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**JOHANNESBURG WATER**  
Turbine Hall,  
16 Nemo Place Street,  
Newtown, Johannesburg

Engineer:  
T.Chikwata Pr Eng (2014/0009)

Drawn By:  
B.MANYAU

Designed By:  
T.Chikwata

Checked By:  
T.Chikwata

Signature:  
[Signature]

Date:  
SEPT 2023

**CONCRETE NOTES:**

1.1 SETTING OUT AND GENERAL  
1.2 THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS.  
1.3 ALL DIMENSIONS AND HEIGHTS ARE TO BE CHECKED ON SITE BEFORE WORK STARTS IN HAND.  
1.4 REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.  
1.5 CONSULT RELEVANT ARCHITECT'S, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND DETAILS AS RELEVANT FOR DRAINAGE, STORMWATER OUTLETS, RWOPS AND HOLES AND SLEEVES FOR THESE SERVICES. NO HOLES ARE TO BE CORED WITHOUT ENGINEERS WRITTEN APPROVAL.  
2.0 FOUNDATIONS  
2.1 ALL FOUNDATION EXCAVATIONS TO BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CONCRETE IS CAST.  
2.2 NO FOUNDATIONS ARE TO BE CAST IN FILL MATERIAL. A 50mm THICK LAYER OF 10MPa/15mm BLINDING CONCRETE IS TO BE CAST UNDER ALL REINFORCED BASES, REINFORCED STRIP FOOTINGS AND GROUND BEAMS.  
2.3 ANY OVER EXCAVATIONS ARE TO BE MADE GOOD WITH 10MPa/15mm CONCRETE AT THE CONTRACTOR'S EXPENSE.  
2.4 BACKFILLING OVER COLUMN BASES SHALL BE DONE WITH AN APPROVED MATERIAL COMPACTED IN LAYERS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.  
2.5 CONCRETE BASES =  
STRIP FOOTINGS = 150kPa  
CONCRETE = 100kPa  
3.0 CONCRETE CHARACTERISTIC 28 DAY STRENGTH:  
BASES: 30MPa / 15mm  
RAFT FOOTINGS: 30MPa / 15mm  
SURFACE BEDS: 30MPa / 15mm  
SUSPENDED SLABS & BEAMS: 30MPa / 15mm  
COLUMNS: 30MPa / 15mm  
3.2 CONCRETE MIX DESIGNS FOR ALL GRADES OF CONCRETE TO BE GIVEN TO ENGINEER FOR PERUSAL AND COMMENT. CONCRETE MIX DESIGNS FOR SURFACE BEDS TO HAVE MINIMUM BLEED CHARACTERISTICS.  
3.3 ALL CONCRETE TO BE ADEQUATELY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP FOR AT LEAST 5 DAYS AFTER CASTING.  
3.4 ALL CONCRETE TO BE CONSTRUCTED TO THE S.A.N.S 1200G  
4.0 PERMISSIBLE DEVIATION DEGREE OF ACCURACY CLASS II UNLESS SPECIFIED OTHERWISE.  
4.1 CONCRETE CUBE TEST RESULTS TO BE SUBMITTED TIMELY TO ENGINEER FOR PERUSAL, RECORDS, COMMENT AND APPROVAL.  
4.2 REINFORCEMENT  
CHARACTERISTIC STRENGTH: 250N/mm<sup>2</sup>  
MILD STEEL: 450N/mm<sup>2</sup>  
HIGH YIELD STEEL: 450N/mm<sup>2</sup>  
4.3 ALL REINFORCEMENT TO BE CHECKED AND APPROVED BY ENGINEER BEFORE ANY CONCRETE IS CAST. 48 HOURS WRITTEN NOTICE TO BE GIVEN TO ENGINEER BEFORE TIME OF INSPECTION.  
4.4 LAP LENGTH TO REINFORCING TO BE MINIMUM 50 x SMALLER BAR DIAMETER, UNLESS OTHERWISE NOTED.  
4.5 MESH REINFORCEMENT REFERENCE 245 TO BE PLACED IN SLAB (TOP) MINIMUM LAPS = 300mm UNLESS OTHERWISE NOTED.  
4.6 THE CONTRACTOR MUST TAKE PARTICULAR CARE TO ENSURE THAT THE SPECIFIED COVER TO ALL REINFORCEMENT HAS BEEN ATTAINED THROUGHOUT BEFORE THE ENGINEER IS CALLED TO SITE FOR INSPECTION OF THE REINFORCEMENT.  
4.7 COVER TO REINFORCEMENT:  
STRIP FOOTINGS: 50mm  
BASES: 50mm  
COLUMNS AND WALLS: 30mm  
SUSPENDED SLABS: 30mm  
SUSPENDED BEAMS: 30mm  
4.8 CONTRACTOR IS TO CONDUCT HIS OWN INSPECTION OF REINFORCEMENT BEFORE CALLING THE ENGINEER FOR INSPECTION.  
4.9 STRIPPING TIMES FOR:  
COLUMN AND WALL SHUTTERING: 1.5 DAYS  
BEAM SHUTTERING: 7 DAYS IN HOT WEATHER, 12 DAYS IN HOT WEATHER, 14 DAYS IN HOT WEATHER, 21 DAYS IN COLD WEATHER  
5.0 FORMWORK AND PROPPING  
5.1 PROPPING TIMES FOR:  
FLAT SLABS: 7 DAYS IN HOT WEATHER, 12 DAYS IN HOT WEATHER, 14 DAYS IN HOT WEATHER, 21 DAYS IN COLD WEATHER  
5.2 BEAMS AND BEAMS: 7 DAYS IN HOT WEATHER, 12 DAYS IN HOT WEATHER, 14 DAYS IN HOT WEATHER, 21 DAYS IN COLD WEATHER  
5.3 CANTILEVER SLABS AND BEAMS: 21 DAYS (SUBJECT TO CUBE TEST RESULTS BEING SUBMITTED TIMELY TO ENGINEER FOR APPROVAL)  
5.4 NO DE-PROPPING OR SUSPENDED ELEMENTS UNTIL INSTRUCTED BY ENGINEER.  
5.5 CONCRETE FINISHES: UNLESS NOTED OTHERWISE COLUMNS AND WALLS: OFF SHUTTER  
BEAMS AND SLAB SOFFIT: OFF SHUTTER  
TOP OF SUSPENDED SLABS: STEEL FLOAT  
SURFACE BEDS: POWER FLOAT  
SIDES OF GROUND BEAMS TO BE SHUTTERED.

Refer to Drawing No:  
PS-20-01: SUBSOL DRAINAGE LAYOUT PLAN

Key Plan:

Project:  
JW14406 - LINBRO PARK TOWER  
(WITH ASSOCIATED WORKS)

Description:  
PUMP HOUSE ROOF CONCRETE LAYOUT AND SECTIONS

Issued For:  
TENDER

Size: Scale: Sheet No: Original Date:  
A1 As Shown 6 OF 11 SEPT 2023

Project No: Drawing No: Revision:  
C01486 PS-03 T0

No

Date

Details

Revisions

Chd

Appd