACED TO SUIT.

CONSTRUCTION JOINT POSITIONS OTHER THAN THOSE DETAILED ON THE DRAWINGS ARE TO BE AGREED WITH THE ENGINEER IN ADVANCE OF CONSTRUCTION. THE JOINTS SHOULD BE CLEANED AND ALL LOOSE CONCRETE / DEBRIS REMOVED AND ROUGHENED PRIOR TO CONCRETING THE ADJACENT POUR.

ALL REINFORCEMENT TO BE GRADE 500 CONFORMING TO BS 4449:2005 AND SCHEDULED IN ACCORDANCE WITH BS 8666:2005

ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS.

SURFACE HOLES RESULTING FROM THE USE OF FORMWORK THROUGH THUS SHALL BE PLUGGED WITH A SEMI-DRY 1:3 CEMENT : SAND MIX WELL RAMMED IN.

SIZE OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.

NO HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

STEELWORK - GENERAL

REFER TO BURHOUPHOLD ENGINEERING STEELWORK SPECIFICATION FOR ALL RELEVANT NOTES. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH BS EN 10025, BS EN 10025, BS EN 10210 BS EN 10219, BS EN 1008 AND GOOD WORKING PRACTICE.

ALL NEW STEELWORK GRADE S355 UNO.

STEELWORK SUBGRADE TO BE DESIGNED BY THE CONTRACTOR TO SUIT CONDITIONS AND SHALL COMPLY WITH THE RELEVANT BRITISH STANDARDS LISTED IN THE SPECIFICATION.

ALL NEW STEELWORK SHOULD COMPLY WITH THE LATEST EDITION OF THE NATIONAL STRUCTURAL STEELWORK SPECIFICATION (INSS).

FOR FIRE PROTECTION OF STEELWORK REFER TO THE ARCHITECTS DRAWINGS. ALLOW FOR PRE-CAMBER ON ALL STEELWORK BEAMS OVER 10M IN SPAN.

CORROSION PROTECTION IS TO THE CONTRACTORS DESIGN TO ACHIEVE A LIFE TO FIRST MAINTENANCE OF 20 YEARS. REPAIRS TO DAMAGED PAINTWORK TO BE UNDERTAKEN IN LINE WITH THE SPECIFICATION.

THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH NOMINAL THICKNESS PLATES AND CONTINUOUS FILLET WELDED UNLESS OTHERWISE NOTED.

WHERE CLOSED SECTIONS ARE DRILLED TO FORM CONNECTIONS TO OTHER STEEL OR BUILDING ELEMENTS THE CONNECTION SHALL BE DETAIL TO ENSURE THE HOLE IS SEALED IN A MANNER TO PROVIDE ADEQUATE CORROSION PROTECTION TO THE INSIDE OF THE CLOSED SECTION.

FLOOR BEAMS SUPPORTING CONCRETE SLAB ON PERMANENT FORMWORK ARE GENERALLY DESIGNED AS COMPOSITE. PROVIDE SHEAR STUDS AS SHOWN ON THE GA DRAWINGS AND LOOSE BAR REINFORCEMENT AS SHOWN ON THE REINFORCEMENT DRAWINGS. ALL SHEAR STUDS TO BE 90MM HIGH 19MM DIAMETER.

TOP FLANGE OF FLOOR/ROOF BEAMS SUPPORTING PERMANENT FORMWORK DECKING TO BE LEFT UNPAINTED.

NO PENETRATIONS TO BE MADE THROUGH THE SLAB WITHOUT PRIOR APPROVAL BY THE ENGINEER. WHERE NOTED ALL COLUMNS ARE TO BE SPLICED IMMEDIATELY ABOVE FLOOR OR AT TOP OF STEEL LEVEL UNLESS NOTED OTHERWISE ON THE DRAWINGS. COLUMNS SPLICES MUST CO-ORDINATE WITH THE ARCHITECTURAL FINISHES AND USE INTERNAL PLATES WHERE FEASIBLE.

GROUT TO BE USED BENEATH BASE PLATES SHALL BE NON-SHRINK AND HAVE A 28 DAY CHARACTERISTIC STRENGTH OF 40NMM2. THE RESPONSIBILITY OF THE MANUFACTURER BASED ON THE SPANS AND LOADINGS SHOWN ON THESE DRAWINGS. SUPPORT DETAILS, BEARINGS, EDGE TRIMS, DIAPHRAGM ACTION AND POSITIVE FIXINGS TO THE SUPPORTING STEELWORK ARE TO BE DETAILED BY THE MANUFACTURER.

THE CONTRACTOR SHALL POSITION MEMBER FORMING BRACING SYSTEMS OR TRUSSES SO THAT THE CENTRE LINES INTERSECT AT A COMMON POINT AT EACH NODE.

THE METAL DECK SLAB SPECIFIED IS BASED ON DATA TABLES IN THE MANUFACTURERS LITERATURE. DECK TO BE POSITIVELY FIXED TO SUPPORTING STEELWORK TO FORM SUITABLE DIAPHRAGM AND RESTRAINT TO SUPPORTING MEMBERS. FINAL DESIGN IS THE RESPONSIBILITY OF THE MANUFACTURER BASED ON THE SPANS AND LOADINGS SHOWN ON THESE DRAWINGS. SUPPORT DETAILS, BEARINGS, EDGE TRIMS, DIAPHRAGM ACTION AND POSITIVE FIXINGS TO THE SUPPORTING STEELWORK ARE TO BE DETAILED BY THE MANUFACTURER.

THE ROOF DECK SPECIFIER IS BASED ON DATA TABLES IN THE MANUFACTURERS LITERATURE. DECK TO BE POSITIVELY FIXED TO SUPPORTING STEELWORK TO FORM SUITABLE DIAPHRAGM AND RESTRAINT TO SUPPORTING MEMBERS. FINAL DESIGN IS THE RESPONSIBILITY OF THE MANUFACTURER BASED ON THE SPANS AND LOADINGS SHOWN ON THESE DRAWINGS. SUPPORT DETAILS, BEARINGS, EDGE TRIMS, DIAPHRAGM ACTION AND POSITIVE FIXINGS TO THE SUPPORTING STEELWORK ARE TO BE DETAILED BY THE MANUFACTURER.

STEELWORK - CONNECTIONS

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL CONNECTIONS INCLUDING HOLDING DOWN BOLTS, END PLATES, CAST-IN STEEL PLATE CONNECTIONS AND RESIN ANCHOR FIXINGS TO CONCRETE STRUCTURES TO SATISFY LOADING REQUIREMENTS SPECIFIED, SHOWN ON THE DRAWINGS, OR OTHERWISE CALCULABLE.

CONNECTION SIZES AND DETAILS, WHERE SHOWN ON THE DRAWINGS INDICATE INTENT ONLY AND DO NOT RELIEVE THE CONTRACTOR OF THEIR DESIGN RESPONSIBILITY.

THE CONTRACTOR SHALL INCLUDE IN THEIR CONNECTIONS DESIGN THE PROVISION FOR STIFFENERS TO ENSURE THE ADEQUATE TRANSFER OF LOADS ACROSS ANY STEELWORK MEMBER INCLUDED WITHIN THE CONNECTION TO THE ADJACENT MEMBERS.

THE CONTRACTOR SHALL CO-ORDINATE THE SPATIAL REQUIREMENTS OF THE CONNECTIONS WITH THE ARCHITECT AND ENGINEER.

ALL BOLTS HIGH STRENGTH GRADE 8.8 AND ALL CLEATS AND GUSSETS 10MM PLATE MIN. UNLESS NOTED OTHERWISE ON THE DRAWINGS.

THE CONTRACTOR SHALL PREPARE AND SUBMIT DESIGN CALCULATIONS AND DETAIL DRAWINGS TO SATISFY THE REQUIREMENTS SHOWN, RELEVANT BRITISH STANDARDS, THE CURRENT BUILDING REGULATIONS AND THE SPATIAL REQUIREMENTS OF THE BUILDING.

WHERE CONNECTIONS TO EXISTING CONCRETE STRUCTURE ARE SHOWN THESE SHOULD BE FORMED WITH RESIN ANCHOR CONNECTIONS TO THE STEEL FABRICATORS DESIGN. NO REINFORCEMENT IN THE ORIGINAL FRAME SHOULD BE SEVERED DURING THE DRILLING PROCESS. END PLATE CONNECTIONS SHOULD BE FORMED WITH SLOTTED OR ALTERNATE HOLES TO ALLOW FRINGE LOCATIONS TO BE MOVED ONCE A COVER METER SURVEY HAS LOCATED THE REINFORCEMENT IN THE CONCRETE FRAME.

ALL STEELWORK TO EXISTING RC FRAME CONNECTIONS LOCATIONS ARE TO BE SCANNED TO LOCATE EXISTING REINFORCEMENT POSITIONS AND CONNECTIONS DESIGNED TO AVOID CLASHES WITH EXISTING REINFORCEMENT.

ALL RESIN ANCHORS ARE TO BE INSTALLED IN CLEAN, DRY HOLES, AND IN STRICT ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.

25% OF ALL RESIN ANCHORED CONNECTIONS ARE TO BE TESTED (MIN 1 PER CONNECTION), DESIGN LOAD TO BE CONFIRMED BY STEEL TO CONCRETE DESIGNER.

ALL BRACING CONNECTIONS SHALL HAVE MINIMUM OF TWO HSFG BOLTS UNLESS OTHERWISE NOTED. BOLTS IN FRICTION GRIP AND TENSION BEARING CONNECTIONS SHALL BE TIGHTENED USING THE PART TURN METHOD OR LOAD INDICATING WASHERS. CALIBRATED TORQUE WRENCHES SHALL NOT BE USED. A HARDENED WASHER SHALL BE USED UNDER THE BOLT HEAD OR NUT, WHICHEVER IS ROTATED. THE REUSE OF FULLY TENSIONED BOLTS IS PROHIBITED.

MATING SURFACES OF FRICTION GRIP (HSFG) CONNECTIONS SHALL BE LEFT UNPAINTED AND FREE OF SCALE.

ALL CONNECTIONS INVOLVING DISSIMILAR METALS POTENTIALLY IN CONTACT WITH THE STRUCTURAL STEEL SHALL HAVE INSULATING WASHERS.

WHERE STEELWORK COLUMN SPLICE CONNECTIONS ARE TO BE PROVIDED, THESE SHOULD BE LOCATED WITHIN THE ARCHITECTURAL CEILING ZONE.

ALL SPLICE CONNECTIONS BETWEEN STEELWORK COLUMNS TO BE CO-ORDINATED FULLY WITH THE ARCHITECTS FINISHES AND BOXING OUT ZONES.

WHERE EXISTING REINFORCEMENT IS EXPOSED DURING CONSTRUCTION WORKS, REINFORCEMENT IS TO BE PROTECTED WITH FOSROC MOPRIME 2 ZN/CRH PRIMER OR EQUAL AND APPROVED. TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.

TEMPORARY WORKS

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND ANY OTHER BUILDINGS, STRUCTURES, EXCAVATIONS OR FEATURES AFFECTED BY THE WORKS IN A STABLE CONDITION AND ENSURING THAT NO PART SHALL BE OVER STRESSED DURING CONSTRUCTION ACTIVITIES.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL TEMPORARY WORKS FOR STRUCTURAL SUPPORT DURING ERECTION, AND SHALL PROVIDE ALL NECESSARY CALCULATIONS. ALL ADDITIONAL MEMBERS REQUIRED BY THE TRADE CONTRACTOR SHALL BE DEEMED TO BE INCLUDED BY THE CONTRACTOR AND SHALL BE REMOVED FROM SITE UPON COMPLETION OF THE PERMANENT STRUCTURE.

REFER TO THE BH STRUCTURAL REPORTS, DRAWINGS & SPECIFICATIONS FOR A SUMMARY OF THE DESIGN ASSUMPTIONS WITH RESPECT TO TEMPORARY BRACINGS/SUPPORT. THIS SHOULD BE READ IN CONJUNCTION WITH ALL STRUCTURAL DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL PROVIDE A FULL METHOD STATEMENT, WHICH MUST BE SUBMITTED TO THE ENGINEER PRIOR TO WORK STARTING ON ANY AREA.

THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CLERK OF WORKS, CONTRACT ADMINISTRATOR, ARCHITECT AND ENGINEER OF ANY CHANGES AS A RESULT OF UNEXPECTED CONDITIONS EXPERIENCED.

MASONRY - GENERAL

REFER TO ARCHITECTS DRAWINGS FOR SETTING OUT OF ALL MASONRY WALLS, FIXINGS AND SUPPORT DETAILS.

ALL NEW INTERNAL WALLS TO BE FORMED IN LIGHTWEIGHT METAL STUD PARTITIONS UNO.

WHERE NOTED AS BLOCKWORK INTERNAL WALLS ARE TO BE FORMED WITH 140MM NWC BLOCKWORK WITH A MINIMUM COMPRESSIVE STRENGTH OF 7.3NMM2.

ALL BLOCKWORK TO BE CONSTRUCTED WITH MORTAR TYPE M5 (II) UNO.

VERTICAL MOVEMENT JOINTS SHOULD BE PROVIDED IN CLAY MASONRY WALLS AT MAXIMUM 12M C/C.

VERTICAL MOVEMENT JOINTS SHOULD BE PROVIDED IN CONCRETE BLOCK WALLS AT MAXIMUM 6M C/C.

WHERE SINGLE LEAF BLOCKWORK WALLS ARE SHOWN BY THE ARCHITECT, ALLOW FOR 10x140x6 SWS WINDPOSTS BE 3.25M MAX C/C. AN ALTERNATIVE SUB-CRACKPOST TO SPECIALIST SUB-CONTRACTOR SUPPLY MAY BE PROPOSED BY THE CONTRACTOR IF PREFERRED.

MOVEMENT JOINT LOCATIONS AND SPACINGS SHOULD BE CONFIRMED BY THE SUB-CONTRACTOR TO ENSURE JOINT SPACING AND LAYOUT SHOWN IS SUITABLE WITH THE BLOCK TYPE USED. FINAL DESIGN OF THE JOINT SPACING IS THE RESPONSIBILITY OF THE SUB-CONTRACTOR.

REFER TO ARCHITECTS DRAWINGS FOR SETTING OUT OF ALL MASONRY WALLS.

REFER TO THE ARCHITECTS DRAWINGS FOR FINAL DETAILS AND LOCATIONS OF MASONRY TIES, FIXINGS, SUPPORT DETAILS, HEAD RESTRAINTS AND MOVEMENT JOINTS.

ALL MASONRY WALLS ARE TO HAVE A VERTICALLY SLOTTED HEAD RESTRAINT TO THE FULL LENGTH OF THE WALL, UNO THE FOLLOWING STANDARD DETAIL SHOULD BE ADOPTED: ANCON IHR-B OR EQUAL APPROVED @ 450MM C/C.

MASONRY TIES BETWEEN THE MASONRY AND ANY RESTRAINING WINDPOSTS OR RC STRUCTURE SHOULD BE PROVIDED AT 220MM VERTICAL CENTRES.

THE FINAL SELECTION OF ALL PROPRIETARY MASONRY RESTRAINT PRODUCTS SPECIFIED ON THE BH DRAWINGS IS THE RESPONSIBILITY OF THE MASONRY SUB-CONTRACTOR BASED ON THE MANUFACTURER/SUPPLIER SELECTED AND THE APPROPRIATE DESIGN LOADING.

ALLOWANCE TO BE MADE FOR 140MM WIDE PRECAST CONCRETE LINTELS ABOVE ALL OPENINGS WITHIN BLOCKWORK WALLS, TO SUPPLIER SPECIFICATION.

EXISTING STRUCTURE NOTES

ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO FABRICATION OR CONSTRUCTION OF PERMANENT WORKS DESCRIBED.

SETTING OUT FOR ANY & ALL STRUCTURAL ELEMENTS WHICH RELATE TO EXISTING STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR & SHOULD BE REFLECTED ON FABRICATION INFORMATION BASED ON SITE MEASURE. ALLOWANCE SHOULD BE MADE FOR ANY SURVEY & INSPECTION WORKS REQUIRED FOR THE CONTRACTOR TO CARRY OUT THIS DUTY.

ALL EXISTING STRUCTURE SIZES, LAYOUT, LEVELS AND GEOMETRY SHOWN ON THE BURHOUPHOLD ENGINEERING DRAWINGS ARE BASED ON ARCHIVE DRAWINGS AND SURVEYS OF THE ORIGINAL BUILDING AND A VISUAL SITE INSPECTION. ALL DIMENSIONS, SECTION SIZES AND ASBUILT ARE TO BE CONFIRMED BY THE CONTRACTOR ONCE WORKS COMMENCE AND THE STRUCTURE IS EXPOSED.

IF ANY SECTION SIZES OR CONSTRUCTION DETAILS FOUND ON SITE VARY FROM THOSE SHOWN ON THE BURHOUPHOLD ENGINEERING DRAWING THEN CONTACT THE ENGINEER FOR REVIEW.

ALL STEELWORK DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO FABRICATION.

ON CONCLUSION OF THE WORKS THE FIRE PROTECTION SHOULD BE RE-INSTITATED TO ALL MEMBERS TO ACHIEVE THE ORIGINAL FIRE PERIOD. DETAILS TO BE SPECIFIED BY OTHERS. ALL NEW STEELWORK TO BE FIRE PROTECTED TO THE SAME PERIOD.

WHERE NEW SMALL DIAMETER CORE HOLES ARE TO BE DRILLED THROUGH THE EXISTING CONCRETE STRUCTURE COVER METER SURVEYS SHOULD BE CARRIED OUT PRIOR TO EXISTING TO LOCATE AND AVOID DAMAGE TO THE EXISTING REINFORCEMENT.

THE TEMPORARY WORKS STRATEGY FOR THE ERECTION OF THE NEW STEELWORK SHOULD BE DEVELOPED BY THE CONTRACTOR. THE NEW STEELWORK SHOULD BE ERECTED OUT FROM THE EXISTING BUILDING WITH TEMPORARY BRACING IF REQUIRED TO ENSURE TEMPORARY STABILITY UNDER LATERAL LOADING.

WHERE NEW VOIDS TO BE CUT INTO EXISTING SLABS, ADJACENT BAYS TO BE KEPT UNLOADED, NEW SUPPORT STEELWORK TO BE FIXED AND SHIMMED PRIOR TO CUTTING THE SLAB.

GENERAL HEALTH AND SAFETY NOTES

THE SIZES OF FOUNDATION EXCAVATIONS WILL REQUIRE TEMPORARY SUPPORT TO PREVENT INSTABILITY.

PILES TO BE INSTALLED TO PILE OUT OFF LEVELS PROVIDED. ANY BREAKING DOWN OF PILE HEADS TO BE CARRIED OUT BY MACHINE. HAND HELD VIBRATING TOOLS SHOULD NOT BE USED.

LIFTING POINTS TO BE WELDED TO LARGE STEEL MEMBERS TO ENSURE SAFE LIFTING INTO POSITION. DESIGN OF THE LIFTING POINTS TO THE SPECIALIST SUB-CONTRACTORS DETAILS.

SCABLING OF CONCRETE SHOULD NOT BE CARRIED OUT ON THIS PROJECT.

RISERS AND VOIDS THROUGH STRUCTURAL SLAB TO BE COVERED WITH A TEMPORARY COVER BY EITHER A STEP ON SAFETY STEEL MESH GRILLE OR PROPRIETARY SOLD COVER DURING CONSTRUCTION. ONCE SERVICES ARE INSTALLED THIS TEMPORARY COVER SHOULD BE REPLACED WITH A PERMANENT COVER CLOSING OFF ALL GAPS BETWEEN SERVICES TO PREVENT FALLS. ANY TEMPORARY VOID COVERINGS SHOULD BE DESIGNED FOR A MINIMUM IMPOSED ACCESS LOAD OF 1.5KN/M2.

TEMPORARY CONSTRUCTION STAGE LOADING ON SUSPENDED FLOOR SLABS SHOULD BE LIMITED TO THE DESIGN IMPOSED LOADS STATED ON THIS DRAWING. IF IN DOUBT ABOUT THE ALLOWABLE LOADING CONTACT THE STRUCTURAL ENGINEER.

STEELWORK PAINT TO BE APPLIED OFF-SITE TO REDUCE THE AMOUNT OF TIME SPENT WORKING AT HEIGHT.

STEEL COLUMN HOLDING DOWN BOLTS TO BE CAST-IN TO RC FRAME BELOW TO MINIMISE POST-FIXED CONNECTIONS.

WORKS MAY BE REQUIRED AROUND LIVE SERVICES. CONTRACTOR TO ASSESS AND DEVELOP APPROPRIATE METHODOLOGY.

WORKS TO DRAINAGE RUNG WILL REQUIRE DISTURBING EXISTING GROUND UNDER THE GROUND SLAB. THERE IS A RISK THAT THIS GROUND CONTAINS ASBESTOS OR OTHER CONTAMINANTS. REFERENCE SHOULD BE MADE TO THE PROJECT ASBESTOS REPORT & APPROPRIATE ALLOWANCE MADE BY THE CONTRACTOR.

STRUCTURAL TIMBER NOTES

ALL STRUCTURAL TIMBER IS TO BE IN ACCORDANCE WITH BS EN 1995-1-1 AND THE RELEVANT NORMATIVE REFERENCES CONTAINED THEREIN.

ALL STRUCTURAL TIMBER IS TO BE IN ACCORDANCE WITH THE STANDARD PROVISIONS OF THE LATEST VERSION OF THE NATIONAL STRUCTURAL TIMBER SPECIFICATION (INSTR). AS EXTENDED OR AMENDED BY THE PROJECT SPECIFICATION IF RELEVANT, UNLESS NOTED OTHERWISE.

DESIGN RESPONSIBILITIES ARE TO BE AS FOLLOWS UNLESS ALLOCATED OTHERWISE IN THE PROJECT SPECIFICATION OF THE NTS

- DESIGN OF PERMANENT STRUCTURAL ELEMENTS: STRUCTURAL ENGINEER
- DESIGN OF CONNECTIONS BETWEEN PERMANENT STRUCTURAL ELEMENTS: CONTRACTOR
- DESIGN OR TEMPORARY WORKS AND ASSOCIATED CONNECTIONS: CONTRACTOR

TIMBER TO BE OF THE FOLLOWING MINIMUM GRADES UNLESS NOTED OTHERWISE IN THE DRAWINGS OR SPECIFICATIONS.

- SOLID SECTION SOFTWOOD: C16 TO BS EN 14081
- SOLID SECTION HARDWOOD: D25 TO BS EN 14081
- GLUE LAMINATED TIMBER (GLULAM): GL28C TO BS EN 14081
- LAMINATED VENEER LUMBER (LVL) BEAMS: CERTIFIED TO BS EN 14374 FOR STRUCTURAL USE
- LAMINATED VENEER LUMBER (LVL) SLABS: CERTIFIED TO BS EN 14374 FOR STRUCTURAL USE
- CROSS LAMINATED TIMBER (CLT) WALLS: BINDERHOLZ EUROPEAN TECHNICAL APPROVAL ETA-06/0009 OR EQUIVALENT APPROVED OR FOR STRUCTURAL USE TO BS EN 16351
- CROSS LAMINATED TIMBER (CLT) SLABS: BINDERHOLZ EUROPEAN TECHNICAL APPROVAL ETA-06/0009 OR EQUIVALENT APPROVED OR FOR STRUCTURAL USE TO BS EN 16351
- PLYWOOD: CERTIFIED STRUCTURAL PLYWOOD TO BS EN 6828 IN ACCORDANCE WITH BS EN 13986 AND CERTIFIED FOR USE IN FLOORING/WALLS/ROOFING IN ACCORDANCE WITH BS EN 12871
- ORIENTATED STRAND BOARD (OSB): OSB3 OR OSB4 IN ACCORDANCE WITH BS EN 300 AND BS 13986 AND CERTIFIED FOR USE IN FLOORING/WALLS/ROOFING IN ACCORDANCE WITH BS EN 12871

NO HOLES OR NOTCHES ARE TO BE CUT IN STRUCTURAL TIMBER MEMBERS FOR THE PASSAGE OF SERVICES DISTRIBUTION, OR OTHER PURPOSE, WITHOUT EXPRESS WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.

FIRE RESISTANCE OF TIMBER ELEMENTS MAY BE VIA ALLOWANCE FOR SACRIFICIAL CHARRING AND PYROLYSIS ZONE OR VIA ENCAPSULATION BY CERTIFIED FIRE BOARDING AND/OR INTUMESCENT TREATMENT. REFER TO PROJECT DOCUMENTATION FOR CONFIRMATION.

UNLESS NOTED OTHERWISE, EXPOSED TIMBER SOFFITS ARE TO BE TREATED TO PROVIDE SPREAD OF FLAME TO EUROCLASS 0.

THE CONTRACTOR IS TO HAVE A WRITTEN PLAN TO ENSURE THE FIRE SAFETY OF THE INCOMPLETE STRUCTURE IN ACCORDANCE WITH CURRENT BEST PRACTICE AS OUTLINED IN, BUT NOT LIMITED TO, THE TRADA CONSTRUCTION BRIEFING NOTE 'FIRE SAFETY ON TIMBER FRAME CONSTRUCTION SITES' AND THE STRUCTURAL TIMBER ASSOCIATION DOCUMENT '16 STEPS TO FIRE SAFETY'. HSE '168 RISK ASSESSMENT, STRUCTURAL TIMBER ASSOCIATION, DESIGN GUIDE - SEPARATING DISTANCES DURING CONSTRUCTION

EXPOSED TIMBER IS TO HAVE A FACE FINISH AGREED WITH THE ARCHITECT AND ENGINEER AND VERIFIED VIA SAMPLES. ENGINEERED TIMBER IS TO BE DOMESTIC VISUAL QUALITY. PLYWOOD IS TO BE GRADE B TO BS EN 635-2 AND SOLID TIMBER IS TO BE PLANKED UNO.

REFER TO ARCHITECTURAL SPECIFICATIONS FOR DECORATIVE FINISHES. THESE ARE TO BE CERTIFIED AS COMPATIBLE WITH ALL OTHER PRESENT TREATMENTS FOR DURABILITY, SPREAD OF FLAME AND FIRE PERFORMANCE.

THE CONTRACTOR IS TO PRODUCE A WRITTEN MOISTURE MANAGEMENT PLAN TO ADDRESS AS A MINIMUM THE STORAGE, MASONRY, CONSTRUCTION AND COMMISSIONING OF THE STRUCTURE. THIS SHALL PROVIDE A PLAN FOR EACH STAGE OF THE PROCESS OUTLINING HOW THE MOISTURE CONTENT OF THE TIMBER WILL BE CONTROLLED AND HOW ANY TRAPPED MOISTURE WILL BE ALLOWED TO ESCAPE PRIOR TO COMPLETION. PARTICULAR ATTENTION SHALL BE GIVEN TO THE CONDITION OF THE STRUCTURE PRIOR TO COMPLETION OF THE BUILDING ENVELOPE AND ACTIVATION OF THERMAL CONTROL.

MOISTURE CONTENT OF STRUCTURAL TIMBER ELEMENTS ARE TO BE 12% +/-2% RELATIVE MOISTURE CONTENT AT POINT OF INSTALLATION AND AT STRUCTURAL COMPLETION, UNLESS AGREED OTHERWISE IN WRITING WITH HE STRUCTURAL ENGINEER.

TIMBER TO HAVE NATURAL SPECIES DURABILITY CLASS DC 4 TO EN 350-2 AS A MINIMUM AND/OR PRESERVATIVE TREATMENT, SUFFICIENT TO ATTAIN ITS REQUIRED DESIGN LIFE TO EN 15228 IN THE RELEVANT SERVICE CLASS AND IN CONSIDERATION OF TIME SPENT IN TRANSPORT AND DURING ERECTION.

WHERE ROOF, FLOOR OR WALL PLANES ARE TO ACT AS STRUCTURAL DIAPHRAGMS, ALL ELEMENTS AND CONNECTIONS ARE TO BE CONSTRUCTED SUCH THAT THESE IN-PLANE FORCES CAN BE TRANSMITTED BETWEEN PANELS AND TO ADJACENT ELEMENTS.

ENVIRONMENTAL

ALL TIMBER TO BE LEGALLY SOURCED IN LINE WITH THE UK GOVERNMENT TIMBER PROCUREMENT POLICY AND BE EITHER FSC, PEFC OR GB CERTIFIED TO DEMONSTRATE SUSTAINABLE SOURCING SOURCED BY RECORDS OF PROCUREMENT ROUTE AND CERTIFICATION ARE TO BE RETAINED AND SUBMITTED AS PART OF THE HANDOVER PACKAGE FOR THE OPERATIONS & MAINTENANCE MANUAL / HEALTH AND SAFETY FILE.

THE TIMBER CONTRACTOR IS TO PROVIDE ENVIRONMENTAL PRODUCT DECLARATIONS TO THE PROJECT ENGINEER FOR ALL CONSTRUCTION PRODUCTS USED AND TO BE SUBMITTED AS PART OF THE HANDOVER DOCUMENTATION FOR INCLUSION IN THE OPERATIONS & MAINTENANCE MANUAL / HEALTH AND SAFETY FILE.

ALL TIMBER COMPONENTS AND ASSOCIATED FIXINGS AND FITTINGS ARE TO BE CE (OR ICA) MARKED. MANUFACTURERS' DECLARATION OF PERFORMANCE AND/OR EUROPEAN TECHNICAL ASSESSMENT SHALL BE PROVIDED AS A CERTIFICATE TO THE STRUCTURAL ENGINEER FOR ANY PRODUCTS NOT COVERED BY THE HARMONISED EUROPEAN PRODUCTS STANDARD CE MARKING SCHEME. ALL TIMBER PRODUCTS ARE TO CONFORM TO FORMALDEHYDE RELEASE CLASS E1 TO EN 14080 ANNEX A.

CONNECTIONS / FIXINGS

ALL FITTINGS NOT SPECIFICALLY DIMENSIONED AS FABRICATIONS ARE TO BE PROPRIETARY COMPONENTS CERTIFIED FOR STRUCTURAL USE AND INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

EDGE, END AND CENTRE TO CENTRE DISTANCES FOR ALL FIXINGS ARE TO BE MAINTAINED IN ACCORDANCE WITH THE RELEVANT TABLES IN BS EN 1995-1-1 SECTION 8.

ALL BOLTS ARE TO BE GRADE 4.6 UNLESS NOTED OTHERWISE

ALL BOLTS ARE TO BE HOT DIP SPUN GALVANIZED UNLESS NOTED OTHERWISE

ALL BOLTS ARE TO BE INSTALLED COMPLETE WITH FORM G WASHERS WHEREVER A BOLT HEAD OR NUT ABUTS A TIMBER FACE (OUTER DIAMETER 3" BOLT DIAMETER)

UNLESS NOTED OTHERWISE, SCREWS ARE TO BE PROVIDED INSTEAD OF NAILS. UNLESS NOTED OTHERWISE, SCREWS ARE TO BE PRE-DRILLED OR TO HAVE SELF-DRILLING TIPS DESIGNED FOR THE MATERIALS THEY ARE TO BE INSTALLED IN.

JOIST HANGERS ARE TO BE RATED TO THE SHEAR CAPACITY OF THE TIMBER MEMBER AS A MINIMUM AND TO BE SPECIFICALLY CERTIFIED FOR THE