



HYDROUSA

H2020-CIRC-2-2017

Water in the context of circular economy

Full project title:

Demonstration of water loops with innovative regenerative business models for the Mediterranean region

Deliverable: D17

Relative Number in WP3: D3.4

Constructed wetland installed and operating

Annex 1

As built drawings

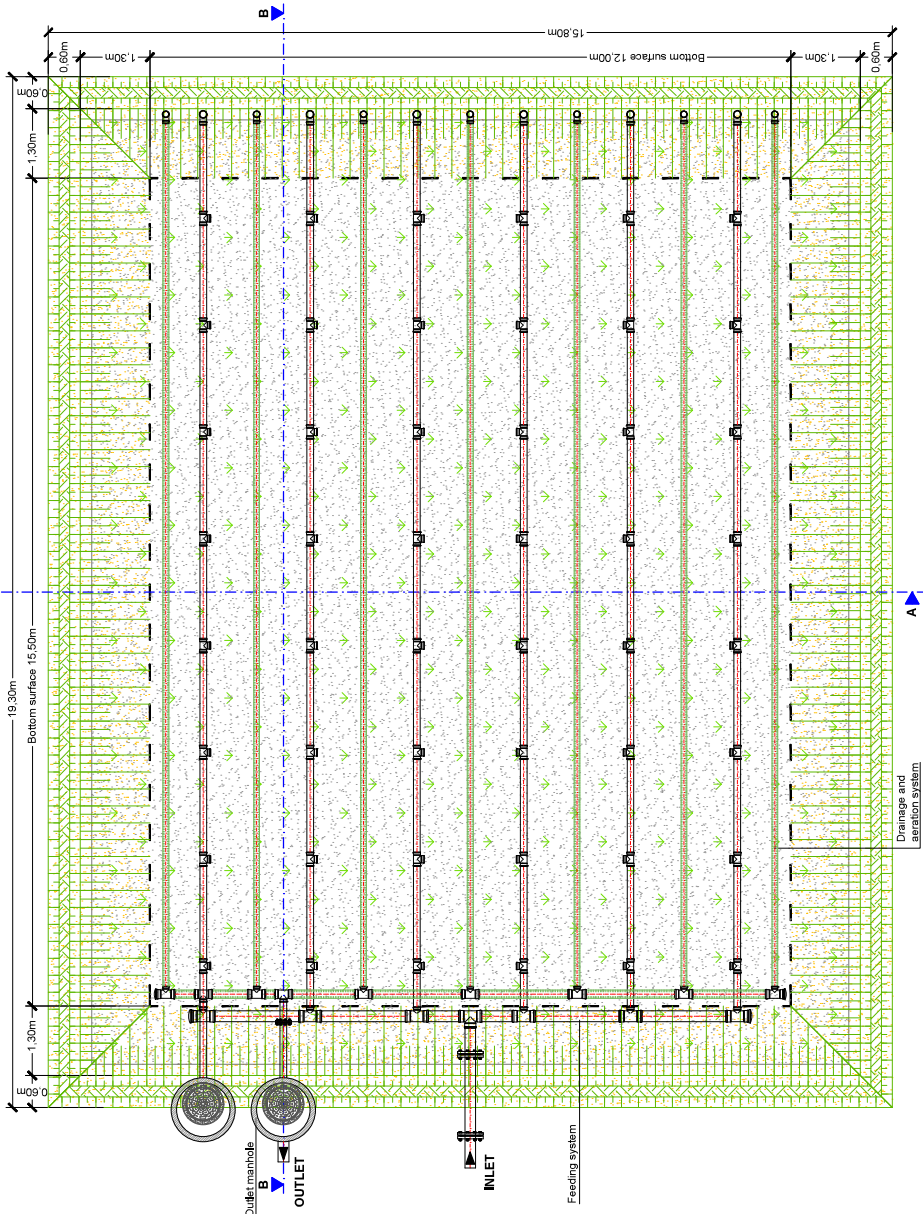
Due date of deliverable: June 30th, 2020

Submission date of revised deliverable: March 12th, 2024

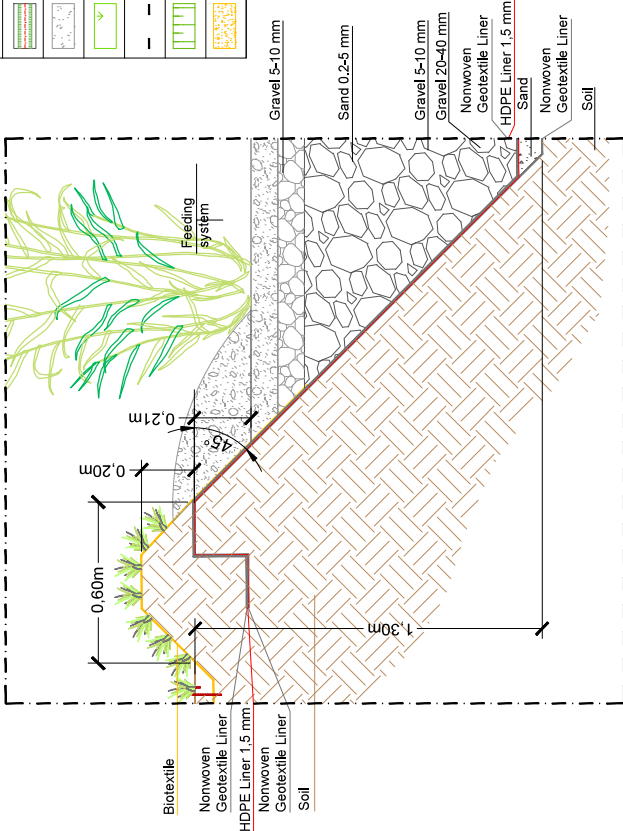


PLAN - VF1 SAT
Scale 1:50

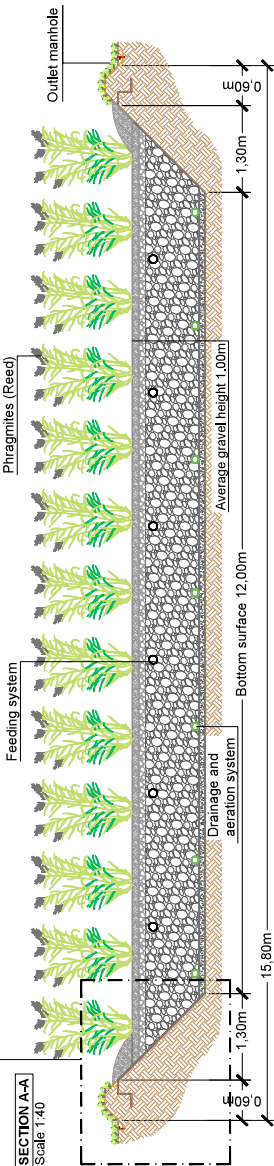
LEGEND VF PLAN	
	Drainage system
	Bed media
	Phragmites australis
	Bottom bed
	Banks
	Bioreactor



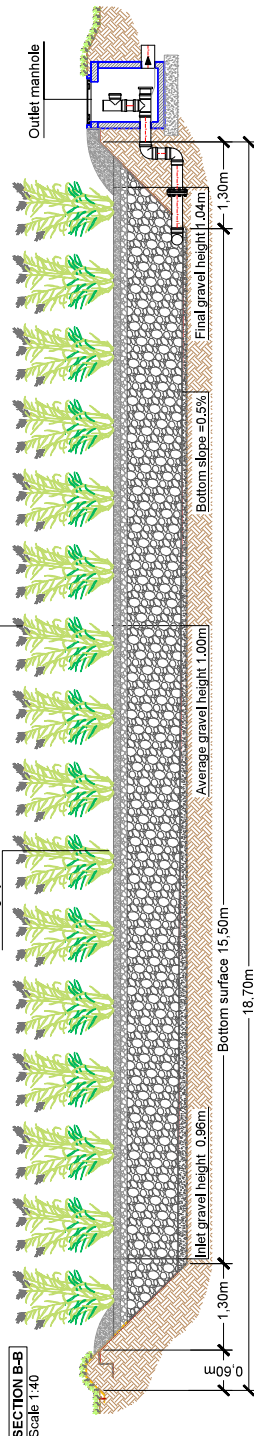
DETAIL ZOOM
Scale 1:10



SECTION A-A
Scale 1:40



SECTION B-B
Scale 1:40



Heights and types Aggregates	
10cm	Gravel 5-10 mm
10cm	Gravel 10-20 mm
80cm	Gravel 30-50 mm
Average medium depth 1.00 m	

Lesvos (Greece)

HYDROUSA - D3.2
As built constructed wetland



Elaborated by:
HydroUSA
VIA A. 1554/1720 - 1711 - 1554/1720

Supervision:
HydroUSA
VIA A. 1554/1720 - 1711 - 1554/1720

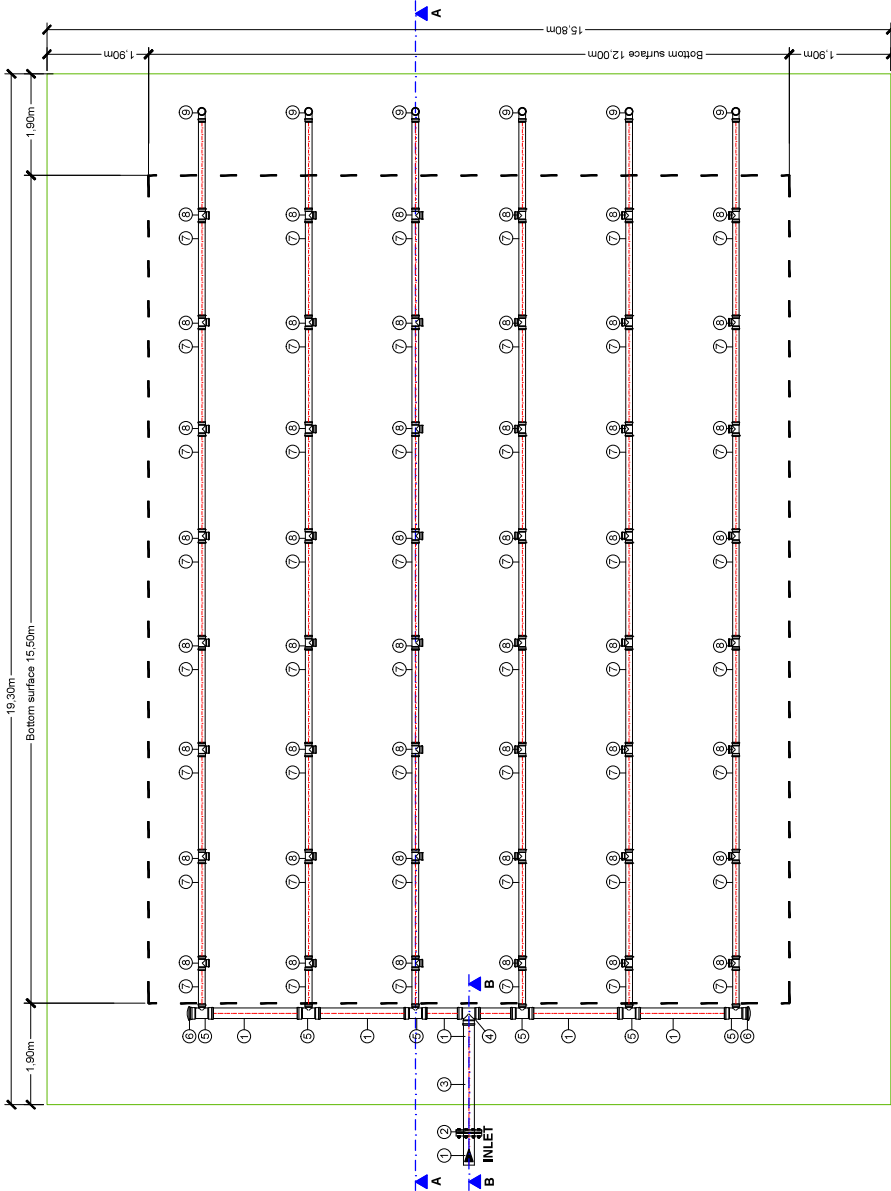
Scale:
Drawing A4.1
VF1 SAT - Plan and section

Nº 2
Date:
2021

Author:
HydroUSA

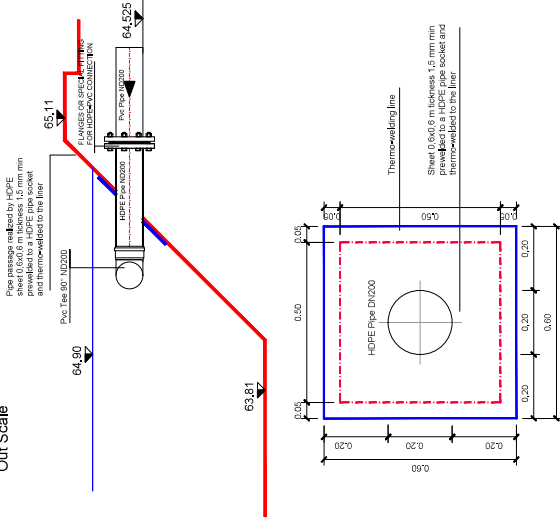
FEEDING SYSTEM - VF1 SAT

Scale 1:50



VF1 SAT - INLET

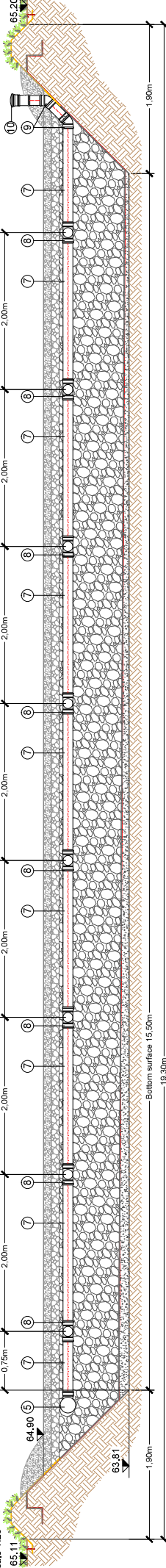
Out Scale



LEGEND	
①	Pvc ND200
②	Flanges for HDPE-Pvc transition ND200
③	Flange ND200 Pn10
④	Pvc Tee 90° ND200
⑤	Pvc reducer Tee 90° ND200x125
⑥	Pvc plug ND200
⑦	Pvc ND125
⑧	Pvc Tee 90° ND125
⑨	Pvc Elbow 45° ND125
⑩	PVC screw plug DN125

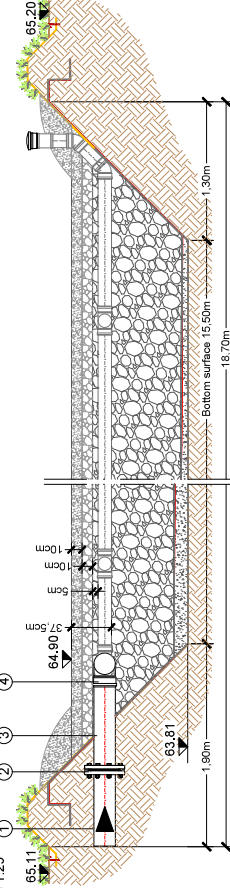
SECTION A-A

Scale 1:25



SECTION B-B

Scale 1:25



Leivos (Greek)

HYDROUSA - D3.2
As built constructed walland

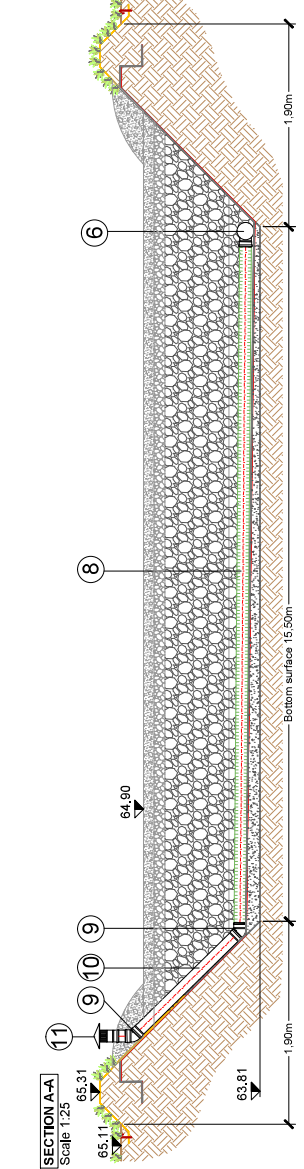
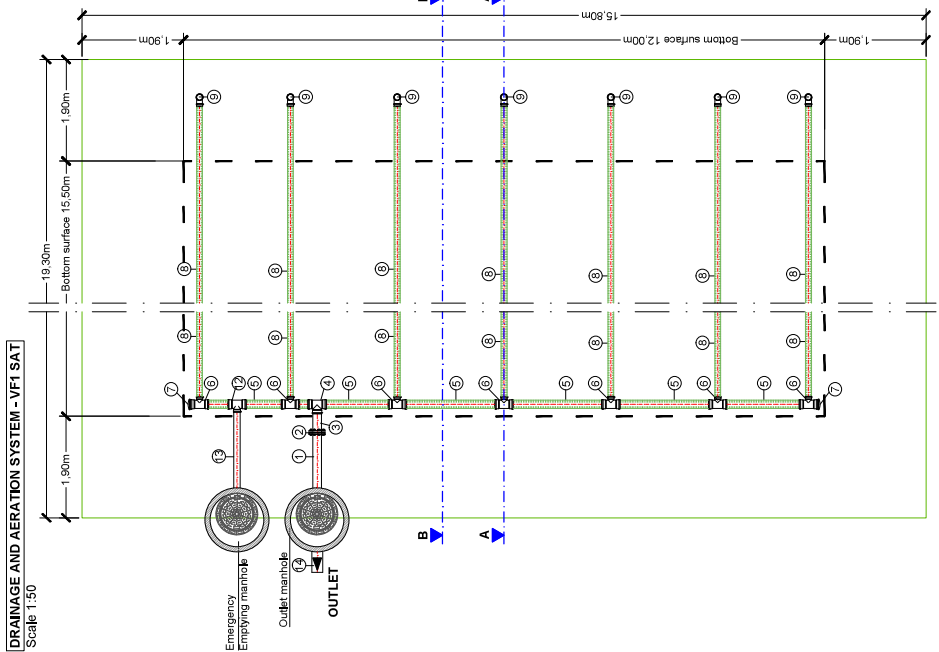


IRIDRA
Water Management Solutions
654-470224 - Fax: 654-470225

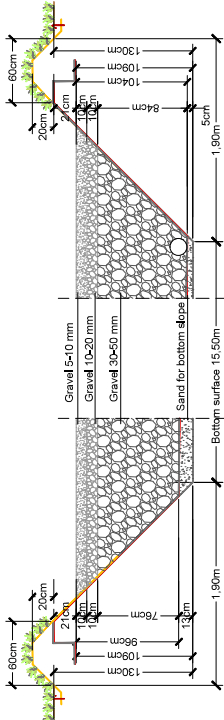
Designed by Irene S. Papadimitriou		Supervision Fotios Moutakas	
Scale Drawing n°4.2		Status Final	
Date January 2021		Project VF1 SAT - feeding system	

DRAINAGE AND AERATION SYSTEM - VF1 SAT Scale 1:50

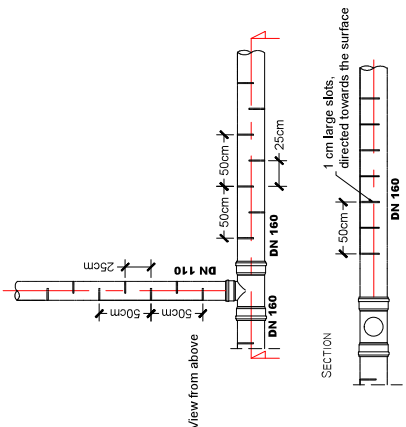
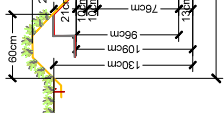
LEGEND	
①	Pvc ND160 Sx4
②	Flanges for HDPE-Pvc transition ND160
③	Pead ND160
④	Pvc Tee 90° ND160
⑤	Pvc slotted ND160
⑥	Pvc reducer Tee 90° ND160-110
⑦	Pvc plug ND160
⑧	Pvc elbow ND110
⑨	Pvc elbow 45° ND110
⑩	Pvc ND110 Sx4
⑪	Chimney ND110
⑫	Pvc reducer Tee 90° ND160-125
⑬	Pead ND125 Sx4



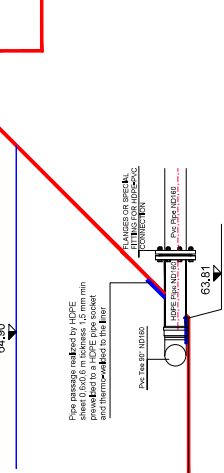
SECTION B-B Scale 1:25 **INLET GRAVEL HEIGHT**



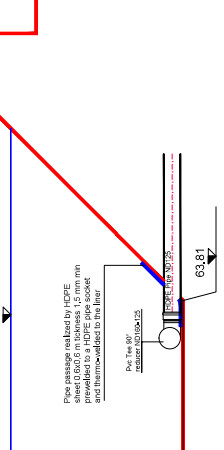
SECTION B-B Scale 1:25 **OUTLET GRAVEL HEIGHT**



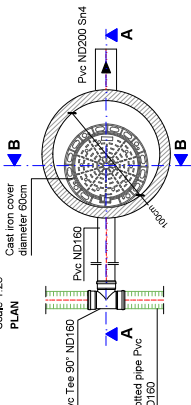
VF1 SAT - OUTLET MANHOLE WITH WATER LEVEL CONTROL DEVICE Out Scale



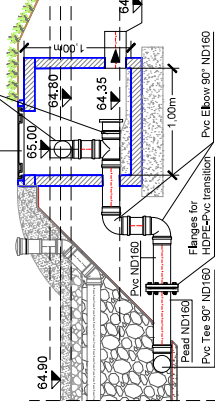
VF1 SAT - EMPTYING MANHOLE WITH GATE VALVE Out Scale



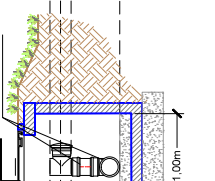
OUTLET MANHOLE WITH WATER LEVEL CONTROL DEVICE Scale 1:25 PLAN



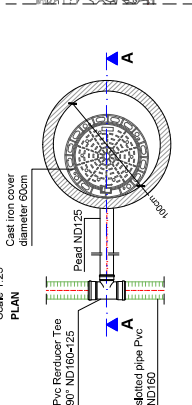
CROSS SECTION A-A



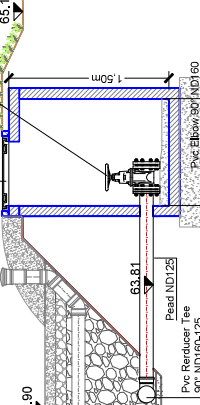
CROSS SECTION B-B



EMERGENCY EMPTYING MANHOLE WITH GATE VALVE Scale 1:25 PLAN



CROSS SECTION A-A



Lesvos (Greece)

HYDROUSA - D3.2
An Audit conducted within

Nº 2	Client	Drawing Nº 43	Scale
January 2021	VF1 SAT - Drainage system	1/1	1:50
Author	Project Manager	Supervisor	Rev
HydroUSA	Fabrizio Manti	Fabrizio Manti	1/1

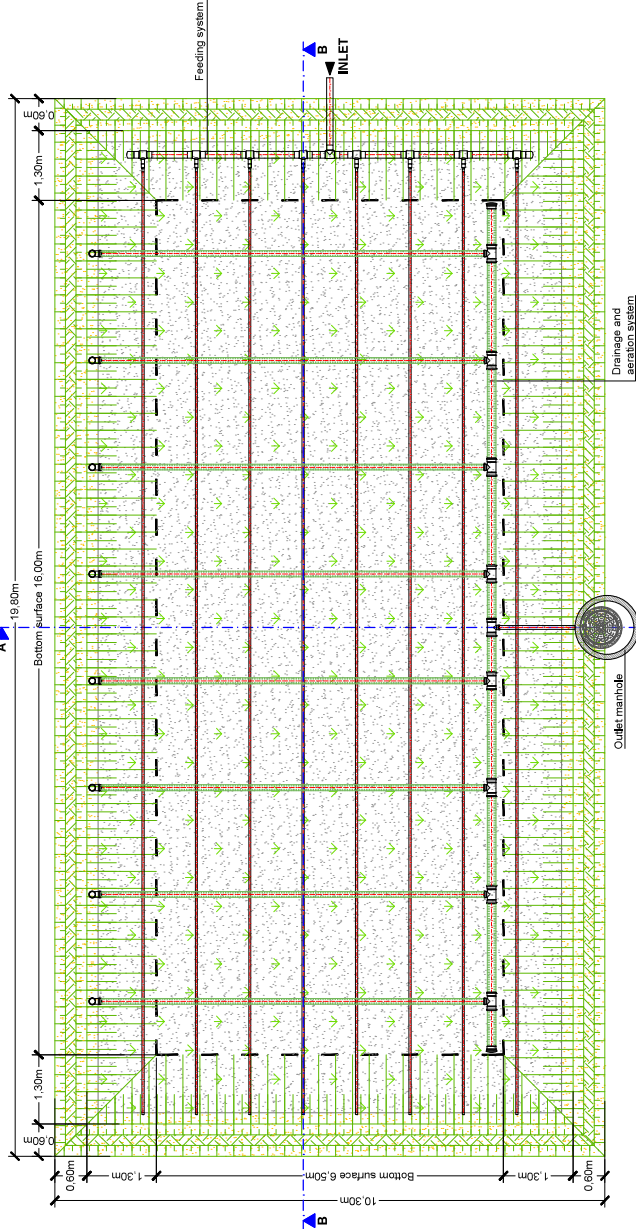


HydroUSA S.p.A.
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40064 Casalecchio di Reno (BO) - Italy
Tel. +39 051 497277 - Fax. +39 051 497278

PLAN - VF2 UNSAT - LINE A

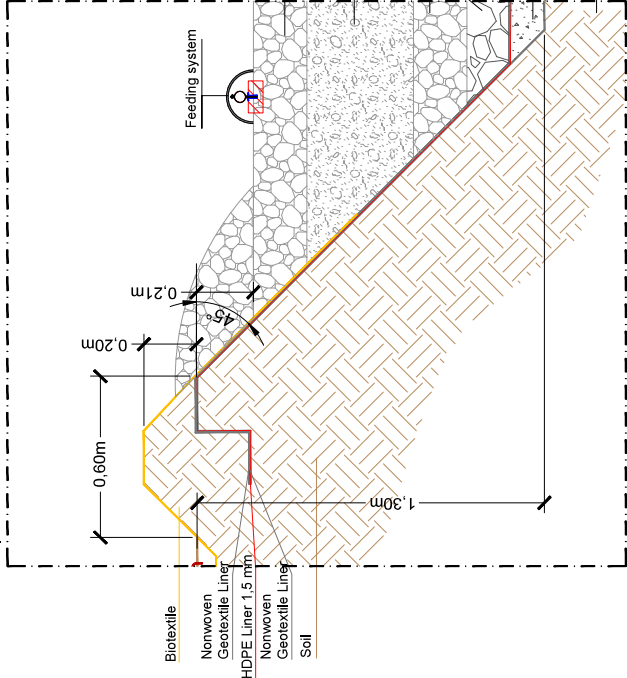
Scale 1:50

LEGEND VF PLAN	
	Drainage system
	Bed media
	Iris Pseudocorus
	Bottom bed
	Banks
	Biotextile



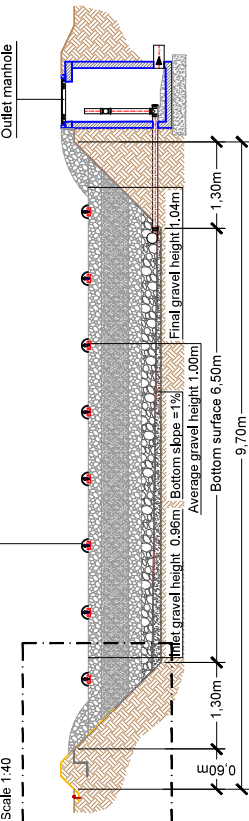
DETAIL ZOOM

Scale 1:10



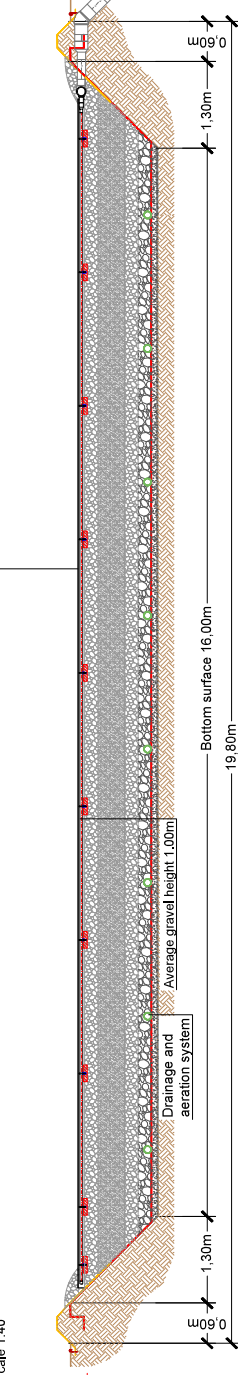
SECTION A-A

Scale 1:40



SECTION B-B

Scale 1:40



Heights and types Aggregates	
20cm	Gravel 5-10 mm
40cm	Sand 0.2-5 mm
20cm	Gravel 5-10 mm
20cm	Gravel 20-40 mm
Average medium depth 1.00 m	

Lesvos (Greck)

HYDROUSA - D3.2
As built constructed wetland

Scale: 1:50
Drawing n°5.1

Date: January 2021
Description: VF2 UNSAT Bed A - Plan and sections

Supervisor: Fokas Matis
RD

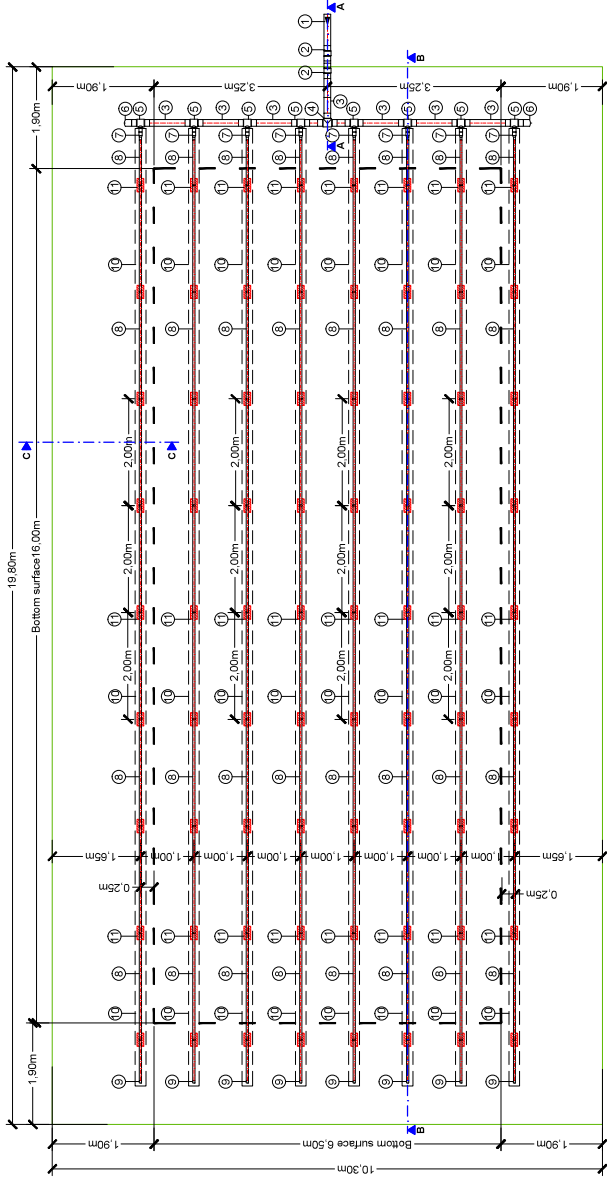
Author: Fokas Matis



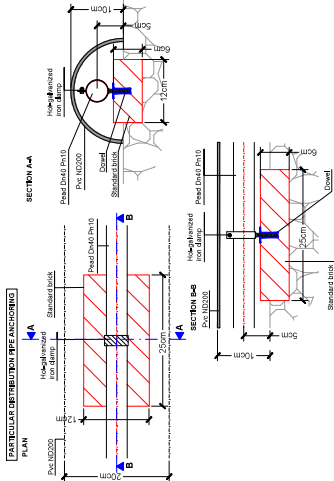
VM A - La Mersone 02-00127 Firenze Tpk
02-00127 Firenze Tpk
02-00127 Firenze Tpk

FEEDING SYSTEM - VF2 UNSAT - LINE A

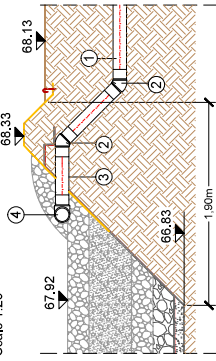
Scale 1:50



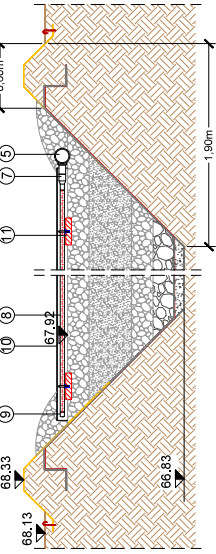
LEGEND	
①	Plead ND125 Pn10
②	Plead Elbow 45° ND125 Pn10
③	Plead ND125 Pn10
④	Plead Tee 90° ND125 Pn10
⑤	Plead reducer Tee 90° ND125-40 Pn10
⑥	Plead plug ND125 Pn10
⑦	Plead reducer ND65-40 Pn10
⑧	Plead ND40 Pn16 drilled every meter
⑨	Plead plug ND40 Pn16
⑩	Pvc ND200 S12 cut in half
⑪	Distribution pipe anchoring



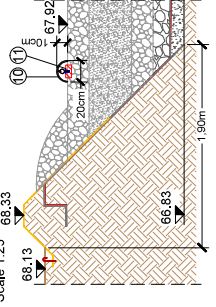
SECTION A-A
Scale 1:25



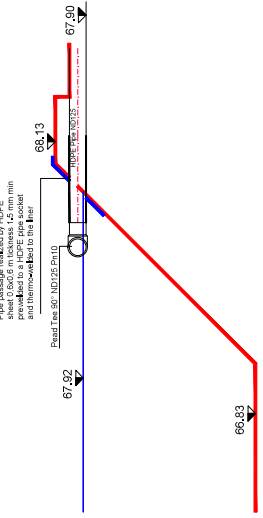
SECTION B-B
Scale 1:25



SECTION C-C
Scale 1:25



VF2 UNSAT - LINE A - INLET
Our Scale



Lesvos (Greek)

HYDROUSA - D3.2
A full constructed wetland

№ 2
January 2021

Drawing n° 5.2
VF2 UNSAT Line A - Feeding system

Scale
Status

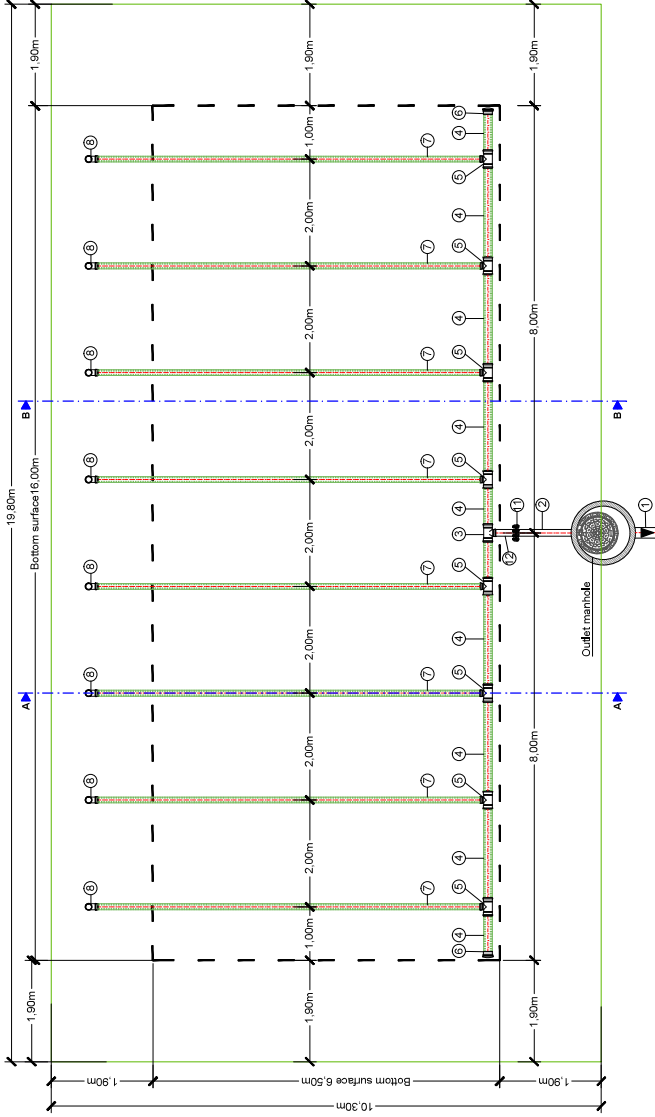
Supervision
Fotios Sotiropoulos

PRO



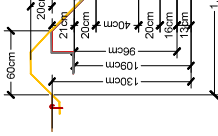
IRIDRA
Via A. 654-6729 - P.le. 654-6729
654-6729 - P.le. 654-6729

Scale 1:50

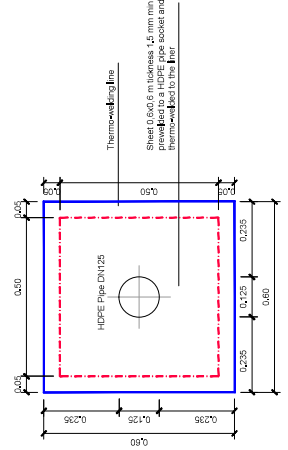
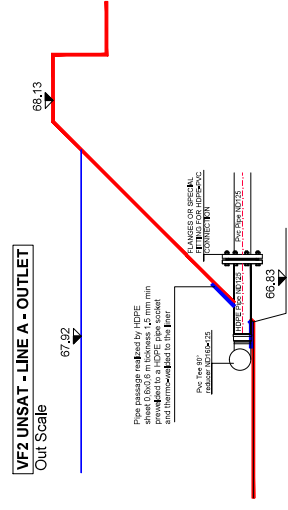
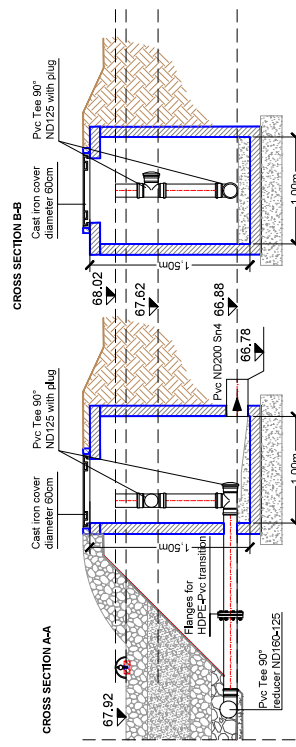
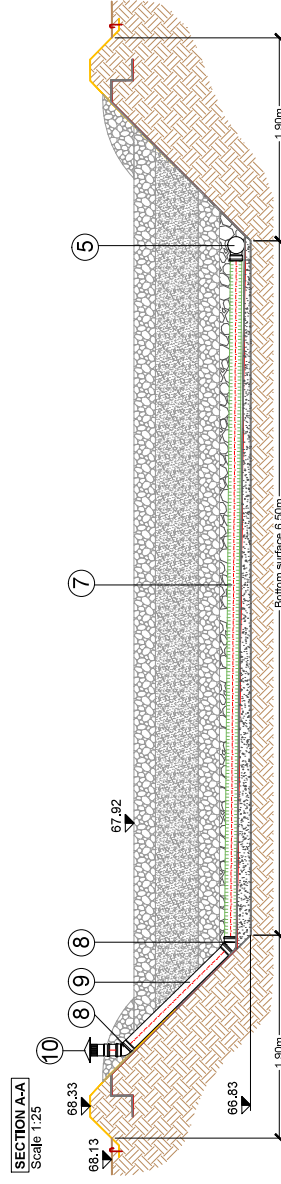
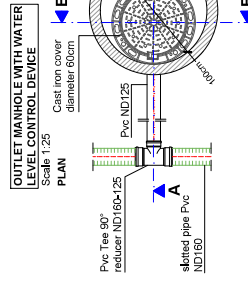
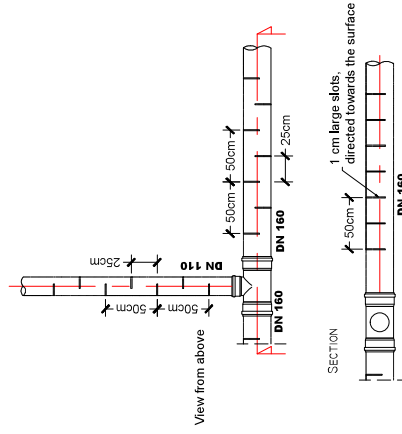
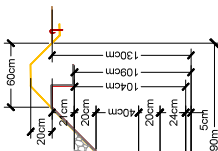


LEGEND	
①	Pvc ND2000 Sn4
②	Pvc ND125 Sn4
③	Pvc reducer Tee 30° ND160x125
④	Pvc drilled ND160
⑤	Pvc reducer Tee 90° ND160x110
⑥	Pvc plug ND160
⑦	Pvc drilled ND110
⑧	Pvc elbow 45° ND110
⑨	Pvc ND110 Sn4
⑩	Chimney ND110
⑪	Flanges for HDPE-Pvc transition ND125
⑫	Pvc ND2000

SECTION B-B
Scale 1:25



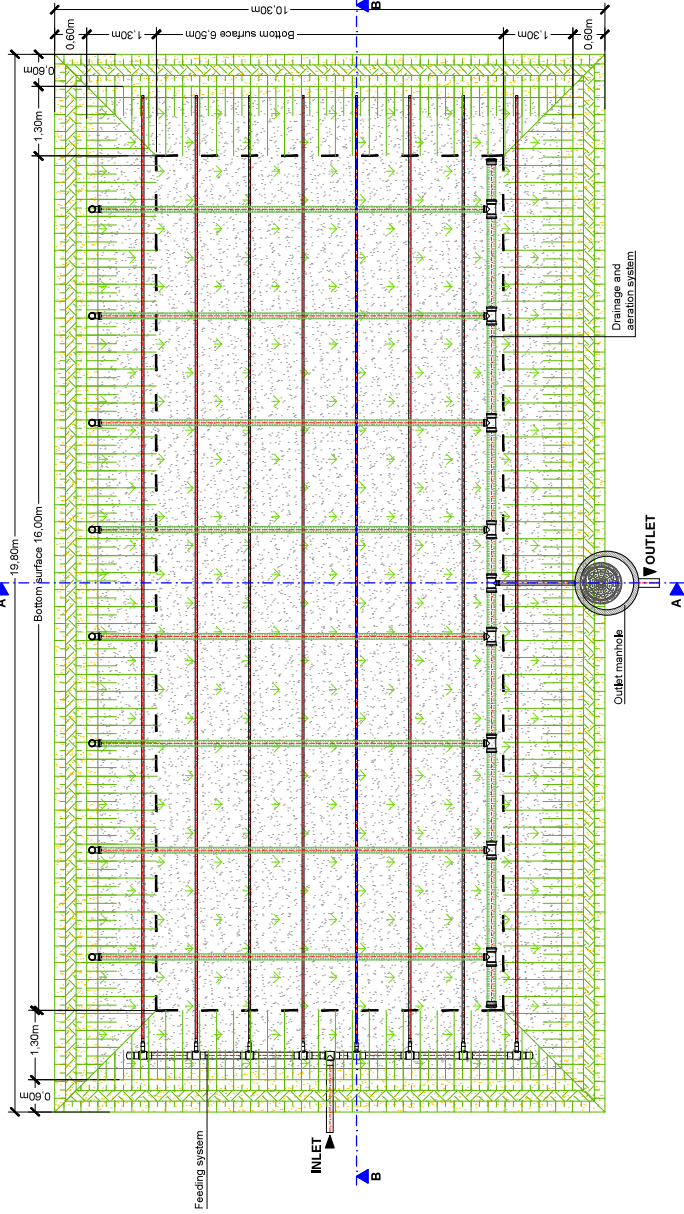
SECTION B-B
Scale 1:25



PLAN - VF2 UNSAT - LINE B

Scale 1:50

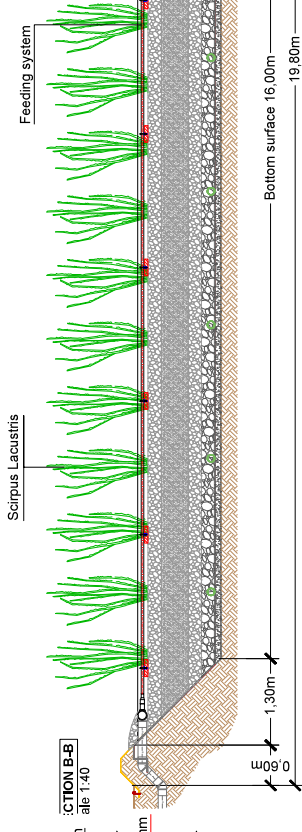
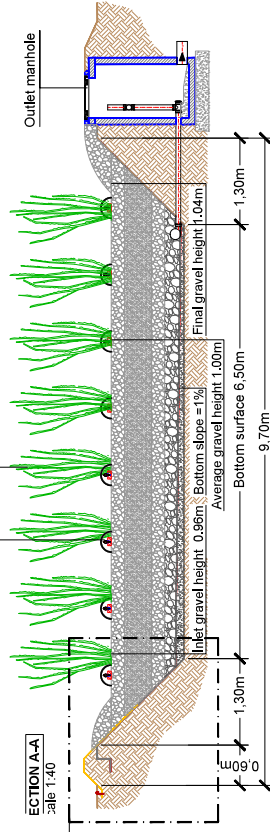
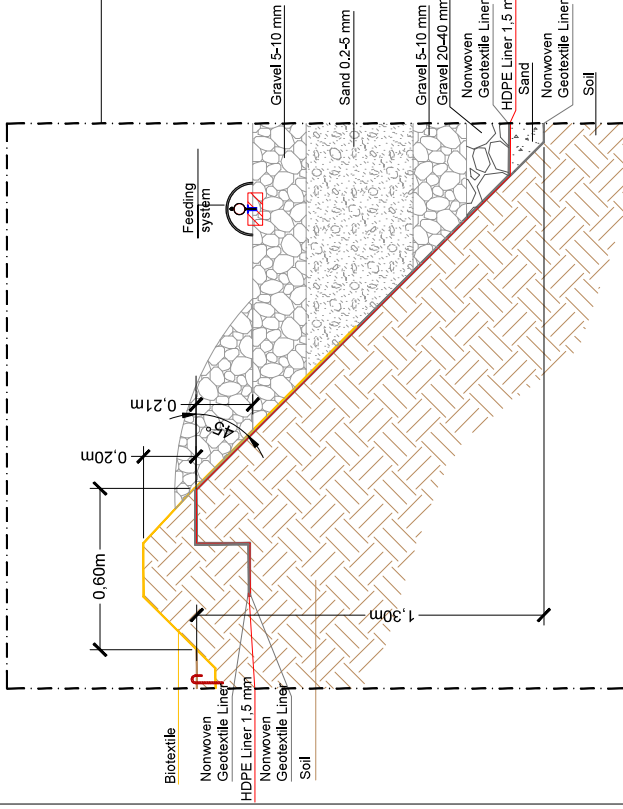
LEGEND VF PLAN	
	Drainage system
	Bed media
	Scripus spp
	Bottom bed
	Banks
	Biotextile



Heights and types Aggregates	
20cm	Gravel 5-10 mm
40cm	Sand 0.2-5 mm
20cm	Gravel 5-10 mm
20cm	Gravel 20-40 mm
Average medium depth 1,00 m	

DETAIL ZOOM

Scale 1:10



Lesvos (Greece)

HYDROUSA - D3.2

As built constructed wetland

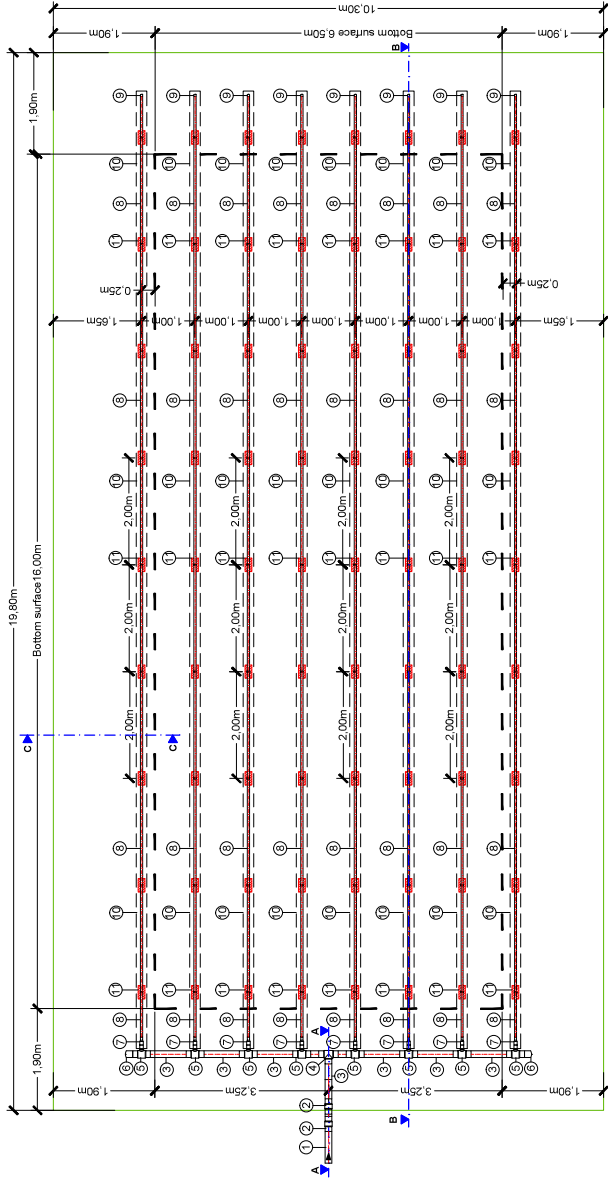


Via A. La Marmora, 54 - 20127 Milano (Ita.)
Tel. +39 02 58 54 11 11 - Fax +39 02 58 54 11 12
www.irisdrain.it

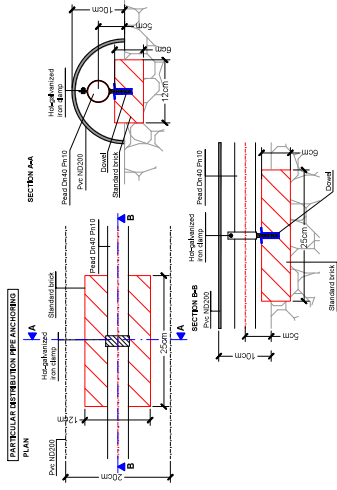
Author: Irene F. Fagnola	
Supervisor: Paolo M. M.	
Scale: 1:50	
Version: 1.0	
Drawing n° 6.1	
Date: January 2021	
Project: VF2 UNSAT - Line B - Wetland system	

FEEDING SYSTEM - VF2 UNSAT - LINE B

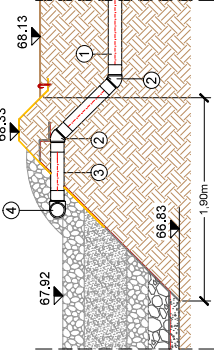
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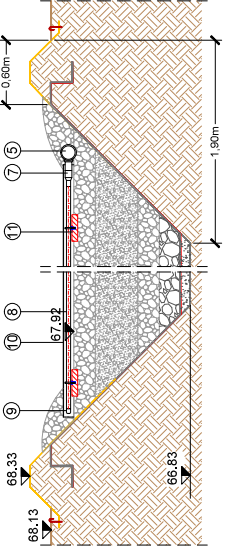
LEGEND	
①	Pead ND125 Pn10
②	Pead Elbow 45° ND125 Pn10
③	Pead ND125 Pn10
④	Pead Tee 90° ND125 Pn10
⑤	Pead reducer Tee 90° ND125-53 Pn10
⑥	Pead plug ND125 Pn10
⑦	Pead reducer ND63-40 Pn10
⑧	Pead ND40 Pn16 drilled every meter with holes D=5 mm
⑨	Pead plug ND40 Pn16
⑩	Pvc ND200 S=2 cut in half
⑪	Distribution pipe anchoring



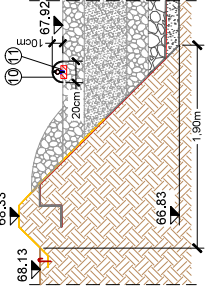
SECTION A-A
Scale 1:25



SECTION B-B
Scale 1:25



SECTION C-C
Scale 1:25



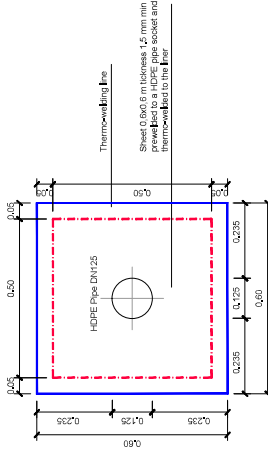
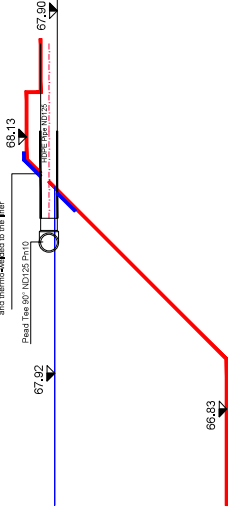
VF2 UNSAT - LINE A - INLET

Out Scale

Pipe passage realized by HDPE

provided to a HDPE pipe socket

and thermowelded to the floor



Lesvos (Greck)

HYDROUSA - D3.2

Sa built constructed wetland

Drawing n°6.2

Scale

Version



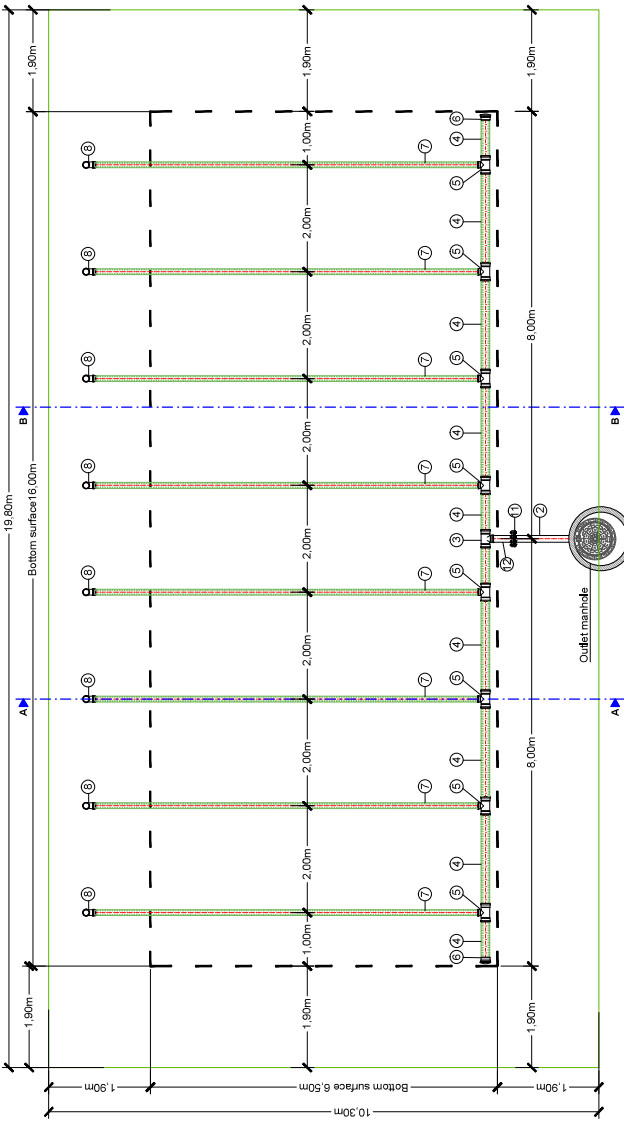
IRIDRA

IRIDRA

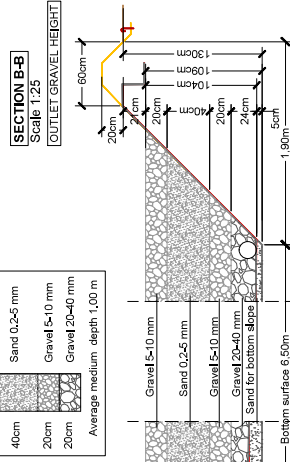
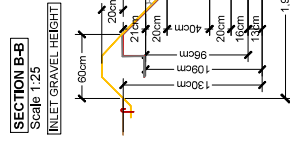
IRIDRA

IRIDRA

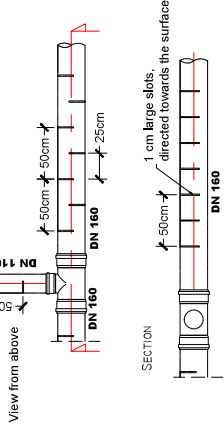
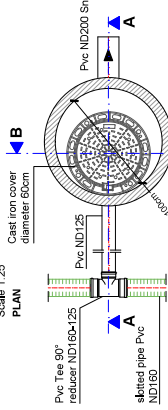
DRAINAGE AND AERATION SYSTEM - VF2 UNSAT - LINE A
Scale 1:50



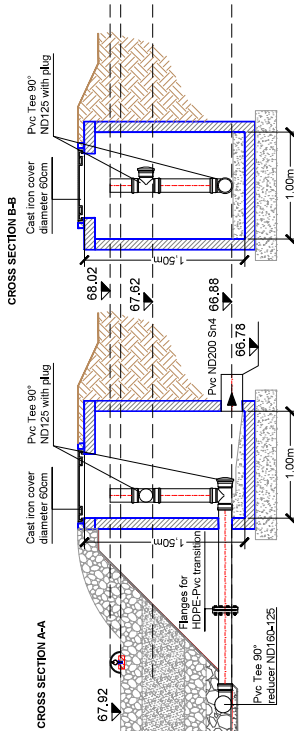
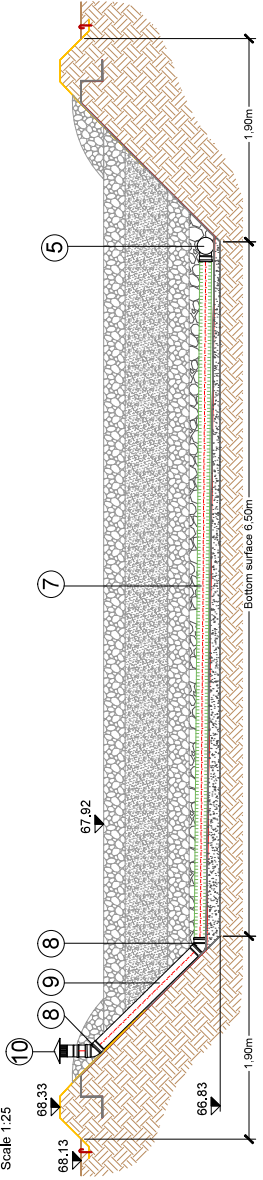
LEGEND	
①	Pvc ND200 Sx4
②	Pvc ND125 Sx4
③	Pvc reducer Tee 90° ND160x125
④	Pvc slotted ND160
⑤	Pvc reducer Tee 90° ND160x110
⑥	Pvc plug ND160
⑦	Pvc slotted ND110
⑧	Pvc elbow 45° ND110
⑨	Pvc ND110 Sx4
⑩	Chimney ND110
⑪	Flanges for HDPE-Pvc transition ND125
⑫	Read ND200



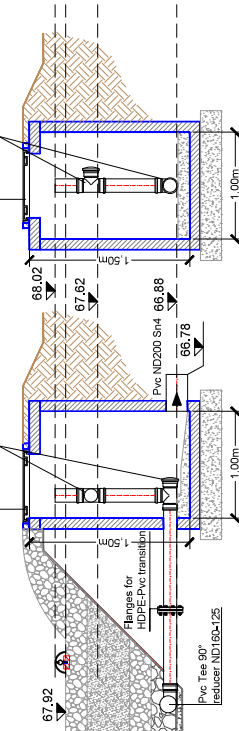
OUTLET MANHOLE WITH WATER LEVEL CONTROL DEVICE
Scale 1:25
PLAN



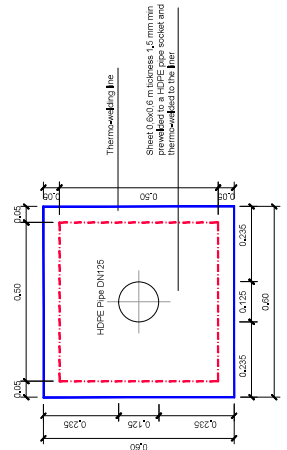
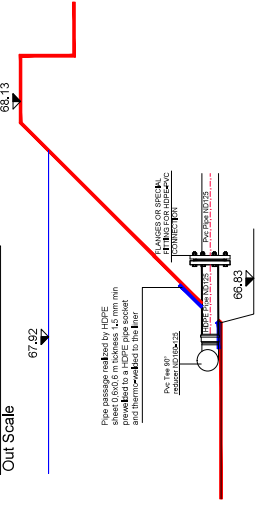
SECTION A-A
Scale 1:25

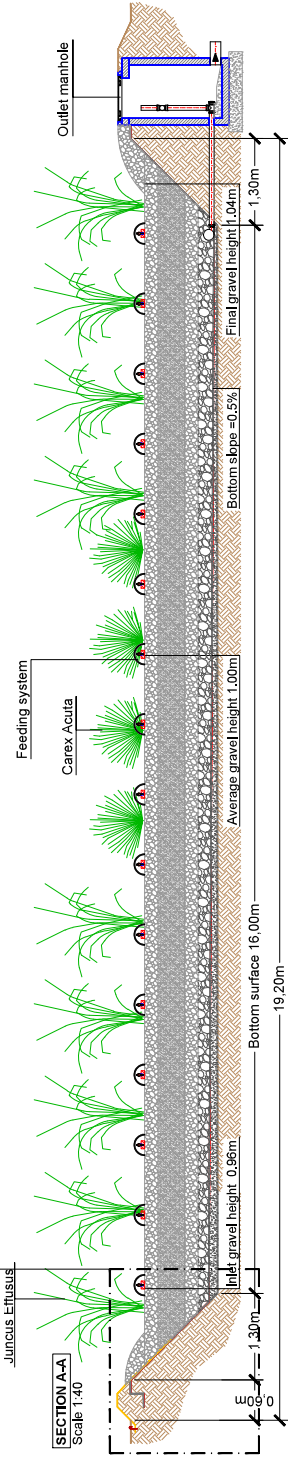
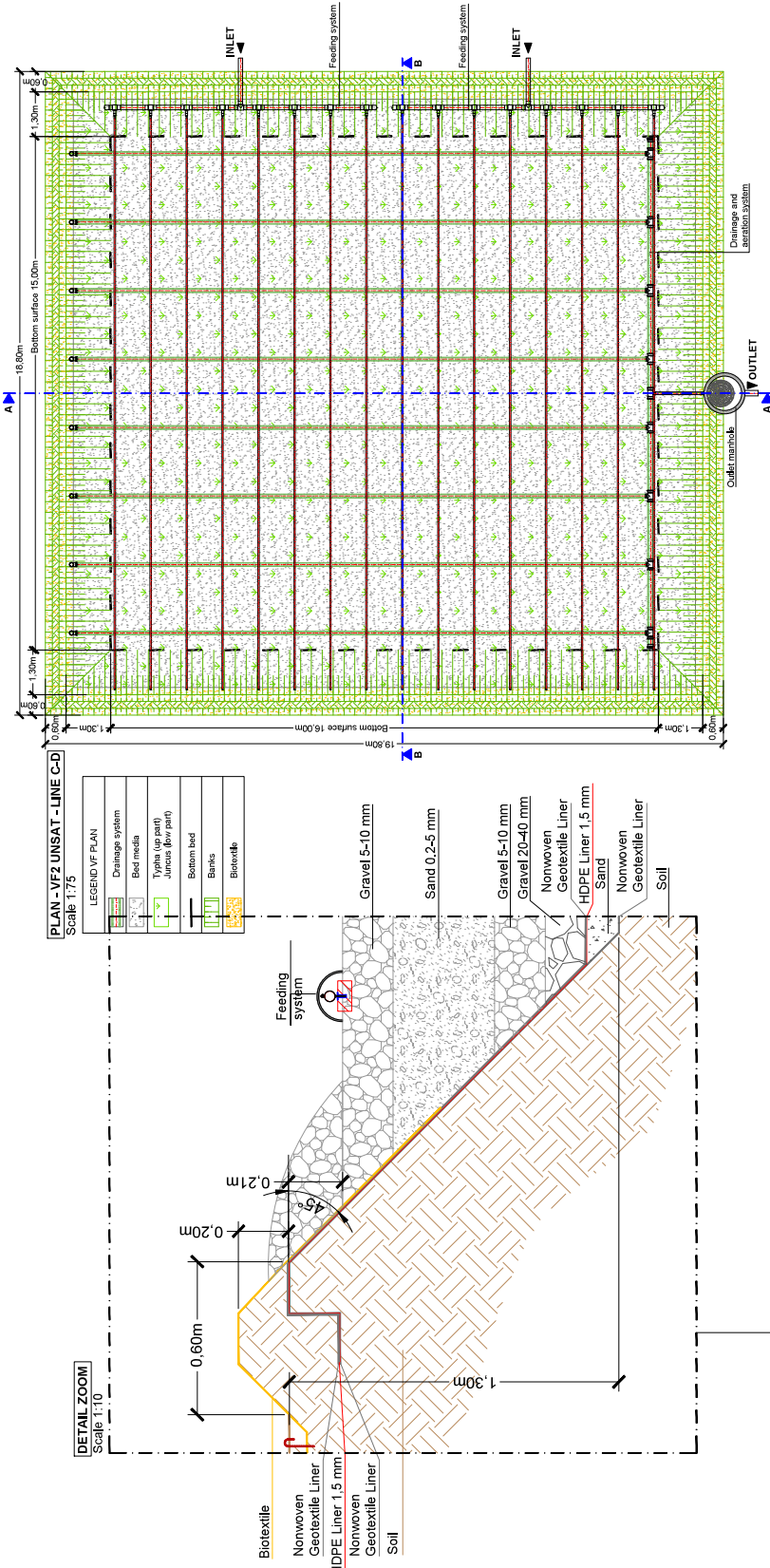


CROSS SECTION A-A



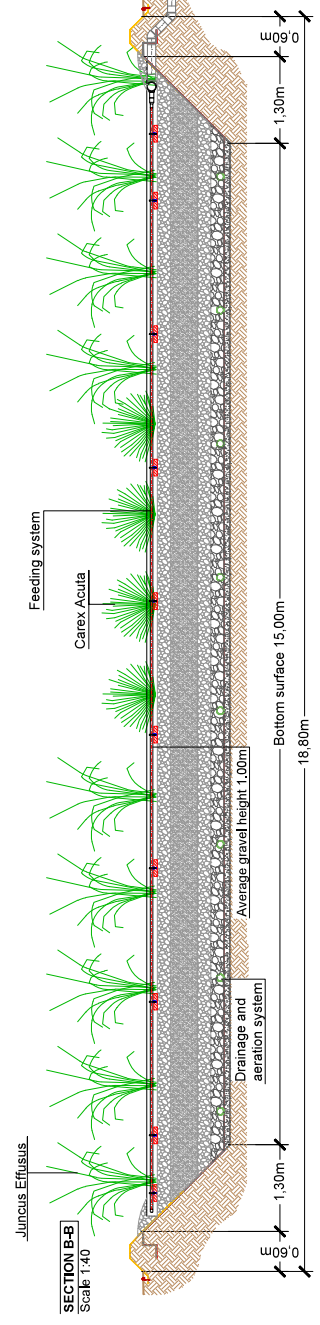
VF2 UNSAT - LINE A - OUTLET
Out Scale





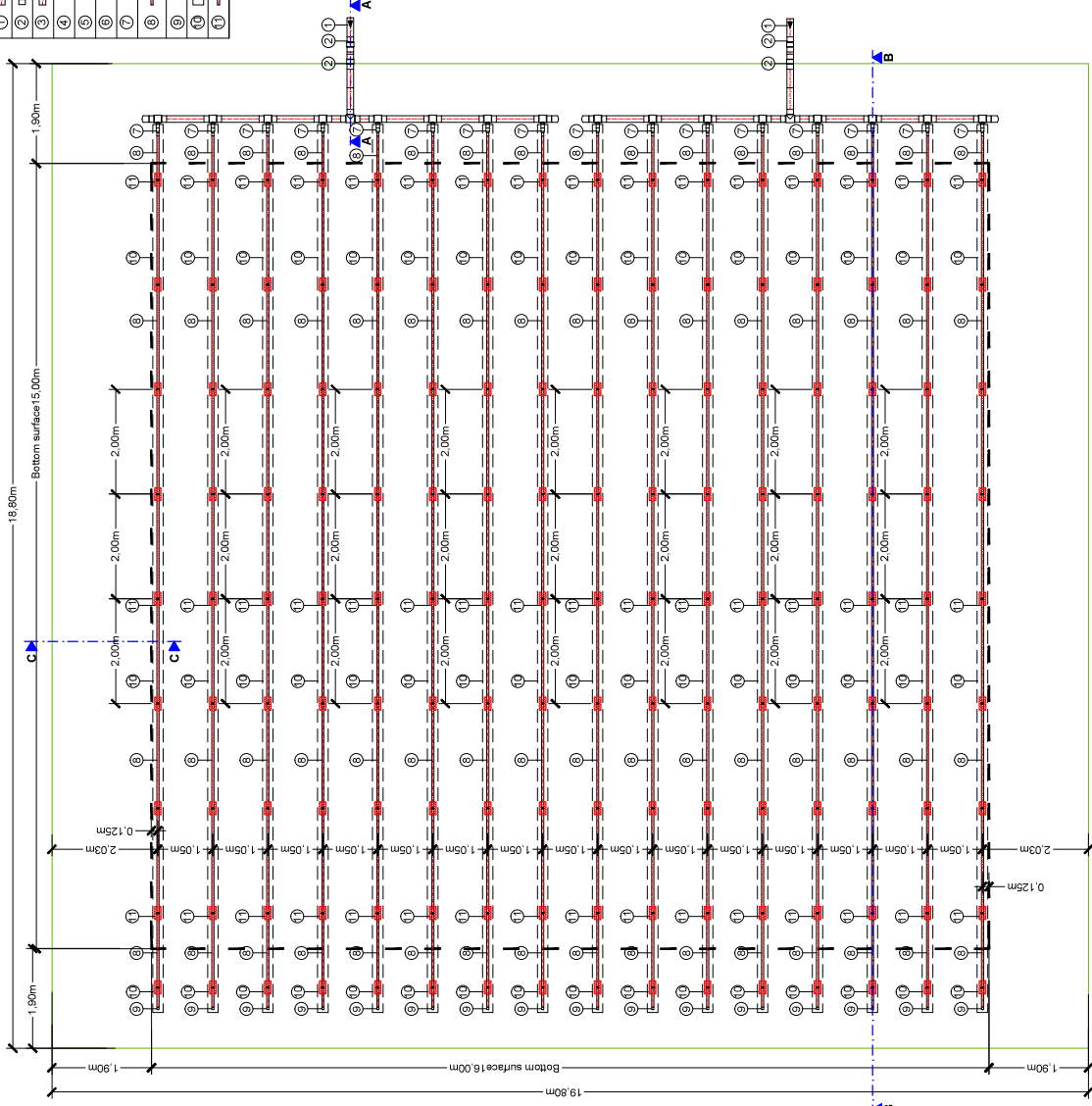
Heights and types Aggregates

20cm	Gravel 5-10 mm
40cm	Sand 0.2-5 mm
20cm	Gravel 5-10 mm
20cm	Gravel 20-40 mm
Average medium depth 1,00 m	



FEEDING SYSTEM - VF2 UNSAT - LINE C-D

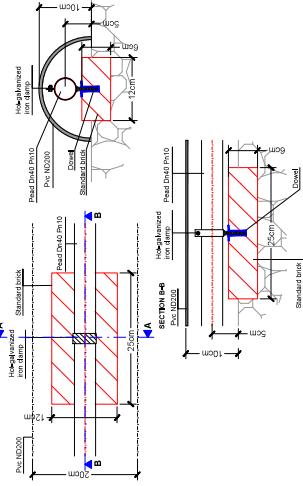
Scale 1:50



LEGEND	
①	Pead ND125 Pn10
②	Pead Elbow 45° ND125 Pn10
③	Pead ND125 Pn10
④	Pead Tee 50° ND125 Pn10
⑤	Pead Tee 90° ND125-43 Pn10
⑥	Pead plug ND125 Pn10
⑦	Pead reducer ND35-40 Pn10
⑧	Pead ND40 Pn16 drilled every meter with holes D=5 mm
⑨	Pead plug ND40 Pn16
⑩	Pvc ND200 Sn2 cut in half
⑪	Distribution pipe anchoring

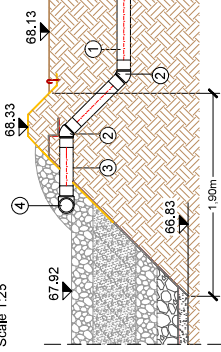
SECTION A-A

Scale 1:25



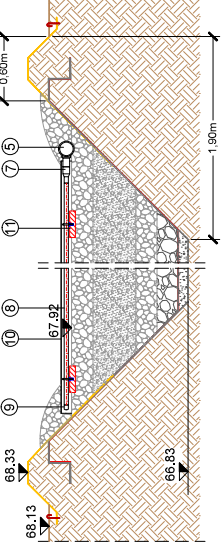
SECTION A-A

Scale 1:25



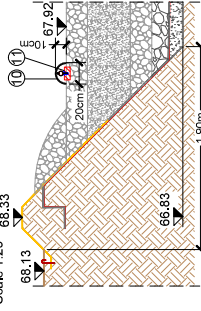
SECTION B-B

Scale 1:25



SECTION C-C

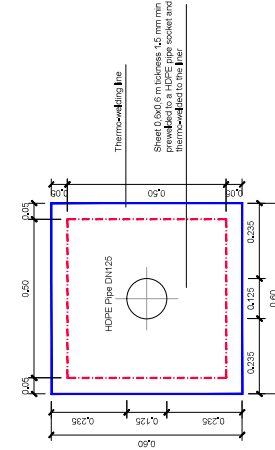
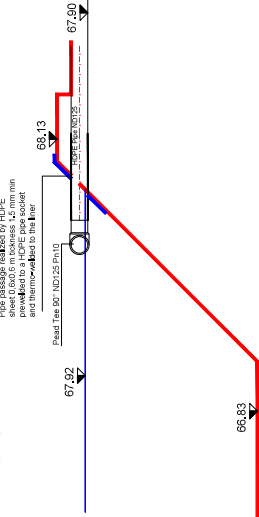
Scale 1:25



VF2 UNSAT - LINE A - INLET

Out Scale

Pipe passage marked by HPEE provided to a HPEE pipe socket and thermowelded to the floor



Levos (Greek)

HYDROUSA - D3.2
As built constructed wetland

Drawn by: n7.2

Scale: 1:50

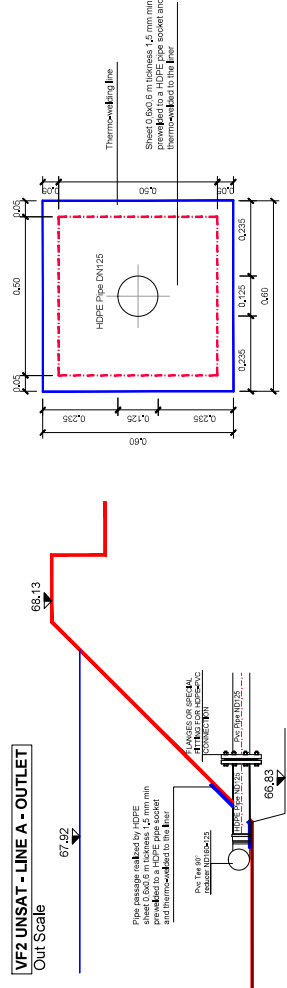
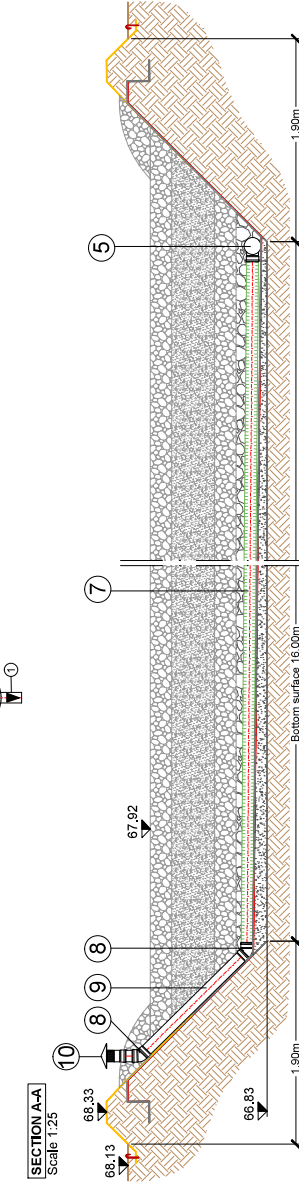
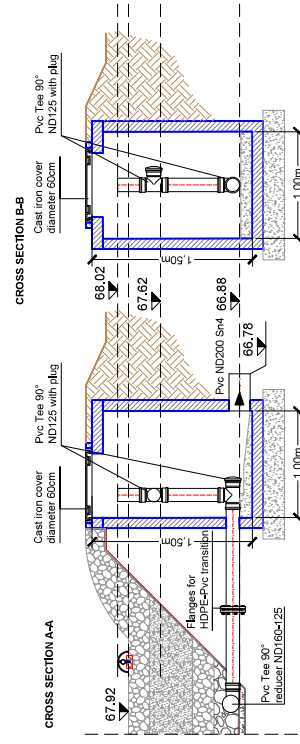
Date: January 2021

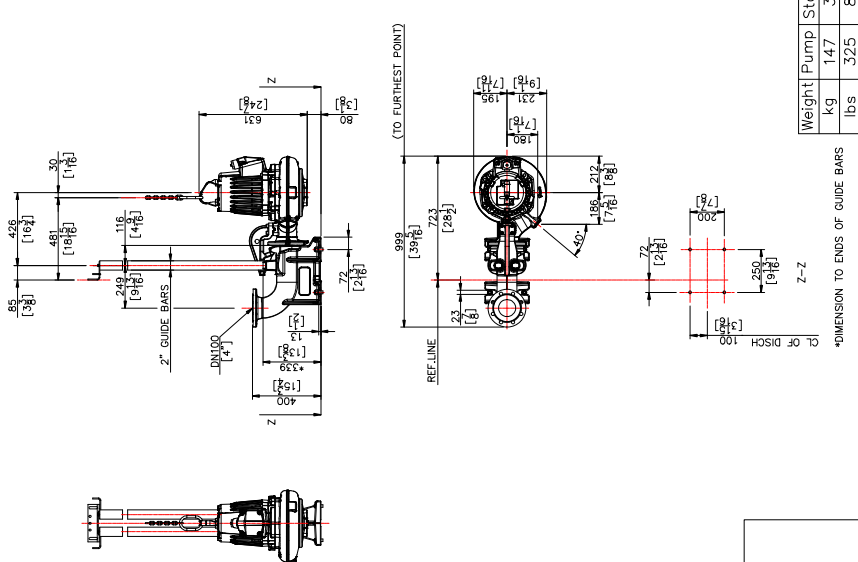
Supervisor: Fabio Masi

Project: VF2 UNSAT



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Weight	Pump	Stand
kg	147	35
lbs	325	80

*DIMENSION TO ENDS OF GUIDE BARS

