IRRIGATION AUTHORITY

Open National Bidding for Works

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM POINTE AUX PIMENTS SMALL SCALE IRRIGATION PROJECT

Procurement Reference No. Conv-Piv-Drip / IPU 24 / 01

D R A W I N G S

APRIL 2024

IRRIGATION AUTHORITY

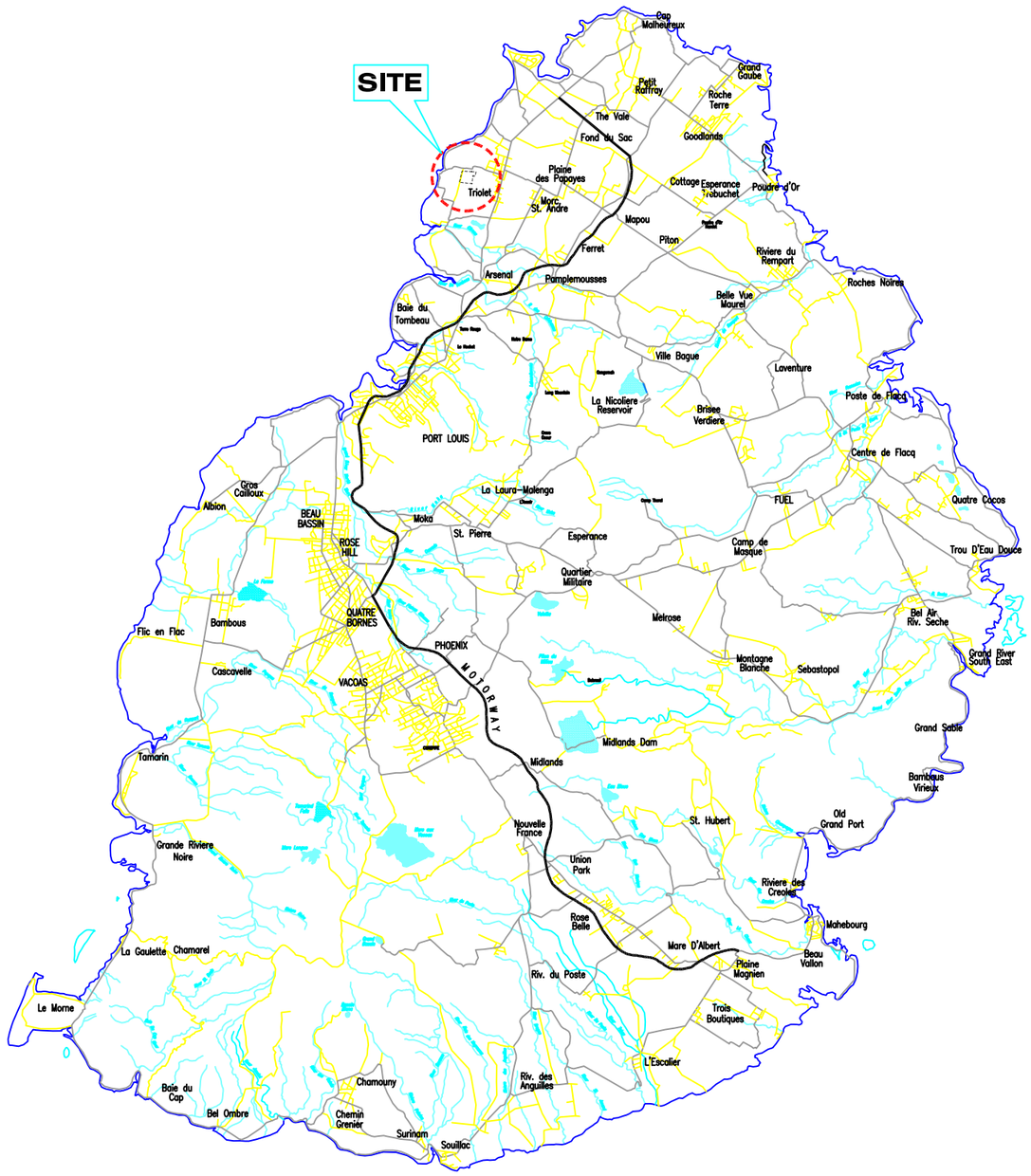
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM
POINTE AUX PIMENTS IRRIGATION PROJECT

Procurement Reference No: Conv-Piv-Drip/IA/24/01

LIST OF DRAWINGS

SN	DESCRIPTION OF DRAWINGS	DRAWING No.
1	Location of Project Area	**IA 24/PAP-Drip/01**
2	General Layout Showing Project Boundary, Plot Boundary, Planters' Name, Plot No., Plot Area, Contour Lines and Existing Pivot/Drip Irrigation System	**IA 24/PAP-Drip/02**
3	General Layout Showing Project Boundary, Plot Boundary, Planters' Name, Plot No., Plot Area, Existing Delivery Main,Submain, Manifold, Headworks to remain in place and Demarcated Area to be maintained under Existing Drip Irrigation System	**IA 24/PAP-Drip/03**
4	General Layout Showing Project Boundary, Plot Boundary, Planters' Name, Plot No.,Plot Area, Wayleave Status, Existing Delivery Main, Extended Delivery Main, New Submains, New Main Headworks and Stop Valves Under New Drip Irrigation System)	**IA 24/PAP-Drip/04**
5	General Layout Showing Project Boundary, Plot Boundary, Planters' Name, Plot No.,Plot Area, Wayleave Status, Stop Valves, Manifold and Direction of Dripper Lines under New Drip Irrigation System	**IA 24/PAP-Drip/05**
6	Main Headwork Assembly for New Drip Irrigation System	**IA 24/PAP-Drip/06**
7	RC Details of Main Headwork Chamber	**IA 24/PAP-Drip/07**
8	Connection Details at Filter Plant of M1B3L2/M1B3L4	**IA 24/PAP-Drip/08**
9	Longitudinal Section for Extended Delivery Main, EDM 1	**IA 24/PAP-Drip/09**
10	Line Diagram for Submain S1	**IA 24/PAP-Drip/10**
11	Line Diagram for Submain S2 & S3	**IA 24/PAP-Drip/11**
12	Line Diagram for Submain S4 & S5	**IA 24/PAP-Drip/12**
13	Line Diagram for Submain S6 & S7	**IA 24/PAP-Drip/13**
14	Line Diagram for Delivery Main	**IA 24/PAP-Drip/14**
15	Drippers Details	**IA 24/PAP-Drip/15**
16	Typical Arrangement of PVC OD 90 & Manifold with PVC Stop Valve Inside PVC Casing OD 350 - Type I & II	**IA 24/PAP-Drip/16**
17	Thrust Block Details	**IA 24/PAP-Drip/17**
18	Trench Section for Pipe	**IA 24/PAP-Drip/18**
19	Structural Notes	**IA 24/PAP-Drip/19**

REPUBLIC OF MAURITIUS



N.T.S

MARK	REVISION	DATE		
			DRAWN : W.R (S.T.D.O)	DESIGNED : Eng-IPU
			SCALE : AS SHOWN	SURVEYED :
			DATE : April 2024	CHECKED : P.E-IPU
			FILE NAME : Context-Location Plan....	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

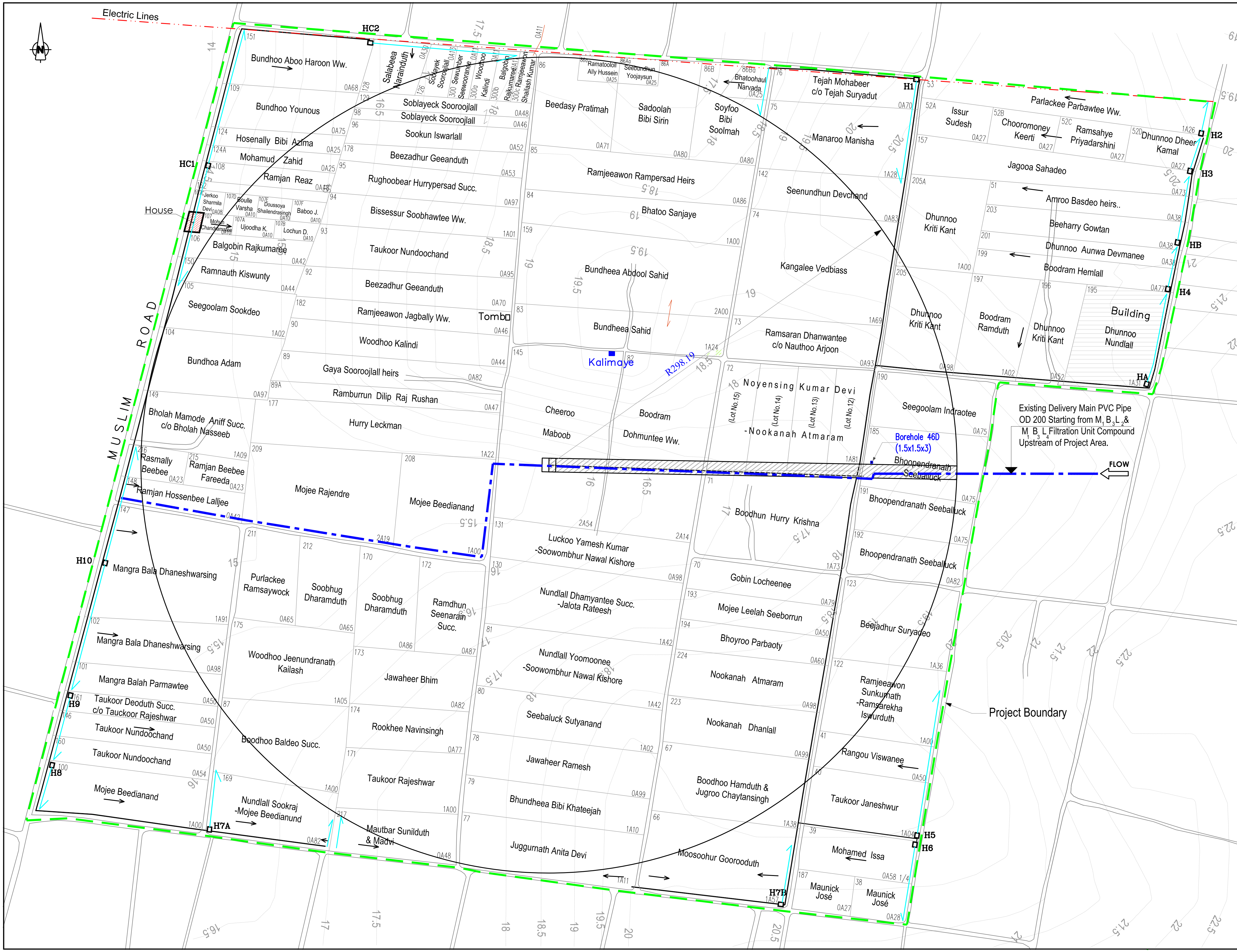
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No.Conv-Piv-Drip/IA/24/01

TITLE

CONTEXT-LOCATION PLAN

DRG No. **IA 24/PAP-Drip/01**

ISSUE



Drawn	Scale	Date	File Name
W.R	1:2500	Mar 2024	Pointe..

Design: Eng-IPU
Surveyed:
Checked: P.E-IPU
Approved: HIPU

LEGEND

- Project Boundary
- Existing Delivery Main
- XX Existing Headworks
- Existing Submains
- Existing Manifolds
- Drippers Direction
- ▨ Parking Area
- Electric Lines
- ○ Existing Pivot
- XX Contour Lines

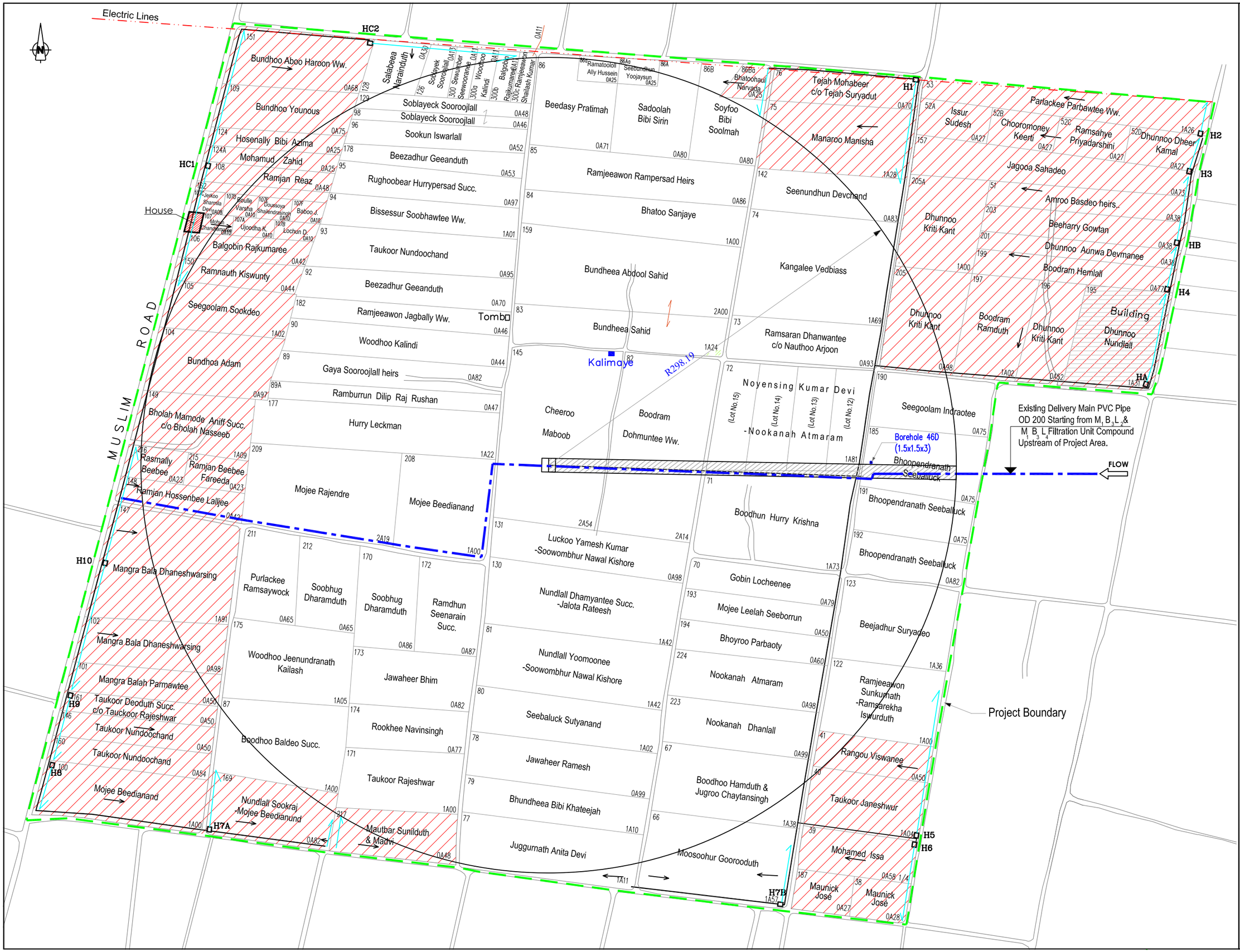
Revision.	Mark	Date	By

IRRIGATION AUTHORITY

Project:
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM. POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No.Conv-Piv-Drip/IA/24/01

Title:
General Layout Showing Project Boundary, Plot Boundary,Planter's Name, Plot No., Plot Area, Contour Lines, and Existing Pivot/Drip Irrigation System.

Drawing Number: **IA 24/PAP-Drip/02**
Revision



Drawn	Scale	Date	File Name
W.R	1:2500	Mar 2024	Pointe..

Design: Eng-IPU
Surveyed:
Checked: P.E-IPU
Approved: HIPU

LEGEND

- Project Boundary
- Existing Delivery Main
- XX Existing Headworks
- Existing Submains
- Existing Manifolds
- Drippers Direction
- Parking Area
- Electric Lines
- Existing Pivot
- Delineated Areas to be Irrigated Under Existing Irrigation System (*NB. Existing Irrigation Pipelines Servicing these Areas as Shown on Drwg. No.* ***IA 24/PAP-Drip/02*** *Shall be Located on Site by Contractor vide Trial Pits Prior to Exation Works Required for the New Irrigation System on Adjacent Plots of Lands and Any Damage Caused to the Existing Pipe Network Shall be Repaired by the Contractor at his Own Cost.*)

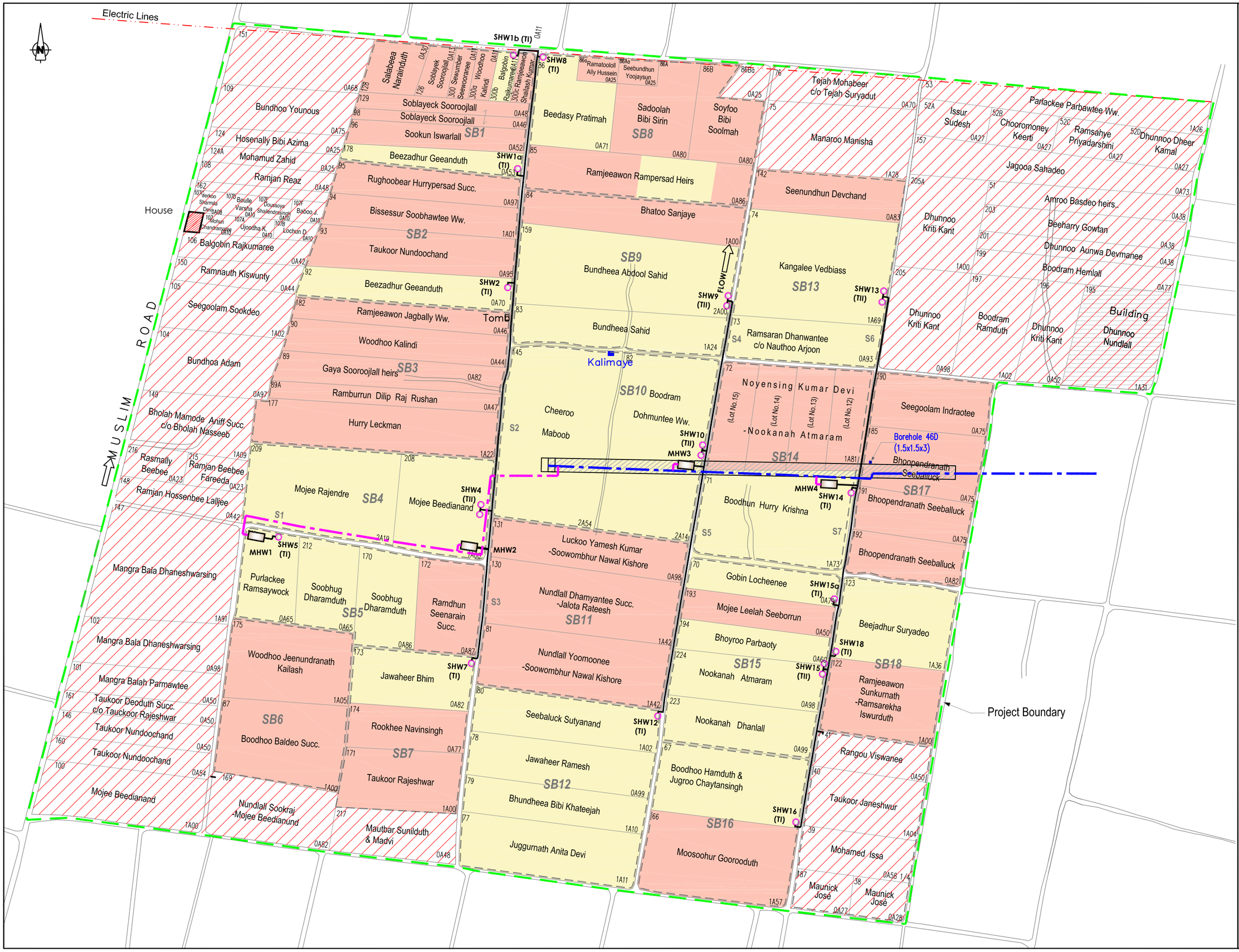
Revision.	Mark	Date	By

IRRIGATION AUTHORITY

Project:
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference
No.Conv-Piv-Drip/IA/24/01

Title:
General Layout Showing Project Boundary, Plot Boundary,Planter's Name, Plot No., Plot Area, Existing Delivery Main, Submain, Manifold, Headworks to Remain in Place and Demarcated Area to be Maintained Under Existing Drip Irrigation System.

Drawing Number: **IA 24/PAP-Drip/03**
Revision:



Drawn	Scale	Date	File Name
W.R	1:2500	Oct 2023	Pointe..

Design:	
Surveyed:	
Checked:	
Approved:	

LEGEND

- Project Boundary
- Existing Delivery Main
- Extended Delivery Main
- New Submain
- New Main Headworks
- New Stop Valves
- Wayleave Obtained
- Wayleave Not Obtained
- Area to be Maintained Under Existing Drip Irrigation System
- Parking Area to be returned back to Plot Owners
- Electric Lines

Revision.	Mark	Date	By

IRRIGATION AUTHORITY

Project:

POINTE AUX PIMENTS IRRIGATION PROJECT

Procurement Reference No.
OAB-IA23/PAP-Drip/01

Title:
General Layout Showing Project Boundary, Plot Boundary, Planters' Name, Plot No., Plot Area, Wayleave Status, Stop Valves, Manifold, and Direction of Dripper Lines under New Drip Irrigation System .

Drawing Number — Revision

IA 24/PAP-Drip/04

Electric Lines

(L=15m, ø90mm)

(L=30m, ø90mm)

(L=20m, ø90mm)

(L=30m, ø90mm)

(L=20m, ø90mm)

(L=20m, ø90mm)

(L=25m, ø63mm)

(L=41m, ø90mm)

(L=41m, ø90mm)

(L=40m, ø63mm)

(L=50m, ø63mm)

(L=30m, ø63mm)

(L=20m, ø63mm)

(L=20m, ø63mm)

(L=120m, ø90mm)

(L=10m, ø90mm)

(L=40m, ø90mm)

(L=75m, ø90mm)

(L=60m, ø90mm)

(L=55m, ø75mm)

(L=60m, ø90mm)

(L=15m, ø90mm)

(L=140m, ø90mm)

(L=66m, ø63mm)

(L=20m, ø63mm)

(L=20m, ø63mm)

(L=50m, ø63mm)

(L=70m, ø63mm)

(L=60m, ø63mm)

FLOW

Tom

Kalimaye

Borehole 46D (1.5x1.5x3)

House

MUSLIM ROAD

Project Boundary

Building

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13 SB14 SB15 SB16 SB17 SB18

Salabeea Narainduth; Soblayeck Sooroojlall; Sewumber Seewooranee; Woodhoo Kalindi; Balgobin Rajkumaree; Ramjeeawon Shallash Kumar

Ramatoolloll Ally Hussein; Seebundhun Yoojaysun

Sadoolah Bibi Sirin; Soyfoo Bibi Soolmah; Beedasy Pratimah

Tejah Mohabeer c/o Tejah Suryadut; Manaroo Manisha

Issur Sudesh; Chooromoney Keerti; Parlackee Parbawtee Ww.; Ramsahye Priyadarshini; Dhunnoo Dheer Kamal; Jagooa Sahadeo; Amroo Basdeo heirs..; Beeharry Gowtan; Dhunnoo Aunwa Devmanee; Boodram Hemlall; Dhunnoo Kriti Kant; Boodram Ramduth; Dhunnoo Nundlall

Bundhoo Younous; Hosenally Bibi Azima; Mohamud Zahid; Ramjan Reaz; Balgobin Rajkumaree; Ramnauth Kiswunty; Seegoolam Sookdeo; Bundhoa Adam; Bholah Mamode Aniff Succ c/o Bholah Nasseeb; Rasmally Beebee; Ramjan Beebee Fareeda; Ramjan Hossenbee Lalljee; Mangra Bala Dhaneshwarsing; Mangra Balah Parmawtee; Taukoor Deoduth Succ. c/o Tauckoor Rajeshwar; Taukoor Nundoochand; Mojee Beedianand

Soblayeck Sooroojlall; Soblayeck Sooroojlall; Sookun Iswarlall; Beezadhur Geeanduth; Rughoobear Hurrypersad Succ.; Bissessur Soobhawtee Ww.; Taukoor Nundoochand; Beezadhur Geeanduth; Ramjeeawon Jagbally Ww.; Woodhoo Kalindi; Gaya Sooroojlall heirs; Ramburrun Dilip Raj Rushan; Hurry Leckman; Mojee Rajendre; Mojee Beedianand

Ramjeeawon Rampersad Heirs; Bhatoo Sanjaye; Bundheea Abdool Sahid; Bundheea Sahid; Ramsaran Dhanwantee c/o Nauthoo Arjoon; Kangalee Vedbiass; Seenundhun Devchand; Noyensing Kumar Devi -Nookanah Atmaram (Lot No.15) (Lot No.14) (Lot No.13) (Lot No.12); Boodhun Hurry Krishna; Gobin Locheenee; Mojee Leelah Seeborrun; Bhoyroo Parbaoty; Nookanah Atmaram; Nookanah Dhanlall; Boodhoo Hamduth & Jugroo Chaytansingh; Moosoohur Goorooduth; Seegoolam Indraotee; Bhoopendranath Seeballuck; Bhoopendranath Seeballuck; Bhoopendranath Seeballuck; Beedhur Suryadeo; Ramjeeawon Sunkurnath -Ramsarekha Iswurduth; Rangou Viswanee; Taukoor Janeshwur; Mohamed Issa; Maunick José; Maunick José

Purlackee Ramsaywock; Soobhug Dharamduth; Soobhug Dharamduth; Ramdhun Seenarain Succ.; Woodhoo Jeenundranath Kailash; Boodhoo Baldeo Succ.; Jawaheer Bhim; Rookhee Navinsingh; Taukoor Rajeshwar; Nundlall Sookraj -Mojee Beedianund; Mautbar Sunilduth & Madvi

Luckoo Yamesh Kumar -Soowombhur Nawal Kishore; Nundlall Dhamyantee Succ. -Jalota Rateesh; Nundlall Yoomoonee -Soowombhur Nawal Kishore; Seebaluck Sutyanand; Jawaheer Ramesh; Bhundheea Bibi Khateejah; Juggurnath Anita Devi

Cheeroo Maboob; Boodram Dohmuntee Ww.

Drawn	Scale	Date	File Name
W.R	1:2500	Oct 2023	Pointe..

Design:

Surveyed:

Checked:

Approved:

LEGEND

- Project Boundary
- Part of New Submain (for arrangement of New Submain refer to Drawing IA 24/PAP-Drip/05)
- New Manifold
- Dripper Line Direction
- Wayleave Obtained
- Wayleave Not Obtained
- Area to be Maintained Under Existing Drip Irrigation System
- Parking Area to be returned back to Plot Owners
- Electric Lines
- New Stop Valves

Revision.	Mark	Date	By

IRRIGATION AUTHORITY

Project:

POINTE AUX PIMENTS IRRIGATION PROJECT

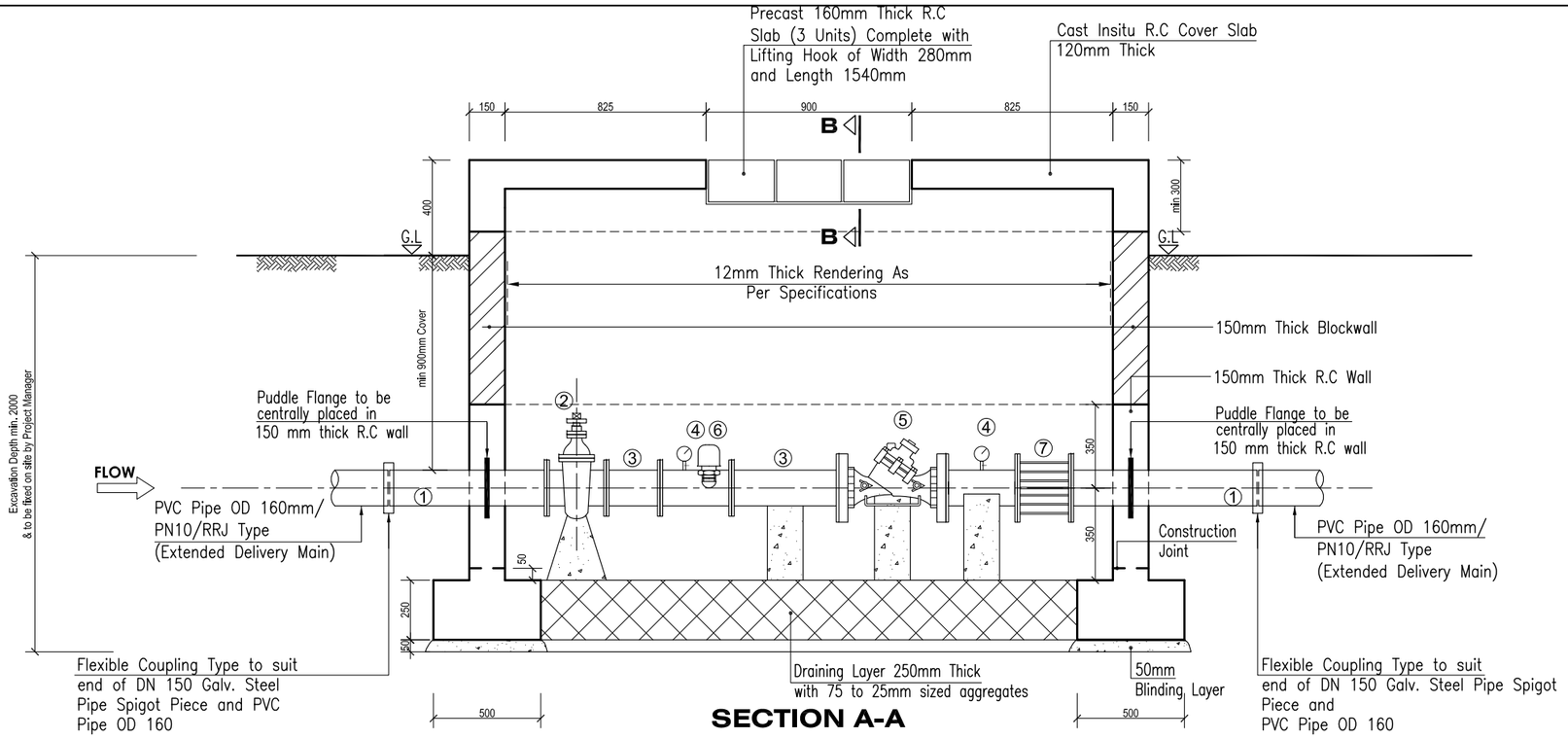
Procurement Reference No. OAB-IA23/PAP-Drip/01

Title:

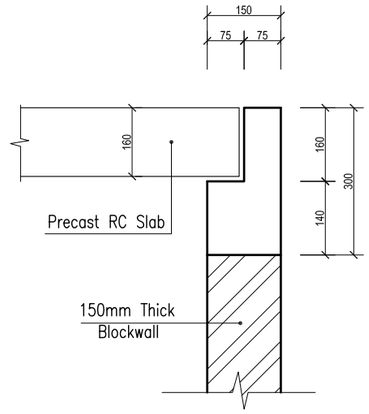
General Layout Showing Project Boundary, Plot Boundary, Planters' Name, Plot No., Plot Area, Wayleave Status, Stop Valves, Manifold, and Direction of Dripper Lines under New Drip Irrigation System .

Drawing Number: **IA 24/PAP-DrIp/05**

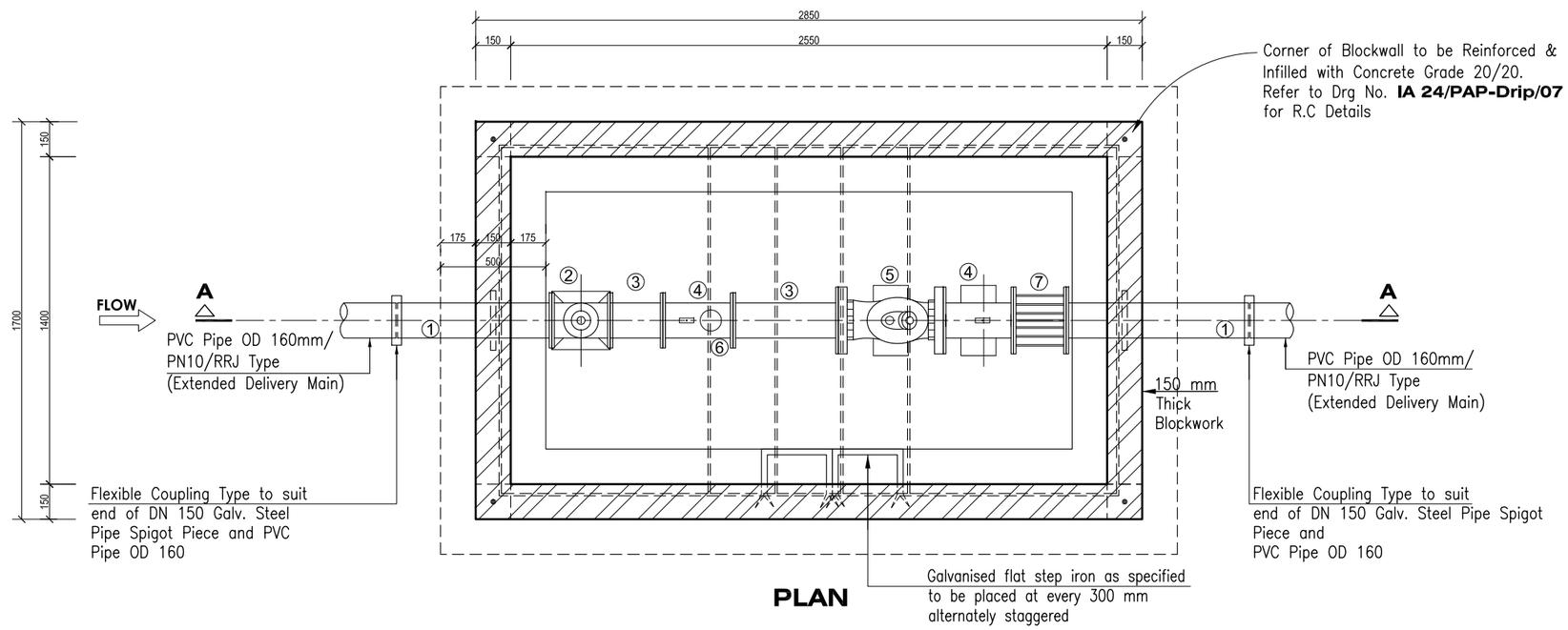
Revision



SECTION A-A



SECTION B-B



PLAN

Item No.	Item Description
①	DN 150 Galv. Steel Flanged Spigot Piece 1m Long with Flanged Puddle
②	DN 150 Galv. Steel Gate Valve (PN10)
③	Pipe Piece
④	DN 150 Manometer
⑤	DN 150 Flow Control & Pressure Reducing Valve
⑥	DN 50 Air Valve
⑦	DN 150 Dismantling Joint (3 Ties)

NOTE :

(i) Contractor shall be responsible to check appropriate dimensions/length of pipe piece with respect to assemblies of chamber and chamber itself prior to fabricating of same.

(ii) R.C Details of Chamber, Refer to Drg No.**IA 24/PAP-Drip/07**

(iii) Any discrepancies noted in this drawing shall be immediately reported to the Project Manager.

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : 1:25	SURVEYED : STA /TO
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

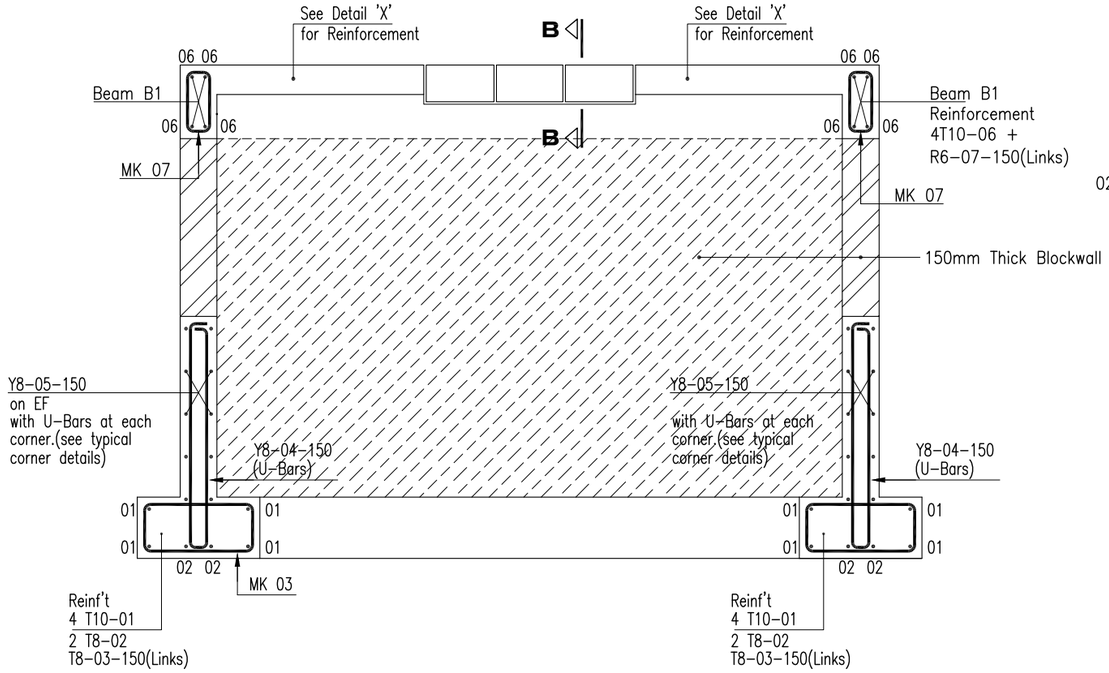
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No.Conv-Piv-Drip/IA/24/01

TITLE

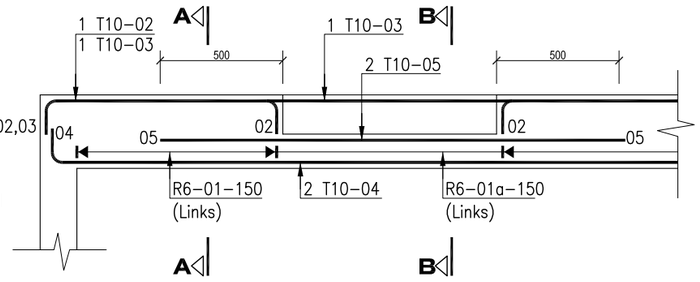
MAIN HEADWORK ASSEMBLY FOR DRIP IRRIGATION SYSTEM

DRG No. **IA 24/PAP-Drip/06**

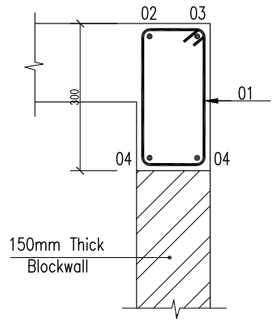
ISSUE



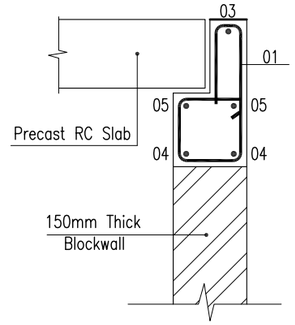
REINFORCEMENT DETAILS OF CHAMBERS
SECTION X-X



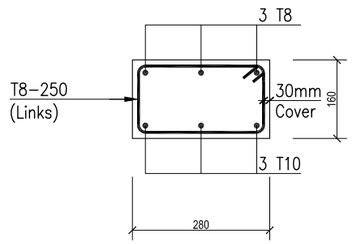
R.C DETAILS OF BEAM B2



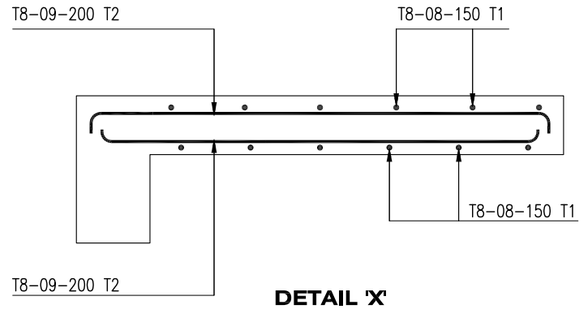
SECTION A-A



SECTION B-B

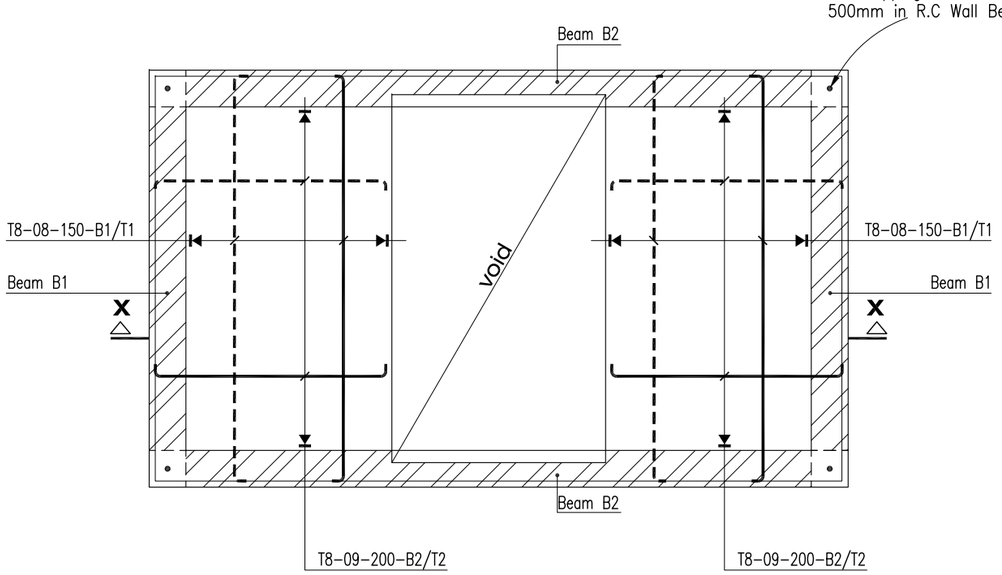


R.C DETAILS OF PRECAST SLAB

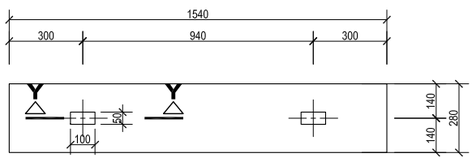


DETAIL 'X'

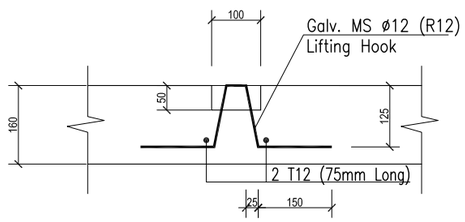
Infilled Concrete Grade 20/20 at each corner of Blocwork Chamber reinforced with 1Y10-01 with 500 mm continuous laps where required bars to be bent into copping beam above and Anchored 500mm in R.C Wall Below.



REINFORCEMENT DETAILS OF CAST IN-SITU COVER SLAB (120mm Thick)



PRECAST SLAB SHOWING POSITION OF LIFTING HOOKS



SECTION Y-Y

NOTE :

(i) Contractor shall be responsible to check appropriate dimensions/length of pipe piece with respect to assemblies of chamber and chamber itself prior to fabricating of same.

(ii) For Layout of Chamber, Refer to Drg No.**IA 24/PAP-Drip/06**

(iii) Any discrepancies noted in this drawing shall be immediately reported to the Project Manager.

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : 1:25,12.5	SURVEYED : STA /TO
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

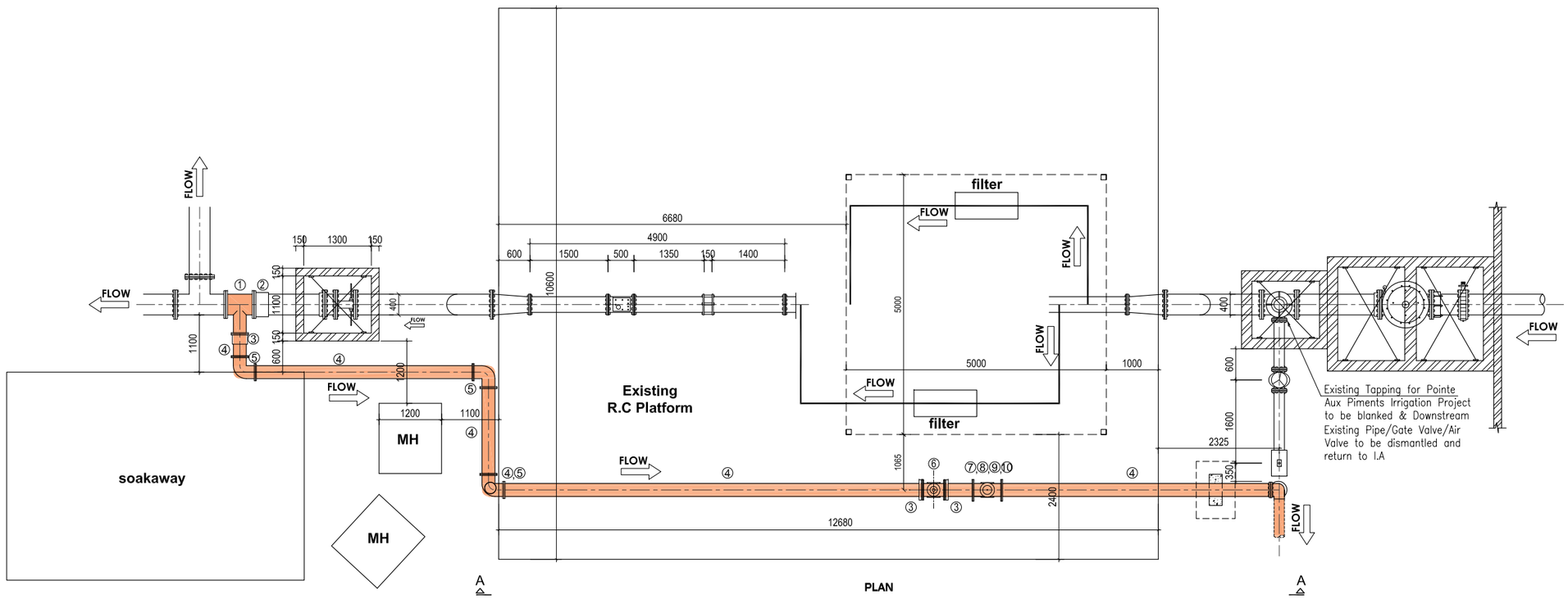
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No.Conv-Piv-Drip/IA/24/01

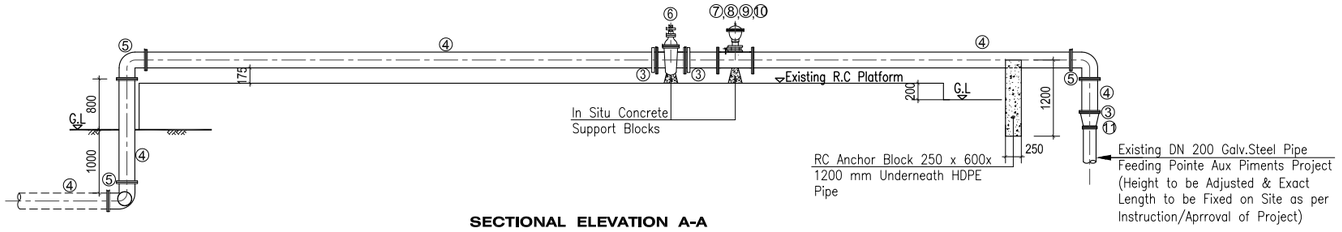
TITLE

R.C DETAILS OF MAIN HEADWORK CHAMBER

DRG No. **IA 24/PAP-Drip/07**

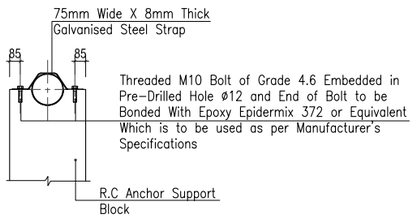
ISSUE



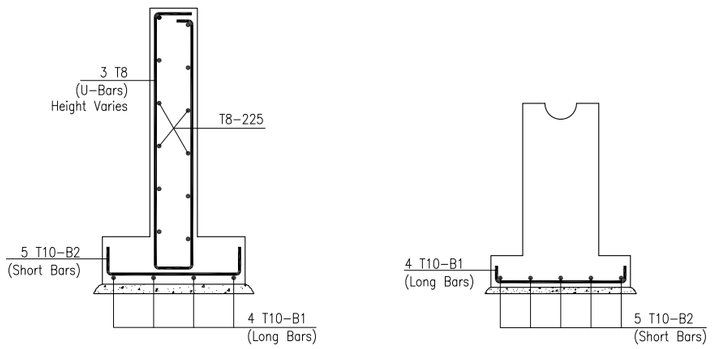


SECTIONAL ELEVATION A-A

Item No.	Item Description	Qty.
①	DN 400 Galv.Steel Tee with DN 250 Flanged Branch	1
②	DN 400 Flanged Adaptor to suit Galv.Steel Pipe	1
③	250mm Electrofusion Flange Adaptor to suit Galv.Steel Tee or Reducer on one side and HDPE on other side	4
④	250mm, HDPE Pipe, PN16, PE 100 Grade	25m
⑤	Electrofusion Bend HDPE, 250mm, PN16	5
⑥	DN 250 Flanged Gate Valve, PN16	1
⑦	Saddle Clamp to suit HDPE Pipe OD 250mm with 63mm female threaded outlet	1
⑧	63mm HDPE Nipple	1
⑨	63mm Double Female Threaded Isolating Valve	1
⑩	63mm Double Orifice Air Valve, Male Threaded	1
⑪	DN 250 x DN 200 Flanged Galv.Steel Reducer	1



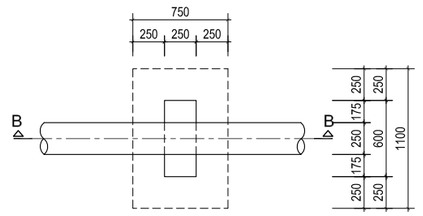
FIXING DETAILS OF GMS STRAP



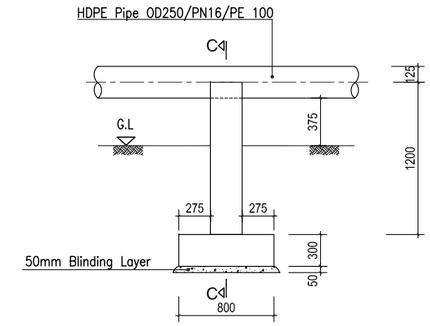
R.C DETAILS OF ANCHOR BLOCK

LEGEND

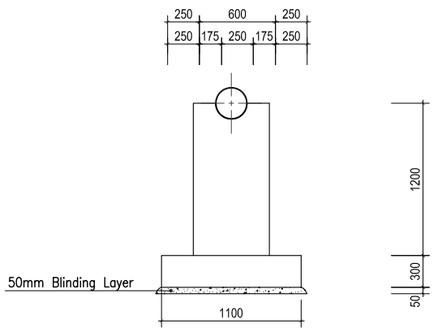
Arrangement of New Pipes / Fittings /Control Valves



BASE OF ANCHOR BLOCK PLAN



SECTION B-B



SECTION C-C

NOTES :

(i) Alternative arrangement of fittings allowed subject to approval of Project Manager

(ii) All Fittings to have pressure rating PN 16

(III) No. of straps for HDPE Pipe to be as per manufacturer's recommendation

FOR TENDER

MARK	REVISION	DATE

DRAWN : T.A (B.R), S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : N.T.S	SURVEYED :
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

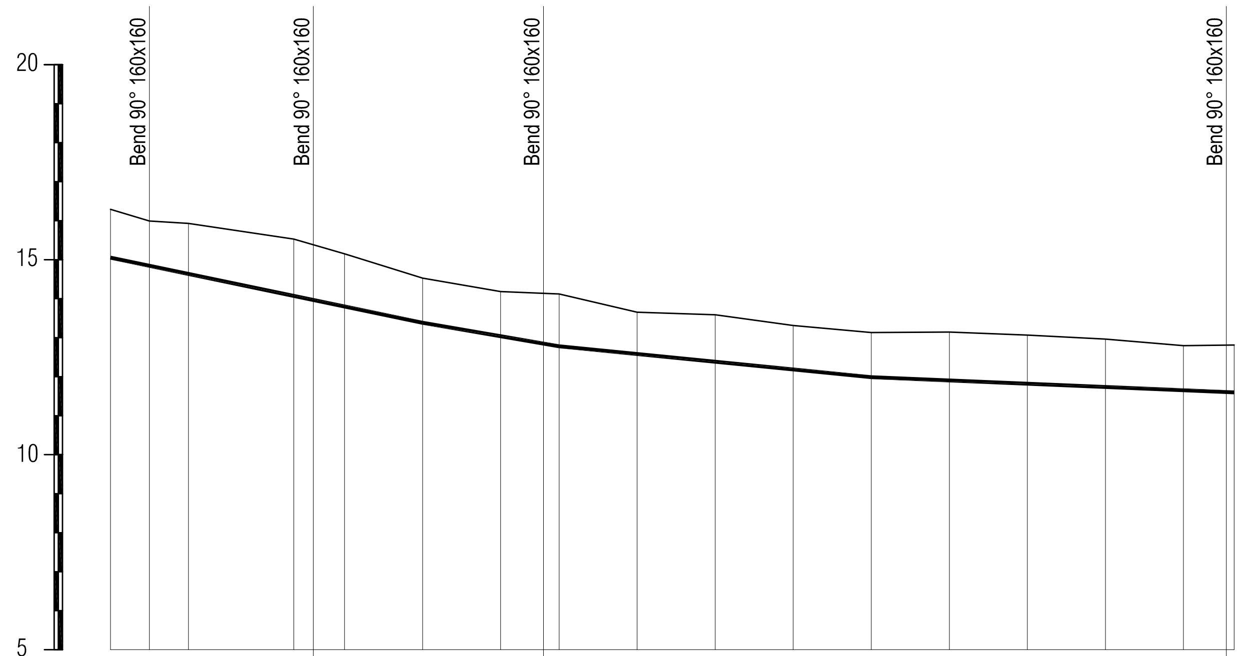
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

TITLE

CONNECTION DETAILS AT FILTER PLANT M_1 B_3 L_2

DRG No. **IA 24/PAP-Drip/08**

ISSUE



CHAINAGE (m)	00.00	10.00	20.00	47.00	52.00	60.00	80.00	100.00	111.00	115.00	135.00	155.00	175.00	195.00	215.00	235.00	255.00	275.00	286.00	288.00
GROUND LEVEL (m)	16.290	15.991	15.931	15.527	13.867	15.151	14.527	14.181	12.847	14.122	13.654	13.587	13.311	13.132	13.145	13.066	12.963	12.796	11.606	12.810
PIPE INVERT LEVEL (m)	15.050						13.383			12.778				11.988						11.597
GRADIENT (‰)	−20.8						−17.3			−9.9				−4.2						
DETAIL OF PIPES	PVC OD 160mm, PN10, RRJ Type																			

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : ..
SCALE : Hor :- 1:2000 Ver :- 1:200	SURVEYED : B.R, Y.D, M.P
DATE : March 2024	CHECKED :
FILE NAME : Pointe aux Piments L.S..	APPROVED :

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.

POINTE AUX PIMENTS IRRIGATION PROJECT

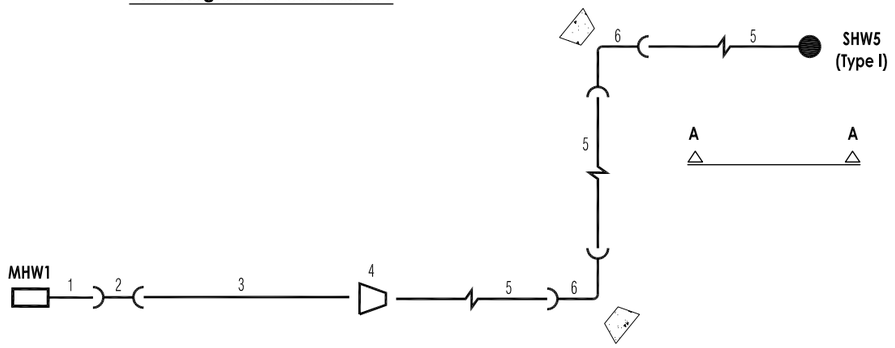
Procurement Reference No. Conv-Piv-Drip/IA/24/01

TITLE LONGITUDINAL SECTION FOR EXTENDED DELIVERY MAIN, EDM 1 FROM Ch 00.00-288.00 m

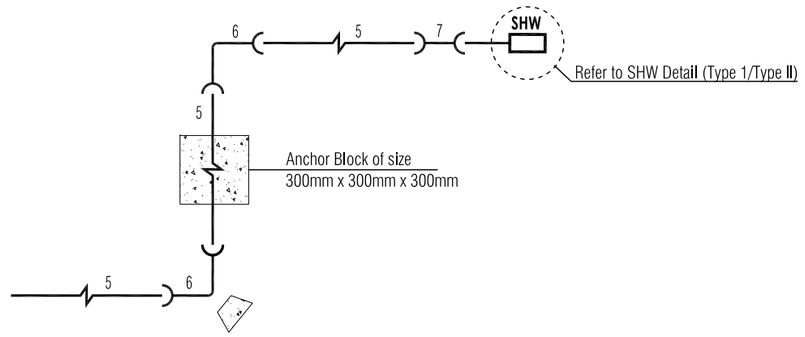
DRG No. **IA 24/PAP-Drip/09**

ISSUE

Line Diagram for Submain S1



SECTION A-A



NOTE :
(i) All fittings to be of pressure rating PN 10 unless specified otherwise

(ii) PVC fittings to be solvent weld type (SWT) unless specified otherwise

(iii) Alternative arrangement of fittings allowed subject to approval of Project Manager

Fitting No.	Description	Qty
1	DN 150 Galvanised Steel Pipe 1000mm long with puddle flange centrally positioned flanged to DN 150 on one side and spigotted on other side. External diameter of Spigot end to be similar to PVC Pipe OD 160mm	–
2	DN 150 Flexible Coupling to suit Galvanised Steel Pipe DN 150 on one side and OD 160mm PVC Pipe	1
3	OD 160mm PVC Pipe , PN10	–
4	160 X 90mm PVC Reducer solvent weld type PN10	1
5	OD 90mm PVC Pipe, PN10, solvent weld type	10m
6	90mm PVC bend 90° solvent weld type PN10	4
7	90mm PVC Union solvent weld type PN10	2

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : NTS	SURVEYED :
DATE : APRIL 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

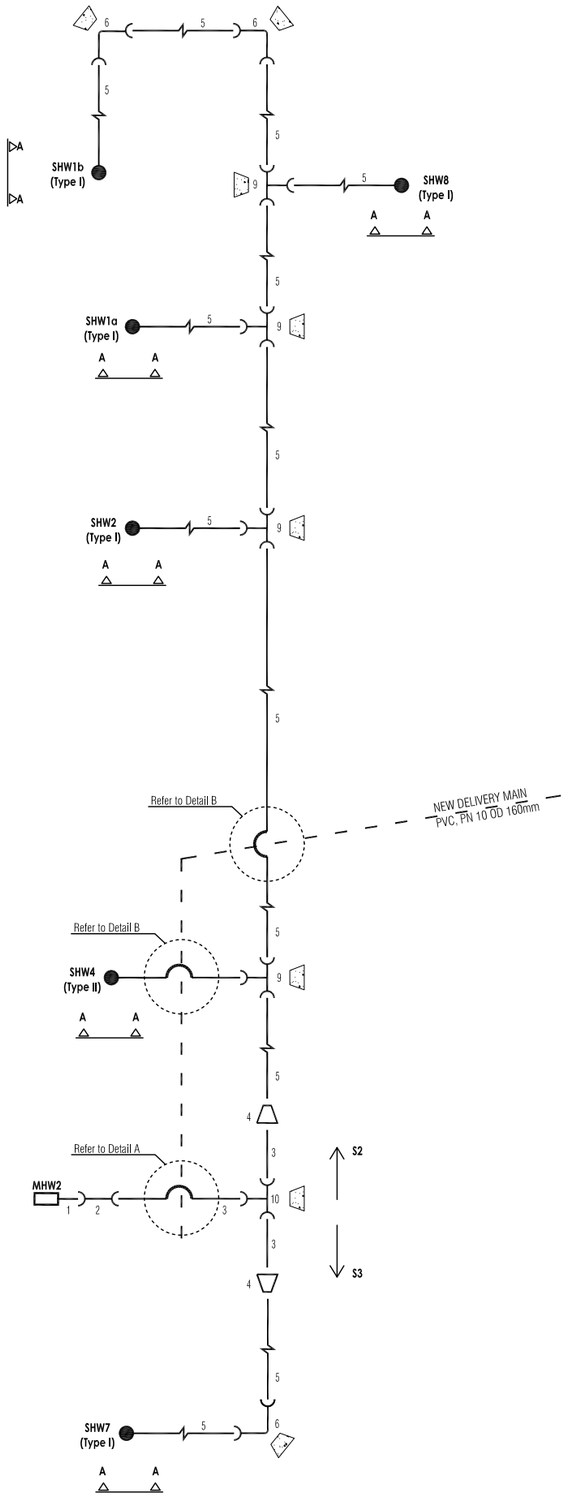
TITLE

LINE DIAGRAM FOR SUBMAIN S1

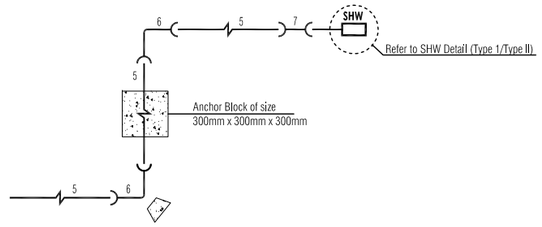
DRG No. **IA 24/PAP-Drip/10**

ISSUE

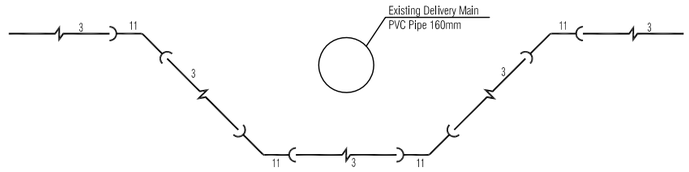
Line Diagram for Submain S2 & S3



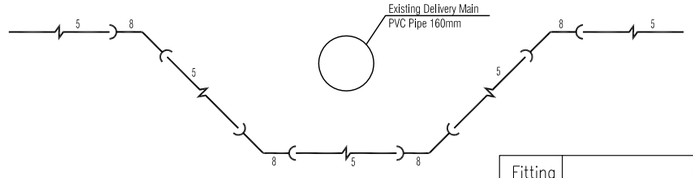
SECTION A-A



DETAIL A - CROSSING DETAILS, 160mm



DETAIL B - CROSSING DETAILS, 90mm



NOTE :
(i) All fittings to be of pressure rating PN 10 unless specified otherwise

(ii) PVC fittings to be solvent weld type (SWT) unless specified otherwise

(iii) Alternative arrangement of fittings allowed subject to approval of Project Manager

Fitting No.	Description	Qty
1	DN 150 Galvanised Steel Pipe 1000mm long with puddle flange centrally positioned flanged to DN 150 on one side and spigotted on other side. External diameter of Spigot end to be similar to PVC Pipe OD 160mm	–
2	DN 150 Flexible Coupling to suit Galvanised Steel Pipe DN 150 on one side and OD 160mm PVC Pipe	1
3	OD 160mm PVC Pipe , PN10	–
4	160 X 90mm PVC Reducer solvent weld type PN10	2
5	OD 90mm PVC Pipe, PN10, solvent weld type	475m
6	90mm PVC bend 90° solvent weld type PN10	15
7	90mm PVC Union solvent weld type PN10	14
8	90mm bend 45°, PVC, solvent weld type, PN10	8
9	90mm, PVC Equal Tee, solvent weld type , PN10	4
10	160mm Equal Tee, PVC, solvent weld type, PN10	1
11	160mm bend 45°, PVC, PN10, Socketed, RRJ Type	4

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : NTS	SURVEYED :
DATE : APRIL 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

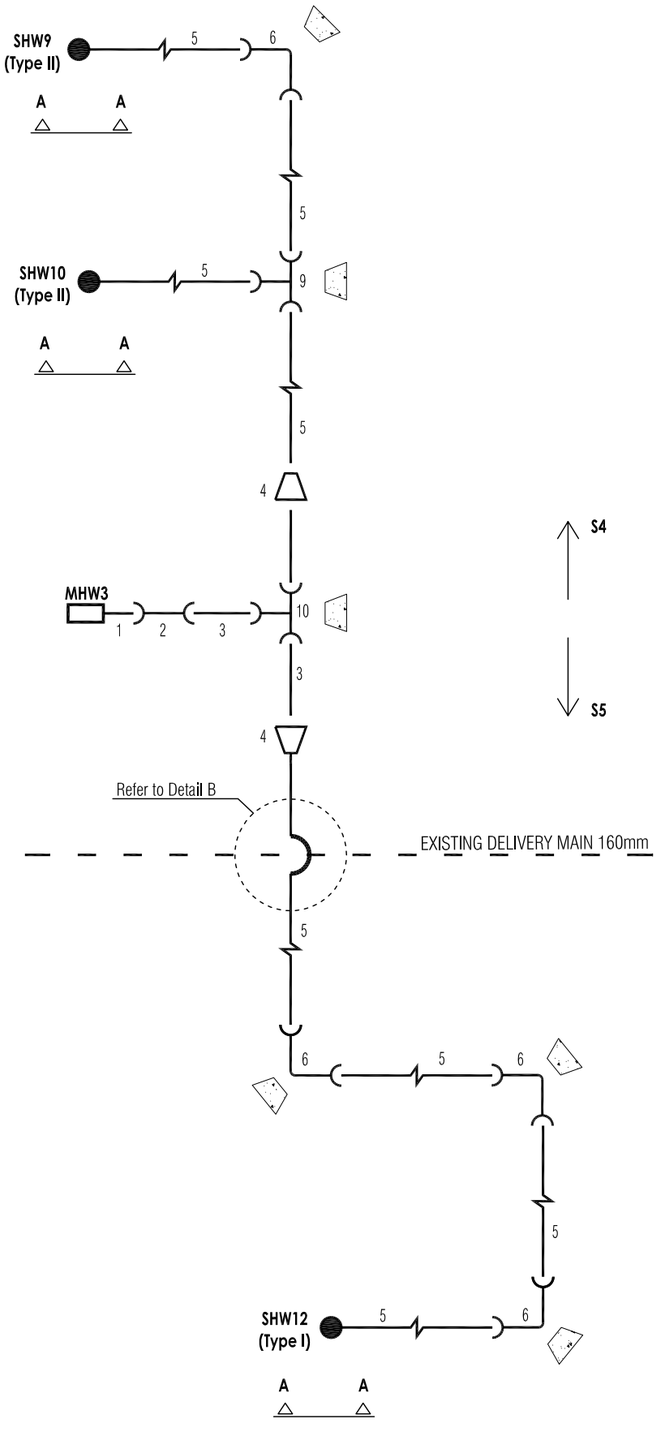
TITLE

LINE DIAGRAM FOR SUBMAIN S2 & S3

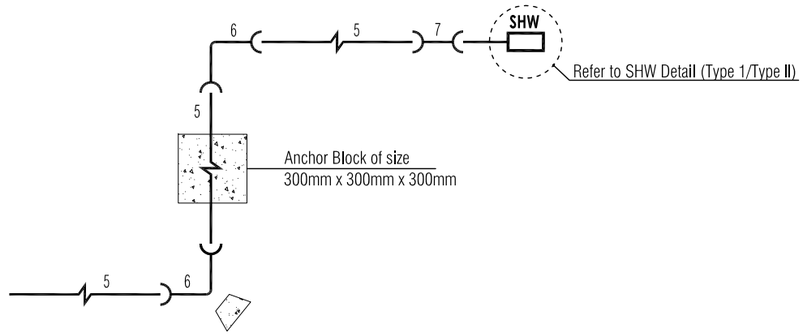
DRG No. **IA 24/PAP-Drip/11**

ISSUE

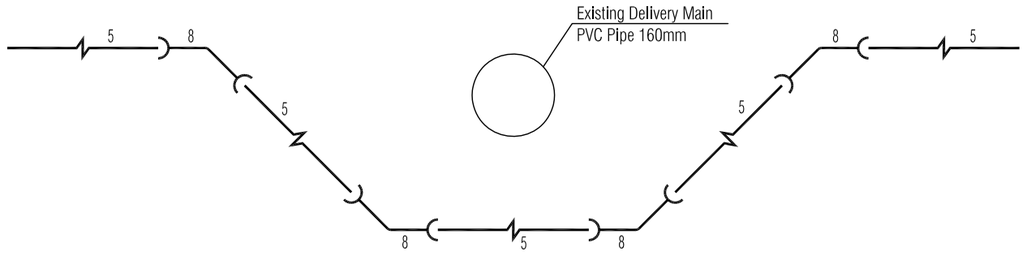
Line Diagram for Submain S4 & S5



SECTION A-A



DETAIL B - CROSSING DETAILS, 90mm



NOTE :
(i) All fittings to be of pressure rating PN 10 unless specified otherwise

(ii) PVC fittings to be solvent weld type (SWT) unless specified otherwise

(iii) Alternative arrangement of fittings allowed subject to approval of Project Manager

Fitting No.	Description	Qty
1	DN 150 Galvanised Steel Pipe 1000mm long with puddle flange centrally positioned flanged to DN 150 on one side and spigotted on other side. External diameter of Spigot end to be similar to PVC Pipe OD 160mm	–
2	DN 150 Flexible Coupling to suit Galvanised Steel Pipe DN 150 on one side and OD 160mm PVC Pipe	1
3	OD 160mm PVC Pipe , PN10	–
4	160 X 90mm PVC Reducer solvent weld type PN10	2
5	OD 90mm PVC Pipe, PN10, solvent weld type	310m
6	90mm PVC bend 90° solvent weld type PN10	10
7	90mm PVC Union solvent weld type PN10	10
8	90mm bend 45°, PVC, PN10	4
9	90mm, PVC Equal Tee, solvent weld type , PN10	1
10	160mm Equal Tee, PVC, solvent weld type, PN10	1

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : NTS	SURVEYED :
DATE : APRIL 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

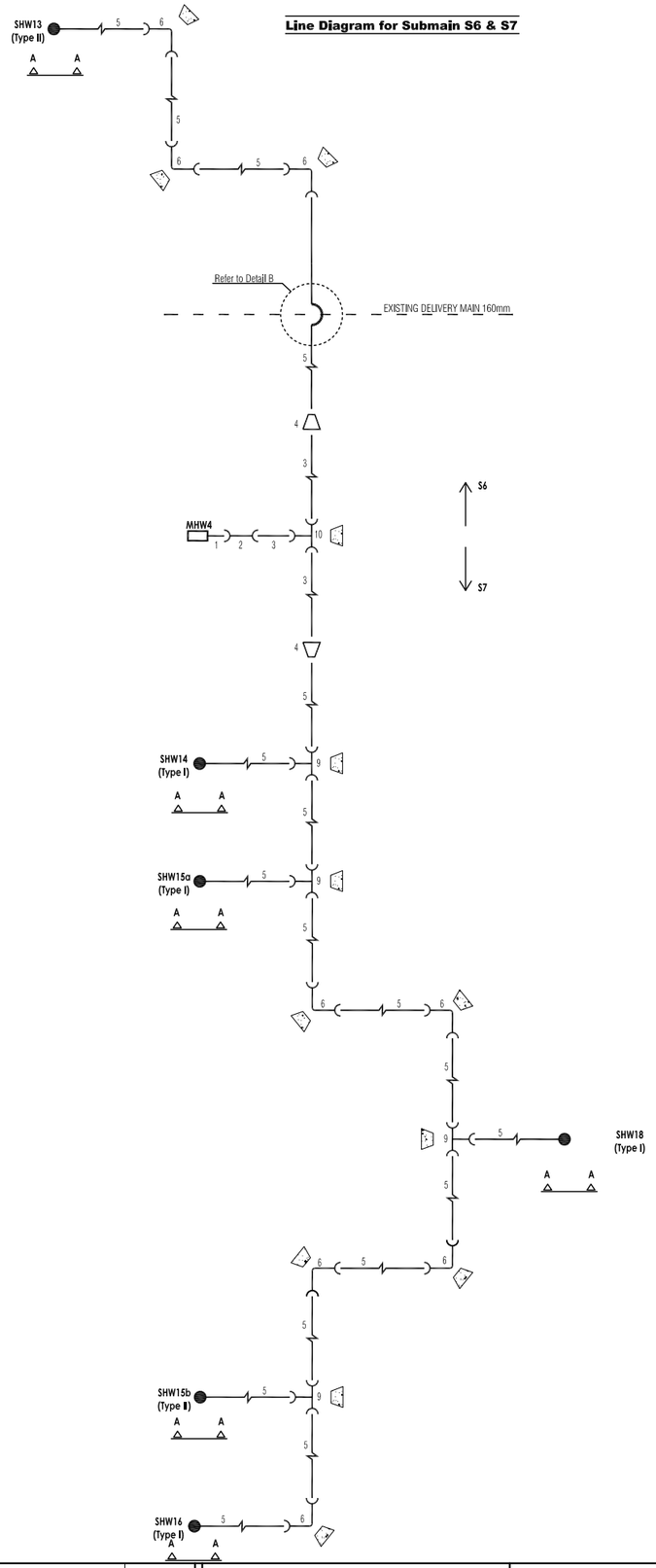
TITLE

LINE DIAGRAM FOR SUBMAIN S4 & S5

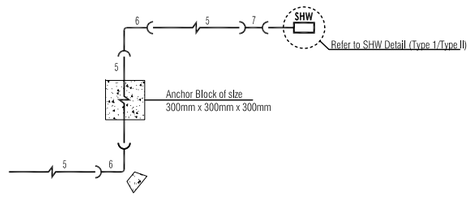
DRG No. **IA 24/PAP-Drip/12**

ISSUE

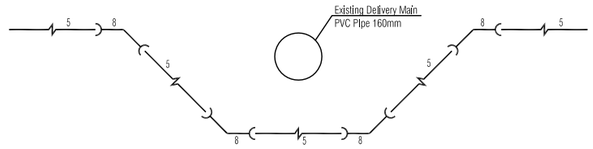
Line Diagram for Submain S6 & S7



SECTION A-A



DETAIL B - CROSSING DETAILS, 90mm



NOTE :
(i) All fittings to be of pressure rating PN 10 unless specified otherwise

(ii) PVC fittings to be solvent weld type (SWT) unless specified otherwise

(iii) Alternative arrangement of fittings allowed subject to approval of Project Manager

Fitting No.	Description	Qty
1	DN 150 Galvanised Steel Pipe 1000mm long with puddle flange centrally positioned flanged to DN 150 on one side and spigotted on other side. External diameter of Spigot end to be similar to PVC Pipe OD 160mm	–
2	DN 150 Flexible Coupling to suit Galvanised Steel Pipe DN 150 on one side and OD 160mm PVC Pipe	1
3	OD 160mm PVC Pipe , PN10	–
4	160 X 90mm PVC Reducer solvent weld type PN10	2
5	OD 90mm PVC Pipe, PN10, solvent weld type	420m
6	90mm PVC bend 90° solvent weld type PN10	20
7	90mm PVC Union solvent weld type PN10	24
8	90mm bend 45°, PVC, solvent weld type, PN10	4
9	90mm, PVC Equal Tee, solvent weld type , PN10	4
10	160mm Equal Tee, PVC, PN10, RRJ Type	1

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : NTS	SURVEYED :
DATE : APRIL 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

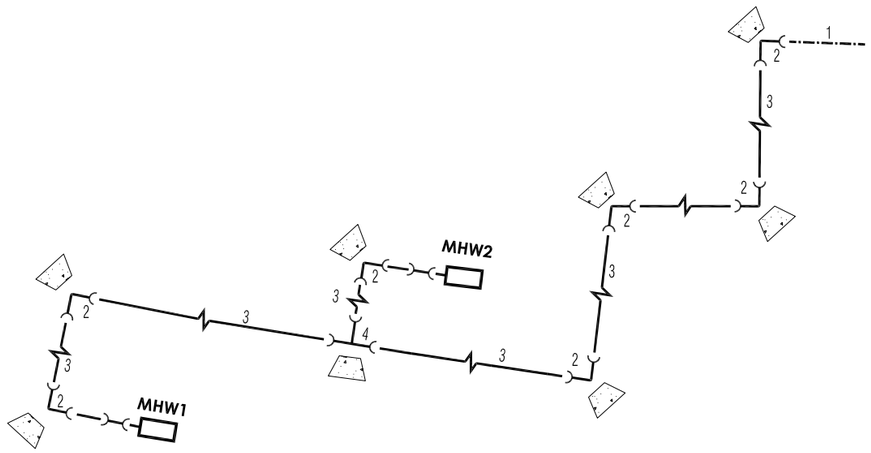
TITLE

LINE DIAGRAM FOR SUBMAIN S6 & S7

DRG No. **IA 24/PAP-Drip/13**

ISSUE

Line Diagram - Extension of Delivery Main from Centre Pivot to MHW1

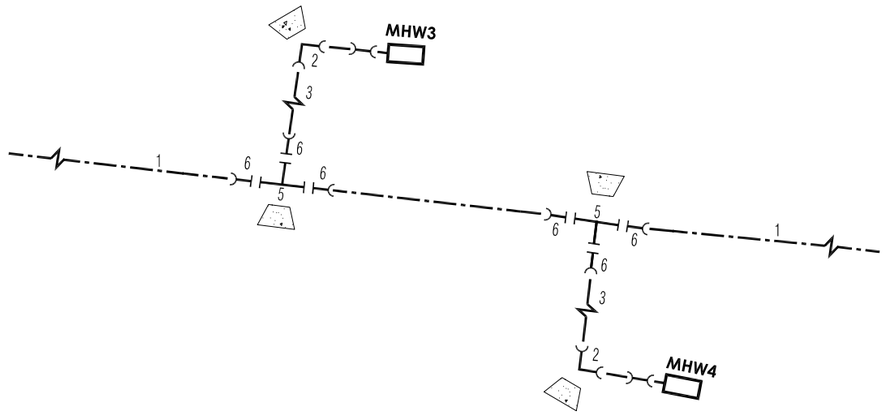


Fitting No.	Description	Qty
1	Existing PVC Pipe OD 160mm	–
2	DN 160 Socketed PVC Bend 90°, RRJ Type, PN 10	7
3	OD 160mm PVC Pipe PN 10, RRJ Type	310m
4	DN 160 PVC Equal Tee (Socketed), RRJ Type, PN 10	1

NOTE :

(i) Alternative arrangement of fittings allowed subject to approval of Project Manager

Line Diagram - Connection of MHW 3 and MHW 4 on Existing OD 160mm PVC Pipe



Fitting No.	Description	Qty
1	Existing PVC Pipe OD 160mm	–
2	Socketed PVC Bend 90°, RRJ Type, 160mm	2
3	OD 160mm PVC Pipe PN 10, RRJ Type	20m
5	DN 150 Galv.Steel Equal Tee Flanged on all three sides	2
6	DN 150 Flange Adaptor to suit PVC Pipe OD 160mm	6

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : NTS	SURVEYED : STA /TO
DATE : APRIL 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Line Diagram	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.

POINTE AUX PIMENTS IRRIGATION PROJECT

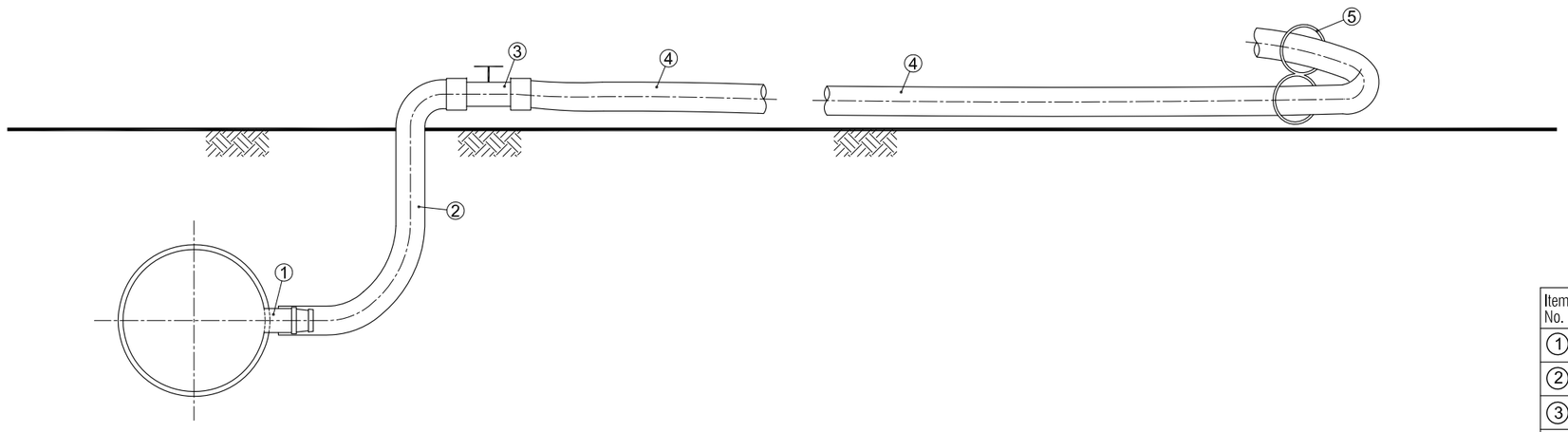
Procurement Reference No. Conv-Piv-Drip/IA/24/01

TITLE

LINE DIAGRAM FOR DELIVERY MAIN

DRG No. **IA 24/PAP-Drip/14**

ISSUE



Item No.	Item Description
①	Insert Connector with Gromet (16 mm)
②	Blind Tube (16 mm)
③	Insert Connector with Stop (16 mm)
④	Dripperline (16mm)
⑤	End Clamp (16mm)

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : S.M
SCALE : 1:2.5	SURVEYED :
DATE : April 2024	CHECKED : D.J
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

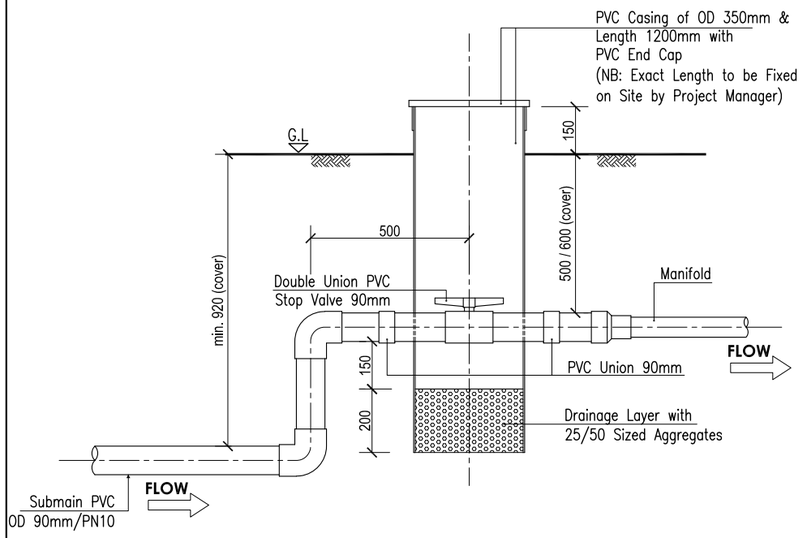
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

TITLE

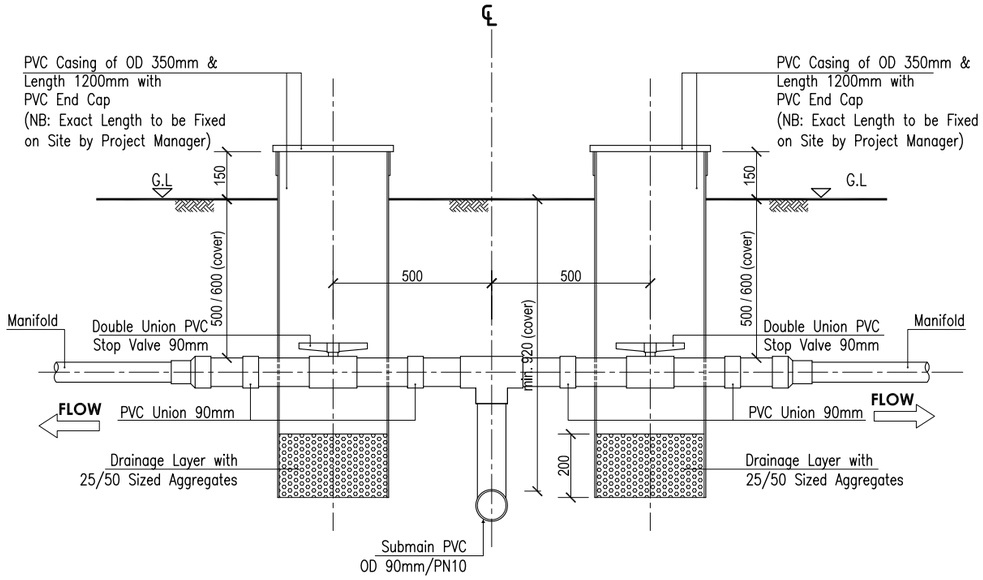
DRIPPERS DETAILS

DRG No. **IA 24/PAP-Drip/15**

ISSUE



TYPE I



TYPE II

TYPICAL ARRANGEMENT OF PVC PIPE OD 90mm & MANIFOLD WITH PVC STOP VALVE INSIDE PVC CASING OD 350mm-TYPE I & II

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : 1:20	SURVEYED :
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

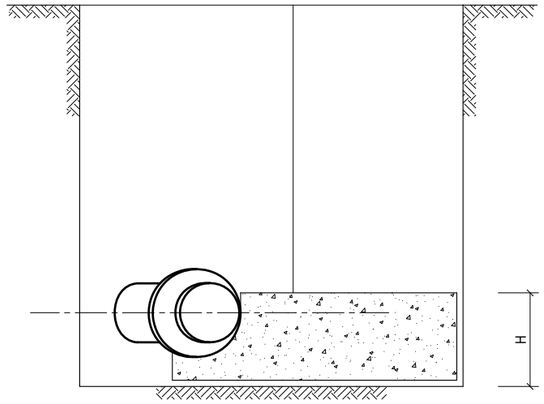
IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

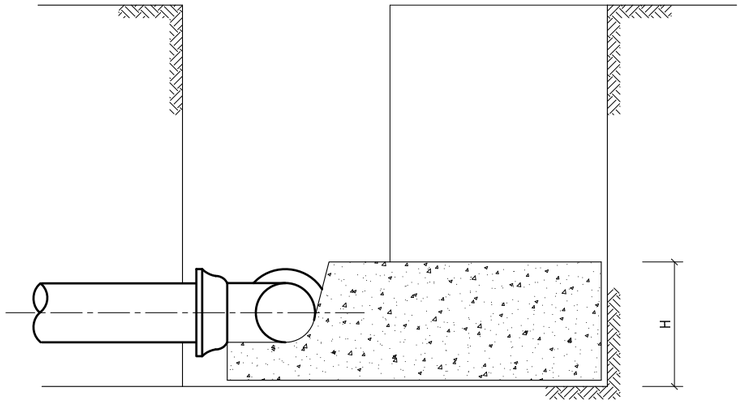
TITLE
TYPICAL ARRANGEMENT OF PVC OD 90 & MANIFOLD WITH PVC STOP VALVE INSIDE PVC CASING OD 350-TYPE I & II

DRG No. **IA 24/PAP-Drip/16**

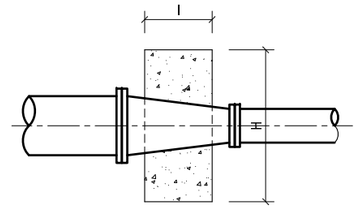
ISSUE



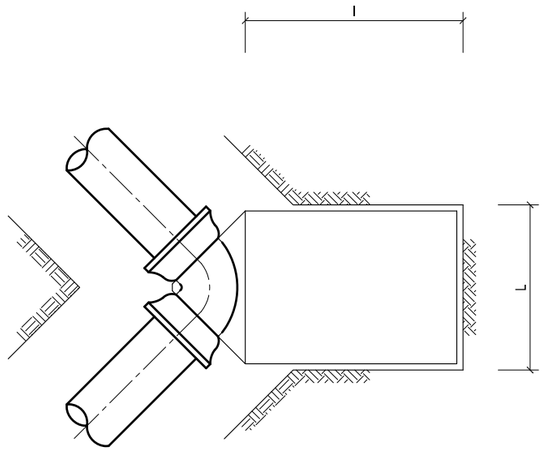
SECTION



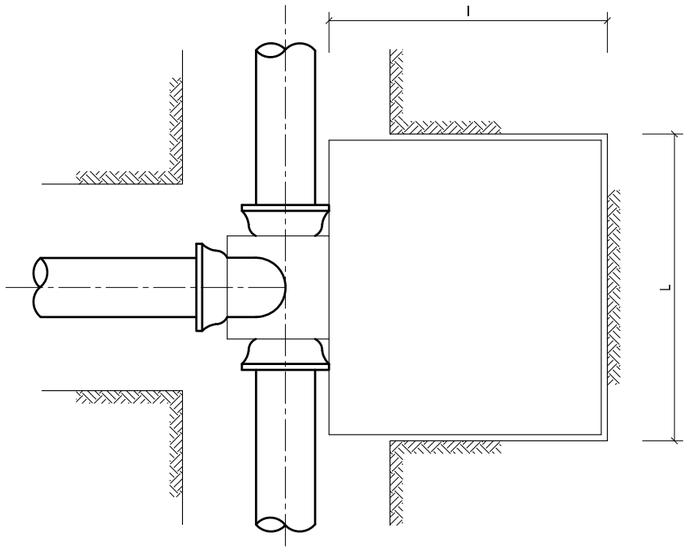
SECTION



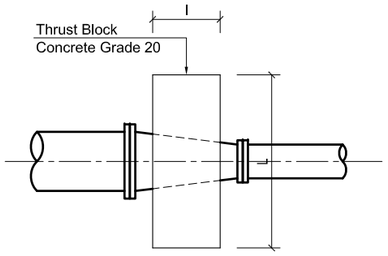
SECTION



BEND



TEE



REDUCER

	BEND				TEE				REDUCER				
	Diameter (mm)				Diameter (mm)				Diameter (mm)				
Angle	160	90	63	32	160 x 160 x 160	150 x 150 x 150	90 x 90 x 90	75 x 75 x 75	63 x 32	75 x 32	90 x 63	90 x 75	160 x 90
	L x H x I(mm)				L x H x I(mm)				L x H x I(mm)				
90	1.0 x 0.9 x 1.0	0.5 x 0.6 x 0.6	0.4 x 0.4 x 0.4	0.3 x 0.3 x 0.3	0.95 x 0.9 x 0.95	0.95 x 0.9 x 0.95	0.5 x 0.5 x 0.5	0.4 x 0.5 x 0.4	0.1 x 0.4 x 0.3	0.1 x 0.4 x 0.3	0.1 x 0.4 x 0.3	0.1 x 0.4 x 0.3	0.7 x 0.7 x 0.7
45	1.0 x 0.9 x 0.9	0.5 x 0.5 x 0.6											

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : N.T.S	SURVEYED :
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

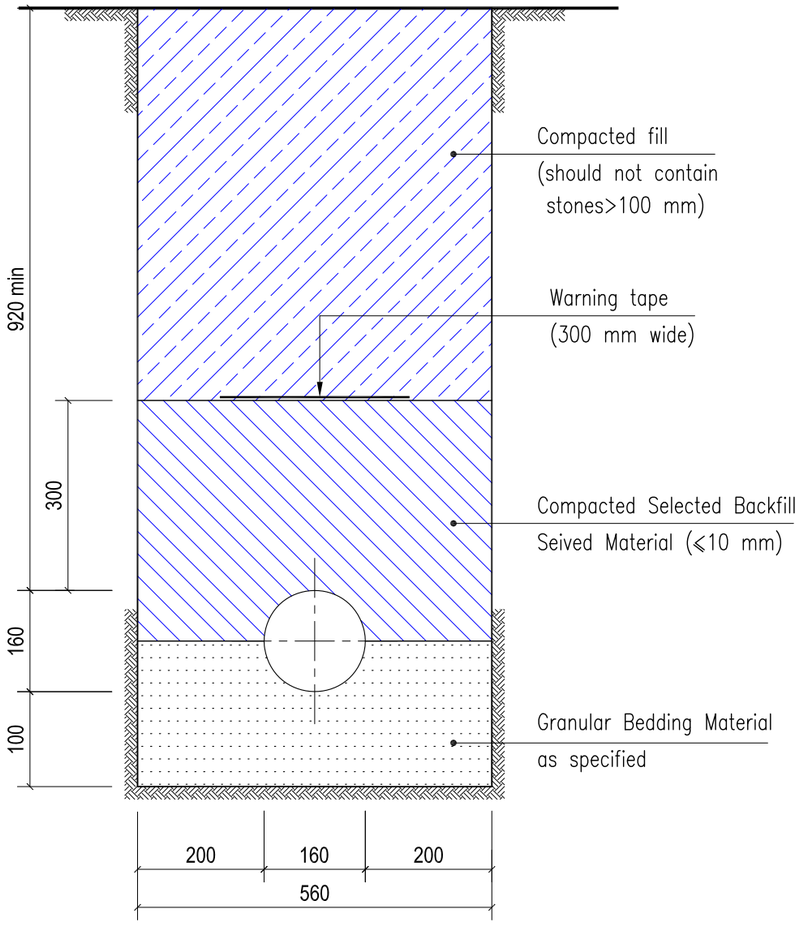
CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No. Conv-Piv-Drip/IA/24/01

TITLE

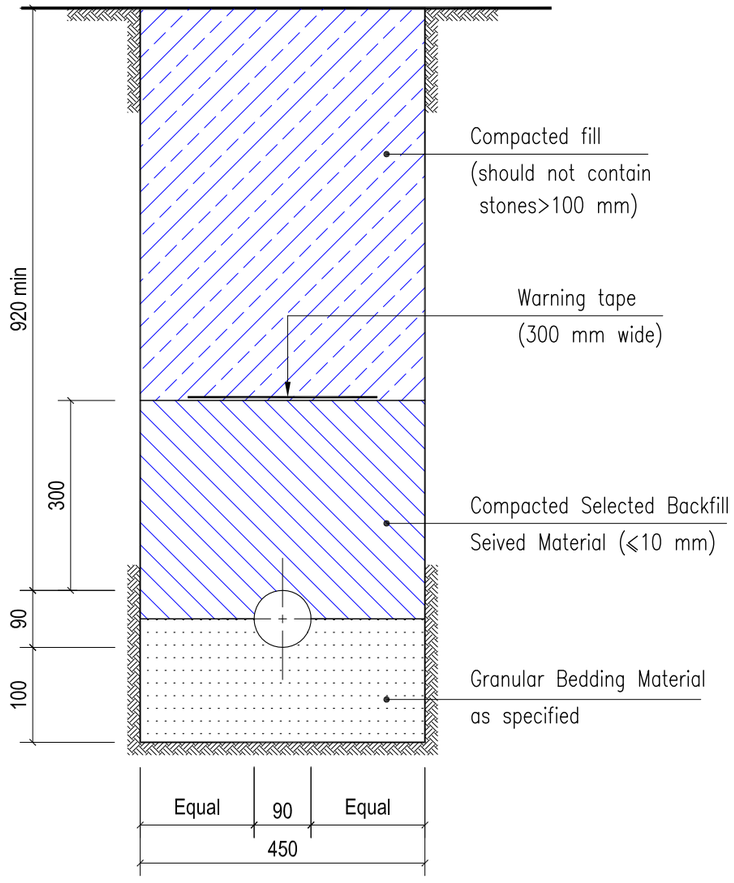
THRUST BLOCK DETAILS

DRG No. **IA 24/PAP-Drip/17**

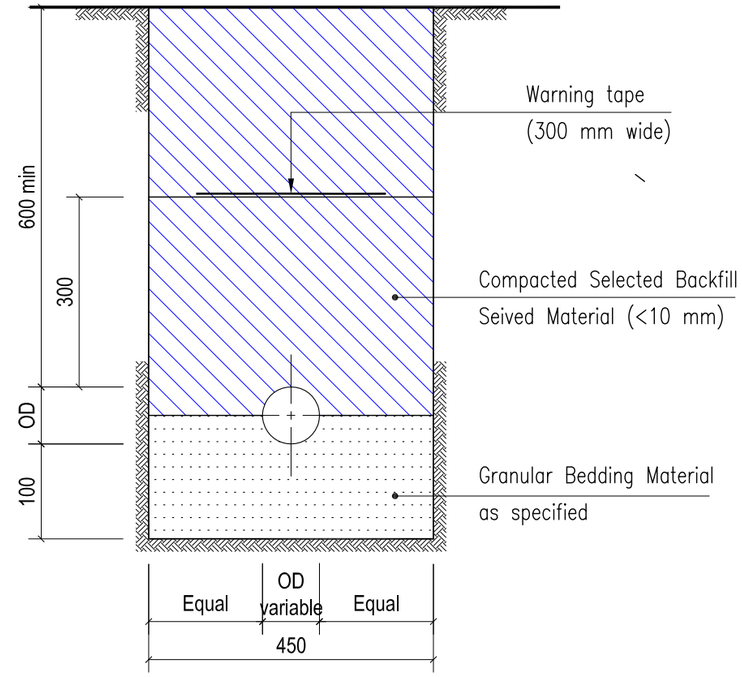
ISSUE



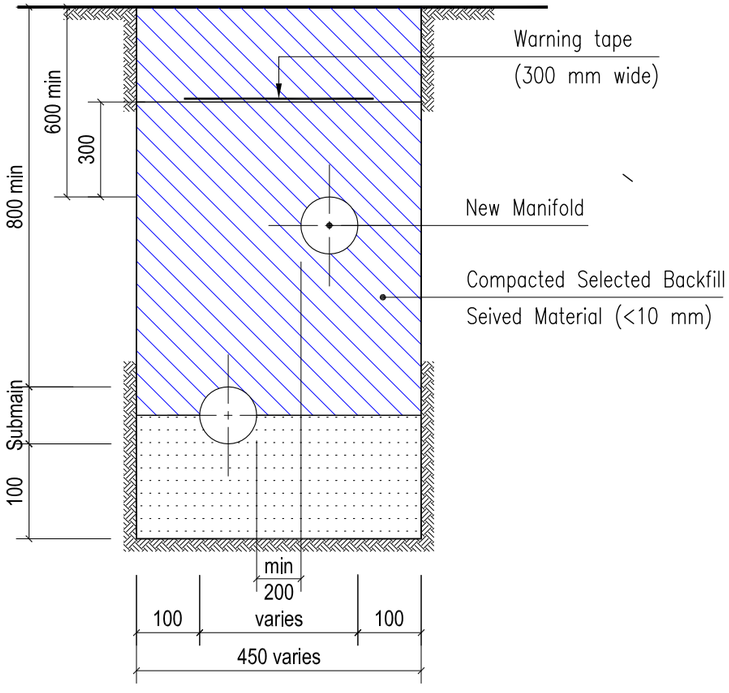
TYPICAL TRENCH SECTION FOR DELIVERY MAIN



TYPICAL TRENCH SECTION FOR SUBMAIN



TYPICAL TRENCH SECTION FOR MANIFOLD (Ø90 ,75 , 63 , 50 mm)



COMMON TRENCH SECTION FOR EXISTING SUBMAIN & NEW MANIFOLD

FOR TENDER

MARK	REVISION	DATE

DRAWN : S.T.D.O (W.R)	DESIGNED : Eng-IPU
SCALE : 1:10	SURVEYED :
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM. POINTE AUX PIMENTS IRRIGATION PROJECT

Procurement Reference No. Conv-Piv-Drip/IA/24/01

TITLE

TRENCH SECTION DETAILS FOR PIPE

DRG No. **IA 23/PAP-Drip/18**

ISSUE

GENERAL

G1. Structural drawings are to be read in conjunction with all ARCHITECTURAL DRAWINGS and specifications and with such other written instruction as may be issued during the course of the contract. All discrepancies shall be referred to the Project Manager for decision before proceeding with the works and/or ordering materials.

G2. All dimensions and levels relevant to setting out and off site work shall be verified by the contractor before construction and fabrication is commenced. THE DRAWINGS SHALL NOT BE SCALED.

G3. Workmanship and materials are to be in accordance with the relevant Mauritian standards or British Standards [in absence of Mauritian Standards] and local statutory authorities regulations.

G4. During construction the contractor shall be responsible for maintaining the structure in a stable condition and ensuring no part shall be overstressed under construction activities.

G5. The written approval of a substitution of material along with the costs implications, if any, shall be sought by the Contractor from the Project Manager before proceeding with work and/or ordering materials.

G6. All dimensions are in millimetres unless stated otherwise. All levels are expressed in metres unless shown otherwise.

STRUCTURAL CONCRETE

C1. All workmanship and materials shall be in accordance with BS 8110 - The Structural Use of Concrete.

C2. Construction of water retaining structure shall be in accordance with BS 8007 - Concrete Structures for Retaining Aqueous Liquids

C3. Minimum cover (mm) to all reinforcement unless otherwise shown shall be as follows:-

Element	Cover(mm)
(a) Foundation against earth face	75
(b) Foundation against blinding	50
(c) Wall below ground or against water face	40 to vertical outer bars
(d) Column > 200 mm	35
< 200 mm	30
(e) Ground beams	30
(f) Beams	30
(g) Slab on fill	30
(h) Suspended slabs	25
(i) Reinforced concrete wall	30 to vertical outer bars

(d), (e), (f): to links

The above covers may be decreased by 5mm for concrete surfaces to be finished with cement mortar rendering / screed.

C3. Sizes of concrete elements do not include thickness of applied finishes.

C4. Beam depths are written first and include slab thickness.

C5. No holes, chases or embedment of pipes other than those shown on the structural drawings shall be made in concrete members without prior written approval of the Project Manager.

C6. Construction joints shall be properly formed as specified and made only where shown or specifically approved by the Project Manager.

C7. Reinforcement is represented diagrammatically and not necessarily shown in true projection.

C8. Splices in reinforcement shall be made only in the positions shown or as otherwise approved by the Project Manager.

C9. Welding of reinforcement and /or use of approved couplers with threaded bars shall not be permitted without the approval of the Project Manager.

C10. All reinforcement shall be securely supported in its correct position during concreting by approved bar chairs, spacers or support bars.

C11. Reinforcement shall be checked by the Project Manager and a written approval of the Project Manager should be obtained before concreting.

C12. Reinforcement symbols

All reinforcement of concrete & fabric reinforcement to comply with MS 10, MS 34 & MS 35 Mauritian Standard for steel bars for the reinforcement of concrete.

T- Hot rolled deformed bar - grade 460 (i.e. minimum yield strength 460 N/mm^2)

R - Structural grade mild steel plain round bar - grade 250 N/mm^2)

The number following the bar symbol is the nominal bar diameter in millimetres.

C13. Concrete grades shall be as follows unless shown otherwise on drawings:-

Element	Grade of Concrete	Fcu (Mpa)
All structural concrete Unless otherwise specified	30/20	30 - (Characteristic Cube Strength of 30 N/mm^2 at 28 days)
Water tanks	35/20	35 - (Characteristic Cube Strength of 35 N/mm^2 at 28 days)

FOUNDATION

F1. All materials and workmanship shall be in accordance with BS 8004 Code of Practice for Foundations where not inconsistent with the specification.

F2. Pad and strip footing shall be founded at depth below ground level shown on the drawings or as instructed on site by Project Manager. Project Managers written approval is required before blinding of any foundation.

CONCRETE BLOCKWORK

B1. All workmanship and materials shall be in accordance with BS 5628 -Code of practice for use of masonry.

B2. Concrete block shall be manufactured in accordance with BS 6073 - Precast concrete masonry units. They shall be cellular blocks of Grade A with average compressive strength of 3.5 N/mm2. Size of concrete block shall be 457 x 203 x 200 thick or 150 thick unless otherwise specified.

B3. The mortar for laying blocks shall consist of 1 part Portland cement : 3 to 4 parts of washed sand and an approved plasticiser unless otherwise specified.

B4. Brick reinforcement to masonry blockwall shall be as shown on the drawings.

B5. Reinforced concrete infill to blockwork where required shall be of Grade 20/10 with reinforcement as specified.

B6. All concrete blocks to be laid first before concreting of columns and beams unless otherwise shown.

STRUCTURAL STEELWORK

S1. All workmanship and materials shall be in accordance with BS 5950 - The Structural use of Steelwork in Buildings where not inconsistent with the specifications.

S2. Welding shall be performed by an experienced operator in accordance with BS 4870 (Part 1) - Fusion welding of steel. All welding rods shall comply with BS 639 and general requirements for metal Arc welding for mild steel shall comply with BS 5135

S3. Bolts not designated shall be grade 8.8. All bolts shall conform to BS 4190 and / or BS 3692 as, appropriate and shall be hot dipped galvanised to BS 729 with minimum coating of 600 gms/m^2.

S4. All metal washers shall comply with BS 4320 and shall be hot dipped galvanised to BS 729 (600 gms/m^2) i.e. 85 microns on each face.

S5. The contractor shall provide and leave in place until permanent bracing elements are constructed such temporary bracing as is necessary to stabilize the structure during erection.

S6. Unless otherwise specified all steelwork shall be hot dipped galvanised as specified.

S7. The ends of all tubular members are to be sealed with nominal thickness plates and continuous fillet weld unless otherwise shown.

S8. All plates shall be of grade 43A to BS 4848 (part 1 & 4). All rectangular, circular & square hollow sections and other structural steel sections shall be of grade 43A and comply with BS 4848 (Part 2) and shall be hot dipped galvanised to BS 729 with minimum coating (combining all surface areas) of 600 gms/m^2, i.e. 85 microns.

S9. Painting to structural steel shall be as specified for galvanised steel.

S10. All welding shall be 6mm continuous fillet weld unless otherwise shown.

FOR TENDER

MARK	REVISION	DATE

DRAWN : W.R	DESIGNED : Eng-IPU
SCALE : N.T.S	SURVEYED :
DATE : April 2024	CHECKED : P.E-IPU
FILE NAME : Pointe aux Piments Details	APPROVED : HIPU

PROJECT

IRRIGATION AUTHORITY

CONVERSION OF EXISTING PIVOT IRRIGATION SYSTEM INTO DRIP IRRIGATION SYSTEM.
POINTE AUX PIMENTS IRRIGATION PROJECT
Procurement Reference No.Conv-Piv-Drip/IA/24/01

TITLE: STRUCTURAL NOTES

DRG No. **IA 24/PAP-Drip/19**

ISSUE