



**NOTES**

- 1. GENERAL**
- THE CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
  - ALL INSTRUCTIONS FROM THE ENGINEER SHALL BE WRITTEN IN THE SITE INSTRUCTION BOOK. VERBAL INSTRUCTIONS MUST BE RECORDED AND SIGNED BY THE ENGINEER.
  - PRODUCTS DIFFERENT TO THOSE SPECIFIED MAY BE USED ONLY WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.
  - ALL PRODUCTS MUST BE APPLIED AND THEIR SUBSTRATES PREPARED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
  - THESE NOTES MUST BE READ IN CONJUNCTION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS, INCLUDING THE SABS 1200 STANDARDISED SPECIFICATIONS.
  - THE CONTRACTOR MUST IMPLEMENT A QUALITY CONTROL SYSTEM. QUALITY CONTROL MUST BE DONE BY THE CONTRACTOR BEFORE THE ENGINEER WILL DO ANY INSPECTIONS.
- 2. EARTHWORKS AND FOUNDATIONS**
- ALL EARTHWORKS SHALL BE DONE IN ACCORDANCE WITH SANS 2001-BE1:2008
  - LEVELS OF BASES AS SHOWN ARE PRELIMINARY AND SHALL BE CONFIRMED BY THE ENGINEER ON SITE BEFORE ANY FOUNDATION MAY BE CAST.
  - A 50 mm THICK BLINDING LAYER OF 15 MPa / 19 mm CONCRETE SHALL BE CAST UNDER ALL FOUNDATIONS OF THE CONCRETE AND STEEL STRUCTURES. BLINDING LAYERS ARE NOT REQUIRED FOR BRICKWORK FOUNDATIONS.
  - ALL COLUMNS AND WALLS SHALL BE PLACED SYMMETRICALLY ON FOUNDATIONS UNLESS SHOWN OTHERWISE ON THE DRAWINGS.
  - WHERE SOILCRETE IS SPECIFIED, A 1:10 MIXTURE OF CEMENT TO SELECTED MATERIAL FROM EXCAVATIONS MUST BE MIXED WITH WATER TO OBTAIN A MORTAR WITH A 50mm SLUMP. THE SOILCRETE MUST BE COMPACTED AFTER BEING PLACED.
- 3. CONCRETE**
- ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH SANS 2001-CC1:2012
  - THE CONCRETE CLASS IS AS FOLLOWS: MASS CONCRETE 15 MPa / 19mm  
 FOUNDATIONS: 30 MPa / 19mm  
 SURFACE BEDS: 30 MPa / 19mm  
 REPAIRWORK: Approved epoxy
  - ALL CASTING PROCEDURES, CONSTRUCTION METHODS AND POSITIONS OF CONSTRUCTION JOINTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE COMMENCEMENT OF WORK.
  - THE CONTRACTOR MUST CO-ORDINATE ALL SERVICES DRAWINGS FOR DETAILS AND POSITIONS OF OPENINGS AND SLEEVES REQUIRED FOR STORMWATER, SEWERAGE, DRAINAGE, ELECTRICAL, MECHANICAL AND OTHER SERVICES.

- 3. CONCRETE (CONTINUED)**
- THE CONTRACTOR MUST OBTAIN PERMISSION FROM THE ENGINEER BEFORE ANY OPENINGS OR SERVICES WHICH ARE NOT INDICATED ON THE STRUCTURAL DRAWINGS MAY BE INTRODUCED THROUGH ANY STRUCTURAL ELEMENT.
  - THE CONCRETE COVER TO REINFORCING IS AS FOLLOWS (EXCEPT WHERE OTHERWISE NOTED ON BENDING SCHEDULES):  
 FOUNDATIONS 50 mm  
 WALLS 25 mm
  - NO BRICK WALLS MAY BE BUILT ON FLOOR SLABS BEFORE THE SLABS HAVE REACHED THEIR 28 DAY STRENGTHS, UNLESS APPROVED IN WRITING BY THE ENGINEER.
  - THE STRENGTH OF CONCRETE COVER BLOCKS SHALL EXCEED THE STRENGTH OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE USED. THE SIZE AND FIXING METHOD OF COVER BLOCKS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE IT MAY BE USED.
  - KICKERS WILL NOT BE ALLOWED FOR COLUMNS OR WALLS.
  - PROPPING OF BEAMS SHALL REMAIN IN POSITION UNTIL THE MINIMUM SPECIFIED TIME HAS EXPIRED AFTER THE CASTING OF ANY UPSTAND ELEMENTS (WHERE APPLICABLE). REFER TO SABS 2001-CC1:2012.
  - IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY LAID CONCRETE.
  - ALL RC SLABS SHALL BE CAST WITH A CAMBER AS SPECIFIED ON THE DRAWINGS.
  - ALL EXPOSED EDGES TO HAVE A 20x20 CHAMFER.
  - ALL MIX DESIGNS, WHETHER PRESCRIBED OR NOT, TO BE PROVEN BY MEANS OF A TRIAL MIX OR RELIABLE PREVIOUS RESULTS AND TO BE AGREED BY THE ENGINEER IN WRITING BEFORE ANY CONCRETE IS CAST. AGGREGATES TO COMPLY WITH SANS 2001:CC1 CLAUSE 4.2.3. AGREEMENT OF THE MIX DESIGN BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR FROM MEETING ANY OF THE SPECIFIED PERFORMANCE CRITERIA.
  - CONCRETE TESTING TO COMPLY WITH SANS 2001-CC1 Cl 5.1. CUBE CRUSHING TESTS REQUIRED BY THE ENGINEER SHALL BE AS FOLLOWS:  
 a. A SET OF 3 CUBES TO BE CRUSHED AT 7 DAYS AFTER CASTING.  
 b. A SET OF 3 CUBES TO BE CRUSHED AT 28 DAYS AFTER CASTING.  
 c. ONE SET OF 6 CUBES SHALL BE TAKEN PER BATCH OF UP TO 50 m<sup>3</sup>. THEREAFTER AN ADDITIONAL SET OF 6 CUBES IS REQUIRED FOR EVERY 50 m<sup>3</sup> OR PORTION THEREOF.
  - STOOLS IN SLABS/FOUNDATIONS TO BE SPACED 600mm c/c IN BOTH DIRECTIONS UNLESS OTHERWISE SHOWN.
  - CURING SHALL BE TO CL 4.7.13 OF SANS 2001-CC1:  
 a. WET CURING TO BE APPLIED TO TOP OF ELEMENT (EXCLUDING COLUMNS) WITHIN 8 HOURS OF START OF CASTING. CONCRETE ELEMENTS TO BE CONTINUOUSLY WET-CURED FOR 3 DAYS AND KEPT COVERED WITH PLASTIC SHEETING FOR THE REMAINDER OF THE PERIOD SPECIFIED IN TABLE 8 OF SANS 2001-CC1. (7 DAYS MINIMUM IN TOTAL) CONCRETE CURING TO BE DONE IN EITHER OF THE FOLLOWING METHODS.  
 b. SLABS/SURFACE BEDS:  
 PONDING OF WATER, SPRINKLING OR SPRAYING WATER.  
 COVERING WITH SAND AND CONTINUOUSLY KEPT WET.  
 COVERING WITH WATERPROOF MEMBRANES OR WITH PLASTIC SHEETING AND HELD IN PLACE SO NOT TO DAMAGE CONCRETE.

- 3. CONCRETE (CONTINUED)**
- DEFECTIVE CONCRETE & REMEDIAL WORKS:  
 a. DEFECTIVE CONCRETE TO BE REPORTED WITHOUT DELAY AND IN WRITING TO THE ENGINEER.  
 b. NO REMEDIAL WORK MAY BE DONE WITHOUT WRITTEN CONSENT FROM THE ENGINEER.  
 c. VISIBLE HONEYCOMBING WILL NOT BE PERMITTED.  
 d. ALL CONCRETE FORMING PART OF THE POUR CONTAINING VISIBLE HONEYCOMBING WILL BE DEMOLISHED AND REBUILT AT THE CONTRACTOR'S EXPENSE.  
 e. NO PROTRUDING REINFORCEMENT WILL BE PERMITTED.  
 f. BLOW HOLES ARE TO BE FILLED USING DURAREP FC (BY ABE CONSTRUCTION CHEMICALS, OR SIMILAR APPROVED), IF DEEMED NECESSARY BY THE ENGINEER.
  - ALL CAST-IN ITEMS TO BE HOT-DIPPED GALVANIZED, CLEAN AND FREE OF OIL, DIRT OR ANY OTHER MATERIAL WHICH MAY IMPAIR THE BOND WITH CONCRETE. TOLERANCE FOR PLACING ACCORDING TO SANS 2001-CC1 CLAUSE 5.2. GALVANIZING TO BE IN ACCORDANCE WITH SANS 121 - 2000.
  - AREAS WITH CONGESTED CAST-IN ITEMS, SUCH AS ELECTRICAL CONDUITS, ARE TO BE APPROVED BY THE ENGINEER.
  - CHASING, CORING OR CUTTING OF STRUCTURAL ELEMENTS IS NOT ALLOWED, EXCEPT WITH THE WRITTEN PERMISSION OF THE ENGINEER. ANY ELEMENT CHASED INTO OR CORE DRILLED WITHOUT PERMISSION IS TO BE DEMOLISHED ALONG WITH ANY ELEMENTS IT SUPPORTS.
  - ALL GROUTS AND EPOXIES TO BE USED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.
  - CONSTRUCTION JOINT SPECIFICATION:  
 a. ALL HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS SHALL BE CLEANED OF ALL DIRT AND LOOSE PARTICLES. ALL INTERSECTIONS OF CONSTRUCTION JOINTS WITH CONCRETE SURFACES, WHICH WILL BE EXPOSED TO VIEW, SHALL BE MADE STRAIGHT AND LEVEL.  
 b. THE SURFACE OF THE CONCRETE TO BE PREPARED, SHALL BE BETWEEN 6 HOURS AND 12 HOURS OLD AFTER COMPLETION OF PLACING AND SHALL BE "BLOWN OFF" USING A HIGH PRESSURE WATER JET UNTIL ALL DIRT AND LAITANCE IS REMOVED AND PARTICLES OF CLEAN COARSE AGGREGATE ARE EXPOSED SUFFICIENTLY TO PRODUCE A ROUGH KEVED SURFACE.  
 c. THE PREPARED SURFACES SHALL BE SATURATED WITH FRESH CLEAN WATER FOR A PERIOD OF 4 HOURS PRIOR TO THE ADJOINING POUR.  
 d. PRIOR TO PLACEMENT OF CONCRETE THE SURFACE CONDITION SHALL BE SATURATED, YET SURFACE DRY - NO POOLING OR STANDING OF WATER.

- 4. REINFORCEMENT**
- ALL REINFORCEMENT SHALL COMPLY WITH THE REQUIREMENTS OF SANS 2001-CCI:2012.
  - THE CONTRACTOR SHALL GIVE AT LEAST 24 HOURS NOTICE TO THE ENGINEER WHEN INSPECTIONS WILL BE REQUIRED.
  - NO HEATING, FLAME CUTTING OR WELDING OF REINFORCEMENT SHALL BE ALLOWED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
  - THE CONTRACTOR SHALL SUPPLY A PROGRAMME TO THE ENGINEER INDICATING DATES, IN ACCORDANCE WITH THE CONSTRUCTION PROGRAMME, WHEN BENDING SCHEDULES FOR EACH COMPONENT WILL BE REQUIRED.
  - BEND-OUT BARS AT CONSTRUCTION JOINTS SHALL BE BENT OUT WITH A SUITABLE PIPE SO THAT NO KINK IS FORMED IN THE BARS.
  - INSTALLATION OF DOWELS SHALL COMPLY WITH THE FOLLOWING:  
 a. DEPTH OF HOLE: 15 x DIAMETER OF DOWEL  
 b. DIAMETER OF HOLE: 1.3 - 1.4 x DIAMETER OF DOWEL  
 c. EPOXY VERTICAL UPSIDE DOWN: PRO-STRUCT 617 OR SIKADUR 31 (OR SIMILAR APPROVED)  
 d. EPOXY VERTICAL INSTALLATION: PRO-STRUCT 618 OR SIKADUR 32 (OR SIMILAR APPROVED)  
 e. EPOXY HORIZONTAL INSTALLATION: PRO-STRUCT 617 OR SIKADUR 31 (OR SIMILAR APPROVED)  
 f. ADHESIVE TO BE APPLIED STRICTLY TO MANUFACTURER'S SPECIFICATION
  - THE CONTRACTOR SHALL INSPECT AND APPROVE THE FIXED REINFORCEMENT BEFORE THE PRESENCE OF THE ENGINEER IS REQUIRED FOR INSPECTION. THE ENGINEER IS TO BE NOTIFIED, IN WRITING, AT LEAST 48 HOURS IN ADVANCE FOR THE REQUIRED INSPECTION.
  - CONCRETING MAY NOT COMMENCE PRIOR TO THE INSPECTION AND APPROVAL IN WRITING BY THE ENGINEER OF ALL THE REINFORCEMENT OF A PLANNED POUR.
  - SHOULD STARTER BARS MOVE DURING THE PRECEDING CAST, THEY MAY NOT BE BENT BACK INTO POSITION. THE ENGINEER IS TO BE INFORMED IN WRITING - THE CORRESPONDENCE IS TO INCLUDE SUFFICIENT DIGITAL PHOTOGRAPHS TO SHOW THE PROBLEM.
  - REINFORCING STEEL SHALL BE CLEAN FROM OIL, RUST, DIRT AND OTHER CONTAMINANTS.
  - NO PLASTIC COVER BLOCKS WILL BE PERMITTED.
  - SPLICE LENGTHS SHALL NOT BE LESS THAN BE 50x DIAMETER OF SMALLER BAR LAPPED.
  - REINFORCEMENT STRENGTH:  
 a) Y - BARS TO HAVE A MIN STRENGTH OF 450 MPa  
 b) R - BARS TO HAVE A MIN STRENGTH OF 250 MPa
  - CONCRETE COVER BLOCKS OR SPACERS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 10100 PART (8.4.1.2)

- 6. LOAD BEARING BRICKWORK**
- MASONRY UNITS SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:  
 SABS 227: BURNT CLAY MASONRY UNITS  
 SABS 285: CALCIUM SILICATE MASONRY UNITS  
 SABS 1215: CONCRETE MASONRY BLOCKS
  - BRICKWORK SHALL BE BUILT ACCORDING TO SABS 0164.
  - THE MINIMUM CRUSHING STRENGTH OF ALL LOAD BEARING BRICKS SHALL BE 14 MPa.
  - THE MINIMUM CRUSHING STRENGTH OF MORTAR FOR LOAD BEARING BRICKWORK SHALL BE AS FOR CLASS 1 MORTAR IN ACCORDANCE WITH SABS 0164 PART 1-1980.
  - BRICKWORK SHALL BE REINFORCED WITH BRICKFORCE EVERY FOURTH COURSE, PLUS REINFORCING SPECIFIED ON THE DRAWINGS
  - ALL WALL TIES, STRAPS AND BRICKWORK ANCHORS SHALL BE HOT DIPPED
  - ONLY LOAD BEARING BRICKWORK IS SHOWN ON THE DRAWINGS. REFER TO THE ARCHITECT'S DRAWINGS FOR LAYOUT AND DIMENSIONS OF OTHER BRICKWORK. STRAIGHT EDGE.
  - V-JOINTS ARE TO BE MADE THROUGH PLASTER WORK WHERE BRICKWORK JOINS ONTO CONCRETE OR STEELWORK. REFER TO DETAIL ABOVE
  - NON-LOAD BEARING BRICKWORK MAY NOT BE BUILT NEARER THAN 10 mm FROM THE SOFFIT OF BEAMS AND SLABS. WHERE BRICKWORK BELOW SLABS IS PLASTERED, THE PLASTER SHALL BE NEATLY CUT LOOSE FROM THE CONCRETE ELEMENT ABOVE TO THE ARCHITECT'S SATISFACTION IN ORDER TO FORM A GAP OF 5 mm.
- 7. SURFACE BEDS**
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROVISION OF SUITABLE MATERIALS AND MANUFACTURE OF CONCRETE TO THE REQUIRED QUALITY.
  - THE DEGREE OF ACCURACY SHALL BE AS FOLLOWS:  
 \* THE MAXIMUM DEVIATION OF THE SURFACE FROM ANY STRAIGHT LINE BETWEEN TWO POINTS 3m APART SHALL BE 3mm  
 \* THE DIFFERENCE IN LEVEL AT ANY JOINT OR OTHER DISCONTINUITY IN THE FLOOR SHALL BE LESS THAN 1mm  
 \* THE DEVIATION OF THE TOP OR BOTTOM SURFACE OF THE FLOOR FROM THE DESIGNED LEVEL AS DETERMINED FROM THE NEAREST TRANSFERRED DATUM LEVEL SHALL NOT EXCEED -15 +5 mm  
 \* DEVIATION IN THE THICKNESS OF THE FLOOR SHALL NOT EXCEED -5 +15 mm
  - CONCRETE SHALL BE CURED BY MEANS OF A LIQUID MEMBRANE FORMING COMPOUND TO AASHTO M148 THAT DOES NOT FLAKE AND THAT IS SUITABLE FOR THE APPLICATION OF EPOXY SURFACING, PVC TILES, SCREED, ETC.
  - CONCRETE SHALL BE PLACED IN POSITION IN SUCH A WAY THAT SEGREGATION DOES NOT OCCUR AND COMPACTED IMMEDIATELY AFTER PLACING. IT SHALL BE THOROUGHLY WORKED AROUND REINFORCING, PIPES, SHUTTERS, EMBEDDED FIXTURES, ETC. WITHOUT DISPLACING THEM.
  - POWERFLOATING SHALL BE DONE AFTER BLEEDING OF THE CONCRETE HAS CEASED. AFTER BLEED WATER HAS EVAPORATED OR HAS BEEN REMOVED, AND THE CONCRETE HAS STIFFENED SUFFICIENTLY. CEMENT POWDER SHALL NOT BE APPLIED TO THE SURFACE UNDER ANY CIRCUMSTANCE.
  - JOINT EDGES SHALL BE ROUNDED TO A RADIUS OF 3mm TO FORM A SMOOTH.
  - SAWCUT JOINTS SHALL COMMENCE AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT SAWING WITHOUT SPALLING OR EXCESSIVE RAVELLING, AND BEFORE SHRINKAGE CRACKING OCCURS. THE CUTS AND SURFACE SHALL BE CLEANED BY MEANS OF A HIGH VELOCITY WATER JET.
  - IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE FORMATION OF PLASTIC SHRINKAGE CRACKS IN NEWLY LAID CONCRETE.
  - TESTING OF THE MATERIALS SHALL BE DONE IN ACCORDANCE WITH SABS 1200G.

**CLIENT'S DETAILS**

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**REVISIONS**

NR	DATE	APPROVED	DESCRIPTION	PAR
0	25/01/2023	JKM	ORIGINAL	

**NOTES:**

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH SABS 1200 STANDARDIZED SPECIFICATIONS AND THE PROJECT SPECIFICATIONS.
- PRIOR TO THE START OF CONSTRUCTION, ALL SERVICES WHICH ARE TO BE CROSSED MUST BE EXPOSED BY HAND TO CONFIRM THEIR POSITIONS AND LEVELS. ANY DISCREPANCY IS TO BE IMMEDIATELY REPORTED TO THE ENGINEER.
- A FULL SET OF MATERIAL TESTS (COMPACTION, CBR & UCS) REFLECTING COMPLIANCE WITH THE SPECIFICATIONS IS TO BE SUBMITTED TO THE ENGINEER FOR ONWARD TRANSMISSION TO THE EMPLOYER.
- INTERSECTION SERVICES TO BE EXPOSED, POSITIONS RECORDED AND ANY CLASHES IN POSITION WITH THE WORKS TO BE REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

**CONSULTANT'S DETAIL**

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**CONTRACT No.**  
 JDA.10.198.A.2022

**PROJECT No.**  
 -

**SHEET No.**

**PAPER SIZE**  
 A1

**SCALE**

**DATE:**  
 31/01/2023

**LOCATION OF PROJECT**  
 WYNBERG, CITY OF JOHANNESBURG, REGION E OF METRO.

**DESCRIPTION OF PROJECT:**  
 WATT STREET PRECINCT (WYNBERG) PUBLIC ENVIRONMENT UPGRADES

**DRAWING DESCRIPTION.**  
 GENERAL NOTES & DETAILS

**DRAWING No.**  
 JDA-WATT-PEU/STG004/001S

**PROJECT STATUS**

INCEPTION DESIGN DEVELOPMENT TENDER DRAWING APPROVED CONSTRUCTION DRAWING AS BUILT DRAWING

**PROJECT ENGINEER OF JOHANNESBURG DEVELOPMENT AGENCY (JDA):**  
 NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 Prof Reg No. \_\_\_\_\_ DATE: \_\_\_\_\_

**INSPECTOR OF WORKS OF JOHANNESBURG DEVELOPMENT AGENCY:**  
 NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_  
 DATE: \_\_\_\_\_