



دکلیو دبیار غونی او پراختیا وزارت
وزارت احیا و انکشاف دهات

Islamic Emirate of Afghanistan
Ministry of Rural Rehabilitation & Development

د افغانستان اسلامي امارت
امارت اسلامی افغانستان



Water Supply & Irrigation Program

Design and Estimation of Water Supply Project

Project Name: Rehabilitation of pipe scheme

Village: Bahadar khan
District: Chak
Province: Maidan Wardak
Date: 2024

Contents:

Title	Sheet No.
➤ summary of work	2
➤ Site Plan	2
➤ Kariz intake structure	3
➤ Public stand post	3
➤ Fitting table	2
➤ Bill of Quantity	4
➤ Cost Bill of Quantity	4
➤ Work plan	1
➤ Survey form with official documents	5

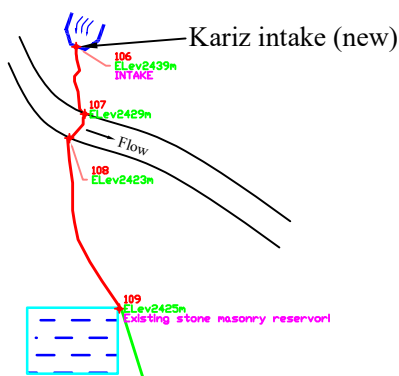
Brief Information

- ✓ No. of Family : 200
- ✓ No. of beneficiaries :1400
- ✓ No. of Public stand posts:6
- ✓ Type of ground: is #3 to #5
- ✓ Length of network= 1638 m (New)
- ✓ Skilled labor = 72 md
- ✓ Unskilled labor=1011 md
- ✓ Total working days =60 days

Prepared By: Eng. Karimullah "Mukhbet"

LEGEND

Existing pipe	
New Maine line	
New Distribution Line	
Existing Rservoir	
River	
Village houses	
Agricultural Land	
Mosque	
Existing stand post Location	
New stand post Location	

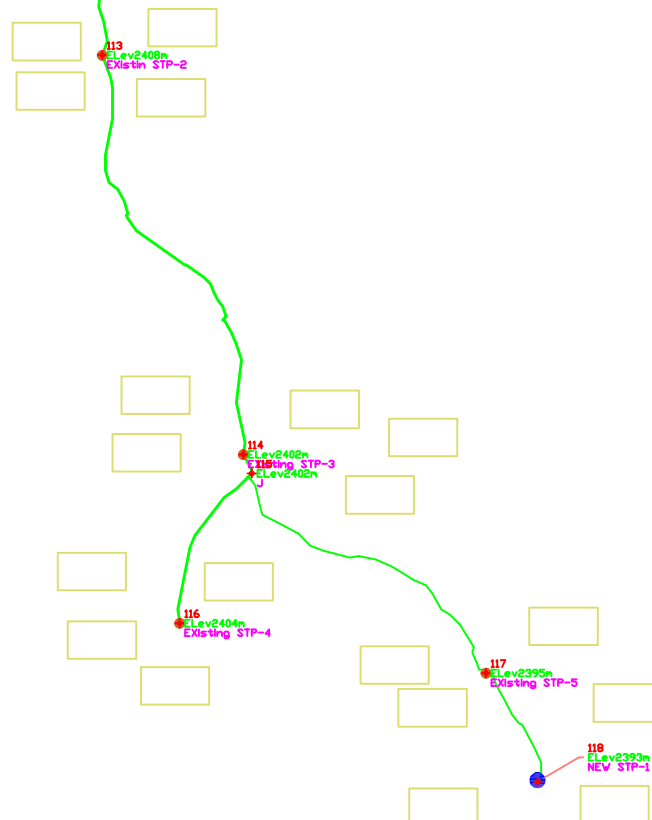


Point Table

Point #	Elevation	Latitude	Longitude	Description
106	2439m	N34.076315°	E68.460590°	INTAKE
107	2429m	N34.075964°	E68.460647°	
108	2423m	N34.075837°	E68.460550°	
109	2425m	N34.074946°	E68.460870°	Existing stone masonry reservoir
110	2417m	N34.073552°	E68.461843°	
111	2408m	N34.072094°	E68.462384°	J
112	2407m	N34.072459°	E68.463519°	EXistin STP
113	2408m	N34.069622°	E68.462388°	EXistin STP-2
114	2402m	N34.067534°	E68.463290°	EXisting STP-3
115	2402m	N34.067435°	E68.463345°	J
116	2404m	N34.066649°	E68.462895°	EXisting STP-4
117	2395m	N34.066395°	E68.464825°	EXisting STP-5
118	2393m	N34.065829°	E68.465154°	NEW STP-1

Note:

- Type of soil : #3-#4
Population : 200 Family
Public stand posts: 5 Existing and 1 new
Kariz discharge: 0.3 L/S
Required items:
a. Reservoir cleaning, 80 sqm inter plastering and steel door 1m x1m.
b. New intake structure of Kariz.
c. new main and distribution lines.
d. Repairing of 5 existing public stand posts, and construction of one new STP.
e. RCC valve box cover (100cm x 500 cm).



	SURVEYED BY	Eng. Karimullah & Eng. Safiullah salaar	CHECKED BY	Eng. Sayed raouf sadaat	SCALE	As shown		PROVINCE	Maidan wardak	PROJECT NAME	Water Supply Project
	DESIGNED BY	Eng. Karimullah	REVIEWED BY	Eng. Sayed raouf sadaat	DATE	14-04-2024		DISTRICT	Chak	DRAWING TITLE	SITE PLAN
	DRAWN BY	Eng. Karimullah	APPROVED BY	Eng. Asadullah Emar	DRAWING NO.			VILLAGE	Bahadar khan		

Kariz intake structure (New)

Point Table				
Point #	Elevation	Latitude	Longitude	Description
106	2439m	N34.076315°	E68.460590°	INTAKE
107	2429m	N34.075964°	E68.460647°	
108	2423m	N34.075837°	E68.460550°	
109	2425m	N34.074946°	E68.460870°	Existing stone masonry reservoir
110	2417m	N34.073552°	E68.461843°	
111	2408m	N34.072094°	E68.462384°	J
112	2407m	N34.072459°	E68.463519°	EXISTIN STP
113	2408m	N34.069622°	E68.462388°	EXISTIN STP-2
114	2402m	N34.067534°	E68.463290°	EXISTIN STP-3
115	2402m	N34.067435°	E68.463345°	J
116	2404m	N34.066649°	E68.462895°	EXISTIN STP-4
117	2395m	N34.066395°	E68.464825°	EXISTIN STP-5
118	2393m	N34.065829°	E68.465154°	NEW STP-1

Legend

Existing Reservoir

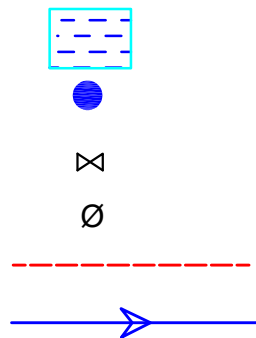
New stand post

Gate valve

Outside diameter of pipe

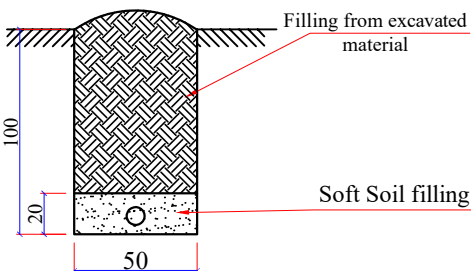
Existing pipe

New distribution pipe

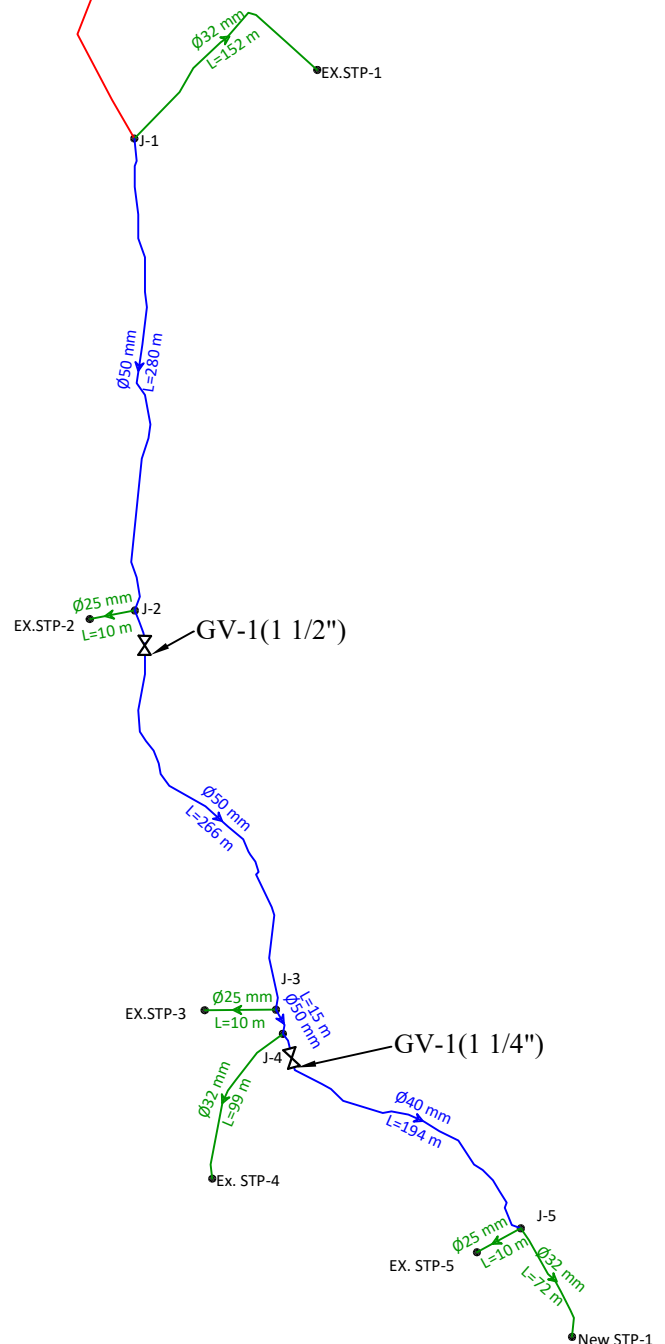


Proposed work

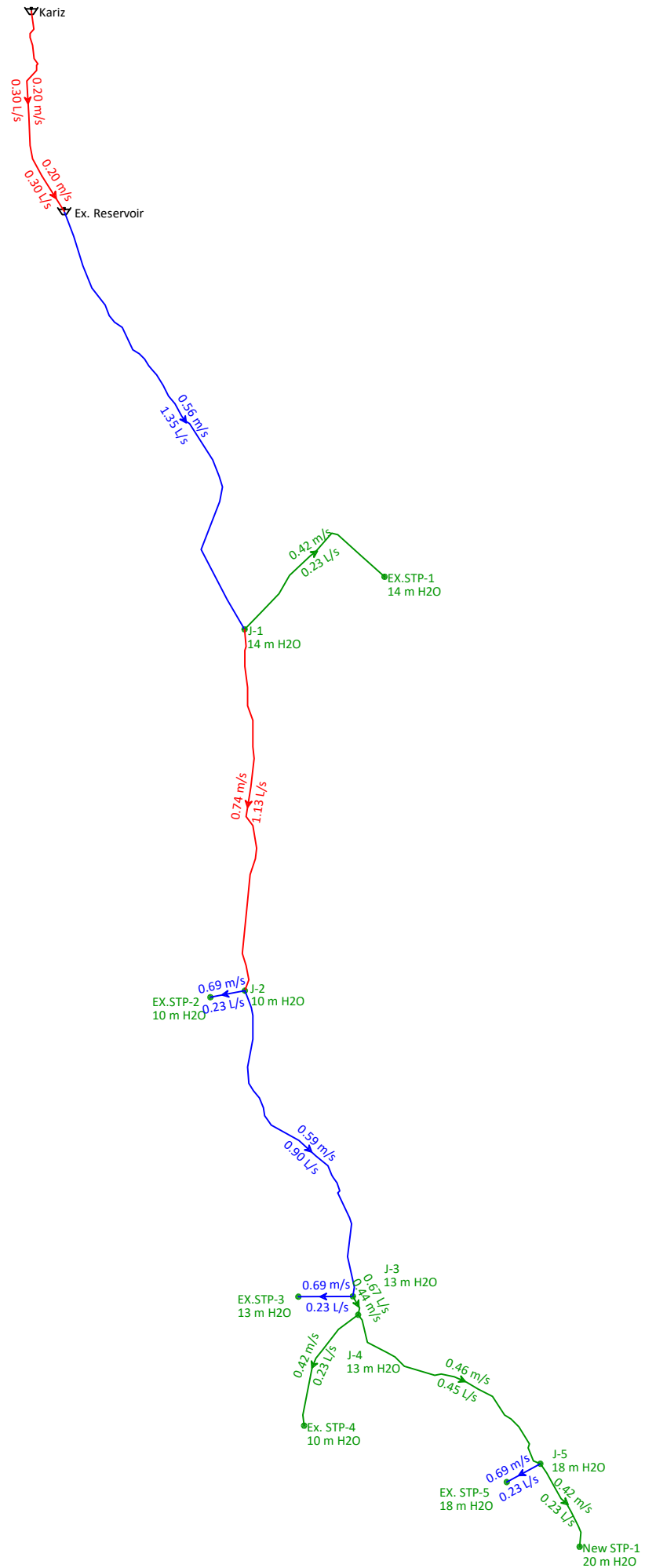
- Reservoir cleaning, 80 sqm interior plastering and steel door 1m x1m.
- New intake structure of Kariz.
- new main and distribution lines.
- Repairing of 5 existing public stand posts, and construction of one new STP.
- RCC valve box cover (100cm x 500 cm).

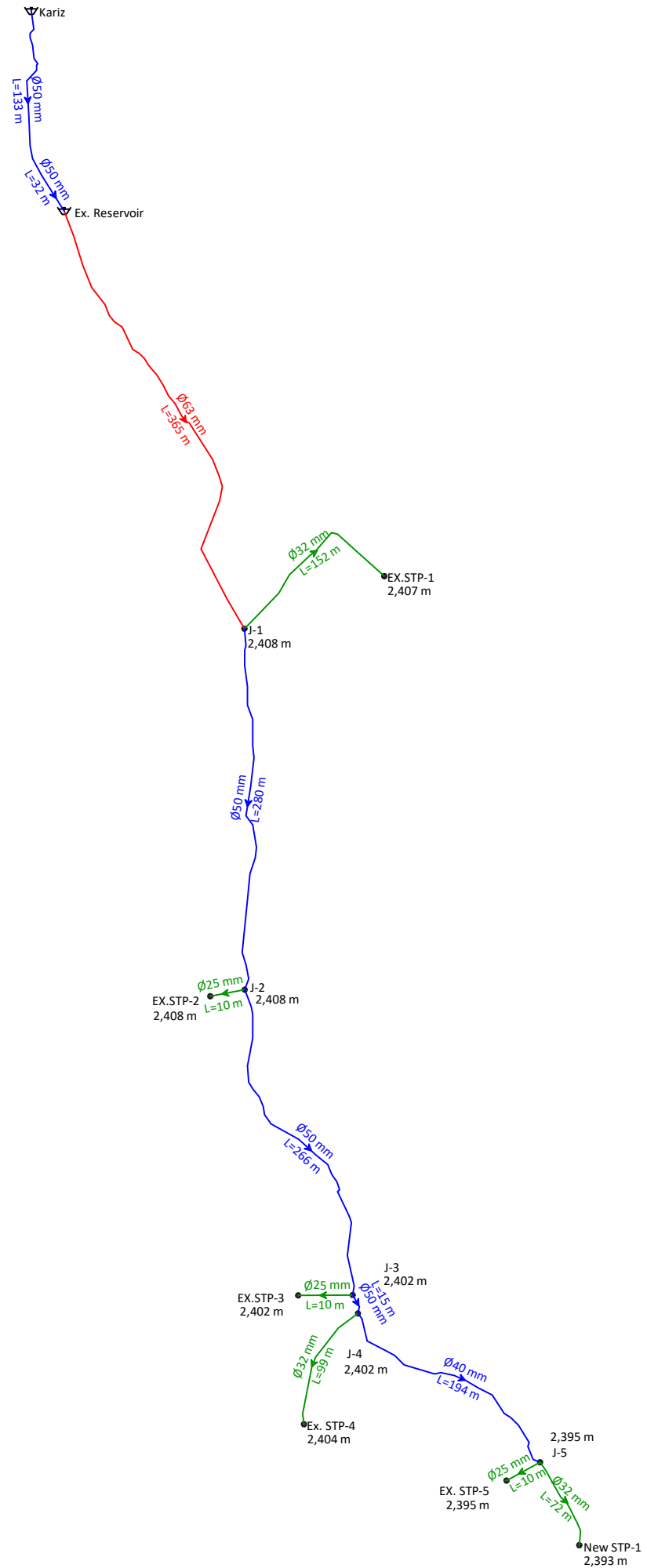


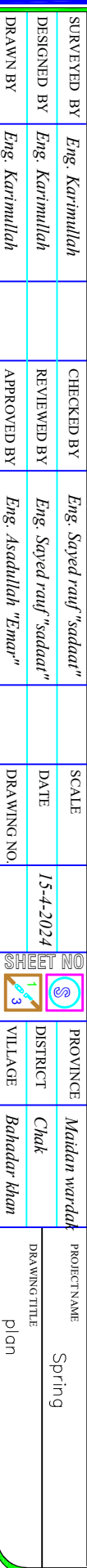
Pipe Trench Detail for single pipe



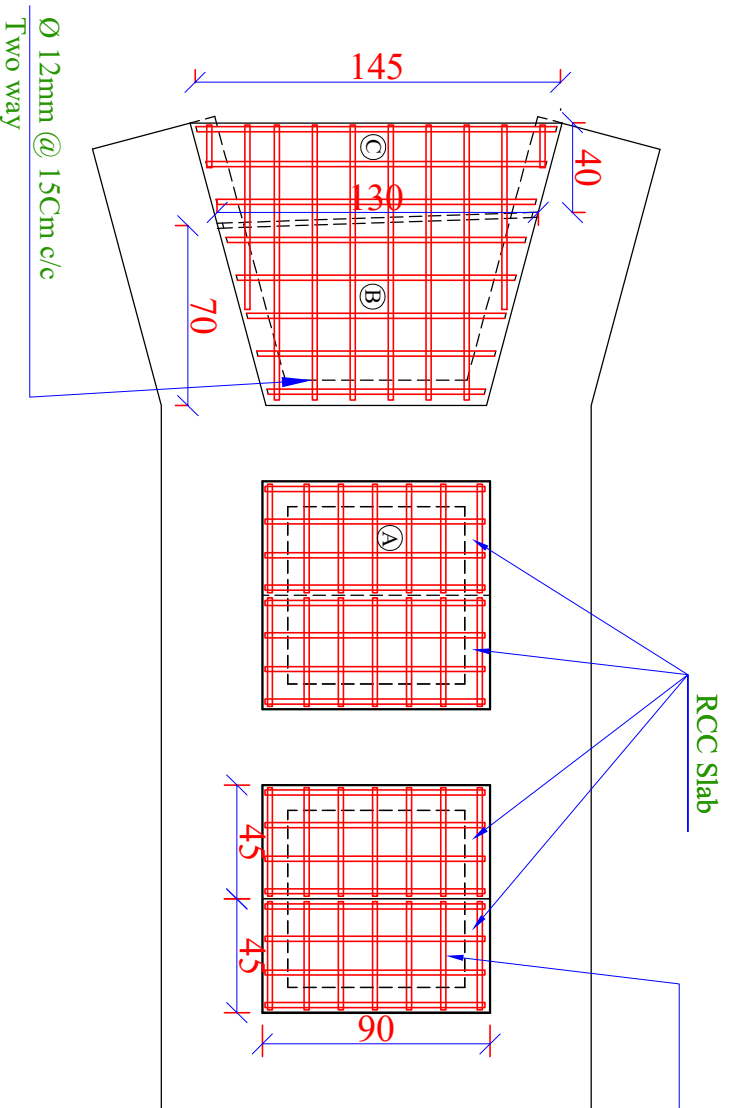
<div>MARD</div> <div>TIS AFGHANISTAN Ministry of Rural Rehabilitation and Development WatSIP</div>	SURVEYED BY	Eng. Karimullah & Eng. Safiullah salaar	CHECKED BY	Eng. Sayed raouf sadaat	SCALE	As shown	<div>SHEET NO.</div> <div><div></div><div>1</div></div>	PROVINCE	Maidan wardak	PROJECT NAME	<div>Water Supply Project</div>	
	DESIGNED BY	Eng. Karimullah	REVIEWED BY	Eng. Sayed raouf sadaat	DATE	14-04-2024		DISTRICT	Chak	DRAWING TITLE		SITE PLAN
	DRAWN BY	Eng. Karimullah	APPROVED BY	Eng. Asadullah Emar	DRAWING NO.			VILLAGE	Bahadar khan			





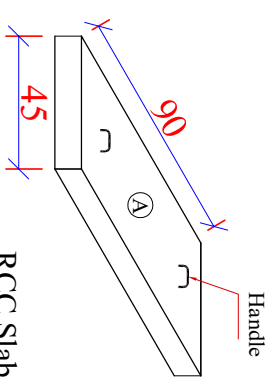


Spring Protection Structure Reinforcement

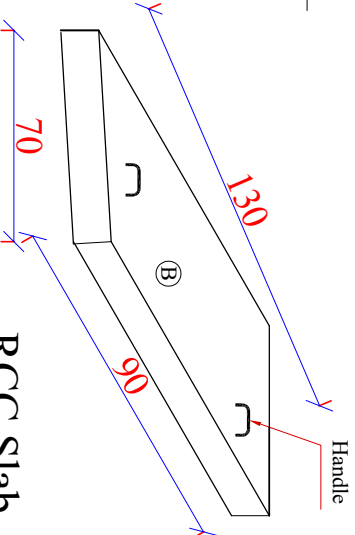


50 70 50

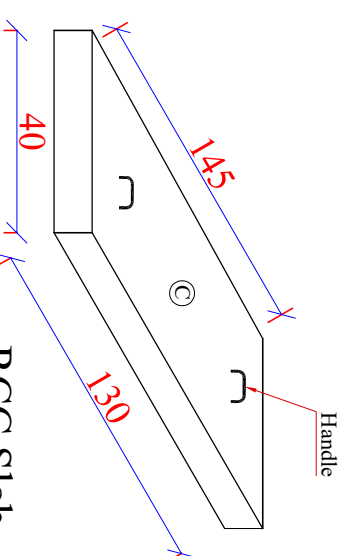
A



RCC Slab



RCC Slab

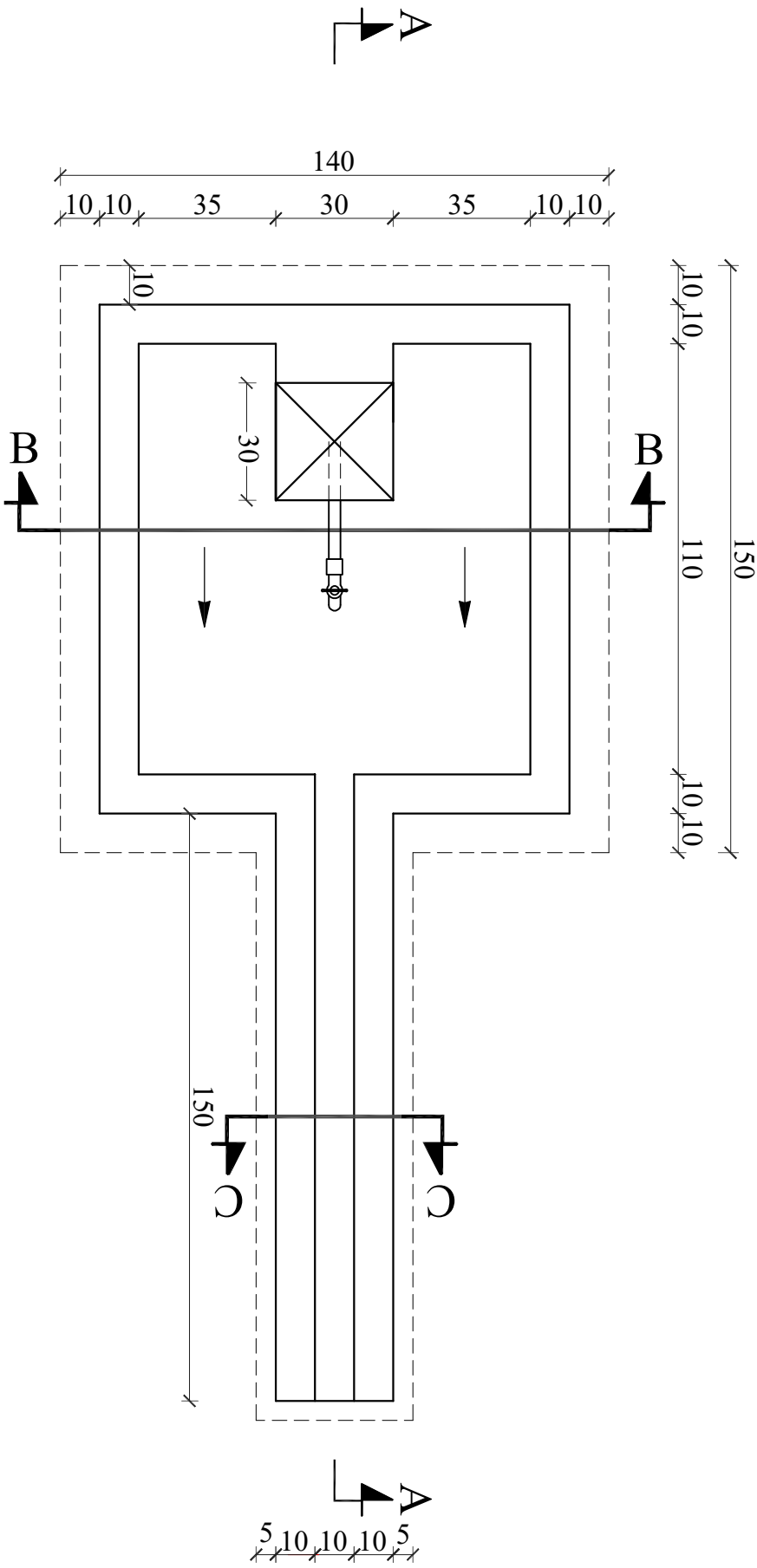



RCC Slab

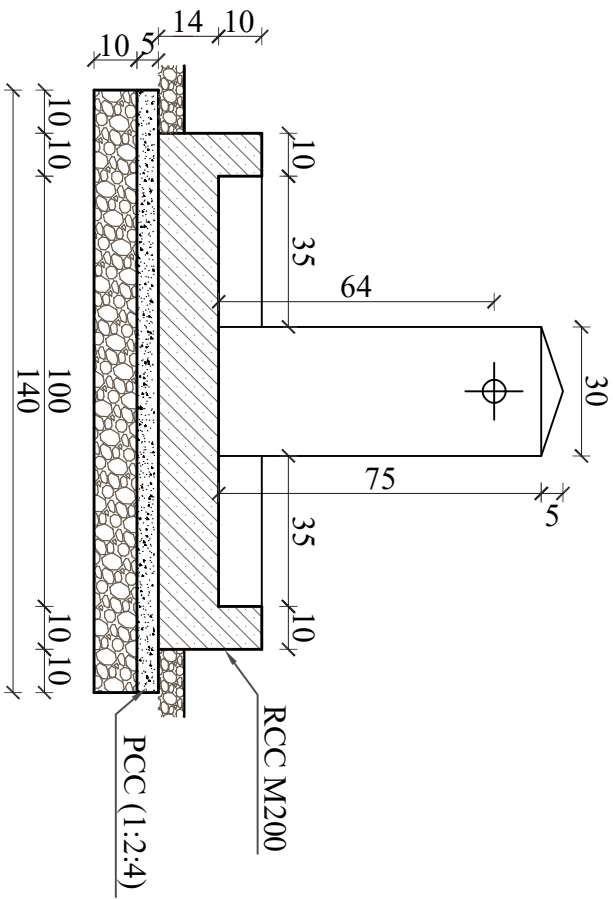
Steel Bar Schedule for one spring

Bar no.	Bar dia (mm)	Nun. of bar	Length (m)	Total length (m)	Weight (kg/m)	Total weight (kg)	Total weight + 5 % (kg)	Shape of bar
1	12	26	1	26	0.888	23	24	[]
2	12	22	0.6	13.2	0.888	11.7	12.3	[]
3	12	8	1.2	9.6	0.888	8.5	8.9	[]
4	12	6	1.2	7.2	0.888	6.4	6.7	[]
5	12	4	0.45	1.8	0.888	1.6	1.67	[]
Total Weight				54 Kg				

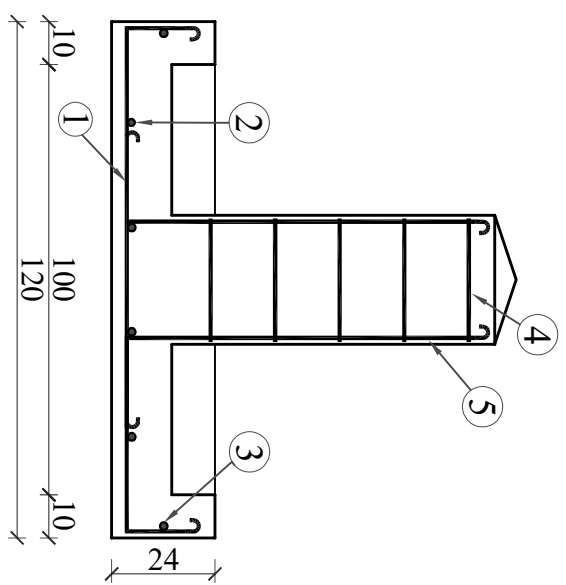
Stand Tap



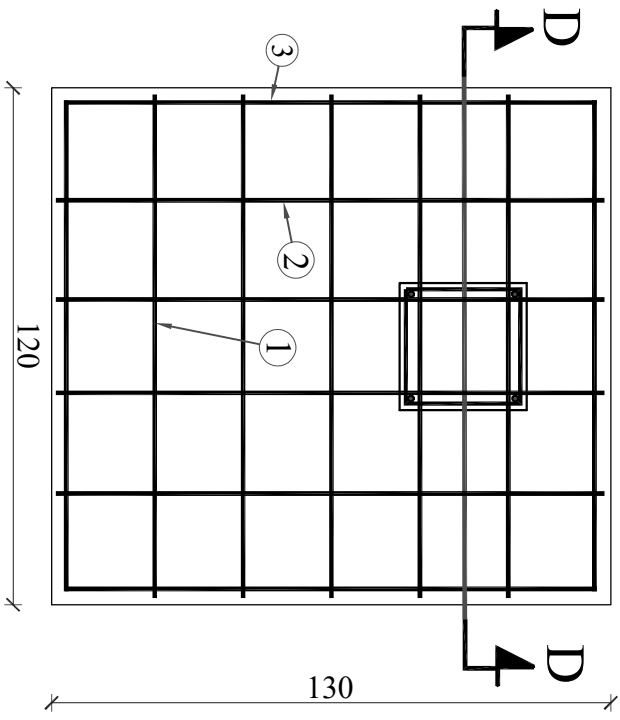
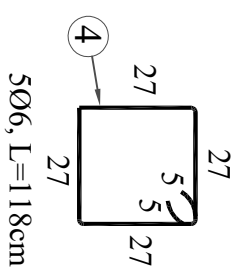
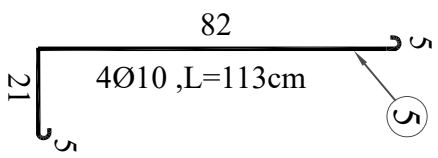
<div><div>IS AFGHANISTAN Ministry of Rural Rehabilitation and Development Watsip</div></div>										SURVEYED BY Eng. karimullah& Eng. Safiullah		CHECKED BY		SCALE 1:40		SHEET NO. 1 3		PROVINCE Maidan wardak		PROJECT NAME Water Supply Project	
DESIGNED BY Eng. Karimullah		REVIEWED BY		DATE 15-4-2024		DISTRICT Chak															
DRAWN BY Eng. karimullah		APPROVED BY		DRAWING NO.		VILLAGE Bahadar khan		DRAWING TITLE Stand Post													



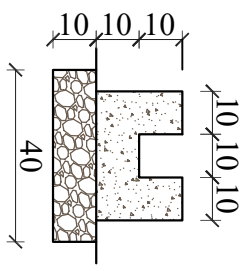
Section B-B



Section D-D



Section C-C





دکلیو دبیار غونی او پراختیا وزارت
وزارت احیاً و انکشاف دهات

Islamic Emirate of Afghanistan
Ministry of Rural Rehabilitation & Development

د افغانستان اسلامي امارت
امارت اسلامي افغانستان



Work plan for the Water Supply (Bahadar khan) rehabilitation of Pipe scheme project

S/N	Themes						First Month										Second Month										Third Month																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
No	List of Activities	Skilled labor	unskilled Labor	Unit	Qty	Work days	Week-1				Week-2				Week-3				Week-4				Week-5				Week-6				Week-7				Week-8				Week-9				Week-10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
1	Mobilization of Materials to the site	0	2	Lump sum	1	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

پلان کار در مدت دو نیم ماه که توسط تعداد مجموعی کارگران غیر ماهر 1011 نفر و تعداد مجموعی کارگران ماهر 72 نفر تطبیق گردد . که در مجموع 1083 روز کاری برای مردم ایجاد میگردد

Prepared by: Eng. Karimullah

Checked by:

Date:15-04-2024



دکلیو دبیارغونی اوپراختیا وزارت
وزارت احیاً وانکشاف دهات

Islamic Emirate of Afghanistan
Ministry of Rural Rehabilitation & Development

دافغانستان اسلامی امارت
امارت اسلامی افغانستان



Water Supply & Irrigation Program

Design and Estimation of Water Supply Project

Project Name: Rehabilitation of pipe scheme

Village: Changa
District: Daimirdad
Province: Maidan Wardak
Date: 2024

Contents:

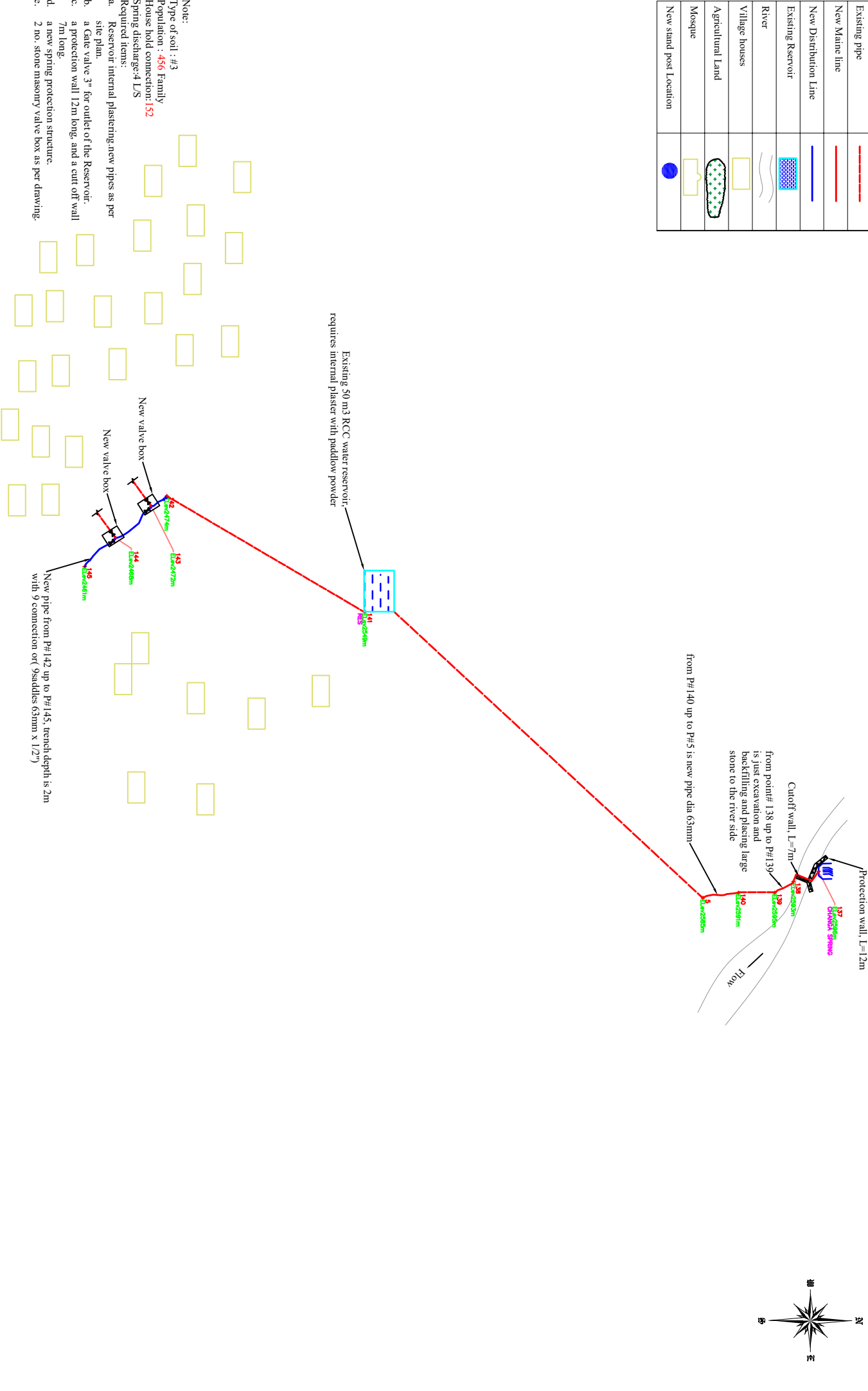
Title	Sheet No.
➤ summary of work	2
➤ Site Plan	2
➤ Spring protection structure	3
➤ Protection wall	2
➤ Valve box drawing	1
➤ Fitting table	1
➤ Bill of Quantity	3
➤ Cost Bill of Quantity	3
➤ Work plan	1
➤ Survey form with official documents	5


Brief Information

- ✓ No. of Family : 456
- ✓ No. of beneficiaries :3192
- ✓ No. of House hold connection:152
- ✓ Type of ground: is #3 to #5
- ✓ Length of network= 276 m (New)
- ✓ Skilled labor = 62 md
- ✓ Unskilled labor=471 md
- ✓ Total working days =60 days

Prepared By: Eng. Karimullah "Mukhbet"

LEGEND	
Existing pipe	
New Mainline	
New Distribution Line	
Existing Reservoir	
River	
Village houses	
Agricultural Land	
Mosque	
New stand post Location	

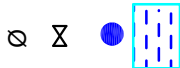


<div>TS/AFGHANISTAN Ministry of Rural Rehabilitation and Development</div> <div> <i>Watsip</i></div>										SURVEYED BY		Eng. Karimullah & Eng. Saifullah salar		CHECKED BY							
DESIGNED BY				REVIEWED BY				DATE		06-04-2024											
DRAWN BY		Eng. Karimullah		APPROVED BY				DRAWING NO.													
										SHEET NO.		<div>1 1</div>		PROVINCE		Maidan wardak		PROJECT NAME		Water Supply Project	
										DISTRICT		Daymirdad				DRAWING TITLE		SITE PLAN			
										VILLAGE		Changa									

Final site plan of Changa rehabilitation of pipe scheme project in Daimirdad district of Maidan wardak

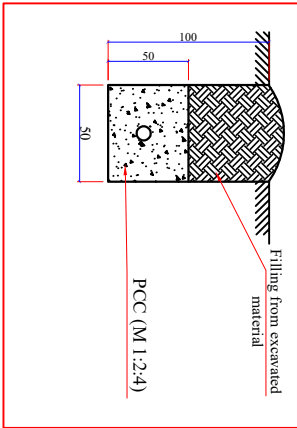
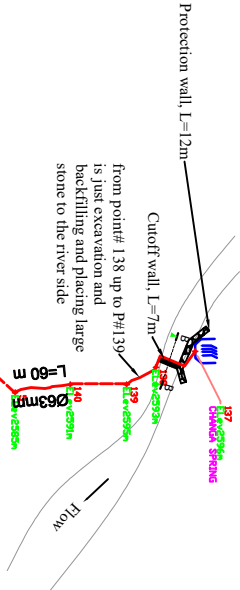
Legend

- Existing Reservoir
- New stand post
- Gate valve
- Outside diameter of pipe
- Existing pipe
- New distribution pipe

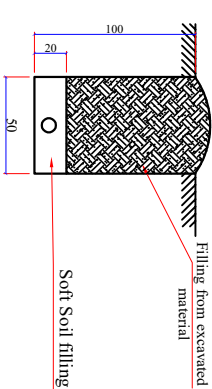
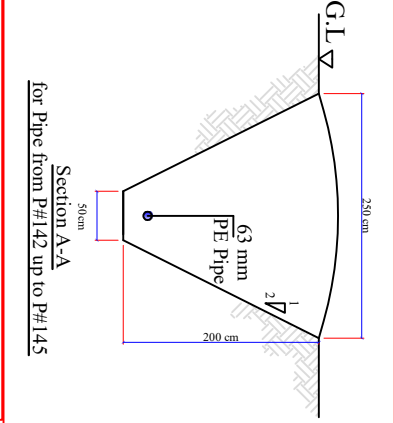


Proposed work

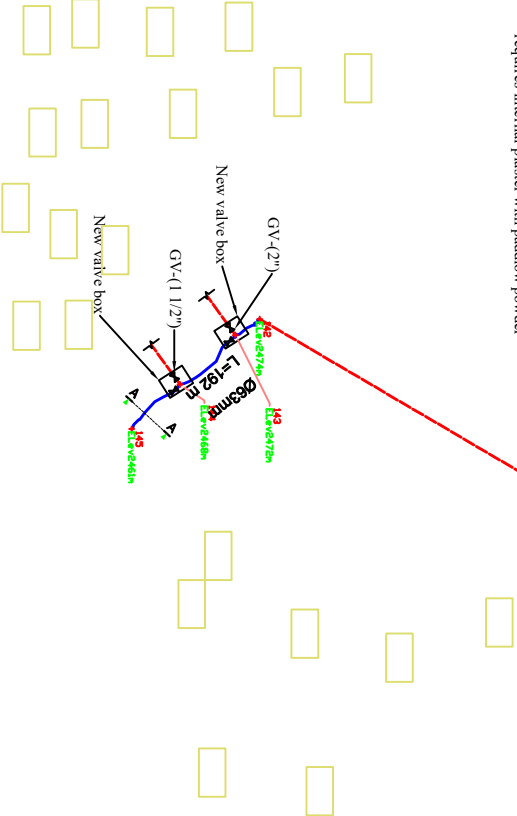
- Reservoir internal plastering, new pipes as per site plan.
- Gate valve 3" for outlet of the Reservoir.
- a protection wall 12m long, and a cut off wall 7m long.
- a new spring protection structure.
- 2 no. stone masonry valve box as per drawing.



Section B-B
For cut off wall



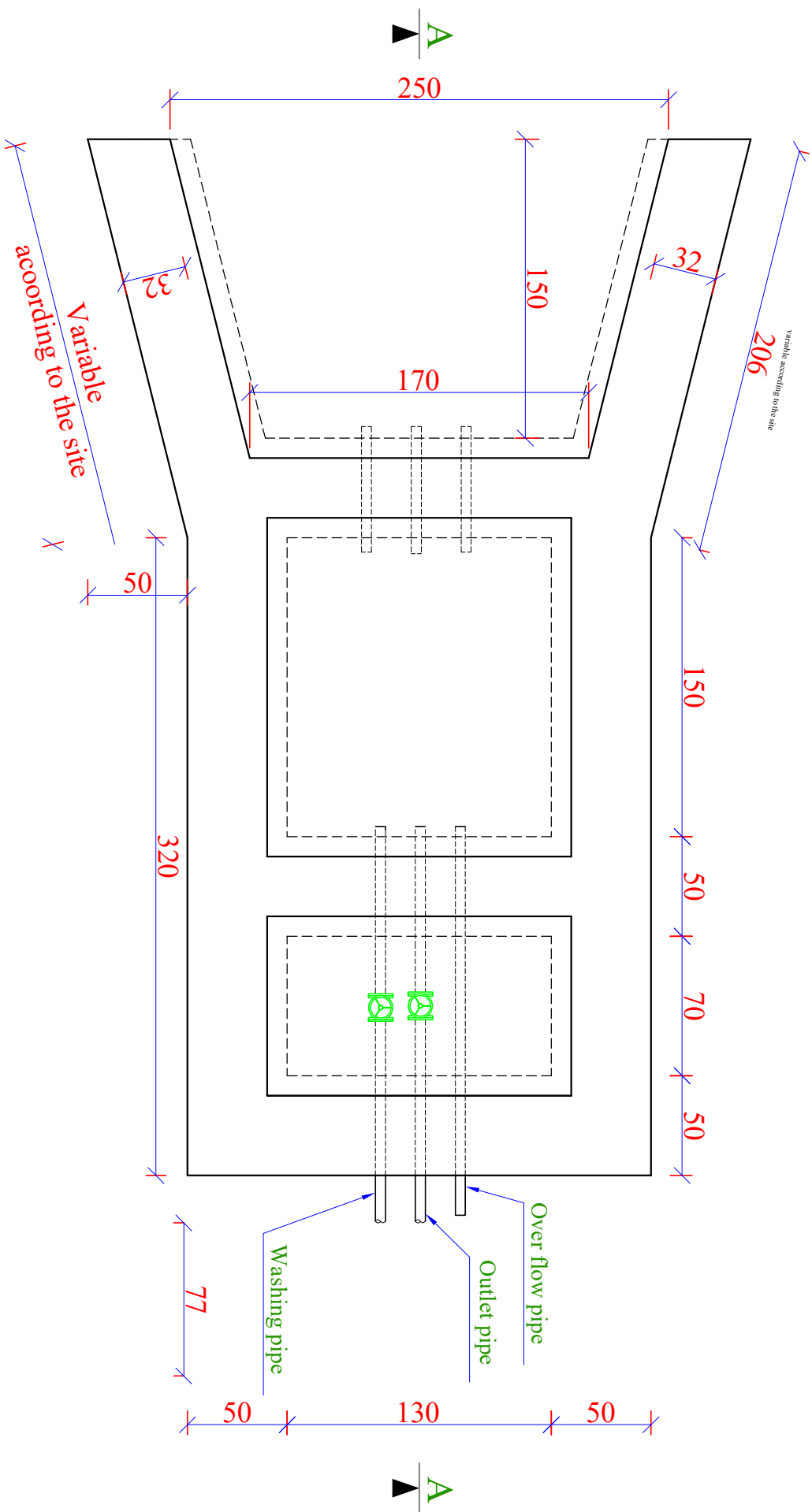
Pipe Trench Detail
for single pipe



Point Table			
Point #	Elevation	Latitude	Longitude
5	2585m	N34.249605°	E68.370769°
137	2596m	N34.251214°	E68.370312°
138	2593m	N34.250863°	E68.370489°
139	2595m	N34.250603°	E68.370675°
140	2591m	N34.250098°	E68.370679°
141	2549m	N34.244870°	E68.366005°
142	2474m	N34.242101°	E68.364082°
143	2472m	N34.241885°	E68.364257°
144	2468m	N34.241392°	E68.364793°
145	2461m	N34.240961°	E68.365274°

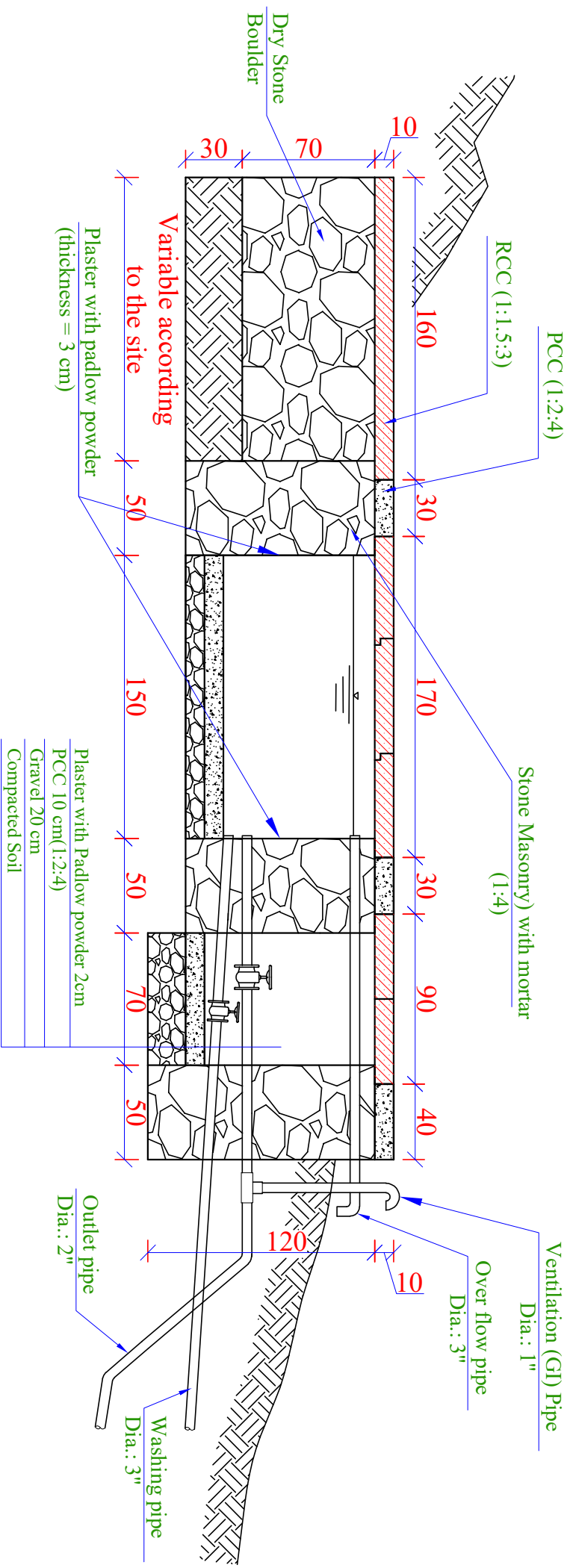
ISAFGHANISTAN Ministry of Rural Rehabilitation and Development				PROJECT NAME Water Supply Project			
SURVEYED BY Eng. Karmullah & Eng. Saifullah salar	CHECKED BY	SCALE As shown	SHEET NO. 1	PROVINCE Maidan Wardak	DISTRICT Daimirdad	DRAWING TITLE SITE PLAN	
DESIGNED BY Watsip	REVIEWED BY	DATE 06-04-2024		VILLAGE Changa			
DRAWN BY Eng. Karmullah	APPROVED BY	DRAWING NO.					

Spring Protection Structure Type-2






SURVEYED BY	Eng. Karimullah	CHECKED BY	Eng. Sayed rauf "sadaat"	SCALE		SHEET NO	PROVINCE	PROJECT NAME
DESIGNED BY	Eng. Karimullah	REVIEWED BY	Eng. Sayed rauf "Sadaat"	DATE	13-4-2024	1/3	DISTRICT	Spring
DRAWN BY	Eng. Karimullah	APPROVED BY	Eng. Asadullah "Emar"	DRAWING NO.		3	VILLAGE	plan
							Changa	

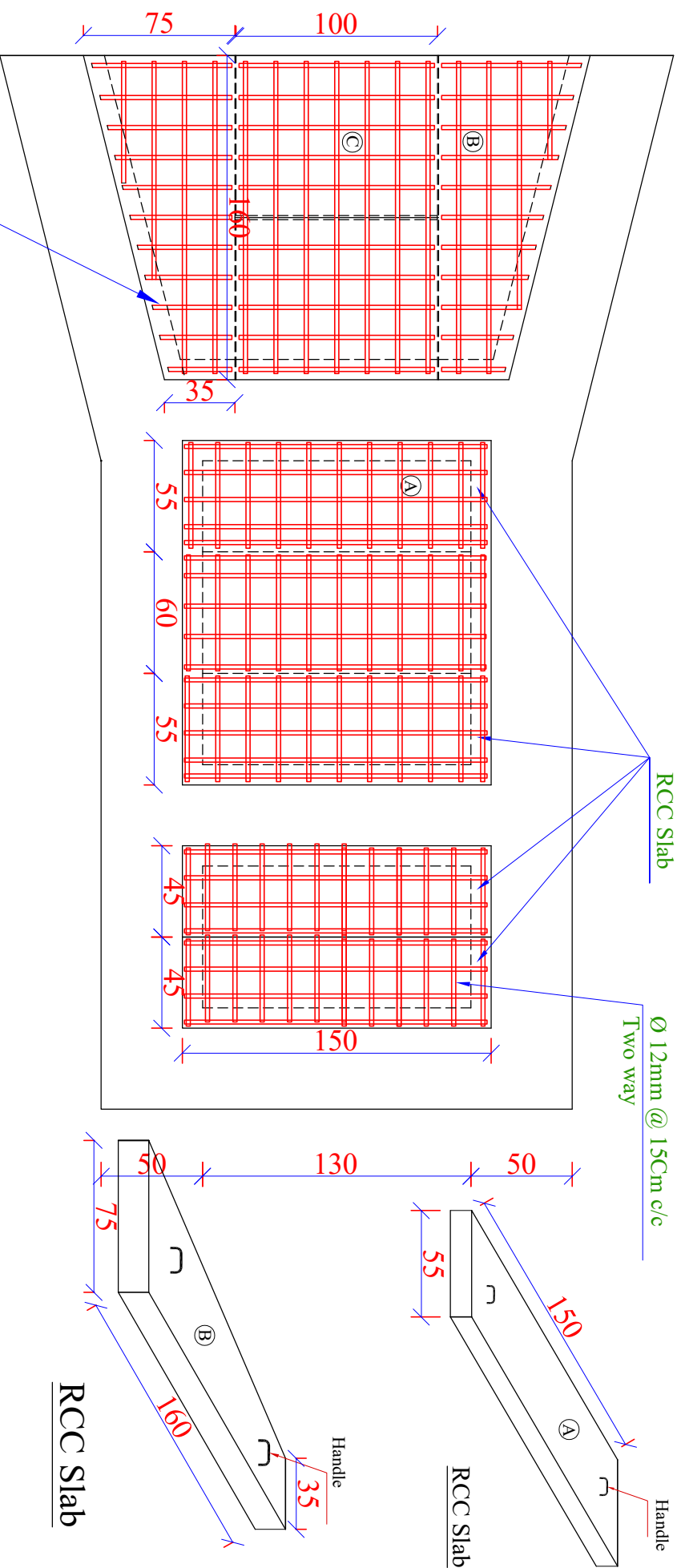
Spring Protection Structure Type-2



Section A - A

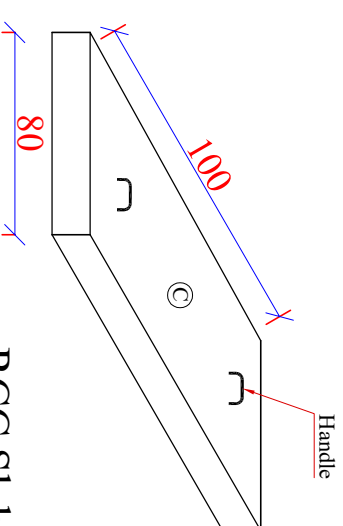
PROJECT NAME		Drawing Title Section(A-A)
Spring		
PROVINCE	Maidan Wardak	SHEET NO   
DISTRICT	Tari	
VILLAGE	Changa	
DRAWING NO.		
DATE	13-4-2024	
SCALE		
SURVEYED BY	Eng. Karimullah	
DESIGNED BY	Eng. Karimullah	
DRAWN BY	Eng. Karimullah	
CHECKED BY	Eng. Sayed rauf "sadaat"	
REVIEWED BY	Eng. Sayed rauf "Sadaat"	
APPROVED BY	Eng. Asadullah "Emar"	

Spring Protection Structure Type-2

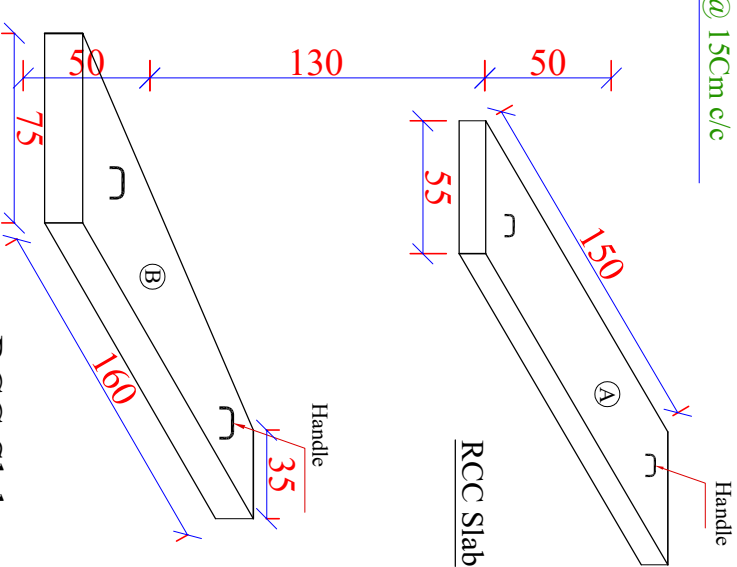


Steel Bar Schedule for one spring

Steel Bar Schedule for one spring								
Bar no.	Bar dia (mm)	Num. of bar	Length (m)	Total length (m)	Weight (kg/m)	Total weight (kg)	Total weight + 5 % (kg)	Shape of bar
1	12	26	1	26	0.888	23	24	[]
2	12	22	0.6	13.2	0.888	11.7	12.3	[]
3	12	8	1.1	8.8	0.888	7.8	8.9	[]
4	12	19	1.5	28.5	0.888	25.3	26.5	[]
5	12	55	0.5	27.5	0.888	24.4	25.6	[]
Total Weight						98 Kg		

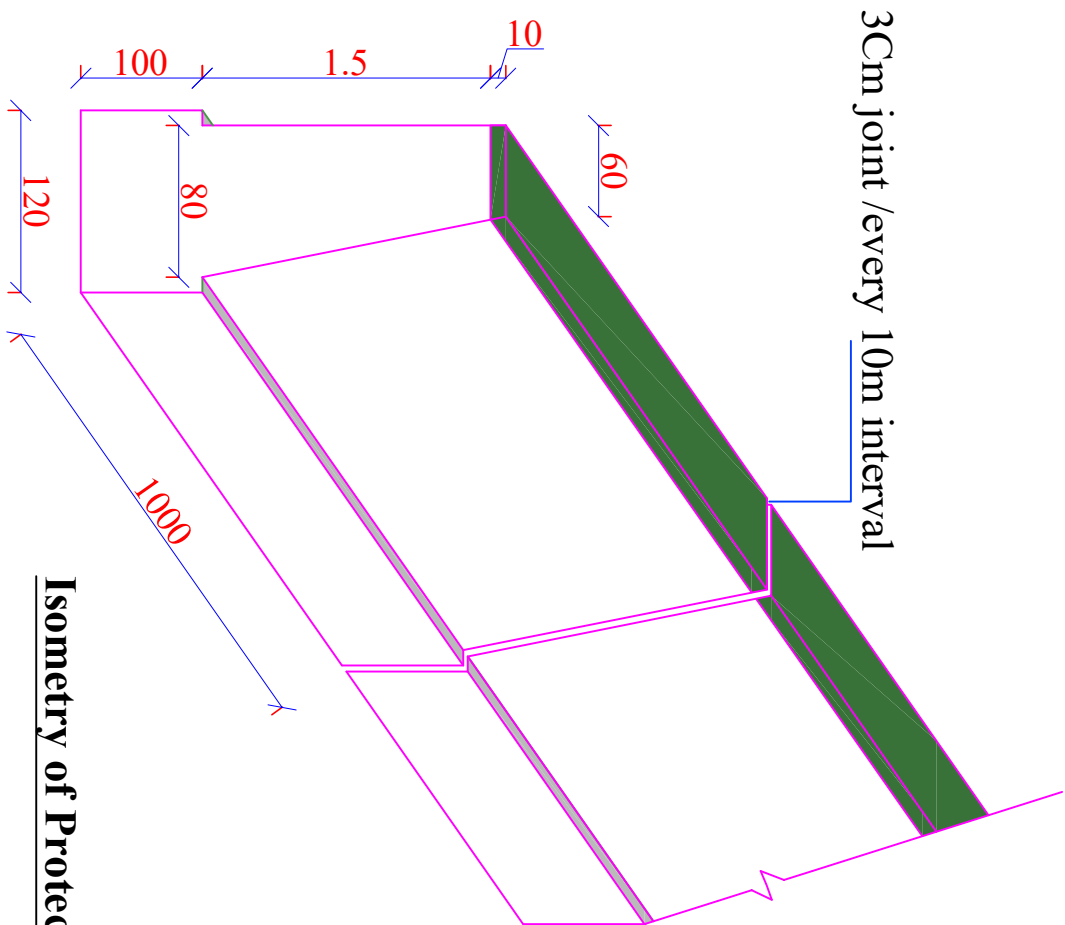


RCC Slab



RCC Slab

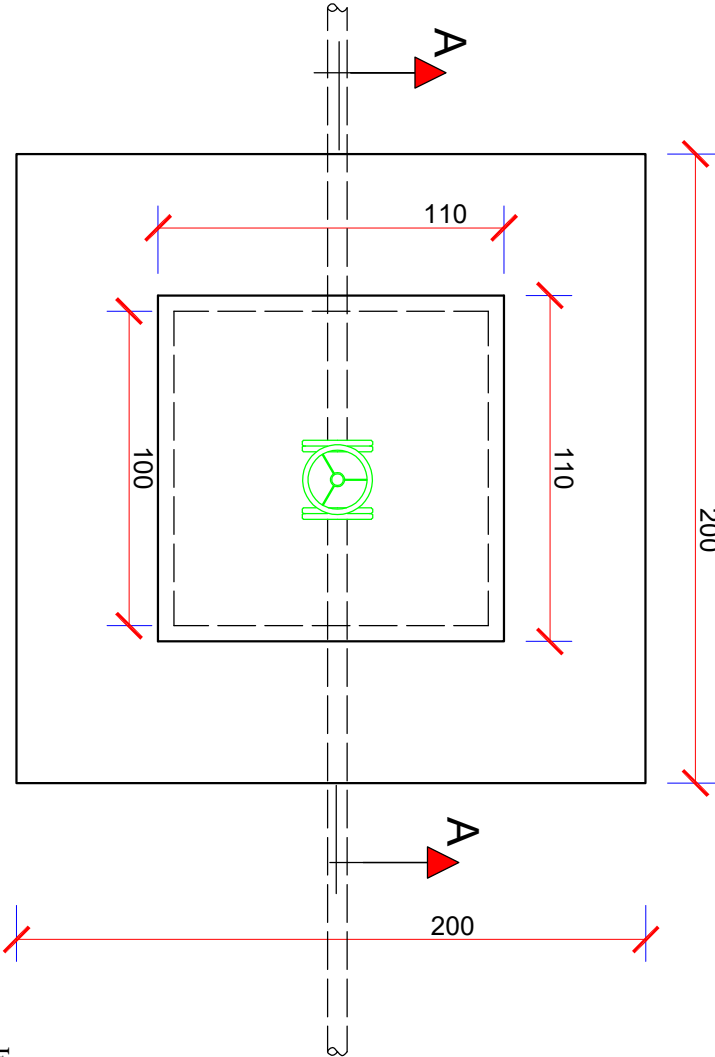
Protection wall with sectio no-2



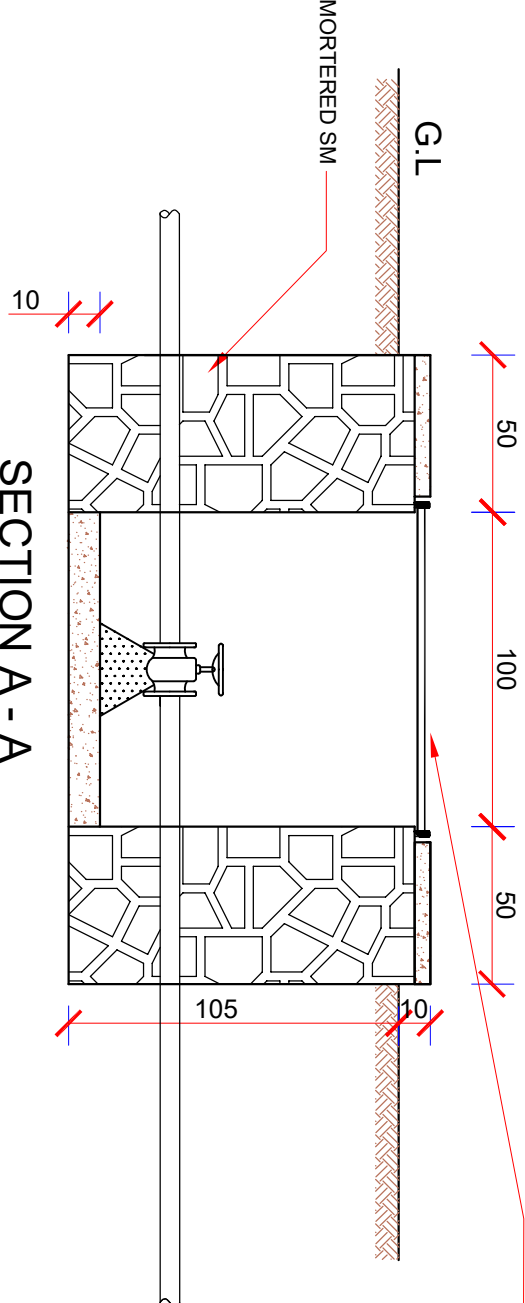
Isometry of Protection wall

SURVEYED BY	Eng. Karimullah	CHECKED BY	Eng. sayed raoud	SCALE		SHEET NO 	PROVINCE	Maidan wardak	PROJECT NAME Protection wall
DESIGNED BY	Eng. Karimullah	REVIEWED BY	Eng. sayed raoud	DATE	08/04/2024		DISTRICT	Dainirudad	
DRAWN BY	Eng. Karimullah	APPROVED BY	Eng. Asdullah Amar	DRAWING NO.		VILLAGE	Changa	Isometry Phase-1	

GATE VALVE BOX



Iron Gate (100x100)cm from Iron sheet 3 mm thick
with lock able system



TYPICAL DIMENSIONS OF VALVE CHAMBER		
S.NO.	DIA.METER OF VALVE (mm.)	DIMENSION (L x B) (mm.)
1.	25-110	1000 X1000

TS ARCHAISTAN
Ministry of Rural
Rehabilitation and
Development
WatSIP

SURVEYED BY	Eng. Kamran Mushtaq	CHECKED BY	Eng. sayed raul sadat	SCALE	1:40	SHEET NO.	1/1	PROVINCE	Maidan wardak	PROJECT NAME	Water Supply Project
DESIGNED BY	Eng. Karimullah	REVIEWED BY	Eng. sayed raul sadat	DATE	14-4-2024			DISTRICT	Dairimdad	DRAWING TITLE	Gate Valve Box
DRAWN BY	Eng. karimullah	APPROVED BY	Eng. Asadullah Emair	DRAWING NO.	GV/B-1			VILLAGE	Changa		



دکلیو دبیار غونی او پراختیا وزارت
وزارت احیاً و انکشاف دهات

Islamic Emirate of Afghanistan
Ministry of Rural Rehabilitation & Development

د افغانستان اسلامي امارت
امارت اسلامي افغانستان



Work plan for the Water Supply (Changa) rehabilitation of Pipe scheme project

S/N	Themes						First Month										Second Month										Third Month																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
No	List of Activities	Skilled labor	unskilled Labor	Unit	Qty	Work days	Week-1					Week-2					Week-3					Week-4					Week-5					Week-6					Week-7					Week-8					Week-9					Week-10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
1	Mobilization of Materials to the site	0	2	Lump sum	1	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

پلان کار در مدت دونیم ماه که توسط تعداد مجموعی کارگران غیر 471 نفر و تعداد مجموعی کارگران 62 نفر تطبیق گردد . که در مجموع 533 روز کاری برای مردم ایجاد میگردد

Prepared by: Eng. Karimullah

Checked by:

Date:14-04-2024