



OUTLET PIPELINE LONGITUDINAL SECTION

<p>Engineer:</p> <div style="text-align: center;"> KEON CONSULTING ENGINEERS TECHNO DESIGNS <small>Civil Structures & Transport Engineers</small> </div> <p>TECHNO DESIGNS ENGINEERING 24 Dey Street, Glen Austin, Midrand TEL: (071) 045 2532 CELL: (072) 301 8811 EMAIL: engineer@technodesigns.co.za OFFICE: www.technodesigns.co.za WEBSITE: www.technodesigns.co.za</p>	<p>Client:</p> <div style="text-align: center;"> Johannesburg Water <small>JOHANNESBURG WATER</small> Turbine Hall, 40 Ntengi Plaza Street, Newtown, Johannesburg </div> <p>JOHANNESBURG WATER 28 Avenue Office Park, 645 5th Avenue Newton TEL: (011) 427 4330/189 WEBSITE: www.keon.co.za</p>	<p>THESE NOTES SERVE AS AN ADDENDUM TO THE SPECIFICATION IN THE BILL OF QUANTITIES (BOQ), IN THOSE CASES WHERE THE BOQ SPECIFICATIONS DIFFER FROM THESE NOTES. THESE NOTES SHALL TAKE PRECEDENCE ON ORIGINAL.</p> <div style="text-align: center;"> 0 5 10 20 30 40 50mm </div> <p>Engineer: T.Chikwata Pr Eng (2014/0009) <i>Chikwata</i></p> <p>Drawn By: T.Mulumba Designed By: T.Magumano Checked By: T.Chikwata</p> <p>Signature: <i>[Signature]</i> Signature: <i>[Signature]</i> Signature: <i>[Signature]</i></p> <p>Date: September 2023 Date: September 2023 Date: September 2023</p>	<p>CONCRETE NOTES :</p> <p>1.0 SETTINGS OUT AND GENERAL</p> <p>1.1 THE DRAWING SHOULD BE READ IN CONJUNCTION WITH ARCHITECT'S DRAWINGS</p> <p>1.2 ALL DIMENSIONS AND HEIGHTS ARE TO BE CHECKED ON SITE BEFORE WORK IS PUT IN HAND.</p> <p>1.3 REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER</p> <p>1.4 THIS DRAWING MUST NOT BE USED TO SCALE OFF. USE ONLY WRITTEN DIMENSIONS. CONTACT THE ENGINEER OR ARCHITECT WHERE CLARITY IS SOUGHT</p> <p>1.5 FOR SETTING OUT DATA, SETTING OUT POINTS AND DATUM LEVELS REFER TO SURVEY INFORMATION AND ARCHITECT'S DRAWINGS</p> <p>1.6 STRUCTURAL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND THE RELEVANT S.A.N.S SPECIFICATIONS. ALL CONCRETE WORK IS TO BE DONE IN ACCORDANCE WITH S.A.N.S 1200G AND 1200G AND EARTHWORKS IN ACCORDANCE WITH S.A.N.S 1200G</p> <p>1.8 CONSULT RELEVANT ARCHITECTS, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND DATAS AS RELEVANT FOR DRAINAGE, STORMWATER OUTFALL, RWPODS AND HOLES AND SLEEVES FOR THESE SERVICES. DIMENSIONS ARE TO BE CORED WITHOUT ENGINEERS WRITTEN APPROVAL</p> <p>2.0 FOUNDATIONS</p> <p>2.1 ALL FOUNDATION EXCAVATIONS TO BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CONCRETE IS CAST.</p> <p>2.2 NO FOUNDATIONS ARE TO BE CAST IN FILL MATERIAL. A 50mm THICK LAYER OF 100MPa / 19mm BUNDLING CONCRETE IS TO BE CAST UNDER ALL REINFORCED SLABS, REINFORCED STRIP FOOTINGS AND GROUND BEAMS.</p> <p>2.3 ANY OVER EXCAVATIONS ARE TO BE MADE GOOD WITH 100MPa / 19mm CONCRETE AT THE CONTRACTORS EXPENSE</p> <p>2.4 BACKFILL OVER COLUMN BASES SHALL BE DONE WITH AN APPROVED MATERIAL, COMPACTED IN LAYERS IN ACCORDANCE WITH THE PROJECT SPECIFICATION</p> <p>2.5 ALLOWABLE BEARING PRESSURE UNDER CONCRETE BASES = 100kPa STRIP FOOTINGS = 100kPa</p> <p>3.0 CONCRETE</p> <p>3.1 CHARACTERISTIC 28 DAY STRENGTH: BASES: 25MPa / 19mm STRIP FOOTINGS: 20MPa / 19mm SURFACE BEAMS: 20MPa / 19mm SUSPENDED SLABS & BEAMS: 30MPa / 19mm COLUMNS: 30MPa / 19mm</p> <p>3.2 CONCRETE MIX DESIGNS FOR ALL GRADES OF CONCRETE TO BE GIVEN TO ENGINEER FOR PERUSAL AND COMMENT. CONCRETE MIX DESIGNS FOR SURFACE BEAMS TO HAVE MINIMUM BLEED</p> <p>3.3 ALL CONCRETE TO BE ADEQUATELY CURED BY KEEPING SURFACES CONTINUOUSLY DAMP FOR AT LEAST 5 DAYS AFTER CASTING</p> <p>3.4 ALL CONCRETE TO BE CONSTRUCTED TO THE S.A.S 1200G PERMISSIBLE DEVIATION DEGREE OF ACCURACY CLASS II UNLESS SPECIFIED OTHERWISE</p> <p>3.5 INSPECTOR'S CUR TEST RESULTS ARE TO BE SUBMITTED TIMELY TO ENGINEER FOR PERUSAL, RECORDS, COMMENT AND APPROVAL</p> <p>4.0 REINFORCEMENT</p> <p>4.1 CHARACTERISTIC STRENGTH: MILD STEEL: 250N/mm² HIGH YIELD STEEL: 450N/mm²</p> <p>4.2 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</p> <p>4.3 LAP LENGTH TO REINFORCING TO BE MINIMUM 50 x SMALLER BAR DIAMETER, UNLESS OTHERWISE NOTED</p> <p>4.4 MESH REINFORCEMENT REFERENCE 245 TO BE PLACED IN SLAB SURFACE BEAMS</p> <p>4.5 THE CONTRACTOR MUST TAKE PARTICULAR CARE TO ENSURE THAT THE SPECIFIED COVER TO ALL REINFORCEMENT HAS BEEN MAINTAINED THROUGHOUT BEFORE THE ISSUES OF CALLED TO SITE FOR INSPECTION OF THE REINFORCEMENT</p> <p>4.6 COVER TO REINFORCEMENT: STRIP FOOTINGS: 50mm COLUMNS AND WALLS: 30mm SUSPENDED SLABS: 30mm</p> <p>4.7 SUSPENDED BEAMS: 30mm</p> <p>4.8 CONTRACTOR IS TO CONDUCT HIS OWN INSPECTION OF REINFORCEMENT BEFORE CALLING THE ENGINEER FOR INSPECTION</p> <p>5.0 FORMWORK AND PROPPING</p> <p>5.1 STRIPPING TIMES FOR: COLUMN AND WALL SHUTTERING: 15 DAYS BEAM SHUTTERING: 7 DAYS IN HOT WEATHER, 12 DAYS IN COLD WEATHER FLAT SLABS: 4 DAYS IN HOT WEATHER, 7 DAYS IN COLD WEATHER</p> <p>5.2 PROPPING TIMES FOR: SLABS AND BEAMS: 14 DAYS IN HOT WEATHER, 21 DAYS IN COLD WEATHER</p> <p>5.3 CANTILEVER SLABS AND BEAMS: 21 DAYS (SUBJECT TO CUR TEST RESULTS BEING SUBMITTED TIMELY TO ENGINEER FOR APPROVAL)</p> <p>5.4 NO DE-PROPPING OF SUSPENDED ELEMENTS UNTIL INSTRUCTED BY ENGINEER</p> <p>5.5 CONCRETE FINISHES: UNLESS NOTED OTHERWISE COLUMNS AND WALLS: OFF SHOOTER BEAMS AND SLAB ROFFIT: OFF SHOOTER TOP OF SUSPENDED SLABS: STEEL FLOAT SURFACE BEAMS: POWER FLOAT SIDES OF GROUND BEAMS TO BE SHUTTERED.</p>	<p>Refer To Drawing No:</p> <p>Key Plan:</p>	<p>Project: JW14406-LINBRO PARK TOWER (WITH ASSOCIATED WORKS)</p> <p>Description: PROFILE FOR OUTLET WATER PIPELINE</p> <p>Issued For: TENDER</p> <p>Size: A1 Scale: 1 OF 1 Sheet No: 1 Original Date: Sept 2023</p> <p>Project No: C01486 Drawing No: CP-10 Revision: T0</p>
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