1. SOAK AWAYS

1.1 CONSTRUCTION OF SOAK AWAYS:

1.1.1 Use perforated drainage pipes, with the outlets at the bottom, laid in trenches of a uniform depth of less than 1:200. Perforated flexible type pipe is not allowed.

1.1.2 The length of a single trench should not exceed 30m.

1.1.3 Trenches should be lined with a layer of geotextile membrane on the sides and bottom.

1.1.4 Drainage trenches should be filled with 50mm ND SOIL.

1.1.5 Drainage pipes should be laid on clean gravel or similar approved.

1.1.6 Drainage trenches should be filled to a level of 50mm above the pipe and covered with a layer of geotextile membrane.

1.1.7 The area of the soakaway is calculated after carrying out a minimum of three precipitation tests in the proposed drain field area, ensuring compliance with all applicable regulations.

1.1.8 Drainage trenches should be shown with arrows of undermined soil created by pipes. A 1.3m minimum parallel trenches.

1.1.9 A soakaway shall:

a) Be so constructed as to divert surface water from the soakaway area.

b) Be so constructed as to drain surface water away from any buildings, roads or other structures.

1.1.10 The susceptibility of a water source to pollution decreases sharply as its distance from a soakaway increases, except in areas with fissured rock, limestone or very coarse sand.
THE FOLLOWING PROCESS MUST BE FOLLOWED WHEN CONSTRUCTING THE FOUNDATIONS, AS PER THE GEOTECHNICAL REPORT (SEE GENERAL NOTES DRAWING FOR MORE INFORMATION):

a) EXCAVATE DOWN TO A MINIMUM DEPTH OF 1.25m.

b) COMPACT THE BASE OF THE EXCAVATION TO 93% MDD (MAXIMUM DRY DENSITY) USING HEAVY PLATE-TYPE COMPACTORS. ALL SOFT CLAY RICH MATERIALS ENCOUNTERED AT THE BASE OF THE EXCAVATION ARE TO BE REMOVED AND REPLACED WITH COHESIONLESS MATERIAL ORIGINALLY EXCAVATED OUT, LESS THE CLAY RICH COMPONENT, AND COMPACTED TO 95% MDD.

c) BACKFILL EXCAVATION WITH A MINIMUM OF 500mm OF THE MATERIAL ORIGINALLY EXCAVATED, LESS THE CLAY RICH COMPONENT. THIS MATERIAL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 150mm LOOSE THICKNESS AND COMPACTED TO 95% MDD TO FORM A BEARING PAD TO CONSTRUCT THE CONCRETE FOUNDATIONS ON.

d) THE BEARING PAD SHOULD EXTEND TO AT LEAST 50% OF THE WIDTH OF THE CONCRETE FOUNDATION ON EITHER SIDE.

e) CONCRETE FOUNDATIONS MAY THEN BE CONSTRUCTED ON THE BACKFILL.
7. COMMUNITY CENTRE
**NOTES**

*ARCHITECTURAL*

EA-MZ-CI0100-WOR-E04-00901-01

EA-MZ-CI0100-WOR-E04-00500-01

EA-MZ-CI0100-WOR-E04-00605-01

EA-MZ-CI0100-WOR-E04-01111-01

EA-MZ-CI0100-WOR-E04-00612-01

EA-MZ-CI0100-WOR-E04-00505-01

EA-MZ-CI0100-WOR-E05-00198-01

EA-MZ-CI0100-WOR-E04-00600-02

EA-MZ-CI0100-WOR-E05-00046-01

EA-MZ-CI0100-WOR-E05-00045-01

EA-MZ-CI0100-WOR-E05-00029-01 (DETAIL B)

EA-MZ-CI0100-WOR-E04-00606-01

*STRUCTURAL*

EA-MZ-CI0100-WOR-E05-00005-01

EA-MZ-CI0100-WOR-E05-00006-01

EA-MZ-CI0100-WOR-E05-00007-01

EA-MZ-CI0100-WOR-E05-00616-01

EA-MZ-CI0100-WOR-E05-00008-01

EA-MZ-CI0100-WOR-E05-00617-01

EA-MZ-CI0100-WOR-E05-00556-01

EA-MZ-CI0100-WOR-E05-00618-01

EA-MZ-CI0100-WOR-E05-00557-01

EA-MZ-CI0100-WOR-E05-00656-01

EA-MZ-CI0100-WOR-E05-00558-01

EA-MZ-CI0100-WOR-E05-00657-01

EA-MZ-CI0100-WOR-E04-00030-01

EA-MZ-CI0100-WOR-E05-00658-01

EA-MZ-CI0100-WOR-E05-00083-01

EA-MZ-CI0100-WOR-E05-00084-01

*WATER*

EA-MZ-CI0100-WOR-E05-00516-01

EA-MZ-CI0100-WOR-E05-00517-01

EA-MZ-CI0100-WOR-E05-00518-01

*ELECTRICAL*

EA-MZ-CI0000-WOR-E05-00052-01

EA-MZ-CI0100-WOR-E02-00630-01

EA-MZ-CI0100-WOR-E02-00640-01

*WATER*

EA-MZ-CI0100-WOR-E05-00595-01

EA-MZ-CI0100-WOR-E05-00595-02

EA-MZ-CI0100-WOR-E05-00595-03

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.
Nível da Cobertura / Ridge Level

Piso interno deve estar 300 mm do plano terreo
F.F.L. must be min. 300 mm above n.g.l.

Corte A-A
Section A-A

Legenda
Key

1_Laje de pavimento em betão
Concrete slab
2_Acabamento do pavimento em cimento queimado
Concrete floor to have power float finish
3_Parede com reboco liso, pintada a tinta plástica
Wall with plain plaster and PVA painted
4_Viga de coronamento em betão armado
Concrete ring beam
5_Blocos ventiladores com rede mosquiteira sintectica
Vent blocks with mosquito net
6_Cobertura em chapas metálicas esmaltadas com perfil IBR
Enamelled metalic roof sheeting with IBR profile on graded SA pine battens
7_Cumeira em chapa esmaltada sob estrutura de madeira
Ceiling in Gypsum board PVA painted under wooden structure
8_Tecto falso em placas de gesso cartonado pintado a tinta plástica
Concealing false ceiling made of plasterboard and painted with plastic paint
9_Tecto falso NUTEC em fibra de cimento
Fiber cement NUTEC soffit board
10_Intel em betão armado
Concrete lintel
11_Pilar em madeira tratada
Treated timber column
12_Base do pilar em betão, pintado a tinta plástica
Concrete column base, painted with washable PVA paint
13_Laje de pavimento da varanda
Concrete verandah slab
Para pormenor da cobertura consultar desenhos do especialista
For roof details refer to manufacturer’s drawings
1. ENVIRO LOO SUITABLE FOR INDUSTRIAL USE
2. ENVIRO LOO TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

REFERENCES

ANADARKO DRAWING NO.                  DRAWING DESCRIPTION
EA-MZ-CI010-WOR-E05-00595-01            COMMUNITY FACILITIES: COMMUNITY CENTRE
EA-MZ-CI010-WOR-E05-00595-03            DETAILS OF SEPTIC TANK INSTALLATION SHEET 3 OF 3
EA-MZ-CI010-WOR-E05-00595-02            WATER AND SANITATION LAYOUT SHEET 2 OF 3
EA-MZ-CI010-WOR-E05-00111-01            COMMUNITY FACILITIES: COMMUNITY CENTRE: TOILETS: INTERNAL RETICULATIONS

NOTE:
FOUNDATIONS AS PER STRUCTURAL ENGINEER'S DRAWING NO. WA-MZ-CI010-WOR-E05-00016-01

FOR BUILDING SPECIFICATIONS AND DETAILS REFER TO ARCHITECTURAL DRAWING NO. EA-MZ-CI010-WOR-E04-0091-01

TO SEPTIC TANK FOR SOAK AWAY DETAILS REFER TO DRAWING NO. EA-MZ-CI010-WOR-E05-00595-03
TO SEPTIC TANK FOR POSITION AND LAYOUT REFER TO DRAWING NO. EA-MZ-CI010-WOR-E05-00595-01

1.5mm NO REDUCING JUNCTION BETWEEN MULTIPLE TANKS
110 x 50mm ND REDUCING JUNCTION
110mm ND SQUARE JUNCTION
110mm ND SOLID WALL SEWER PIPE
110mm ND SOLID WALL SEWER PIPE
110 x 50mm ND INTERCONNECTOR BETWEEN MULTIPLE TANKS
110mm ND EMERGENCY OVERFLOW OUTLET
110mm ND INTERCONNECTOR BETWEEN MULTIPLE TANKS
50mm NO EMERGENCY OVERFLOW OUTLET

NOTE:
AS SHOWN
A

ISSUED FOR CONSTRUCTION

DECEMBER 2015

WorleyParsons RSA (Pty) Ltd.
39 MELROSE BOULEVARD, MELROSE ARCH, JOHANNESBURG
P.O. Box 61232, MARSHALLTOWN, 2107
TEL: +27 (0)11 218 3000
FAX: +27(0)11 218 3100
www.worleyparsons.com
Total Área for sidewalk pavement: approx. 860 m²
PLATE - COMMUNITY CENTRE TOILETS

TYPICAL WATER SUPPLY DETAIL AT BUILDINGS

COMMUNITY FACILITIES - ADMIN. CENTRE INTERNAL DRAINAGE CONNECTIONS

<table>
<thead>
<tr>
<th>No.</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>110mm - 87.5° VENTHORN BEND</td>
<td>Na.</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>50mm VENT COWL</td>
<td>Na.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>110 - 87.5° PLAIN BEND</td>
<td>Na.</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>110 ND PVC PIPE</td>
<td>m</td>
<td>2m</td>
</tr>
<tr>
<td>5</td>
<td>110mm - 87.5° VENTHORN BEND</td>
<td>Na.</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>50mm VENT COWL</td>
<td>Na.</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>110 - 87.5° PLAIN BEND</td>
<td>Na.</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>110 ND PVC PIPE</td>
<td>m</td>
<td>2m</td>
</tr>
</tbody>
</table>

LEGEND:
- 110mm ND PVC PIPE
- 50mm ND PVC PIPE
- 15mm ND COPPER PIPE
- 20mm ND HDPE PIPE
- 40mm ND HDPE PIPE

COMMUNITY FACILITIES - COMMUNITY CENTRE WATER SUPPLY

<table>
<thead>
<tr>
<th>No.</th>
<th>DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20mm/15mm HDPE/COPPER ADAPTOR</td>
<td>Na.</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>90° ELBOW - COPPER</td>
<td>Na.</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>TOILETS: STRAIGHT COUPLER, COPPER TO MALE CONNECTION</td>
<td>Na.</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>KITCHEN SINK/ HAND WASH BASIN / SHOWER: WALL PLATE ELBOW TAP CONNECTOR, COPPER TO FEMALE CONNECTION</td>
<td>Na.</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>15mm COPPER PIPE</td>
<td>m</td>
<td>3m</td>
</tr>
<tr>
<td>6</td>
<td>20mm ND HDPE PIPE</td>
<td>m</td>
<td>10m</td>
</tr>
</tbody>
</table>

NOTE: INTERNAL PIPE TO BE INSTALLED FLUSH AGAINST WALL
# Community Facilities - Community Centre Internal Drainage Connections

**Admin Building**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>110mm x 67° VENT COWL</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>50mm ND HDPE PIPE</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>110mm x SINGLE 67° PLAN REDUCING JUNCTION</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>63mm x 67° PLAIN BEND</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>110mm ND PVC PIPE</td>
<td>m</td>
<td>40m</td>
</tr>
<tr>
<td>6</td>
<td>P-TRAP</td>
<td>No</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>50mm ND PVC PIPE</td>
<td>m</td>
<td>2m</td>
</tr>
<tr>
<td>8</td>
<td>50mm x 67° ACCESS BEND</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>30mm ND PVC PIPE</td>
<td>m</td>
<td>1m</td>
</tr>
<tr>
<td>10</td>
<td>DRAIN GULLEY COMPLETE</td>
<td>No</td>
<td>1</td>
</tr>
</tbody>
</table>

**Community Facilities - Community Centre Water Supply**

**Admin Building**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20mm/15mm HDPE / COPPER ADAPTOR</td>
<td>No</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>90° ELBOW - COPPER</td>
<td>No</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>TOILET:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STRAIGHT COUPLER, COPPER TO MALE CONN.</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>KITCHEN SINK/HAND WASH BASIN / SHOWER:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>WALL PLATE ELBOW TAP CONNECTOR.COPPER TO FEM. CONN.</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>15mm COPPER PIPE</td>
<td>m</td>
<td>3m</td>
</tr>
<tr>
<td>6</td>
<td>20mm ND HDPE PIPE</td>
<td>m</td>
<td>5m</td>
</tr>
</tbody>
</table>

**Legend:**

- 50mm ND PVC PIPE
- 15mm ND COPPER PIPE
- 110mm ND PVC PIPE
- 20mm ND HDPE PIPE
- 40mm ND HDPE PIPE

**Notes:**

- Use for any other purpose, whether or not the design and/or documents have been paid for constitutes an infringement of copyright, and all rights are reserved.
- All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

**Typical Water Supply Detail at Buildings**

**Notes:**

- Internal pipe to be installed flush against wall.
SLAB & WALL REINFORCEMENT

ELEVATION

NOTES

SCALE 1: 50

ISSUED FOR CONSTRUCTION

REVISIONS

SCALE FOR REDUCED PLAN

CLIENT:

DONE

BY

DESCRIPTION

NO.

DRAWING DESCRIPTION

PR ENG

DESIGNER

CHECKED

DRAWN BY

NAME

SIGNATURE

DATE

LOCAL PR ENG

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

Authorized Signature

DEC 2015

AS SHOWN

AMA 1

RESETTLEMENT VILLAGE

COMMUNITY CENTER:

AMPHITHEATER

SLAB REINFORCEMENT

ISSUED FOR INTERNAL REVIEW

REFER TO STRUCTURAL GENERAL NOTES

REFER TO ARCHITECTS DRAWING

REFER TO LAYOUT

REFER TO FOUNDATION REINFORCEMENT

REFER TO BENDING SCHEDULE 52 ON DRAWING EA-MZ-CI0100-WOR-E05-00068-01
SALA DE AULAS/ Classroom
WINDOWS & DOOR SCHEDULE/
Mapa de vãos: Janelas & Portas

All dimensions and levels are to be checked/verified on site and any discrepancies are to be reported to the architect.

NOTES:
1. All doors will be of umbila or of equivalent wood quality & approved by client.
2. All of the casement windows will also take one more casement leaf inside in mosquito net.
3. All openings size to be confirmed on site before manufacturing.
4. Shop drawings to be approved by architect before manufacturing.
5. Refer to window & door schedule key plan.

Code: W4
Position: Classroom Blocks
Qty: 4

Frame:
Wood frame to manufacturers specs
Solid timber window, 2 glass panels on outside & 2 mosquito screen panels on the inside
Window to be from Swartland or similar

Finish:
1 coat primer 1 coat undercoat and 2 coats plascon enamel doors & trims colour “light brown” or equal & approved

Fittings:
Pivot at the top with outward swinging sash and push out lever to manufacturer spec’s
Glass panels with casement fastener (handle & wedge) & sliding stay open out all in satin chrome finish
Mosquito screen panels with casement fastener (handle & wedge) in satin chrome finish

Glazing:
3mm clear glass

Glazing Notes:

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

Copyright reserved
NOTES:

1. ALL DOORS WILL BE OF UMBLA OR OF EQUIVALENT WOOD QUALITY & APPROVED BY CLIENT

2. ALL OF THE CASEMENT WINDOWS WILL ALSO TAKE ONE MORE CASEMENT LEAF INSIDE IN MOSQUITO NET

3. ALL OPENINGS SIZE TO BE CONFIRMED ON SITE BEFORE MANUFACTURING

4. SHOP DRAWINGS TO BE APPROVED BY ARCHITECT BEFORE MANUFACTURING

5. REFER TO WINDOW & DOOR SCHEDULE KEY PLAN

Code: W3
Position: Classroom Block
Qty: Qtd:

Frame:
Aro: WOOD FRAME TO MANUFACTURERS SPECS

Finish:
Acabamentos: 1 COAT PRIMER 1 COAT UNDERCOAT AND 2 COATS PLASCON ENAMEL DOORS & TRIMS COLOUR “LIGHT BROWN” OR EQUAL & APPROVED

Ironmongery:
Ferragens: 3mm CLEAR GLASS

Glazing:
Vidros: 102 x 75 x 3mm PVD DOUBLE BALL BEARING BUTT HINGE X 2 PER WINDOW PANEL

Glazing Notes:

Code: D5
Position: Classroom Block
Qty: Qtd:

Frame:
Aro: WOOD FRAME TO MANUFACTURERS SPECS

Finish:
Acabamentos: 3 COATS CLEAR VARNISH

Ironmongery:
Ferragens: 102 x 75 x 3mm PVD DOUBLE BALL BEARING BUTT HINGE X 3 PER DOOR

Glazing:
Vidros: 3mm CLEAR GLASS

Glazing Notes:
NOTES:
1. ALL DOORS WILL BE OF UMBILA OR OF EQUIVALENT WOOD QUALITY & APPROVED BY CLIENT
2. ALL OF THE CASEMENT WINDOWS WILL ALSO TAKE ONE MORE CASEMENT LEAF INSIDE IN MOSQUITO NET
3. ALL OPENINGS SIZE TO BE CONFIRMED ON SITE BEFORE MANUFACTURING
4. SHOP DRAWINGS TO BE APPROVED BY ARCHITECT BEFORE MANUFACTURING
5. REFER TO WINDOW & DOOR SCHEDULE KEY PLAN

Frame:
- FRAME TO MANUFACTURERS SPECS
- FOLDING WOOD DOOR
- DOOR TO BE TYPE ZWFAS - FROM SWARTLAND OR SIMILAR

Finish:
- 1 COAT PRIMER 1 COAT UNDERCOAT AND 2 COATS PLASCON ENAMEL DOORS & TRIMS COLOUR ‘LIGHT BROWN’ OR EQUAL & APPROVED

Ironmongery:
- IRONMONGERY TO MANUFACTURERS SPECS

Glazing:
- Vidros:

Glazing Notes:

All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.
NOTES:

1. ALL DOORS WILL BE OF UMBILA OR OF EQUIVALENT WOOD QUALITY & APPROVED BY CLIENT
2. ALL OF THE CASEMENT WINDOWS WILL ALSO TAKE ONE MORE CASEMENT LEAF INSIDE IN MOSQUITO NET
3. ALL OPENINGS SIZE TO BE CONFIRMED ON SITE BEFORE MANUFACTURING
4. SHOP DRAWINGS TO BE APPROVED BY ARCHITECT BEFORE MANUFACTURING
5. REFER TO WINDOW & DOOR SCHEDULE KEY PLAN

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Code: W3 Position: Admin. Block Qty: 
Frame: WOOD FRAME TO MANUFACTURERS SPECS
Aro: SOLID TIMBER WINDOW , 2 GLASS PANELS ON OUTSIDE & 2 MOSQUITO SCREEN PANELS ON THE INSIDE
Window to be from Swartland or Similar

Finish: 1 COAT PRIMER 1 COAT UNDERCOAT AND 2 COATS PLASCON ENAMEL DOORS & TRIMS COLOUR "LIGHT BROWN" OR EQUAL & APPROVED
Acabamentos:
Glazing: 3mm CLEAR GLASS

Frame: WOOD FRAME TO MANUFACTURERS SPECS
Aro: SOLID TIMBER TOP HUNG WINDOW, 2 GLASS PANELS ON OUTSIDE & 2 MOSQUITO SCREEN PANELS ON THE INSIDE
Window to be from Swartland or Similar

Finish: 1 COAT PRIMER 1 COAT UNDERCOAT AND 2 COATS PLASCON ENAMEL DOORS & TRIMS COLOUR "LIGHT BROWN" OR EQUAL & APPROVED
Acabamentos:
Glazing: 3mm CLEAR GLASS
ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED/VERIFIED ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.

1. ALL DOORS WILL BE OF UMBILA OR OF EQUIVALENT WOOD QUALITY & APPROVED BY CLIENT.
2. ALL OF THE CASEMENT WINDOWS WILL ALSO TAKE ONE MORE CASEMENT LEAF INSIDE IN MOSQUITO NET.
3. ALL OPENINGS SIZE TO BE CONFIRMED ON SITE BEFORE MANUFACTURING.
4. SHOP DRAWINGS TO BE APPROVED BY ARCHITECT BEFORE MANUFACTURING.
5. REFER TO WINDOW & DOOR SCHEDULE KEY PLAN.

CODE: D2
Frame: WOOD FRAME TO MANUFACTURERS SPECS
Finish: 3 COATS CLEAR VARNISH
Ironmongery: 102 x 75 x 3mm PVD DOUBLE BALL BEARING BUTT HINGE X 3 PER DOOR
Glazing: 3mm LAMINATED CLEAR GLASS

CODE: D9
Frame: WOOD FRAME TO MANUFACTURERS SPECS
Finish: 1 COAT PRIMER 1 COAT UNDERCOAT AND 2 COATS PLASCON ENAMEL DOORS & TRIMS COLOUR “LIGHT BROWN” OR EQUAL & APPROVED
Ironmongery: IRONMONGERY TO MANUFACTURERS SPECS
Glazing: 3200 STRUCTURAL OPENING

ARCHITECTURAL
EA-MZ-C0100-WOR-E04-00612-01

1. ALL DOORS WILL BE OF UMBILA OR OF EQUIVALENT WOOD QUALITY & APPROVED BY CLIENT.
2. ALL OF THE CASEMENT WINDOWS WILL ALSO TAKE ONE MORE CASEMENT LEAF INSIDE IN MOSQUITO NET.
3. ALL OPENINGS SIZE TO BE CONFIRMED ON SITE BEFORE MANUFACTURING.
4. SHOP DRAWINGS TO BE APPROVED BY ARCHITECT BEFORE MANUFACTURING.
5. REFER TO WINDOW & DOOR SCHEDULE KEY PLAN.

NOTE: ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED/VERIFIED ON SITE AND ANY DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT.

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.
8. ELECTRICAL
EXISTING 33kV LINE

NEW 33kV LINE TO AFUNGI

FUTURE EXPANSION

33kV NETWORK DIAGRAM
1. Lighting Layout - Housing

2. Power Layout - Housing

3. Schematic - Housing
**NOTES**

1. **EARTH RING CONDUCTOR MUST BE INSTALLED**
   - 250kVA 33kV/400V
   - AND BURIED AT A MINIMUM DEPTH OF 500mm

2. **A MINIMUM OF TWO 70mm² BONDING CONDUCTOR CONNECTIONS SHALL BE MADE TO ADJACENT AREA STRUCTURE EARTHING LOOPS**

3. **ALL CABLES TO BE BURIED AT A MINIMUM**
   - 1m INTERVALS

4. **FOR SCHEMATIC SEE DRAWING**
   - EA-MZ-CI0000-WOR-E02-00003-01
typical drawings sheet 1
   - EA-MZ-CI0000-WOR-E02-00027-01
typical drawings sheet 2
   - EA-MZ-CI0000-WOR-E02-00027-02

5. **EARTH ELECTRODE WITH CADWELDED CONNECTION DRIVERS BURIED INTO EARTH AT A MINIMUM OF 3M**

6. **PLAN IS TO BE REVIEWED BY THE WORLEYPARDONsons RSA (Pty) Ltd.**

7. **GEOLOGICAL SURVEY**

8. **RESIDENTIAL PROTECTION SYSTEMS**

MCC1  MOONLIGHT CONDUCTOR FOR LIGHT FITTING

MCC2  TRANSFORMER MOUNTED ON 12M POLE

MCC3  70MM² BARE COPPER EARTH WIRE

MCC4  EARTH WIRE TO BE BONDED TO STEEL PIPES

**SCALE FOR REDUCED PLAN**

50mm ON ORIGINAL DRAWING

**95mm² 4 CORE SWA**

**ALL EQUIPMENT IN NOTES SITE**

**AN IP21 RATING KIOSK**

**SIGHT 1.5M FROM TRANSFORMER**

**EXISTING BOREHOLE**

**SMALL POWER LEGEND**

**LIGHTING LEGEND**

**CONNECTION LEGEND**

5. **ALL 4 CORE CABLES SHALL CONSIST OF 3 LIVE PHASE CONDUCTORS AND 1 NEUTRAL CONDUCTOR WITH AN EXTERNAL BARE COPPER EARTH WIRE STRAPPED TO THE CABLE AT 1m INTERVALS**

6. **RESIDENTIAL PROTECTION SYSTEMS**

7. **ALL EQUIPMENT IN NOTES SITE**

8. **AN IP21 RATING KIOSK**

9. **SIGHT 1.5M FROM TRANSFORMER**

10. **EXISTING BOREHOLE**
1. 2.5mm² conductors shall be used for all lighting circuits.
2. 6mm² conductors shall be used for all socket outlet circuits.
3. 16mm² conductors shall be used for all switch and motor circuits.
4. All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor.
5. All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals.

Lighting & Power Layout - Ticket Office

3 1:20

Schematic - Ticket Office

Site Lighting & Power Layout - Bus Station

1 1:50

Notes:
1. Power cables shall be buried directly by a member of the Radiant Group.
2. Where power cables are buried below a road crossing or pathway, 2x 110mm horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plugtop. The fitting will be equal or better than Radiant Type BB74.
3. Where specified on the drawings, conduits/sleeves shall be installed.

Conductor legend:
- Single phase switch
- Single phase disconnector (off-load isolator)
- Single phase circuit breaker
- Three phase switch
- Three phase disconnector (off-load isolator)
- Three phase circuit breaker
- Three phase circuit breaker for isolation
- Neutral protection

Conduit legend:
- 1 2.5mm² conductors shall be used for all lighting circuits
- 2 6mm² conductors shall be used for all socket outlet circuits
- 3 16mm² conductors shall be used for all switch and motor circuits
- 4 All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor
- 5 All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals

Dimensions:
- All dimensions must be verified on site before works commence. Refer any queries to WorleyParsons RSA.

- Power cables shall be buried directly by a member of the Radiant Group.
- Where power cables are buried below a road crossing or pathway, 2x 110mm horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plugtop. The fitting will be equal or better than Radiant Type BB74.
- Where specified on the drawings, conduits/sleeves shall be installed.

Conductor legend:
- Single phase switch
- Single phase disconnector (off-load isolator)
- Single phase circuit breaker
- Three phase switch
- Three phase disconnector (off-load isolator)
- Three phase circuit breaker
- Three phase circuit breaker for isolation
- Neutral protection

Conduit legend:
- 1 2.5mm² conductors shall be used for all lighting circuits
- 2 6mm² conductors shall be used for all socket outlet circuits
- 3 16mm² conductors shall be used for all switch and motor circuits
- 4 All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor
- 5 All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals

Notes:
- All dimensions must be verified on site before works commence. Refer any queries to WorleyParsons RSA.

- Power cables shall be buried directly by a member of the Radiant Group.
- Where power cables are buried below a road crossing or pathway, 2x 110mm horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plugtop. The fitting will be equal or better than Radiant Type BB74.
- Where specified on the drawings, conduits/sleeves shall be installed.

Conductor legend:
- Single phase switch
- Single phase disconnector (off-load isolator)
- Single phase circuit breaker
- Three phase switch
- Three phase disconnector (off-load isolator)
- Three phase circuit breaker
- Three phase circuit breaker for isolation
- Neutral protection

Conduit legend:
- 1 2.5mm² conductors shall be used for all lighting circuits
- 2 6mm² conductors shall be used for all socket outlet circuits
- 3 16mm² conductors shall be used for all switch and motor circuits
- 4 All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor
- 5 All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals

Notes:
- All dimensions must be verified on site before works commence. Refer any queries to WorleyParsons RSA.

- Power cables shall be buried directly by a member of the Radiant Group.
- Where power cables are buried below a road crossing or pathway, 2x 110mm horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plugtop. The fitting will be equal or better than Radiant Type BB74.
- Where specified on the drawings, conduits/sleeves shall be installed.

Conductor legend:
- Single phase switch
- Single phase disconnector (off-load isolator)
- Single phase circuit breaker
- Three phase switch
- Three phase disconnector (off-load isolator)
- Three phase circuit breaker
- Three phase circuit breaker for isolation
- Neutral protection

Conduit legend:
- 1 2.5mm² conductors shall be used for all lighting circuits
- 2 6mm² conductors shall be used for all socket outlet circuits
- 3 16mm² conductors shall be used for all switch and motor circuits
- 4 All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor
- 5 All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals

Notes:
- All dimensions must be verified on site before works commence. Refer any queries to WorleyParsons RSA.

- Power cables shall be buried directly by a member of the Radiant Group.
- Where power cables are buried below a road crossing or pathway, 2x 110mm horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plugtop. The fitting will be equal or better than Radiant Type BB74.
- Where specified on the drawings, conduits/sleeves shall be installed.

Conductor legend:
- Single phase switch
- Single phase disconnector (off-load isolator)
- Single phase circuit breaker
- Three phase switch
- Three phase disconnector (off-load isolator)
- Three phase circuit breaker
- Three phase circuit breaker for isolation
- Neutral protection

Conduit legend:
- 1 2.5mm² conductors shall be used for all lighting circuits
- 2 6mm² conductors shall be used for all socket outlet circuits
- 3 16mm² conductors shall be used for all switch and motor circuits
- 4 All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor
- 5 All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals

Notes:
- All dimensions must be verified on site before works commence. Refer any queries to WorleyParsons RSA.

- Power cables shall be buried directly by a member of the Radiant Group.
- Where power cables are buried below a road crossing or pathway, 2x 110mm horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plugtop. The fitting will be equal or better than Radiant Type BB74.
- Where specified on the drawings, conduits/sleeves shall be installed.

Conductor legend:
- Single phase switch
- Single phase disconnector (off-load isolator)
- Single phase circuit breaker
- Three phase switch
- Three phase disconnector (off-load isolator)
- Three phase circuit breaker
- Three phase circuit breaker for isolation
- Neutral protection

Conduit legend:
- 1 2.5mm² conductors shall be used for all lighting circuits
- 2 6mm² conductors shall be used for all socket outlet circuits
- 3 16mm² conductors shall be used for all switch and motor circuits
- 4 All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor
- 5 All 4-core cables shall consist of 2 live phase conductors and 1 neutral conductor with an earth conductor and copper strap at 1m intervals to the neutral at 75 intervals

Notes:
- All dimensions must be verified on site before works commence. Refer any queries to WorleyParsons RSA.
NOTES

A MINIMUM OF 600mm BELOW GRADE

WHERE POWER CABLES ARE BURIED BELOW A ROAD CROSSING OR PATHWAY, 2x 110mm SLEEVES SHALL BE INSTALLED

SEE DRAWING C00290-00-EL-DAL-0063 FOR DETAILS

THREE PHASE SW 
THREE PHASE DISCONNECTOR (OFF LOAD ISOLATOR) 
THREE PHASE SWITCH DISCONNECTOR 
THREE PHASE CIRCUIT BREAKER 
THREE PHASE CIRCUIT BREAKER FOR ISOLATION

16mm² 3 CORE SWA 
RCBO PROTECTION

DRAWING NUMBER

10mm² 3 CORE SW

FOR LIGHTING INSTALLATION 
DETAILS REFER TO DRAWING C00290-00-EL-DAL-0063

A 28/09/15 TM SB Issued for Peer Review

B 28/09/15 TM SB Issued for Detailed Design

C 02/10/15 TM SB Issued for Squad Check

D 09/10/15 TM CB Issued for Client Review

E 06/11/15 TM SB Issued for Client Approval

PUBLIC PARKING

18 BAYS

NAME SIGNATURE DATE

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Resettlement Village Market 
Site Power and Lighting

C00290-00-EL-DAL-0062

ISSUED FOR CONSTRUCTION

Drawn by:

1  :  50

2  :  20

Schematic - Market Office

Site Lighting & Power Layout - Market Site

Lighting & Power Layout - Market Office

Revisions

28/09/1502/10/15

L Padayachee 02/10/15

DB-MD

Drawn By:

25mm2 4 CORE SWA

MARKET A

35mm2 4 CORE SWA

+25mm2 BCEW

MARKET B

+25mm2 BCEW

MARKET C

39 MELROSE BOULEVARD, MELROSE ARCH,

JOHANNESBURG

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SA
Earthing Layout - Market

1 : 50

1. EARTH RING CONDUCTOR MUST BE INSTALLED A MINIMUM OF 1.5M FROM THE NEAREST WALL AND BURIED AT A MINIMUM DEPTH OF 500mm

2. LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE CERTIFIED FOR USE IN LIGHTNING PROTECTION SYSTEMS

3. LIGHTNING PROTECTION SYSTEMS SHALL BE DESIGNED AND INSTALLED BY A CERTIFIED LIGHTNING PROTECTION COMPANY

4. A MINIMUM OF TWO 70mm2 BONDING CONDUCTOR CONNECTIONS SHALL BE MADE TO ADJACENT AREA STRUCTURE EARTHING LOOPS

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SEE DRAWINGS C00290-00-EL-DES-0001 FOR EARTHING TYPICAL DRAWINGS

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NOTES

- EARTHING LEGEND
- CADWELDED CONNECTION
- EARTH ELECTRODE WITH CADWELDED CONNECTION DRIVEN INTO EARTH A MINIMUM OF 3M
- DOWN CONDUCTOR
- BARE COPPER EARTH WIRE
SMALL POWER LEGEND

1. 2.5mm² conductors shall be used for all lighting circuits.
2. Neutral conductors shall be used for all socket outlet circuits.
3. Main conductors shall be used for all switch and store circuits.
4. All 3 core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor.
5. All 4 core cables shall consist of 2 live phase conductors, 1 neutral conductor and a protected earth conductor.

1. Scale for reduced plan: 1:50
2. Drawing number: C00290-00-EL-DAL-0035
3. Vendors:
   - Area de trabalho
   - Work space

Power Layout - Market

1: 50

Schematic - Market DB Section 1 Typical

1: 20

Notes:
1. All socket outlets to be mounted at 300mm above FFL
2. 2x 26W compact fluorescent downlight, with ECG, horizontally mounted, Cool White Lamp & 6m plug. The fitting will be equal or better than type BB74 from Radiant.
3. 1x 36W weatherproof to IP 55 fluorescent luminaire with triphosphor lamps and ECG.
4. 1x 36W open fluorescent luminaire with ECG. (Equal or better than Lascon type RI/T-236-ELB)
5. 1x 10kA 230V IP 21 60A SPFN busbar, 1 neutral conductor and a protected earth conductor.
6. Conductor, 1 neutral conductor and an external bare copper earth wire strapped to the cable at 1m intervals.

WorleyParsons RSA retains the copyright in all intellectual property, discrepancies to the Engineer.
1. Power cables shall be buried directly at a minimum of 600mm below grade.

2. Where power cables are buried below a road crossing or pathway, 2x 110mm conduits/sleeves shall be installed.

3. 2.5mm² conductors shall be used for all lighting circuits.

4. 4mm² conductors shall be used for all socket outlet circuits.

5. 6mm² conductors shall be used for all geyser and stove circuits.

6. All 3 core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor.

7. All 4 core cables shall consist of 3 live phase conductors and 1 neutral conductor with an external bare copper earth wire strapped to the cable at 1m intervals.

Site Lighting & Power Layout - School

1:250

Schematic - School Site Kiosk

1:20
1. Earth ring conductor must be installed a minimum of 1.5m from the nearest wall and buried at a minimum depth of 500mm.

2. Lightning protection system components shall be certified for use in lightning protection systems.

3. Lightning protection systems shall be designed and installed by a certified lightning protection company.

4. A minimum of two 70mm² bonding conductor connections shall be made to adjacent area structure earthing loops.

Note: See drawing C00290-00-EL-DAL-0009, stand number 247 for overview.
1. Earthing Ring Conductor must be installed a minimum of 1.5m from the nearest wall and buried at a minimum depth of 500mm.

2. Lightning protection system components shall be certified for use in lightning protection systems.

3. Lightning protection systems shall be designed and installed by a certified lightning protection company.

4. A minimum of two 70mm² bonding conductor connections shall be made to adjacent area structure earthing loops.

See drawing C00290-00-EL-DES-0001 for earthing typical arrangements.

NOTE: See drawing C00290-00-EL-DAL-0009, stand number 247, for overview.
1. SINGLE SOCKET OUTLET
2. WHITE LAMPS. THE LUMINAIRES WILL BE SUITABLE FOR WALL &/OR POLEMOUNTING COMPLETE WITH 4M POLE WHERE REQUIRED. (THE POLE AND THE LIGHT FITTING WILL BE EQUAL OR BETTER APPROVED THAN PS76MS "POLE" AND LS122 "LIGHT" FROM RADIANT)

A. DOUBLE SOCKET OUTLET
B. VOIP DATA POINT
C. TV POINT
D. POWER POLE WITH 2 X DOUBLE 26W COMPACT FLUORESCENT RECESSED DOWN LIGHT, WITH ECG, SOCKET OUTLET.

1. HORIZONTALLY MOUNTED COOL WHITE LAMPS & 3M 3CORE 1MM² CABTYRE AND 6A PLUGTOP. THE FITTING WILL BE EQUAL OR BETTER THAN RADIANT TYPE BB74 LIGHT SWITCH
2. 2-WAY LIGHT SWITCH
3. DISTRIBUTION BOARD
4. SINGLE POLE ISOLATOR
5. 6U IT CABINET FOR VOIP
6. 50mm SLEEVE
7. 25mm CONDUIT

1. ALL SOCKET OUTLETS TO BE MOUNTED AT 300mm ABOVE FFL

1. BULKHEAD LUMINAIRE WITH CAST ALUMINIUM BODY, COOL WHITE LAMP & ECG (EQUAL OR BETTER THAN RADIANT TYPE WT6E)
2. 1 X 36W OPEN FLUORESCENT LUMINAIRE WITH ECG. (EQUAL OR BETTER THAN LASCON TYPE RI/T-136-ELB)
3. 1X18W COMPACT FLUORESCENT CEILING MOUNTED LUMINARIES WITH COOL WHITE LAMPS & ECG (EQUAL OR BETTER THAN RADIANT TYPE JL25)
4. EQUAL OR BETTER THAN RADIANT TYPE LS896 WITH A 70W MH LAMP MOUNTED ON

1. 2.5mm² CONDUCTORS SHALL BE USED FOR ALL LIGHTING CIRCUITS
2. 6mm² CONDUCTORS SHALL BE USED FOR ALL GEYSER OUTLET CIRCUITS

All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

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This drawing is a schematic representation of the proposed electrical layout for the School Classroom. The various elements include:

- POWER LAYOUT
- SCHHEMATIC
- NOTES
- ISSUED FOR CONSTRUCTION

For detailed specifications and further information, refer to the referenced documents and drawings provided.
Lighting Layout - Community Centre

1: 2 x 36W COMPACT FLUORESCENT CEILING MOUNTED LUMINAIRES WITH ECG [EQUAL OR BETTER THAN RADIANT TYPE LS895 WITH A 70W MH LAMP MOUNTED ON AN EQUAL OR BETTER THAN RADIANT TYPE 4M POLE]

2: 2 x 36W OPEN FLUORESCENT LUMINAIRE WITH ECG (EQUAL OR BETTER THAN RADIANT TYPE RS274-ELB)

3: 2 x 36W WEATHER PROOF TO IP 55 FLUORESCENT LUMINAIRE WITH TRIPHOSPHOR LAMPS AND ECG [EQUAL OR BETTER THAN RADIANT TYPE LS896 WITH A 70W MH LAMP MOUNTED ON AN EQUAL OR BETTER THAN RADIANT TYPE 4M POLE]

4: 1 x 36W OPEN FLUORESCENT LUMINAIRE WITH ECG (EQUAL OR BETTER THAN RADIANT TYPE RS274-ELB)

5: 1 x 36W  WEATHER PROOF TO IP 55 FLUORESCENT LUMINAIRE WITH TRIPHOSPHOR LAMPS AND ECG [EQUAL OR BETTER THAN RADIANT TYPE LS896 WITH A 70W MH LAMP MOUNTED ON AN EQUAL OR BETTER THAN RADIANT TYPE 4M POLE]
1. Power cables shall be buried directly.
2. Where power cables are buried below 80A TPFN busbar conduits/sleeves shall be installed.
3. Switch to be single phase switch.
4. Light switch to be two-way light switch.
5. Geysers shall be protected by RCB0 protection.

Regarding cable sizes:
- 16mm² 4 core + 10mm² BCEW 50mm on original drawing.
- 16mm² 3 core SWA 16mm² 3 core SWA.
- 6mm² 3 core SWA.
- 4mm² 3 core SWA.
- 2mm² 3 core SWA.

Special lighting:
- 2 x 26W compact fluorescent recessed down light, with ECG, horizontally mounted cool white lamps & 3m 3-core 1mm² cable & 6A plug top. The fitting will be equal or better than radiant type BB74.
- 2 x 36W open fluorescent luminaire with ECG. (Equal or better than Lascon type RI/T-236-ELB).
- 2 x 36W weatherproof to IP 55 fluorescent luminaire with triphosphor lamps and ECG.
- 1x18W compact fluorescent ceiling mounted luminaries with cool white lamps & ECG (equal or better than radiant type JL25).
- 2W one lever light switch.
- 2WC double pole isolator.
- 2U IT cabinet for VOIP.

Additionally:
- 16mm² 4 core + 10mm² BCEW 50mm on original drawing for lighting.
- 16mm² 4 core + 10mm² BCEW 50mm on original drawing for reduced plan.

All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.
1. Earth Ring Conductor must be installed a minimum of 1.5m from the nearest wall and buried at a minimum depth of 500mm.

2. Lightning Protection System components shall be certified for use in Lightning Protection Systems.

3. Lightning Protection Systems shall be designed and installed by a certified Lightning Protection Company.

4. A minimum of two 70mm² bonding conductor connections shall be made to adjacent area structure earthing loops.

Note: See Drawing C00290-00-EL-DAL-0009, Stand Number 218 for overview.
**Lighting Legend**

50mm on original drawing

Single socket outlet

2 x 26W compact fluorescent recessed down light, with ECG, horizontally mounted, cool white lamps & ECG. The fitting will be equal or better than radiant type JL25.

**Notes**

Two Way Light Switch

Single phase switch (Off Load Isolator)

Three phase switch

Three phase circuit breaker

Three phase circuit breaker for isolation

RCBO protection

**Conductor Legend**

1. 30mA Switch

2. Single phase switch (Off Load Isolator)

3. Single phase switch disconnecter

4. Single phase circuit breaker

5. Single phase circuit breaker for isolation

6. Three phase switch

7. Three phase circuit breaker

8. Three phase circuit breaker for isolation

9. RCBO protection

**Description**

- 2 x 26W compact fluorescent down light, with ECG. Horizontal pole mounted complete with in line switches required (2 x Pole - A). The light fittings will be equal or better than AEC/PS76MS.

- 2 x 500W open fluorescent luminaire with ECG (equal or better than radiant type RI/T-236-ELB).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with tripophosphor lamps and ECG (equal or better than radiant type JL25).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type JT25).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type PS76).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).

- 1 x 36W weather proof to IP 55 fluorescent luminaire with ECG. (equal or better than radiant type BB74).
1. 2.5mm² conductors shall be used for all lighting circuits.
2. 4mm² conductors shall be used for all socket outlet circuits.
3. 6mm² conductors shall be used for all geyser and stove circuits.
4. All 3 core cables shall consist of 1 live phase conductor, 1 neutral conductor, and a protected earth conductor.
5. All 4 core cables shall consist of 3 live phase conductors and 1 neutral conductor with an external bare copper earth wire strapped to the cable at 1m intervals.

Notes:
- All socket outlets to be mounted at 300mm above floor level.
- 2 x 26W compact fluorescent recessed down lights, with ECG, horizontally mounted cool white lamps & 300mm above floor level.
- The fitting will be equal or better than RADIANT BB74.
- 1X26W compact fluorescent wall/mounted decorative bulkhead luminaire with cast aluminium body, cool white lamp & ECG (equal or better than RADIANT WT6E).
1. Earth electrode with cadwelded connection driven into earth a minimum of 1m.
2. Down conductor.
3. 70mm² bare copper earth wire.

See drawings C00290-00-EL-DAL-0053 and C00290-00-EL-DES-0001-001 for earthing typical drawings.
1. Earth ring conductor must be installed a minimum of 1.5m from the nearest wall and buried at a minimum depth of 500mm.

2. Lightning protection system components shall be certified for use in lightning protection systems.

3. Lightning protection systems shall be designed and installed by a certified lightning protection company.

4. A minimum of two 70mm² bonding conductor connections shall be made to adjacent area structure earthing loops.

Note: See drawing C00290-00-EL-DAL-0009, stand number 243 for overview.
1. ALL SOCKET OUTLETS TO BE MOUNTED AT 300MM ABOVE FLOOR LEVEL.

2. 2 X 26W COMPACT FLUORESCENT RECESSED DOWN LIGHT, WITH ECG, HOUSING: POLYCARBONATE BODY COOL WHITE LAMPS & ECG.

3. FOR PACKAGE: 3 CORE 1MM² CABLE AND 6A PLUGTOP. THE FITTING WILL BE EQUAL OR BETTER THAN RADIANT TYPE BB74 POWER POLE WITH 2 X DOUBLE SOCKET OUTLET.

4. 2 X 36W WEATHER PROOF TO IP 55 FLUORESCENT LUMINAIRE WITH TRIPHOSPHOR LAMPS AND ECG (EQUAL OR BETTER THAN RADIANT TYPE LS896 WITH A 70W MH LAMP MOUNTED ON A 4M GALVANIZED STEEL POLE.)

5. ONE LEVER LIGHT SWITCH

6. TWO LEVER LIGHT SWITCH

7. THREE LEVER LIGHT SWITCH

8. DISTRIBUTION BOARD LOCATION

9. DOUBLE POLE ISOLATOR

10. CONTACTOR

11. L2

12. D1

13. LASCON TYPE RI/T-136-ELB)

14. 6U IT CABINET FOR VOIP DATA POINT, TV POINT

15. DB-AB1

16. DRAWING NUMBER

17. DESCRIPTION

18. EA-MZ-CI0000-WOR-E02-00007-01

19. C00290-00-EL-DAL-0030

20. DB-AB1

21. LIGHTING LEGEND

22. SMALL POWER LEGEND

23. DRAWN BY:

24. CHECKED:

25. CONDUCTOR LEGEND

26. DATA CABINET
**SITE LIGHTING INSTALLATION**

**CONDUCTOR LEGEND**

1. **2.5mm² Conductors** shall be used for all lighting circuits.
2. **4mm² Conductors** shall be used for all socket and stove circuits.
3. All 3 core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protective earth conductor.
4. All 4 core cables shall consist of 3 live phase conductors and a neutral conductor with an external bare copper earth wire strapped to the cable at 1m intervals.

**NOTES**

All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

**CONSTRUCTION**

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**ISSUED FOR CONSTRUCTION**

A03/08/15 TM SB Issued for Peer Review
L3.1 04/12/15 TM SB Issued for Construction
L3.2 09/10/15 TM CB Issued for Client Review
L3.3 26/11/15 TM CB Issued for Client Approval

**DRAWING NUMBER**

C00290-00-EL-DAL-0009
C00290-00-EL-DAL-0036
C00290-00-EL-DES-0001-002
C00290-00-EL-DAL-0037
C00290-00-EL-DAL-0038
C00290-00-EL-DAL-0039
C00290-00-EL-DAL-0040

**DETAILED FEATURES**

- **Site Lighting Layout - Police Station**
  - 1:200 Scale
  - Details for lighting installation

- **Lighting Layout - Police Station**
  - 1:50 Scale
  - Additional lighting details

- **Lighting Layout - Police Station Cells**
  - 1:50 Scale
  - Details for cell lighting

**PROJECT**

AMA1 RESETTLEMENT VILLAGE

**Client:** Mozambique

**Designer:** WorleyParsons RSA (Pty) Ltd.

**Architect:** S Bedasie

**Engineering Manager:** C Brandsen

**Client Engineer:** L Padayachee

**PR Eng:** W Snyman

**Local PR Eng:** DB-PS

**Local Client:** Anadarko

**Address:**

P.O. Box 61232, MARSHALLTOWN, 2107

TEL: +27 (0)11 218 3000
FAX: +27(0)11 218 3100

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Earthing Layout - Police Station Cells

1:50

1. EARTH RING CONDUCTOR MUST BE INSTALLED A MINIMUM OF 1.5M FROM THE NEAREST WALL AND BURIED AT A MINIMUM DEPTH OF 500mm.

2. LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE CERTIFIED FOR USE IN LIGHTNING PROTECTION SYSTEMS.

3. LIGHTNING PROTECTION SYSTEMS SHALL BE DESIGNED AND INSTALLED BY A CERTIFIED LIGHTNING PROTECTION COMPANY.

4. A MINIMUM OF TWO 70mm² BONDING CONDUCTOR CONNECTIONS SHALL BE MADE TO ADJACENT AREA STRUCTURE EARTHING LOOPS.

NOTE: SEE DRAWING C00290-00-EL-DAL-0009 FOR OVERVIEW.
1. EARTH RING CONDUCTOR MUST BE INSTALLED A MINIMUM OF 1.5M FROM THE NEAREST WALL AND BURIED AT A MINIMUM DEPTH OF 500mm.

2. LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE CERTIFIED FOR USE IN LIGHTNING PROTECTION SYSTEMS.

3. LIGHTNING PROTECTION SYSTEMS SHALL BE DESIGNED AND INSTALLED BY A CERTIFIED LIGHTNING PROTECTION COMPANY.

4. A MINIMUM OF TWO 70mm² BONDING CONDUCTOR CONNECTIONS SHALL BE MADE TO ADJACENT AREA STRUCTURE EARTHING LOOPS.

NOTE: SEE DRAWING C00290-00-EL-DAL-0009, STAND NUMBER 244 FOR OVERVIEW.
1. SINGLE SOCKET OUTLET
2. SINGLE SOCKET OUTLET
3. SINGLE SOCKET OUTLET
4. SINGLE SOCKET OUTLET
5. DOUBLE SOCKET OUTLET

**Lighting Layout - School Staff Housing**

1. SINGLE SOCKET OUTLET
2. SINGLE SOCKET OUTLET
3. SINGLE SOCKET OUTLET
4. SINGLE SOCKET OUTLET
5. DOUBLE SOCKET OUTLET

**Power Layout - School Staff Housing**

1. SINGLE PHASE SWITCH
2. SINGLE PHASE SWITCH DISCONNECTOR
3. SINGLE PHASE CIRCUIT BREAKER
4. SINGLE PHASE CIRCUIT BREAKER DISCONNECTOR
5. SINGLE PHASE CIRCUIT BREAKER FOR ISOLATION

**Schematic - School Staff Housing**

1. SINGLE PHASE SWITCH
2. SINGLE PHASE SWITCH DISCONNECTOR
3. SINGLE PHASE CIRCUIT BREAKER
4. SINGLE PHASE CIRCUIT BREAKER DISCONNECTOR
5. SINGLE PHASE CIRCUIT BREAKER FOR ISOLATION

**Notes**

- All socket outlets to be mounted in a weatherproof box.
- The light fitting will be equal or better than RADIANT TYPE LS896 with a 70W MH lamp mounted on a 4m galvanized steel pole.
- All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.
- Copyright reserved.
**Lighting Legend**

1. ALL SOCKET OUTLETS TO BE MOUNTED AT 300mm ABOVE FFL.

2. 2 X 26W COMPACT FLUORESCENT RECESSED DOWN LIGHT, WITH ECG, HORIZONTALLY MOUNTED COOL WHITE LAMPS & 3M 3CORE 1MM² CABTYRE AND 6A PLUGTOP. THE FITTING WILL BE EQUAL OR BETTER THAN RADIANT TYPE BB74 POWER POLE WITH 2 X DOUBLE SOCKET OUTLET.

3. 1 X 26W COMPACT FLUORESCENT WALL/CEILING MOUNTED DECORATIVE LIGHT (EQUAL OR BETTER THAN RADIANT TYPE WT6E).

4. 1X26W COMPACT FLUORESCENT CEILING MOUNTED LUMINARIES WITH COOL WHITE LAMPS & ECG (EQUAL OR BETTER THAN RADIANT TYPE JL25).

5. 1X18W COMPACT FLUORESCENT CEILING MOUNTED LUMINARIES WITH COOL WHITE LAMPS & ECG (EQUAL OR BETTER THAN RADIANT TYPE JL25).

6. 2 X 36W OPEN FLUORESCENT LUMINAIRE WITH ECG. (EQUAL OR BETTER THAN LASCON TYPE RI/T-236-ELB).

7. 2 X 36W OPEN FLUORESCENT LUMINAIRE WITH ECG. (EQUAL OR BETTER THAN LASCON TYPE RI/T-136-ELB).

8. A 4M GALVANIZED STEEL POLE.

9. ONE LEVER LIGHT SWITCH

10. TWO LEVER LIGHT SWITCH

11. THREE LEVER LIGHT SWITCH

12. 2-WAY LIGHT SWITCH

13. SINGLE PHASE DISCONNECTOR

14. SINGLE PHASE DISCONNECTOR (OFF LOAD ISOLATOR)

15. TRIPHOSPHOR LAMPS AND ECG

16. THREE PHASE SWITCH DISCONNECTOR

17. THREE PHASE DISCONNECTOR (OFF LOAD ISOLATOR)

18. THREE PHASE CIRCUIT BREAKER

19. THREE PHASE CIRCUIT BREAKER (FOR ISOLATION)

20. THREE PHASE CIRCUIT BREAKER (FOR ISOLATION)

21. RCBO PROTECTION

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1. All socket outlets to be mounted at 300mm above FFL.

2. Earth ring conductor must be installed a minimum of 1.5m from the nearest wall and buried at a minimum depth of 500mm.

3. Lighting protection system components shall be certified for use in lightning protection systems.

4. All 3-core cables shall consist of 1 live phase conductor, 1 neutral conductor and a protected earth conductor.

5. A minimum of two 70mm² bonding conductors shall be fed from pole mounted meter box.
1. All socket outlets to be mounted at 300mm above f.f.l.

2. 2.5mm² conductors shall be used for all lighting circuits.

3. 4mm² conductors shall be used for all socket outlet circuits.

4. 6mm² conductors shall be used for all geyser and stove circuits.

5. All 3 core cables shall consist of 1 live phase conductor, a neutral conductor and an external bare copper earth wire strapped to the cable at 1m intervals.

6. 5kA 230V IP21 single phase switch.

7. 10kA three phase switch.

8. 20A single phase isolator.

9. 30mA RCBO protection.

10. 10A single phase isolator.

11. 30mA RCBO protection.

12. One lever light switch.

13. Two lever light switch.


15. Three phase switch.

16. Three phase isolator.

17. Two way light switch.

18. Distribution board location.

19. Double pole isolator.

2 X 26W COMPACT FLUORESCENT FLOOD LIGHT, WITH ECG & COOL WHITE LAMPS. THE LUMINAIRES WILL BE SUITABLE FOR WALL &/OR POLE MOUNTING COMPLETE WITH 4M POLE WHERE REQUIRED. (THE POLE AND A DOUBLE SOCKET OUTLET THE LIGHT FITTING WILL BE EQUAL OR BETTER APPROVED THAN PS76MS ‘POLE’ AND LS122 ‘LIGHT’ FROM RADIANT)

1. ALL SOCKET OUTLETS TO BE MOUNTED AT 300mm ABOVE FFL.

2. EARTH RING CONDUCTOR MUST BE INSTALLED A MINIMUM OF 1.5M FROM THE NEAREST WALL AND SOCKET OUTLET.

1X26W COMPACT FLUORESCENT WALL/CEILING MOUNTED DECORATIVE LIGHT FITTING WILL BE EQUAL OR BETTER APPROVED THAN RADIANT TYPE JL25

36W OPEN FLUORESCENT LUMINAIRE WITH ECG. (EQUAL OR BETTER THAN RADIANT TYPE LS896 WITH A 70W MH LAMP MOUNTED ON A 4M GALVANIZED STEEL POLE.)

1 X 36W WEATHER PROOF TO IP 55 FLUORESCENT LUMINAIRE WITH TRIPHOSPHOR LAMPS AND ECG

CONDUCTOR LEGEND

1. 2.5mm2 CONDUCTORS SHALL BE USED FOR ALL LIGHTING CIRCUITS

2. 4mm2 CONDUCTORS SHALL BE USED FOR ALL SOCKET OUTLET AND STOVE CIRCUITS

3. ALL 3 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE AND 2 NEUTRAL/NEUTRAL CONDUCTORS WITH THE 3RD CORE (GROUND) INTACT

4. ALL 4 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE, 1 NEUTRAL/NEUTRAL CONDUCTOR AND A PROTECTED EARTH CONDUCTOR

5. ALL 4 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE, 1 NEUTRAL/NEUTRAL CONDUCTOR AND A PROTECTED EARTH CONDUCTOR
Lighting Legend:
- SINGLE SOCKET OUTLET
- DOUBLE SOCKET OUTLET
- LIGHT FITTING

Scale for Reduced Plan:
- 10
- 40
- 20
- 500
- 30
- 0

Notes:
- "POLE" AND "LIGHT" FROM RADIANT (L2)
- VOIP DATA POINT, TV POINT
- DOUBLE POLE ISOLATOR
- A 4M GALVANIZED STEEL POLE
- ONE LEVER LIGHT SWITCH
- TWO LEVER LIGHT SWITCH
- THREE LEVER LIGHT SWITCH
- DISTRIBUTION BOARD LOCATION

CONDUCTOR LEGEND:
- 2.5mm² CONDUCTORS SHALL BE USED FOR ALL LIGHTING CIRCUITS
- 4mm² CONDUCTORS SHALL BE USED FOR ALL SOCKET OUTLET CIRCUITS
- 6mm² CONDUCTORS SHALL BE USED FOR ALL GEYSER CIRCUITS
- ALL 3 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE CONDUCTOR, 1 NEUTRAL CONDUCTOR AND A PROTECTED EARTH CONDUCTOR
- ALL 4 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE CONDUCTOR, 1 NEUTRAL CONDUCTOR, A PROTECTED EARTH CONDUCTOR AND AN EXTERNAL BARE COPPER EARTH WIRE STRAPPED TO THE CABLE AT 1M INTERVALS
SINGLE SOCKET OUTLET
2 X 26W COMPACT FLUORESCENT FLOOD LIGHT, WITH ECG & COOL WHITE LAMPS. THE LUMINAIRES WILL BE SUITABLE FOR WALL &/OR POLEMOUNTING COMPLETE WITH 4M POLE WHERE REQUIRED. THE FITTINGS WILL BE EQUAL OR BETTER THAN RADIANT TYPE MILSAT.

SINGLE SOCKET OUTLET
2 X 26W COMPACT FLUORESCENT RECESSED DOWN LIGHT, WITH ECG, HORIZONTALLY MOUNTED COOL WHITE LAMPS & 3M 3CORE 1MM² CABTYRE AND 6A PLUGTOP. THE FITTINGS WILL BE EQUAL OR BETTER THAN RADIANT TYPE MILSAT.

SINGLE SOCKET OUTLET
1 X 36W WEATHER PROOF TO IP 55 FLUORESCENT LUMINAIRE WITH TRIPHOSPHOR LAMPS AND ECG (EQUAL OR BETTER THAN RADIANT TYPE LS896 WITH A 70W MH LAMP MOUNTED ON A 4M GALVANIZED STEEL POLE.

DOUBLE SOCKET OUTLET
2 X 36W OPEN FLUORESCENT LUMINAIRE WITH ECG. (EQUAL OR BETTER THAN RADIANT TYPE JL25)

SINGLE PHASE DISCONNECTOR (OFF LOAD ISOLATOR)

SINGLE PHASE CIRCUIT BREAKER

THREE PHASE DISCONNECTOR (OFF LOAD ISOLATOR)

THREE PHASE CIRCUIT BREAKER FOR ISOLATION

THREE PHASE CIRCUIT BREAKER

POLYPROTECTION

1. 2.5mm² CONDUCTORS SHALL BE USED FOR ALL LIGHTING CIRCUITS
2. 4mm² CONDUCTORS SHALL BE USED FOR ALL SOCKET OUTLET CIRCUITS
4. ALL 3 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE CONDUCTOR, 1 NEUTRAL CONDUCTOR AND A PROTECTED EARTH CONDUCTOR
6. ALL 3 CORE CABLES SHALL CONSIST OF 1 LIVE PHASE CONDUCTORS AND A NEUTRAL CONDUCTOR WITH AN ALTERNATING BASE CORES WITH INNER STRAPPING TO THE CABLE AT 45° INTERVALLS
7. POWER CABLES SHALL BE BURIED DIRECTLY BY A MEMBER OF THIS SINGLE METER SPACE
9. WHERE POWER CABLES ARE BURIED BELOW GRADE 2M SLEEVES SHALL BE INSTALLED
Control Diagram - Borehole Pump

1: 10

POWER ON

IS THERE A PHASE OUT? (F1)

IS THE DEAD MAN THE DEAD MAN? (F2)

STOP PUMP (K1)

START PUMP (K1)

STOP IS SECONDARY DEAD MAN? (F3)

IS THE PUMP INTERMITTENTLY OPERATING? (F4)

STOP PUMP (K1)

LEVEL TRANSMITTER - ENDRESS & HAUSER LT. RIA452

LEVEL PROBE FMX21

22mm DIAMETER WITH 60m FEP CABLE AND A 20m MEASURING RANGE

Control Schematic - Borehole Pump

1: 28

Endress & Hauser

Level Transmitter

Level Probe

Control Legend

- Single Pole Normally Open Contact
- Single Pole Normally Closed Contact
- Single Pole Double Through Contact
- Single Pole Normally Open Push Button Switch
- Single Pole Normally Closed Push Button Switch
- Single Pole Circuit Breaker
- Double Pole Circuit Breaker With Earth Leakage Protection
- Triple Pole Circuit Breaker With Earth Leakage Protection
- 3 Phase Volt Meter
- Ammeter
- 3 Phase Motor
- Overload Detector
- 10kA Surge Protector
- Fuse
- Timer
- Relay Coil
- Contactor Coil
- Indicator Lamp With Letter Denoting Colour
- Interlock

NOTES

SINGLE POLE NORMALLY OPEN CONTACT

PROTECTION

IS THERE A YES NCNO

PHASE FAILURE?

TRIPLE POLE CIRCUIT BREAKER WITH EARTH LEAKAGE

CONTROL

PROTECTION

3 PHASE VOLT METER

DESCRIPTION

NO

IS IT TIME FOR THE YES

STOP PUMP (K1)

RELAY 2/R1

WAIT 5 SECONDS (T3/R3)

YES

RELAY 3

RELAY 4

LEVEL TRANSMITTER

LEVEL PROBE

22mm DIAMETER WITH 60m FEP CABLE AND A 20m MEASURING RANGE

NO

IS THE FLOW YES

HEALTHY? (FS-01)

NO

IS IT TIME FOR THE YES

STOP PUMP (K1)

RELAY 2/R1

WAIT 5 SECONDS (T3/R3)

YES

RELAY 3

RELAY 4

LEVEL TRANSMITTER

LEVEL PROBE

22mm DIAMETER WITH 60m FEP CABLE AND A 20m MEASURING RANGE

STOP PUMP (K1)

REVERSED

CONTROL

PROTECTION

3 PHASE VOLT METER

DESCRIPTION

NO

IS IT TIME FOR THE YES

STOP PUMP (K1)

RELAY 2/R1

WAIT 5 SECONDS (T3/R3)

YES

RELAY 3

RELAY 4

LEVEL TRANSMITTER

LEVEL PROBE

22mm DIAMETER WITH 60m FEP CABLE AND A 20m MEASURING RANGE

STOP PUMP (K1)

REVERSED

CONTROL

PROTECTION

3 PHASE VOLT METER

DESCRIPTION

NO
Earthing Layout - Well Fence

1. BARE COPPER EARTH WIRE INSTALLED 1.5M FROM FENCE AND 0.6M BELOW FINISHED GROUND LEVEL.
2. LIGHTNING PROTECTION SYSTEMS SHALL BE DESIGNED AND INSTALLED BY A CERTIFIED LIGHTNING PROTECTION COMPANY AND LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE CERTIFIED FOR USE IN LIGHTNING PROTECTION SYSTEMS.
3. A MINIMUM OF TWO 70mm² BONDING CONDUCTOR CONNECTIONS SHALL BE MADE TO ADJACENT AREA STRUCTURE EARTHING LOOPS.
4. SEE DRAWING C00290-00-EL-DES-0001 FOR EARTHING TYPICAL DRAWINGS.

EARTHING LEGEND
□ CADWELDED CONNECTION
□ BARE COPPER EARTH WIRE WITH CADWELDED CONNECTION DRIVEN INTO EARTH A MINIMUM OF 3M
□ GROUND CONDUCTOR
□ 70MM² BARE COPPER EARTH WIRE

NOTE:
EARTH CONDUCTOR MUST BE WELDED OR BOLTED TO THE FENCE POLE WITH A SHAKES PROOF WASHER.

Earthing Wire to Be Bolted to Gate
1. Earthing Ring conductor must be installed a minimum of 1.5m from the nearest wall and buried at a minimum depth of 500mm.

2. Down conductors fitted to structures will be done as follows:
   A) Screwed to earthing tabs
   B) CADwelded to provide a permanent fixing method.

3. Power cables shall be buried directly at a minimum of 600mm below grade.

See drawing C00290-00-EL-DES-0001 for earthing typical drawings.
9. MARKET
**ALCADO FRONTAL**

**Front elevation**

**Legenda**

1. Coluna em betão
2. Acabamento do pavimento em cimento queimado
3. Alvenaria em blocos vazados com espessura de 200mm
4. Parede com retoflex las, pintada a tinta plástica
5. Varanda em bloco de 200mm com tampo em betão queimado
6. Base do plano em betão, pintado a tinta plástica
7. Cobertura em chapas metálicas esmaltadas com perfil IBR
8. Curea em chapa esmaltada
9. Rulos em aço galvanizado
10. Galvanizado chapa gable flushing

**ALCADO LATERAL**

**Side elevation**

**Corte A-A**

**Section A-A**

**NOTES**

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**MERCADO LAYOUT**

**MARKET LAYOUT**

**AS SHOWN**

**NOVEMBER 2015**

**Archive reference number:** 02060-05-AP-DL-0021-001
REFERENCES

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<td>EA-MZ-CI0100-WOR-E05-00795-02</td>
<td>COMMUNITY FACILITIES: MARKET, TOILET, INTERNAL RETICULATIONS</td>
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**TYPICAL FLOOR PLAN: ENVIRO LOO (SCHEMATIC)**

**NOTES**

1. **ENVIRO LOO** suitable for industrial use.
   - Capacity per **ENVIRO LOO**, 20 to 40 users per day.

2. **ENVIRO LOO** to be installed in accordance with manufacturer’s specifications.

**REFERENCES**

- ANADARKO DRAWING NO. EA-MZ-CI0100-WOR-E05-00112-01
- COMMUNITY FACILITIES: MARKET, RETICULATIONS
- COMMUNITY FACILITIES: MARKET, TOILET, INTERNAL RETICULATIONS
- COMMUNITY FACILITIES: MARKET, SCAFFOLDING, DETAILING

**PR ENG:**

**DESIGNER:**

**CHECKED:**

**DRAWN BY:**

**NAME:**

**SIGNATURE:**

**DATE:**

- 03/12/2015
- 03/12/2015
- 03/12/2015
- 03/12/2015

**MESSAGE:**

- FOUNDATIONS AS PER STRUCTURAL.
  - ENGINEERS DRAWING NO. WA-MZ-CI0100-WOR-E05-00016-01

**NOTE:**

- NO EMERGENCY CHAMBER OR OUTLET VENTILATION PIPE BETWEEN MULTIPLE TANKS
TYPICAL FOOTING REINFORCEMENT
SCALE 1: 25

SECTION A
SCALE 1: 10

SECTION B
SCALE 1: 10

ANADARKO DRAWING NUMBER

CHECKED
DATE

PROJECT

REVISIONS

CLIENT:

DONE
BY

DESCRIPTION

NO.

DRAWING NUMBER

SCALE
DATE

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.
## Community Facilities - Admin. Centre Internal Drainage Connections

### Plan - Market Toilets

### Diagram:

- **15mm Copper Pipe**
- **20mm HDPE Pipe**
- **50mm ND PVC Pipe**
- **110mm ND PVC Pipe**
- **40mm ND HDPE Pipe**

### Typical Water Supply Detail at Buildings

**NOTES**

- **CLIENT:**
  - **DRAWING NUMBER:**
  - **SCALE:**
  - **DATE:**
  - **ANADARKO DRAWING NUMBER:**
  - **CHECKED:**
  - **DATE:**
  - **PROJECT:**
  - **REVISIONS:**
  - **PR ENG:**
  - **DESIGNER:**
  - **CHECKED:**
  - **DRAWN BY:**
  - **NAME:**
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- **All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.**

### Community Facilities - Community Centre Water Supply

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<th>DESCRIPTION</th>
<th>UNIT</th>
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<tbody>
<tr>
<td>A</td>
<td>20mm/15mm HDPE / COPPER ADAPTOR</td>
<td>/ lb</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>90° ELBOW - COPPER</td>
<td></td>
<td>8</td>
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<tr>
<td>C</td>
<td>TOILETS:</td>
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<tr>
<td>C1</td>
<td>STRAIGHT COUPLER, COPPER TO MALE CONN.</td>
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<td>C2</td>
<td>KITCHEN SINK/HAND WASH/BASIN / SHOWER WALL PLATE ELBOW TAP CONNECTOR, COPPER TO FEMALE CONNECTION</td>
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<tr>
<td>C3</td>
<td>ISOLATING VALVE</td>
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<td>C4</td>
<td>WALL PLATE ELBOW TAP CONNECTOR</td>
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<tr>
<td>C5</td>
<td>CONCRETE HOLLOW BLOCK WALL</td>
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**TYPICAL WATER SUPPLY DETAIL AT BUILDINGS**

- **NOTE:** Internal pipe to be installed flush against wall.
Double leaf gate to specialist design
Portão metálico de acordo com as especificações do especialista
Walkway in "PolyCam polymer" or similar, colour to client
Passeio em "PolyCam polymer" ou semelhante, cor a ser decidida pelo cliente
Fence to be "Anti-Dazzle Welded Mesh Panel Fencing" 2.1m height by AZTECH or similar
Vedação sera "AZTECH Anti-Dazzle Welded Mesh Panel Fencing" com 2,1m de altura de acordo com as especificações do fabricante ou semelhante
Sliding gate to specialist design
Portão metálico de acordo com as especificações do especialista
10. MASS EARTH WORKS
<table>
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<td>50mm ON ORIGINAL DRAWING</td>
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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.