GENERAL

1. ALL WORK TO BE IN ACCORDANCE WITH THE PROJECT SPECIFICATION.
2. THESE NOTES APPLY TO ALL CIVIL & STRUCTURAL STEEL DRAWINGS.
3. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH SANS 2001-CC1 PERMISSIBLE DEVIATION DEGREE OF ACCURACY II UNLESS OTHERWISE NOTED.
4. SETTING OUT TO BE BASED ON BENCH MARKS AND THEORETICAL GRID LINES, NOT ON EXISTING COLUMNS WHICH MAY NOT BE EXACTLY ON GRID LINES.
5. DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH SANS 10100, 10160, 10161, 10162, 10163 AND 10164, AS APPLICABLE.
6. THE WORKS WILL BE INSPECTED FROM TIME TO TIME BY THE CONSULTING ENGINEER TO ASCERTAIN THAT THE CONTRACTOR IS CARRYING OUT THE WORK IN GENERAL CONFORMITY WITH THE ENGINEERING DRAWINGS AND DOCUMENTS. SUCH INSPECTIONS ARE NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT AND DO NOT RELIEVE HIM OF THE RESPONSIBILITY FOR THE PROPER CONSTRUCTION OF THE WORKS IN ACCORDANCE WITH THE ENGINEERING DRAWINGS, DOCUMENTS AND GOOD BUILDING PRACTICE.
7. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
8. REFER TO THE ARCHITECT'S DRAWINGS FOR SETTING OUT DIMENSIONS OF BRICK WALLS. ALL FOOTINGS ARE TO BE LOCATED CENTRALLY UNDER WALLS, UNLESS OTHERWISE SHOWN.
9. LOADBEARING BRICK WALLS, FOUNDATION BRICK WALLS, FREE-STANDING BRICK WALLS, AND BRICK RETAINING WALLS SHALL BE CONSTRUCTED OF NFXE14 SOLID MASONRY UNITS COMPLYING WITH THE REQUIREMENTS OF SANS 1227, LAID IN CLASS ii MORTAR.

A: OHS Act 1993: CONSTRUCTION REGULATIONS 2003,9,(2)(C)

1. THE GEOTECHNICAL REPORT FOR THE SITE IS AVAILABLE ON REQUEST
2. THE DESIGN LOADING FOR EACH STRUCTURE IS GENERALLY COMPLEX AND USUALLY COMPRISES DISTRIBUTED LOADS. IF IT IS INTENDED TO APPLY LOADS TO ANY STRUCTURE THAT ARE NOT THE SPECIFIED DESIGN LOAD,FOR EXAMPLE TEMPORARY LOADS DURING CONSTRUCTION,THEN FULL DETAILS OF THOSE PROPOSED LOADS MUST BE SUBMITTED TO THE DESIGNER OF THE STRUCTURE AND APPROVED PRIOR TO APPLYING THE LOADS.
3. CONSTRUCTION CONTRACTORS ARE TO SUBMIT THEIR PROPOSED METHODS AND SEQUENCE OF CONSTRUCTION FOR APPROVAL
4. ROOF STRUCTURES ARE DESIGNED FOR AN IMPOSED WORKING OF 0.3 KPa
5. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ERECTION SEQUENCE AND STABILITY DURING CONSTRUCTION

B: ABBREVIATIONS

BOP	=BOTTOM OF PIPE
CL	=CENTRE LINE
C/C	=CENTRE TO CENTRE
C/W	=COMPLETE WITH
CFW	=CONTINUOUS FILLET WELD
CJ	=CONSTRUCTION JOINT
COMPR	=COMPRESSION
DIA OR ø	=DIAMETER
DWG	=DRAWING
EJ	=EXPANSION JOINT
ETL	=EXISTING TERRACE LEVEL
FFL	=FINISH FLOOR LEVEL
FTL	=FINISHED TERRACE LEVEL
HD	=HOLDING DOWN
HORIZ	=HORIZONTAL
HPFS	=HIGH POINT FINISHED SURFACE
ID	=INSIDE DIAMETER
IL	=INVERT LEVEL
IJ	=ISOLATION JOINT
KCJ	=KEYED CONSTRUCTION JOINT
KN	=KILONEWTON
M	=METRE
MAX	=MAXIMUM
MIN	=MINIMUM
mm	=MILLIMETER
N/A	=NOT APPLICABLE
NB	=NOMINAL BORE
NGL	=NATURAL GROUND LEVEL
No	=NUMBER
NTS	=NOT TO SCALE
OCT	=OCTAGON
OCJ	=OPTIONAL CONSTRUCTION JOINT
OD	=OUTSIDE DIAMETER
PFC	=PARALLEL FLANGE CHANNEL
PLT	=PLATE
R	=RADIUS
REV	=REVISION
SCJ	=SAW CUT JOINT
SQ	=SQUARE
TENS	=TENSION
TOC	=TOP OF CONCRETE
TOS	=TOP OF STEEL (NOT TOP OF ROUND BAR)
TOR	=TOP OF ROUND BAR
TOW	=TOP OF WATER
TYP	=TYPICAL
UB	=UNIVERSAL BEAM SECTION
UC	=UNIVERSAL COLUMN SECTION
U/S BPLT	=UNDER SIDE OF BASE PLATE
UON	=UNLESS OTHERWISE NOTED
U/P	=UNDER PATTERN
UP BM	=UPSTAND BEAM
VERT	=VERTICAL

C: GENERAL NOTES ON STRUCTURAL STEELWORK

1. SHOP DETAILING, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 1162-1984.
2. ALL SHOP DRAWINGS TO BE SUBMITTED TO THE ENGINEER FOR COMMENT PRIOR TO MANUFACTURING. SHOP DRAWINGS WILL BE CHECKED FOR MEMBER TYPES AND DESIGN INTENT. DIMENSIONAL ACCURACY WILL NOT BE CHECKED AS THIS REMAINS THE CONTRACTORS RESPONSIBILITY.
3. THE ENGINEER SHALL BE RESPONSIBLE FOR THE PRODUCTION OF ALL DESIGN DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRODUCTION OF ALL FABRICATION AND ERECTION DRAWINGS.
4. ALL STEEL MATERIALS SHALL BE OF THE FOLLOWING GRADES
   HOT ROLLED SECTIONS & PLATES – S355JR
   HOLLOW SECTION – 300W
   COLD FORMED SECTION – COMMERCIAL QUALITY WITH MINIMUM YIELD STRESS OF 200MPA
5. ALTERNATIVE SECTIONS MAY BE ACCEPTED, TO SUIT THE AVAILABLE SUPPLIER, PROVIDED THERE IS NO LOSS OF STRENGTH OR STIFFNESS OR, WHERE RELEVANT, APPEARANCE. HOWEVER PRIOR CONCESSION MUST BE OBTAINED FROM THE ENGINEER IN WRITING.
6. ALL NEUTRAL AXES SHOULD CROSS AT ONE POINT AT EACH NODE POINT.
7. ALL SURFACES WILL BE SUPPORTED FROM TRUSS NODE POINTS AND RAFTERS. ALL OTHER SUPPORT POINTS TO BE APPROVED BY ENGINEER.
8. ALL DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO FABRICATION.
9. DIMENSIONS ON DRAWINGS DO NOT ALLOW FOR ERECTION CLEARANCE. FABRICATION DRAWINGS MUST ALLOW SUFFICIENT CLEARANCE FOR ERECTION PURPOSES.
10. ALL GUSSETS TO BE 6MM THICK UNLESS OTHERWISE SHOWN.
11. ALL BOLTS TO BE GRADE 8.8 AND M16 MINIMUM SIZE. WHERE MAIN FRAME JOINTS ARE BOLTED, SHOP DETAILING OF MEMBERS SHALL MAKE PROVISION FOR SLIP AT SUCH JOINTS: TO PRESERVE INTENDED ALIGNMENT, BOLTED JOINTS SHALL BE DESIGNED TO TRANSMIT THE SHEAR FORCES AND MOMENTS INDICATED ON THE DRAWINGS.
12. ALL SITE CONNECTIONS TO BE BOLTED UNLESS OTHERWISE NOTED.
13. EDGE DISTANCES AND OTHER BOLTING DIMENSIONS TO BE AS PER SABS 0162 UNLESS OTHERWISE NOTED.
14. SHOP SPLICES OF MEMBERS WILL NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER. SPLICES ARE TO HAVE A CAPACITY OF 100% OF THE SPLICED MEMBER.
15. WELDING SHALL BE DONE BY QUALIFIED WELDERS TO THE SATISFACTION OF THE ENGINEER. SITE WELDING SHALL NOT BE DONE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
16. WELDED METAL SHALL BE FUSED WITH THE PARENT METAL ALONG SURFACES AND EDGES OF THE UNION. THE SURFACE OF WELDS SHALL BE CLEAN, SMOOTHLY FINISHED, WITHOUT POROSITY OR CRATERS, REGULAR AND OF UNIFORM CONTOUR.
17. ALL WELDS TO BE 6MM FULLY CONTINUOUS FILLET WELDS AND ALL WELDING TO BE IN ACCORDANCE WITH SABS 044. ALL TO BE BUTT WELD TO DEVELOP THE FULL STRENGTH OF THE SECTIONS BEING JOINED.
18. WELDING SHALL BE DONE BY QUALIFIED WELDERS TO THE SATISFACTION OF THE ENGINEER. SITE WELDING SHALL NOT BE DONE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER
19. THE END OF ALL CIRCULAR AND RECTANGULAR HOLLOW SECTIONS TO BE COMPLETELY MOISTURE SEALED USING SUITABLE END AND CONTINUOUS WELDING
20. ALL STEELWORK TO BE HOT DIPPED GALVANISED TO SANS.121 & 14713
   - UNDER NO CIRCUMSTANCES MAY WELDING OR CUTTING BE PERFORMED AFTER HOT DIPPED GALVANISING.
   - STEEL TO BE CLEANED IN ACCORDANCE WITH SANS 10064.
   - ALL METAL SURFACE DEFECTS TO BE REMOVED BY GRINDING.
   - ALL SHARP EDGES TO BE ROUNDED OFF BEFORE CLEANING.
   - AFTER FABRICATION BUT BEFORE ERECTION, ALL SURFACES ARE TO BE WIRE BRUSHED TO GRADE ST.2 OF SWEDISH SPECIFICATION SIS 05 59 00-1967.
   - STEELWORK SO PREPARED IS NOT TO BE TOUCHED BY BARE HANDS. LINEN GLOVES ARE TO BE WORN.
   - BEFORE PRIMING THE SURFACE SHALL BE VACUUM CLEANED OR DRY BRUSHED TO REMOVE ALL DUST AND DEBRIS.
21. THE STEELWORK ERECTOR IS TO CHECK ACCURACY OF POSITION, LEVEL AND PROJECTION OF ALL ANCHOR BOLTS AS SOON AS POSSIBLE AFTER THE BOLTS HAVE BEEN CAST INTO THE CONCRETE. ANY DISCREPANCIES ARE TO BE IMMEDIATELY REPORTED TO THE ENGINEER PRIOR TO ERECTION OF THE STEELWORK.

D: GENERAL NOTES ON FLOORING &HANDRAILING

1. ALL HANDRAILING & FLOORING TO BE IN ACCORDANCE WITH PROJECT SPECIFICATION AND CLIENT SPECIFICATION MECH 102
2. GRATING BEARER BARS ARE TO SPAN IN THE DIRECTIONS INDICATED ON THE DRAWINGS. DIRECTION OF BEARER BARS INDICATED THUS ON THE DRAWING.
3. ALL FLOOR PANELS TO BE FULLY BANDED USING BANDING BARS OF AT LEAST THE SAME SIZE AS THE BEARER BARS.
4. ALL OPENINGS AND CUT OUTS TO BE FULLY BANDED USING BANDING BARS OF EQUAL DEPTH OF THE BEARER BARS PLUS TOE PLATE.
5. ALL GRATING TO BE HOT DIPPED GALVANIZED AFTER FABRICATION. DISTORTION IS TO BE MINIMIZED THROUGH CAREFUL AND CORRECT DIPPING TECHNIQUES (REFER TO S.A GALVANIZING ASSOCIATION).
6. 130mm X 8mm KICK FLATS ARE TO BE WELDED ALONG ALL OUTSIDE EDGES OF GRATING, AND EXTENDED 100mm ABOVE THE TOP OF FLOORING UNLESS OTHERWISE NOTED.
7. ALL PANELS ARE TO BE SUPPLIED COMPLETE WITH SADDLE CLAMPS, KICK PLATES, CLIPS, BOLTS ,STUDS AND NUTS ECT, FOR SECURING TO STEELWORK BEAMS AND ADJACENT PANELS. PANELS ARE TO BE SECURED AT INTERVALS NOT GREATER THAN 1500mm IN BOTH DIRECTIONS, WITH A MINIMUM OF 4 FASTENERS PER PANEL.
8. WHERE THE JOINT BETWEEN ADJACENT FLOOR PANELS DOES NOT OCCUR ON A SUPPORT LINE THE PANELS ARE TO BE BOLTED TOGETHER AT 500mm CENTER MINIMUM OR AT MIDSPAN FOR A SPAN LESS THAN 700mm.
9. WHERE FLOORING ENDS AT THE TOP OF STAIRWAYS A NON SLIP EDGING IS TO BE PROVIDED.
10. NEAR-SQUARE FLOOR PANELS ARE NOT TO BE DETAILED TO AVOID INCORRECT PLACING.
11. FLOOR PANELS ARE TO BE SIZED SO THAT A JOINT OCCURS ON THE CENTER LINE OF ALL OPENINGS THROUGH THE FLOORING.
12. ALL GRATING TO BE TAILORED AROUND STEEL COLUMNS, PIPE OPENING ETC WITH 130 X 8 KICK FLAT.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRODUCTION OF GRATING DRAWINGS SHOWING ALL THE GRATING PANELS AND DETAILS.
14. STAIR TREADS TO BE MENTIS RS40 TREADS WITH NON-SLIP NOSING OR SIMILAR APPROVED.
15. ALL HANDRAILING TO BE GALVANIZED STEEL AS DETAILED. TOP OR SIDE MOUNTED AS INDICATED ON THE DRAWING. PAINT IF APPLICABLE AS PER PROJECT SPECEIFICATIONS
16. GRATING DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCE OF FABRICATION.

E: GENERAL NOTES ON SHEETING

1. UNLESS OTHERWISE NOTED ALL SHEETING EXCEPT TRANSLUCENT TO BE ROLL FORMED TO PROFILE FROM PRE-PAINTED ALUMINIUM-ZUNC SHEET.
2. ALL TRANSLUCENT SHEETING TO BE FORMED TO PROFILE FROM POLYCARBONATE TRANSLUCENT SHEETING TO HAVE 65% LIGHT TRANSMISSION CAPABILITY AND BE ULTRA VIOLET PROTECTED. TRANSLUCENT SHEETING TO BE BRONZE IN COLOUR.
3. NO END LAPS PERMITED ON SHEETING.
4. ALL FLASHING ONTO SHEETING PROFILE TO BE SUPPLIED COMPLETE WITH MATCHING SERRATED RIDGE OR EAVES CLOSED CELL EXPANDED POLYETHYLENE CLOSURES.
5. 15mm OF THE BROAD FLUTE OF ALL ROOF SHEETS SHALL BE TURNED UP THROUGH 45° AT THE APEX TO FORM A DAM.
6. AT THE END OF EACH DAYS WORK AND ON COMPLETION OF THE ERECTION WORKS, ALL DRILL SWAFT AND DEBRIS SHALL BE REMOVED FROM THE SHEETS, GUTTERS AND FLASHING.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE PRODUCTION OF SHEETING DRAWINGS SHOWING ALL THE SHEETING AND DETAILS.
8. SHEETING DRAWING ARE TO BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCEMENT OF FABRICATION.
9. DENSO LDP 300 TAPE OR SIMILAR APPROVED SHALL BE APPLIED TO THE PURLINS & GIRTS WHEREVER THE SHEETING MAY BE IN CONTACT WITH THE STRUCTURAL STEEL.

F: CONCRETE NOTES

1. ALL DIMENSIONS AND LEVELS IN MILLIMETERS UNLESS OTHERWISE NOTED. DIMENSIONS MUST NOT BE SCALED OR ASSUMED. MISSING DIMENSIONS AND DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER. DIMENSIONS AND ANCHOR BOLT LOCATIONS ARE SYMMETRICAL ABOUT CENTRE LINES UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
3. ALL FLOOR LEVELS, UNLESS OTHERWISE INDICATED, ARE STRUCTURAL SLAB LEVELS.
4. REINFORCED CONCRETE (AT 28 DAYS) REQUIRED WORKS CUBE STRENGTH:
   - COMPLETE STRUCTURE OF NEW WALLS & PIERS 35 MPa.
   - ALL OTHER CONCRETE ELEMENTS 30 MPa.
5. BEAM SIZES ARE GIVEN BREADTH X DEPTH.
6. A CONCRETE DESIGN IS TO BE FORWARDED TO THE ENGINEER BY THE CONTRACTOR BEFORE CONSTRUCTION COMMENCES.
7. GENERALLY, 3 CONCRETE TEST CUBES SHALL BE TESTED @ 7 DAYS AND 3 CUBES @ 28 DAYS. ONE SET OF TEST CUBES IS TO BE MADE (PER 50M3 OF CONCRETE, OR PART THEREOF) DAILY OF EVERY TYPE OF CAST.
8. FOUNDATION DESIGN: MAX. SAFE BEARING PRESSURE – 60kPa.
9. ALL FOUNDATION DEPTHS SHALL BE CONFIRMED BY THE ENGINEER AND EXCAVATION IS TO BE INSPECTED BY THE ENGINEER BEFORE CASTING.
10. CAST A 50mm THICK 15MPa BLINDING LAYER UNDER ALL REINFORCED FOUNDATIONS.
11. UNLESS OTHERWISE NOTED, COVER TO REINFORCEMENT IS TO BE AS FOLLOWS:
   - FOUNDATION (WITHOUT SHUTTERS) 75MM
   - FOUNDATION (WITH SHUTTERS) 50MM
   - COLUMNS (BUILDING) 40MM
   - RC WALLS (BUILDING) 40MM
   - ROOF SLABS & BEAMS (BUILDING) 30MM
   - BUND WALLS (INSIDE FACE) 40MM
   - BUND WALLS (OUTSIDE FACE) 40MM
   - DRAINAGE AND OTHER MISC STRUCTURES 50MM

   COVER IS TO BE MAINTANED WITH THE USE OF SUITABLE SPACERS AND LIFTING BLOCKS. THE COVER BLOCKS ARE TO BE FORMED OF SAND/CEMENT MORTAR WITH A MINIMUM CEMENT, WATER RATIO OF 2.5. PATENT UNITS THAT DO NOT CORRODE MAY ALSO BE USED.
10. REMOVAL OF FORMWORK IS AS PER SPECIFICATIONS FOR WARM TO HOT CONDITIONS:
   - UNLOADED COLUMNS: 1 DAY
   - BEAM AND SLAB SOFFITS (PROPS REMAINING) 7 DAYS
   - SLAB PROPS 10 DAYS
   - BEAM AND CANTILEVER PROPS 14 DAYS

   NO ADDITIONAL LOADS MAY BE PLACED ON THE SUPPORTING SLABS.
11. CONCRETE TO BE CURED PROPERLY USING AN APPROVED METHOD OF MOISTURE RETENTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONCRETE WHICH IS REJECTED DUE TO POOR CURING METHODS OR LACK THEREOF.
12. THE WORKS WILL BE INSPECTED FROM TIME TO TIME BY THE ENGINEER TO ASCERTAIN THAT THE CONTRACTOR IS CARRYING OUT THE WORK IN GENERAL CONFORMITY WITH THE ENGINEERING DRAWINGS AND DOCUMENTS. SUCH INSPECTIONS ARE NOT FOR THE CONTRACTOR'S BENEFIT AND DO NOT RELIEVE HIM OF THE RESPONSIBILITY FOR THE PROPER CONSTRUCTION OF THE WORKS IN ACCORDANCE WITH THE ENGINEERS DRAWINGS, DOCUMENTS AND GOOD BUILDING PRACTICE.
13. LATERAL DIMENSIONS GIVEN ON THE DRAWINGS FOR UNDERGROUND CONCRETE ARE BASED ON CASTING AGAINST FORMWORK, WHERE UNDERGROUND CONCRETE IS TO BE CAST AGAINST EXCAVATED FACES WITHOUT FORMWORK, LATERAL DIMENSIONS OF THE CONCRETE MUST BE INCREASED TO PROVIDE A MINIMUM OF 75MM OF CONCRETE COVER AT THESE FACES.
14. ALL GROUTING UNDER STEELWORK AND EQUIPMENT TO BE DONE BY THE CIVIL CONTRACTOR AFTER ERECTION. GENERALLY 30MM OF GROUT TO BE PROVIDED UNLESS OTHERWISE NOTED. NON-SHRINK GROUT TO BE APPLIED IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
15. REINFORCEMENT DRAWINGS HAVE A DRAWING NUMBER CORRESPONDING TO THE LAYOUT DRAWING WITH DRAWING TYPE RS INSTEAD OF RC WITH CORRESPONDING SHEET NUMBERS.
16. WHERE MANUFACTURER'S PRODUCTS ARE SPECIFIED, EQUIVALENT PRODUCTS MAY BE USED FROM OTHER MANUFACTURERS AFTER PRIOR WRITTEN APPROVAL OF THE ENGINEER.
17. ALL MANUFACTURER'S PRODUCT ARE TO BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
18. ALL CORING THROUGH STRUCTURAL ELEMENTS NEEDS TO BE APPROVED BY THE ENGINEER AND POSITION OF CORE INSPECTED BEFORE CORING TAKES PLACE.
19. ALL STRUCTURAL, MECHANICAL, ARCHITECTURAL AND ELECTRICAL DRAWINGS ARE TO BE READ IN CONJUNCTION. ALL SIZES OF CONCRETE ARE NET AND DO NOT INCLUDE FINISHES.
20. REINFORCED CONCRETE CONSTRUCTION STANDARDS SHALL BE IN ACCORDANCE WITH STANDARDIZED SPECIFICATION SANS 1200 GB, CONCRETE (ORDINARY BUILDINGS).
21. EXCEPT WHERE OTHERWISE INDICATED, ALL EXPOSED CONCRETE EDGES AND ENDS TO HAVE 20x20mm CHAMFERS.
22. IF ANY INSTRUCTIONS ON THIS DRAWING CANNOT BE COMPLIED WITH, THE MATTER MUST BE REFERRED TO THE ENGINEER FOR RULING.
23. A MOCKUP SHOULD BE MADE FOR THE ENGINEERS APPROVAL. THIS APPROVED MOCKUP WILL ACT AS THE FINISHED STANDARD FOR F2 FINISHES ON SITE.
24. SAW CUT JOINTS SHALL BE DONE WITHIN 24 HRS FROM CASTING OF CONCRETE.
25. CONCRETE SURFACES SHALL BE CURED USING AN APPROVED CURING METHOD, THE METHOD IS TO BE SUBMITTED TO THE ENGINEER.
26. THE FINISH OF THE TOP SURFACE OF ALL CONCRETE IS TO BE SMOOTH WOOD FLOATED IN ACCORDANCE WITH THE PROJECT SPECIFICATION UON. PAVING CONCRETE IS IN ADDITION TO BE LIGHTLY BROOMED IN DIRECTION OF THE FALL.
27. BACKFILL ABOVE FOUNDATION AND AROUND PLINTHS TO BE IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN IN THE GENERAL NOTES ON EARTHWORKS (ON THIS DRAWING).
28. ALL REINFORCEMENT MUST BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE CONCRETE IS CAST. THE ENGINEER SHALL BE GIVEN AT LEAST 24 HOURS ADVANCE NOTIFICATION OF AN INSPECTION. INSPECTION WILL ONLY BE DONE IF ALL STEEL IS PROPERLY FIXED, SPACER BLOCKS POSITIONED, SHUTTERING CLEANED OUT, CABLE POSITIONS PAINTED AND REINFORCEMENT CHECKED BY THE CONTRACTOR.
29. ALL MANUFACTURER'S PRODUCT ARE TO BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
30. NO POLYSTYRENE WILL BE USED INSIDE COLUMNS AND WALLS TO FORM POCKETS. THE METHOD OF FORMING THESE POCKETS SHALL BE FORWARDED TO THE ENGINEER IN ORDER TO FORM AN AGREEMENT ON THE METHOD TO BE USED.
31. ALL CORING THROUGH STRUCTURAL ELEMENTS NEEDS TO BE APPROVED AND POSITION OF CORE INSPECTED BEFORE CORING TAKES PLACE.

G: CONCRETE FINISHES

THE FINISH OF THE TOP SURFACE OF ALL CONCRETE IS TO BE SMOOTH WOOD FLOATED IN ACCORDANCE WITH THE PROJECT SPECIFICATION UON. PAVING CONCRETE IS IN ADDITION TO BE LIGHTLY BROOMED IN DIRECTION OF THE FALL.

WALL FACES	F2
FLOOR SLAB	U4
COLUMNS	F2
ROOF SLAB UNDERSIDE	F1
ROOF SLAB TOP	U3

CLASS	DESCRIPTION OF FINISHES
U3	FINISH TO HORIZONTAL OR SLIGHTLY INCLINED SURFACES OF CONCRETE STRUCK WITH AN ACCURATE STRAIGHT EDGE TO PROVIDE AN EVEN UNIFORM SURFACE AND FLOATED (WOOD FLOAT) TO REMOVE SCREED MARKS (TOLERANCE = 3mm UNLESS OTHERWISE SPECIFIED)
U4	AS IN U3 BUT USING EITHER STEEL FLOAT OR POWER FLOAT.
F1	AS FROM CLOSE JOINTED SAWN BOARDS. SHEET METAL OR OTHER APPROVED MATERIAL WHICH WILL PREVENT LOSS OF GROUT.
F2	AS FROM WROUGHT FORM WORK WITH ALL JOINTS BETWEEN FORM WORK PANELS HORIZONTAL OR VERTICAL OR PARALLEL TO SUPPORTING MEMBERS TO PRODUCE A HIGH QUALITY SMOOTH FINISH OF UNIFORM TEXTURE AND COLOUR. JOINTS SHALL BE TIGHT TO PREVENT LOSS OF GROUT. GROUTEX OR SIMILAR TO BE FITTED BETWEEN FORMWORK.

A MOCKUP SHOULD BE MADE FOR THE ENGINEERS APPROVAL. THIS APPROVED MOCKUP WILL ACT AS THE FINISHED STANDARD FOR F2 FINISHES ON SITE.

H: GENERAL NOTES ON CAST-IN ITEMS

1. PERMISSIBLE DEVIATION FOR CAST IN ITEMS TO BE +/- 3mm
2. UNLESS OTHERWISE NOTED, ALL CAST-IN ITEMS TO BE SUPPLIED BY THE CIVIL CONTRACTOR. TESTING OF WELDS TO BE IN ACCORDANCE WITH SECTION 5 OF SANS 2001-CSI AND WITH THE PROJECT SPECIFICATION.
3. CAST-IN ITEMS TO BE GALVANISED AS DETAILED PRIOR TO CASTING IN.
4. ALL GALVANISING TO BE IN ACCORDANCE WITH SABS ISO 1464:1999 (SANS 121:2000).

I: WATERTIGHT CONCRETE STRUCTURES

1. WATERTIGHT CONCRETE IS TO BE CONSTRUCTED IN ACCORDANCE WITH CLAUSE 4.7.16 OF SANS 2001-CC1 AS AMENDED IN THE PROJECT SPECIFICATION.
2. THE CONTRACTOR IS TO SUBMIT IN WRITING THE PROPOSED LOCATION, DETAILS AND METHOD OF CONSTRUCTION OF ALL CONSTRUCTION JOINTS FOR APPROVAL TO THE ENGINEER, PRIOR TO CONSTRUCTION.
3. WHERE TESTING OF A WATERTIGHT CONCRETE STRUCTURE IS REQUIRED, IT IS TO BE CARRIED OUT BEFORE BACKFILLING THE STRUCTURE, IN ACCORDANCE WITH CLAUSE 5.1.6 OF SANS 2001-CC1. THE STABILIZING PERIOD IS TO BE 7 DAYS. THE TOTAL PERMISSABLE DROP IN WATER LEVEL SHALL BE 1/500th OF THE AVERAGE WATER DEPTH OR 10mm, WHICHEVER IS THE LESSER

J: BRICK WALLS

1. LOAD BEARING BRICK WALLS, FOUNDATION BRICK WALLS, FREE-STANDING BRICK WALLS, AND BRICK RETAINING WALLS SHALL BE CONSTRUCTED OF NFXE14 SOLID MASONRY UNITS COMPLYING WITH THE REQUIREMENTS OF SANS 1227, LAID IN CLASS ii MORTAR.

K: GENERAL NOTES ON RESTRICTED EARTHWORKS

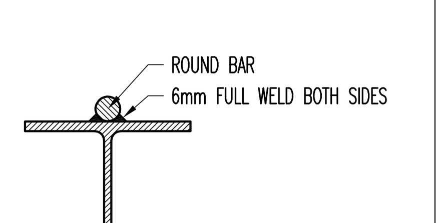
1. ALL FILL BELOW ,AROUND AND ABOVE FOUNDATION TO BE SELECTED FILL MATERIAL IN ACCORDANCE WITH THE PROJECT SPECIFICATION.
2. SELECTED FILL MATERIAL TO COMPLY WITH THE FOLLOWING:(FOR A G7 MATERIAL)
   a. LIQUID LIMIT LESS THAN 30%
   b. PLASTICITY INDEX LESS THAN 10%
   c. LINEAR SHRINKAGE LESS THAN 5%
   d. MAX.PARTICLE SIZE 100mm
   e. CBR NOT LESS THAN 15 AT 93% MOD AASHTO
   f. MIN. GRADING MODULUS 0.75
3. AT BOTTOM OF EXCAVATION, ALL LOOSE MATERIAL TO BE REMOVED AND BOTTOM TO BE COMPACTED TO 93% MOD AASHTO.
4. UNLESS OTHERWISE NOTED, FILL TO BE PLACED IN 150mm LAYERS WITH MOISTURE CONTENT WITHIN 1% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% MOD AASHTO.
5. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THE STABILITY OF ALL EXCAVATIONS.

L: TIMBER

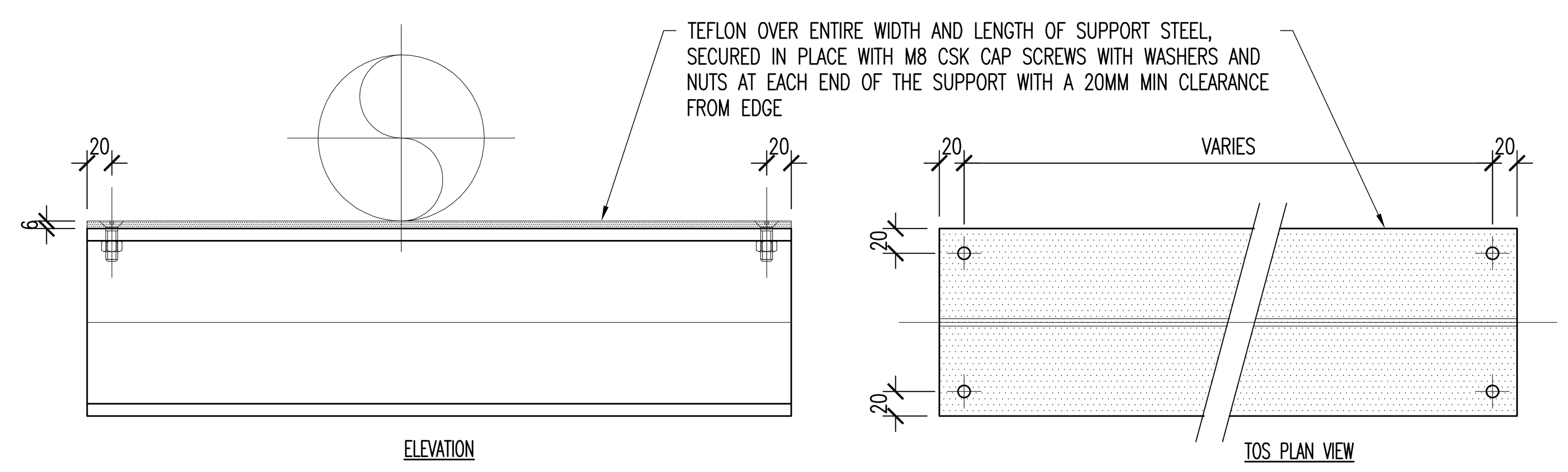
1. THIS IS TO BE READ TOGETHER WITH THE ARCHITECT'S DRAWINGS.
2. TIMBER ROOF TRUSSES ARE TO BE DESIGNED AND SUPPLIED BY AN APPROVED PREFABRICATED TRUSS MANUFACTURER.
3. TRUSSES ARE TO BE DESIGNED FOR THE DEAD LOADS APPLIED BY THE ROOF COVERING MATERIAL SELF WEIGHT OF TRUSSES, BATTENS, BRACING, CEILING AND IMPOSED LOAD ON THE ROOF OF 0.8 kPa AND WIND LOADING, ALL IN ACCORDANCE WITH SANS 10160 "THE GENERAL PROCEDURES AND LOADINGS TO BE ADOPTED FOR THE DESIGN OF BUILDINGS."
4. THE ARRANGEMENTS OF ROOF TRUSSES SHOWN ON THIS DRAWING IS FOR GUIDANCE ONLY. TRUSS DESIGN AND STRUCTURAL ARRANGEMENT OF THE ROOF MEMBERS MUST TAKE INTO ACCOUNT ALL THE REQUIRED ARCHITECTURAL DETAILS AND FINISHES.
5. NO TRUSS MEMBER SHALL BE LESS THAN SIZE 111x36.
6. PRIOR TO COMMENCEMENT OF FABRICATION OF TRUSSES THE MANUFACTURER IS TO PROVIDE DETAILS OF THE DESIGN STANDARDS USED, LOADING USED, DESIGN CALCULATIONS AND COMPUTER PRINTOUTS, TRUSS LAYOUT DRAWING, TRUSS DETAILS AND FIXING DETAILS, ALL FULLY DIMENSIONED. ONLY WHEN APPROVAL OF THE CALCULATIONS AND DETAILS HAVE BEEN GIVEN BY THE CONSULTING ENGINEER, MAY FABRICATION COMMENCE. THIS APPROVAL WILL NOT IN ANY RELIEVE THE TRUSS MANUFACTURER OF THE RESPONSIBILITY FOR THE STRUCTURAL ADEQUACY OF HIS DESIGN AND DETAILS.
7. A FULL SET OF ERECTION DRAWINGS AND INSTRUCTIONS IS TO BE SUPPLIED BY THE TRUSS MANUFACTURER TO THE MAIN CONTRACTOR, AND IS TO BE AVAILABLE ON SITE AT ALL TIMES DURING THE ERECTION PROCESS.
8. THE TRUSS MANUFACTURER IS TO PROVIDE A SUPERVISORY SERVICE TO THE MAIN CONTRACTOR DURING THE ERECTION OF THE ROOF TRUSSES.
9. THE MAIN CONTRACTOR IS TO NOTE THE ABOVE AND IS TO PLACE HIS ORDER WITH THE TRUSS MANUFACTURER IN SUFFICIENT TIME TO ALLOW FOR ALL THE ABOVE REQUIREMENTS TO BE TIMEOUSLY CARRIED OUT.

M: GENERAL POST TENSION NOTES

1. THE POSITION OF ALL CABLES SHALL BE MARKED ON THE FORMWORK BY MEANS OF PAINT PRIOR TO THE CASTING OF CONCRETE.
2. THE CABLE MARKINGS SHALL BE REPAINTED ON THE SOFFIT OF THE SLAB AFTER TABLES HAVE BEEN REMOVED. TO BE INSPECTED BY THE ENGINEER AFTER COMPLETED.
3. THE CONTRACTOR NEED TO PRESENT A PROPOSAL ON HOW THE CABLE POSITIONS WILL BE INDICATED ON THE SLAB SOFFIT (FOR EXAMPLE WITH METAL PINS/ANCHORS WHICH COULD BE DETECTED EASILY WITH METAL DETECTERS) FOR THE ENGINEER APPROVAL. THIS WILL ONLY OCCUR WHERE SLAB SOFFITS WILL BE SKIMMED. THE CONTRACTOR ALSO NEED TO PRODUCE AS-BUILD DRAWING, INDICATING THESE MARKERS RELATIVE TO THE CABLES.
4. NO CORING OR DRILLING SHALL BE ALLOWED CLOSER THAN 100mm FROM ANY PAINT MARKINGS. SHOULD THE AFOREMENTIONED HAPPEN AT ANY TIME OF THE CONSTRUCTION PERIOD, THE ENGINEER WILL HAVE TO RE-ANALYSE THE SLAB AND RECOMMEND ANY REMEDIAL WORK TO FOLLOW. THE REMEDIAL WORK AND ENGINEER'S INVOICE WILL BE FOR THE CONTRACTOR'S COST.
5. STRESSING OF ALL CABLES SHALL BE RECORDED AND FORWARDED TO THE ENGINEER FOR COMMENT.
6. STRESSING OF CABLES MAY PROCEED AS SOON AS CUBE TEST RESULT RECORD ABOVE 18MPa, CUBE TEST TO BE FORWARDED TO ENGINEER FOR COMMENT.
7. SUPPORT TABLES (PROPS) MAY ONLY BE REMOVED AFTER ALL THE CABLES FOR A PARTICULAR POUR ARE STRESSED.
8. CORROSION PROTECTION – CABLES SHALL BE PROTECTED BY A WATERTIGHT CABLE DUCTS AND MINERAL OIL BASE GREASE COATING.
9. LIVE ANCHORS SHALL BE SUFFICIENTLY RECESSED INTO THE SLAB EDGE AND WILL ALLOW FOR THE FOLLOWING: GREASE OVER CUT END AND COVERED WITH GREASE FILLED CAP. CAP TO BE COVERED WITH 30mm COVER MADE UP BY NON-SHRINK GROUT. CONTRACTOR TO PRESENT CORROSION PROTECTION OF CABLE ENDS TO ENGINEER FOR APPROVAL.
10. CABLE PROPERTIES: 15mm (OUTSIDE SHEATH DIAMETER = 18mm) LOW RELAXATION HIGH TENSILE STEEL TENDON WITH UTS OF 260.7 KN INCLUDING PLASTIC PRE-LUBRICATED SHEATH. MAXIMUM STRESS TO BE 80% THUS FORCE OF 208 KN. (THIS NOTE CAN BE REVISED BY SLAB DESIGNER TO SUIT)



TYPICAL DETAIL WHERE ROUND BAR IS REQUIRED



TYPICAL DETAIL WHERE TEFLON PADS ARE REQUIRED

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REFERENCE DRAWING

REV	DESCRIPTION	DR.	APP.	DATE
A	ISSUED FOR CLIENT APPROVAL	ASB	AWK	18/12/20

	INITIALS	SIGN	DATE
DESIGNED	AWK		
DRAWN	ASB		
PROJECT ENG.	AWK		
APPROVED	AWK		

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CLIENT LOGO

TRANSNET PIPELINES

CLIENT: TRANSNET PIPELINES

PROJECT: WALTLOO BUILDING UPGRAGE

TITLE: GENERAL NOTES

SCALE : N/A

DRAWING No. 19208-GN01 REV A

KT-dbn-A1.dwg (SCALE) A1 SHEET