

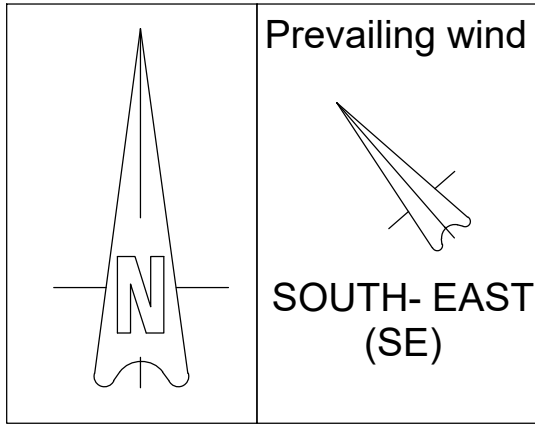


NEW BUILDING	
Name	Area m²
FD2	22.60
F8	39.74
SD3	36.30
SD4	31.07
MD6	49.51
MGRD2	31.90
FGRD5	35.82
TOTAL M²	246.94

ENROLLMENT			
	Male	Female	TOTAL
LEARNERS	329	273	602
EDUCATORS	9	8	17
SUPPORT STAFF	1	6	7

ABLUTION QUANTITIES					
		Req.	Existing	New	TOTAL
Female Learners	Toilets	10	0	10	10
	Basins	6	0	6	6
Male Learners	Toilets	6	0	6	6
	Urinals	10	0	10	10
Unisex Grade R	Basins	2	0	2	2
	Toilets	7	0	7	7
Unisex Disabled	Basins	3	0	3	3
	Toilets	6	0	6	6
Female Educators	Toilets	4	4	4	8
	Basins	2	0	2	2
Male Educators	Toilets	3	0	3	3
	Urinals	4	0	4	4
TOTAL (excl. Basins)	Basins	2	0	2	2
	TOTAL	35	4	35	39

COORDINATES OF NEW BUILDINGS		
Building	Y-Coord	X-Coord
SD3	a +69 201.20	+2 613 085.20
	b +69 189.45	+2 613 085.20
	c +69 189.45	+2 613 105.15
	d +69 201.20	+2 613 105.15
MD6	e +69 185.35	+2 613 045.20
	f +69 180.38	+2 613 045.20
	g +69 180.38	+2 613 060.75
	h +69 185.35	+2 613 060.75
F8	i +69 176.15	+2 613 059.25
	j +69 162.75	+2 613 059.25
	k +69 162.75	+2 613 085.95
	m +69 176.15	+2 613 085.95
SD4	n +69 175.05	+2 613 104.85
	p +69 162.10	+2 613 104.85
	q +69 162.10	+2 613 106.05
	r +69 175.05	+2 613 106.05
FD2	s +69 162.90	+2 613 107.95
	t +69 160.25	+2 613 107.95
	u +69 160.25	+2 613 109.25
	v +69 162.90	+2 613 109.25
MGRD2	w +69 406.85	+2 613 125.75
	x +69 390.95	+2 613 125.75
	y +69 390.95	+2 613 130.55
	z +69 406.85	+2 613 130.55
FGRD5	Aw +69 393.95	+2 613 134.65
	Ax +69 380.25	+2 613 134.65
	Ay +69 380.25	+2 613 137.35
	Az +69 393.95	+2 613 137.35



AREA SCHEDULE	
DESCRIPTION	AREA
Site area	1.7 ha
Existing classroom blocks	485.6m²
Existing ablution blocks	42m²
New ablution blocks	246.94m²
Future ablution blocks	0.00m²
Total building area	782.01m²

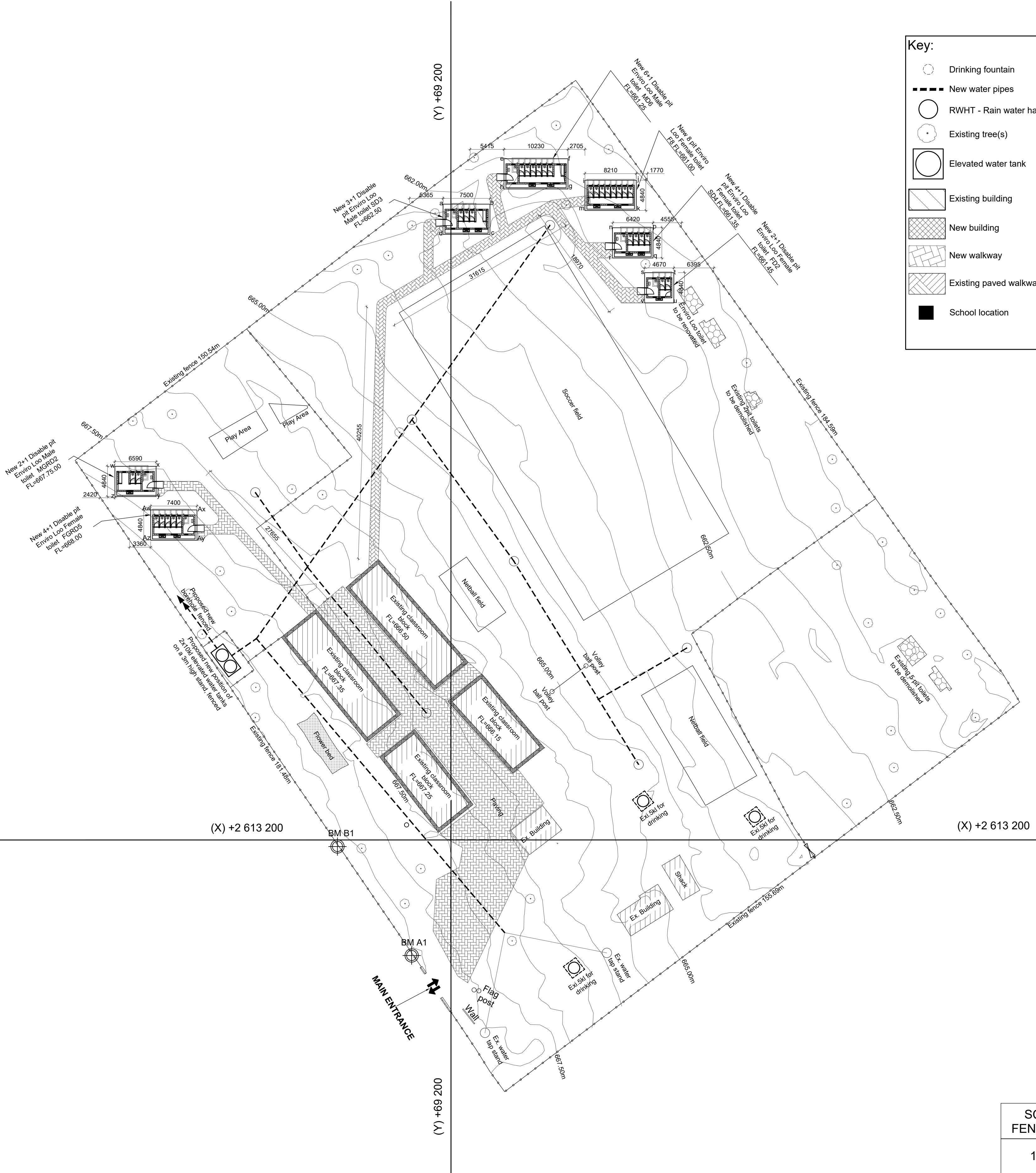
SCHEDULE INDICATING DEMOLITION AREAS	
1	Existing 5 pit toilet male learners.
2	Existing 8 vip pit toilet, female & male learners.
3	Existing 1 pit toilet male learners Gr.
4	Existing 1 pit toilet female learners Gr.

BENCHMARKS			
Name	Y-Coord	X-Coord	Z-Coord
BM A1	+69 209.29	+2 613 227.27	668.88
BM B1	+69 226.81	+2 613 201.55	668.88

FUTURE ABLUTION BLOCKS

MAXIMUM ENROLMENT FOR PRIMARY SCHOOL = 931, TOTAL ABLUTION SEATS REQUIRED = 37 AND CURRENT ENROLMENT FOR KHEKHUTINI PRIMARY SCHOOL = 602 TOTAL ABLUTION SEATS PROVIDED = 39 INCLUDING THE EXISTING SANITATION. THEREFORE NO FUTURE ABLUTIONS REQUIRED SCHOOL HAS ADEQUATE SANITATION.

Norms and standards for Primary School (ANNEXURE G)															
ENROLMENT RANGE	ENROLMENT RANGE PER GENDER	GIRLS TOILETS	GIRLS BASINS	BOYS TOILETS	BOYS URINALS	BOYS BASINS	UNISEX GRADE R TOILETS	GRADE R BASINS	UNISEX DISABLED TOILETS & BASINS	FEMALE STAFF TOILETS	FEMALE STAFF BASINS	MALE STAFF TOILET	MALE STAFF URINALS	MALE STAFF BASINS	TOTAL TOILETS
621 - 930	311 - 465	10	6	6	10	2	7	3	6	4	2	3	4	2	35



Key:

- Drinking fountain
- New water pipes
- RWHT - Rain water harvesting tank
- Existing tree(s)
- Elevated water tank
- Existing building
- New building
- New walkway
- Existing paved walkway or Apron slab
- School location

NOTES AND SPECIFICATIONS:

GENERAL

- Use dimensions provided and do not scale drawing.
- All work to comply with SANS 10400, 10401 and 10402.
- All dimensions, levels and positions to be verified on site prior to construction.
- All concrete work to be as per Engineer's details and specifications.
- All pits to face North.
- All brickwork have brickforce at every 2nd course in pit lining and 3rd course in superstructure.

PIT EXCAVATION

- All stages of pit excavation to be inspected and approved by Engineer and signed off.
- All pit lining to be inspected by EnviroLoos Services before slab casting.

COMPACTION OF SURFACES

All ground surfaces receiving concrete floors / slab should be compacted to 150mm layers 93% ModASHTO density before casting concrete.

CONCRETE WORKS

- All concrete to be as per Engineer's details and specifications.
- 25 MPa strength concrete to be used throughout construction.
- Concrete Mixes: Proportions
Concrete Strength at 28 Days 25Mpa:
1 bag cement : 5.05m³ Sand : 0.00m³ Stone (Volume/Bag)
1 : 2 : 2 (mix proportion by volume)
385 kg cement : 820 kg sand : 960 kg stone (Mass/m³)
- Pre-cast concrete lintels to be used as support under top slab of pit.
- All concrete aprons to be 1000mm wide.

MORTAR

Mixed proportions to be:
1 cement : 3 sand
1:1:1 bag cement : 3 wheelbarrows (37 litres) sand)

BRICKWORK

Sub-structure

- All pit lining / foundation brickwork to be solid NFP clay brick.
- All internal surface of pit lining to be painted with two coats black epoxy paint installing Enviro-Loo units.

Super-structure

- All external walls / partitions to be of clay face brick to SABS quality.
- All inside partition walls to be 3 courses above door height.
- All brickwork above door openings should have brickforce on every course at least 3 courses.
- Air bricks: Standard 230X152mm terra-cotta vermin proofed louvered air grating to be used above all window openings.

ROOF SHEETING

- 0.6mm kilolock chromadek roof sheeting.

ROOF TIMBER / CEILING

- All roof timbers to be machined SABS treated wood with three coats of approved wood preservative.
- Timber connections (Hurricane Clips) are required at intersections between timber rafters and purlins.
- Slatation is to be applied interval under all roof surfaces.

METALWORK

- All metalwork should be primed before installation.
- All steel window should have 6x20mm flat bar burglar proofing.

PLUMBING

- Double concrete wash trough to be used.
- All wash troughs should be connected to the school's water supply system and the waste water should be piped to a soakaway.
- The soakaway should be as per Engineer's detail and position to be determined on site.
- Only 20mm and approved pipework should be used as connection from wall to the discharge points.

GLAZING

- 6.38mm obscure safety glass
- Stainless steel mirrors size 350x450mm high.

PAINTING

- All paintwork to comply with SABS and PA671 specification.
- All steel window and door frames including doors and fascias / barge boards to be discharge points.

CONSULTANTS

CLEAR WATER CONSULTING ENGINEERS (PTY) LTD

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	SIGNATURE	DATE	SHEET SIZE
DESIGNED	MR FANKIE MASHABANE	14-01-2020	A1
DRAWN	MR FANKIE MASHABANE	14-01-2020	SCALE
VERIFIED	MR ANSELMO MUNGUAMBE	15-01-2020	1:300
VALIDATED	MR ANSELMO MUNGUAMBE	15-01-2020	STATUS LEGEND + INFORMATION - FINISH C = CONSTRUCTION OF THE PROJECT

IMPLEMENTED BY

THE MVULA TRUST

A leading developmental NGO

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SPONSOR

LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

PROJECT NUMBER				
TMT-LPDE-2019/20- LPCL14D				
PROJECT				
LPDE 2019/20 SCHOOL WATER AND SANITATION PROGRAMME KHEKHUTINI PRIMARY SCHOOL				
PROVINCE: LIMPOPO				
DRAWING TITLE				
SITE DEVELOPMENT PLAN FOR KHEKHUTINI PRIMARY SCHOOL				
EMIS NUMBER	DISCIPLINE	DRAWING No.	STATUS	REVISION
918910132	CIVIL ENGINEERING	SDP	I	0