

GENERAL CONSTRUCTION NOTES:

CONCRETE:

CONCRETE STRENGTH OF ALL CONCRETE ELEMENTS SHALL BE AS FOLLOWS:

BASES (REINFORCED & UNREINFORCED) = 25MPa
SURFACE BEDS = 25MPa
COLUMNS = 25MPa
BEAMS = 25MPa
SLABS = 25MPa
STAIRS = 25MPa

CONCRETE COVER TO MAIN STEEL REINFORCING ARE AS FOLLOWS:

- 1 SURFACE BEDS - AS PER DETAILS
- 2 COLUMNS - 30mm
- 3 BASES - 50mm
- 4 BEAMS - 30mm
- 5 SLABS - 25mm
- 6 STAIRS - 25mm

CURING OF CONCRETE SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH SABS 1200G.

ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF SABS 1200G.

STRIPPING TIMES OF SHUTTERING AND PROPPING SHALL BE IN ACCORDANCE WITH SABS 1200G.

ALL CASTING PROCEDURES, CONSTRUCTION METHODS AND POSITIONS OF CONSTRUCTION JOINTS SHALL BE SUBMITTED TO THE ENGINEER IN WRITING FOR HIS APPROVAL

NO BRICK WALLS SHALL BE BUILT ON FLOOR SLABS UNLESS THE SLABS HAVE BEEN DESIGNED FOR THE LOAD AND HAVE REACHED THEIR 28 DAY STRENGTH.

THE STRENGTH OF CONCRETE COVER BLOCKS SHALL AT LEAST BE EQUAL TO THE CONCRETE STRENGTH OF THE STRUCTURAL ELEMENT IN WHICH THEY ARE USED. THE SIZE AND FIXING METHOD OF COVER BLOCKS MUST BE APPROVED BY THE ENGINEER.

SHUTTERING SHALL BE FREE FROM SHAVINGS, DUST, DIRT, PIECES OF WIRE ETC. BEFORE CASTING OF CONCRETE.

THE CONTRACTOR MUST TAKE THE NECESSARY MEASURES TO PREVENT CARDBOARD SHUTTERING FROM FLOATING OR MOVEMENT DURING CASTING OF CONCRETE .

PROPPING FOR BEAMS AND ELEVATED SLABS SHALL REMAIN IN POSITION UNTIL THE MIN. SPECIFIED TIME HAS EXPIRED AFTER THE CASTING OF ANY UPSTAND ELEMENTS.

A 25x25mm CHAMFER SHALL BE PROVIDED ON ALL CORNERS OF OFF-SHUTTER CONCRETE IN COLLABORATION WITH THE ARCHITECT.

STRUCTURAL DRAWINGS MUST BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

BACKFILLING OF CONCRETE RETAINING WALLS TO TAKE PLACE ONLY AFTER SLABS HAVE BEEN PLACED.

ALL COLUMNS ARE SYMMETRICAL ABOUT GRIDLINES UNLESS OTHERWISE INDICATED.

REINFORCEMENT:

ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED IN WRITING BY THE ENGINEER BEFORE CASTING OF CONCRETE MAY COMMENCE.

THE CONTRACTOR SHALL GIVE AT LEAST 24 HOURS NOTICE TO THE ENGINEER FOR STEEL INSPECTIONS THAT ARE REQUIRED.

BENDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH SABS 82.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN REINFORCEMENT IN ITS CORRECT POSITION DURING CASTING OF CONCRETE.

ALL REINFORCING ON SITE SHALL BE STORED AND ON TIMBER POLES OR PLANKS (NOT ON THE GROUND) TO PROTECT REINFORCING FROM MUD AND DIRT. REINFORCING MUST BE STORED IN SUCH A MANNER THAT NO PERSONS OR VEHICLES SHALL DAMAGE IT.

CONTRACTOR SHALL INSPECT THE REINFORCING HIM/HERSELF AND CHECK THAT ALL STEEL IS IN PLACE AND CORRECT BEFORE CONTACTING THE ENGINEER FOR INSPECTIONS.

MINIMUM LAP LENGTHS FOR REINFORCING SHALL BE AS FOLLOWS:

1. Y10 BARS = 400mm
2. Y12 BARS = 500mm
3. Y16 BARS = 650mm
4. Y20 BARS = 800mm

REINFORCEMENT SHALL BE FIXED TO COMPLY WITH THE TOLERANCES AS SPECIFIED IN SABS 1200G.

NO HEAT TREATMENT OR CUTTING OF STEEL WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER SHALL BE ALLOWED.

BEND-OUT BARS SHALL BE BENT OUT WITH A SUITABLE PIPE TO THE CORRECT POSITION. NO KINK IN BEND-OUT BARS WILL BE ALLOWED.

BRICKWORK

THE MINIMUM CRUSHING STRENGTH OF ALL LOAD BEARING BRICKWORK SHALL BE 14MPa.

THE MINIMUM CRUSHING STRENGTH OF MORTAR SHALL BE AS FOR CLASS II MORTAR IN ACCORDANCE WITH TABLE 1 SABS 0164 PART 1 - 1980

LOAD BEARING BRICKWORK SHALL BE REINFORCED WITH AN APPROVED BRICK FORCE EVERY THIRD LAYER.

NON-LOAD BEARING BRICKWORK MAY NOT BE BUILT CLOSER THAN 20mm FROM THE SOFFIT OF BEAMS AND SLABS UNLESS OTHERWISE SHOWN

WHERE BRICKWORK ABUTS AGAINST CONCRETE, THE BRICKWORK IS TO BE TIED TO THE CONCRETE WITH GALVANISED HOOP-IRON TIES 1.6mm THICK X 32mm WIDE X 600mm LONG TO EVERY THIRD COURSE OF BRICKWORK. THE HOOP-IRON MUST BE GUN NAILED AGAINST CONCRETE WITH STEEL NAILS NOT LESS THAN 38mm LONG

SEE ARCHITECTS DRAWINGS FOR A GENERAL LAYOUT OF BRICKWORK.

V-JOINTS ARE TO BE MADE IN PLASTER WORK WHERE BRICKWORK AND CONCRETE JOIN.

ANY BRICKWORK ABOVE A CONCRETE SLAB SHALL ONLY BE CONSTRUCTED WHEN THE BRICKWORK UNDER THE SLAB HAS BEEN COMPLETED. THIS SPECIFICALLY REFERS TO ANY PERIMETER BRICKWALLS. IF THIS IS NOT COMPLIED TO, THE CONCRETE SLAB SHALL BE PROPPED UNTIL THE SUPPORTING BRICKWORK HAS BEEN COMPLETED.

STRUCTURAL STEELWORK

ALL STRUCTURAL STEELWORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH SABS 1200H.

WELDS SHALL CONFORM TO SABS 0167-1984 AND 044 SPECS.

ALL DIMENSIONS SHALL BE CHECKED ON SITE BEFORE SHOP DRAWINGS COMMENCE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

A FULL SET OF SHOP DRAWINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE ANY MANUFACTURING MAY COMMENCE

ALL STRUCTURAL STEELWORK SHALL BE GRADE 300W.

ALL STRUCTURAL STEEL ON SITE SHALL BE STORED AND HANDLED SO THAT IT IS NOT SUBJECTED TO DAMAGE OR EXCESSIVE STRESS AND MUST BE KEPT CLEAN.

WHERE BRICKWORK ABUTS AGAINST STRUCTURAL STEEL, THE BRICKWORK IS TO BE TIED TO THE STRUCTURAL STEEL WITH GALVANISED HOOP-IRON TIES 1.6mm THICK x 32mm WIDE x 600mm LONG TO EVERY THIRD COURSE OF BRICKWORK.

CORROSION PROTECTION OF STRUCTURAL STEEL

ALL CORROSION PROTECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE SPECIFICATIONS OF SABS HC - 1988.

PRIOR TO ANY FORM OF PREPARATION, ALL HARMFULL DEPOSITS ON THE SURFACE OF THE STEELWORK, SUCH AS OIL, GREASE, CHEMICAL DEPOSITS, CLAY, BITUMEN OR MUD, SHALL BE REMOVED.

ALL STEELWORK SHALL BE BRUSHED WITH A ROTARY WIRE BRUSH TO SIS 05 59 00.

APPLY ONE COAT (40 MICRON ± 5 MICRON) SYNCROMATE PRIMER IN ACCORDANCE WITH SABS 679.

APPLY ONE COAT (40 MICRON MINIMUM) MULTI PURPOSE UNDERCOAT IN ACCORDANCE WITH SABS 681. USE TYPE II PAINT

APPLY TWO COATS OF ALKYD BASE ENAMEL (40 MICRON) TO THE ARCHITECTS COLOUR SPECIFICATION IN ACCORDANCE WITH SABS 630. USE TYPE I PAINT. THE FIRST COAT MUST BE ALLOWED TO DRY FOR AT LEAST 24 HOURS.

RETAINING WALLS OF PRECAST CONCRETE ELEMENTS

THE FINAL POSITION OF THE RETAINING WALL MUST BE DETERMINED ON SITE, WITH APPROVAL BY THE ENGINEER.

THE DETAILS OF THE PRECAST SYSTEM TO BE USED, MUST BE APPROVED BY THE ENGINEER (EG. LÖFFELSTEIN, ENVIROWALL, ETC.)

THE APPROVED SUPPLIER / MANUFACTURER OF THE RETAINING WALL MUST PROVIDE A GUARANTEE THAT THE RETAINING SYSTEM HAS THE NECESSARY PROPERTIES AND STRENGTH CAPABILITIES TO CONFORM WITH THE REQUIREMENTS ON SITE. A GEOTECHNICAL INVESTIGATION IS AVAILABLE FROM THE ENGINEER.

DETAILED DRAWINGS AND SPECIFICATIONS MUST BE PROVIDED TO THE ENGINEER PRIOR TO COMMENCEMENTS OF ANY WORK ON THE RETAINING WALL.

THE MINIMUM ALLOWABLE CONCRETE STRENGTH OF THE PRECAST UNITS IS 35 MPA ON 28 DAYS. PROOF OF THE COMPLIANCE WITH THE ALLOWABLE CONCRETE STRENGTH MUST BE HANDED TO THE ENGINEER AT DELIVERY OF THE PRECAST CONCRETE BLOCKS.

AN EXAMPLE OF THE PRECAST BLOCKS MUST BE HANDED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF THE WALL CONSTRUCTION. AFTER APPROVAL OF THIS EXAMPLE BLOCK, THIS BLOCK WILL SERVE AS THE STANDARD TO WHICH ALL UNITS MUST COMPLY. ANY BLOCKS NOT COMPLYING TO THIS EXAMPLE UNIT MUST BE REMOVED FROM SITE.

DRAINAGE MUST BE PROVIDED AS PER THE "TYPICAL SECTION" SHOWN ON DRAWING No. N/415/P2/B/12/001.

THE SUPPLIER / MANUFACTURER MUST SUBMIT A PROFESSIONAL ENGINEERS CERTIFICATE AT COMPLETION OF THE WALL. NO PAYMENT WILL BE MADE BEFORE THIS CERTIFICATE IS RECEIVED.

FOR TENDER PURPOSES

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Rev	Description	Date	By

AMENDMENTS

SERVICE

WATER

DESIGNED	J. LUCKHOFF
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CAD FILE NAME	N3110G9001RA.dwg
CHECKED	W.J. STRYDOM (jnr)
APPROVED	W.J. STRYDOM (jnr)



CLIENT



Nkangala District Municipality

PROJECT

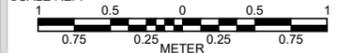
LOSKOP REGIONAL BULK WATER SUPPLY SCHEME: WORK PACKAGE 2

TITLE

GENERAL CONSTRUCTION NOTES

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