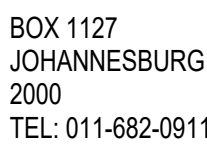


- 1 THE CIVIL DESIGN ENGINEER SHALL INSPECT AND APPROVE ALL EXCAVATIONS AND BACK-FILLING PRIOR TO CASTING OF THE CONCRETE BLINDING LAYER
- 2 BACKFILL TO LAYER SHALL COMMENCE ONLY AFTER THE CONCRETE ROOF HAS ATTAINED THE 28 DAYS COMPRESSIVE STRENGTH
- 3 BACKFILL TO LAYER WORKS TABLE SPECIFICATIONS
- 4 SERVICES MAY BE ENCOUNTERED DURING EXCAVATIONS
- 5 TOP SOIL TO BE GRADED TO ENSURE THAT THE GROUND FOLLOWS THE ORIGINAL N.G.L.
- 6 ONLY HAND OPERATED MECHANICAL COMPACTION EQUIPMENT TO BE USED WITHIN 3M OF EXISTING WALLS
- 7 PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL SUBMIT TO THE CIVIL DESIGN ENGINEER FOR APPROVAL, A DETAILED PROGRAM OF OPERATIONS FOR ALL EXCAVATION FUNCTIONS
- 8 EXCAVATIONS SHALL BE UNDERTAKEN IN A SAFE MANNER IN ORDER TO MAINTAIN THE REGULATIONS PROMULGATED UNDER THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) OR ANY AMENDMENT THEREOF
- 9 IT IS EXPECTED THAT PERMANENT EXCAVATIONS WILL BE UNSTABLE. THEREFORE SAFETY PRECAUTIONS TO BE OBSERVED BY THE CONTRACTOR SHALL INCLUDE PROTECTIVE STEPPING AND SHORING TIMBERING OR OTHERWISE SUPPORTING THE SIDES OF THE EXCAVATIONS OR ANY OTHER PROVISION AS STIPULATED IN REGULATION 10 OF THE OSHS ACT
- 10 THE SHORING METHOD ADOPTED SHALL BE COMPLETED WITH THE EXCAVATING, BACKFILLING AND CONSTRUCTION METHOD AND SHALL NOT RESTRICT THE INSTALLATION AND CONSTRUCTION
- 11 SHORES SHALL BE DESIGNED TO WITHSTAND THE EARTH PRESSURES EXERTED UPON THEM FROM THE SIDE OF THE EXCAVATION WHICH SHALL BE THE SUPERIMPOSED LOADING OF CONSTRUCTION AND PEELPANEYING EQUIPMENT
- 12 THE CIVIL DESIGN ENGINEER MAY REQUIRE THE CONTRACTOR TO TIMBER THE SIDES OF THE EXCAVATION WHICH MAY BE CONSIDERED TO BE IN ANY WAY DANGEROUS. SUCH TIMBERING SHALL BE LEFT IN PLACE UNTIL THE COMMON OF WORK IS COMPLETELY TOP CORNER AFFECTED
- 13 TIMBERING SHALL CONSIST OF OPEN PLANNING, WALINGS AND SUBSTANTIAL STRUTS AND SHALL BE CARRIED OUT IN A WORKMANLIKE MANNER AND TO THE SATISFACTION OF THE CIVIL DESIGN ENGINEER
- 14 THE CONTRACTOR SHALL ALLOW FOR THE REMOVAL OF TIMBERING IMMEDIATELY PRIOR TO BACKFILLING OR ON THE INSTRUCTIONS OF THE CIVIL DESIGN ENGINEER
- 15 MAINTAINING THE SIDES OF THE EXCAVATIONS IN A SAFE CONDITION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR NOT CUTTING OF THE SIDES WILL BE ALLOWED

1. CONCRETE STRENGTH REQUIRED AT 28 DAYS:
 - a) STRUCTURAL CONCRETE: WALLS AND BASE = 35 MPa;
ROOF SLAB = 40 MPa;
 - b) BLINDING AND SCREED: 15 MPa
 - c) MASS CONCRETE STREPS: 15 MPa
2. CURING OF CONCRETE SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH STAND S201-CC1
3. STOPPING TIMES OF SHUTTERING AND PROPPING SHALL BE IN ACCORDANCE WITH STAND S201-CC1
4. CURING METHOD STATEMENT TO BE APPROVED BY CIVIL DESIGN ENGINEER
5. ONLY CONCRETE COVER BLOOMS TO BE USED ON SITE
6. CONCRETE FINISHES TO FLOOR TO HAVE A SMOOTH WOOD FLOATED FINISH
7. ALL CAST IN ITEMS TO BE SUPPLIED BY CONTRACTOR UNLESS OTHERWISE NOTED
8. THIS STRUCTURE SHALL BE WATER TIGHT
9. NO THROUGH TIES TO BE USED
10. THIS STRUCTURE SHALL BE WATER TIGHT, RIGID POLYMER MODIFIED LIQUID APPLIED WATERPROOFING MEMBRANE TO BE APPLIED TO ALL EXTERNAL FACES OF CONCRETE TO BE APPROVED BY CIVIL DESIGN ENGINEER PRIOR TO APPLICATION

1. ALL STEEL SECTIONS TO BE GRADE S355JR STEEL AND SHALL COMPLY WITH SANS 5020.
2. ALL STRUCTURAL STEEL WORK SHALL BE INSPECTED, FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 2001-C1.
3. ALL WELDS SHALL CONFORM TO SANS 10162: PART 1 AND SANS 10041.
4. ELECTRODES FOR ALL WELDS SHALL BE APPROVED BY THE CIVIL DESIGN ENGINEER.
5. ALL WELD TO BE METAL ARC WELDING EXECUTED BY QUALIFIED WELDERS. SUPPORTING DOCUMENTATION TO BE SUBMITTED TO THE CIVIL DESIGN ENGINEER.
6. CAT LADDER AND GRAB RAIL TO BE SUPPLIED AND INSTALLED BY CONTRACTOR (REFER TO DRAW NO. A7456 AND A8988)
7. ALL LARGE DIAMETER STEEL PIPES TO BE SUPPLIED AND POSITIONED, RAN WATER AND CAST IN BY CONTRACTOR
8. VALVE SUPPORTS TO BE INSTALLED UNDER ALL VALVES
9. ALL DIMENSIONS AND LEVELS TO BE CHECKED ON SITE PRIOR TO FABRICATION OF STEEL.
10. ALL STEEL TOY BE HOT DIPPERED GALVANISED TO SANS 121-2011 (HEAVY DUTY) BY A SABS ACCREDITED GALVANISER
11. WHERE TEMPORARY BRACING OR PROPPING IS NECESSARY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, ERECTION, MAINTENANCE AND REMOVAL OF SUCH BRACING.

[illegible]

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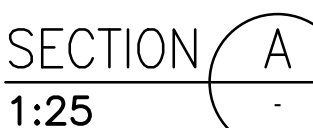
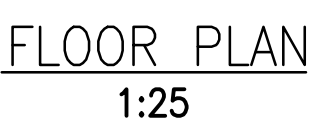
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DESIGNED BY	P.RASETELO	APPROVED	Pr Eng
DRAWN BY	P.RASETELO	REG. No.	20150256
DATE	JUN 2022	DATE	07/07/2022

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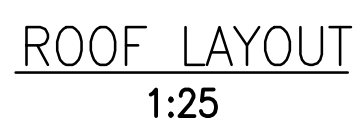
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- THE STRUCTURE WILL BE APPROVED BY THE CIVIL DESIGN ENGINEER WITHOUT THE SUBMISSION OF THE FOLLOWING TO THE CIVIL DESIGN ENGINEER
1. ONCE BACK-FILLING AND COMPACTION FOR FOUNDATIONS IS COMPLETED, THE CONTRACTOR SHALL PERFORM 2 IN-SITU COR TESTS TO ESTABLISH THE STRENGTH OF THE SOIL MATTERIES. RESULTS OF THE TESTS WILL BE SUBMITTED AND APPROVED BY THE CIVIL DESIGN ENGINEER PRIOR TO CASTING OF ANY CONCRETE.
 2. UNLESS OTHERWISE DIRECTED BY THE CIVIL DESIGN ENGINEER, ONE SAMPLE SHALL BE TAKEN FROM EACH OF DAYS CASTING CONCRETE. ONE SAMPLE OF CONCRETE SHALL BE SUBMITTED TO THE CIVIL DESIGN ENGINEER. CONTRACTOR SHALL PREPARE TEST CUBES, 150mm NOMINAL SIZE, FROM EACH SAMPLE, THREE OF EACH SIX TEST CUBES SHALL BE TESTED AT 7 DAYS AFTER CASTING. THE REMAINING THREE CUBES SHALL BE TESTED AT 28 DAYS AFTER MAKING. ALL TEST RESULTS TO BE SUBMITTED AT SPECIFIED TIME LINES TO THE CIVIL DESIGN ENGINEER FOR APPROVAL. IN ACCORDANCE WITH SANS 561.
 3. WORKSHOP DRAWINGS OF STRUCTURAL STEELWORK, INCLUDING THE DETAIL OF JOINTS, SHALL BE SUBMITTED TO THE CIVIL DESIGN ENGINEER FOR APPROVAL PRIOR TO FABRICATION. DRAWINGS SHALL BE CHECKED FOR DESIGN COMPLIANCE. NO DIMENSIONAL CHANGES WILL BE DONE AFTER WORKING DRAWINGS ARE SUBMITTED.
 4. ERECTION METHOD STATEMENT IS TO BE SUBMITTED TO THE CIVIL DESIGN ENGINEER PRIOR TO CONSTRUCTION.
 5. CERTIFICATE FROM THE STEEL MANUFACTURER VERIFYING STEEL GRADE TO BE SUBMITTED TO THE CIVIL DESIGN ENGINEER.



LAYER WORKS		
No.	LAYER DESCRIPTION	THICKNESS
②	G1 MATERIAL, COMPACTED IN LAYERS NOT EXCEEDING 100mm TO 95% MOD. AASHTO DENSITY AT -1% TO -2% OMC	150mm
③	50mm BLINDING	50mm
④	IN-SITU BACKFILL OF SELECTED SUITABLE G7 MATERIAL FROM EXCAVATION, COMPACTED IN LAYERS NOT EXCEEDING 150mm TO 93% MOD. AASHTO DENSITY AT -1% TO -2% OMC	150mm
⑤	150mm THICK TOP SOIL TO BE REINSTATE	150mm
⑥	RIP AND RECOMPACT 150mm IN-SITU MATERIAL TO 93% MOD. AASHTO DENSITY	150mm



FOR CONSTRUCTION