

#### PROCUREMENT OF

# CONSTRUCTION WORKS FOR THE PROPOSED KIBERA INVESTMENT DELIVERING SAFE WATER (K.I.D.S.) PROJECT

CONTRACT NO.: SHOFCO-KIBRA-LOT2-2022

**VOLUME IV: BOOK OF DRAWINGS** 

**JULY 2022** 





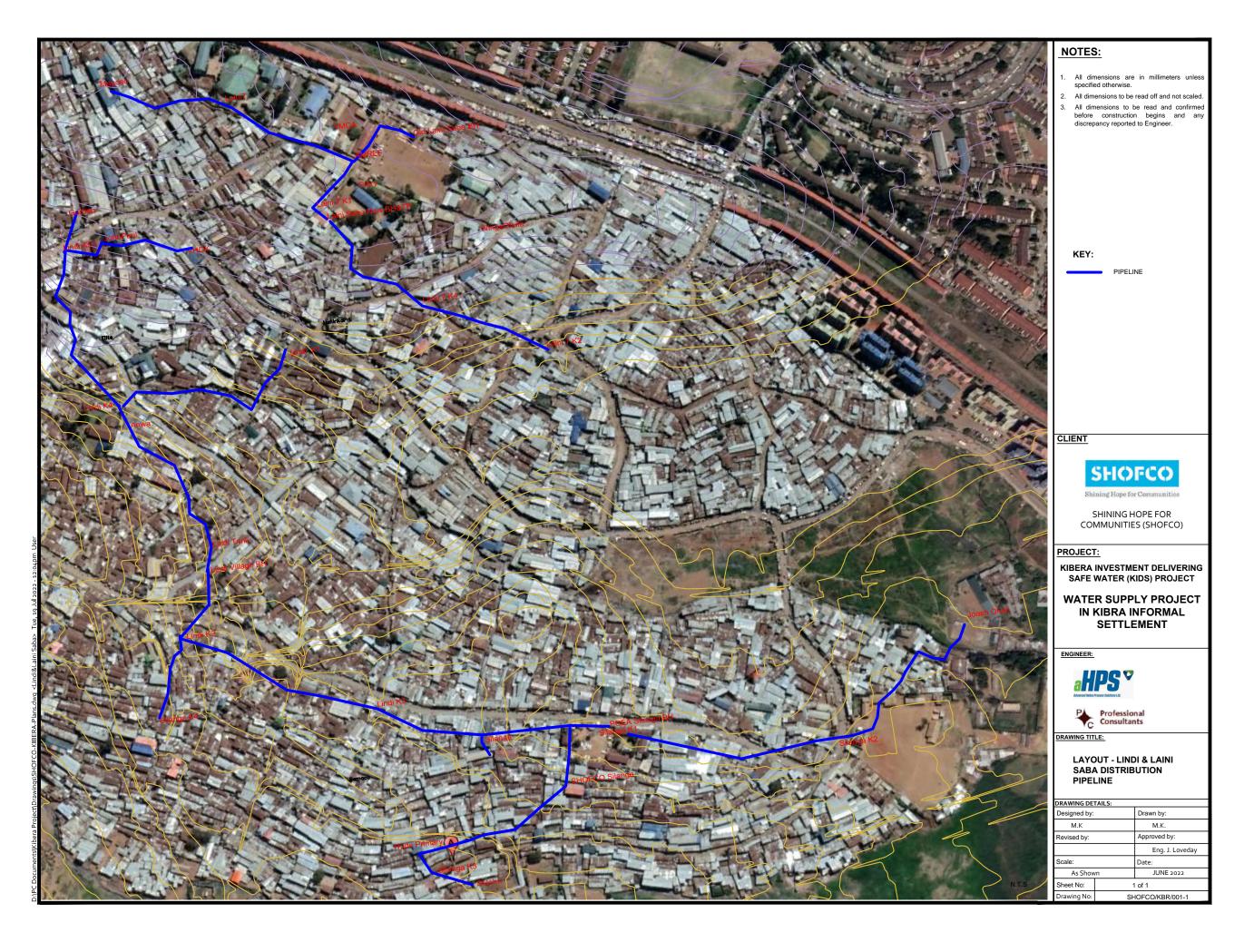
### KIBERA INVESTMENT DELIVERING SAFE WATER PROJECT

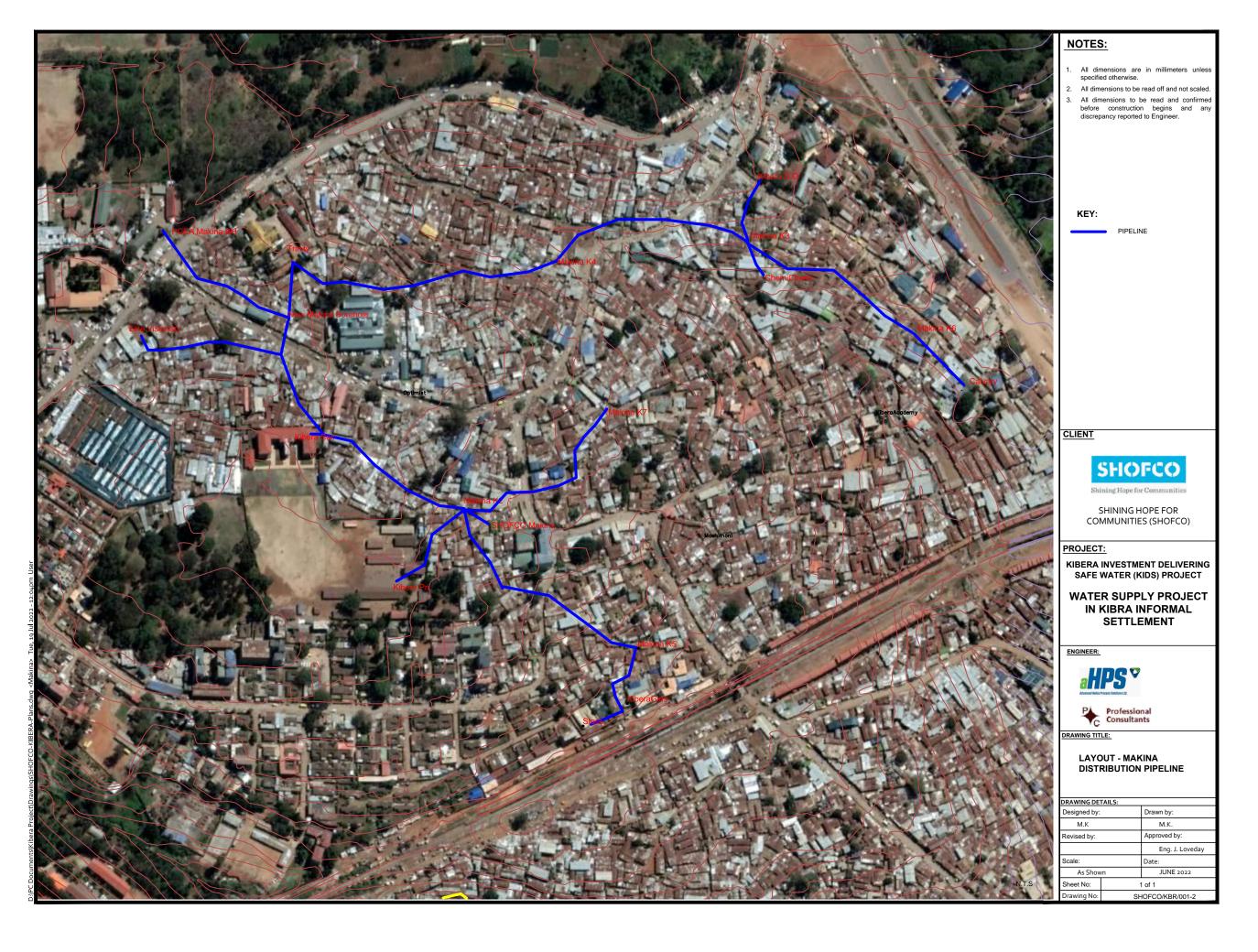
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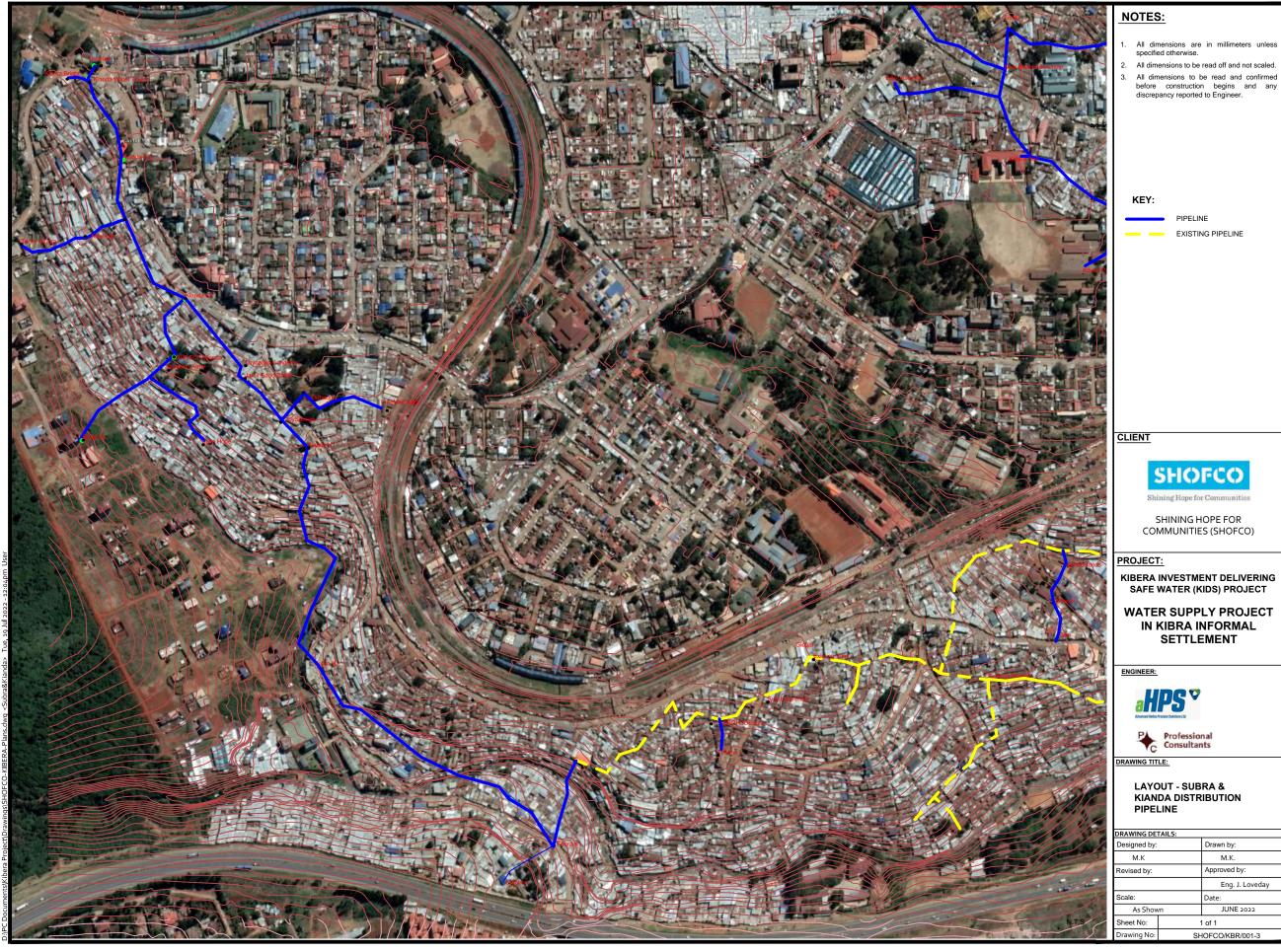
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## PIPELINE NETWORK







Drawn by: Designed by: M.K M.K. evised by: Eng. J. Loveday JUNE 2022 Sheet No: 1 of 1 SHOFCO/KBR/001-3

Professional Consultants

All dimensions to be read off and not scaled All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.

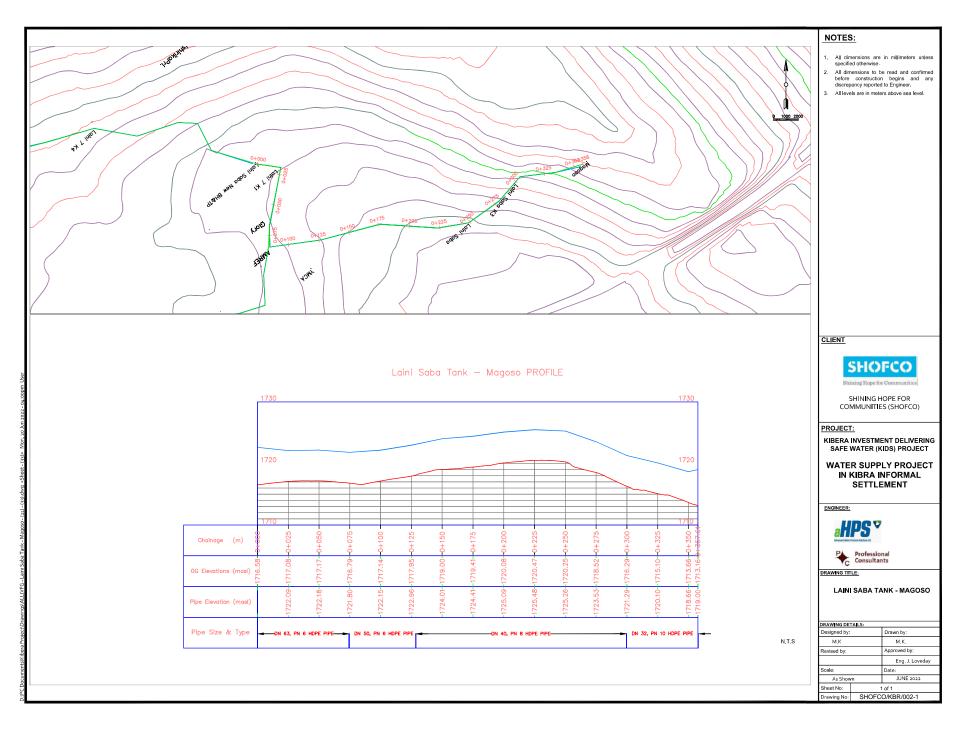
PIPELINE

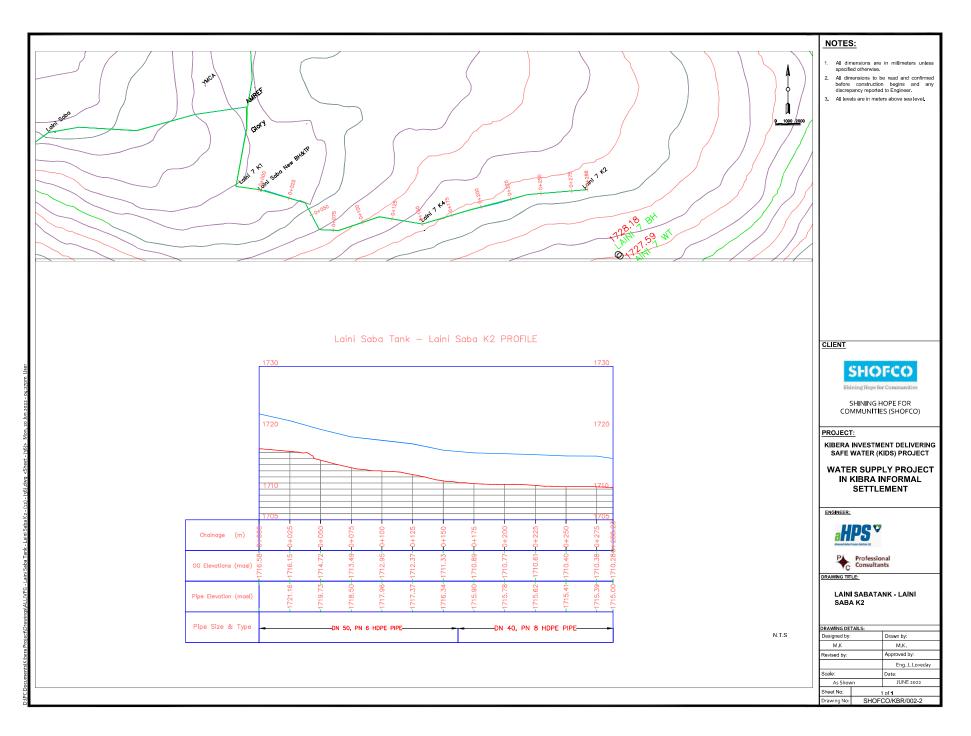
**SHOFCO** 

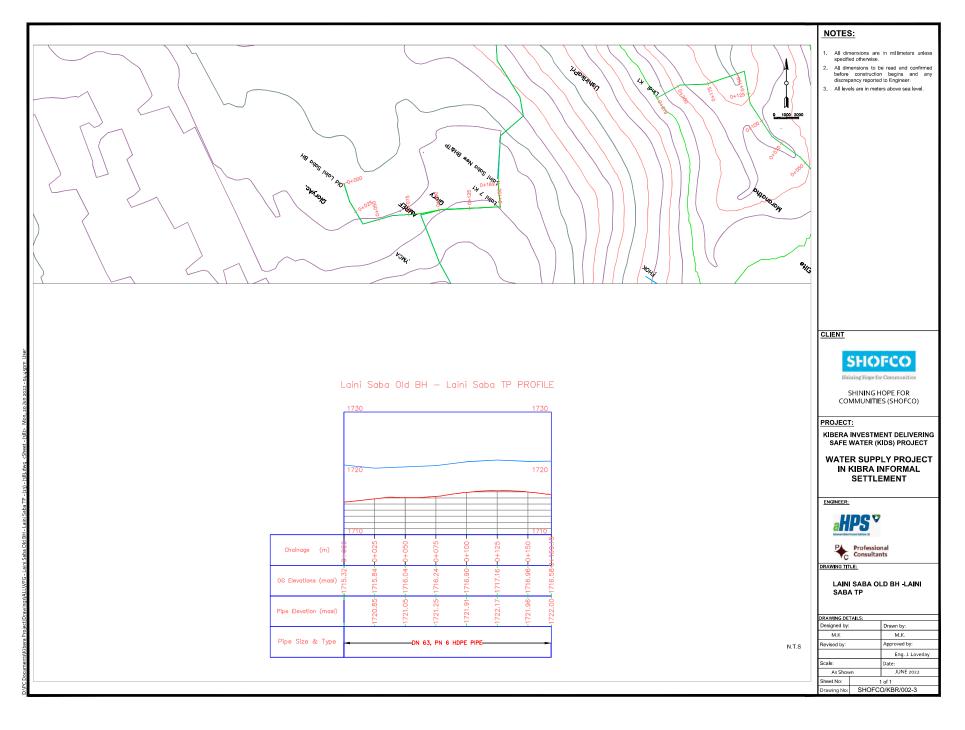
SHINING HOPE FOR COMMUNITIES (SHOFCO)

KEY:

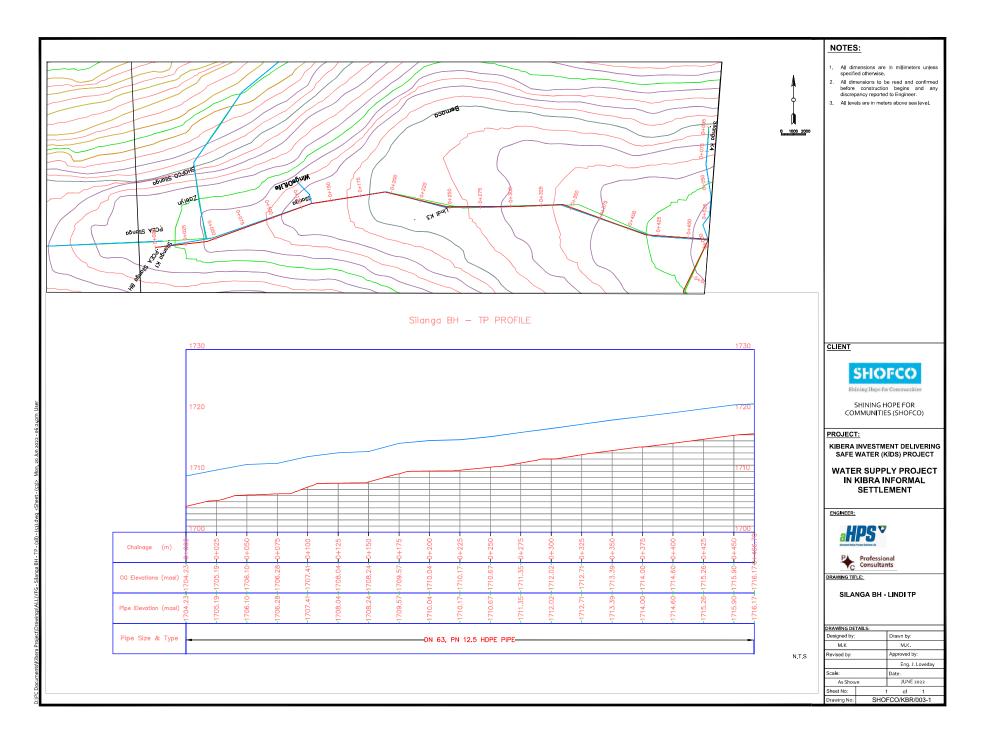
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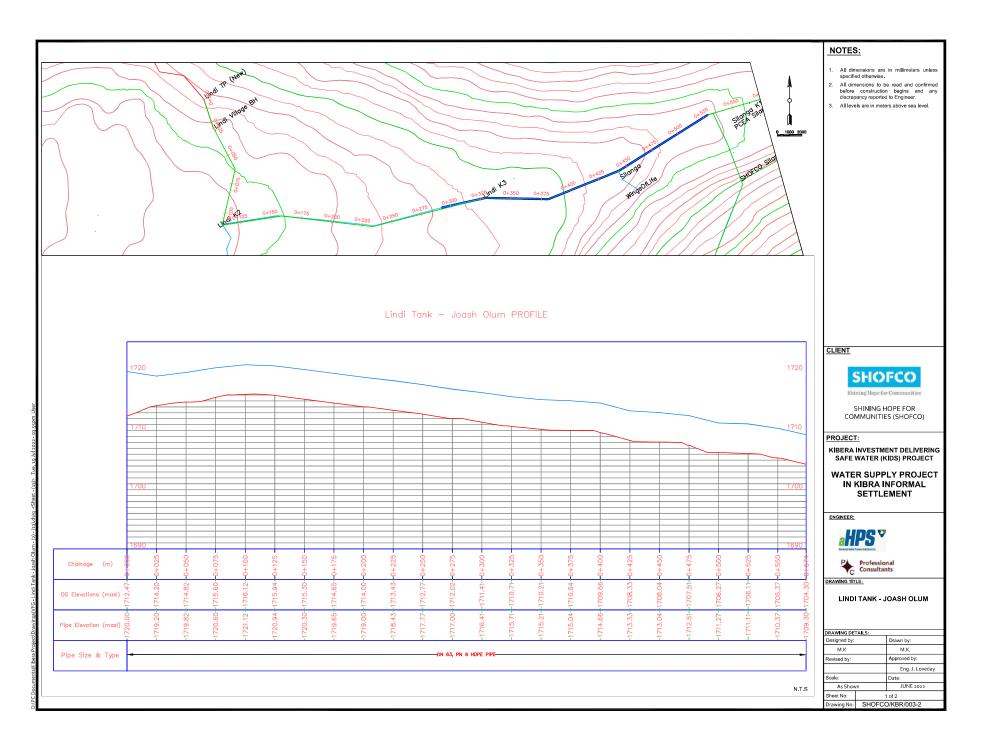


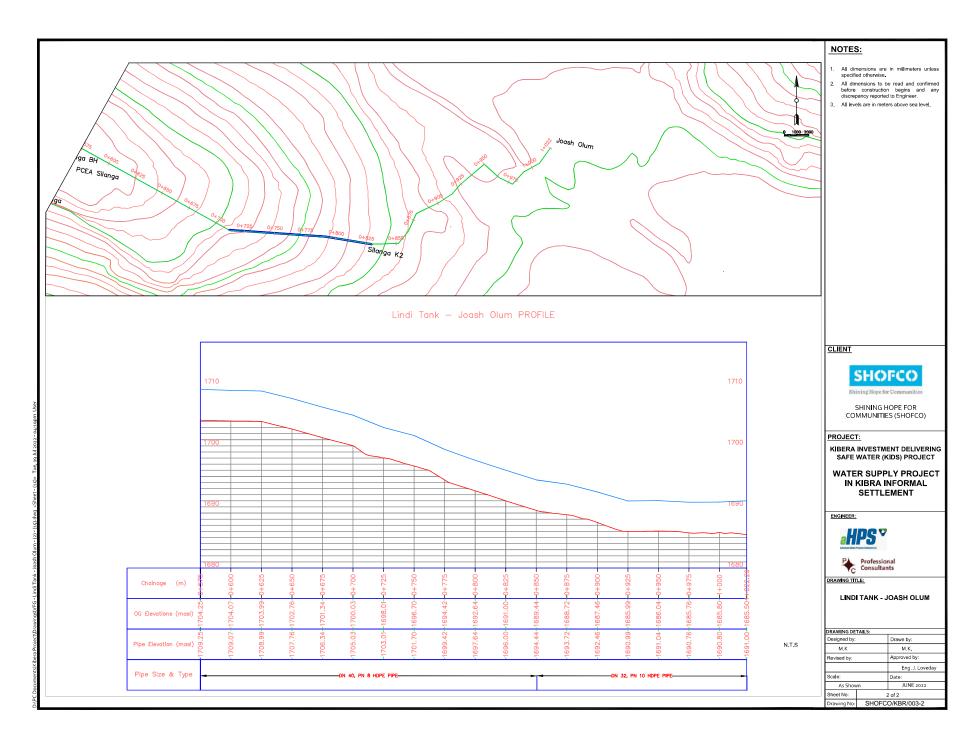


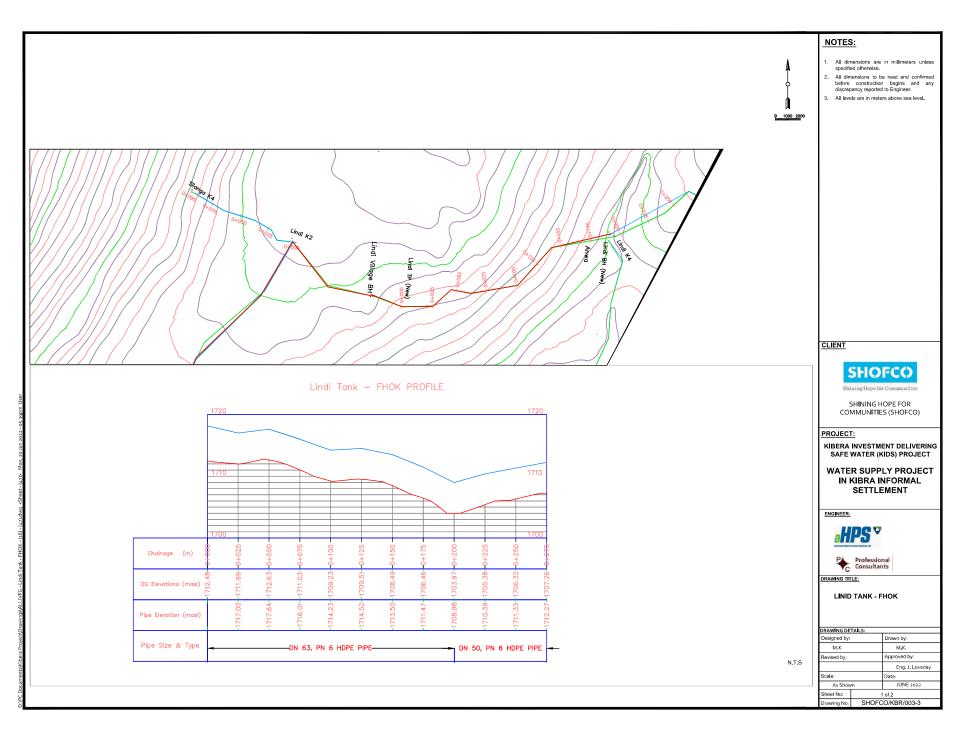


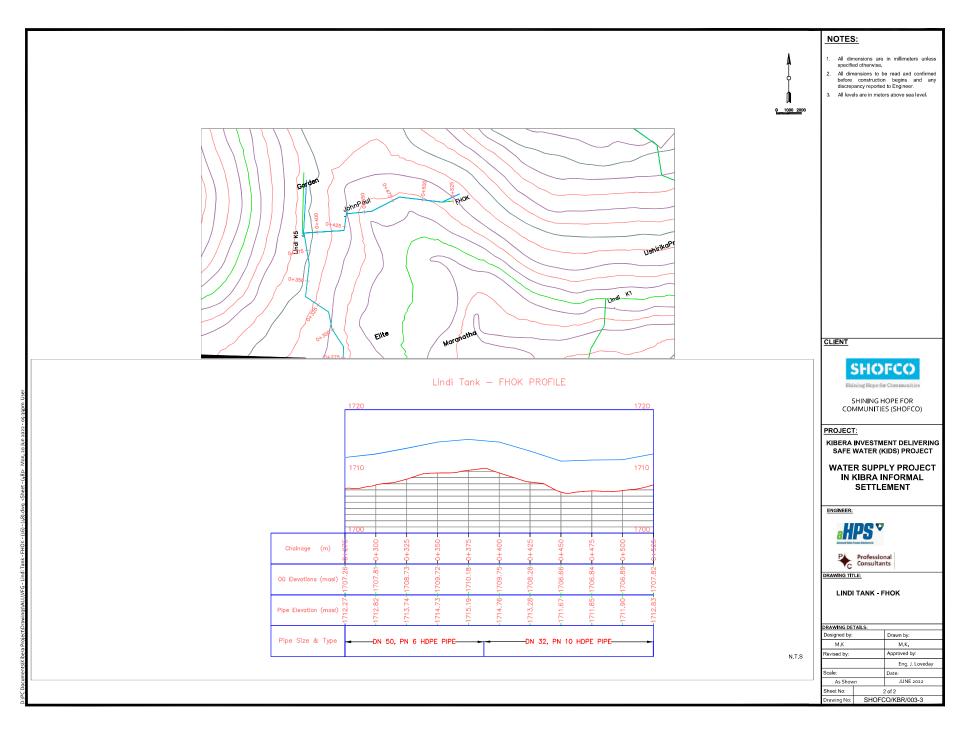
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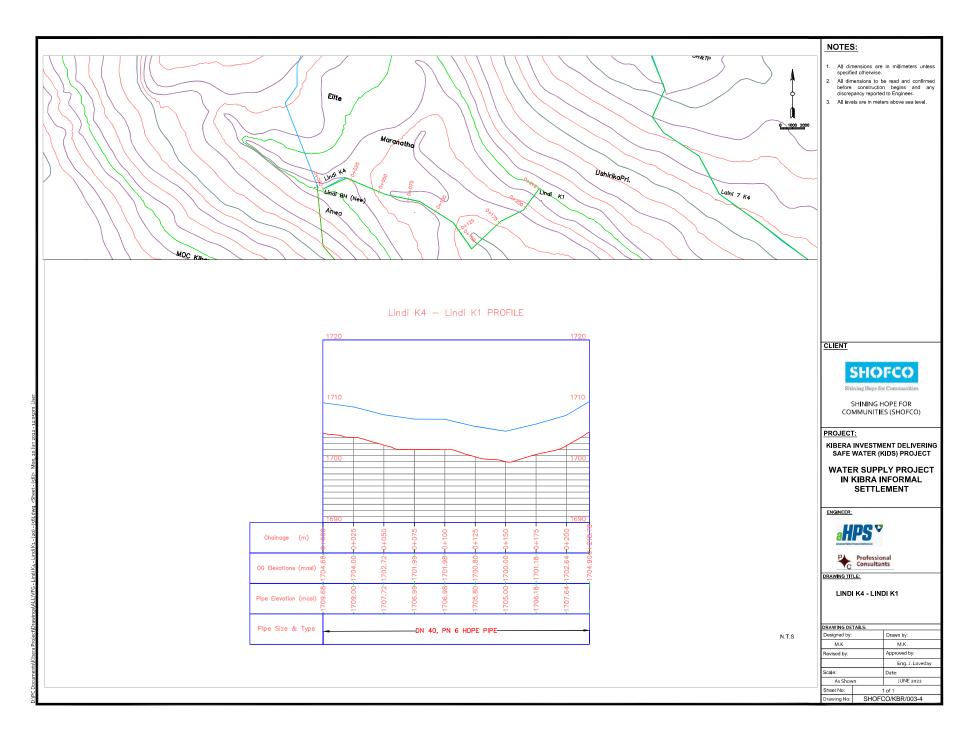


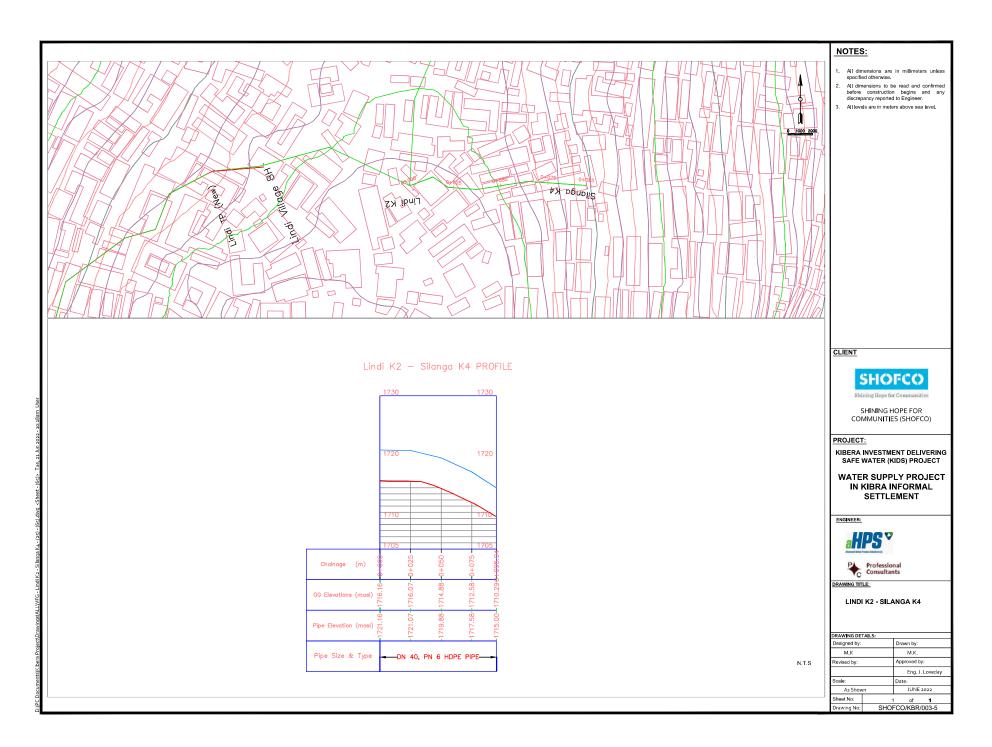


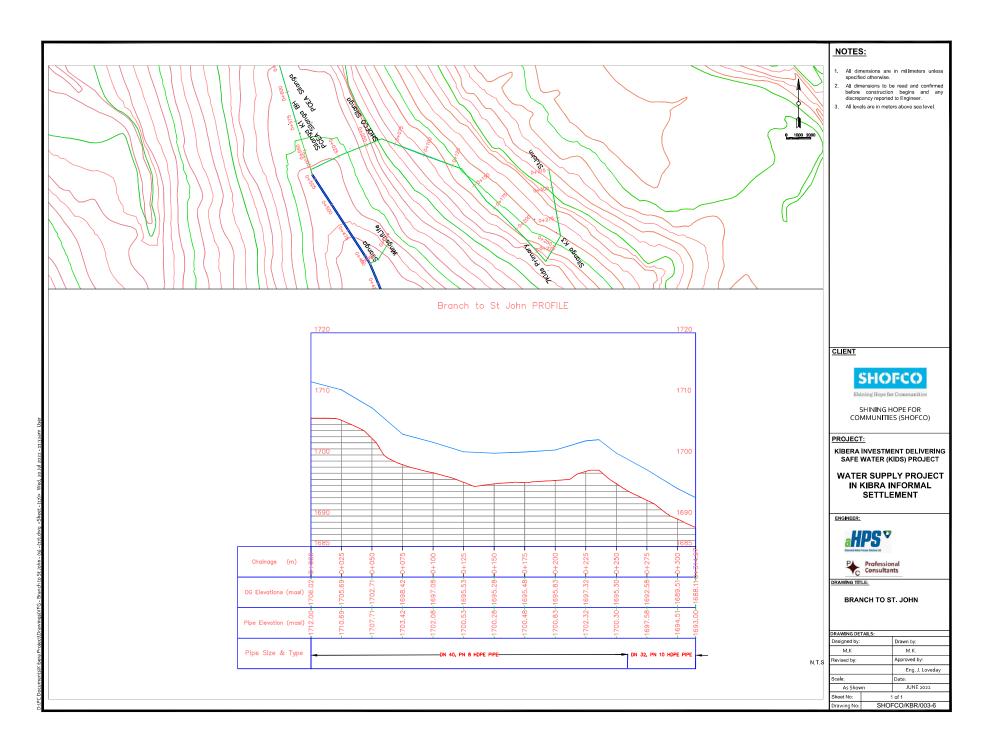




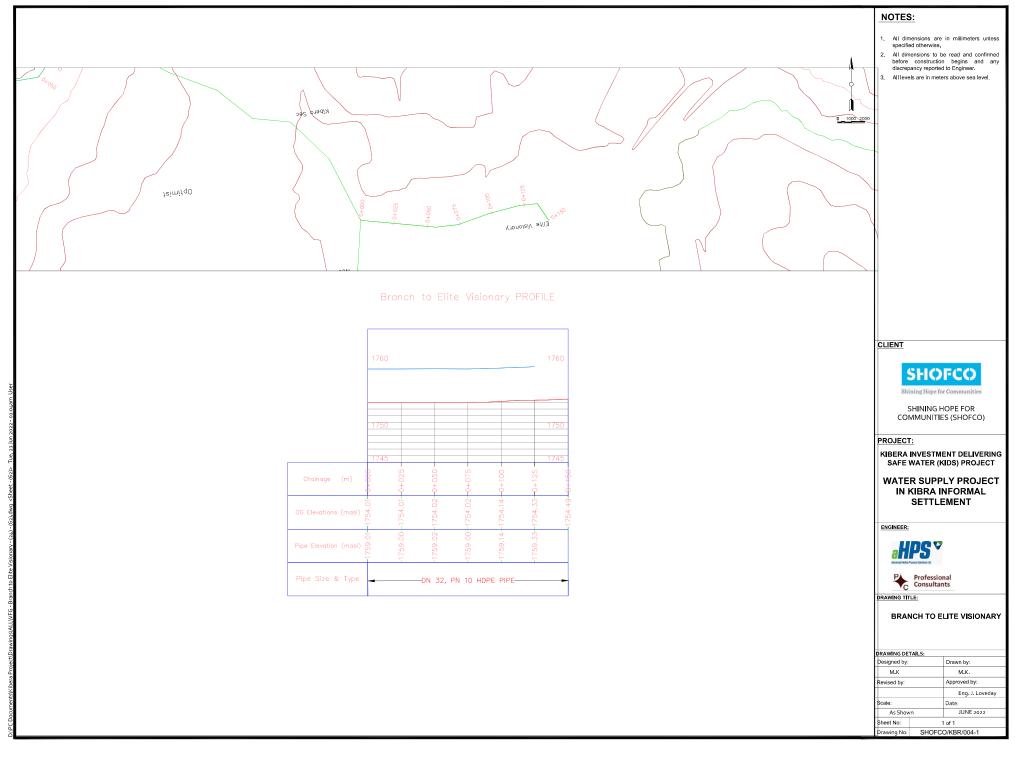


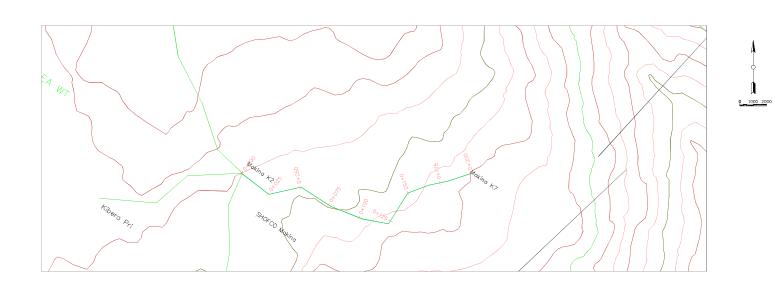






### **MAKINA NETWORK**





#### NOTES:

- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- 3. All levels are in meters above sea level.

CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

#### PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:



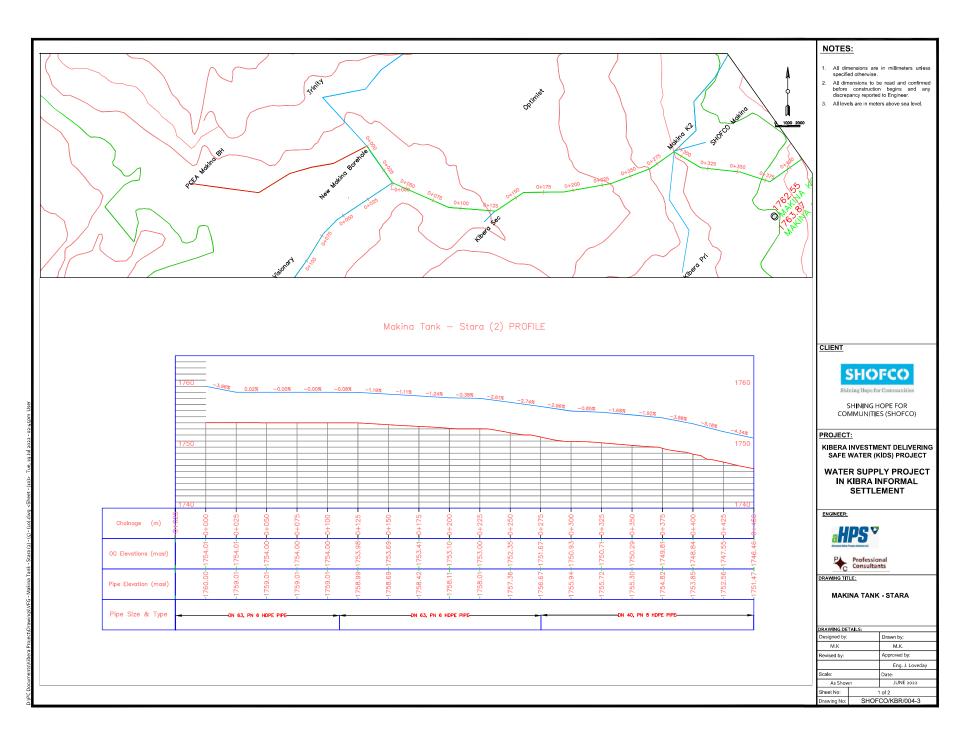


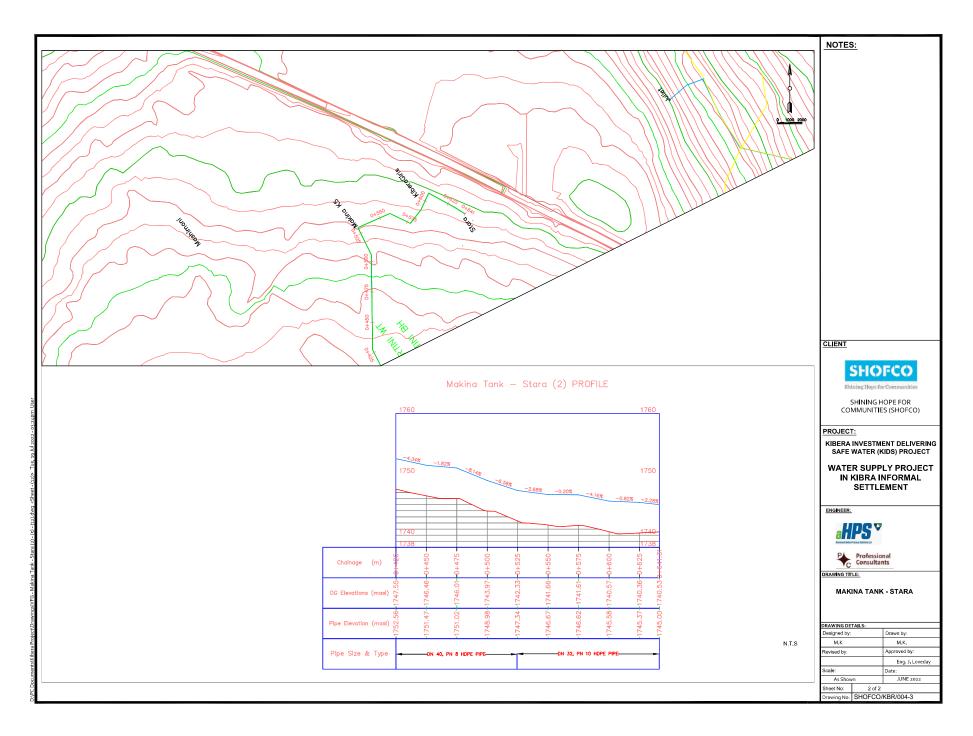
DRAWING TITLE:

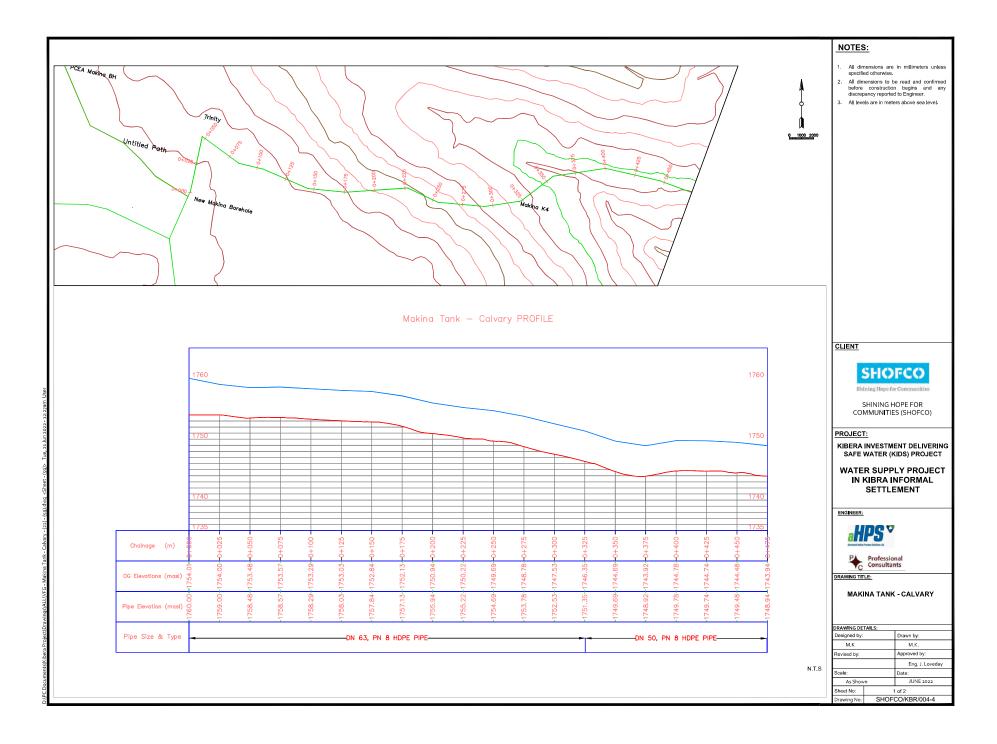
MAKINA K2 - MAKINA K7

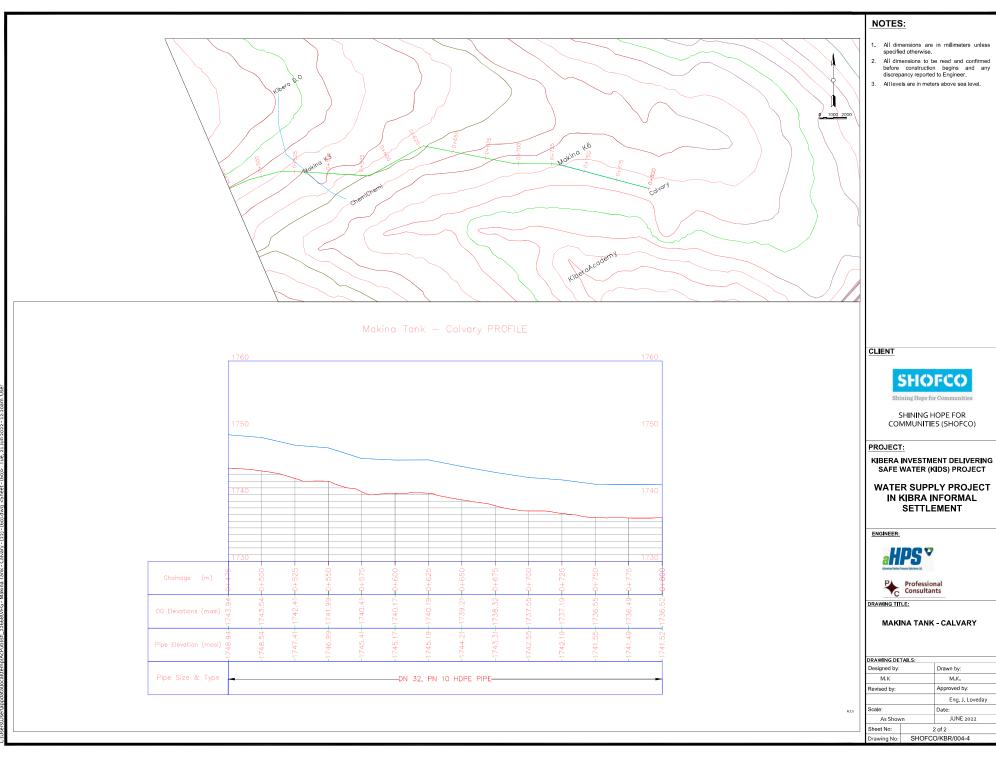
| DRAWING DE   | TAILS: |                 |  |  |  |  |  |
|--------------|--------|-----------------|--|--|--|--|--|
| Designed by: |        | Drawn by:       |  |  |  |  |  |
| M.K          |        | M.K.            |  |  |  |  |  |
| Revised by:  |        | Approved by:    |  |  |  |  |  |
|              |        | Eng. J. Loveday |  |  |  |  |  |
| Scale:       |        | Date:           |  |  |  |  |  |
| As Show      | /n     | JUNE 2022       |  |  |  |  |  |
| Sheet No:    | 1      | of 1            |  |  |  |  |  |
| Drawing No:  | SHOFC  | O/KBR/004-2     |  |  |  |  |  |

|                       | Makina K2 — Makina K7 PROFILE |           |           |                  |           |           |          |                  |      |
|-----------------------|-------------------------------|-----------|-----------|------------------|-----------|-----------|----------|------------------|------|
|                       | 1760                          |           |           |                  |           |           |          |                  | 1760 |
|                       |                               |           |           |                  |           |           |          |                  |      |
|                       |                               |           |           |                  |           |           |          |                  |      |
|                       |                               |           |           |                  |           |           |          |                  |      |
|                       |                               |           |           |                  |           |           |          |                  |      |
|                       | <del>1750</del> -             | _         |           |                  |           |           |          |                  | 175  |
|                       |                               |           |           |                  |           |           |          |                  | _    |
|                       |                               |           |           |                  |           |           |          |                  |      |
|                       |                               |           |           |                  |           |           |          |                  | _    |
|                       |                               |           |           |                  |           |           |          |                  | _    |
|                       | 1740                          |           |           |                  |           |           |          |                  | 174  |
|                       | •                             | LO.       | 0         | Ω.               | - 0       | LO.       | 0        | 2                |      |
| Chainage (m)          | \$                            | +025      | -0+050    | -0+075           | 0+100     | +125      | 0+150    | -0+175           |      |
|                       | φ                             | Ť         | Ŷ         | Ŷ                |           | 우         | Ŷ        | <u> </u>         |      |
| OG Elevations (masl)  |                               | -1750.42- | -1750.19- |                  | -1749.49- | -1748.66- | -1749.36 | -1748.62         |      |
| OG Elevations (masi)  | 751                           | 750       | 75(       | 750              | 749       | 748       | 749      | 748              |      |
|                       |                               |           | -         |                  | 00        |           |          | <del>- I</del> - | _    |
| Pipe Elevation (masl) |                               | -1755.41- | -1755.19- | 1755.00-1750.00- | 1754.48   | 753.65-   | 1754.36- | 1753.61          |      |
|                       |                               | F         | 17        | 178              | -178      | 47.       | 17.6     | 1                |      |
|                       |                               |           |           |                  |           |           |          |                  |      |
| Pipe Size & Type      | -                             |           |           | —DN 40,          | PN 8 HD   | PE PIPE-  |          |                  |      |
|                       |                               |           |           |                  |           |           |          |                  |      |
|                       |                               |           |           |                  |           |           |          |                  |      |

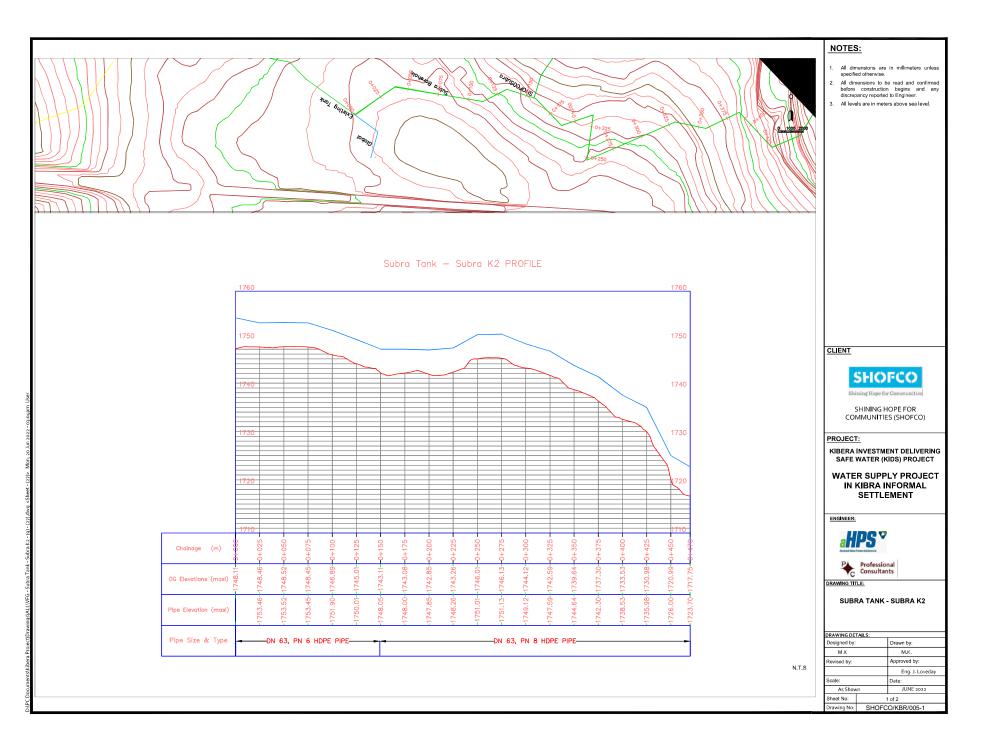


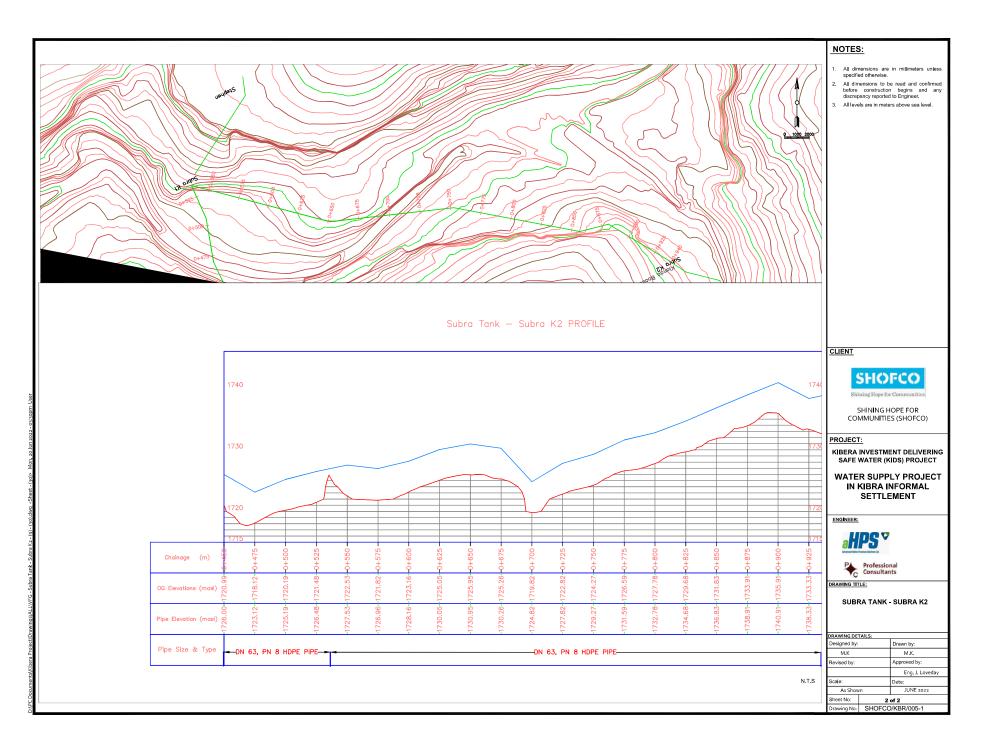


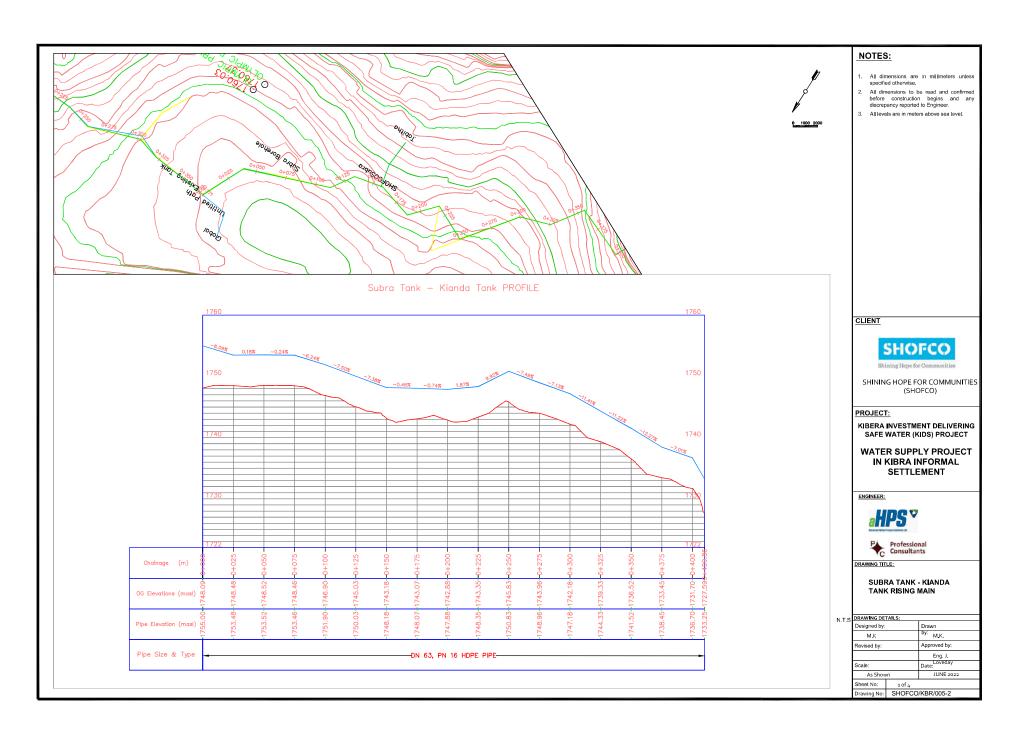


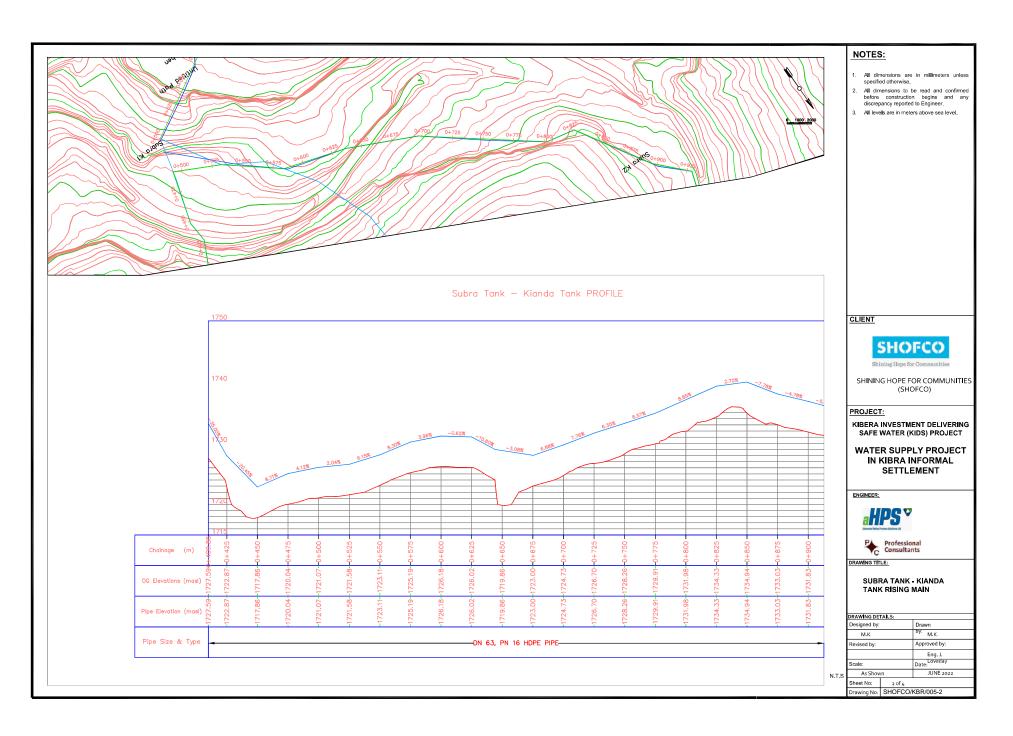


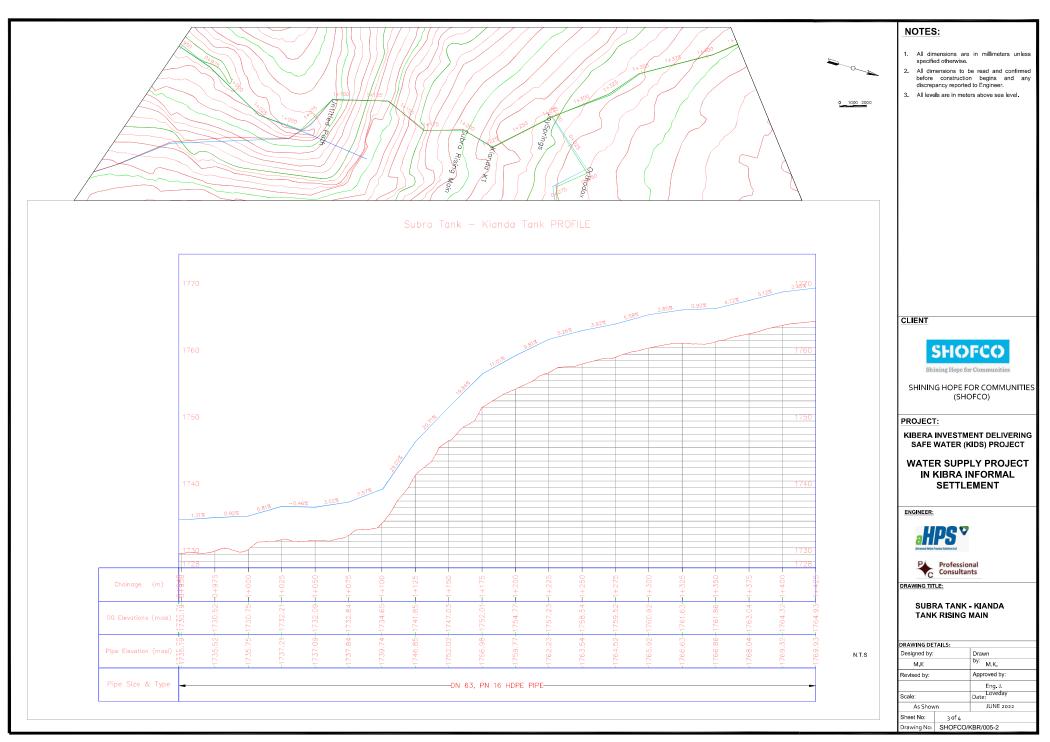
## **SUBRA NETWORK**

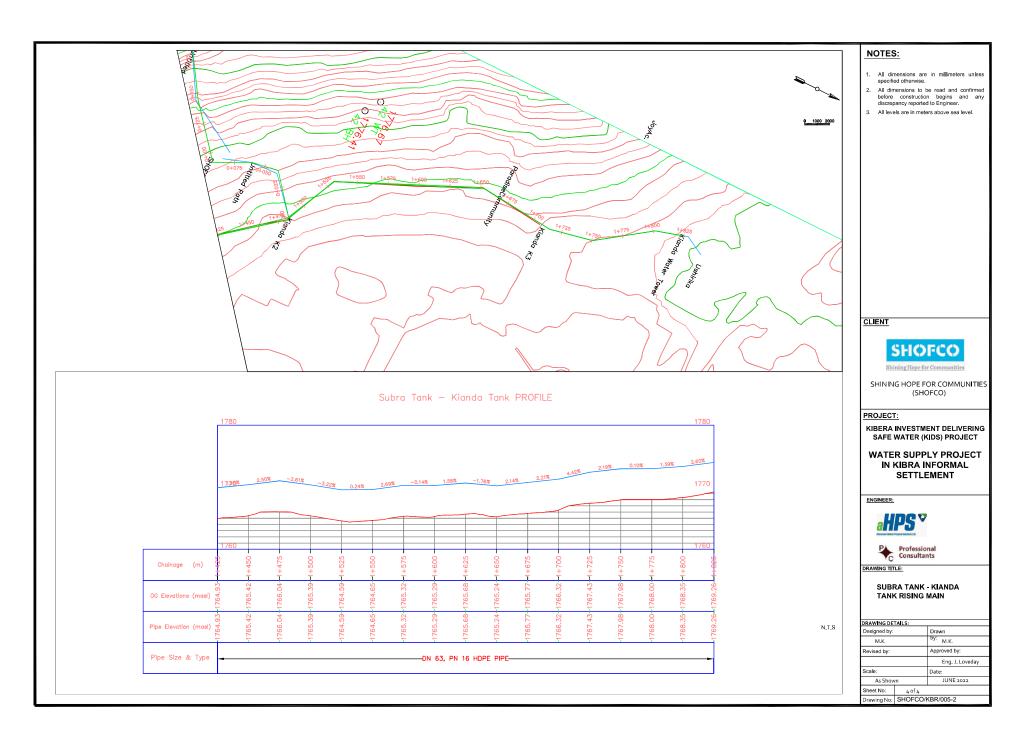


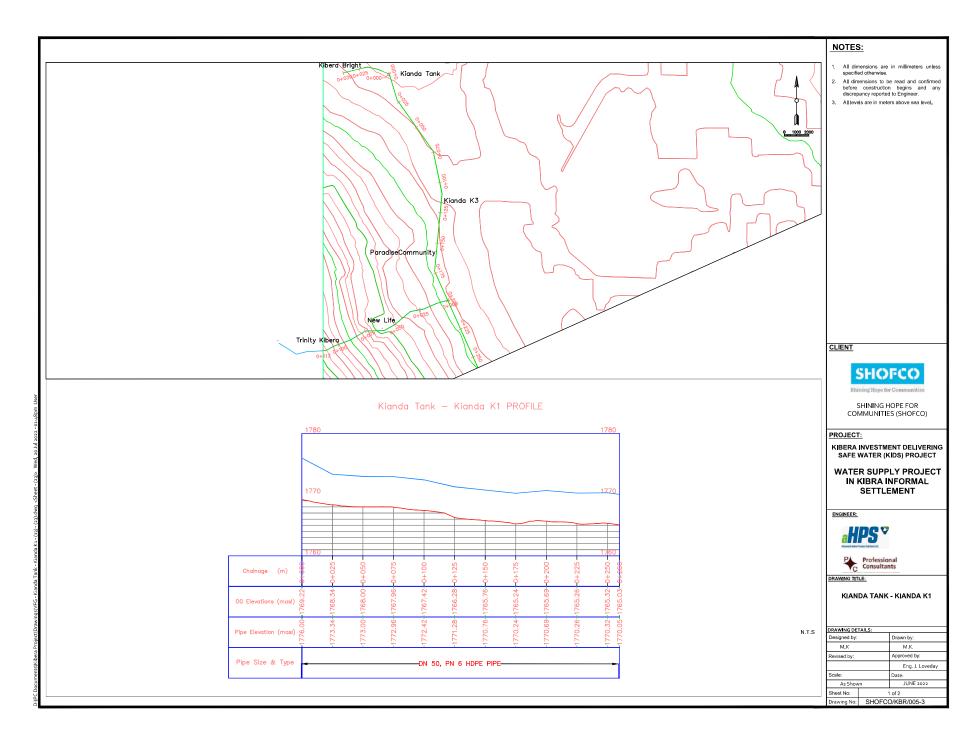


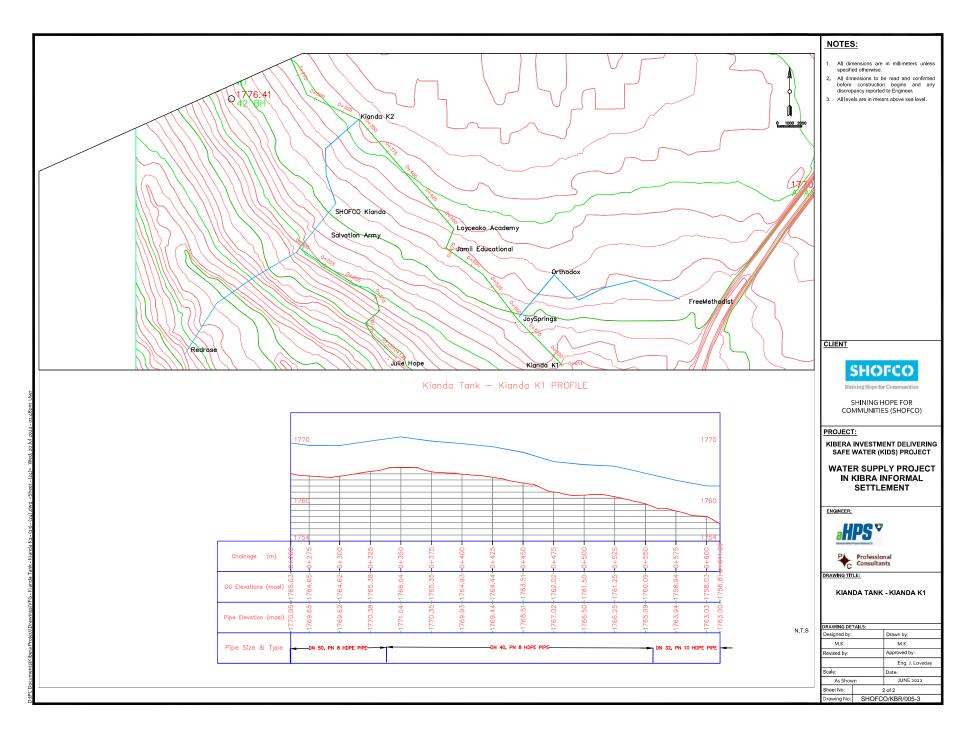


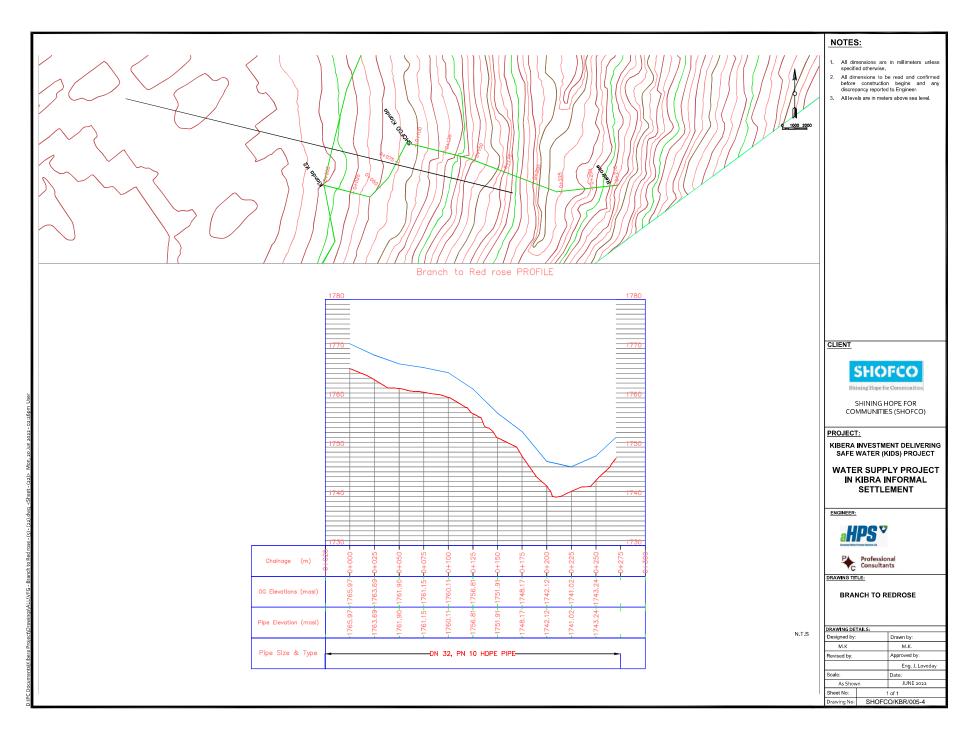


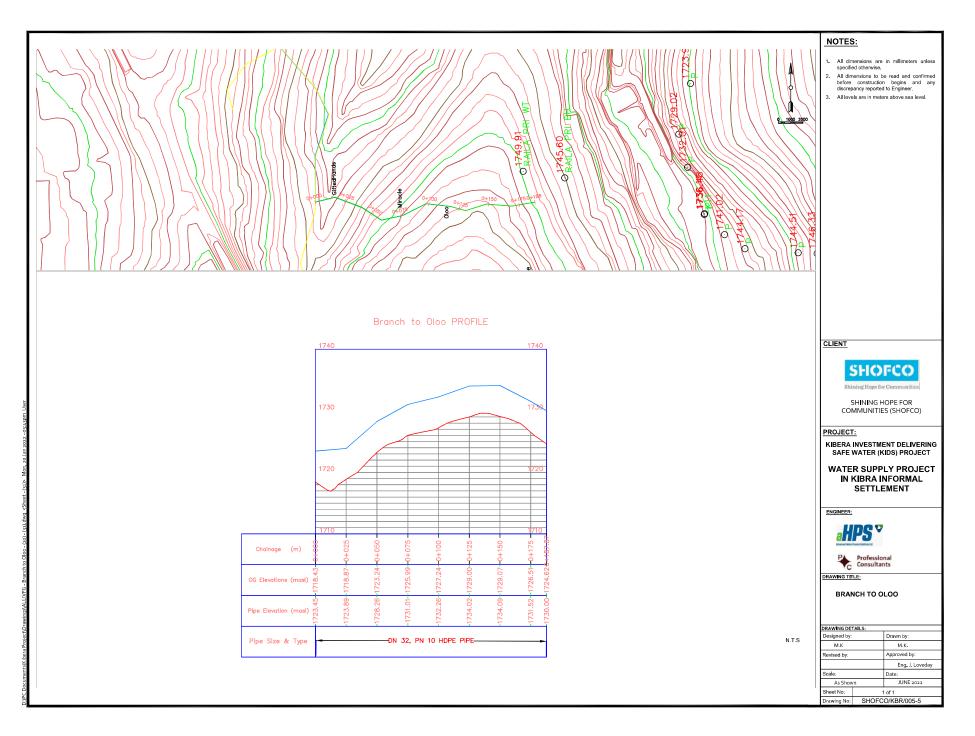


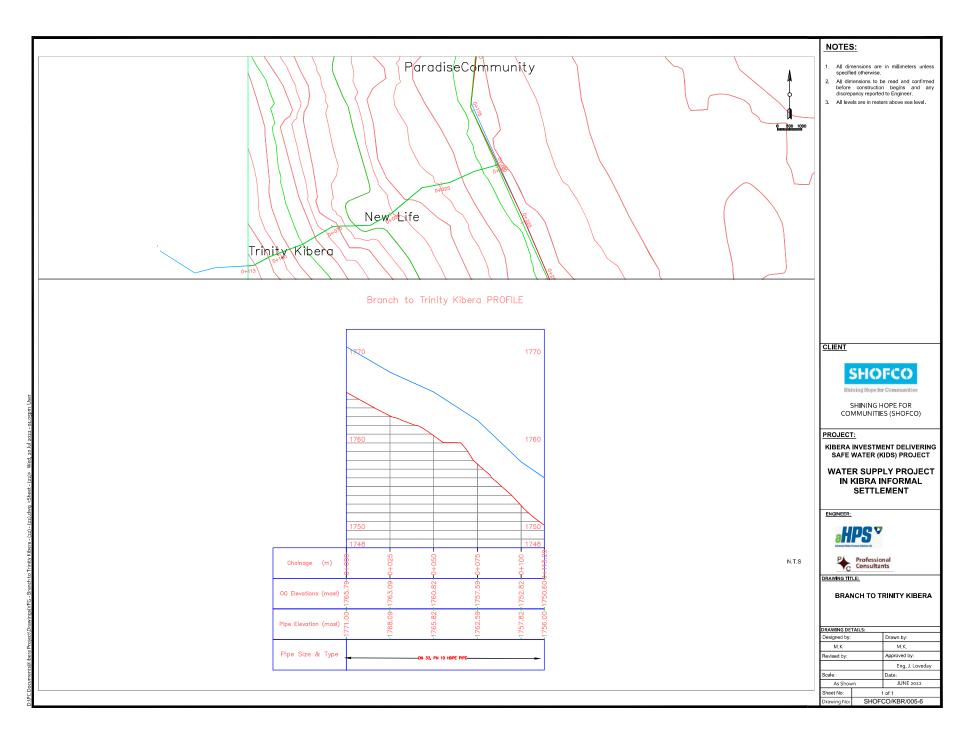


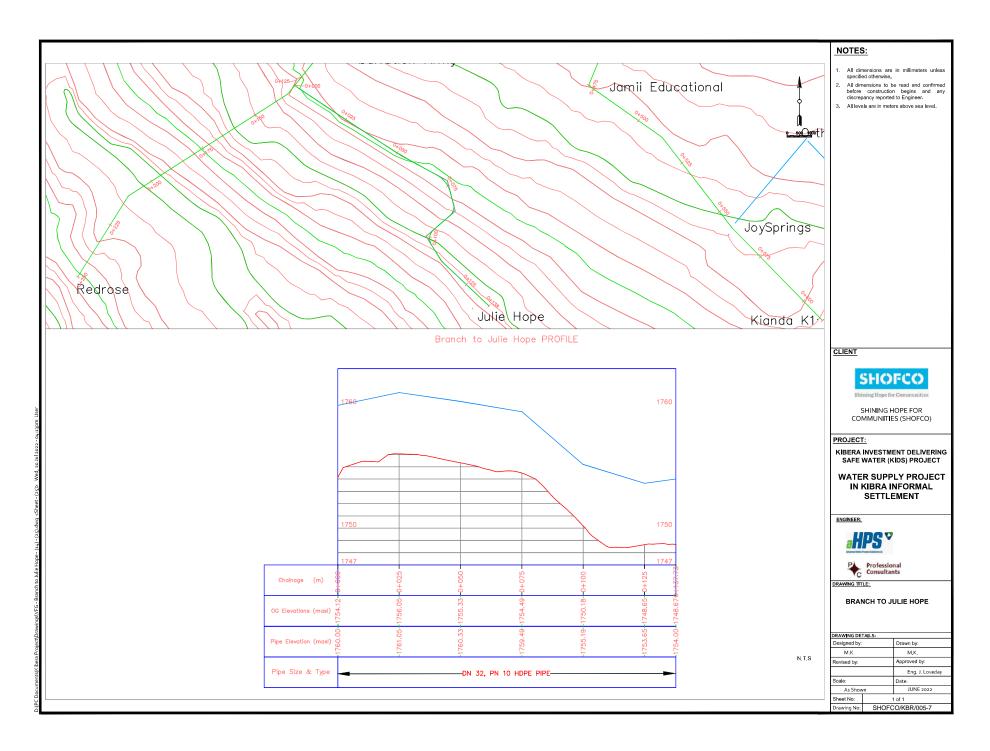


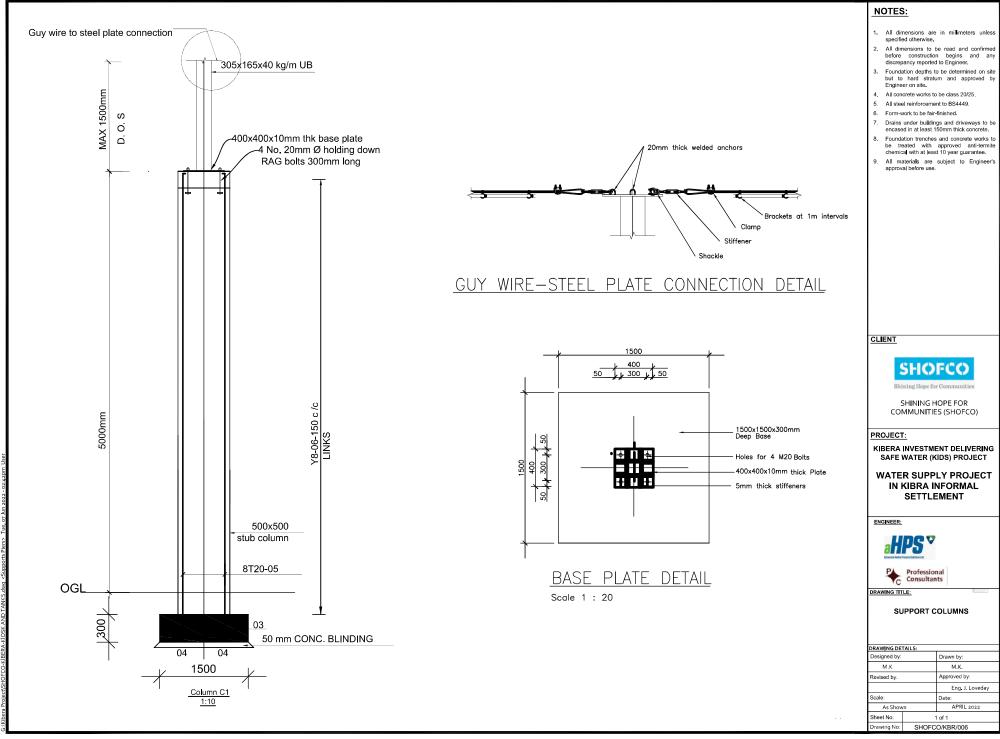




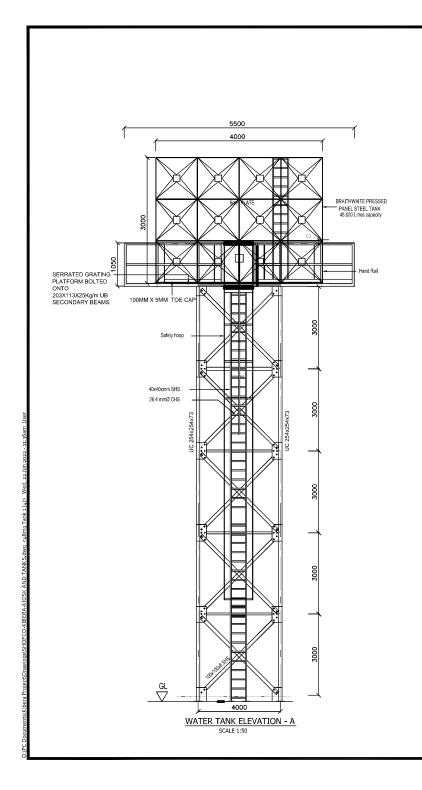


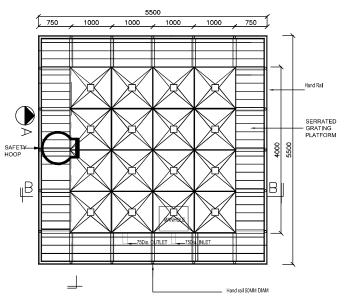






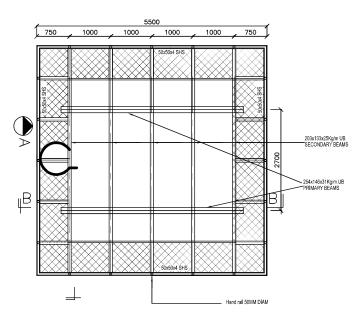
# **ELEVATED WATER TANKS**





PLAN LAYOUT - ELEVATED WATER TANK

SCALE 1:50



PLAN LAYOUT - PLATFORM

SCALE 1:50

# NOTES:

- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- 4. All concrete works to be class 20/25.
- All structural steelwork to be Grade 43C.
- 6. Form-work to be fair-finished.
- Tower steelwork to be brushed prior to paint application.
- 8. Apply one coat of grey oxide primer.
- Apply two coat of blue aluminium paint or as instructed.
- 10. All shop welds to be 6mm fillet welds U.O.N
- Bolts are high tensile Grade 8.8 and galvanized.
- 12. Include external level indicator.
- 13. All panels should be galvanised coated.

#### CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

# WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

# ENGINEER:



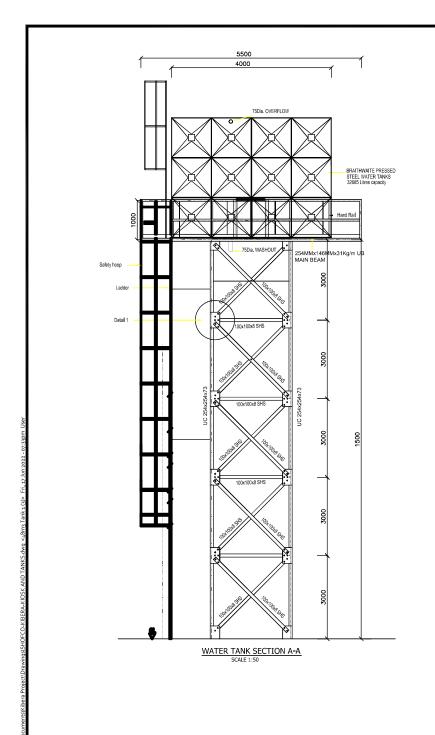


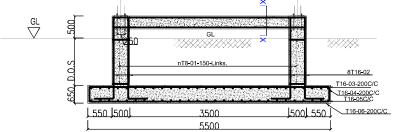
#### DRAWING TITLE:

#### ELEVATED 48m³ STEEL TANK - MAKINA & LINDI

| DRAWING DETA       | AILS:            |                                      |  |  |           |  |           |
|--------------------|------------------|--------------------------------------|--|--|-----------|--|-----------|
| Designed by:       |                  | Drawn by:                            |  |  |           |  |           |
| M.K                |                  | M.K.                                 |  |  |           |  |           |
| Revised by: Scale: |                  | Approved by:  Eng. J. Loveday  Date: |  |  |           |  |           |
|                    |                  |                                      |  |  | As Shown  |  | JUNE 2022 |
|                    |                  |                                      |  |  | Sheet No: |  | 1 of 2    |
| Drawing No:        | SHOFCO/KBR/007-1 |                                      |  |  |           |  |           |

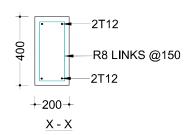
N.T.S



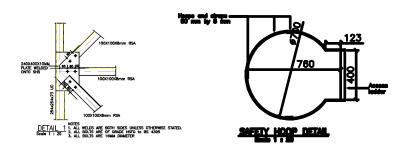


TYPICAL SECTION

1:75



TYPICAL SECTION THRU BEAM



# NOTES:

- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- 4. All concrete works to be class 20/25.
- All structural steelwork to be Grade 43C.
- 6. Form-work to be fair-finished.
- Tower steelwork to be brushed prior to paint application.
- 8. Apply one coat of grey oxide primer.
- Apply two coat of blue aluminium paint or as instructed.
- 10. All shop welds to be 6mm fillet welds U.O.N
- Bolts are high tensile Grade 8.8 and galvanized.
- 12. Include external level indicator.
- 13. All panels should be galvanised coated.

CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:



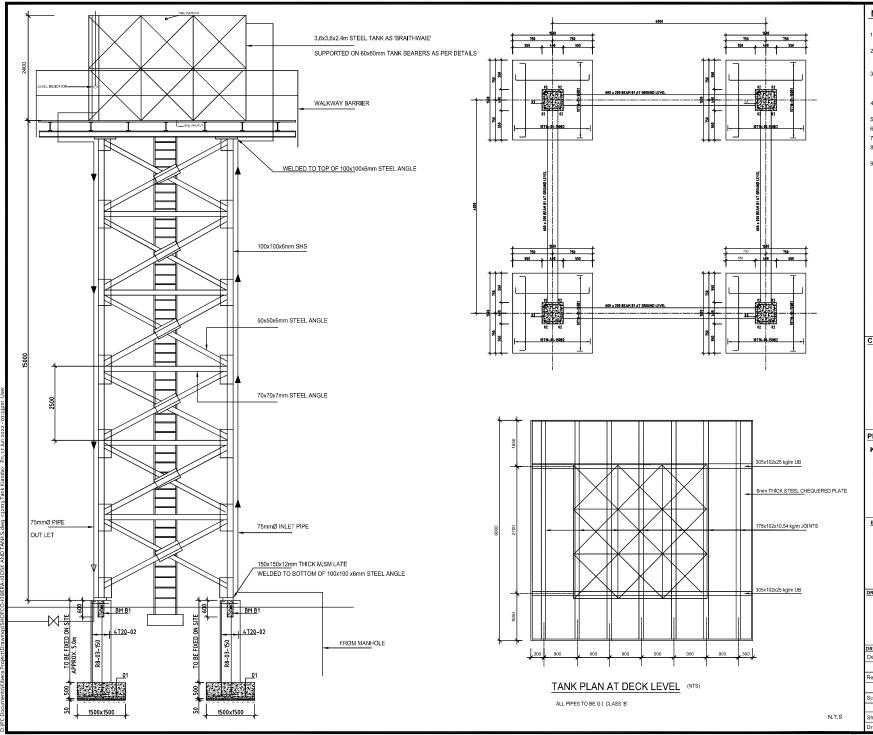


DRAWING TITLE:

ELEVATED 48m3 STEEL TANK - MAKINA & LINDI

| DRAWING DE   | TAILS: |                 |  |  |  |
|--------------|--------|-----------------|--|--|--|
| Designed by: |        | Drawn by:       |  |  |  |
| M.K          |        | M.K.            |  |  |  |
| Revised by:  |        | Approved by:    |  |  |  |
|              |        | Eng. J. Loveday |  |  |  |
| Scale:       |        | Date:           |  |  |  |
| As Show      | 2 of 2 |                 |  |  |  |
| Sheet No:    |        |                 |  |  |  |
| Drawing No:  |        |                 |  |  |  |

N.T.S



- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site (BEARING CAPACITY 150KN/M2).
- All concrete works to be C30 unless otherwise stated.
- 5. Use Galvanized Panels.
- Tank to be fitted with external level indicator.
- 7. All steel reinforcement to BS4449.
- All pipework are ductile iron to NP10 with NP 16 flances
- All materials are subject to Engineer's approval before use.

#### CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

# ENGINEER:





#### DRAWING TITLE:

ELEVATED 32m³ STEEL TANK - KIANDA & LAINI SABA

| DRAWING DETAILS: |                            |                 |  |  |  |  |
|------------------|----------------------------|-----------------|--|--|--|--|
| Designed by:     |                            | Drawn by:       |  |  |  |  |
| M.K              |                            | M.K.            |  |  |  |  |
| Revised by:      |                            | Approved by:    |  |  |  |  |
|                  |                            | Eng. J. Loveday |  |  |  |  |
| Scale:           |                            | Date:           |  |  |  |  |
| As Show          | 'n                         | JUNE 2022       |  |  |  |  |
| Sheet No:        | 1 of 1<br>SHOFCO/KBR/007-2 |                 |  |  |  |  |
| Drawing No:      |                            |                 |  |  |  |  |

# **WATER KIOSK**

# NOTES: All dimensions are in millimeters unless specified otherwise. All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer. 3. Foundation depths to be determined on site but to hard stratum and approved by Engineer on site. 4. All concrete works to be class 20/25. All steel reinforcement to BS4449. Form-work to be fair-finished. Drains under buildings and driveways to be encased in at least 150mm thick concrete. Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee. 9. All materials are subject to Engineer's approval before use. -From water mains 2700-600 -2000--1600-<del>|</del> 200+ 200 -600-600x600x50 -Drainage Grooves P.C.C paving slab around external wall CLIENT Lockable steel Χ window **SHOFCO** 9 2 -300mm high concrete bed SHINING HOPE FOR COMMUNITIES (SHOFCO) PROJECT: -225-KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT 800mm high masonry wall with WATER SUPPLY PROJECT approved smooth IN KIBRA INFORMAL 200x200 plastered SETTLEMENT R.C 200 + 300 + -800 -500 200+ 600 Column-(See ENGINEER: details) Steel door-Professional Consultants DRAWING TITLE: -300x300 GT to detail DN150 drain pipe to STANDARD WATER KIOSK soak-away pit (ARCHITECTURAL PLAN) FLOOR PLAN SCALE 1:25 (A3)

| DRAWING DETAILS: |                |                 |  |  |  |
|------------------|----------------|-----------------|--|--|--|
| Designed by:     |                | Drawn by:       |  |  |  |
| M.K              |                | M.K.            |  |  |  |
| Revised by:      |                | Approved by:    |  |  |  |
|                  |                | Eng. J. Loveday |  |  |  |
| Scale:           | Date:          |                 |  |  |  |
| As Show          | n APRIL 2022   |                 |  |  |  |
| Sheet No:        | 1 of 16        |                 |  |  |  |
| Drawing No:      | SHOFCO/KBR/008 |                 |  |  |  |

# -DN25 GI inlet pipe 1000 550 Masonry wall keyed asapproved Frame for installation of Electronic water dispenser 50x50mm angle section fixed all round to detail ---300 ↓ 1500-+ 300 → **FRONT ELEVATION** Scale 1:25 (A3)

#### NOTES:

- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- All concrete works to be class 20/25.
- All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:





DRAWING TITLE:

STANDARD WATER KIOSK TYPE 1 (FRONT ELEVATION)

| DRAWING DE   | DRAWING DETAILS: |                 |  |  |  |  |
|--------------|------------------|-----------------|--|--|--|--|
| Designed by: |                  | Drawn by:       |  |  |  |  |
| M.K          |                  | M.K.            |  |  |  |  |
| Revised by:  |                  | Approved by:    |  |  |  |  |
|              |                  | Eng. J. Loveday |  |  |  |  |
| Scale:       |                  | Date:           |  |  |  |  |
| As Show      | /n               | APRIL 2022      |  |  |  |  |
| Sheet No:    | 2 of 16          |                 |  |  |  |  |
| Drawing No:  | SHOFCO/KBR/008   |                 |  |  |  |  |

# Steel frame surrounding the tankto prevent from theft Float ball valve to DN 25 G.I overflow manufacturer's specifications pipe fixed as approved 5000 litre capacity plastic tank to manufacturer's specifications DN25 G.I inlet pipe 100x100x3mm steel square 50x100x3mm steel RHS sections fixed to column spaced at 350c/c to form 150mm thick R.C slab with bituminous a square platform of felt cover laid to minimum gradient 1.5° 2000x2000mm 150 Steel window 150mm thick shutter to masonry details walling keyed as approved Steel casement door Drainage grooves to detail -500--600 -900--600-735 2600 SIDE ELEVATION

Scale 1:25 (A3)

#### NOTES:

- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- All concrete works to be class 20/25.
- All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

# ENGINEER:

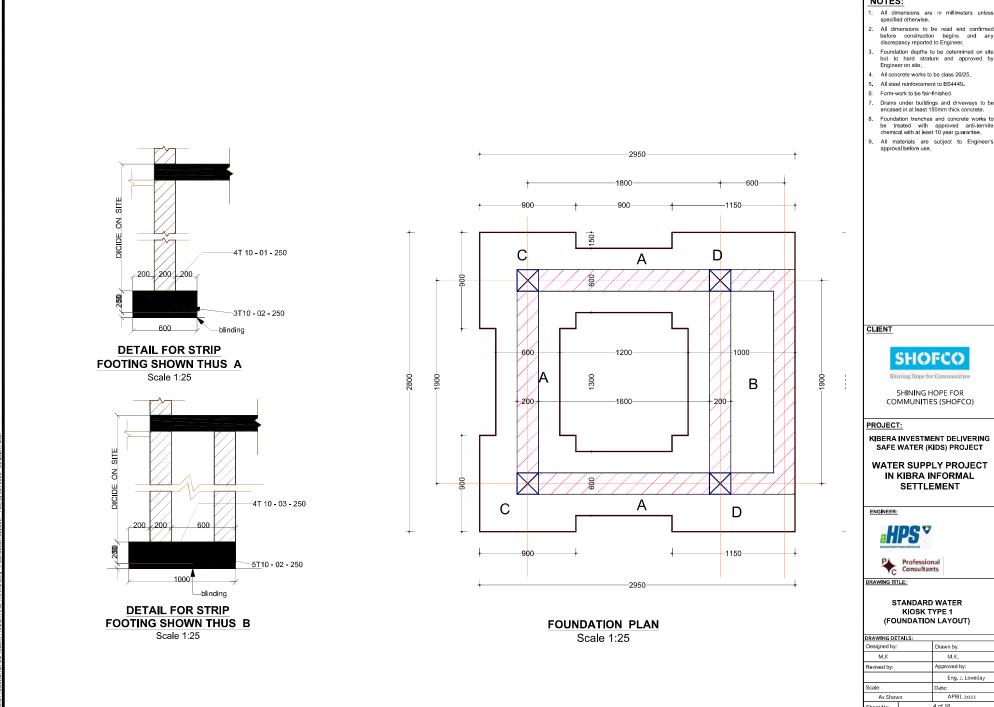




DRAWING TITLE:

STANDARD WATER KIOSK TYPE 1 (SIDE ELEVATION)

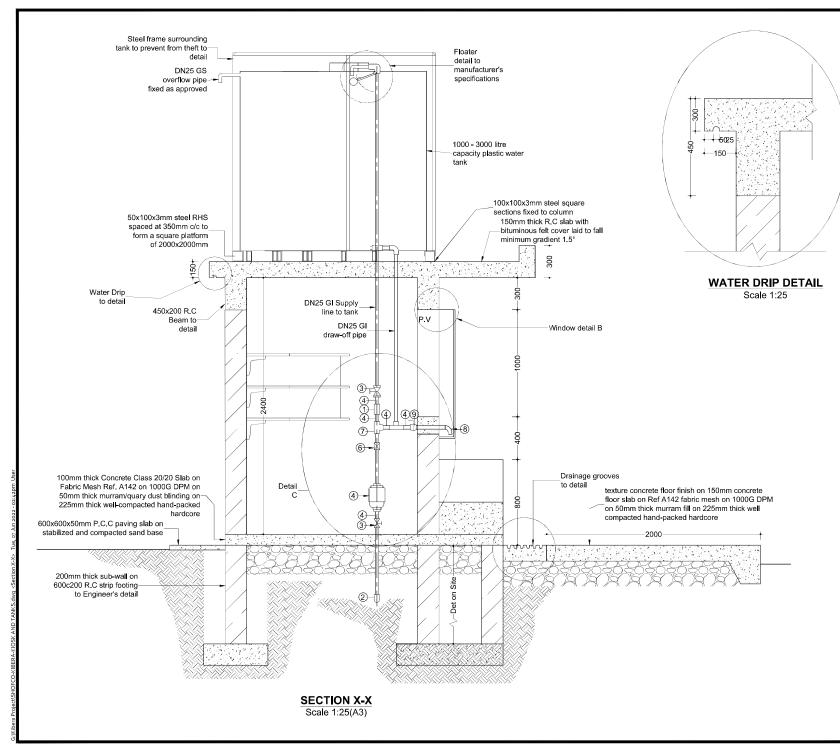
| DRAWING DE   | ΓAILS: |                 |  |  |  |
|--------------|--------|-----------------|--|--|--|
| Designed by: |        | Drawn by:       |  |  |  |
| M.K          |        | M.K.            |  |  |  |
| Revised by:  |        | Approved by:    |  |  |  |
|              |        | Eng. J. Loveday |  |  |  |
| Scale:       |        | Date:           |  |  |  |
| As Show      | m      | APRIL 2022      |  |  |  |
| Sheet No:    | 3 of   | 16              |  |  |  |
| Drawing No:  | SHOFC  | O/KBR/008       |  |  |  |



| DRAWING DETAILS:   |                  |                                      |  |  |           |    |            |  |  |
|--------------------|------------------|--------------------------------------|--|--|-----------|----|------------|--|--|
| Designed by:       |                  | Drawn by:                            |  |  |           |    |            |  |  |
| M.K                |                  | M.K.                                 |  |  |           |    |            |  |  |
| Revised by: Scale: |                  | Approved by:  Eng. J. Loveday  Date: |  |  |           |    |            |  |  |
|                    |                  |                                      |  |  | As Show   | 'n | APRIL 2022 |  |  |
|                    |                  |                                      |  |  | Sheet No: |    | 4 of 16    |  |  |
| Drawing No:        | : SHOFCO/KBR/008 |                                      |  |  |           |    |            |  |  |

#### All dimensions are in millimeters unless specified otherwise. 2. All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer. Foundation depths to be determined on site but to hard stratum and approved by Engineer on site. 4. All concrete works to be class 20/25. All steel reinforcement to BS4449. 6. Form-work to be fair-finished. Drains under buildings and driveways to be encased in at least 150mm thick 8. Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee. 9. All materials are subject to Engineer's approval before use. 150mm thick hand packed 150mm thick class 20/25 (1:2:4) gauge 1000 polythene membrane laid with a 300mm lappingwell compacted hardcore well vibrated concrete 100mm thick class 20/25 (1:2:4) well vibrated concrete-50mm thick quarry dust / gauge 1000 polythene membrane murram blinding laid with a 300mm lapping A98 weld mesh laid with a lapping of 300mm-CLIENT 150mm thick hand packed 600 x 600 x 50 precast well compacted hardcore concrete paving slab on-50mm thick quarry dust **SHOFCO** SHINING HOPE FOR COMMUNITIES (SHOFCO) PROJECT: well compacted sub grade KIBERA INVESTMENT DELIVERING well compacted sub grade SAFE WATER (KIDS) PROJECT 200 -1600-⁄20Q WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT blinding concrete ENGINEER: -600 -1000--1800-+ 600 -2100-Professional Consultants FOUNDATION SECTION Scale 1:25 DRAWING TITLE: STANDARD WATER KIOSK TYPE 1 (FOUNDATION SECTION) DRAWING DETAILS: Designed by: Drawn by: M.K M.K. Revised by: Approved by: Eng. J. Loveday Scale: As Shown APRIL 2022 Sheet No: 5 of 16 SHOFCO/KBR/008

NOTES:



- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- All concrete works to be class 20/25.
- All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:

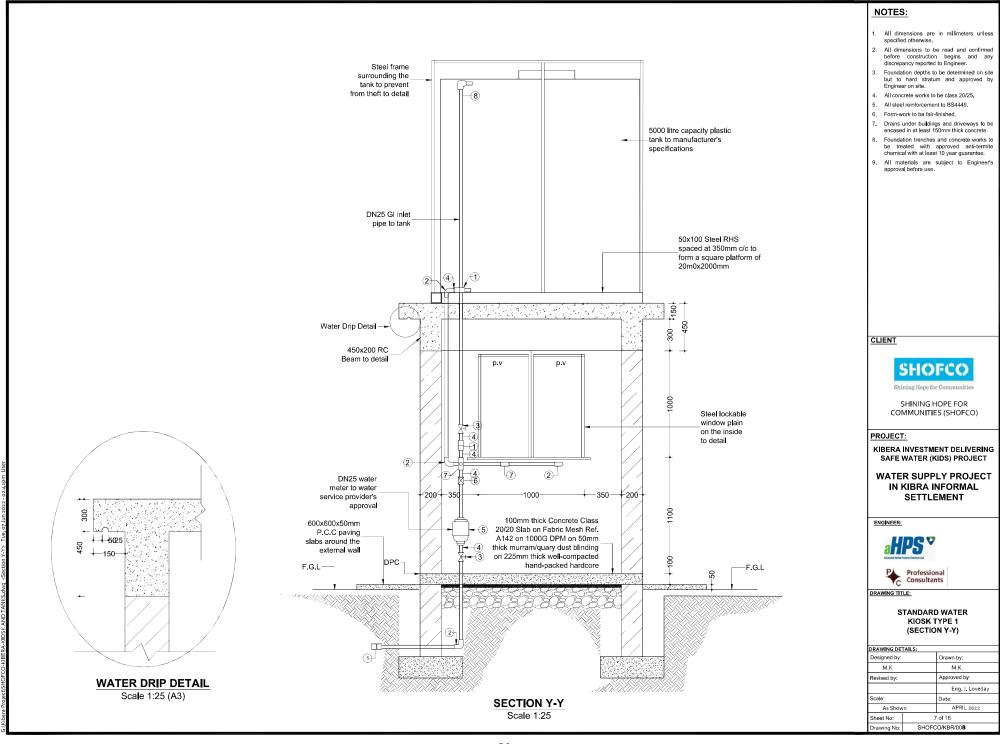




DRAWING TITLE:

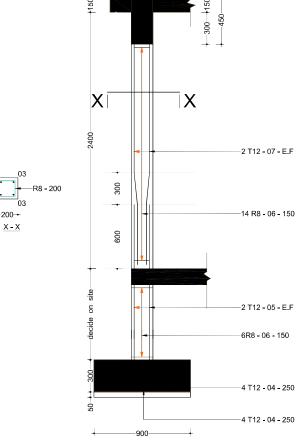
#### STANDARD WATER KIOSK (SECTION X-X)

| DRAWING DETAILS: |                |                          |  |  |  |  |
|------------------|----------------|--------------------------|--|--|--|--|
| Designed by:     |                | Drawn by:                |  |  |  |  |
| M.K              |                | M.K.                     |  |  |  |  |
| Revised by:      |                | Approved by:             |  |  |  |  |
|                  |                | Eng. J. Loveday<br>Date: |  |  |  |  |
| Scale:           |                |                          |  |  |  |  |
| As Show          | /n             | APRIL 2022               |  |  |  |  |
| Sheet No:        |                | 6 of 16                  |  |  |  |  |
| Drawing No:      | SHOFCO/KBR/008 |                          |  |  |  |  |



# X X -2 T12 - 07 E.F -300 -14 R8 - 06 - 150 -2 T12 - 05 E.F -6R8 - 06 - 150 5 T12 - 04 - 200 20 -4 T12 - 08 - 200 -1050-**DETAIL FOR COLUMN & COL. BASE** SHOWN THUS D 2No.

Scale 1:25



DETAIL FOR COLUMN & COL. BASE SHOWN THUS C 2No.
Scale 1:25

# NOTES:

- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- All concrete works to be class 20/25.
- 5. All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:

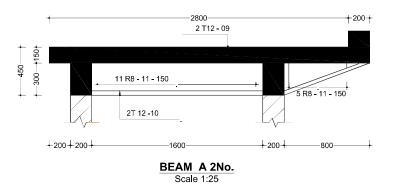


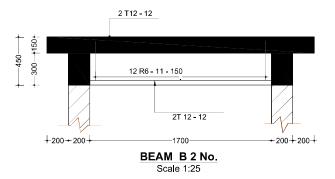


DRAWING TITLE:

STANDARD WATER KIOSK TYPE 1 (COLUMN DETAILS)

| DRAWING DETAILS: |                          |                          |  |  |  |
|------------------|--------------------------|--------------------------|--|--|--|
| Designed by:     |                          | Drawn by:                |  |  |  |
| M.K              |                          | M.K.                     |  |  |  |
| Revised by:      |                          | Approved by:             |  |  |  |
|                  |                          | Eng. J. Loveday<br>Date: |  |  |  |
| Scale:           |                          |                          |  |  |  |
| As Show          | 'n                       | APRIL 2022               |  |  |  |
| Sheet No:        |                          | 8 of 16                  |  |  |  |
| Drawing No:      | awing No: SHOFCO/KBR/008 |                          |  |  |  |





- All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- All concrete works to be class 20/25.
- 5. All steel reinforcement to BS4449.
- 6. Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

# WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

# ENGINEER:





# DRAWING TITLE:

#### STANDARD WATER KIOSK TYPE 1 (BEAM DETAILS)

| DRAWING DETAILS: |              |                 |  |  |  |
|------------------|--------------|-----------------|--|--|--|
| Designed by:     |              | Drawn by:       |  |  |  |
| M.K              |              | M.K.            |  |  |  |
| Revised by:      | Approved by: |                 |  |  |  |
|                  |              | Eng. J. Loveday |  |  |  |
| Scale:           |              | Date:           |  |  |  |
| As Show          | n APRIL 2022 |                 |  |  |  |
| Sheet No:        | 9 of 16      |                 |  |  |  |
| Drawing No:      | SHC          | SHOFCO/KBR/008  |  |  |  |

| User   |  |
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| A-KIOSK                                      |  |
| KIBERA                                       |  |
| HOFCO  |  |
| ect/S  |  |

|      |             |          |          |       |     | Dimensions (mm) |   |   |                | Number |                      |
|------|-------------|----------|----------|-------|-----|-----------------|---|---|----------------|--------|----------------------|
| Item | Description | Bar type | Bar mark | Shape | А   | В               | С | D | Length<br>(mm) |        | Total length<br>(mm) |
| 1    | Foundation  | Y10      | 01       | AA    | 100 | 500             |   |   | 700            | 18     | 56700mm              |
|      | Footing     | Y10      | 02       | В     |     | 2000            |   |   | 2000           | 14     | 28,000mm             |
|      |             | Y10      | 03       | A B   | 100 | 1050            |   |   | 1250           | 7      | 8750mm               |

#### Length of bar is estimated to be 12,000mm

|      |             |          |          |         | Dim | ensions (n | nm) |     |                | Number |                      |
|------|-------------|----------|----------|---------|-----|------------|-----|-----|----------------|--------|----------------------|
| Item | Description | Bar type | Bar mark | Shape   | Α   | В          | С   | D   | Length<br>(mm) | Number | Total length<br>(mm) |
| 1    | Columns     | Y12      | 04       | A B     | 100 | 800        |     |     | 1000           | 26     | 26,000               |
|      |             | Y12      | 08       | A B     | 100 | 1050       |     |     | 1250           | 10     | 10,000               |
|      |             | Y12      | 05       | A       | 300 | 1800       |     |     | 2100           | 16     | 33,600               |
|      |             | R 8      | 06       | AB      | 100 | 100        |     |     | 500            | 80     | 40,000               |
|      |             | Y12      | 07       | ALB C D | 100 | 1500       | 300 | 600 | 2500           | 16     | 40,000               |

Length of bar is estimated to be 12,000mm

#### NOTES:

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- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- All concrete works to be class 20/25.
- All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:





#### DRAWING TITLE:

N.T.S

STANDARD WATER KIOSK TYPE 1 (FOUNDATIONS & COLUMN BAR SCHEDULE)

| DRAWING DETAILS: |    |                 |  |  |  |  |
|------------------|----|-----------------|--|--|--|--|
| Designed by:     |    | Drawn by:       |  |  |  |  |
| M,K              |    | M.K.            |  |  |  |  |
| Revised by:      |    | Approved by:    |  |  |  |  |
|                  |    | Eng. J. Loveday |  |  |  |  |
| Scale:           |    | Date:           |  |  |  |  |
| As Show          | 'n | APRIL 2022      |  |  |  |  |
| Sheet No:        |    | 10 of 16        |  |  |  |  |
| Drawing No:      | SH | HOFCO/KBR/008   |  |  |  |  |

|      |             |          |          | Dimensions (mm) |     |      |     |   | Number         |    |                      |
|------|-------------|----------|----------|-----------------|-----|------|-----|---|----------------|----|----------------------|
| Item | Description | Bar type | Bar mark | Shape           | А   | В    | С   | D | Length<br>(mm) |    | Total length<br>(mm) |
| 1    | Beams       | Y12      | 09       | A B             | 100 | 2750 |     |   | 2950           | 2  | 5,900                |
|      |             | Y12      | 10       | A               | 100 | 1975 | 850 |   | 2925           | 2  | 5,850                |
|      |             | R 8      | 11       | A               | 150 | 400  |     |   | 1200           | 45 | 55,000               |
|      |             | Y12      | 12       | A A             | 100 | 2050 |     |   | 2250           | 8  | 18,000               |

Length of bar is estimated to be 12,000mm

|      |             |          |          |       | Dim | ensions (m | m)   |      |                | Number |                      |
|------|-------------|----------|----------|-------|-----|------------|------|------|----------------|--------|----------------------|
| Item | Description | Bar type | Bar mark | Shape | А   | В          | С    | D    | Length<br>(mm) |        | Total length<br>(mm) |
| 1    | Slab        | Y10      | 13       | A A   | 100 | 2,450      | 1000 | 1000 | 5150           | 16     | 74,400               |
|      |             | Y10      | 14       | A B   | 100 | 2,900      | 1000 | 1600 | 5700           | 12     | 68,400               |
|      |             | Y10      | 15       | В     |     | 2,200      |      |      | 2200           | 19     | 41,800               |

Length of bar is estimated to be 12,000mm

# NOTES:

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- 4. All concrete works to be class 20/25. 5. All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- 8. Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:

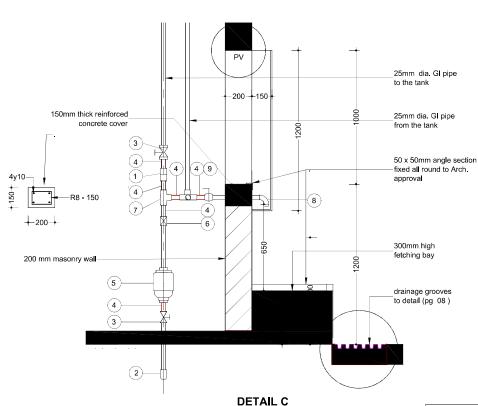




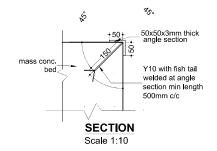
#### DRAWING TITLE:

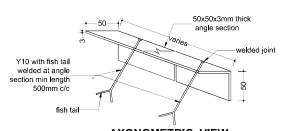
STANDARD WATER KIOSK TYPE 1 (BEAMS & SLAB BAR SCHEDULE)

|       | DRAWING DE   | TAILS: |                 |  |  |
|-------|--------------|--------|-----------------|--|--|
|       | Designed by: |        | Drawn by:       |  |  |
|       | M.K          |        | M.K.            |  |  |
| N.T.S | Revised by:  |        | Approved by:    |  |  |
|       |              |        | Eng. J. Loveday |  |  |
|       | Scale:       |        | Date:           |  |  |
|       | As Show      | /n     | APRIL 2022      |  |  |
|       | Sheet No:    |        | 11 of 16        |  |  |
|       | Drawing No:  | SH     | HOFCO/KBR/008   |  |  |



Scale 1:20





**AXONOMETRIC VIEW** SHOWING ANGLE SECTION **ANCHORING DETAIL** 

Scale 1:10 (A3)

| ITEM NO. | DESCRIPTION (ALL 25NN DIA)                | UNIT) | QTY |
|----------|---|-------|-----|
| 1        | Galvanised Iron Union                     | No.   | 3   |
| 2        | Galvanised Iron Elbows                    | No.   | 3   |
| 3        | Galvanised Iron Gate Valve (Pegler)       | No.   | 2   |
| 4        | Galvanised Iron Nipples                   | No.   | 11  |
| 5        | Water Meter                               | No.   | 1   |
| 6        | Non Return Valve                          | No.   | 1   |
| 7        | Galvanised Iron Equal Tee                 | No.   | 5   |
| 8        | Galvanised Iron Bend                      | No.   | 4   |
| 9        | Ball Cock Water Taps                      | No.   | 3   |
| 10       | Galvanised Iron Long Thread Nipples       | No.   | 2   |
| 17       | Galvanised Iron Black Nuts                | No.   | 4   |
| 12       | Galvanised Iron Class B Pipe (per metres) | No.   | 4   |
| 13       | Boss white (400g)                         | No.   | 3   |
| 14       | Temp Thread                               | LM    | 2   |

NOTES:

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- 3. Foundation depths to be determined on site but to hard stratum and approved by Engineer on site.
- . All concrete works to be class 20/25.
- All steel reinforcement to BS4449.
- 6. Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- 3. Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:





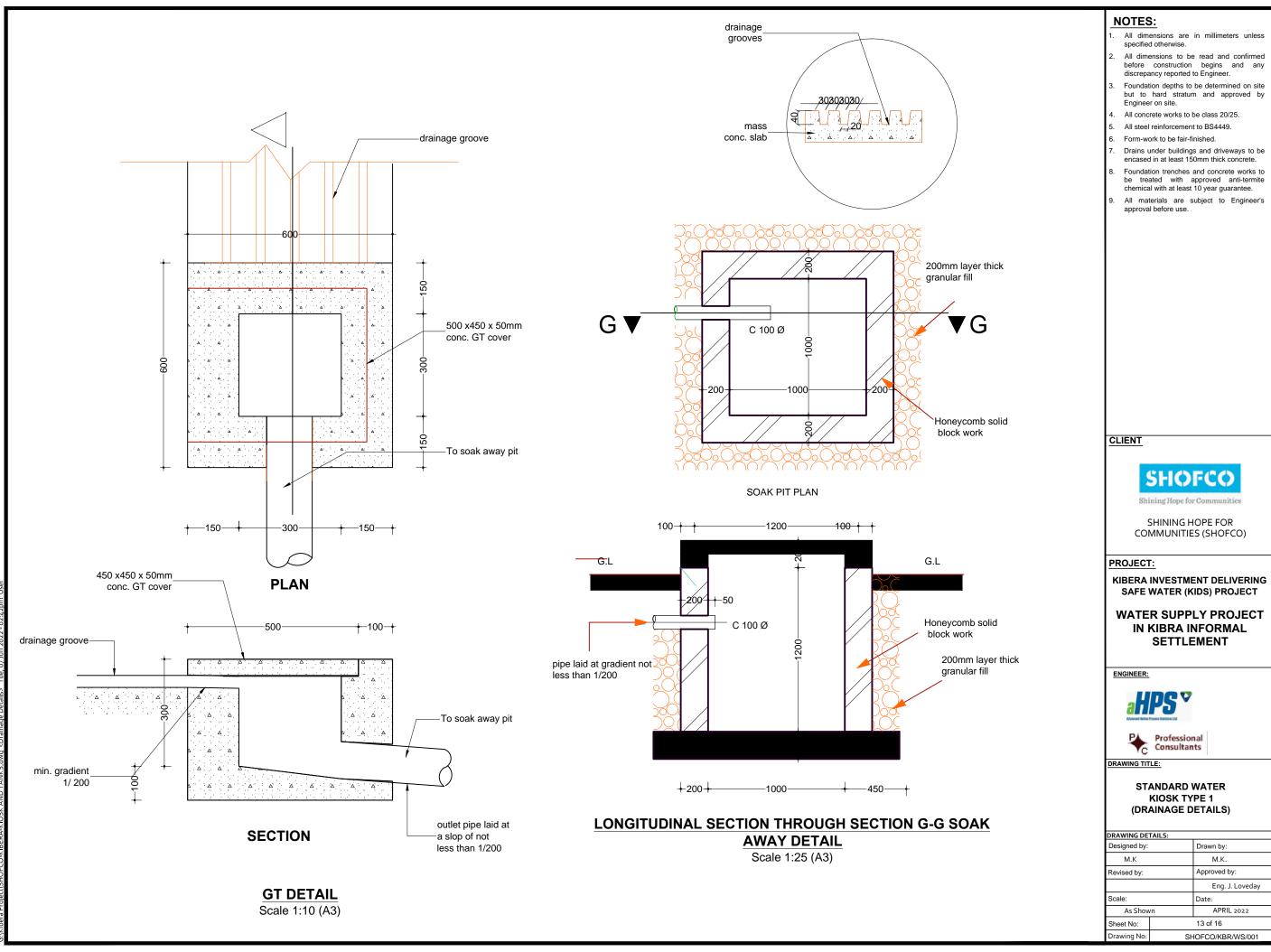
DRAWING TITLE

STANDARD WATER KIOSK TYPE 1 (PLUMBING DETAILS)

| DRAWING DE   | DRAWING DETAILS: |                 |  |  |  |  |
|--------------|------------------|-----------------|--|--|--|--|
| Designed by: |                  | Drawn by:       |  |  |  |  |
| M.K          |                  | M.K.            |  |  |  |  |
| Revised by:  |                  | Approved by:    |  |  |  |  |
|              |                  | Eng. J. Loveday |  |  |  |  |
| Scale:       |                  | Date:           |  |  |  |  |
| As Show      | 'n               | APRIL 2022      |  |  |  |  |
| Sheet No: 12 |                  | of 16           |  |  |  |  |
| Drawing No:  | SHOF             | O/KBR/008       |  |  |  |  |

N.T.S

55



Drawn by:

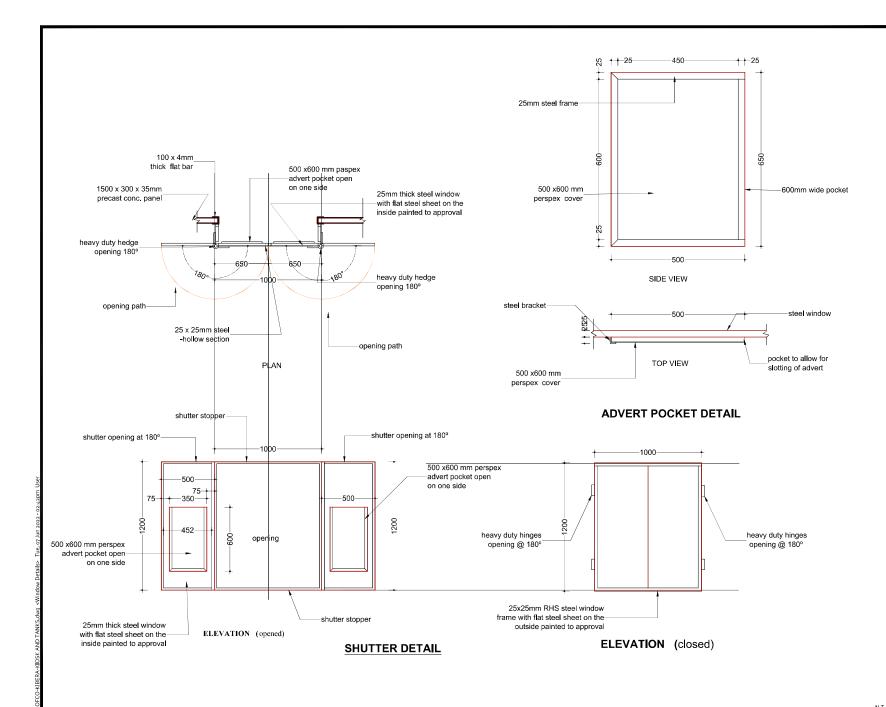
Date:

13 of 16

M.K. Approved by:

Eng. J. Loveday

APRIL 2022



- . All dimensions are in millimeters unless specified otherwise.
- All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer.
- Foundation depths to be determined on site but to hard stratum and approved by Engineer on site
- All concrete works to be class 20/25.
- All steel reinforcement to BS4449.
- Form-work to be fair-finished.
- Drains under buildings and driveways to be encased in at least 150mm thick concrete.
- Foundation trenches and concrete works to be treated with approved anti-termite chemical with at least 10 year guarantee.
- All materials are subject to Engineer's approval before use.

# CLIENT



SHINING HOPE FOR COMMUNITIES (SHOFCO)

# PROJECT:

KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT

# WATER SUPPLY PROJECT IN KIBRA INFORMAL SETTLEMENT

ENGINEER:



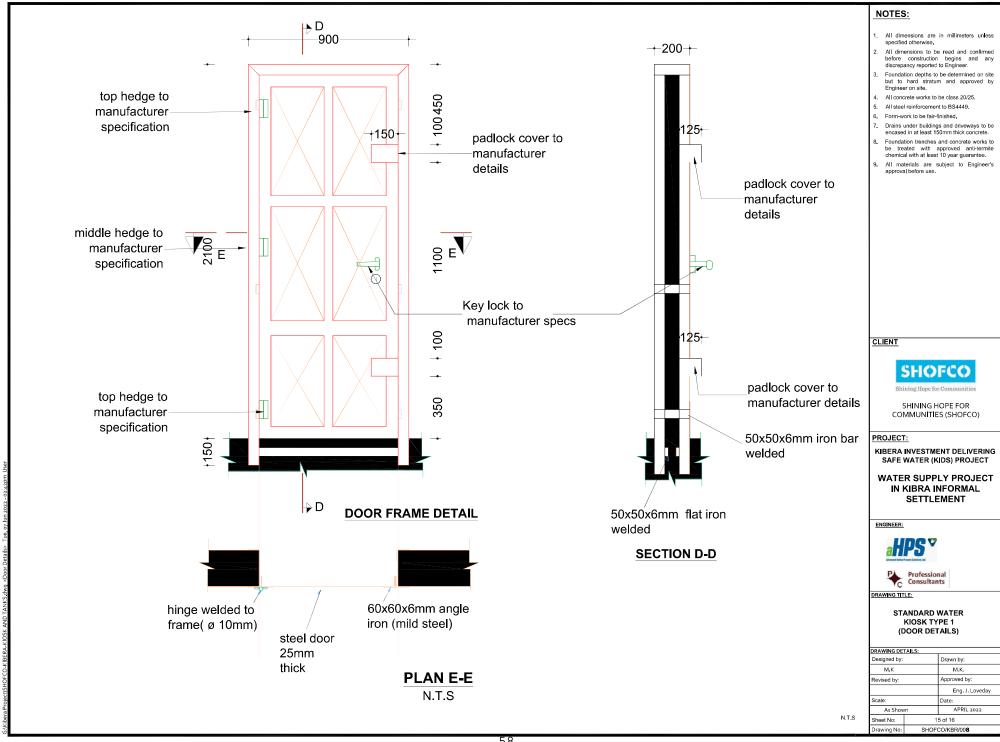


#### DRAWING TITLE

#### STANDARD WATER KIOSK TYPE 1 (WINDOW DETAILS)

| DRAWING DE   | TAILS: |                 |  |  |  |
|--------------|--------|-----------------|--|--|--|
| Designed by: |        | Drawn by:       |  |  |  |
| M.K          |        | M.K.            |  |  |  |
| Revised by:  |        | Approved by:    |  |  |  |
|              |        | Eng. J. Loveday |  |  |  |
| Scale:       |        | Date:           |  |  |  |
| As Show      | /n     | APRIL 2022      |  |  |  |
| Sheet No:    | 1      | 14 of 16        |  |  |  |
| Drawing No:  | SHOF   | CO/KBR/008      |  |  |  |

N.T.S



#### NOTES: All dimensions are in millimeters unless All dimensions to be read and confirmed before construction begins and any discrepancy reported to Engineer. Foundation depths to be determined on site but to hard stratum and approved by 4. All concrete works to be class 20/25. 5. All steel reinforcement to BS4449. 6. Form-work to be fair-finished. 7. Drains under buildings and driveways to be 50 x 25 x 2mm RHS encased in at least 150mm thick concrete. Foundation trenches and concrete works to steel vertical member be treated with approved anti-termite chemical with at least 10 year guarantee. 50 x 25 x 2mm RHS All materials are subject to Engineer's approval before use. 8000 litres water steel horizontal membertank position at the top 50 x 25 x 2mm RHS 50 x 25 x 2mm RHS steel horizontal membersteel horizontal member top and bottom at the top 50 x 25 x 2mm RHS steel horizontal member top and bottom 50 x 25 x 2mm RHS steel vertical member 50 x 25 x 2mm RHS steel vertical member CLIENT 8000 litres water tank position **SHOFCO** 8000 litres water tank position .90° SHINING HOPE FOR COMMUNITIES (SHOFCO) 50 x 25 x 2mm RHS steel horizontal member 50 x 25 x 2mm RHS PROJECT: at the top steel horizontal member-KIBERA INVESTMENT DELIVERING SAFE WATER (KIDS) PROJECT top and bottom WATER SUPPLY PROJECT 1,700 IN KIBRA INFORMAL 50 x 25 x 2mm RHS **SETTLEMENT** steel horizontal member **NB** the cage to be used on both 8000ltrs and 5000ltrs tanks ENGINEER: **TOP VIEW** SIDE VIEW X-X STEEL CAGE DETAIL DRAWING TITLE: STANDARD WATER KIOSK TYPE 1 (GAGE DETAILS) DRAWING DETAILS: Drawn by: M.K M.K. Revised by: Approved by: Eng. J. Loveday Scale: APRIL 2022 N.T.S Sheet No: 16 of 16 SHOFCO/KBR/008