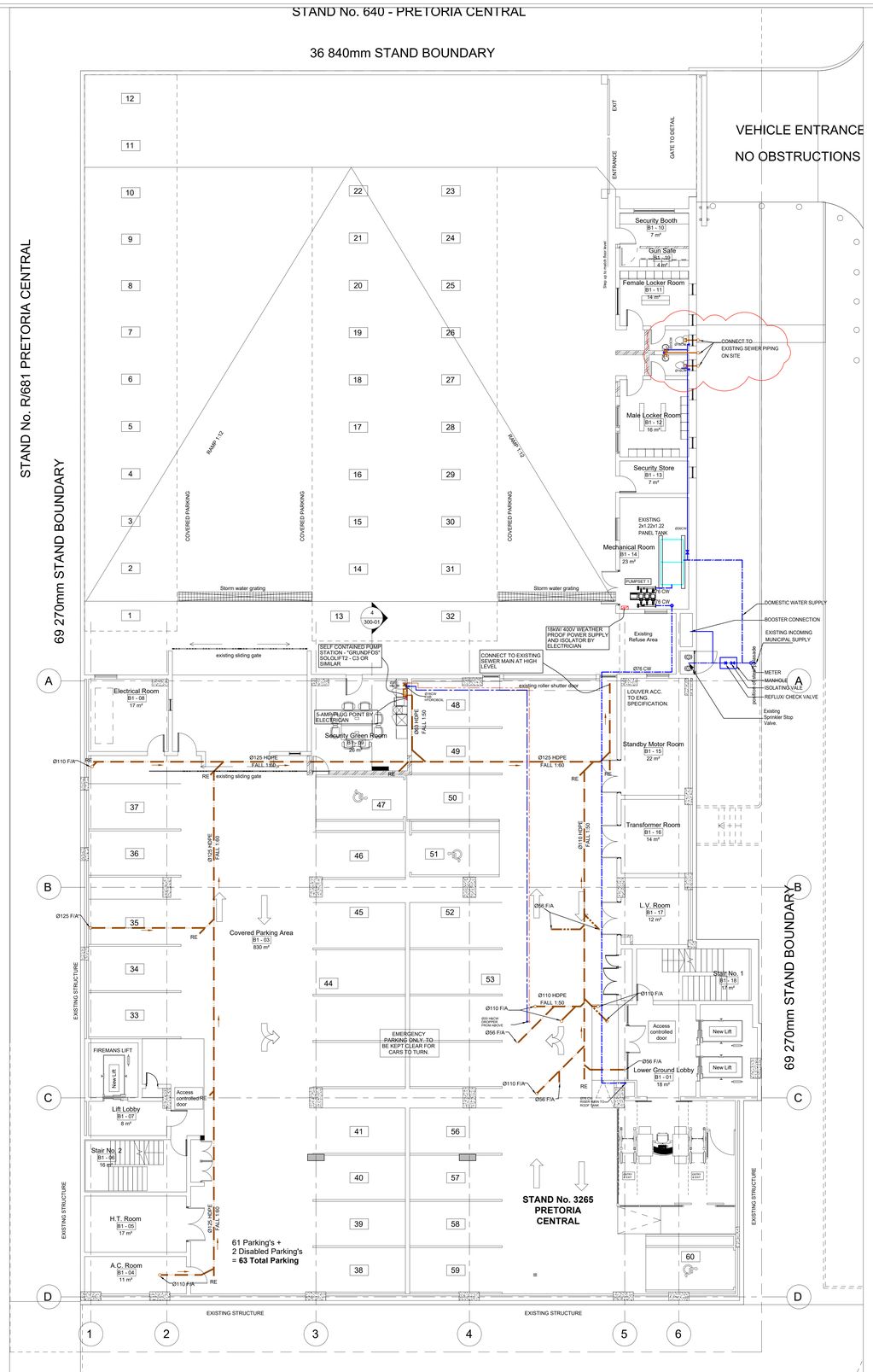


LOWER GROUND FLOOR
PLUMBING AND DRAINAGE LAYOUT
1 : 100

VISAGIE STREET

SCHEDULE OF EQUIPMENT

PUMPSET 1:

Grundfos Hydro Multi-S G 3
Grundfos CR 20-4
3x5.5kW / 400v
Grundfos 450L Vertical Pressure Tank PN10 / 1 1/4" BSP

DRAINAGE LEGEND

- UNDERGROUND DRAINAGE
- RODDED / BELOW SLAB
- ABOVE SLAB / GROUND
- VIL DRAINAGE (CEILING VOID/ SOFFIT)

PIPES & FITTINGS TO BE HDPE

LEGEND

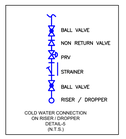
T/B – TO BELOW
T/A – TO ABOVE
F/B – FROM BELOW
F/A – FROM ABOVE
H/L – HIGH LEVEL

DRAINAGE NOTES

1. ALL WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS, NATIONAL BUILDING REGULATIONS AND THE S.A.B.S. STANDARDS.
2. THIS DRAWING MAY NOT BE SCALED, ONLY FIGURED DIMENSIONS AND LEVELS MAY BE USED.
3. ALL RELEVANT DETAILS, LEVELS, DIMENSIONS, ETC. MUST BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK.
4. ADEQUATE ACCESS TO BE PROVIDED FOR INSPECTION, TESTING AND MAINTENANCE.
5. LARGE RADIUS BENDS AT THE BASE OF STACK OR HORIZONTAL / VERTICAL CHANGE OF DIRECTION TO BE 1 x 45 deg. JUNCTION & 1 x 45 deg. BEND. 1 x 45 deg. JUNCTION & 1 x 45 deg. BEND.
6. DEEP SEAL TRAPS TO BE USED THROUGHOUT.
7. MINIMUM FALL FOR #110 DRAINS 1:60 FALL FOR #160 1:100 FALL.
8. VENT PIPE TO RISE THROUGHOUT THEIR LENGTH. ALL VENT PIPES TO DISCHARGE TO ATMOSPHERE.
9. RODDING EYE OR MANHOLES AT CHANGES OF DIRECTION.
10. ACCESS TO DRAIN EVERY 25m.
11. ALL WASTE PIPES LONGER THAN 6m TO INCREASE ONE NOMINAL PIPE SIZE TO A MAXIMUM OF 10m TO ONE PIPES AS PER N.B.R. 7.7 - 7.8.4
12. NO DRY VENT TO BE INSTALLED.
13. ALL SOIL/VENTED SOIL PIPES WITH A VERTICAL DROP OF MORE THAN 2m WILL BE VENTED.
14. ACCESS WILL BE PROVIDED AT ALL PLUMBING DUCTS.
15. ALL ACCESS TO UNDERGROUND DISCHARGE PIPES WILL BE PROVIDED IN INSPECTION CHAMBERS POSITIONED IN SERVICE OR OPEN PARKING AREAS, OR IN PLUMBING DUCTS WITH DROPPED FLOOR (CAVES) TO FULLY EXPOSE THE PIPES.
16. UNDERGROUND DISCHARGE PIPES TO BE SUPPORTED THROUGH THEIR LENGTH WITH NO EXCESSIVE LOAD TRANSMITTED UPON THEM.
THE DEFINITION AS SABS 0400 - 1990 IS THAT A DRAIN IS ANY PIPE WHICH CONVEYS DISCHARGE TO A SEWER. ALL PIPES IN THIS DEFINITION, DISCHARGE PIPES ARE ONLY INSTALLED INSIDE THE BUILDING, ACCESS FOR CLEANING, ETC. AND ARE NOT CONSIDERED TO BE THESE DISCHARGE PIPES ARE COVERED BY NOTES ABOVE.
17. DRAINAGE:
THE DRAINAGE DESIGN IS IN ACCORDANCE WITH SABS 0400 : 1990.
18. A DISCONNECTION UNIT PERSPAD AS PER REVISION P2.
19. ALL 90 deg. BENDS TO BE 1 x 45 deg. BEND OR 1 x 45 deg. JUNCTION & 1 x 45 deg. BEND.
20. ALL DRAINAGE PIPING TO BE ∩ – HDPE.
21. AT ALL EXPANSION JOINT, PIPING TO HAVE LONG EXPANSION COLLARS.
22. PIPE WHICH HAS LESS THAN 400 COVER TO BE ENCASED IN A CONCRETE SURROUND AS PER N.B.R.
23. A FLEXIBLE 'S' SHED (ONE SIZE LARGER THAN DRAINAGE SIZE) IS TO BE PROVIDED IN UNDERFLOOR DRAINAGE GOING THROUGH SLABS / UPSTANDS / DOWNSTANDS AND WALLS TO ALLOW FOR MOVEMENT.
24. BEDDING OF UG DRAINAGE TO BE CLASS C WITH COMPACTION DONE IN LAYERS OF 300mm.
25. CONDENSATE DRAIN PIPES TO BE INSULATED (THERMOFLEX).
26. WC OVERFLOWS TO BE ø32 & DISCHARGE EXTERNALLY / DUCT OVER GULLY / FULLBORE.
27. GEYSER OVERFLOWS TO BE MIN. ø32 METALLIC & DISCHARGE INTO THE NEAREST WC.
NOTE : DISCHARGE FROM T/P VALVE TO BE TO-GULLY BEFORE DISCHARGING OVER GULLY / FULLBORE OF ANY DRAINAGE.

WATER SUPPLY LEGEND

- HW - HOT WATER SUPPLY
- CW - DOMESTIC WATER SUPPLY
- GW - GROUND WATER (TO WC's & URINALS ONLY)
- HWR - HOT WATER RETURN



LEGEND

- BV ▷◁ BALL VALVE
- BV +● BALL VALVE WITH HANDLE
- BV ○ BALL VALVE WITH LOCK
- PRV PRESSURE REDUCING VALVE
- NRV NON RETURN VALVE
- RISER
- RISER / DROPPER
- T/B – TO BELOW
- T/A – TO ABOVE
- F/B – FROM BELOW
- F/A – FROM ABOVE

DOMESTIC WATER NOTES

1. ALL WORK TO BE CARRIED OUT IN STRICT ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS, NATIONAL BUILDING REGULATIONS AND THE S.A.B.S. STANDARDS.
2. THIS DRAWING MAY NOT BE SCALED, ONLY FIGURED DIMENSIONS AND LEVELS MAY BE USED.
3. ALL RELEVANT DETAILS, LEVELS, DIMENSIONS MUST BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK.
4. ALL PIPING TO BE ISOBERT MOPLA OR EQUAL AND APPROVED
5. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTURAL & OTHER DRAWINGS.

NOTES

1. ALL CONNECTIONS TO WHB's TO BE # 16mm ANGLE REGULATING VALVE BELOW WHB's.
2. ALL CONNECTIONS TO DOMESTIC KITCHEN SINKS TO BE #20mm.
3. ALL CONNECTIONS TO URINAL TO BE #16mm.
4. ALL CONNECTIONS TO WC's TO BE #16mm.
5. ALL CONNECTIONS TO SHOWERS TO BE #20mm REDUCED TO #16mm AT STOPCOCKS / MIXERS.
6. PIPES IN CONCRETE TO HAVE NO JOINTS
7. #20mm TO WASHING MACHINE WITH STOPCOCKS AT ..... mm.
8. ALL PIPING SHALL BE SUBJECTED TO A TEST PRESSURE OF AT LEAST 1500 kPa, BUT NOT LESS THAN 1½ TIMES THE MAXIMUM WORKING PRESSURE. ALL PIPES BEFORE INSULATION WHICH BEING CONCEALED IN WALL CHASES ETC., A QUICK TEST PRESSURE SHALL BE MAINTAINED FOR AT LEAST MINIMUM ONE HOUR.
9. ALL HOT WATER PIPES TO BE INSULATED WITH THERMAFLEX PIPE INSULATION OR EQUAL AND APPROVED. PIPED INSULATION (THERMAL) TO BE APPROVED BY ENGINEER.
10. PIPE SUPPORT SPACING TO BE AS INDICATED IN THE STANDARD SPECIFICATION.
11. AUTOMATIC AIR BLEED / RELIEF VALVES TO BE FITTED AT ALL HIGH POINTS BOTH HOT & COLD LINES.
12. PIPING TO RUN IN ROOF SPACE FIXED WITH HOLDER BATS ETC. AS DESCRIBED IN THE SPECIFICATION (NOTE THAT NO GALVANISED HOLDER BATS MAY BE USED TO SUPPORT COPPER PIPING)
13. ALL PIPES TO BE FULLY CLOSED AT THE END OF THE PIPE, ALL OPEN ENDS TO BE FITTED WITH A BLANK OFF CAP.
14. ALL PIPING AND VALVES TO BE COLOUR CODED AND LABELLED AS DESCRIBED IN THE SPECIFICATION.
15. ALL FITTINGS & BRANCH PIPES FROM RISERS TO HAVE INDIVIDUAL ISOLATING VALVES.
16. ALL PIPE SIZES TO CONFORM WITH ARCHITECTS SANITARY SCHEDULES.
17. STRAINER TO BE POSITIONED HORIZONTALLY.

GENERAL NOTES:

All boundaries, dimensions and levels are to be checked on site before construction and any discrepancies are to be reported to the Architect.

Partial Service: Any discrepancies with site or other information is to be advised to the Architect and direction or approval is to be sought before the implementation of the detail.

Do not scale this drawing.

For the purpose of coordination, all relevant parties must check this information prior to implementation and report any discrepancies to the Architect.

FOR TENDER

REVISIONS

NO.	DATE	DESCRIPTION	REV BY:

© COPYRIGHT. THIS DRAWING MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS IN PART OR IN WHOLE WITHOUT THE PERMISSION OF THE DESIGNER.

ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH SANS CODE 10400, N.B.R & LOCAL AUTHORITY BYLAWS.

USE FIGURED DIMENSIONS ONLY - DO NOT SCALE. ANY CONSTRUCTION FROM THESE DRAWINGS IS AT OWNER'S RISK.

ALL BOUNDARIES, DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE BEFORE CONSTRUCTION AND ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.

PARTIAL SERVICE: ANY DISCREPANCIES WITH SITE OR OTHER INFORMATION IS TO BE ADVISED TO THE ARCHITECT AND DIRECTION OR APPROVAL IS TO BE SOUGHT BEFORE IMPLEMENTATION OF THE DRAWING.

FOR THE PURPOSE OF COORDINATION, ALL RELEVANT PARTIES MUST CHECK THIS INFORMATION PRIOR TO IMPLEMENTATION AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.

Mechanical Engineer : Ganny Govender

Signature: Date:

LDM
Solutions For The Built Environment
PTA Office: 239 Lange Street, Nieuw Muckleneuk Street, Brooklyn, Pretoria 0181
• Tel: (+27 12) 346 8676

Client: Government Printing Works

Signature: Date:

PROJECT:
ERF 3265, Pretoria Central, Goverment Printing Works

ADDRESS:
379 Schubart St, Pretoria Central, Pretoria, 0002, RSA.

DRAWING TITLE:
LOWER GROUND FLOOR PLUMBING AND DRAINAGE LAYOUT

BUILDING CLASSIFICATION:	CLIMATIC ZONE:
G1	2
Paper Size: A0	SCALE: 1 : 100
Drawn: LM / Checked: GG	DATE: 11/12/2017
PROJECT No.: GP/17-006	REVISION: T0
DRAWING No.: P-4000	