

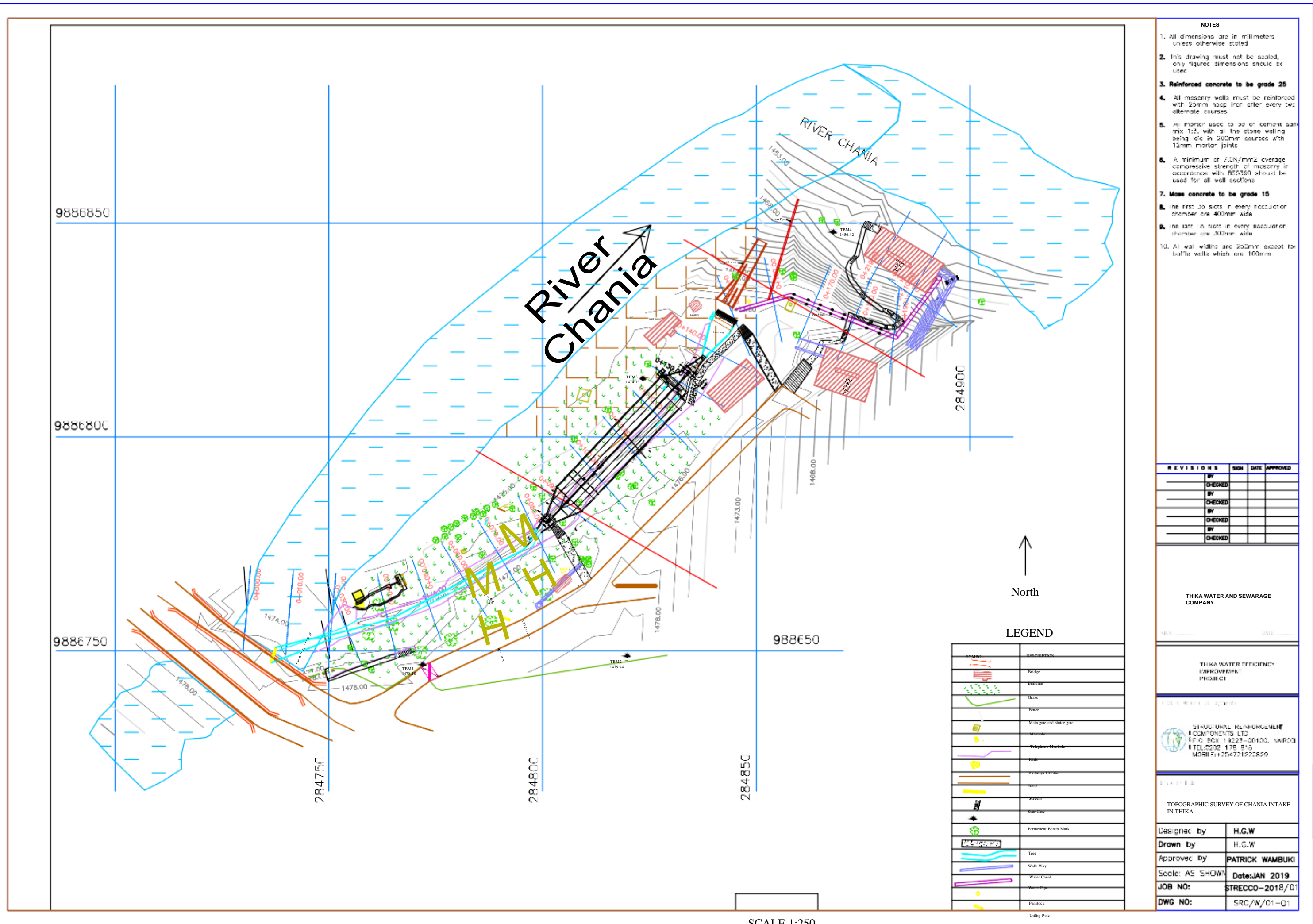
THIKA WATER AND SEWERAGE COMPANY

BOOK OF DRAWINGS

TABLE OF CONTENTS

DRAWINGS	DESCRIPTION
01-INTAKE DETAILS	
SRC/W/01-01	Site plan layout
SRC/W/01-02	Intake and weir layout
SRC/W/01-03	Intake sections
SRC/W/01-04-01	Intake structure-sluice flush gate, Intake canal and Coarse screen section details
SRC/W/01-04-02	Intake structure-sluice flush gate, Intake canal and Coarse screen R.C section details
SRC/W/01-05-01	Settling basins Plan layout
SRC/W/01-06-01	Settling basins sections
SRC/W/01-07	Settling basins sections
SRC/W/01-08	Settling basins sections
SRC/W/01-09	Settling basins –Walkway section details
SRC/W/01-10	Fore-bay –plan and section details
SRC/W/01-05-02	Settling basins Plan layout- RC Details
SRC/W/01-06-02	Settling basins sections- RC Details
SRC/W/01-07-02	Settling basins sections- RC Details
02-TREATMENT WORKS	
SRC/W/02-00	Treatment Plant General Site Layout
SRC/W/02-01-01	Old Flocculation basin Plan and sections
SRC/W/02-01-02	Old Flocculation basin Plan and sections-RC details
SRC/W/02-02-01	New Flocculation basin Plan and sections
SRC/W/02-02-02	New Flocculation basin Plan and sections-RC Details
SRC/W/02-03	Old sedimentation basin
SRC/W/02-04	Tube settlers frame plan and section details layout-Old unit
SRC/W/02-05	Dosing Water Delivery Pipe Review -Old basin
SRC/W/02-06	New sedimentation basin
SRC/W/02-07	Tube settlers frame plan and section details layout-New unit
SRC/W/02-08	Existing and Proposed Clear water Tank Pipework Layout
SRC/W/02-09	Clear water Tank Pipework improvement Layout
SRC/W/02-10	Valve chamber sections and layout details
03-Manufacturers Drawings	
SRC/W/03-01	Tube settlers plan and section details –By supplier
SRC/W/03-02	Tube settlers plan and section details –By supplier
SRC/W/03-03	Tube settlers plan and section details –By supplier

01- INTAKE DETAILS



NOTES

1. All dimensions are in millimeters unless otherwise stated
2. This drawing must not be scaled, only figured dimensions should be used
3. Reinforced concrete to be grade 25
4. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses
5. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints
6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5629 should be used for all wall sections
7. All wall widths are 250mm unless otherwise stated

NO.	REVISION	DATE	BY	CHKD	APPROVED
4	1	01/03/2018			
3	2	01/03/2018			
2	3	01/03/2018			
1	4	01/03/2018			

COMPANY



THIKA WATER AND SEWERAGE
COMPANY

PROJECT

THIKA WATER EFFICIENCY
IMPROVEMENT
PROJECT

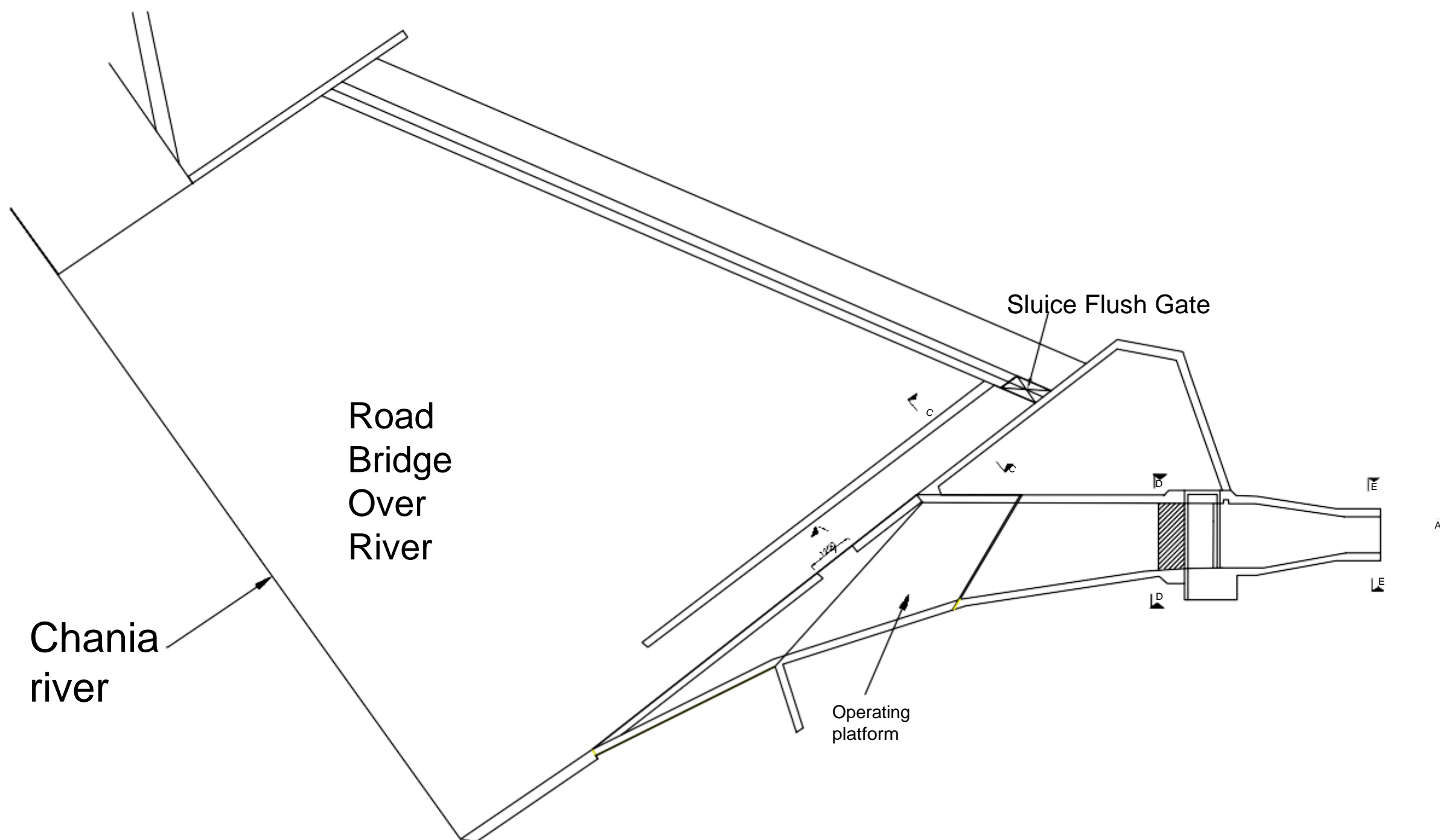
DESIGN & STRUCTURAL ENGINEER

STRUCTURAL ENGINEERING
COMPONENTS LTD
B-10/100/100/100/100/100
TEL: 020 775 0115
MOB: 07947 770000

DESIGN TITLE

INTAKE STRUCTURE - PLAN AND SECTIONS

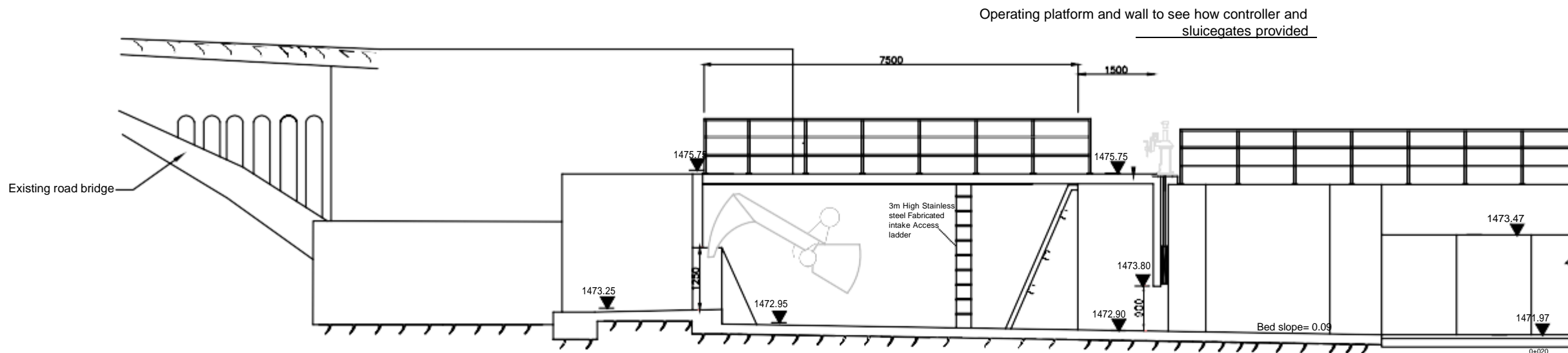
Designed by	H.G.W
Drawn by	H.G.W
Approved by	ENG. P. WAMBUKI
Scale AS SHOWN	1:100 (A4 & A3)
JOB NO.	STRECCO-2018/02
DWG NO.	SRCW/01-02



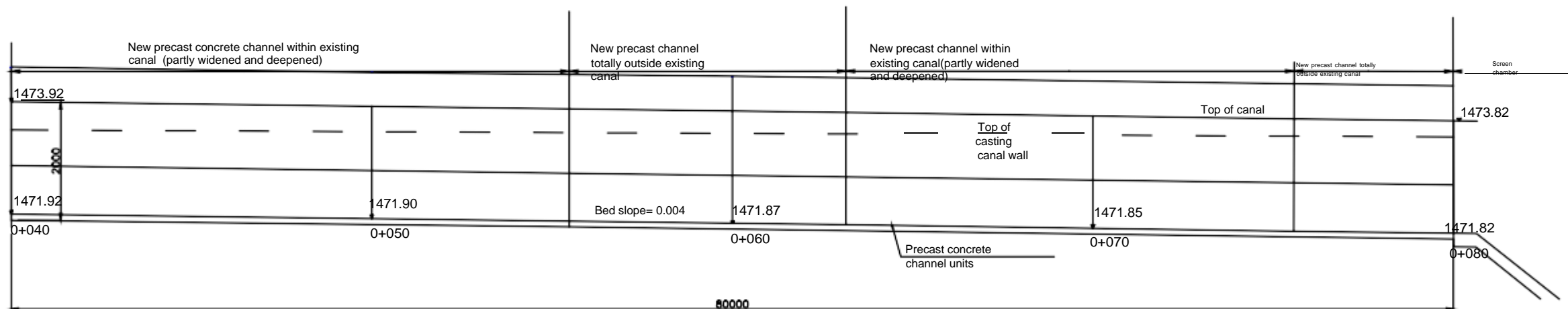
WEIR PLAN LAYOUT
SCALE 1:100

AVIC GATE FLOW CONTROLLER REQUIRED

Nominal Controlled flow	2.0m ³ /sec
Canal Nominal Operational Range	1473.12 to 1472.94m.a.s.l
Upstream Water level	1475.14 m.a.s.l
Minimum Water level	1474.00m.a.s.l (Weir elev. 1474.00m.a.s.l)
Maximum Flood Water level	1475.65m.a.s.l (As-built elev. 1475.75m.a.s.l)



SECTION A-A
SCALE 1:250



LONGITUDINAL SECTION A-A
DETAILS
SCALE 1:250

NOTES

1. All dimensions are in millimeters unless otherwise stated
2. This drawing must not be scaled, only figured dimensions should be used
3. Reinforced concrete to be grade 25
4. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses
5. All masonry used to be of cement sand mix 1:3, with all the stone walls being c/c in 200mm courses with 12mm mortar joints
6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5393 should be used for all wall sections
7. All wall widths are 250mm unless otherwise stated

NO.	REVISIONS	DATE	BY	CHKD	APP'D
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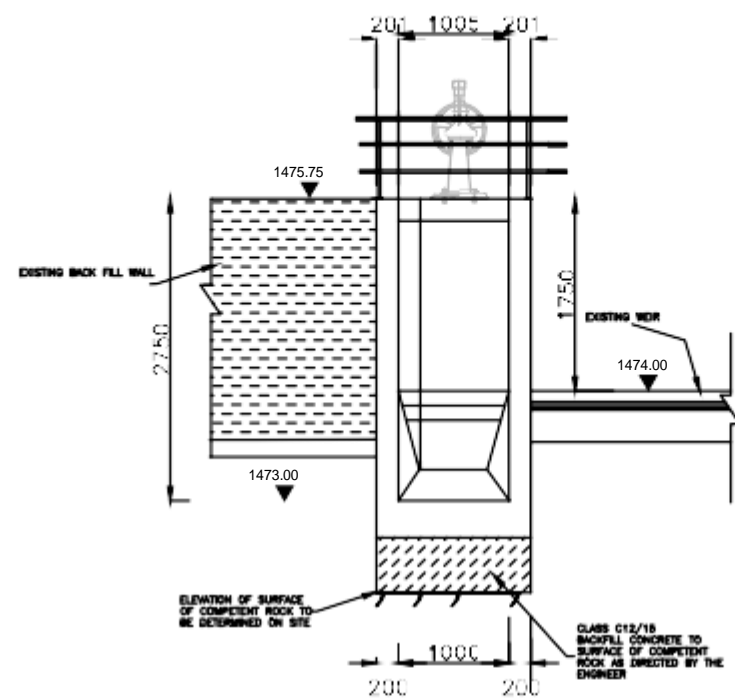
THIKA WATER AND SEWERAGE COMPANY

Project: THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

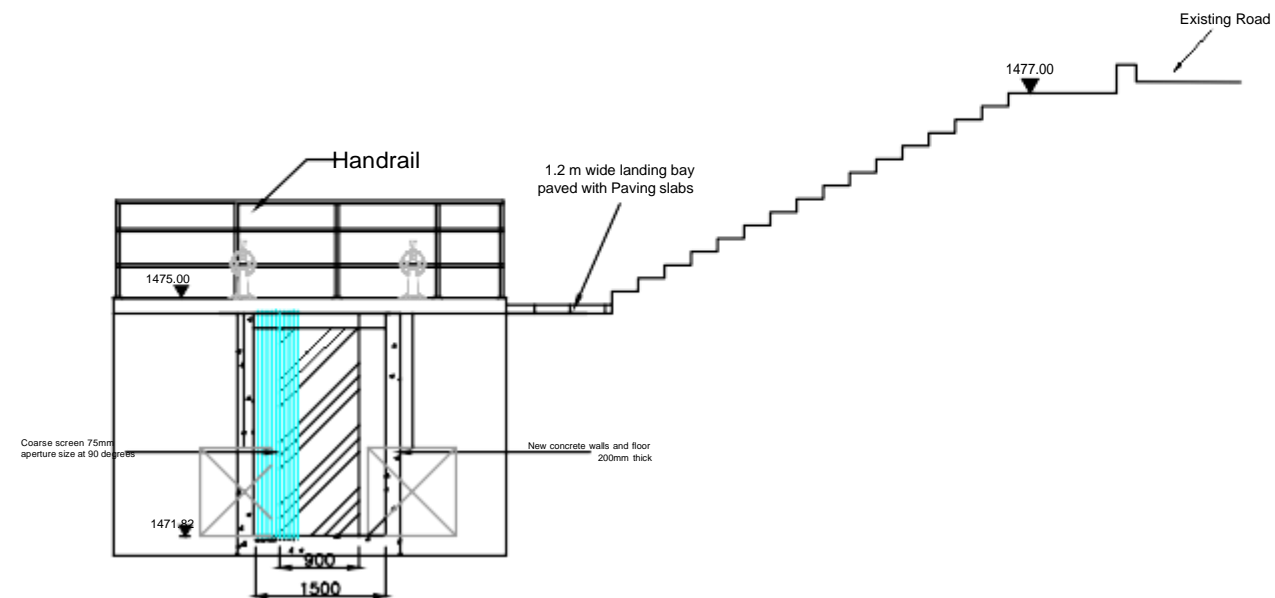
Civil & Structural Engineers
STRUCTURAL ENGINEERING
COMPONENTS LTD
P.O. BOX 122, GORONGOROA, NAIROBI
TEL: 020 277 75 018
MOBILE: 0724 777 000/009

Intake Structure - SECTIONS DETAILS

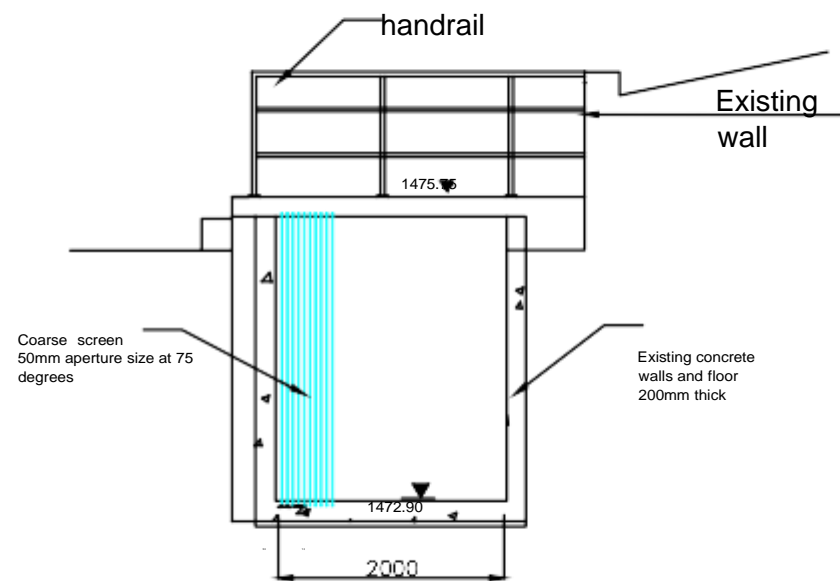
Designed by	H.G.W
Drawn by	H.G.W
Approved by	ENG. P. WAMBUKI
Scale: AS SHOWN	DATE: JAN 2018
JOB NO.	STRECCO-2018/02
DWG NO.	SRC/W/01-03



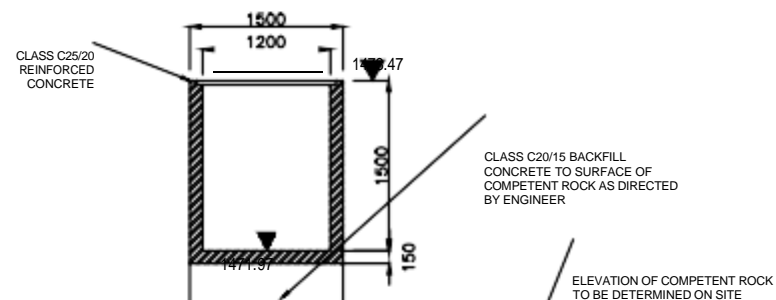
SECTION C-C
SCALE 1:75



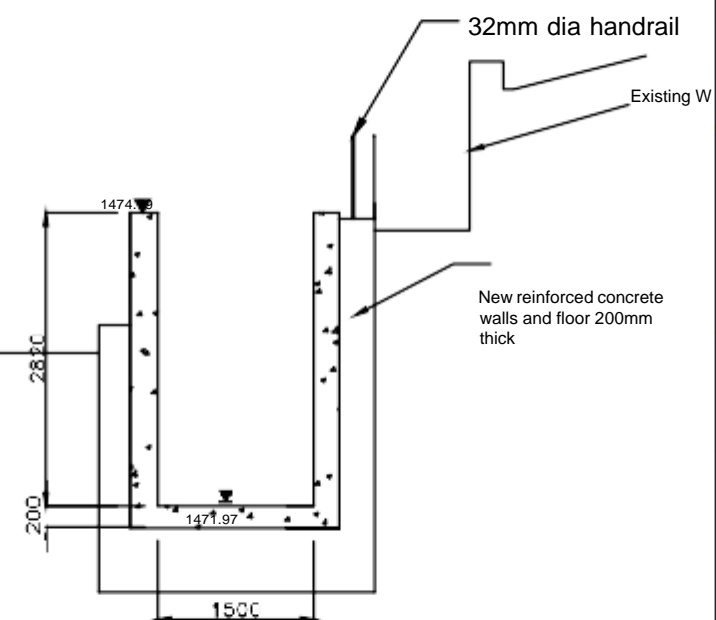
INLET SECTIONS DETAILS TO SETTLING BASIN
SCALE 1:250



SECTION D-D
SCALE 1:250



SECTION DETAILS
SCALE 1:50



SECTION E-E
SCALE 1:250

- NOTES**
1. All dimensions are in millimeters, unless otherwise stated.
 2. This drawing must not be sealed, only figured dimensions should be used.
 3. Reinforced concrete to be grade 25.
 4. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses.
 5. All masonry used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.
 6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5629 should be used for all wall sections.
 7. All wall widths are 250mm unless otherwise stated.

NO.	REVISIONS	DATE	BY	CHKD	APP'D
1					
2					
3					
4					



THIKA WATER AND SEWERAGE COMPANY LIMITED

Project

THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

Civil & Structural Engineers

STRUCTURAL ENGINEERS
COMPONENTS LTD
P.O. BOX 123456 NAIROBI
TEL: 020 275 0115
MOBILE: 0724 77 2222

Drawn by

INTAKE STRUCTURE SLUICE FLUSH GATE, DRAINAGE CANAL AND COARSE SCREENS SECTIONS DETAILS

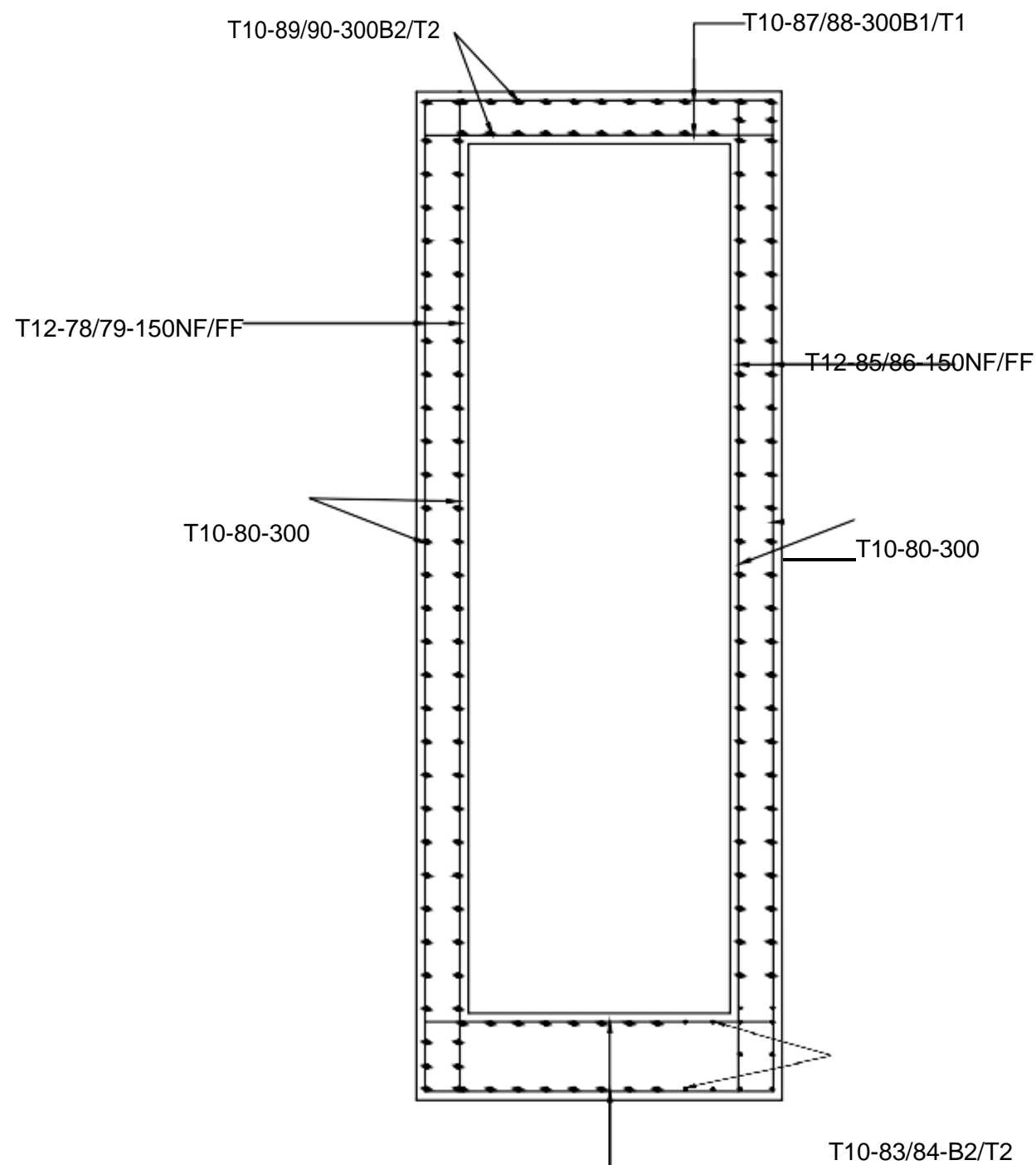
Drawn by

Approved by

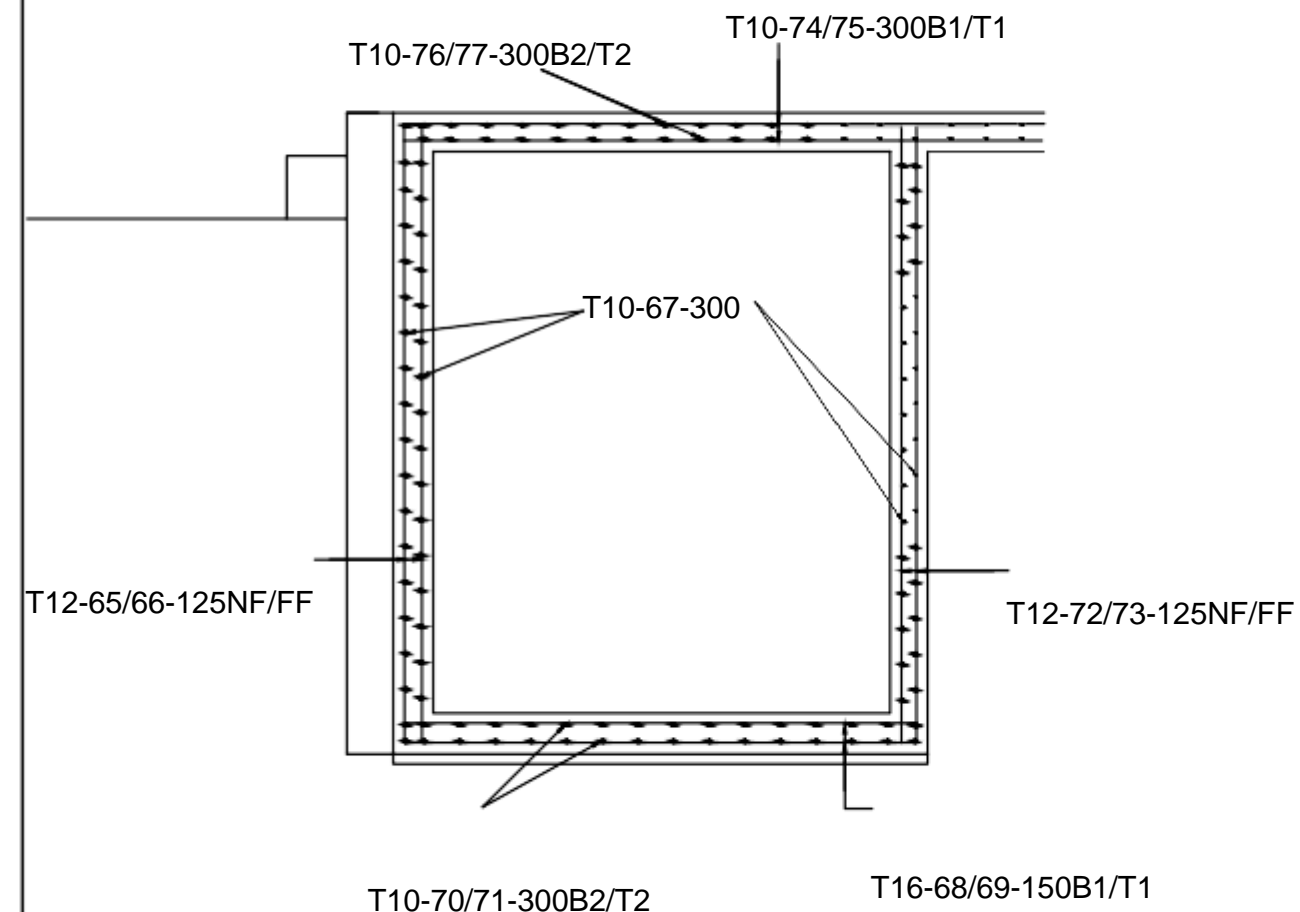
Scale as shown

Job No

DWG NO.



SECTION C-C
SCALE 1:75



SECTION D-D
SCALE 1:250

- NOTES**
1. All dimensions are in millimeters, unless otherwise stated.
 2. This drawing must not be scaled, only figured dimensions should be used.
 3. Reinforced concrete to be grade 25.
 4. All masonry walls must be reinforced with 20mm deep iron after every two alternate courses.
 5. All mortar used to be of cement sand mix 1:2, with all the stone walling being c/c in 200mm courses with 12mm mortar joints.
 6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5390 should be used for all wall sections.
 7. All wall widths are 250mm unless otherwise stated.

REV	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR TENDERS	2018/02	P. WAMBURI	
2	REVISED			
3	REVISED			
4	REVISED			
5	REVISED			
6	REVISED			
7	REVISED			



DATE: 2018/02/02

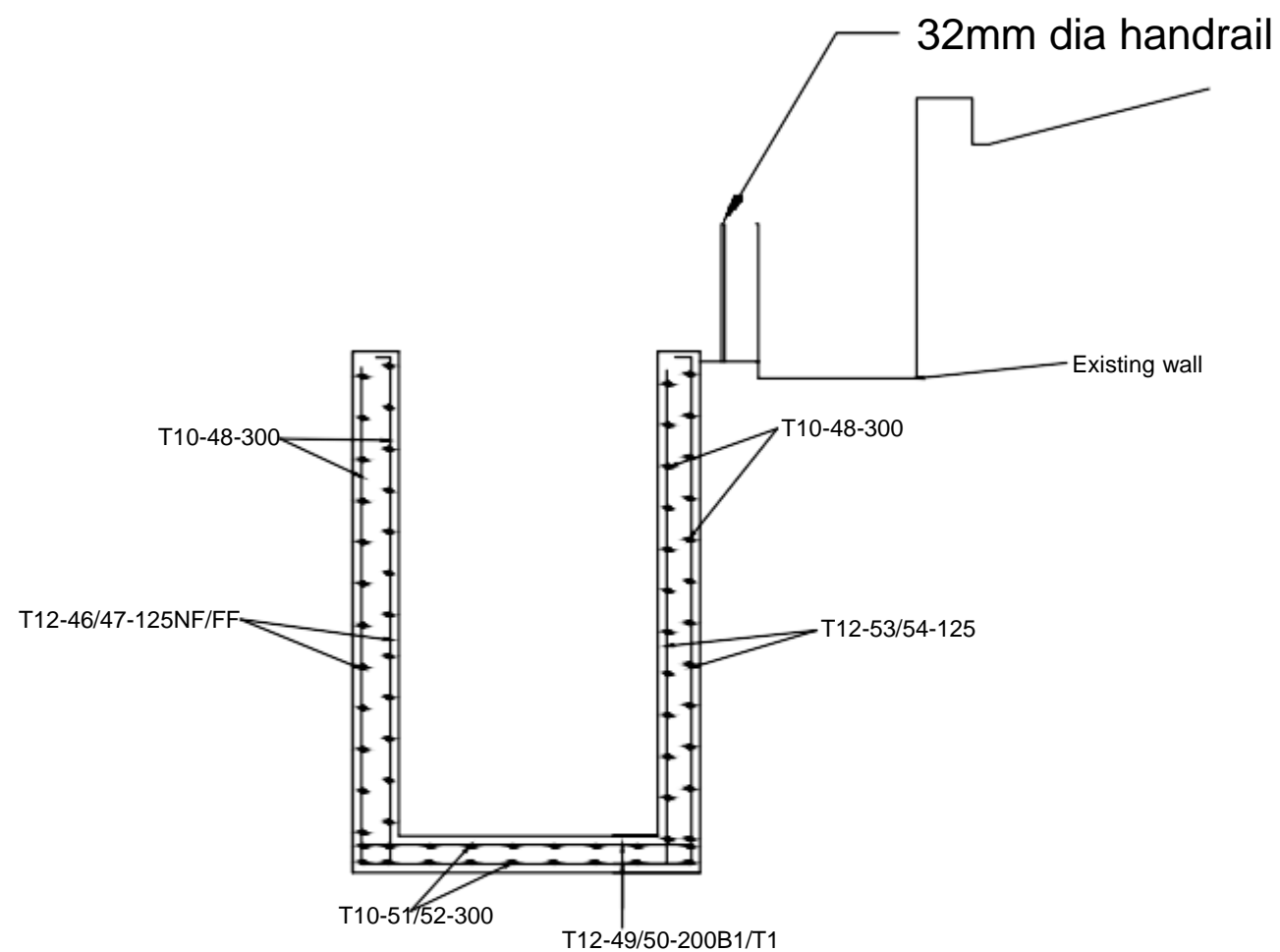
Project
THIKA WATER AND SEWAGE COMPANY

Civil & Structural Engineer
THIKA WATER EFFICIENCY IMPROVEMENT PROJECT
SUBJECT: SLUICE FLUSH GATE, INTAKE CANAL AND COARSE SCREENS SECTIONS DETAILS
DRAWN BY: P. WAMBURI
CHECKED BY: P. WAMBURI
DATE: 2018/02/02

DESIGNED BY

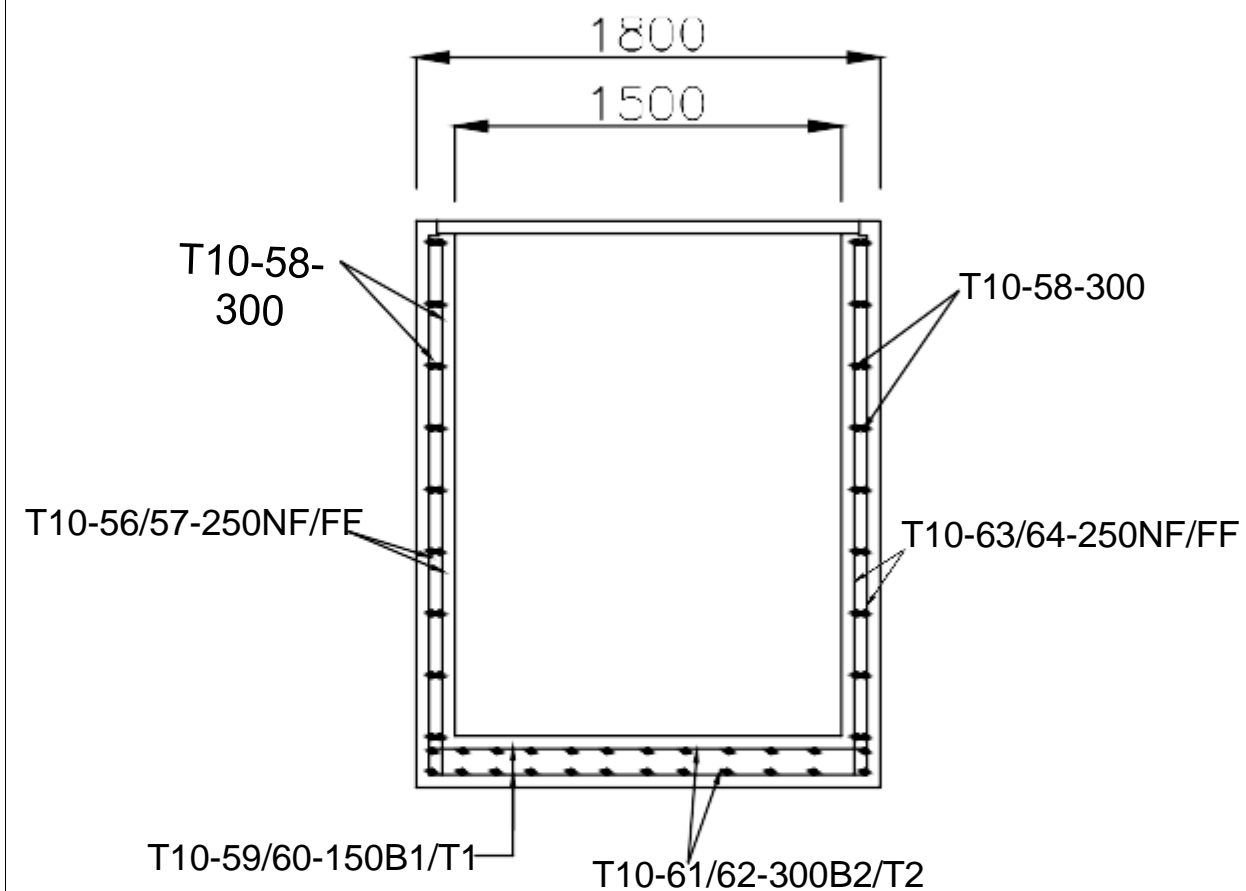
DESIGNED BY	
CHECKED BY	
DATE	2018/02/02
JOB NO.	
DWG NO.	

ENG. P. WAMBURI



SECTION E-E

SCALE 1:250



SECTION DETAILS

SCALE 1:50

NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, only figured dimensions should be used.
3. Reinforced concrete to be grade 25
4. All masonry walls must be reinforced with 20mm deep iron after every two alternate courses
5. All mortar used to be of cement sand mix 1:2, with all the stone walling being laid in 250mm courses with 12mm mortar joints
6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5340 should be used for all wall sections
7. All wall widths are 250mm Unless otherwise stated

REV	DESCRIPTION	BY	DATE	APP
1	ISSUED FOR TENDERS			
2	REVISED			
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4	REVISED			
5	REVISED			
6	REVISED			
7	REVISED			

THIKA WATER AND SEWAGE COMPANY



THIKA WATER AND SEWAGE COMPANY

Project

THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

Civil & Structural Engineers

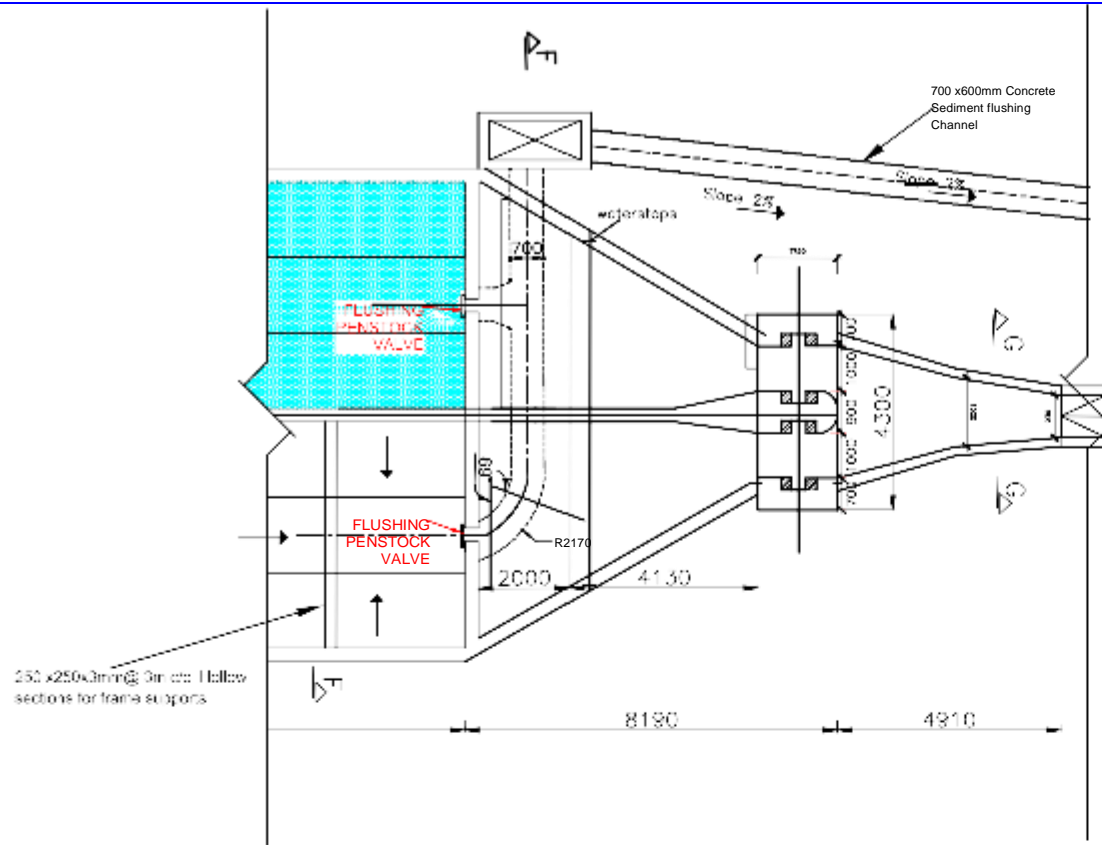
STRECCO CONSULTANTS LTD
P.O. BOX 19233, NAIROBI
TEL: 020 274 6674
MOBILE: 0724 912 0890

REINFORCEMENT SECTIONS - SLUICE FLUSH GATE, INTAKE CANAL AND COARSE SCREENS SECTIONS DETAILS

Designed by	H.G.W
Drawn by	H.G.W
Approved by	ENG. P. WAMBUKI
Scale as shown	DATE DEC 2018
JOB NO	STRECCO-2018/02
DWG NO.	SRC/W/01-04-02

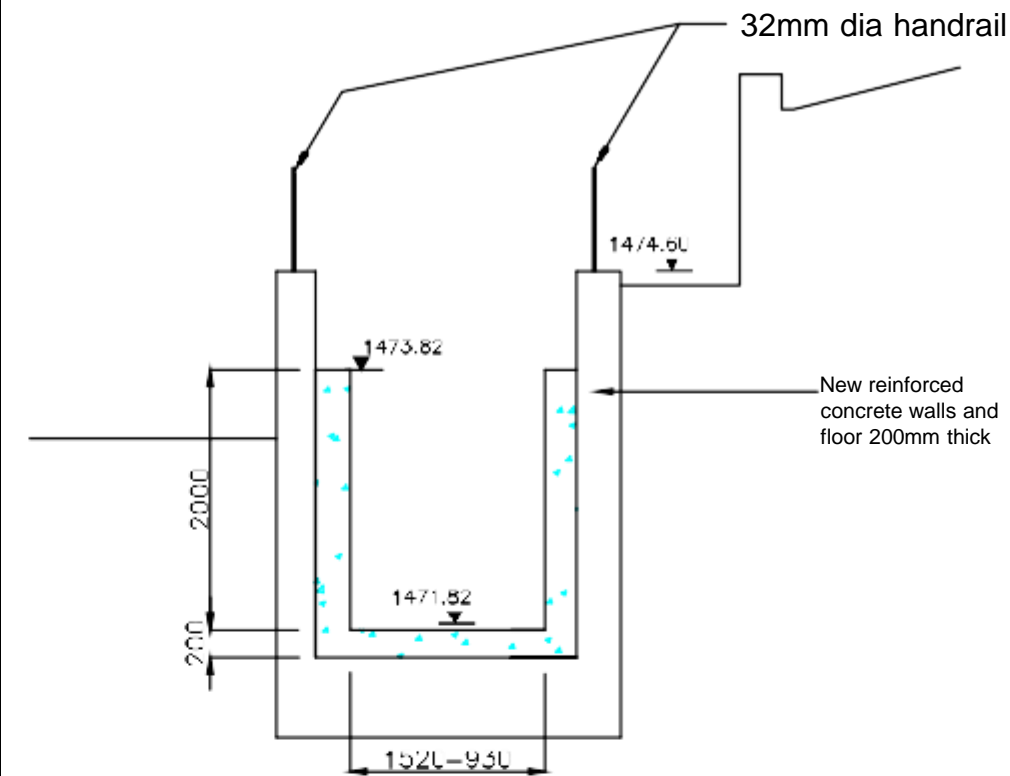


Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: JAN 2019
JOB NO:	STRECCO-2018/0
DWG NO:	SRC/W/01-06-01



Plan Layout of the Settling Basin

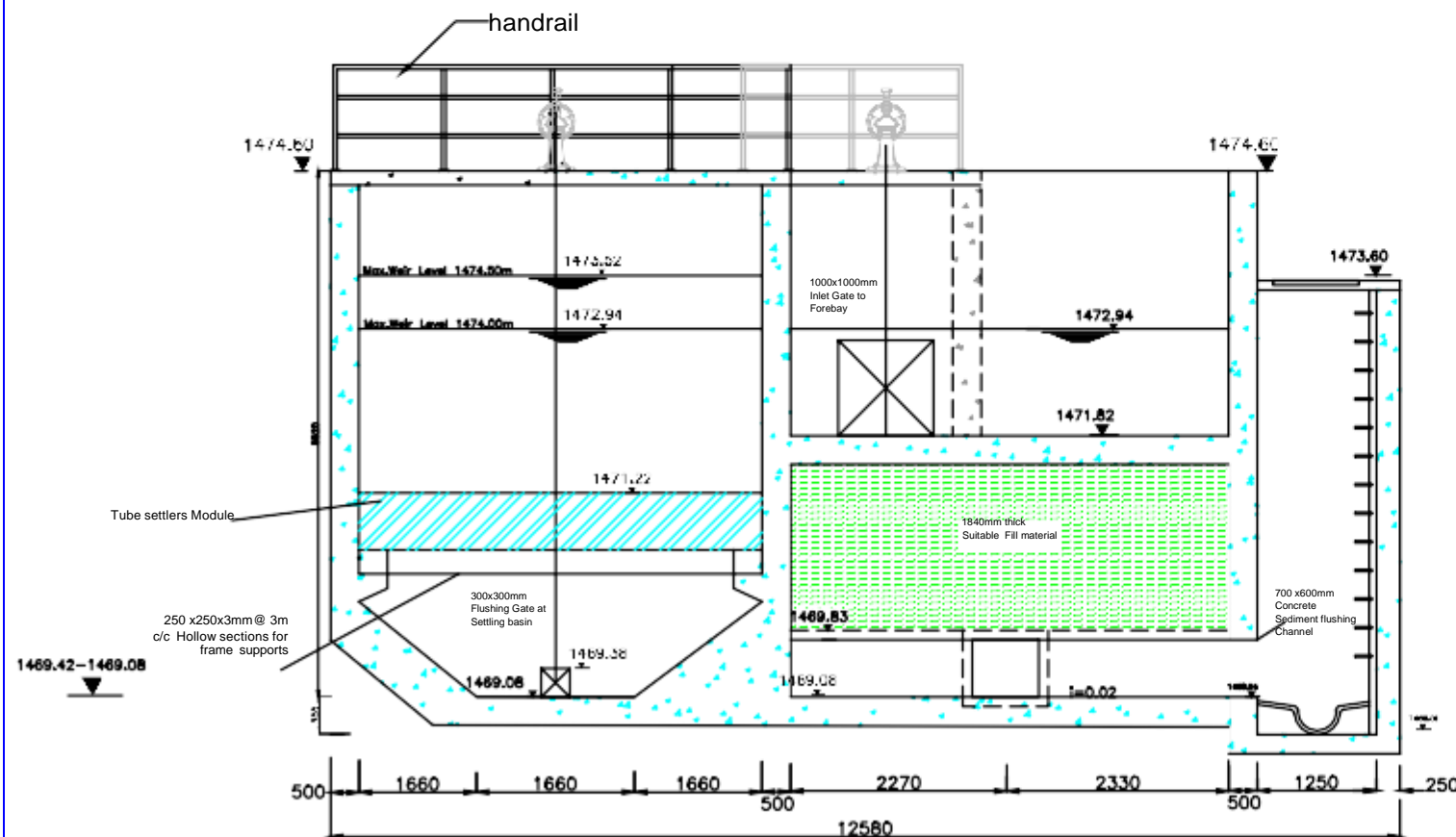
SCALE 1:500



SECTION G-G

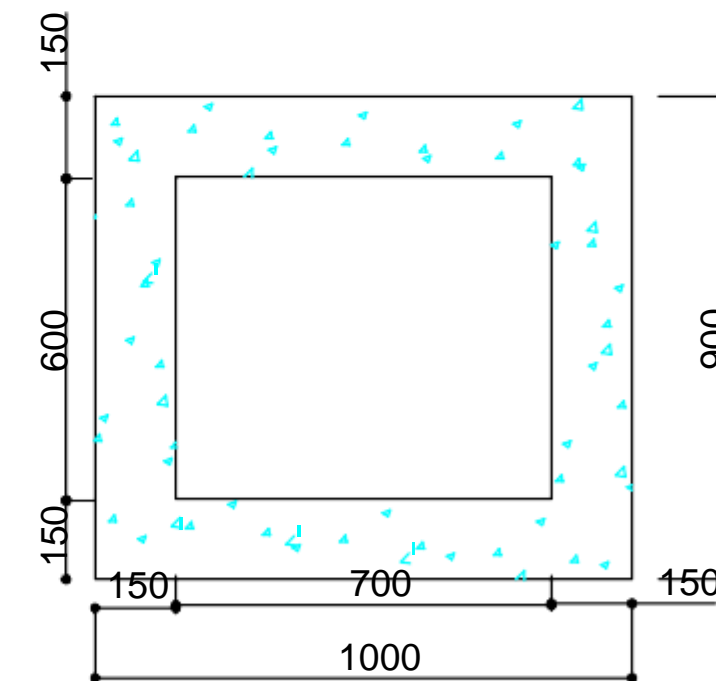
SCALE 1:250

- NOTES**
1. All dimensions are in millimeters, unless otherwise stated.
 2. This drawing must not be scaled, only figured dimensions should be used.
 3. Reinforced concrete to be grade 25.
 4. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses.
 5. All mortar used to be of cement sand mix 1:3, with all the stone walling being c/c in 200mm courses with 12mm mortar joints.
 6. A minimum of 7.0N/mm² coverage cover concrete shall be of masonry in accordance with BS5380 should be used for all wall sections.
 7. All wall widths are 500mm unless otherwise stated.



SECTION F-F

SCALE 1:200



SEDIMENT FLUSHING CANAL DETAIL

SCALE 1:50

REVISIONS	BY	DATE	APPROVED
1	CHECKED		
2	BY		
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5	CHECKED		
6	BY		
7	CHECKED		

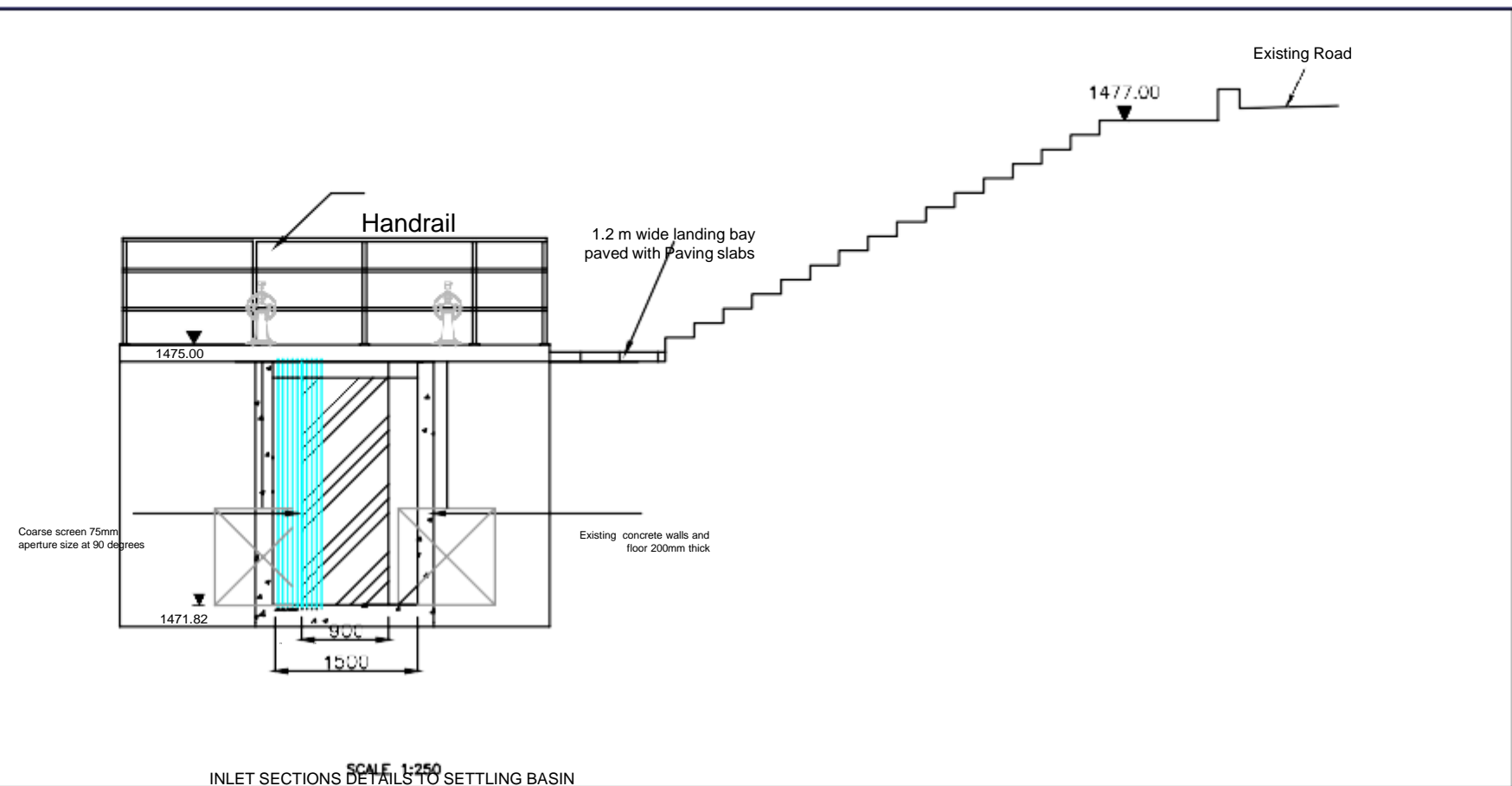


Project
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PROJECT

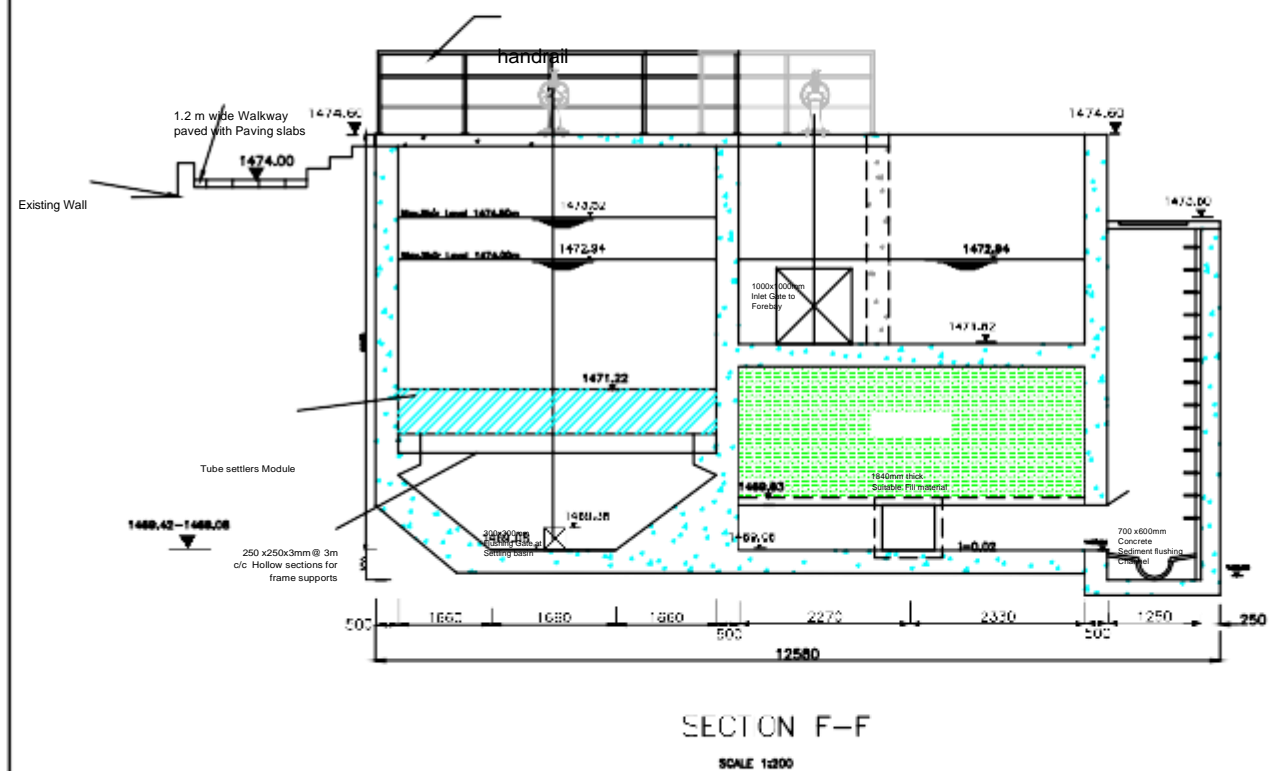
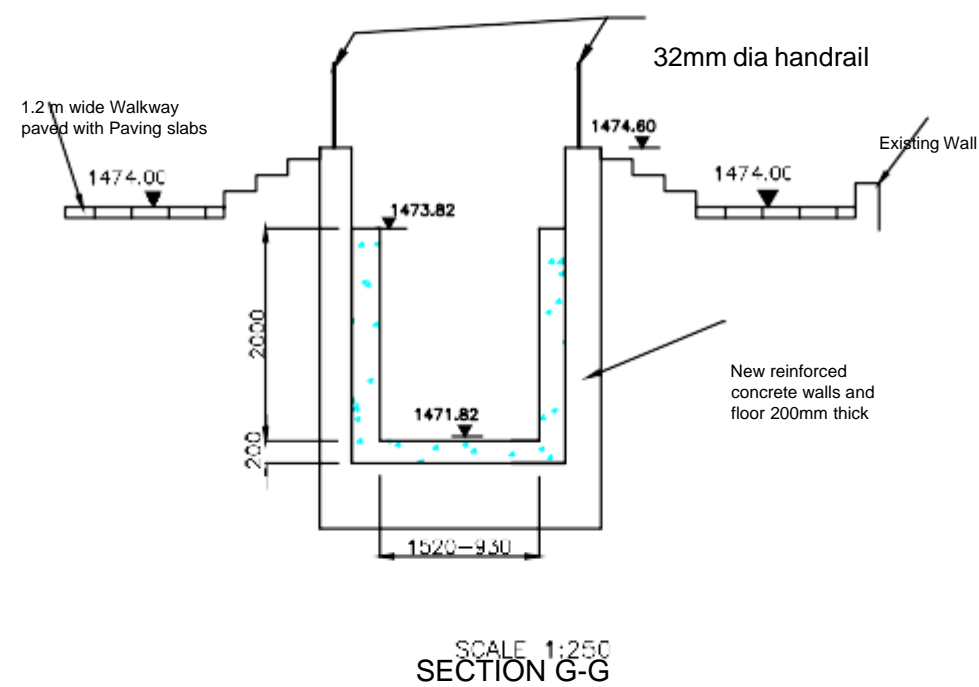
Structural Engineer
STRUCTURAL REINFORCEMENT
COMPONENTS LTD
P.O. BOX 19523-00100, NAIROBI
TEL: 020 22 178 815
MOB: 071 254721222820

Drawing Title
SETTLING BASIN - SECTIONS

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: JAN 2019
JOB NO:	STRECCO-2018/01
DWG NO:	ERC/W/01-07



- NOTES**
1. All dimensions are in millimeters, unless otherwise stated
 2. This drawing must not be scaled, only figured dimensions should be used
 3. Reinforced concrete to be grade 25
 4. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses
 5. All mortar used to be of cement sand mix 1:3, with all the stone walling being c/c in 200mm courses with 12mm mortar joints
 6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5390 should be used for all wall sections
 7. All wall widths are 500mm unless otherwise stated



REVISIONS	BY	DATE	APPROVED
1	CHECKED		
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6	CHECKED		
7	CHECKED		



THIKA WATER AND SEWERAGE COMPANY

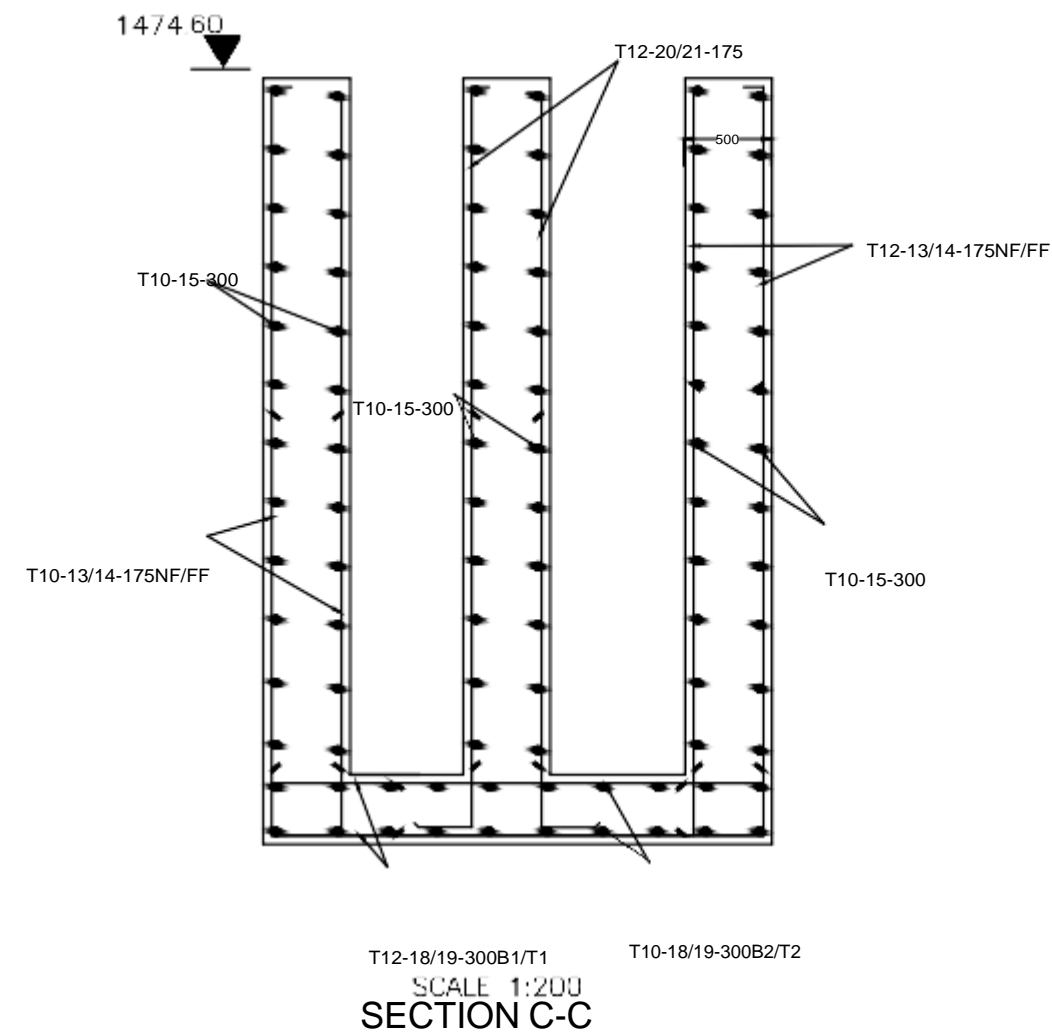
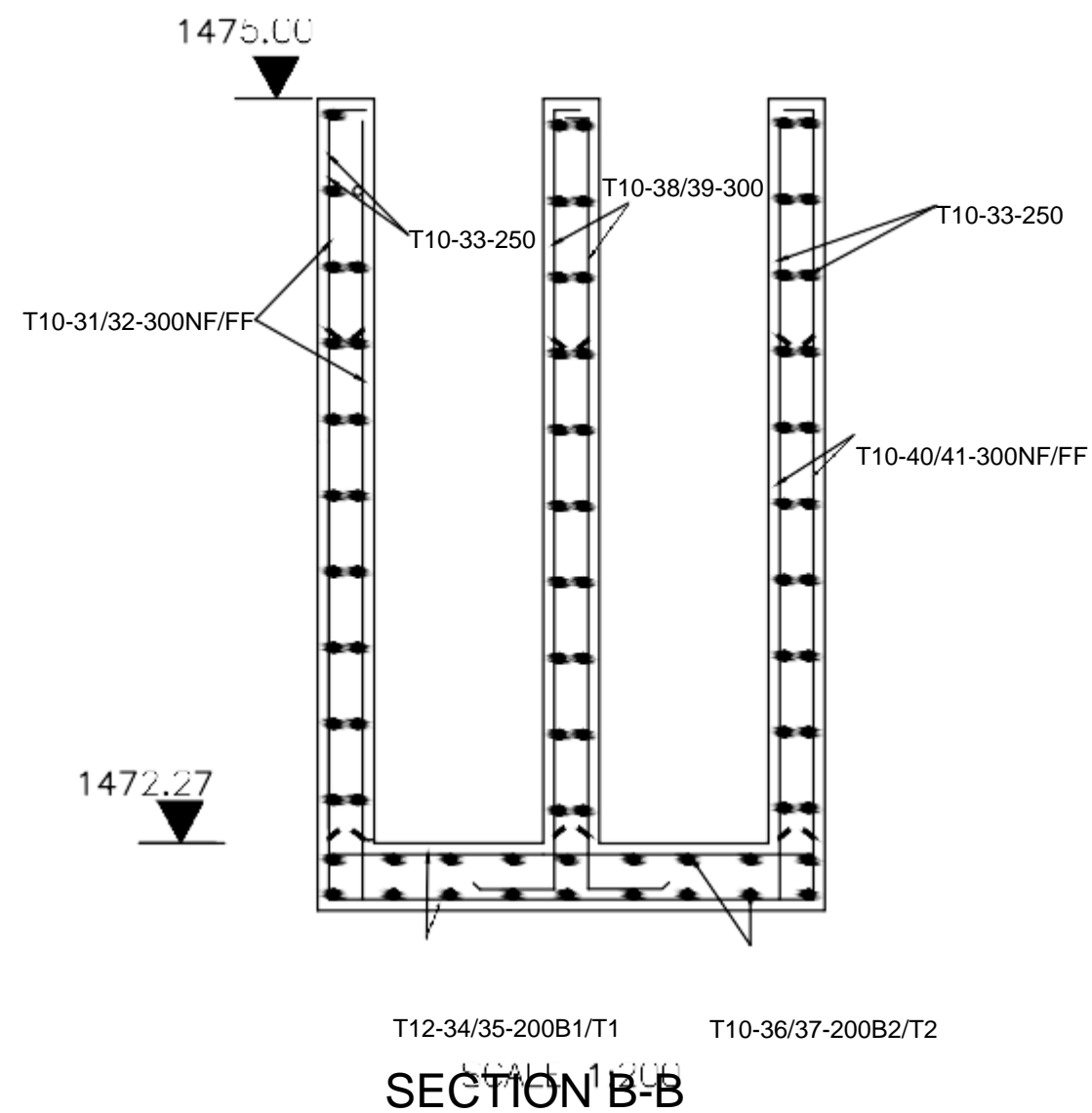
THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

Civil & Structural Engineers

STRUCTURAL REINFORCEMENT COMPONENTS LTD
 P.O. BOX 19223-00100, NAIROBI
 TEL: 020 178 815
 MOBILE: 0254701200820

SETTLING BASIN - WALKWAY LAYOUT DETAILS

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Dates: JAN 2019
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/01-05



- NOTES**
1. All dimensions are in millimeters unless otherwise stated
 2. This drawing must not be scaled, only figured dimensions should be used
 3. Reinforced concrete to be grade 25
 4. All masonry walls must be reinforced with 25mm hoop iron after every two alternate courses
 5. All mortar used to be of cement sand mix 1:3, with all the stone walling being etc in 200mm courses with 12mm mortar joints
 6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5880 should be used for all wall sections
 7. All wall widths are 500mm Unless otherwise stated

REVISIONS	BY	SIGN	DATE	APPROVED
4	CHECKED			
3	BY			
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1	BY			
1	CHECKED			



THIKA WATER AND SEWERAGE COMPANY

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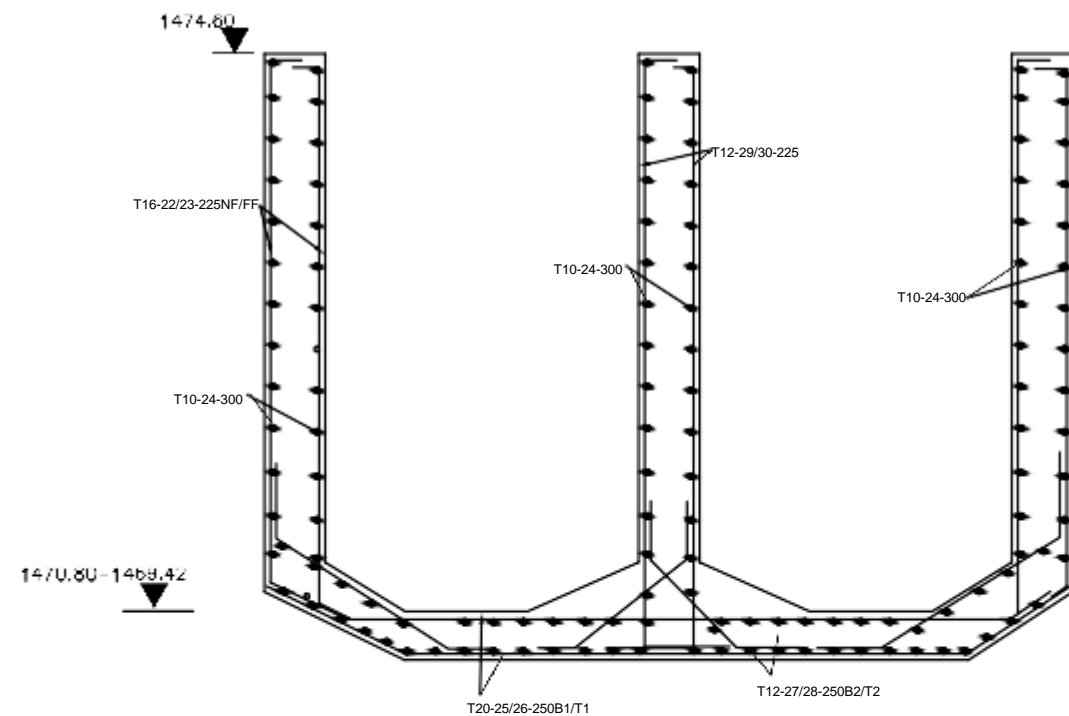
Civil & Structural Engineers

STRUCTURAL REINFORCEMENT COMPONENTS LTD
 P.O. BOX 19223-00100, NAIROBI
 TEL: 020 175 815
 MOBILE: 0254701220820

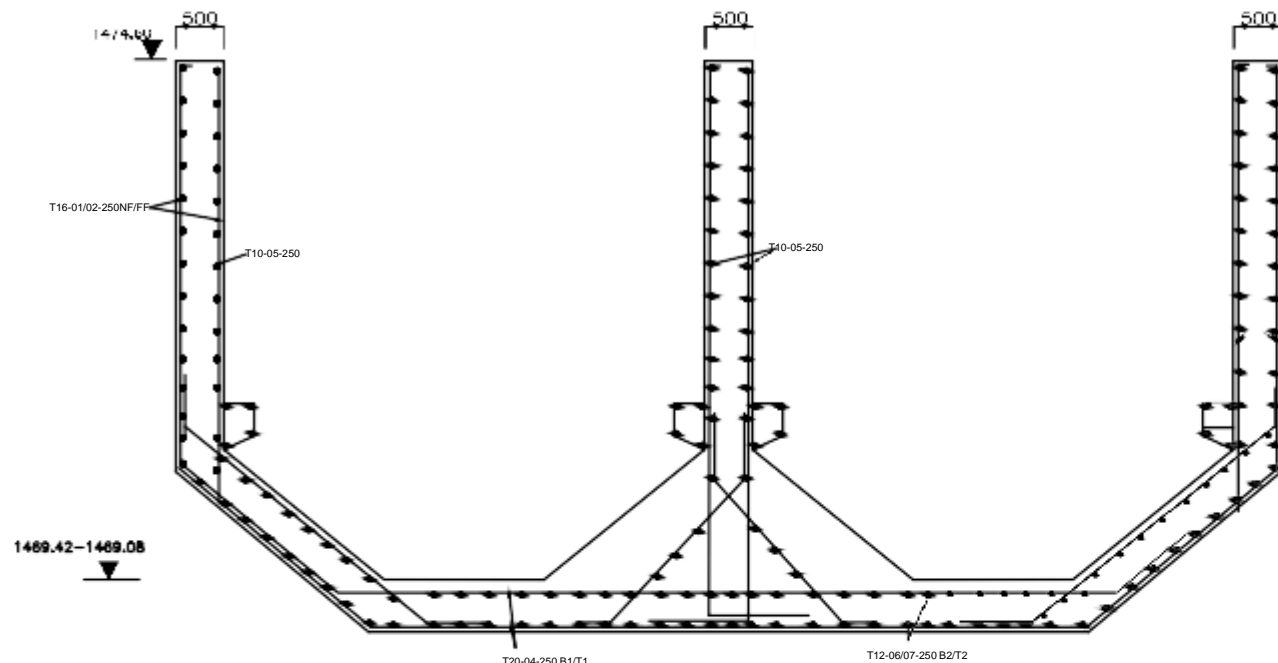
Working Title

SETTLING BASIN –REINFORCEMENT SECTIONS

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: 18/01/2019
JOB NO:	STRECCO-2018/01
DWG NO:	SRD/W/01-06-02



SECTION D-D
SCALE 1:200



SECTION E-E
SCALE 1:200

- NOTES**
1. All dimensions are in millimeters unless otherwise stated.
 2. This drawing must not be scaled, only figured dimensions should be used.
 3. Reinforced concrete to be grade 25.
 4. All masonry walls must be reinforced with 20mm hoop iron after every two alternate courses.
 5. All mortar used to be of cement sand mix 1:3, with all the stone walling being 10 in 200mm courses with 12mm mortar joints.
 6. A minimum of 70N/mm² average compressive strength of masonry in accordance with BS5380 should be used for all wall sections.
 7. All wall widths are 500mm unless otherwise stated.

REV	REVISIONS	BY	CHK	DATE	APPROVED
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4		BY			
5		CHECKED			
6		BY			
7		CHECKED			

CLIENT




THIKA WATER AND SEWERAGE
COMPANY

Project

THIKA WATER EFFICIENCY
IMPROVEMENT
PROJECT

Civil & Structural Engineers

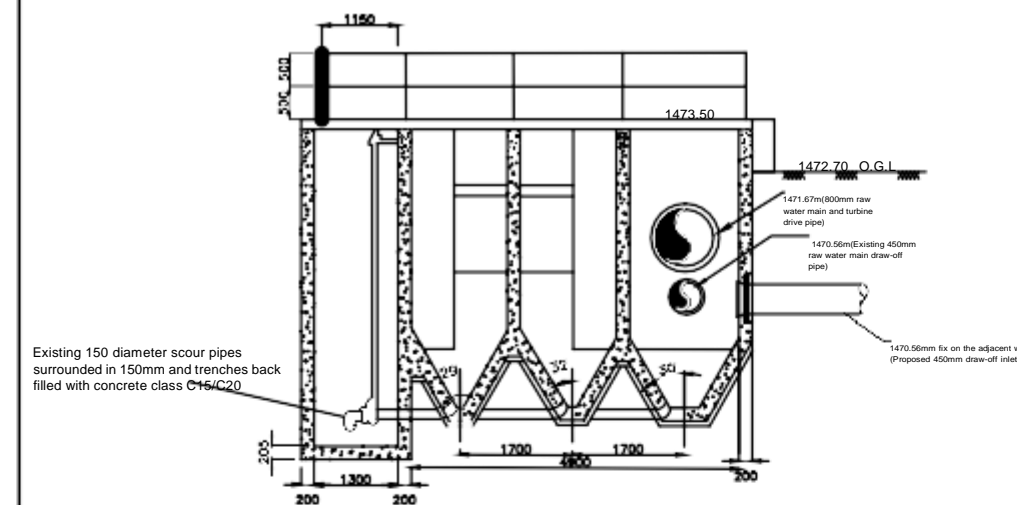
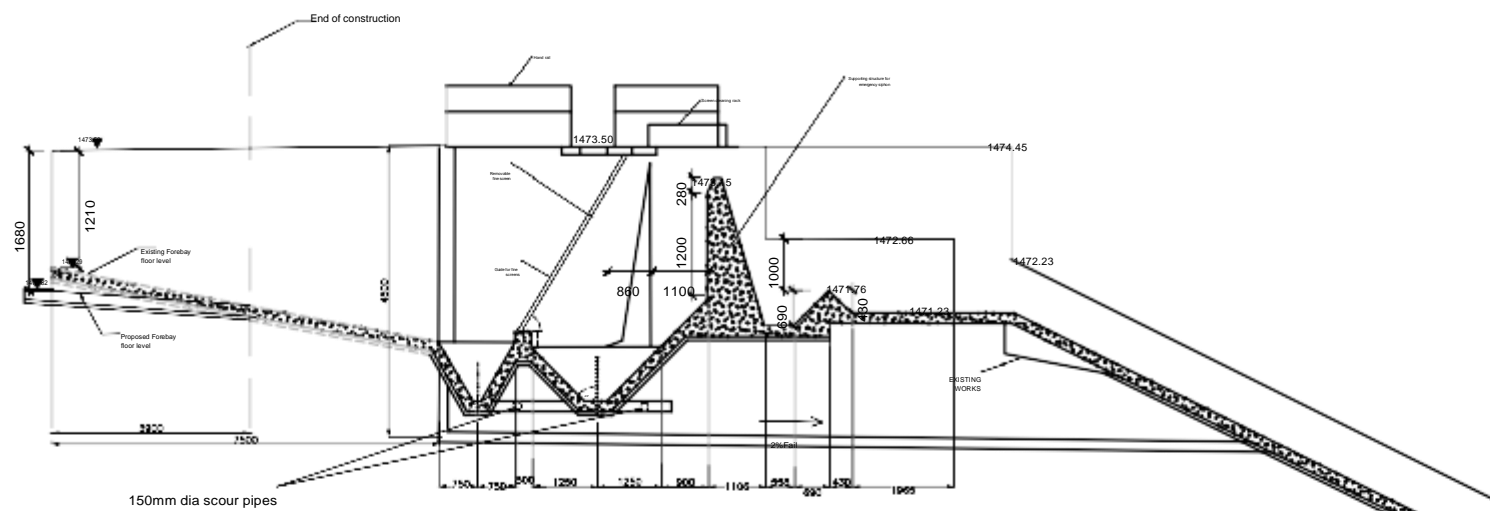


STRUCTURAL REINFORCEMENT
COMPONENTS LTD
P.O. BOX 19223-00100, NAIROBI
TEL: 020 178 815
MOBILE: 0254701220820

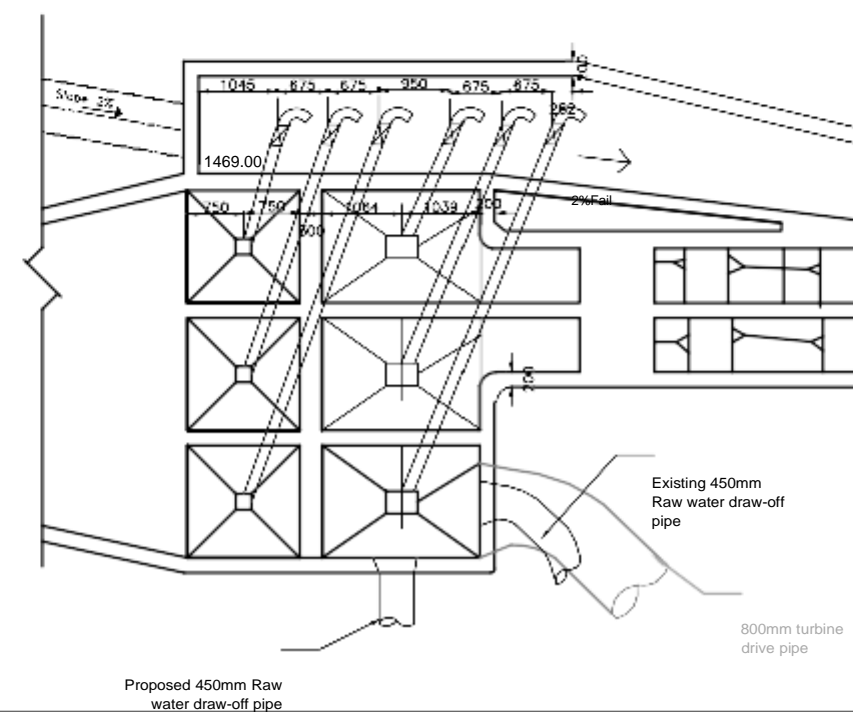
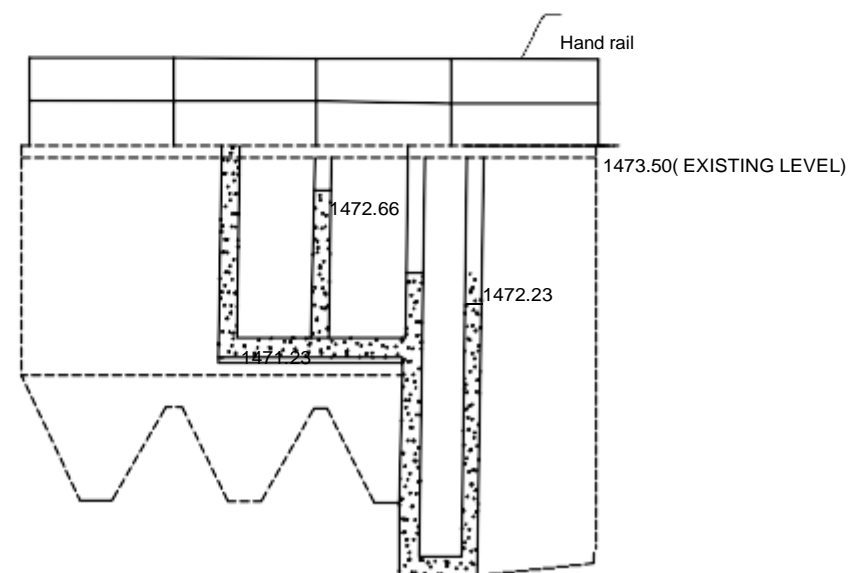
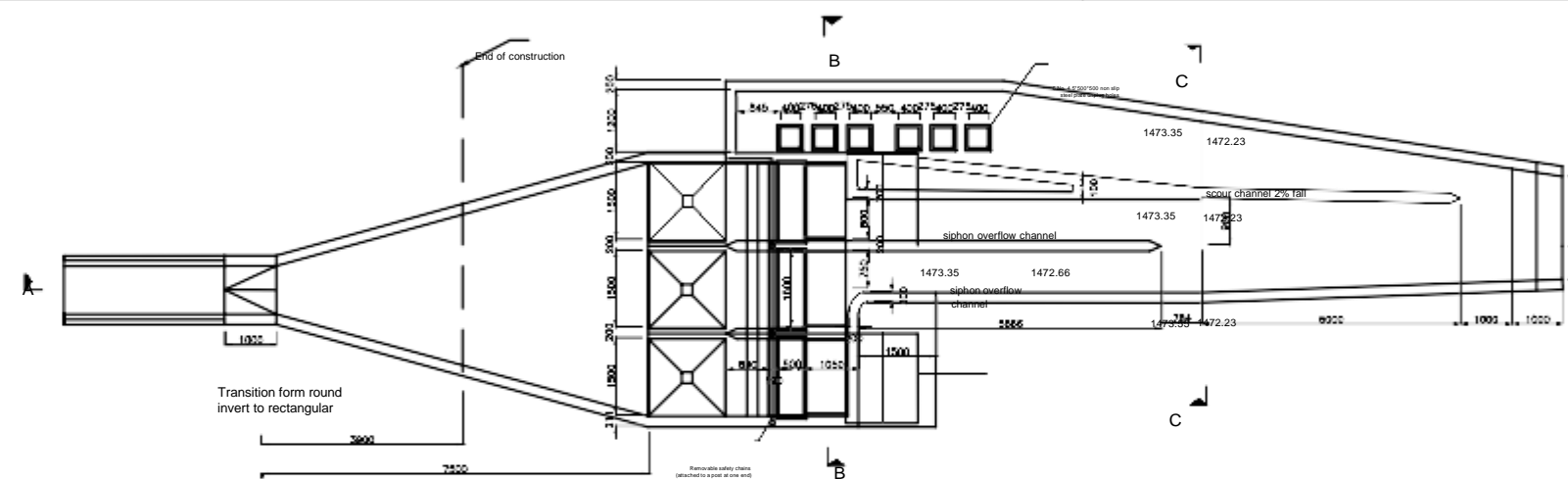
Drawing Title

SETTLING BASIN - REINFORCEMENT
SECTIONS

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: JAN 2019
JOB NO:	STRECCO-2018/01
DWG NO:	SRD/W/01-07-02



- | NOTES | |
|-------|---|
| 1. | All dimensions are in millimeters unless otherwise stated |
| 2. | This drawing must not be scaled, only figured dimensions should be used |
| 3. | Reinforced concrete to be grade 25 |
| 4. | All masonry walls must be reinforced with 25mm rods in alternate courses |
| 5. | Mortar used to be of cement sand mix 1:3, with all the same walling being laid in 250mm courses with 12mm mortar joints |
| 6. | A minimum of 45N/mm ² average compressive strength of masonry in accordance with BS6340 should be used for all wall sections |
| 7. | All wall widths are 250mm unless otherwise stated |



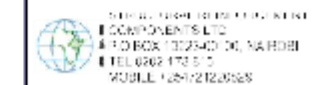
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1	$\frac{1}{5}\omega$ $1 \rightarrow 2 \rightarrow 3 \rightarrow 1$			

THIKA WATER AND SEWAGE
COMPANY

Project

THIKA WATER EFFICIENCY
IMPROVEMENT
PROJECT

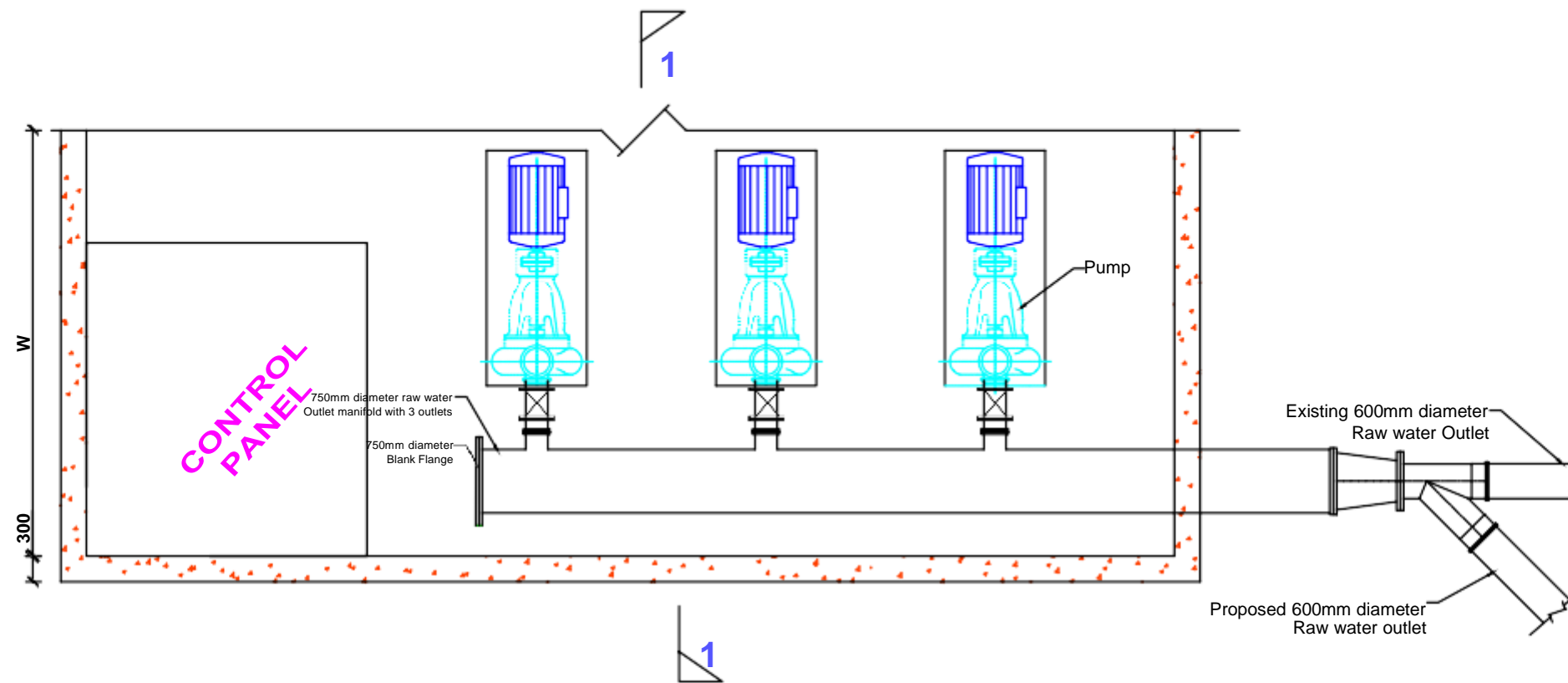
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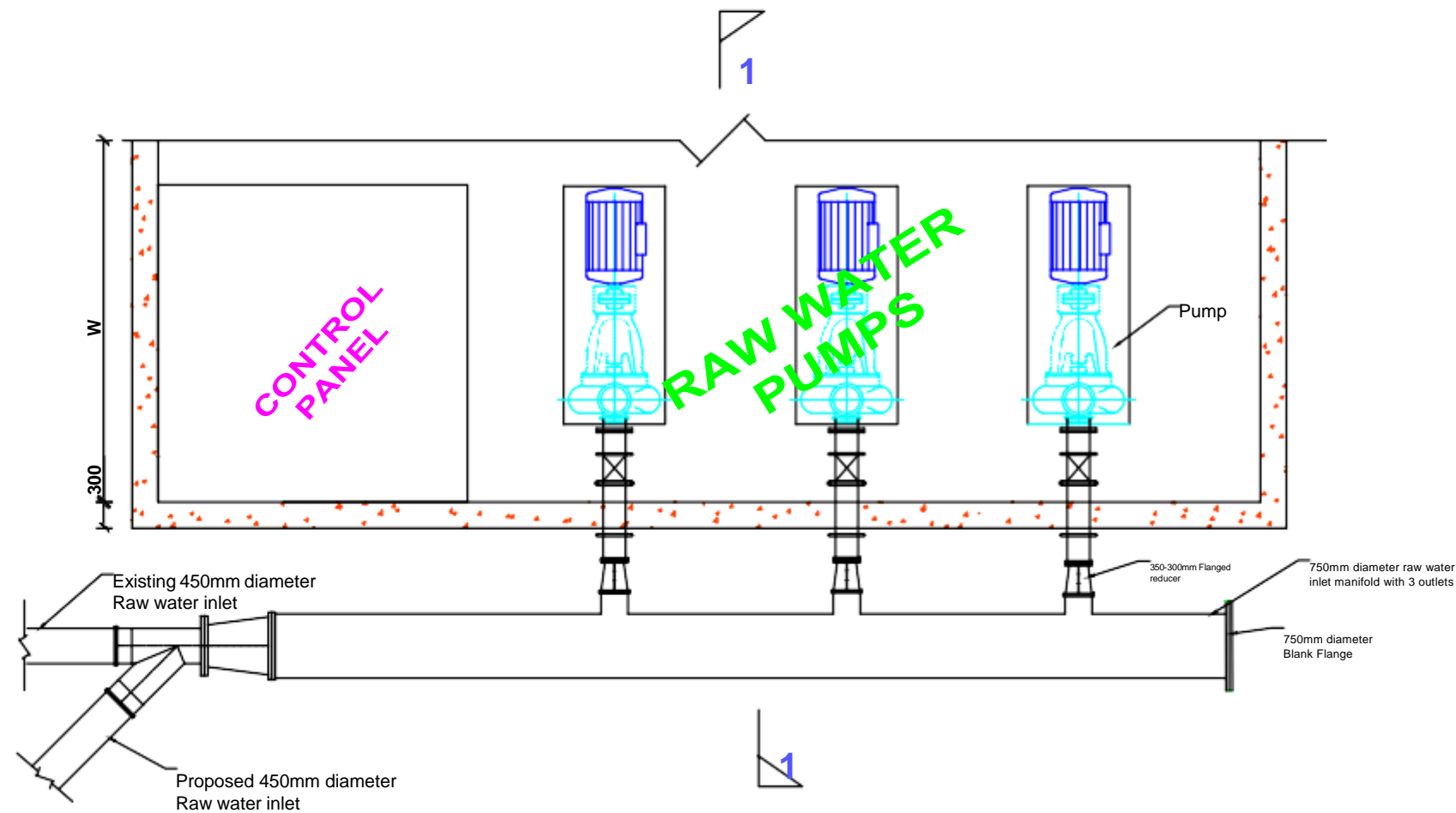
Drawing Title

FORE-BAY SECTIONS DETAILS

Designed by	
Drawn by	H.G.W
Approved by	H.G.W
Scale: AS SHOWN	ENG. BWAMBUKI
JOB NO.	
DWG NO.	STRECCO-2020/02



PUMP HOUSE OULET LAYOUT



PUMP HOUSE INLET LAYOUT

NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, only figured dimensions should be used.
3. Reinforced concrete to be grade 25.
4. All masonry walls must be reinforced with 20mm hoop iron every two alternate courses.
5. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.
6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with BS5390 should be used for all wall sections.

REVISIONS	BY	DATE	APPROVED
1	BY		
2	BY		
3	BY		
4	BY		
5	BY		



THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

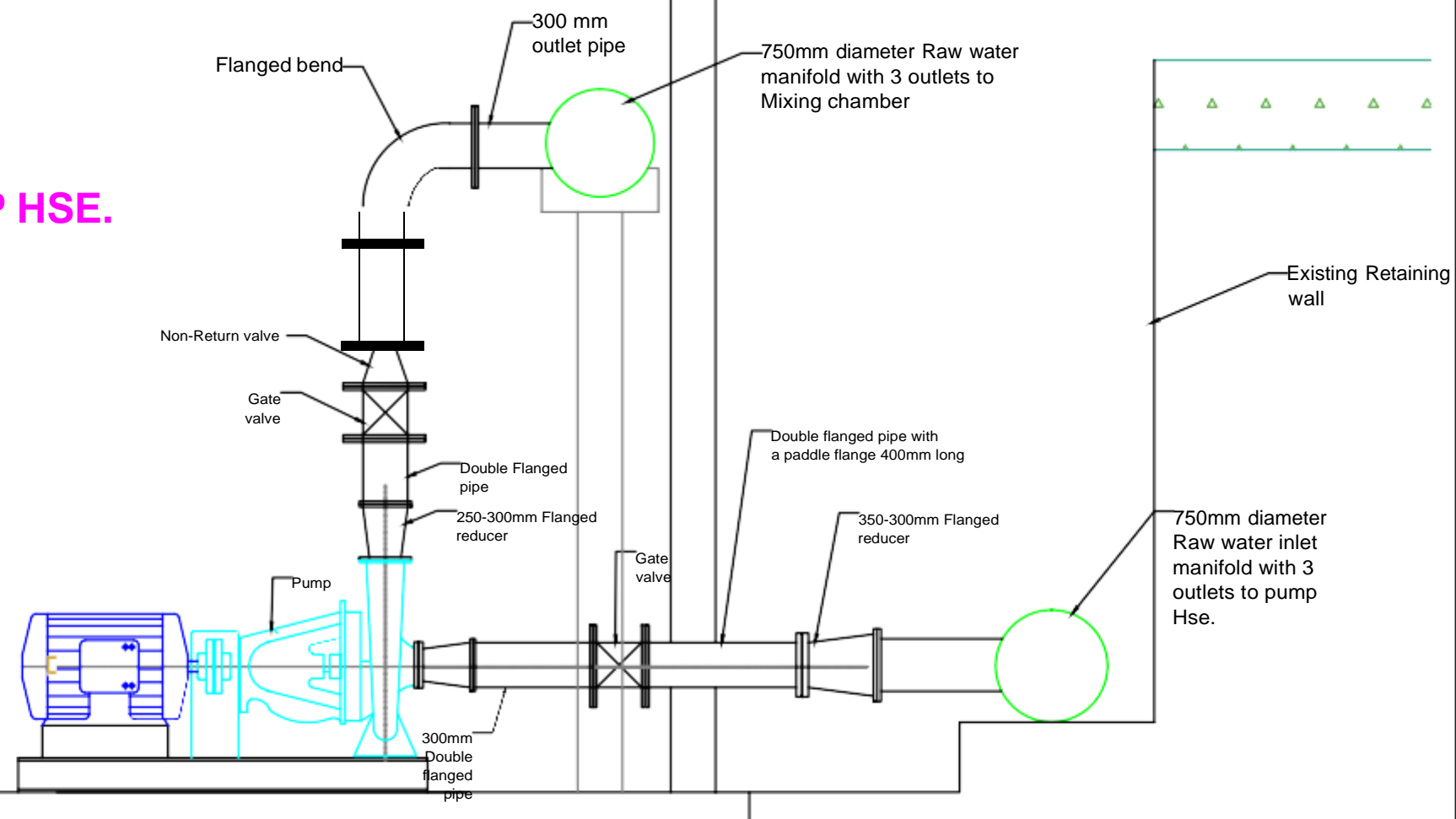
STRUCTURAL REINFORCEMENT COMPONENTS LTD
P.O. BOX 19223-00100,
NAIROBI
TEL: 020 179 815
MOBILE: 020 472 1220826

PUMP HOUSE RAW WATER INLET AND OUTLET PIPE WORK LAYOUT

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PAULICK WAMBUA
Scale: AS SHOWN	Date: DEC 2020
JOB NO:	STRECCO-2020/02
DWG NO:	SRG/W/01-1

EXISTING PUMP HSE.

SECTION 1-1



NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, only figured dimensions should be used.
3. Reinforced concrete to be grade 25
4. All masonry walls must be reinforced with 20mm hoop iron every two alternate courses.
5. All mortar used to be of cement sand mix 1:3, with all the stone walling being laid in 200mm courses with 12mm mortar joints.
6. A minimum of 7.0N/mm² average compressive strength of masonry in accordance with S5539:0 should be used for all wall sections.

REVISIONS	BY	DATE	APPROVED
1	BY		
2	BY		
3	BY		
4	BY		
5	BY		



Project

THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

Civil & Structural Engineers

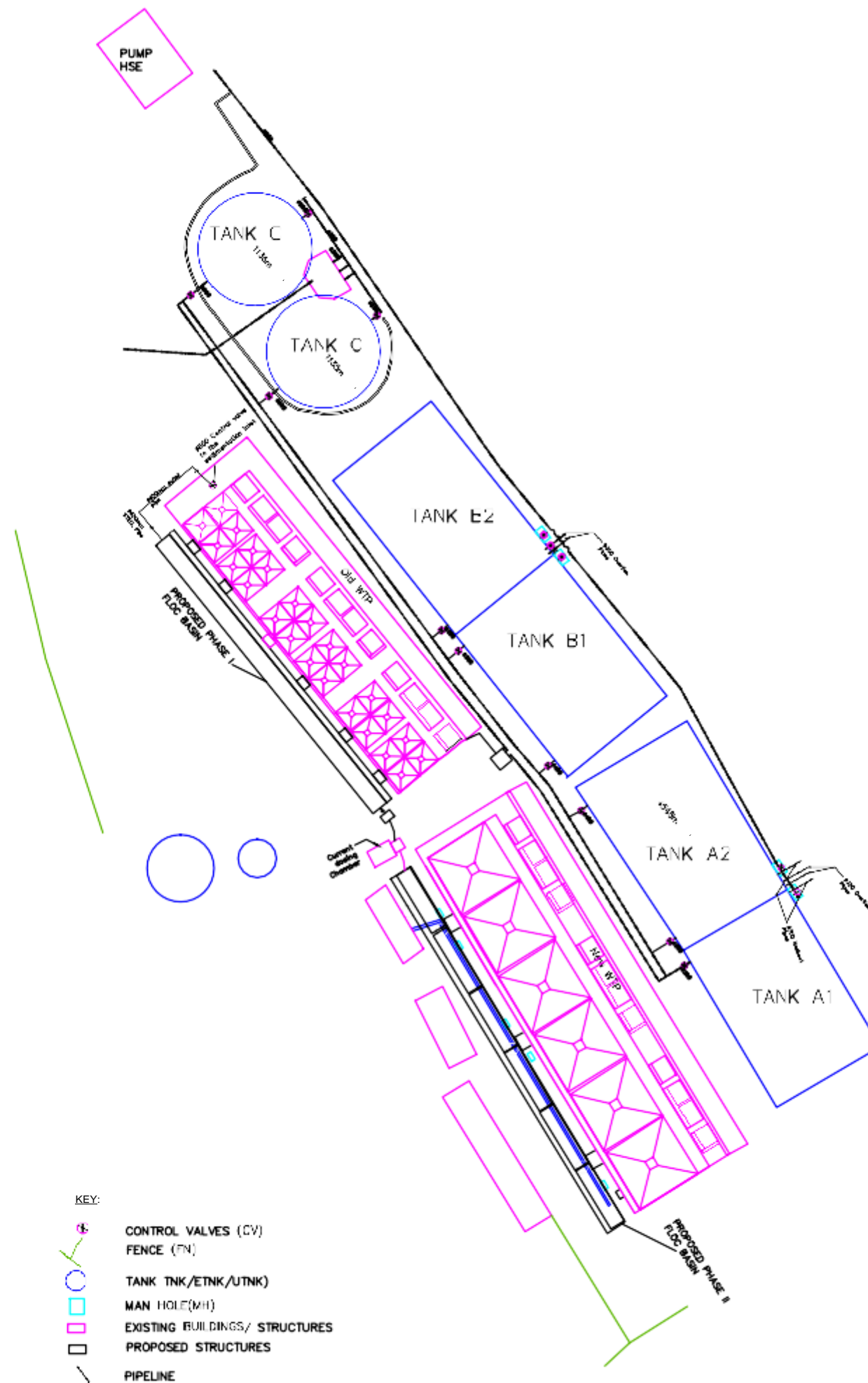
STRUCTURAL REINFORCEMENT COMPONENTS LTD
P.O. BOX 19223-00100,
NAIROBI
TEL: 020 179 815
MOBILE: 020 472 1220826

Drawing Title

PUMP HOUSE SECTION DETAILS

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PAULICK WAMBURU
Scale: AS SHOWN	Date: DEC 2020
JOB NO:	STRECCO-2020/02
DWG NO:	SRC/W/01-2

02- TREATMENT WORKS



- NOTES**
1. All dimensions are in millimeters, unless otherwise stated.
 2. This drawing must not be sealed, only figured dimensions should be used.

REVISIONS	SIGN	DATE	APPROVED
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CHECKED			
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			



NOV 2018

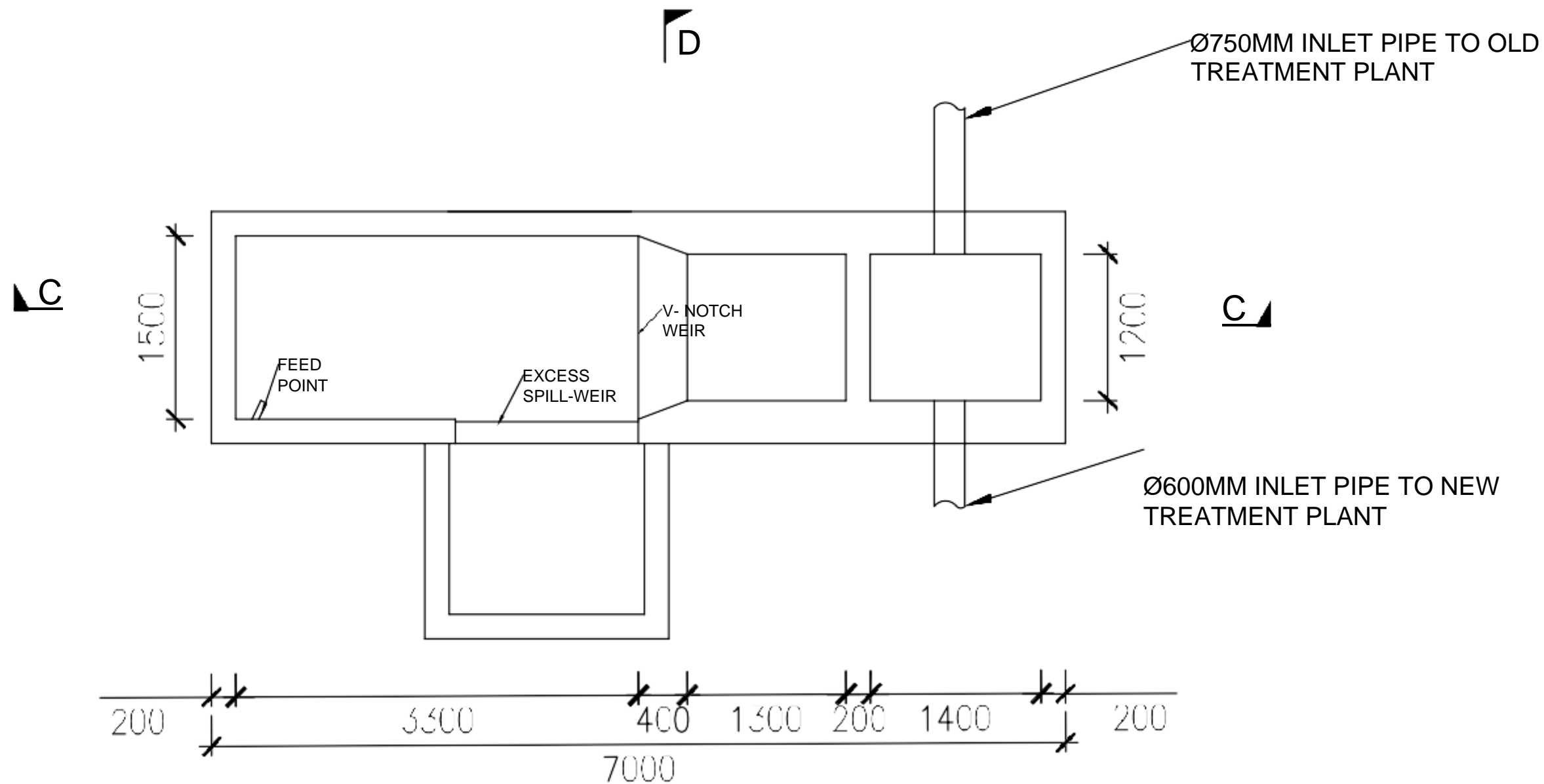
Project: THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

DATE & TIME: 11/01/2019

STRUCTURAL REINFORCEMENT COMPONENTS LTD
P.O. BOX 19223-00100, NAIROBI
TEL: 0202 178 815
MOBILE: 0254701200620

GENERAL SITE LAYOUT FOR THIKA WATER TREATMENT PLANT

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: JAN 2019
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/02-00



**PLAN VIEW AT 1482.00 -PROPOSED
IDENTICAL MIXING CHAMBER**

NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, any figured dimensions should be used.
3. Reinforced concrete to be grade 25.
4. All masonry walls must be reinforced with 25mm rebar for every two channel courses.
5. All masonry used to be on concrete base min 100mm, with all the stone walls being laid in 300mm courses with 12mm mortar joints.
6. A minimum of 100kN/m² average compressive strength of masonry in accordance with BS5607 should be used for all wall sections.
7. Mass concrete to be grade 15.
8. The first 1 cote in every 1000mm chamber on 400mm wide.
9. The last 2 cote in every 1000mm chamber on 400mm wide.
10. All wall works are 300mm except for culverts which are 100mm.

REVISIONS	NO.	DATE	APPROVED
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BY			
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BY			
CHECKED			
BY			
CHECKED			



THIKA WATER AND SEWERAGE COMPANY

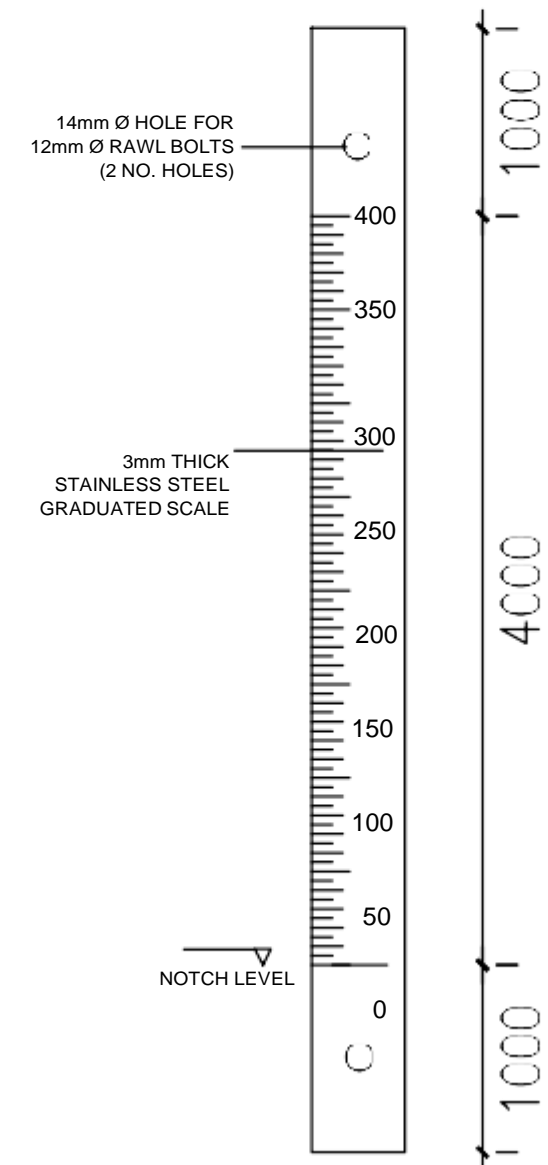
SIGN: _____ DATE: _____


THIKA WATER TREATMENT IMPROVEMENT PROJECT

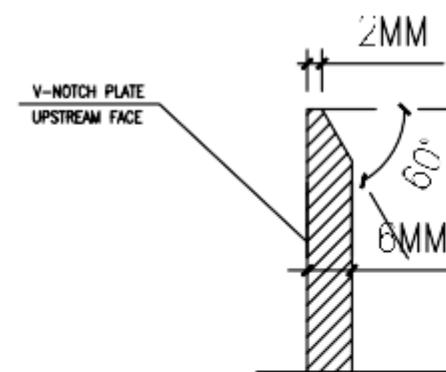
PROJECT LOCATION
STRENGTHENMENT
CONTRACTS LTD
P.O. BOX 18223-10100, NAIROBI
TEL: 0202 178 515
MOBILE: 075479132879

PROJECT TITLE
MIXING CHAMBER PLAN LAYOUT

Designed By:	H.G.W
Drawn By:	H.G.W
Approved By:	PATRICK WAMBUI
Scale: As Shown	Date: DEC 2020
JOB NO:	STRECCO-2020/01
DWG NO:	SRC/W/02-01




MEASURING SCALE
scale 1:5



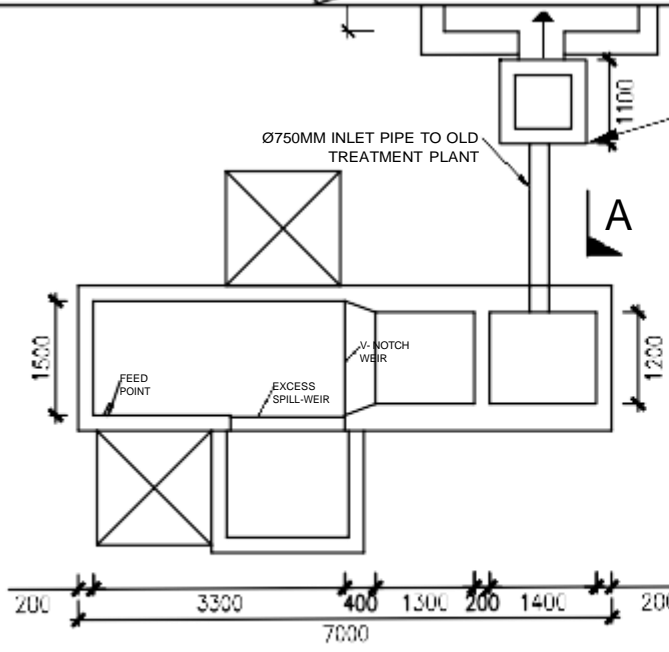
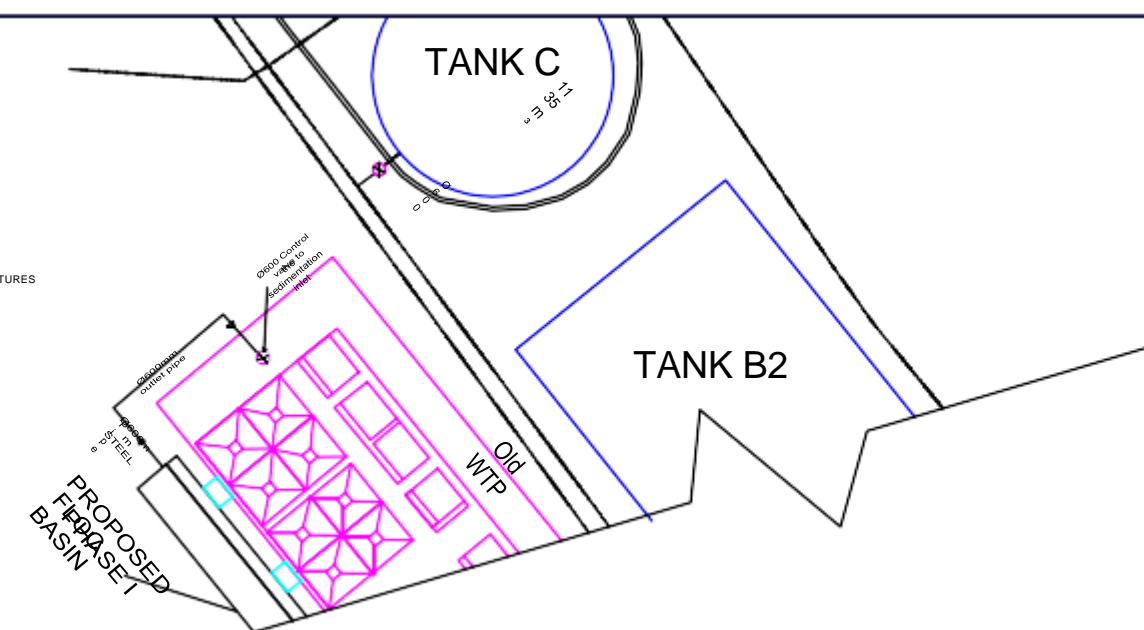
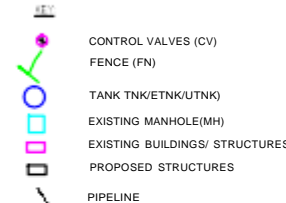
SECTION X-X
scale 1:20

- | REVISIONS | | SIGN | DATE | APPROVE |
|-----------|---------------|------|------|---------|
| _____ | BY
CHECKED | | | |
| _____ | BY
CHECKED | | | |
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CHECKED | | | |
| _____ | BY
CHECKED | | | |
| _____ | BY
CHECKED | | | |

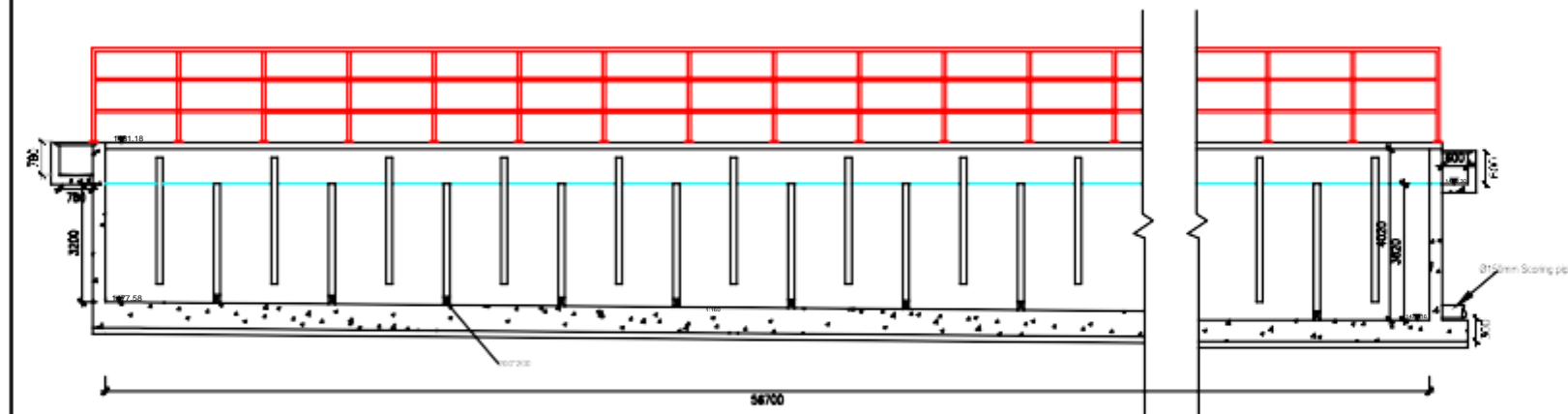
THINK WATER EFFICIENCY PROGRAM
PROJECT

STRUCTURAL REINFORCEMENT
COMPONENTS LTD
P.O. BOX 19223-00100, NARCOE
TEL: 0202 178 815
MORI: 0154701100070

MIXING CHAMBER SECTIONS DETAILS	
Designed By:	H.G.W
Drawn By:	H.G.W
Approved By:	PATRICK WAMBUKI
Scale:As Shown	Date:DEC 2020
JOB NO:	STRECCO-2020/01
DWG NO:	SRC/W/02-02



PLAN VIEW AT 1482.00 -PROPOSED
IDENTICAL MIXING CHAMBER



1. All dimensions are in millimeters, unless otherwise stated.
2. The drawing must not be scaled, and figured dimensions should be used.
3. Reinforced concrete to be grade 25
4. All masonry walls must be reinforced with 25mm rebar for other every 4th alternate courses
5. All mortar used to be on cement sand mix 1:3, with all the above walls being laid in 900mm courses with 12mm mortar joints
6. A minimum of 10Mpa (10N/mm²) average compressive strength of masonry in accordance with SANS 940 should be used for all wall sections
7. Mass concrete to be grade 15
8. The first 20 slots in every foundation chamber are 600mm wide
9. The last 10 slots in every foundation chamber are 600mm wide
10. All wall widths are 300mm except for bulk walls which are 150mm

REVISIONS	SIGN	DATE	APPROVED
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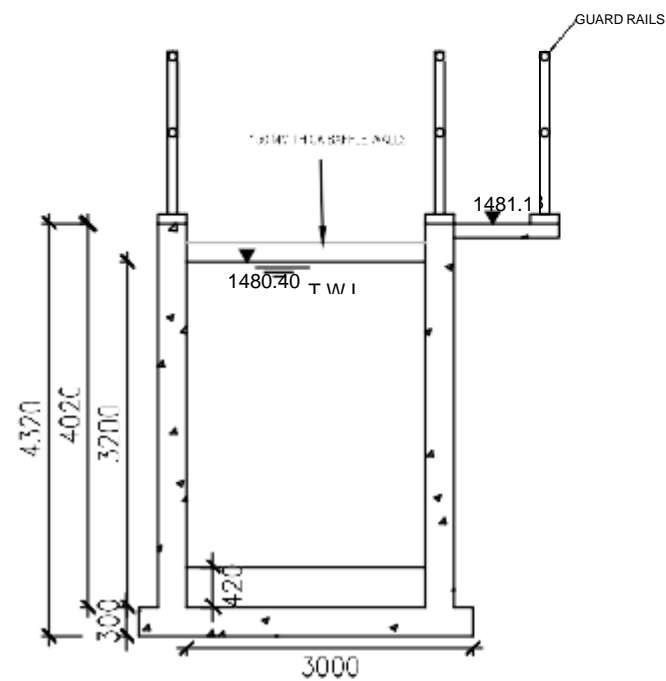
8425 VIII

Project

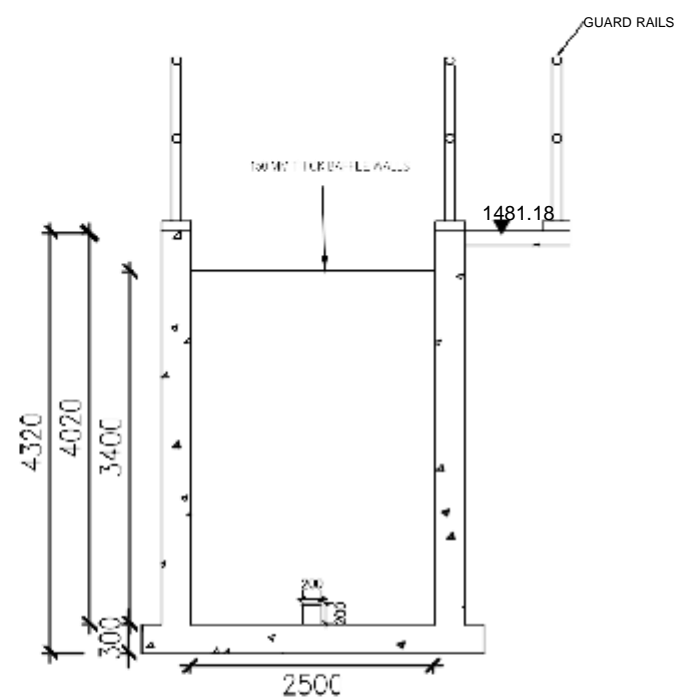
**STRUCTURAL REINFORCEMENT
COMPONENTS LTD**
P.O. BOX 14223-0100, NAIROBI
TEL: 0202 176 515
MOBILE: 254791390879

OLD (PHASE I) FLOCCULATION BASIN - PLAN AND SECTION LAYOUT

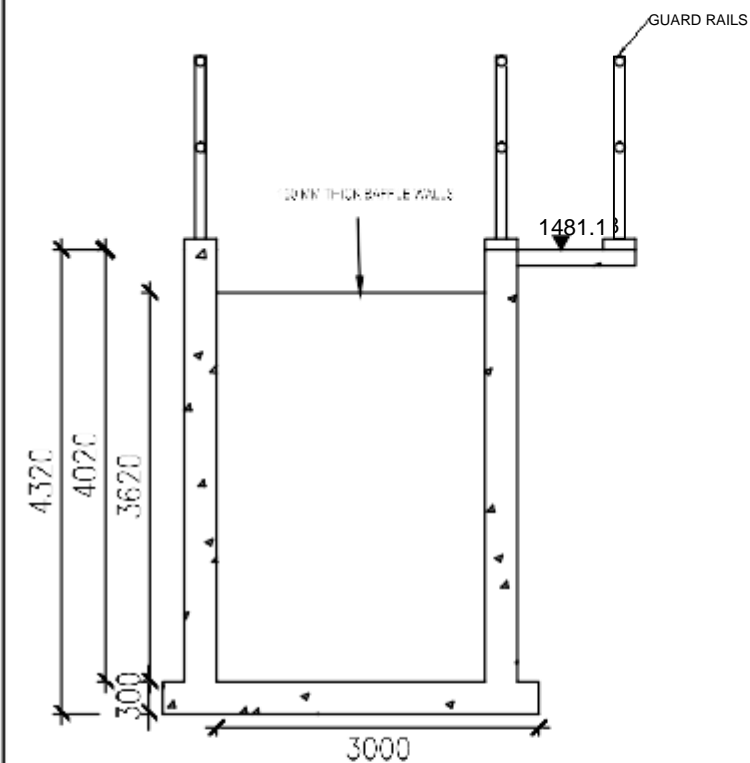
Designed By:	H.G.W
Drawn By:	H.G.W
Approved By:	PAIRIKR WAMBUK
Scale:As Shown	Date:DEC 2020
JOB NO:	STRECCO-2020/01
DWG NO:	SRC/W/02-01



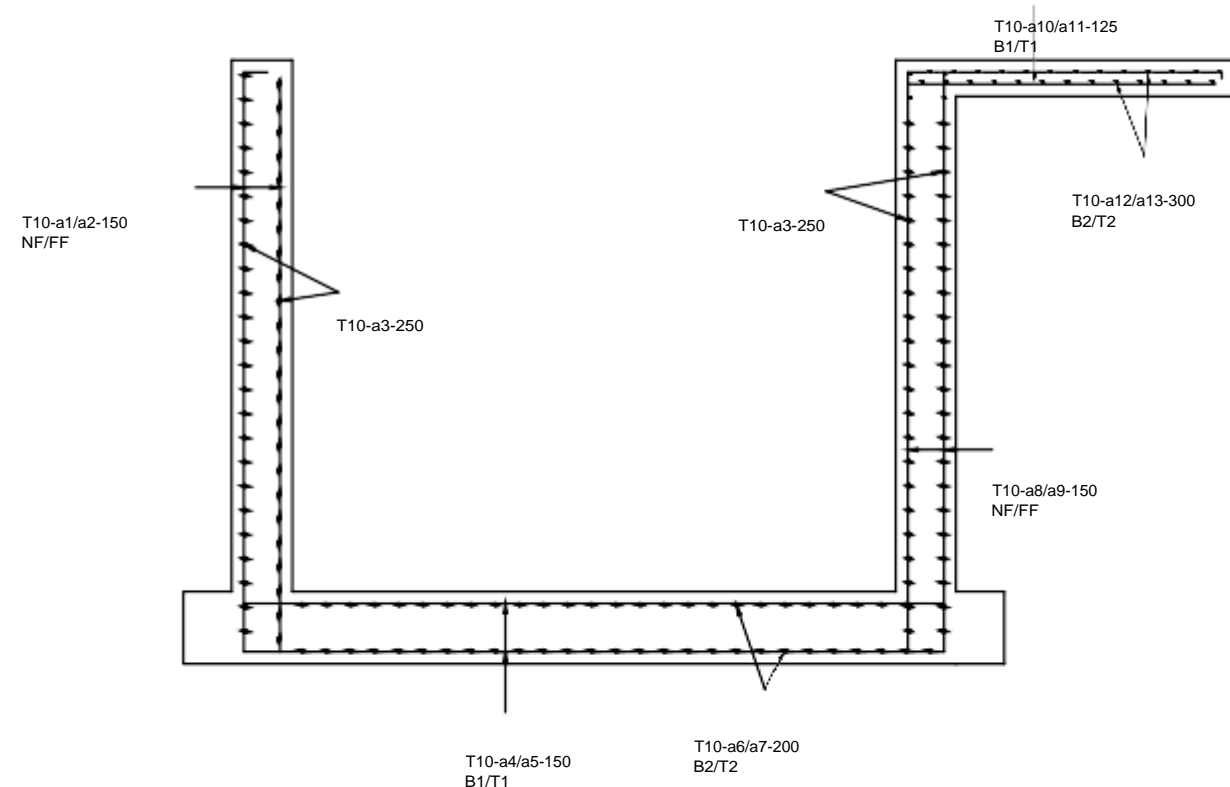
SECTION B - B



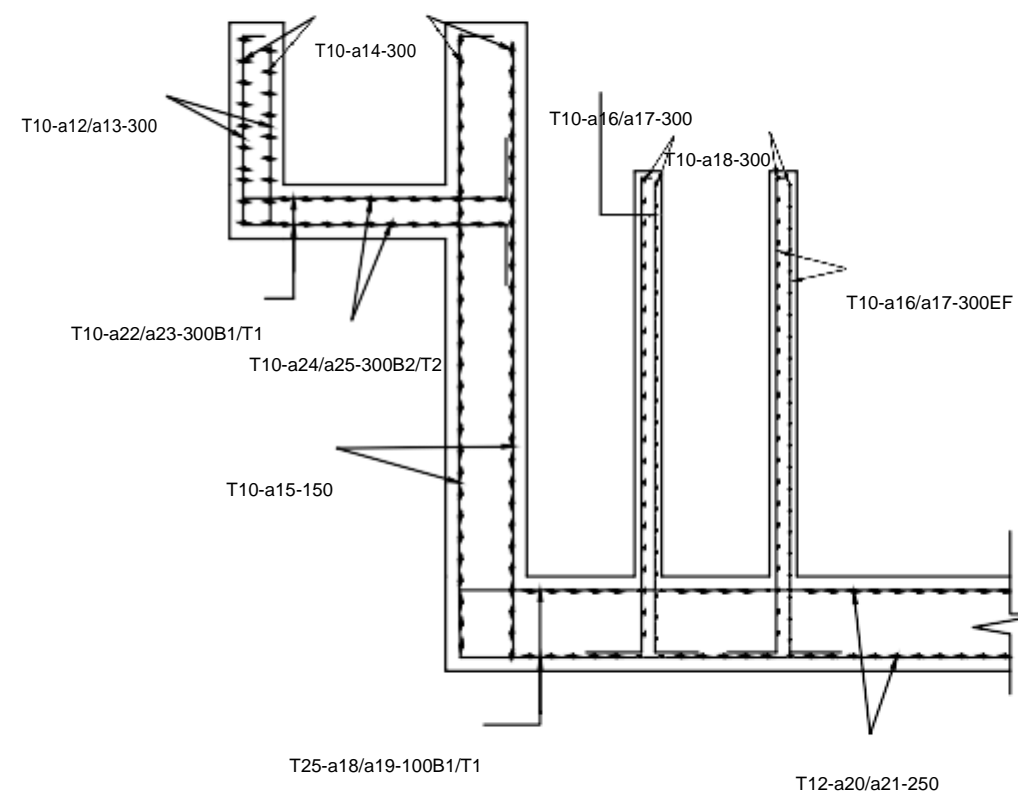
SECTION C - C



SECTION C - D



SECTION B - B



SECTION A - A

NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, any figured dimensions should be used.
3. Reinforced concrete to be grade 25.
4. All masonry walls must be reinforced with 25mm hoop reinforcement every 120mm.
5. All masonry used to be on concrete base with 1:2.5 ratio and the stone walling being laid in 200mm courses with 12mm mortar joints.
6. A minimum of 100mm average compressive strength of masonry in accordance with BS5593 should be used for all wall sections.
7. Mass concrete to be grade 15.
8. The first 15 cm in every foundation should be 600mm wide.
9. The last 15 cm in every foundation should be 600mm wide.
10. All wall walls are column except for bulk walls which are 150mm.

REVISIONS	SIGN	DATE	APPROVED
BY			
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BY			
CHECKED			
BY			
CHECKED			

CERT



SIGN DATE

Project: TURA WATER TREATMENT IMPROVEMENT PROJECT

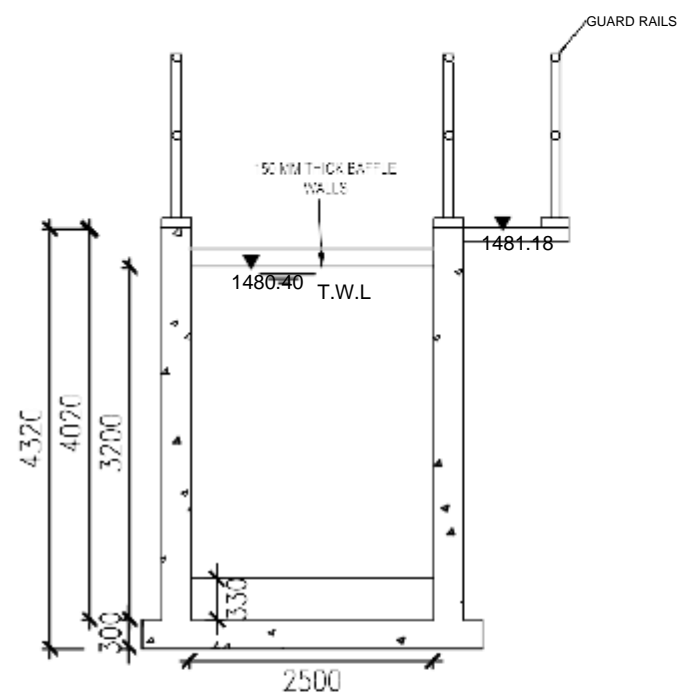
DESIGN & CONSTRUCTION CONTRACT

STRUCTURAL REINFORCEMENT
CONCRETE LTD
P.O. BOX 14233-0100, NAIROBI
TEL: 020 278 515
MOBILE: 254 79 132 879

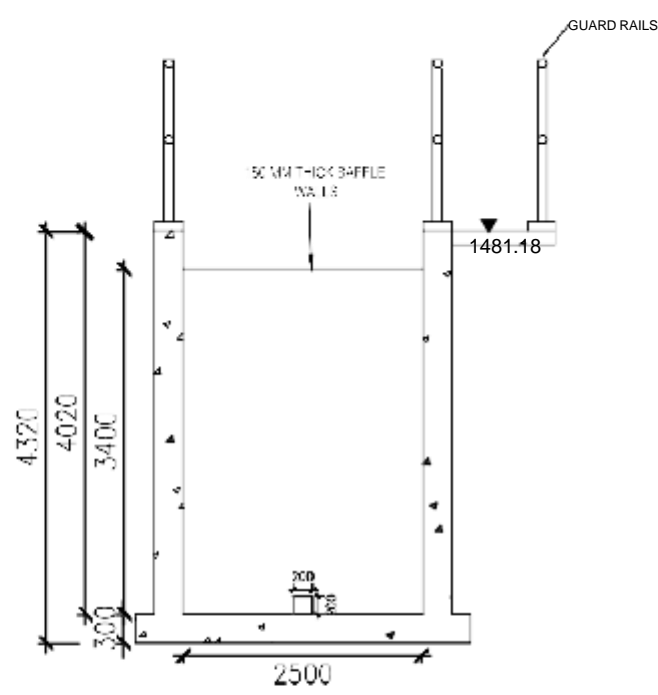
Drawing Title: OLD (PHASE I) FLOCCULATION BASIN - REINFORCEMENT SECTIONS DETAILS

Designed by:	H.G.W
Drawn by:	H.G.W
Approved by:	PAULINE WAMBUA
Scale: As Shown	Date: DEC 2020
JOB NO:	STRECCO-2020/01
DWG NO:	SRC/W/02-01-02

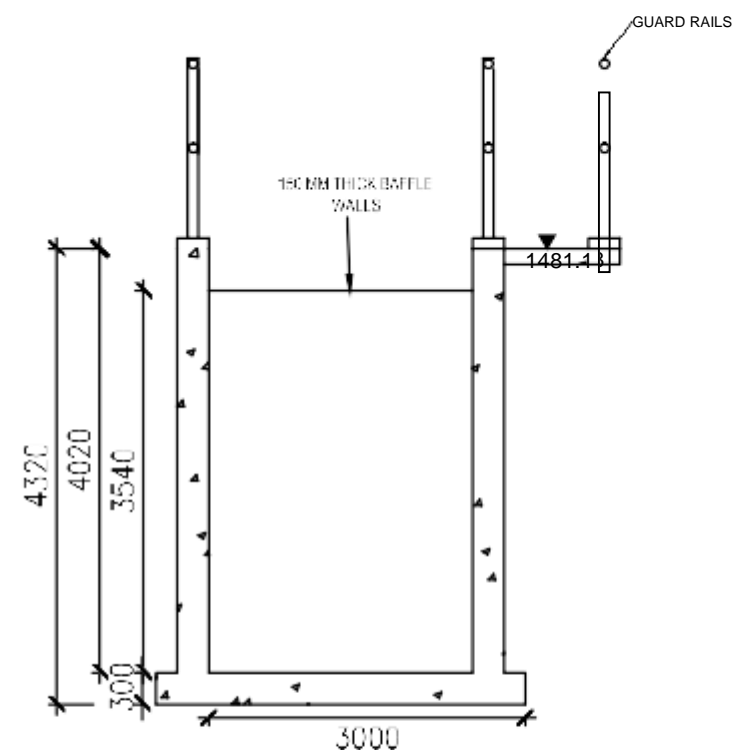
Designed by:	H.G.W
Drawn By:	H.G.W
Approved by:	PATRICK WAMBUKI
Scale:As Shown	Date:DEC 2020
JOB NO:	STRECCO-2020/01
DWG NO:	SRC/W/02-01



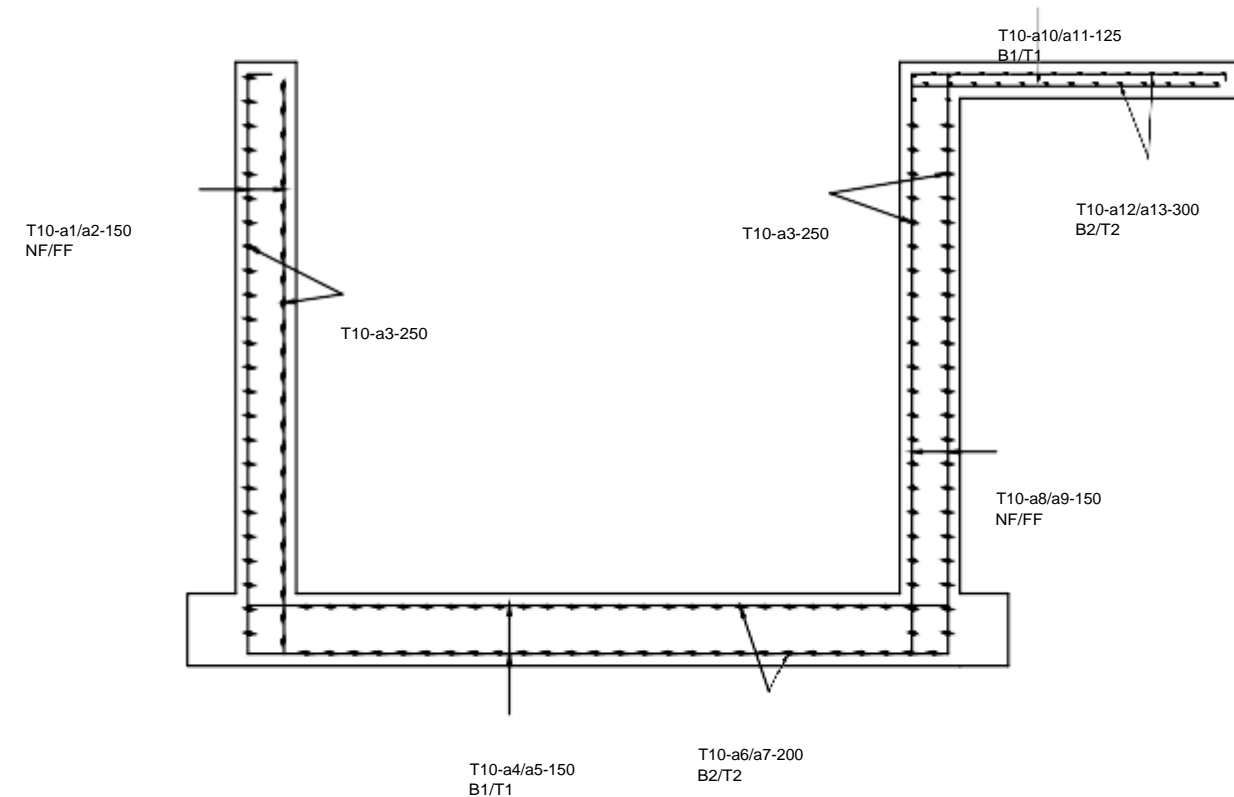
SECTION B - B



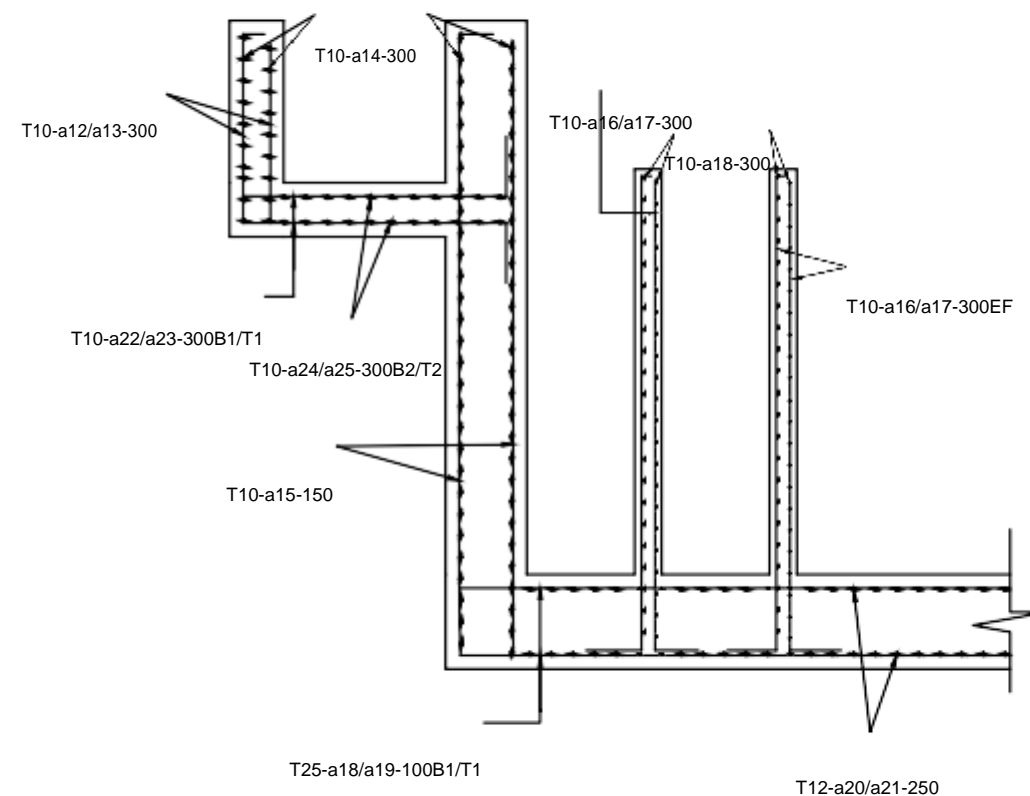
SECTION C - C



SECTION D - D



SECTION B - B



SECTION A - A

NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, any figured dimensions should be used.
3. Reinforced concrete to be grade 25.
4. All masonry walls must be reinforced with 25mm hoop reinforcement every two alternate courses.
5. All mortar used to be on concrete must be 1:3, with all the stone being less than 20mm in size with 12mm mortar joints.
6. A minimum of 100mm average compressive strength of masonry in accordance with BS5607 should be used for all wall sections.
7. Mass concrete to be grade 15.
8. The first 15 cm in every foundation should be 600mm wide.
9. The last 15 cm in every foundation should be 600mm wide.
10. All wall widths are 300mm except for baffle walls which are 150mm.

REVISIONS	SIGN	DATE	APPROVED
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CHECKED			
BY			
CHECKED			
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CHECKED			
BY			
CHECKED			

CERT



SIGN DATE

Project: TURA WATER TREATMENT IMPROVEMENT PROJECT

DESIGN & CONSTRUCTION

STRUCTURAL REINFORCEMENT
CONCRETE LTD
P.O. BOX 14233-0100, NAIROBI
TEL: 020 278 515
MOB: 011 254 791 120 879

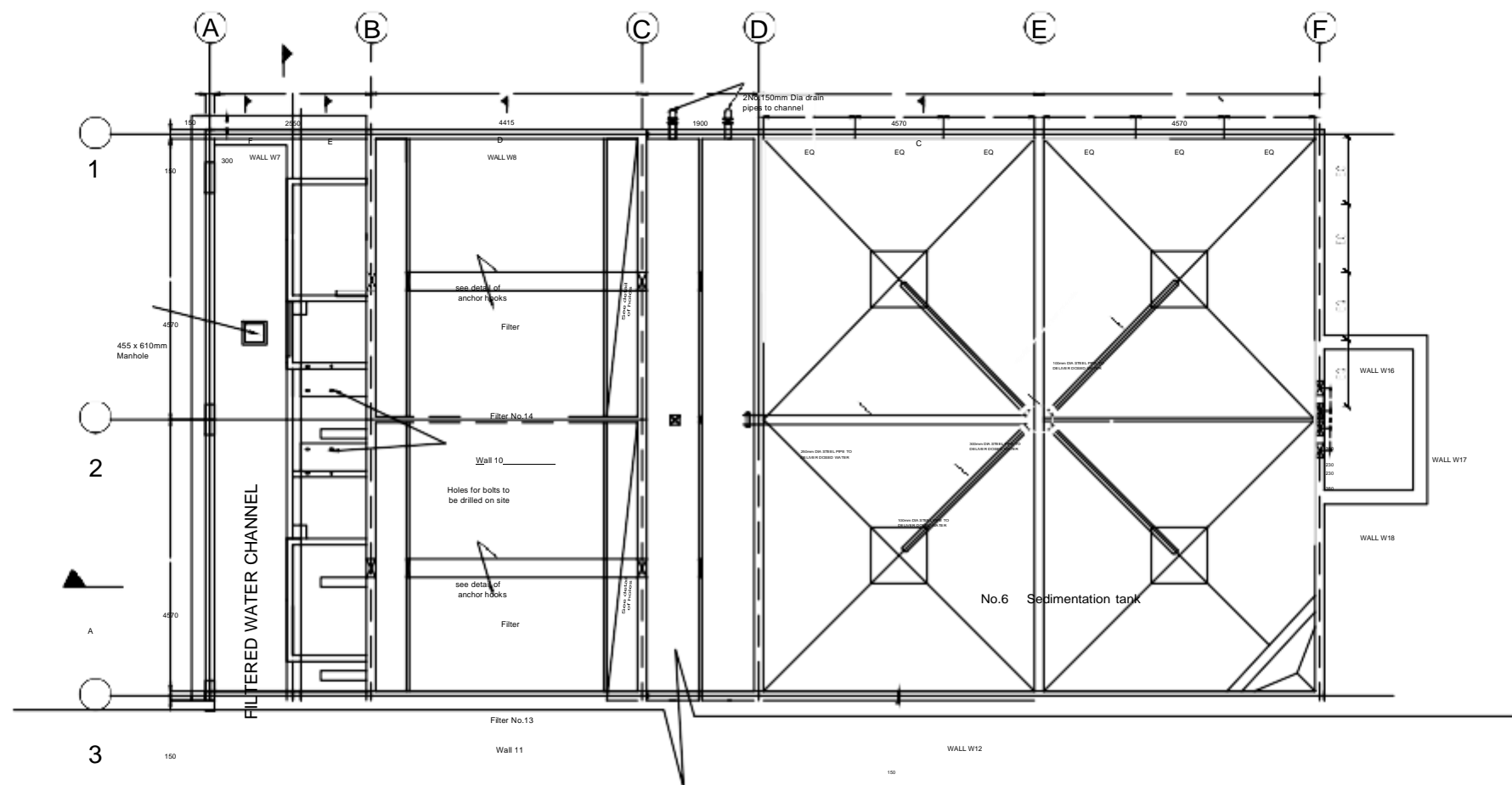
Drawing Title: OLD (PHASE I) FLOCCULATION BASIN - REINFORCEMENT SECTIONS DETAILS

Designed by:	H.G.W.
Drawn by:	H.G.W.
Approved by:	PAULINE WAMBUA
Scale: As Shown	Date: DEC 2020
JOB NO:	STRECCO-2020/01
DWG NO:	SRC/W/02-02-01

PLAN LAYOUT

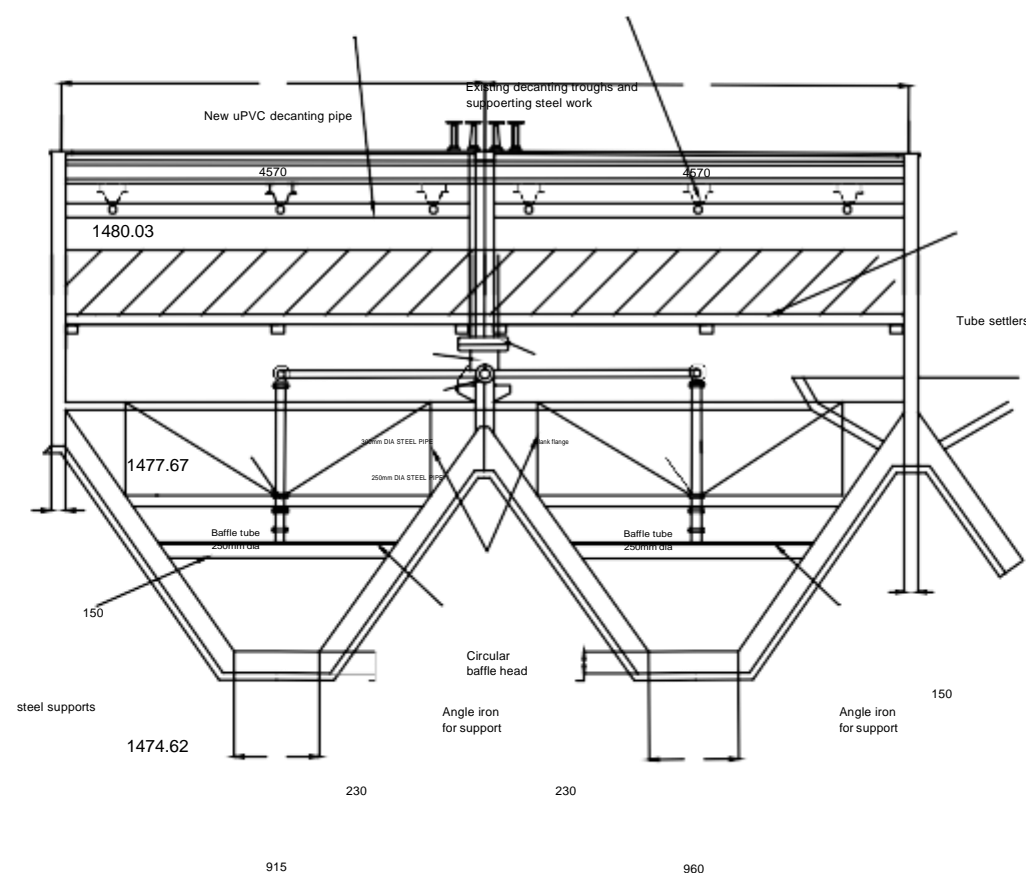
SCALE 1:100

SCALE 1:50



DOSED WATER PIPEWORK PLAN LAYOUT

SCALE 1:100



SECTION B-B

SCALE 1:50

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE STATED
2. THE DRAWING MUST NOT BE SCALING, UNLESS OTHERWISE STATED IN THE DRAWING
3. Reinforced concrete to be grade 25

REVISIONS	SIGN	DATE	APPROVED
BY			
CHECKED			
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BY			
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MINISTRY OF WATER AND POWER
GOVERNMENT OF KENYA

SIGN

DATE

TECHNICAL DRAWING IMPROVEMENT
PROJECT

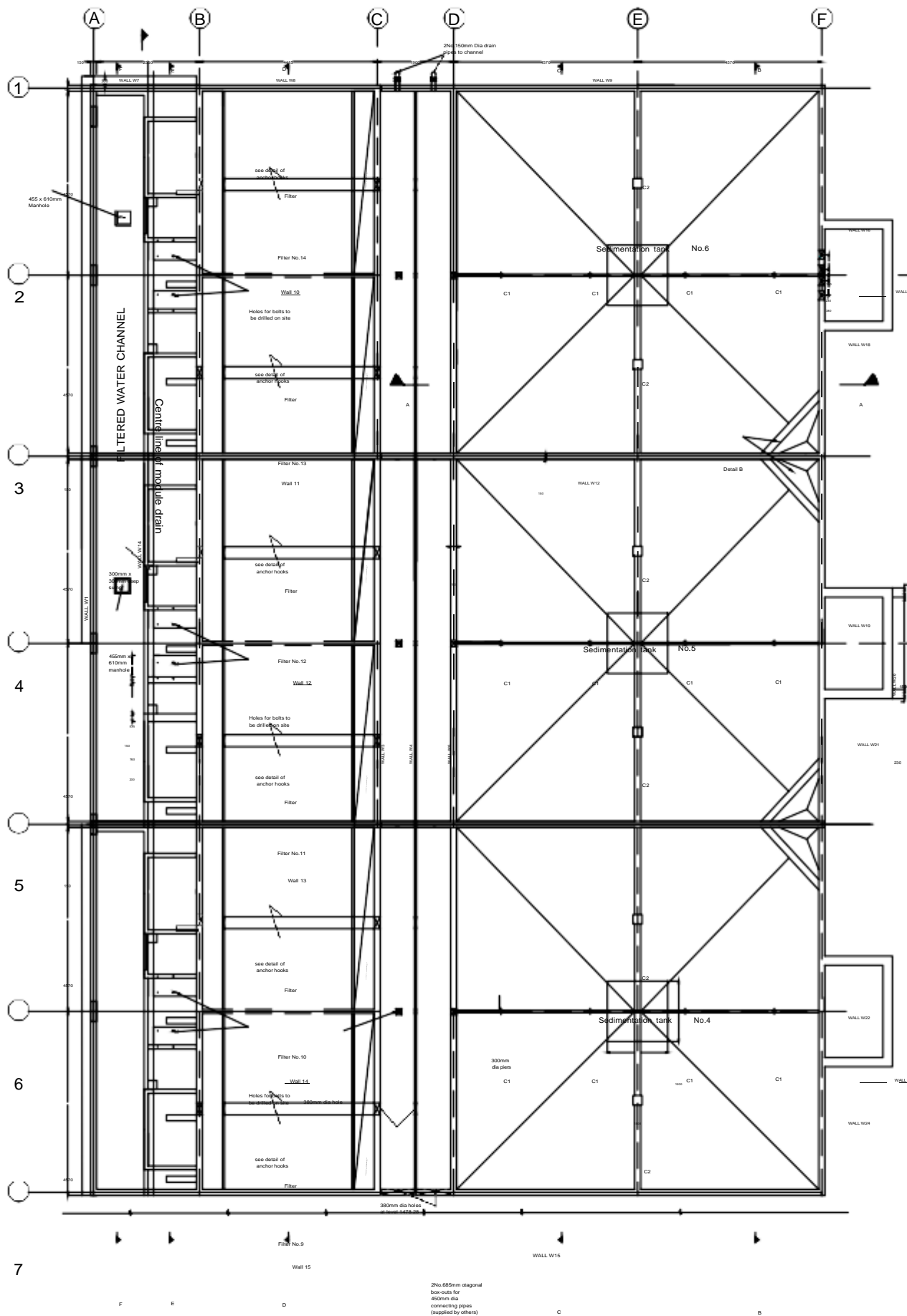
DESIGN & CONSTRUCTION

STRUCTURAL REINFORCEMENT
ENGINEERS LTD
P.O. BOX 1423-0100, NAIROBI
TEL: 020 173 515
MOBILE: 0754791328/79

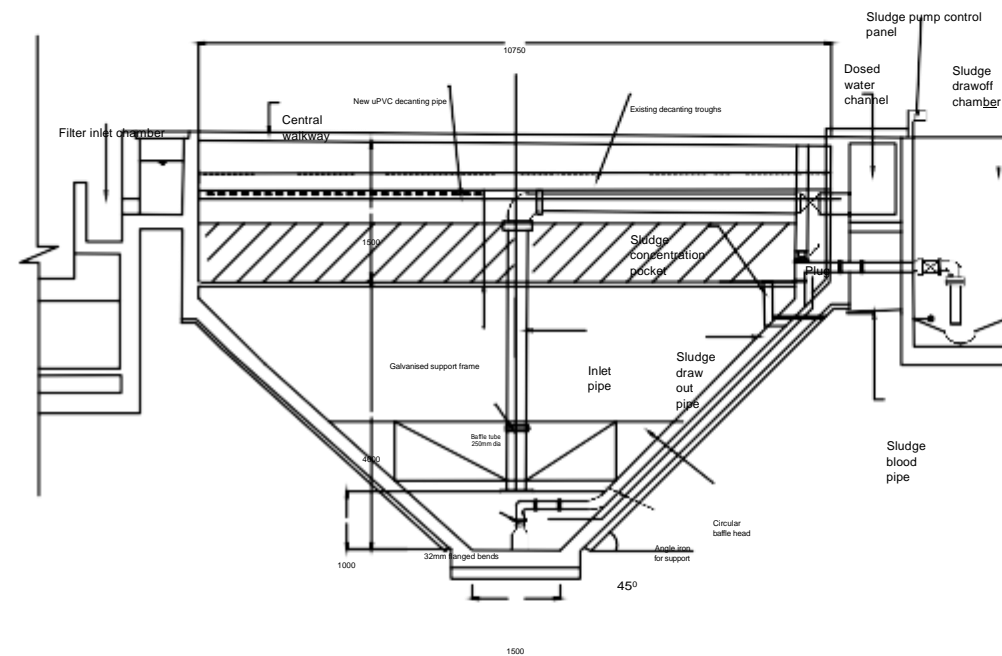
PROJECT

DOSING DELIVERY PIPEWORK DETAILED
LAYOUT-OLD UNIT

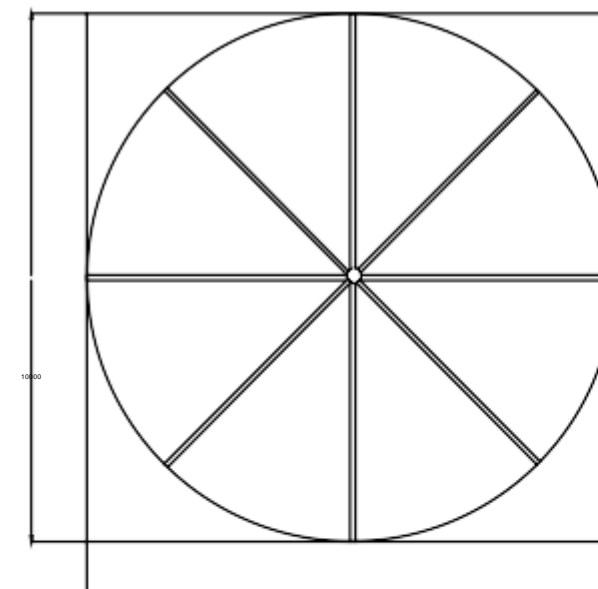
Designed by	H.G.W
Drawn by:	H.G.W
Approved by	PAULINE WAMBUI
Scale: As Shown	Date: DEC 2018
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/02-05



PLAN LAYOUT
SCALE 1:100



SECTION A-A
SCALE 1:50



CONE DISPERSION LAYOUT
SCALE 1:100

NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, any figured dimensions should be used.
3. Reinforced concrete to be grade 25.
4. All masonry work must be reinforced with 25mm rebar for other every 120mm courses.
5. All masonry used to be on concrete base must be 1:2, with all the stone masonry being laid in 300mm courses with 12mm mortar joints.
6. A minimum of 100kN/m² average compressive strength of masonry in accordance with BS5628 should be used for all wall sections.
7. Mass concrete to be grade 15.
8. The first 10 rows in every flocculation chamber are 400mm wide.
9. The last 10 rows in every flocculation chamber are 500mm wide.
10. All wall widths are 250mm except for baffle walls which are 100mm.

REVISIONS	SIGN	DATE	APPROVED
BY	CHECKED		
BY	CHECKED		
BY	CHECKED		
BY	CHECKED		
BY	CHECKED		

CLIENT

 THIKA WATER & SEWERAGE COMPANY

NO. _____ DATE _____

Project

THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

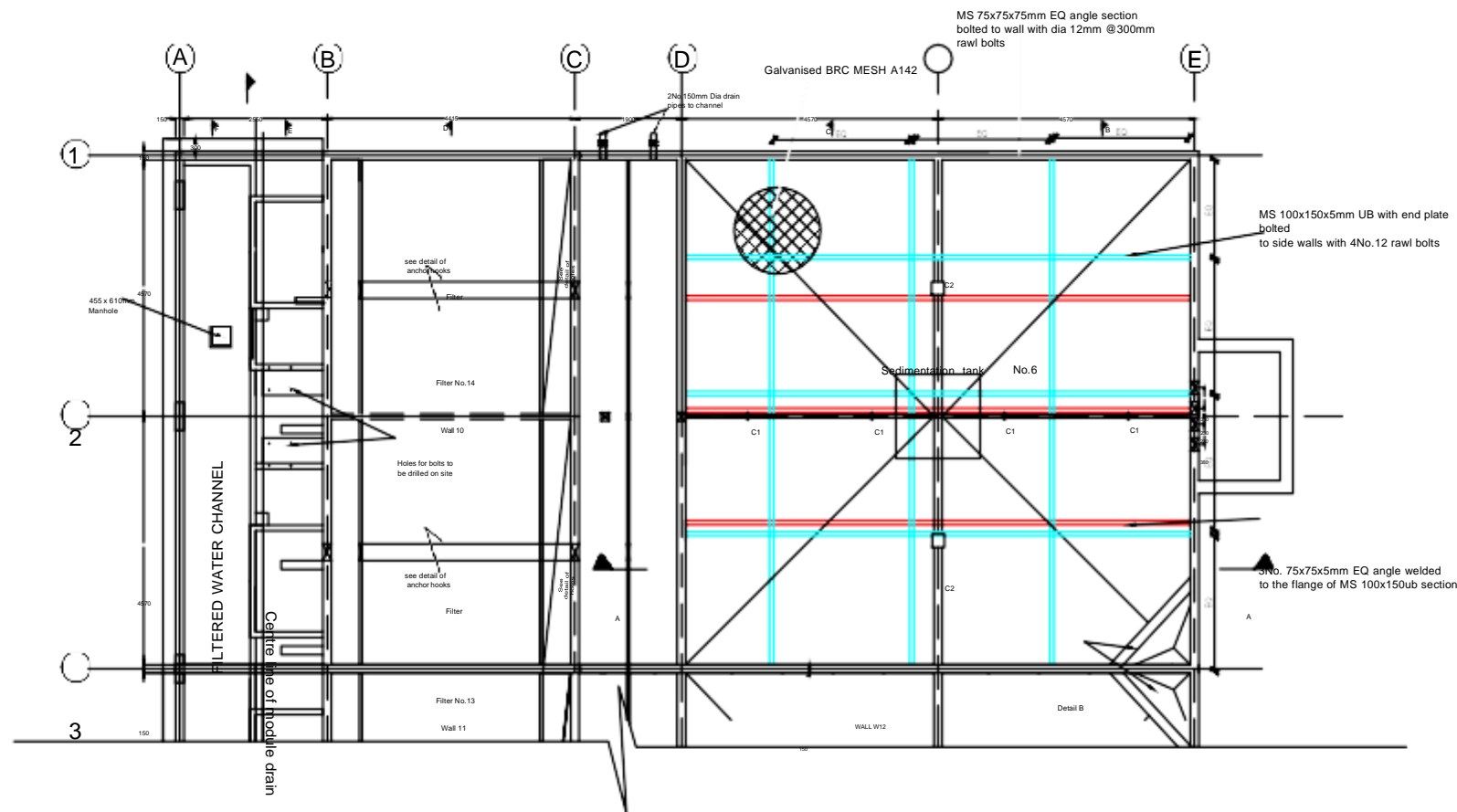
DESIGN & CONSTRUCTION COMPANY

 STRUCTURAL REINFORCEMENT CONSULTANTS LTD
P.O. BOX 18223-0100, NAIROBI
TEL: 020 278 515
MOB: 011 254 791 292879

PROJECT TITLE

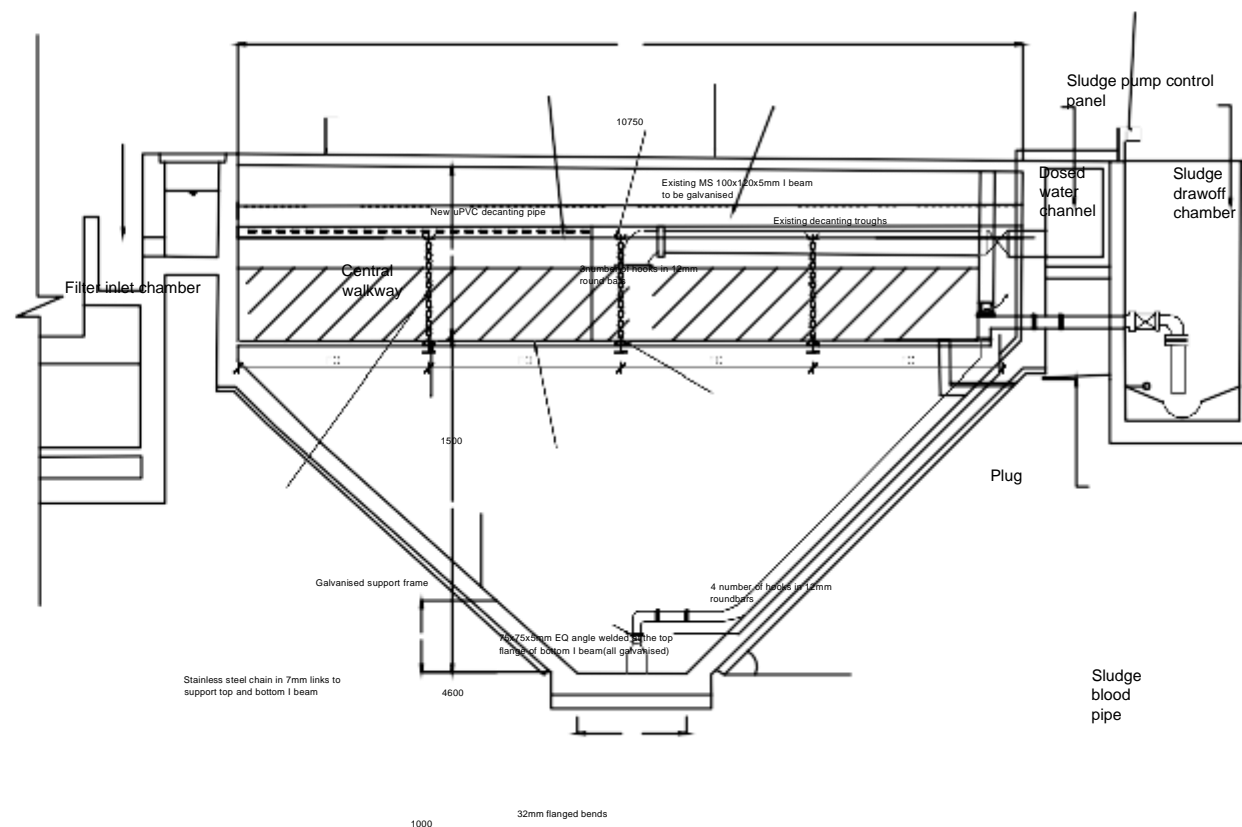
SEDIMENTATION BASIN - NEW PLAN

Designed by	H.G.W
Drawn by:	H.G.W
Approved by	PAULINE WAMBUA
Scale: As Shown	Date: DEC 2018
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/02-06



TUBE SETTLERS FRAME PLAN LAYOUT

SCALE 1:100



NOTES

1. All dimensions are in millimeters, unless otherwise stated.
2. This drawing must not be scaled, any figured dimensions should be used.
3. Reinforced concrete to be grade 25.
4. All masonry walls must be reinforced with 25mm hoop reinforcement every two channels courses.
5. All masonry used to be on concrete base min 100, with all the stone walls being laid in 250mm courses with 12mm mortar joints.
6. A minimum of 100kN/m² average compressive strength of masonry in accordance with BS5593 should be used for all wall sections.
7. Mass concrete to be grade 15.
8. The first 10 rows in every foundation chamber are 400mm wide.
9. The last 10 rows in every foundation chamber are 600mm wide.
10. All wall widths are 250mm except for bulkheads which are 100mm.

REVISIONS	SIGN	DATE	APPROVED
BY			
CHECKED			
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BY			
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TANGA WATER AND
SEWERAGE COMPANY

SIGN: _____ DATE: _____

TANGA WATER EFFICIENCY IMPROVEMENT
PROJECT

PROJECT & SITE INFORMATION

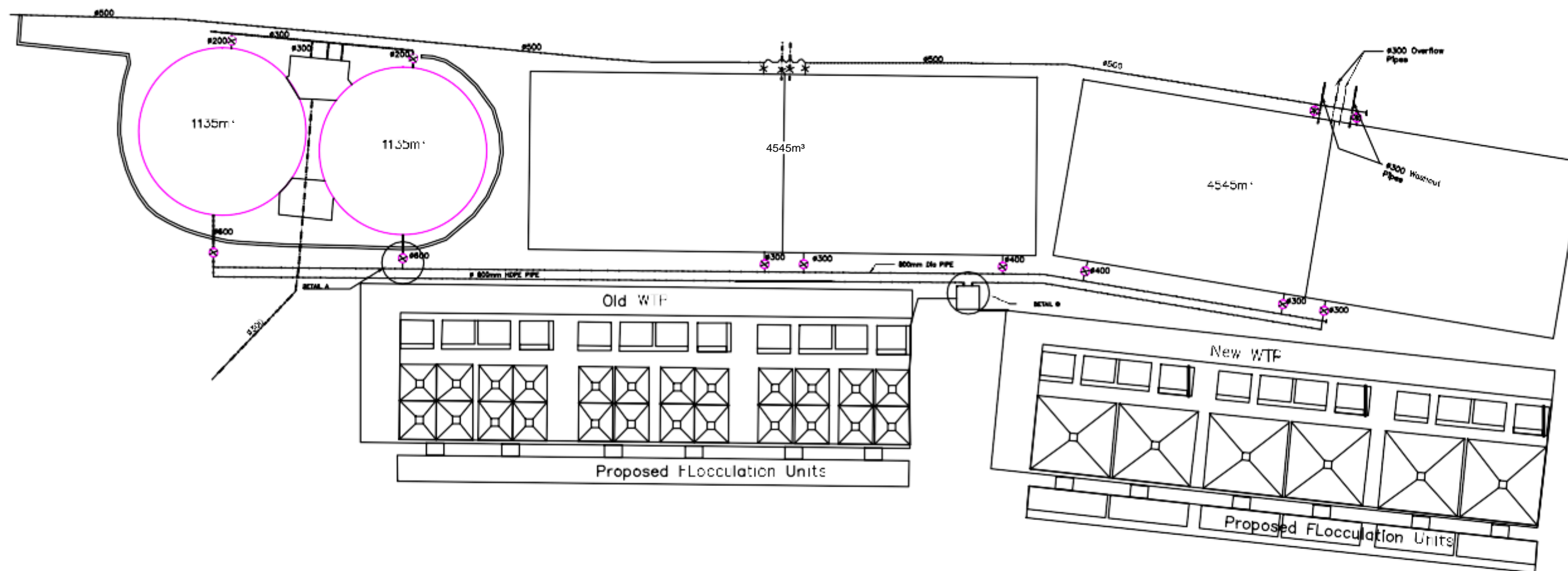
STRUCTURAL REINFORCEMENT
ENGINEERS LTD
P.O. BOX 14233-0100, NAIROBI
TEL: 020 275 515
MOBILE: 254 79 132 879

PROJECT TITLE
TUBE SETTLERS FRAME PLAN AND SECTION
DETAILS LAYOUT-NEW UNIT

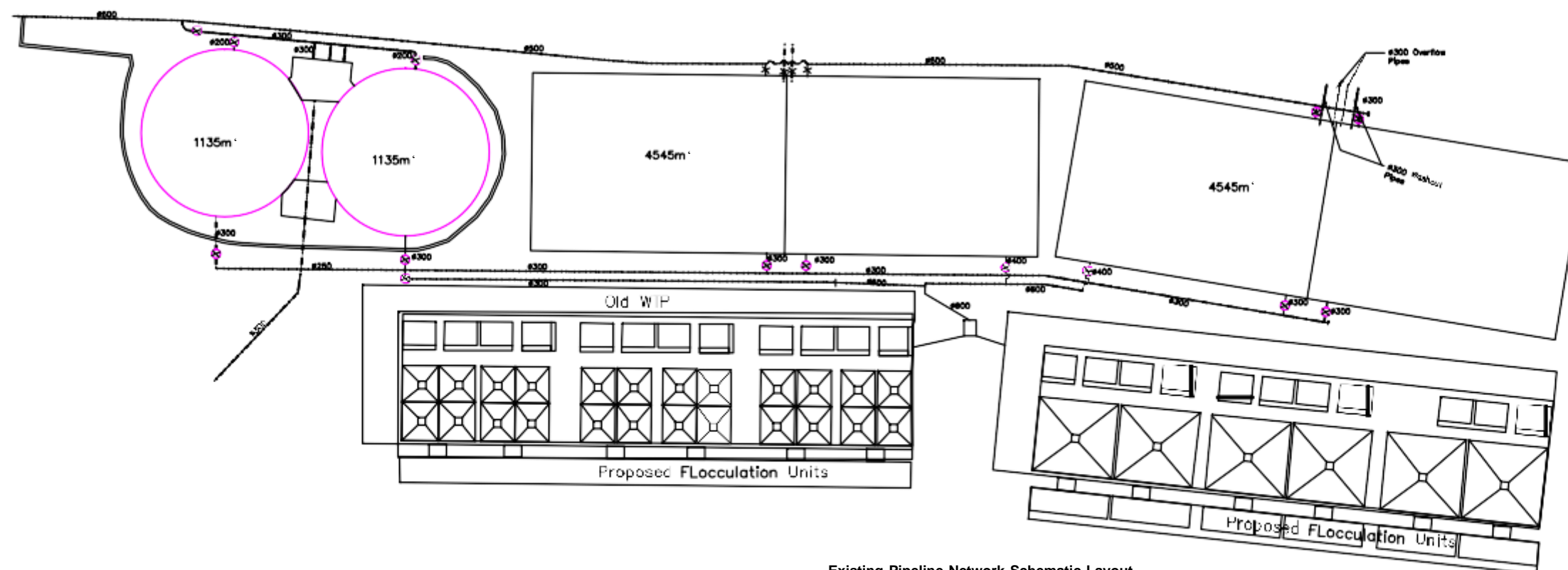
Designed by	H.G.W
Drawn by:	H.G.W
Approved by	PAULINE WAMBUI
Scale: As Shown	Date: DEC 2018
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/02-07

SECTION A-A

SCALE 1:50



Proposed Pipeline Network Schematic Layout



Existing Pipeline Network Schematic Layout

NOTES

1. All dimensions are in millimeters unless otherwise stated
2. This drawing must not be scaled, only figured dimensions should be used

REVISIONS	SIGN	DATE	APPROVED
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			



THIKA WATER AND SEWERAGE COMPANY

SCALE

DWG

Project

THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

PROJECT LOCATION

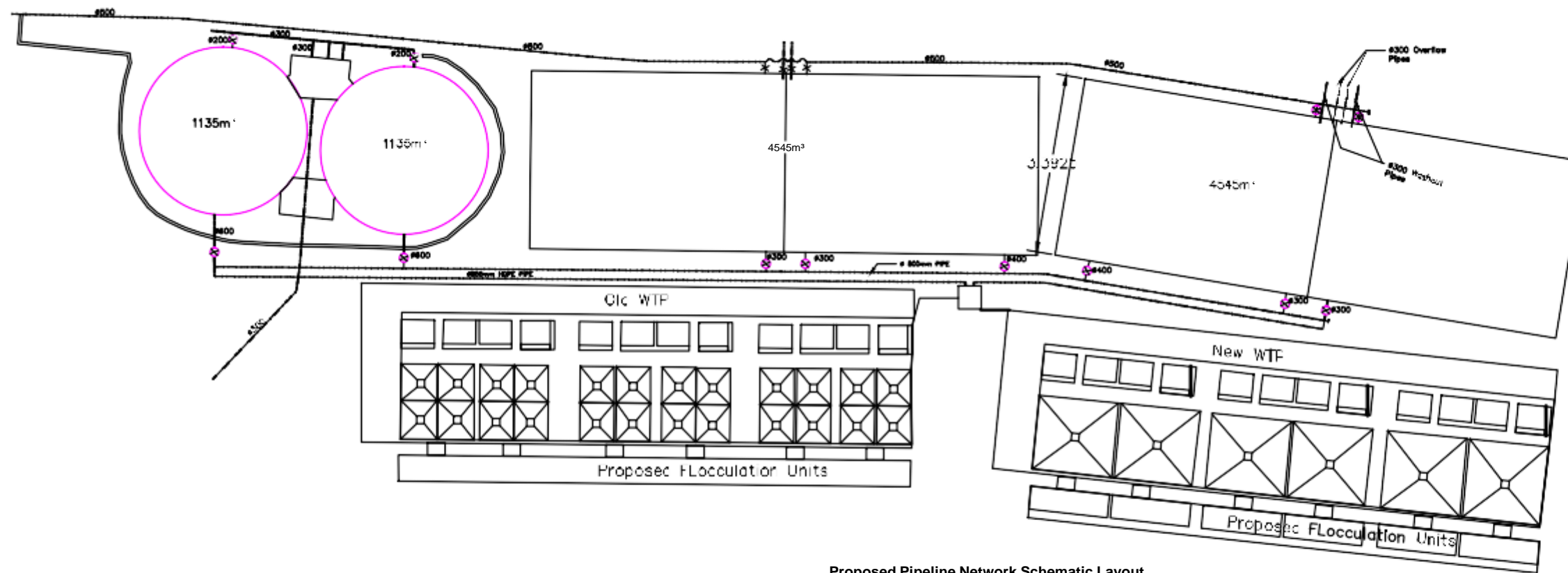


STRUCTURAL REINFORCEMENT COMPONENTS LTD
P.O. BOX 19223-00100, NAIROBI
TEL: 020 178 815
MOBILE: 02547019223820

Project Title

CLEAR WATER TANK PIPEWORK LAYOUT

Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: DEC 2018
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/02-11



- NOTES**
1. All dimensions are in millimeters, unless otherwise stated.
 2. This drawing must not be scaled, only figured dimensions should be used.

REVISIONS	SIGN	DATE	APPROVED
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			



Scale: _____ Date: _____

Project: THIKA WATER EFFICIENCY IMPROVEMENT PROJECT

Drawn by: _____

STRUCTURAL REINFORCEMENT COMPONENTS LTD
P.O. BOX 19223-00100, NAIROBI
TEL: 020 178 815
MOBILE: 0254701200620

Drawn by: _____

CLEAR WATER TANK PIPE-WORK IMPROVEMENTS LAYOUT

Designed by: H.G.W

Drawn by: H.G.W

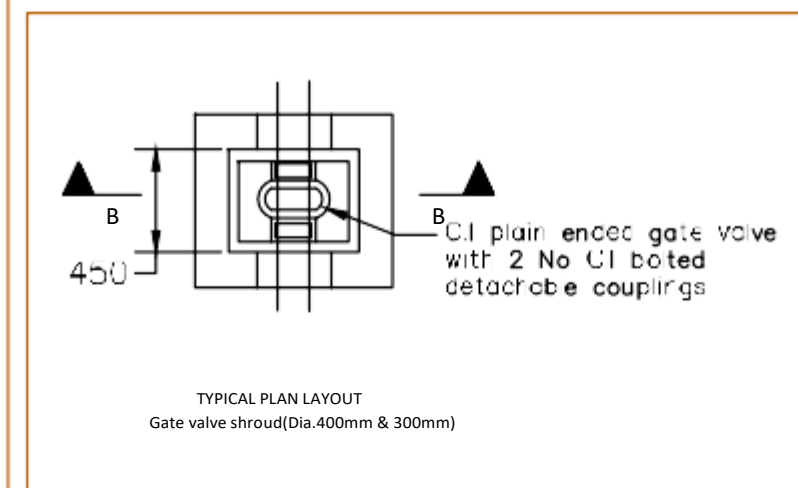
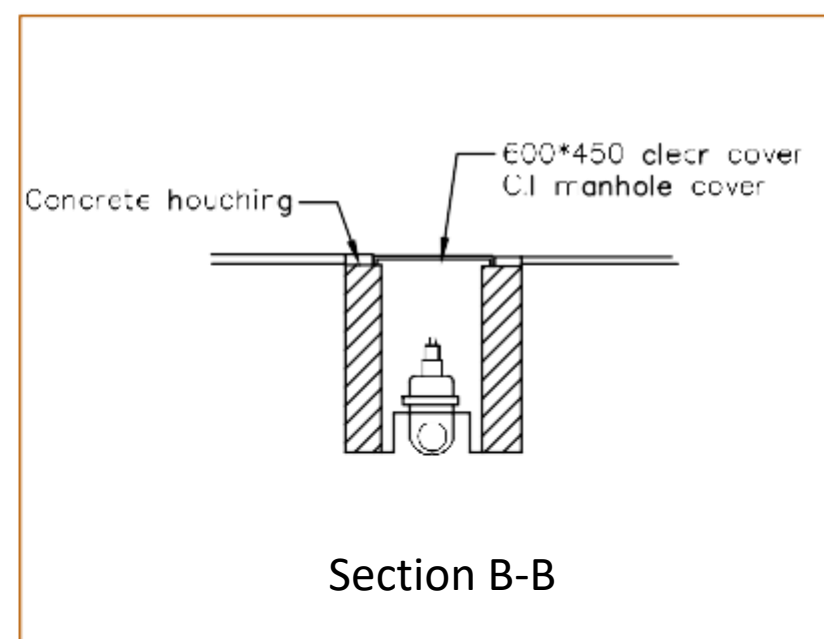
Approved by: PATRICK WAMBUKI

Scale: AS SHOWN Date: DEC 2018

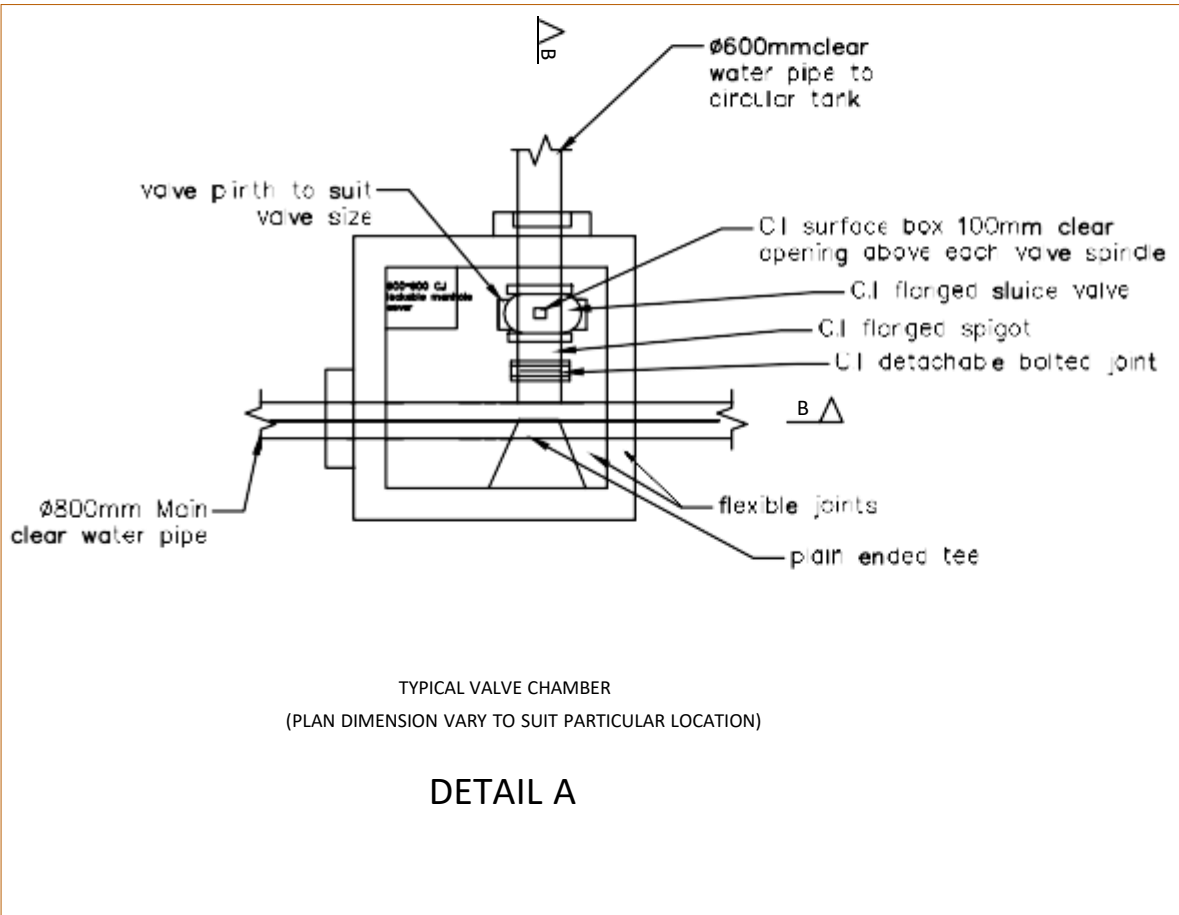
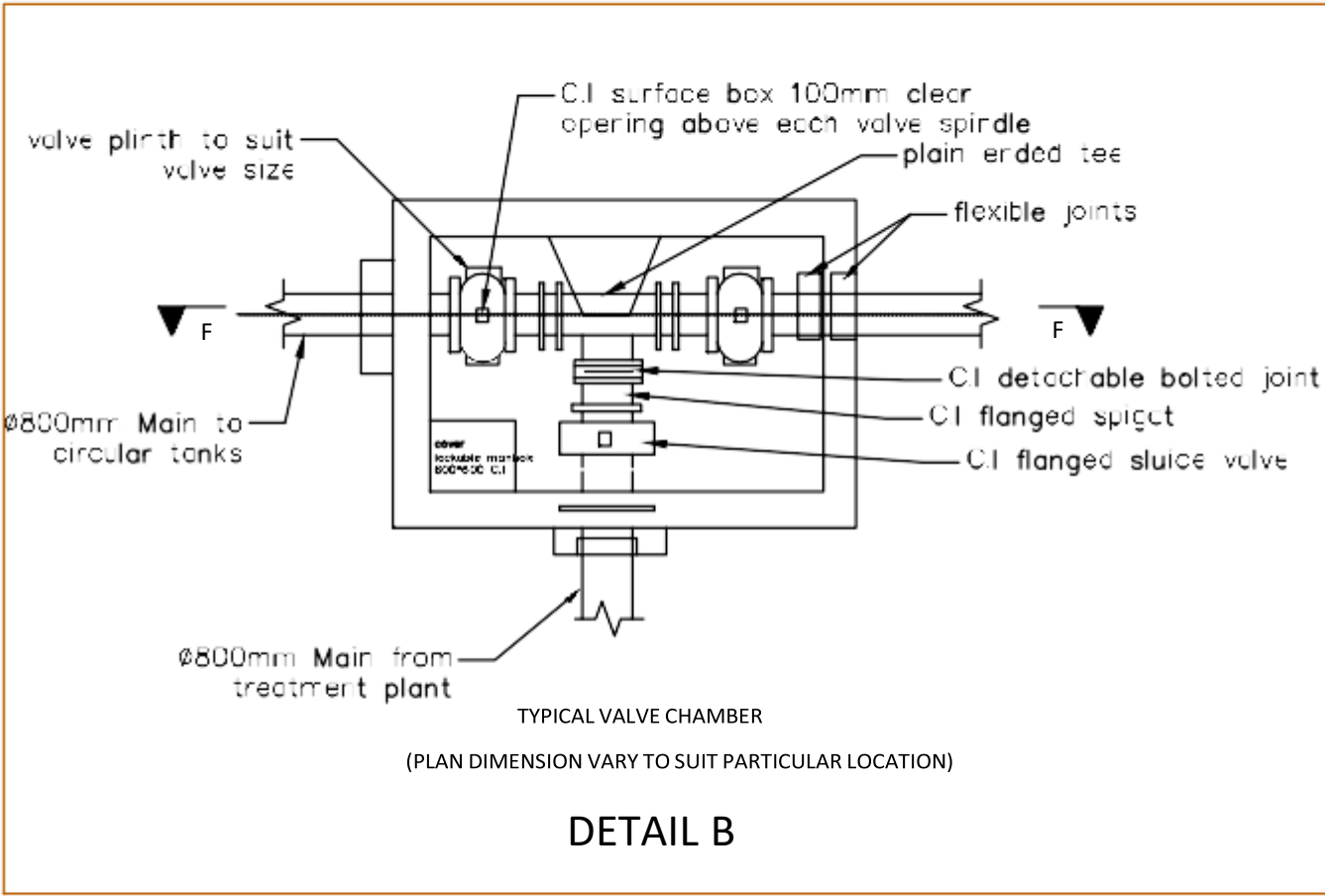
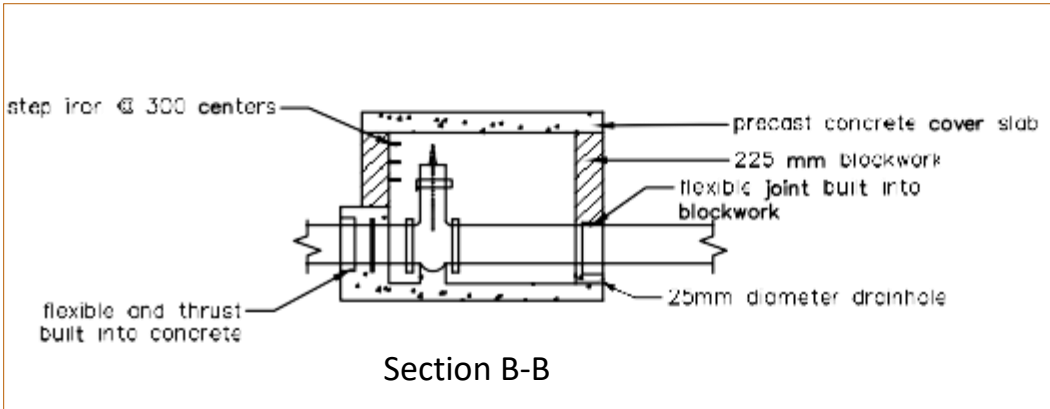
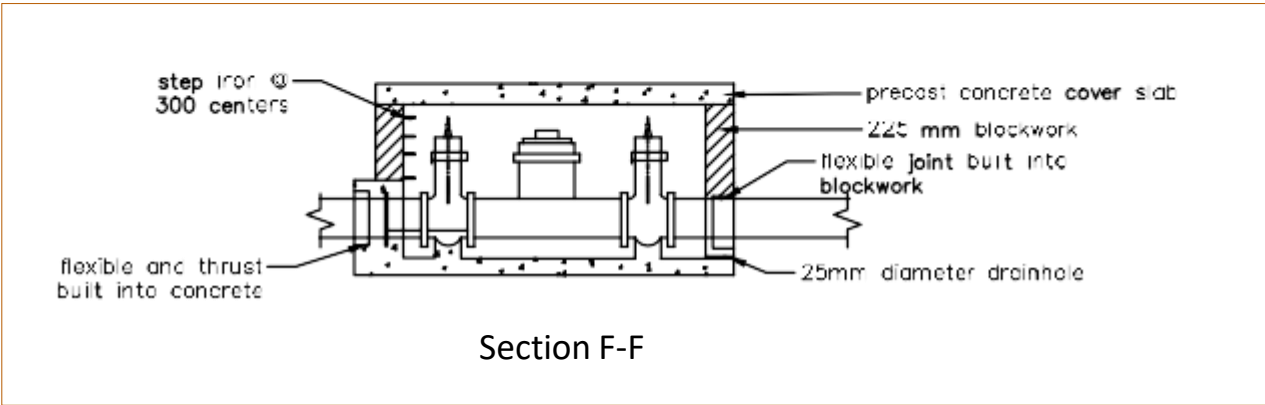
JOB NO: STRECCO-2018/01

DWG NO: SRC/W/02-12

SCHEDULE OF PIPE WORK			
ITEM No.	No OF	DIA mm.	DESCRIPTION
CIRCULAR TANK	2	600	FLANGED SPIGOT PIPE
	2	600	FLANGED GATE VALVE
	2	600	PIPE WITH A PADDLE FLANGE
RECTANGULAR TANK	4	300	FLANGED SPIGOT PIPE
	4	300	FLANGED GATE VALVE
	4	300	PIPE WITH A PADDLE FLANGE
	2	400	FLANGED SPIGOT PIPE
	2	400	FLANGED GATE VALVE
	2	400	PIPE WITH A PADDLE FLANGE
	2	400	PIPE WITH A PADDLE FLANGE



- NOTES**
1. All dimensions are in millimeters unless otherwise stated
 2. This drawing must not be scaled, only figured dimensions should be used



REVISIONS	SIGN	DATE	APPROVED
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			
BY			
CHECKED			



SIGN: _____ DATE: _____

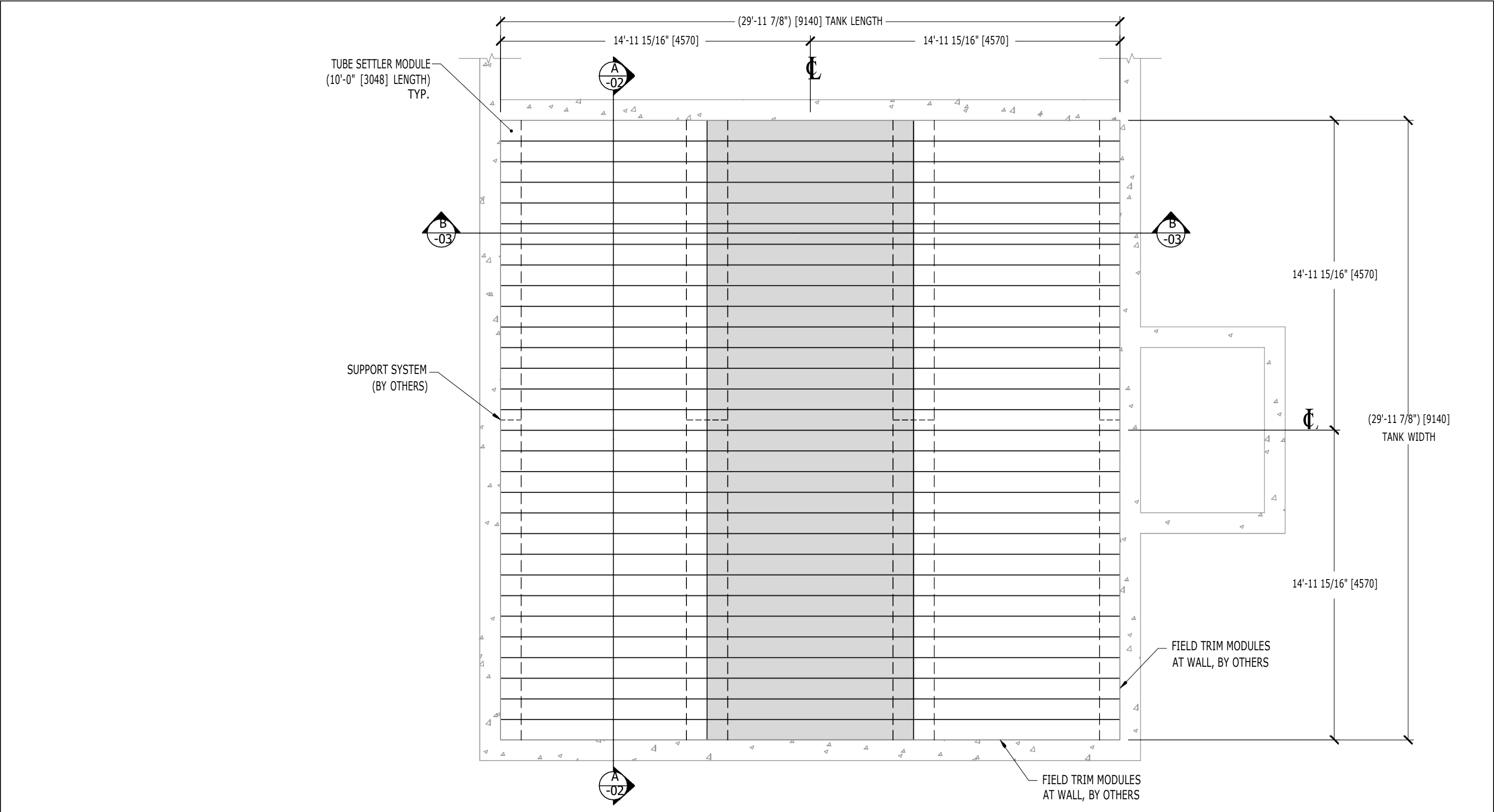
Project: **THIKA WATER EFFICIENCY IMPROVEMENT PROJECT**

DESIGNED BY: **STRUCTURAL REINFORCEMENT COMPONENTS LTD**
P.O. BOX 19223-00100, NAIROBI
TEL: 020 178 815
MOBILE: 02547019223820

Drawn by: **VALVE CHAMBER SECTION AND LAYOUT DETAILS**

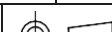
Designed by	H.G.W
Drawn by	H.G.W
Approved by	PATRICK WAMBUKI
Scale: AS SHOWN	Date: DEC 2018
JOB NO:	STRECCO-2018/01
DWG NO:	SRC/W/02-13

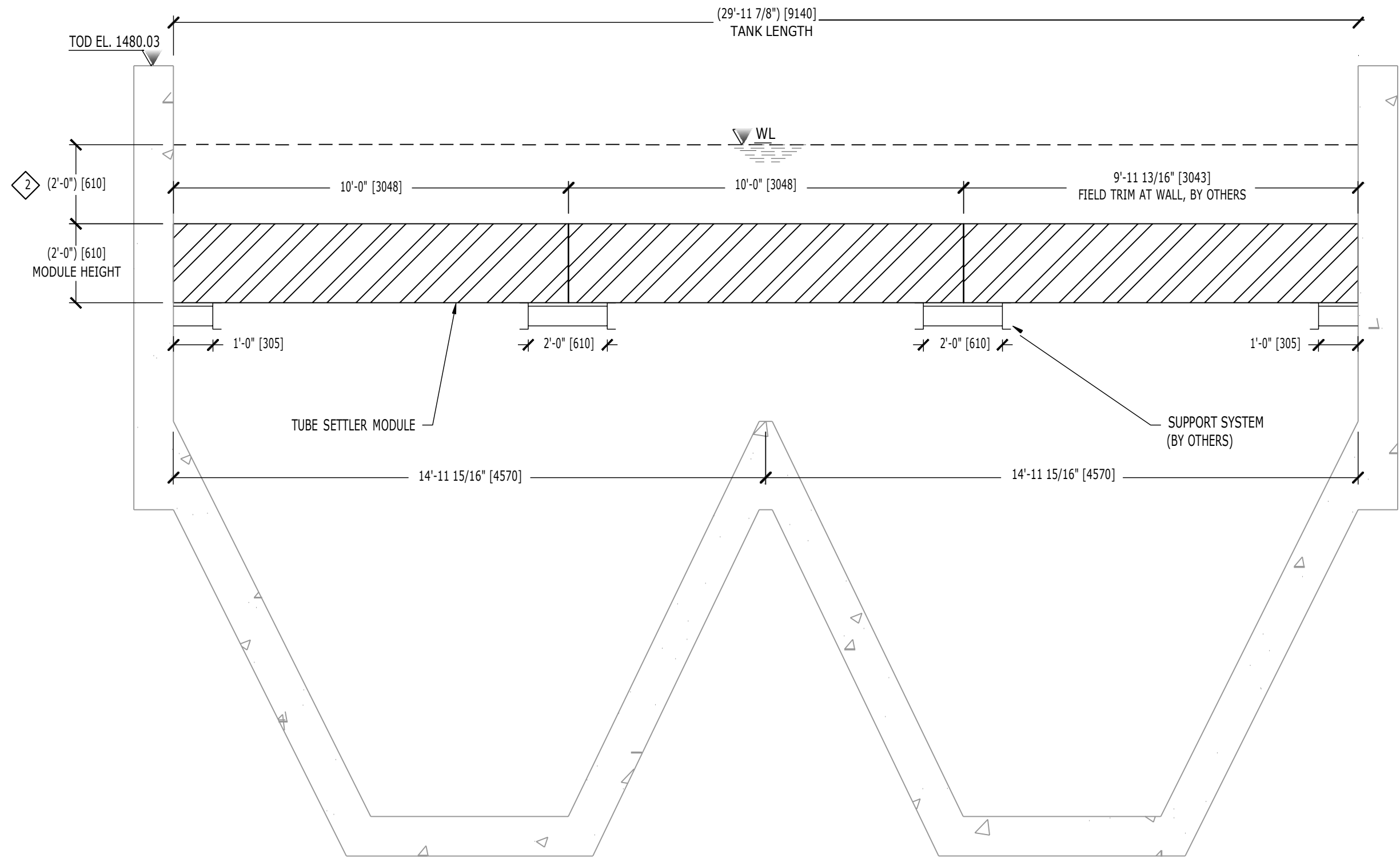
03- MANUFACTURERS DRAWINGS



NOTES:

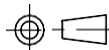
- 1. DIMENSIONS AND ITEM CALLOUTS ARE CONSIDERED TYPICAL FOR ALL TANKS, UNLESS OTHERWISE NOTED.
- 2. TUBE SETTLER MODULES ARE SHOWN WITH DIFFERENT SHADING FOR CLARITY.
- 3. EXISTING TROUGHS ARE HIDDEN FOR CLARITY.
- 4. OVERHANGS AND WALKWAYS ARE HIDDEN FOR CLARITY.

		<div><div></div><div>BRENTWOOD</div></div>	STATUS FOR QUOTE	PROJECT TITLE INSTALLATION & LAYOUT FOR TUBE SETTLERS EQUIPMENT THIKA WTP TANKS 1-6						
		CONFIDENTIAL PROPERTY OF BRENTWOOD INDUSTRIES INC. (HEREINAFTER KNOWN AS, "BRENTWOOD") <small>NOTICE: THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION WHICH IS THE PROPERTY OF BRENTWOOD. THE RECIPIENT OF THIS DOCUMENT AGREES TO USE THE INFORMATION CONTAINED HEREIN FOR THE LIMITED PURPOSE OF WHICH IT WAS FURNISHED BY BRENTWOOD AND FURTHER AGREES TO NEITHER COPY, MODIFY, REVERSE ENGINEER NOR AUTHORIZE ANYONE ELSE TO DO SO ON ITS BEHALF. THE RECIPIENT FURTHER AGREES THAT IT WILL NOT DISCLOSE THIS INFORMATION TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF BRENTWOOD. THIS NOTICE SHALL APPEAR ON ANY COMPLETE OR PARTIAL REPRODUCTION OF THIS DOCUMENT.</small>		DRAWN MAP 1/2/19	CHECKER	DRAWING TITLE PLAN VIEW				
REV	DESCRIPTION			SCALE NTS			SHEET 01 of 03	DRAWING NUMBER THIKA-01	REV 0	
	SHEET REVISIONS									



B-B ELEVATION
-01 NTS

- NOTES:**
- DIMENSIONS AND ITEM CALLOUTS ARE CONSIDERED TYPICAL FOR ALL TANKS, UNLESS OTHERWISE NOTED.
 - BRENTWOOD TYPICALLY SEES 18"-30" [457-762] FROM WATER LEVEL TO TOP OF TUBES.
 - EXISTING TROUGHS ARE HIDDEN FOR CLARITY.

		BRENTWOOD	STATUS FOR QUOTE	PROJECT TITLE INSTALLATION & LAYOUT FOR TUBE SETTLERS EQUIPMENT THIKA WTP TANKS 1-6					
REV	DESCRIPTION	CONFIDENTIAL PROPERTY OF BRENTWOOD INDUSTRIES INC. (HEREINAFTER KNOWN AS, "BRENTWOOD") <small>NOTICE: THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION WHICH IS THE PROPERTY OF BRENTWOOD. THE RECIPIENT OF THIS DOCUMENT AGREES TO USE THE INFORMATION CONTAINED HEREIN FOR THE LIMITED PURPOSE OF WHICH IT WAS FURNISHED BY BRENTWOOD AND FURTHER AGREES TO NEITHER COPY, MODIFY, REVERSE ENGINEER NOR AUTHORIZE ANYONE ELSE TO DO SO ON ITS BEHALF. THE RECIPIENT FURTHER AGREES THAT IT WILL NOT DISCLOSE THIS INFORMATION TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF BRENTWOOD. THIS NOTICE SHALL APPEAR ON ANY COMPLETE OR PARTIAL REPRODUCTION OF THIS DOCUMENT.</small>		DRAWN MAP 1/2/19	CHECKER	DRAWING TITLE ELEVATION B-B			
SHEET REVISIONS				SCALE AS NOTED		SHEET 03 of 03	DRAWING NUMBER THIKA-03	REV 0	