



GOVERNMENT OF ISLAMIC REPUBLIC OF AFGHANISTAN



SWIM STRENGTHENING WATERSHED
AND IRRIGATION MANAGEMENT

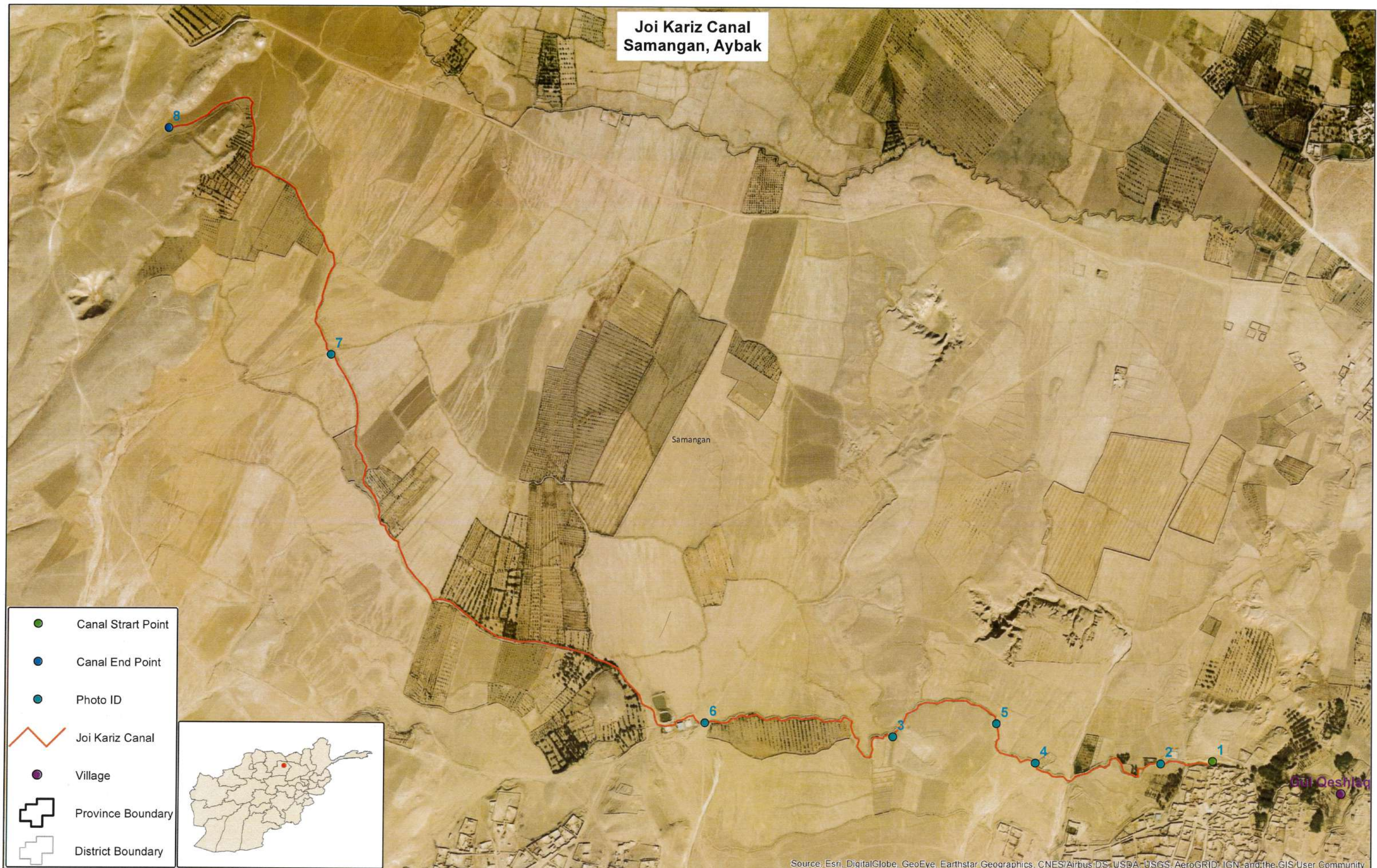
Project Name: Joy Kariz Secondary Canal Rehabilitation
Province: Samangan
District: Aybak

Afghanistan, Samangan.
Date: 28-Feb-2019

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Joi Kariz Canal Samangan, Aybak



MAP INFORMATION Map Produced : Septmber 2017 Cartographer: Abdul Razaq Projection : World Mercator Datum : WGS 1984		Data Source Base layer information including boundaries and place names courtesy of the Afghan Geodesy and Cartography Head Office (AGCHO).	Data Disclaimer All boundaries and map features are approximate and should not be considered authoritative. While every effort is made to use the best available data, accuracy of features or other information cannot be guaranteed. Map prepared by the SWIM Project GIS Department.			
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GENERAL:

1. SAMPLE OF ALL MATERIALS (STONE, PCC, STEEL GATES, RCC, GRAVEL, SAND, DRY STONE, PVC PIPE, GUARD RILL, WATER STOPPER, ETC.) SHALL BE APPROVED BY SWIM ENGINEER BEFORE THE CONTRACTOR USE FOR THE PROJECT, OTHERWISE SWIM ENGINEERS ARE AUTHORIZED TO REJECT THE USED MATERIALS.
2. ALL CONSTRUCTION WORKS SHALL BE CARRIED OUT WITH CLOSE COORDINATION AND PRIOR APPROVAL OF SWIM ENGINEERS. OTHERWISE SWIM ENGINEERS ARE AUTHORIZED TO REJECT THE EXECUTED WORKS AND CONTRACTOR HAS TO RE-DO IT.
3. ALL QUALITY CONTROL TESTS SHOULD BE CARRIED OUT BY THE CONTRACTOR IN A RECOGNIZED LABORATORY by AECOM SWIMM.
4. TO AVOID DELAY IN IRRIGATION, ALL DIVERSION WILL BE MADE WITH CONSULTATION OF COMMUNITY, EITHER THE DIVERSION SHALL BE MADE LEFT SIDE OR RIGHT SIDE OF THE CANAL

GABION:

1. THE STONE SIZE RANGES FROM 150 MM TO 250 MM. SMALL STONES SHOULD BE AVOIDED. THE STONES USED SHOULD HAVE A MINIMUM SIZE OF NOT LESS THAN "D" (MESH WIDTH) AND NOT GREATER THAN 3.5 TIMES "D", WHERE D IS THE SPECIFIED MESH WIDTH. LARGER STONES CAN BE USED PROVIDED THAT THEIR TOTAL VOLUME DOES NOT EXCEED 5% OF THE CELL VOLUME.

STONE MASONRY:

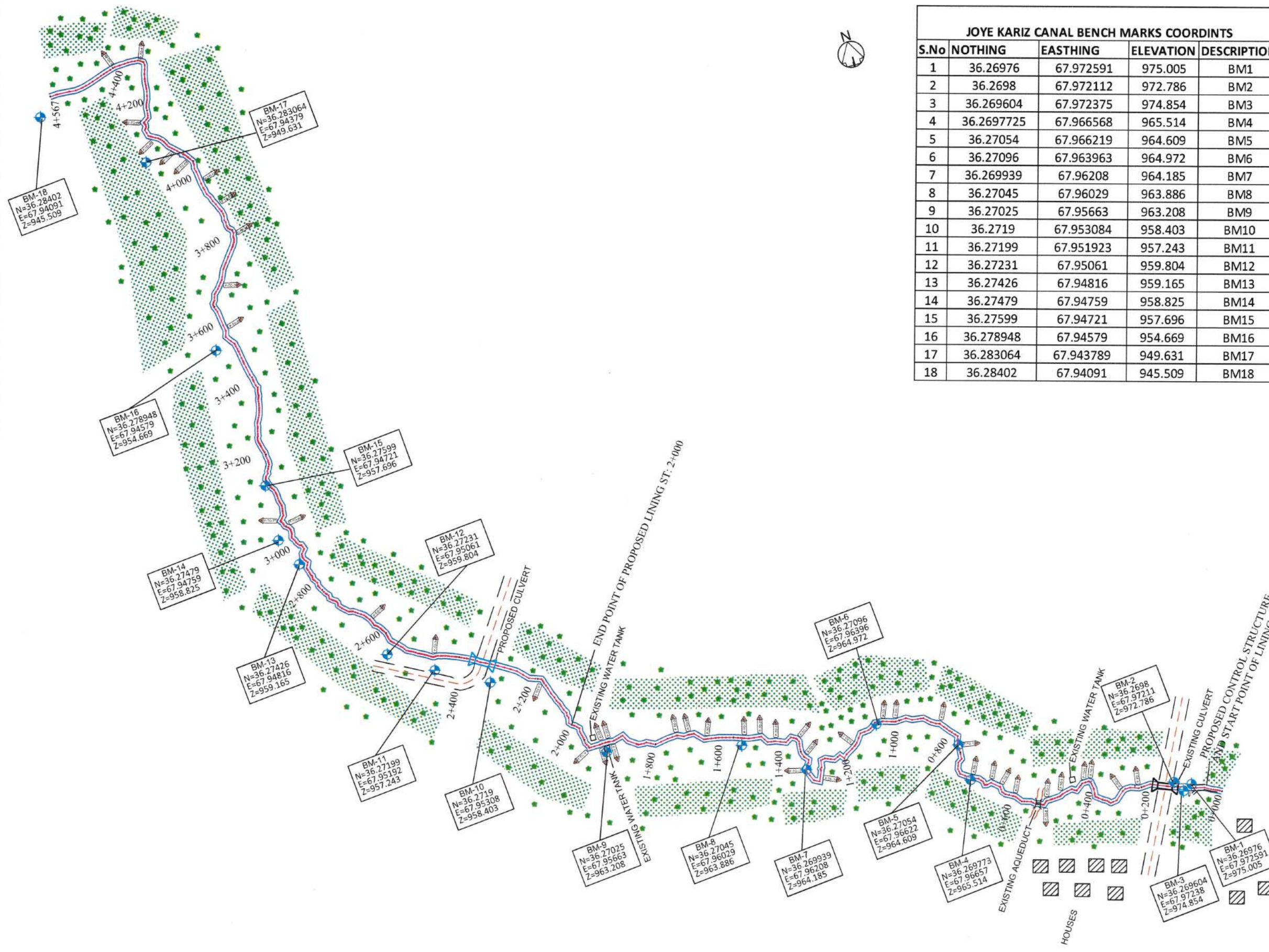
1. ALL STONE MASONRY WALLS SHALL BE WITH RATIO OF 1:4 CEMENT SAND MORTAR WITH CONSIDERING TO 35% OF MASONRY VOLUME.
2. ALL STONES SHALL BE FREE FROM DEFECTS LIKE CAVITIES, CRACKS, SAND HOLES, FLAWS, INJURIOUS VEINS, PATCHES OF LOOSE OR SOFT MATERIALS, ETC. ALSO, THE PERCENTAGE OF WATER ABSORPTION SHALL GENERALLY NOT EXCEED 5%, CERTIFICATION REQUIRED
3. STONES USED SHALL BE SMALL ENOUGH TO BE LIFTED AND PLACED BY HAND, LENGTH OF THE STONES SHALL NOT EXCEED THREE TIMES THEIR HEIGHTS, AND THE BREADTH OF THE BASE SHALL NOT BE GREATER THAN THREE-FOURTHS OR THE THICKNESS OF WALL OR LESS THAN 150MM. THE HEIGHT OF STONES FOR RUBBLE MASONRY MAY BE UP TO 300MM
4. STONES WITH ROUND FACES SHALL NOT BE USED AND NEVER EVER ACCEPTABLE.
5. ALL EXPOSED SURFACES OF MORTARED STONE MASONRY SHALL BE POINTED WITH THE CEMENT SAND MORTAR 1:3
6. FOR FACES OF THE STONEMASONRY THAT WILL BE BACKFILLED, CONTRACTOR IS TO MAKES SURE ALL GAPS BETWEEN STONES ARE FILLED WITH MORTAR.

CONCRETE:

1. CONCRETE DESIGN SHOULD BE BASED ON 28 DAYS A COMPRESSIVE STRENGTH OF 25MPa FOR RCC AND 20MPa FOR PCC AS SPECIFIED ON THE DRAWINGS.
2. REINFORCEMENT YIELD STRESS "FY" SHALL NOT BE LESS THAN 2500KG/CM²
3. A MAXIMUM OF 25% STONE WITH A MAXIMUM STONE SIZE OF (25 to 40) CM TO BE USED IN BOULDER CONCRETE. THE CONCRETE MARK SHALL BE 15MPa AS SPECIFIED IN DESIGN AND DRAWINGS.
4. SAND OR FINE AGGREGATE SHALL FREE FROM SALT, ALKALI, CALCIUM SULPHATE OR VEGETATION AND IT SHALL NOT CONTAIN MORE THAN 0.5 PERCENT BY WEIGHT CLAY.
5. AGGREGATE: - COARSE AGGREGATE SHALL CONSIST OF CRUSHED GRAVEL WITH THE MAX SIZE OF 20MM.
6. WATER USED FOR ALL CONCRETE MIXTURE AND CONCRETE CURING SHALL BE FROM A SOURCE APPROVED BY THE SWIM ENGINEER AND AT THE TIME OF USE SHALL BE FREE FROM CONTAMINANTS.
7. THE MAXIMUM SLUMP FOR CONCRETE SHOULD BE BETWEEN (5-7.5) CM.
8. CONCRETE COMPACTION SHOULD BE DONE BY USING CONCRETE VIBRATOR AT THE TIME OF POURING IN SUCH A WAY TO FORM A SOLID COMPACT CONCRETE.
9. ALL CONCRETE AND MASONRY WORKS CURING SHOULD BE CONTINUED FOR 14 DAYS.
10. DURING COLD WEATHER ALL CONCRETING AND MASONRY WORKS SHOULD BE STOPPED, OR THE CONTRACTOR HAS TO CONSIDER COLD WEATHER CONCRETING PROCEDURE AS ACCEPTED BY THE SWIM ENGINEER.
11. CONCRETE SHUTTERING/Framework SHOULD BE DONE WITH HIGH STABILITY AND PROPER BRACING.
12. FOR ALL CONCRETE WORKS (RCC, PCC, BOULDER CONCRETE, MORTAR AND GROUT) SHALL BE MIXED BY CONCRETE MIXER. HAND MIXING IS NOT PERMISSIBLE UNLESS THE VOLUME OF CONCRETE IS LESS THAN 1M³ AND SHALL BE VERIFIED BY SWIM ENGINEERS AS WELL.
13. THE CONTRACTOR SHALL HAVE AN EXPERIENCED SITE ENGINEER FULL TIME ON THE PROJECT SITE FOR FOLLOW UP THE DESIGN, DRAWINGS AND QUALITY CONTROL PURPOSES. EXECUTION OF WORKS WITHOUT PRESENCE OF SITE ENGINEER IS NOT ACCEPTABLE AND PAYABLE BY SWIM.

BACKFILLING:

1. BACKFILLING MATERIAL SHOULD BE PROPERLY TESTED AND SELECTED TO BE SUITABLE AS PER APPROVAL OF SWIM ENGINEER AND STANDARD PRACTICE.
2. FOR BACKFILLING MAXIMUM THICKNESS OF EACH LOOSE SOIL LAYER SHOULD NOT MORE THAN 15CM.
3. STANDARD COMPACTION TESTS SHOULD BE CARRIED OUT FOR THE BACKFILLING LAYERS BY LAYERS.
4. THE PERCENTAGE OF COMPACTION SHOULD BE NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY AS STATED IN DESIGN AND DRAWINGS.






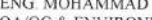
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2	36.2698	67.972112	972.786	BM2
3	36.269604	67.972375	974.854	BM3
4	36.2697725	67.966568	965.514	BM4
5	36.27054	67.966219	964.609	BM5
6	36.27096	67.963963	964.972	BM6
7	36.269939	67.96208	964.185	BM7
8	36.27045	67.96029	963.886	BM8
9	36.27025	67.95663	963.208	BM9
10	36.2719	67.953084	958.403	BM10
11	36.27199	67.951923	957.243	BM11
12	36.27231	67.95061	959.804	BM12
13	36.27426	67.94816	959.165	BM13
14	36.27479	67.94759	958.825	BM14
15	36.27599	67.94721	957.696	BM15
16	36.278948	67.94579	954.669	BM16
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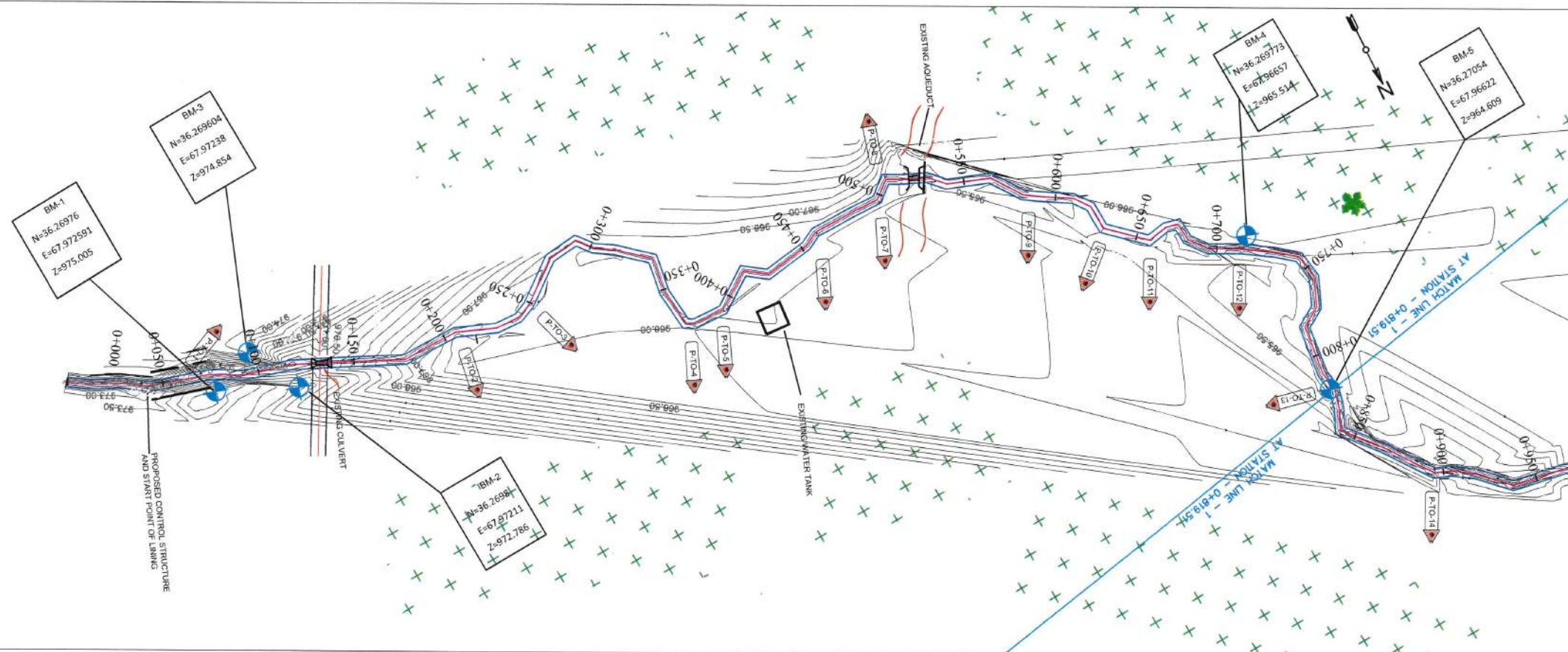
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Agriculture Area	
Orchard(Garden)	
Bench Mark	
Parental Canal	
Main Canal	
Branch Canal	
P-Turn Out	
Residential Area	
Road	
Existing Stone Masonry	
Proposed Stone Masonry	
Existing Culvert	
Proposed Culvert	
Masjid Sharif	
Electric Pole	
Cemetery	
Hand Water Pump	
Tree	
River	

Strengthening Watershed and Irrigation Management (SWIM)

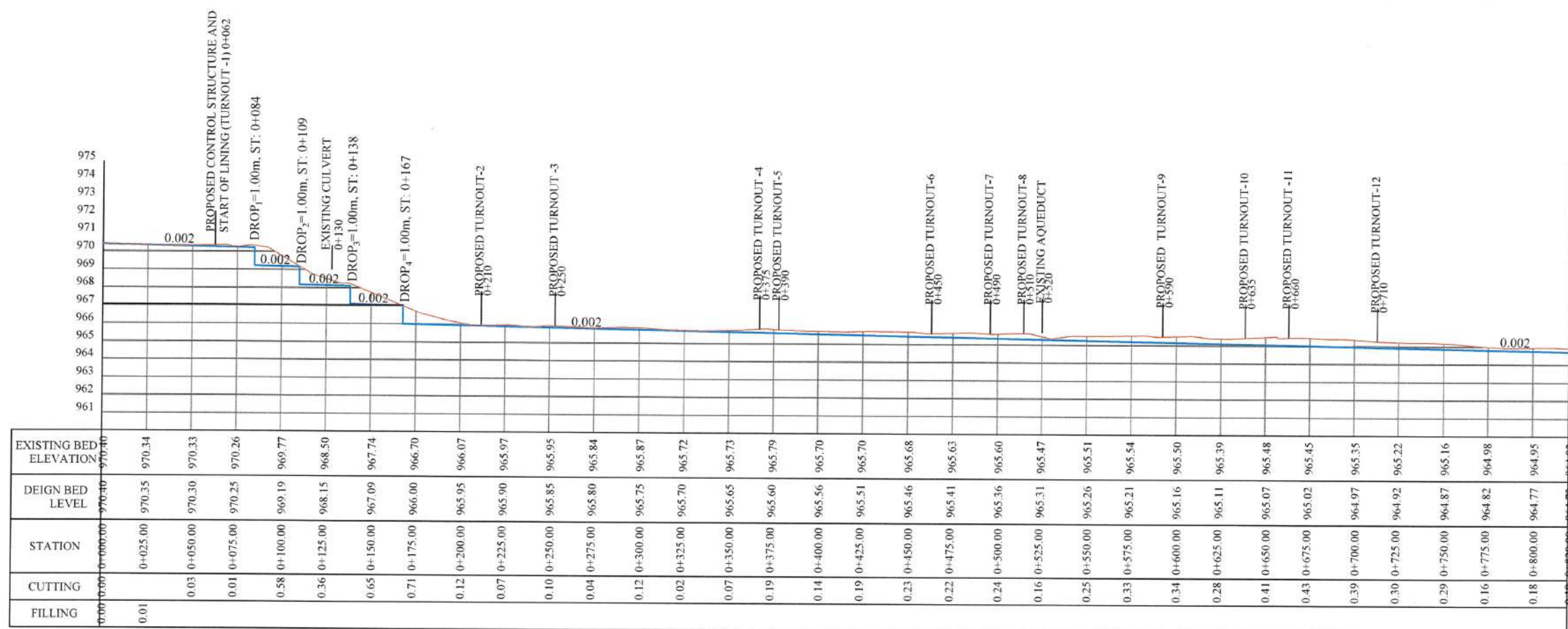
AECOM

Issued for construction
DL Saywell
05 MAY 2019

 <div>USAID FROM THE AMERICAN PEOPLE</div>	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DAILY APPROVAL	SHEET NO. 01/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	GENERAL SITE PLAN	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
		DATE: 		DATE: 		Date: 18 MAR 2019		DATE: 9/1/10		



LEGEND:-	
Agriculture Area	
Orchard(Garden)	
Bench Mark	
Parental Canal	
Main Canal	
Branch Canal	
P-Turn Out	
Residential Area	
Road	
Existing Stone Masonry	
Proposed Stone Masonry	
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Masjid Sharif	
Electric Pole	
Cemetery	
Hand Water Pump	
Tree	
River	



Issued for construction
Dr. Darren Saywell

05 MAY 2019



STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ SECONDARY CANAL

LOCATION
DISTRICT: AYBAK
PROVINCE: SAMANGAN

DRAWING TITLE
PLAN AND PROFILE
ST: (0+000 TO 0+820)

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST

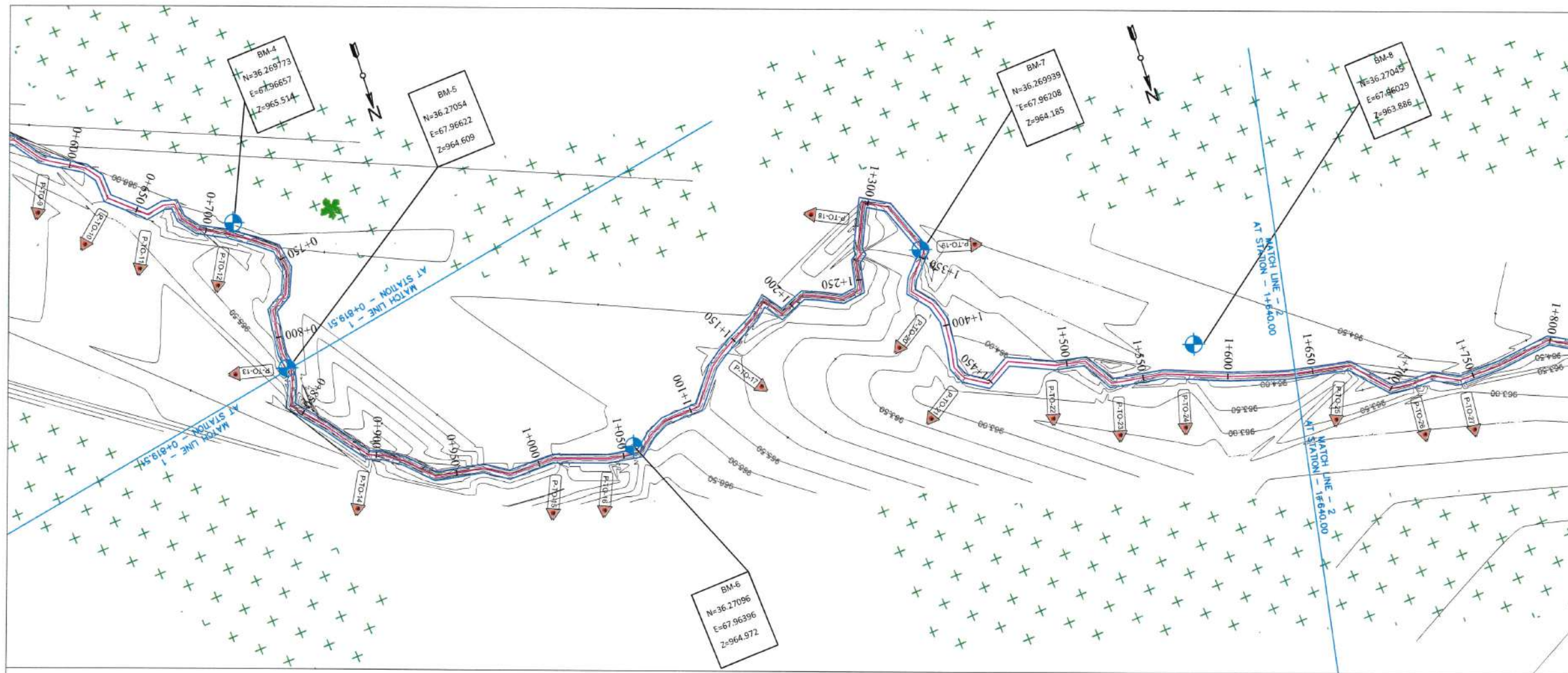
REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL
COMPLIANCE DIRECTOR

SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY

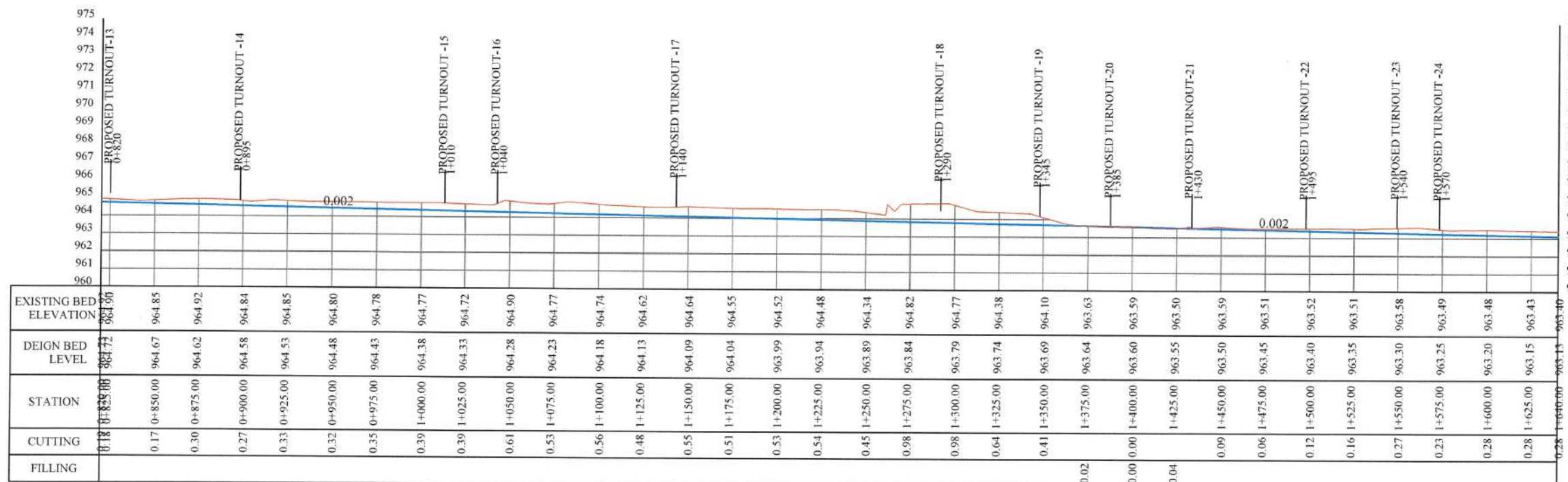
MAIL/DAIL, APPROVAL

SHEET NO.
02/28





LEGEND:-	
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Branch Canal	
P-Turn Out	
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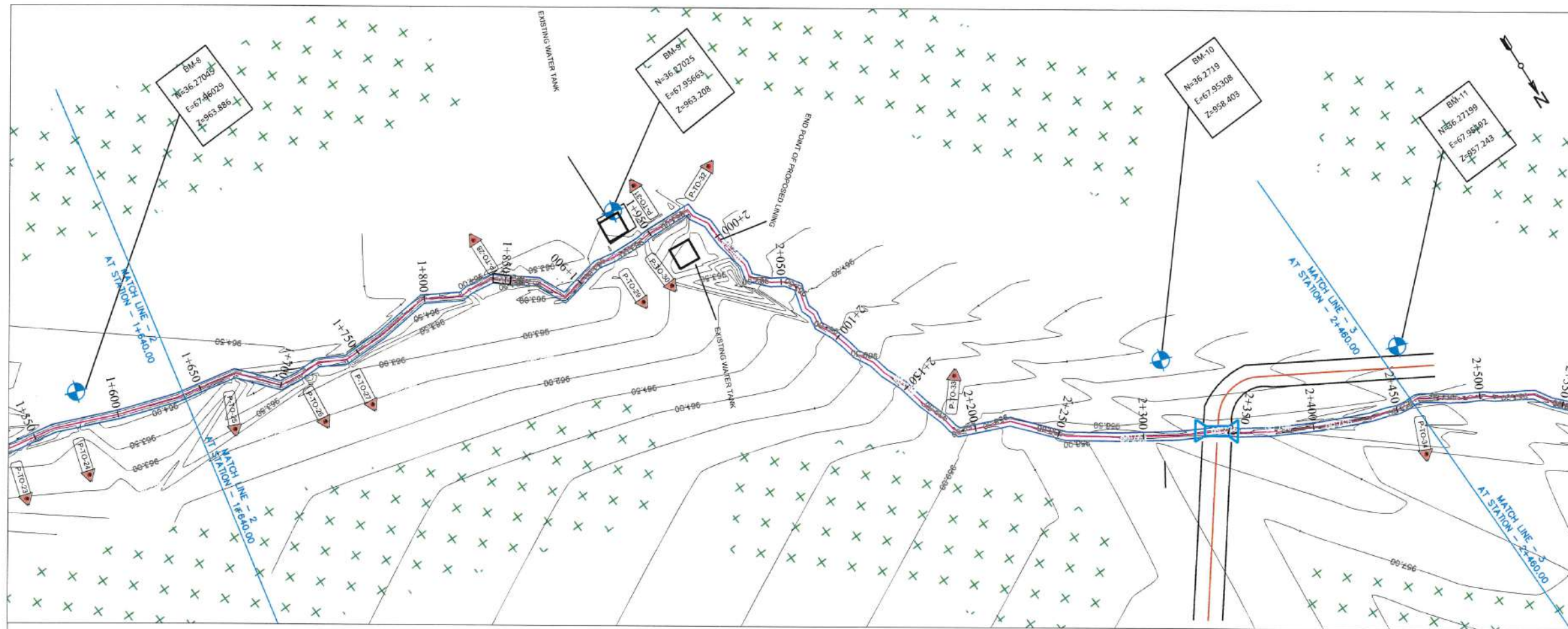


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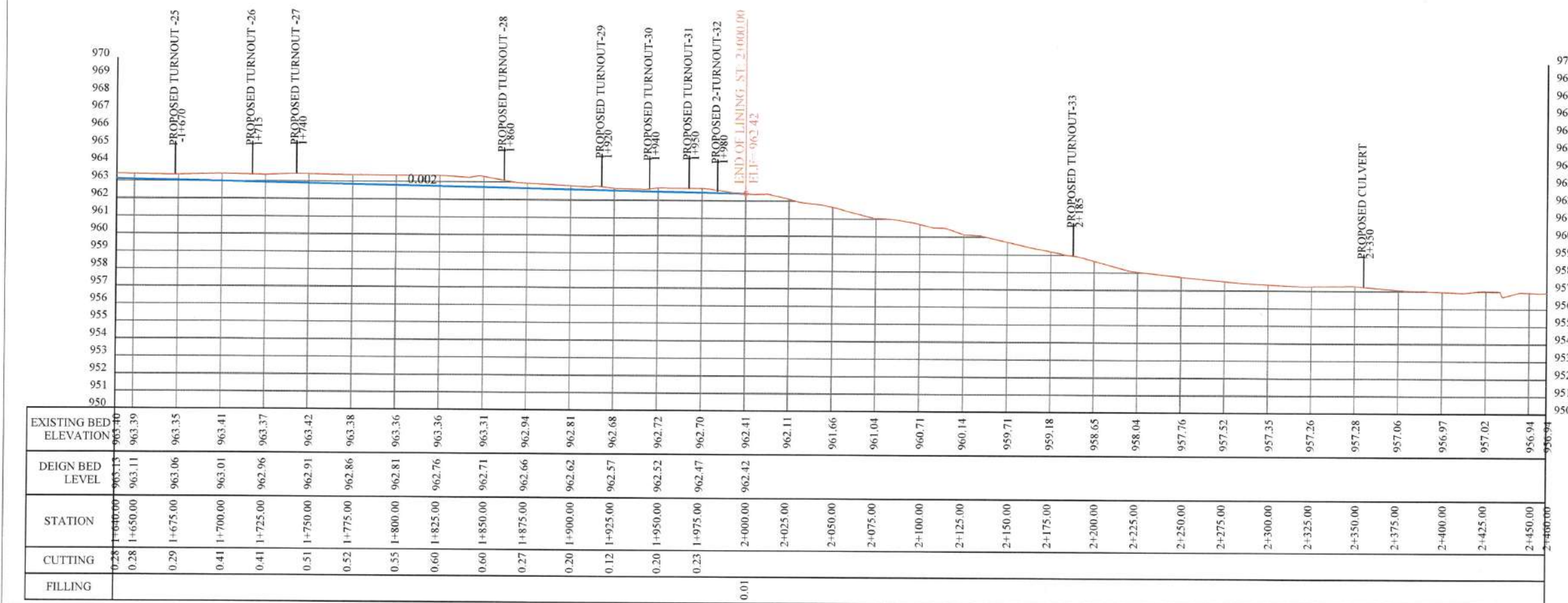
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	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT		CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DATE APPROVAL	SHEET NO. 03/28
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LEGEND:-	
Agriculture Area	
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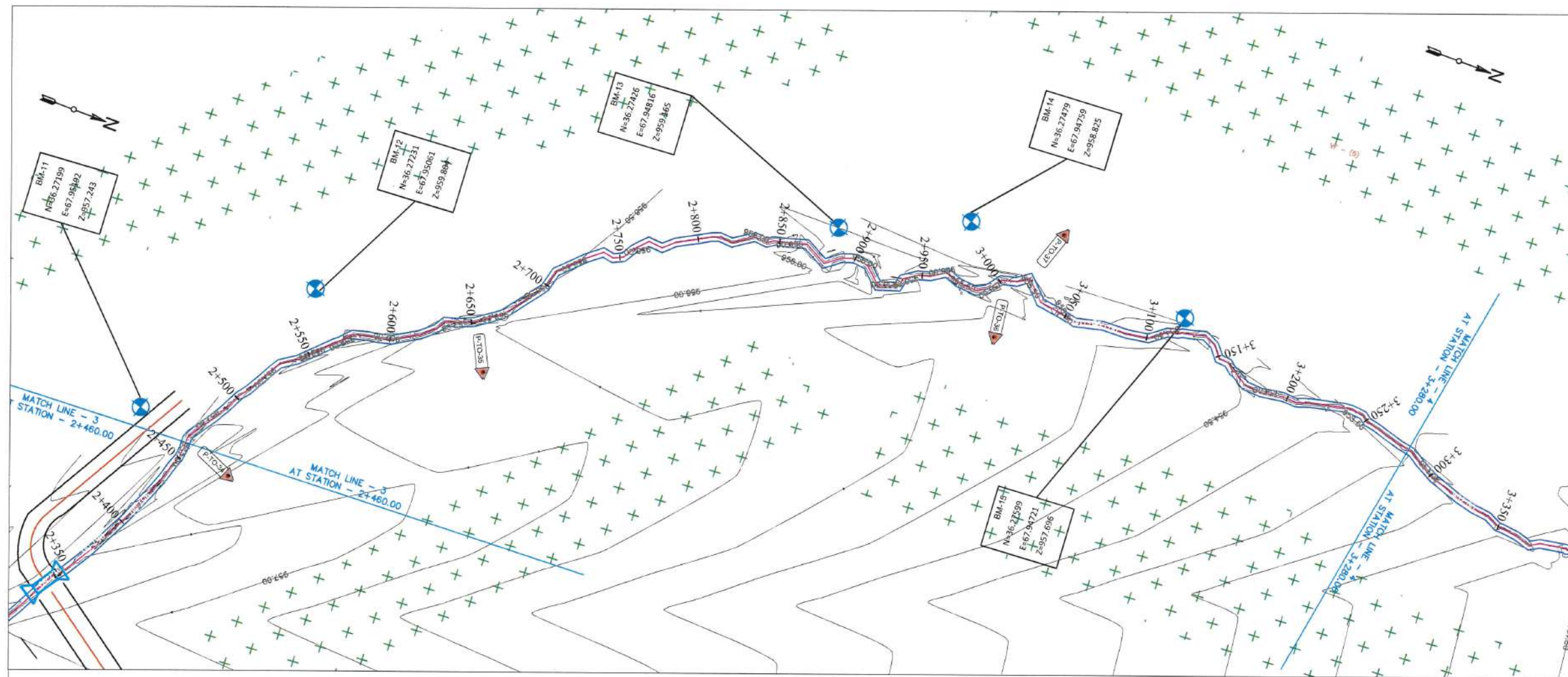


Strengthening Watershed and
Irrigation Management (SWIM)

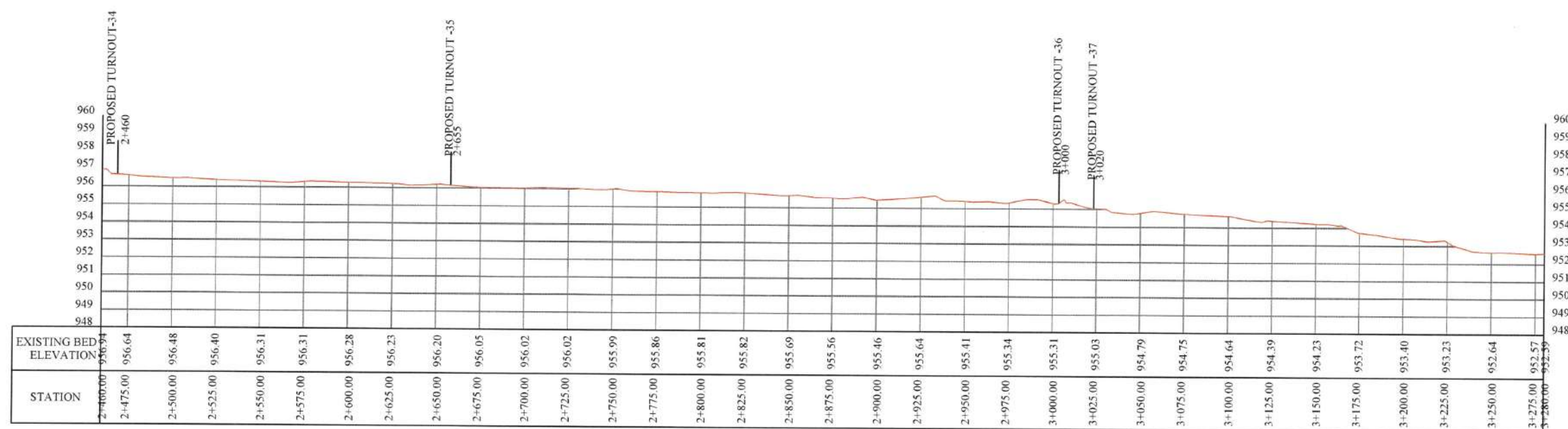
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Disapproved
05 MAY 2019

<p>USAID FROM THE AMERICAN PEOPLE</p>	<p>STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT</p> <p>SWIM</p>	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DAILY APPROVAL	SHEET NO. 04/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	PLAN AND PROFILE ST: (1+640 TO 2+460)	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
					DATE	DATE	DATE	DATE	DATE	



LEGEND:-	
Agriculture Area	
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Proposed Culvert	
Masjid Sharif	
Electric Pole	
Cemetery	
Hand Water Pump	
Tree	
River	




Strengthening Watershed and
Irrigation Management (SWIM)

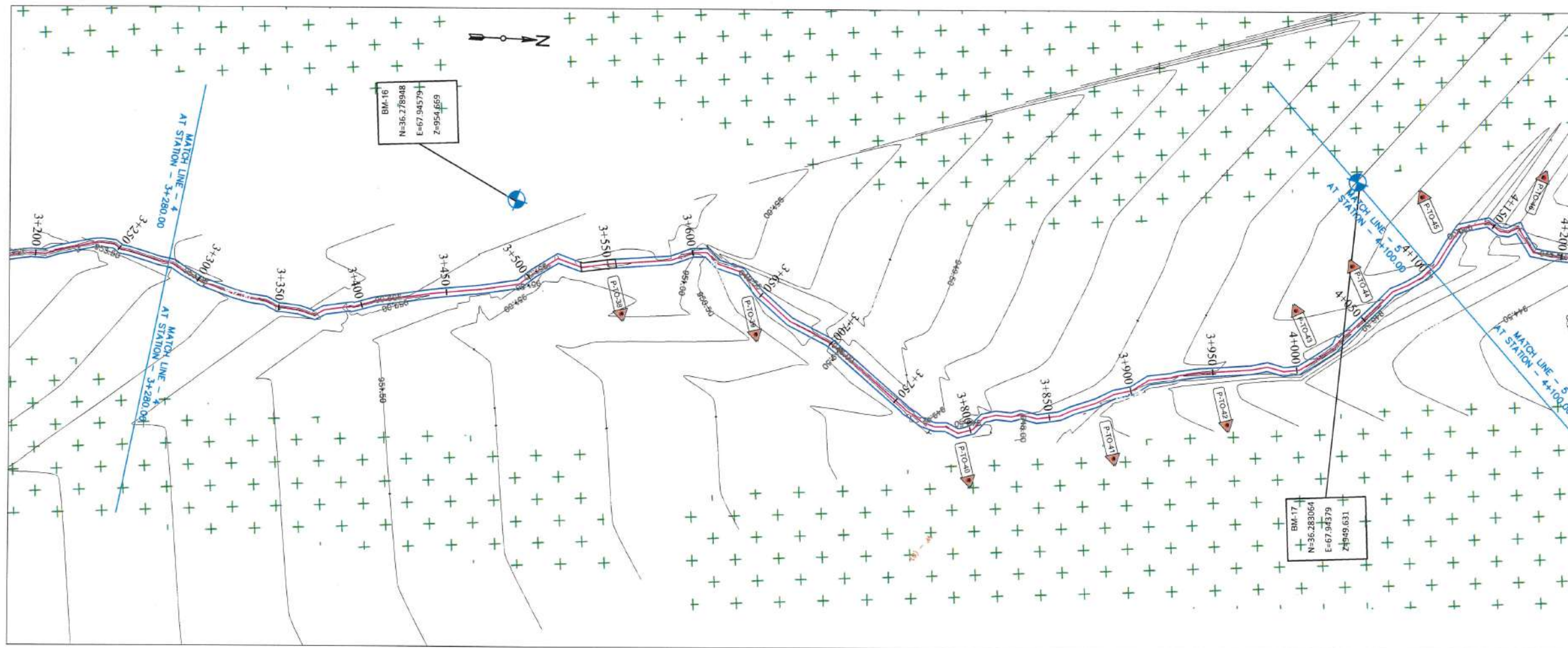
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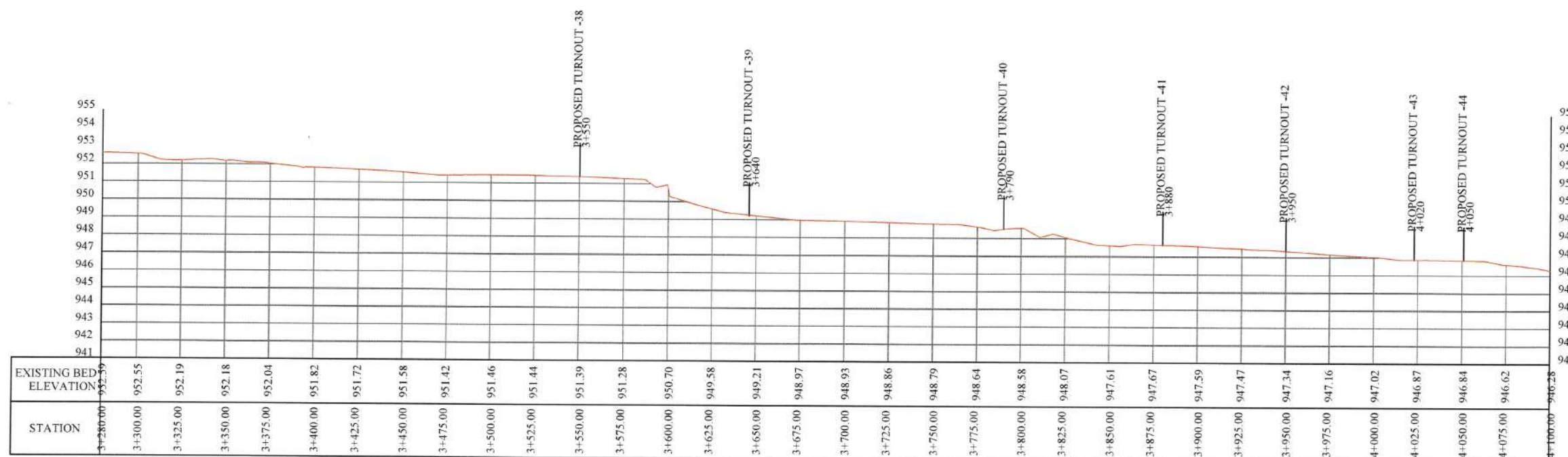
D. Saywell

05 MAY 2019

 <div>USAID FROM THE AMERICAN PEOPLE</div>	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DATE, APPROVAL	SHEET NO. 05/28
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						DATE	DATE	DATE	DATE	



LEGEND:-	
Agriculture Area	
Orchard (Garden)	
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River	



Strengthening Watershed and
Irrigation Management (SWIM)

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Disagreement
05 MAY 2019



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ
SECONDARY
CANAL

LOCATION
DISTRICT: AYBAK
PROVINCE: SAMANGAN

DRAWING TITLE
PLAN AND PROFILE
ST: (3+280 TO 4+100)

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST
DATE: 04/01/19

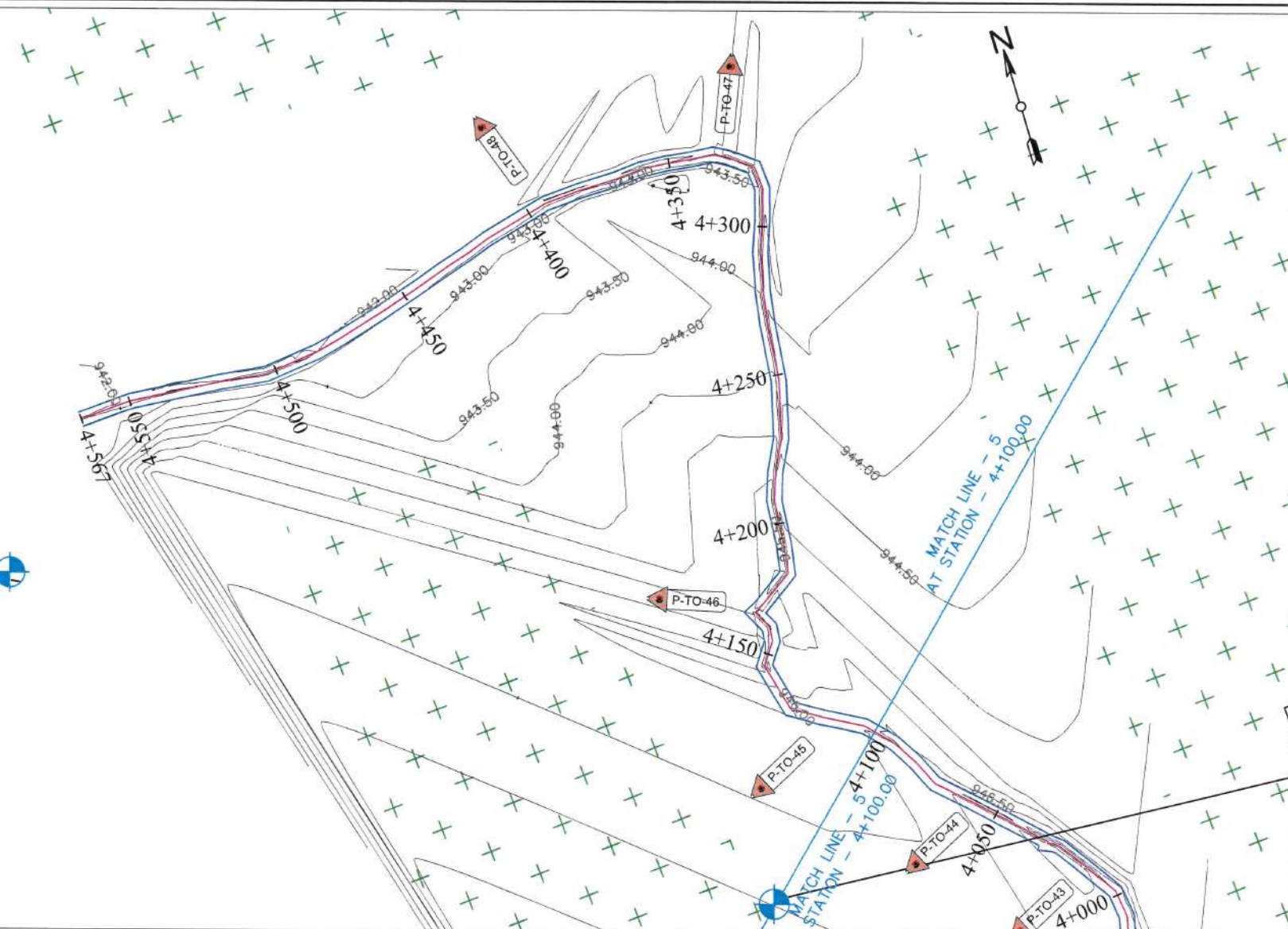
REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL
COMPLIANCE DIRECTOR
DATE: 04/01/19

SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PART
DATE: 04/01/19

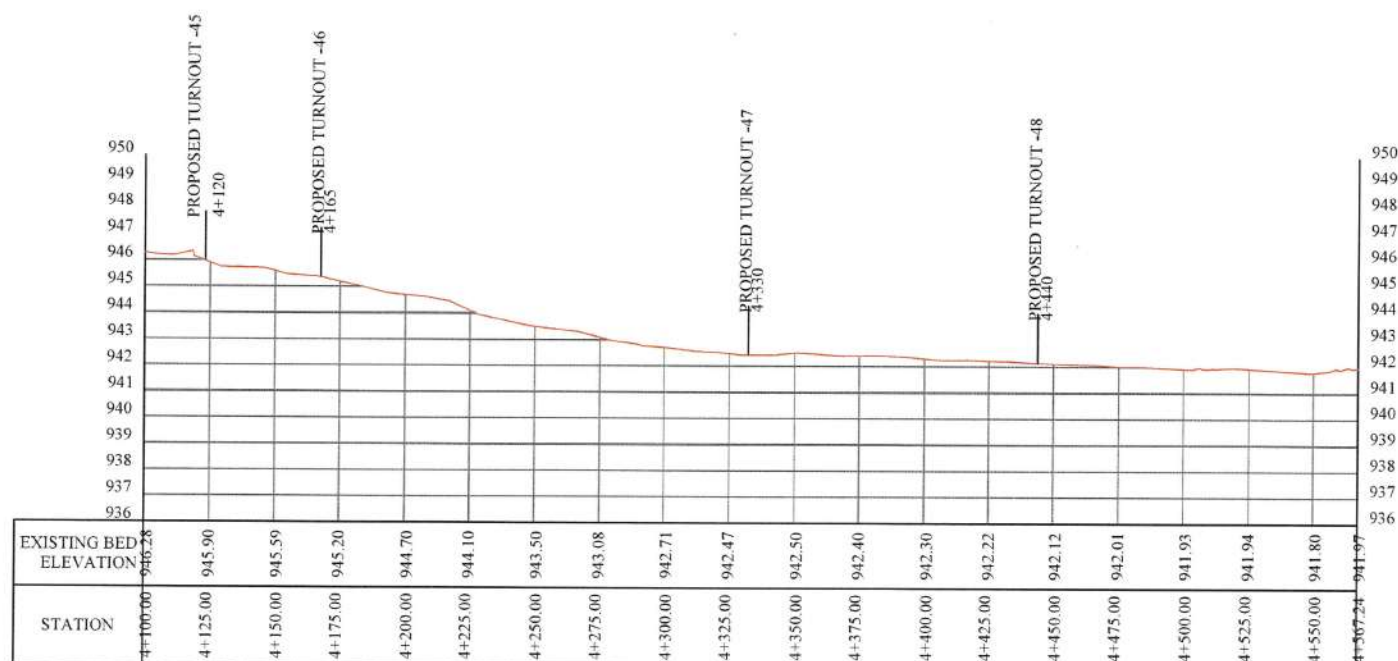
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DATE: 15/01/19

SHEET NO.
06/28

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Main Canal	
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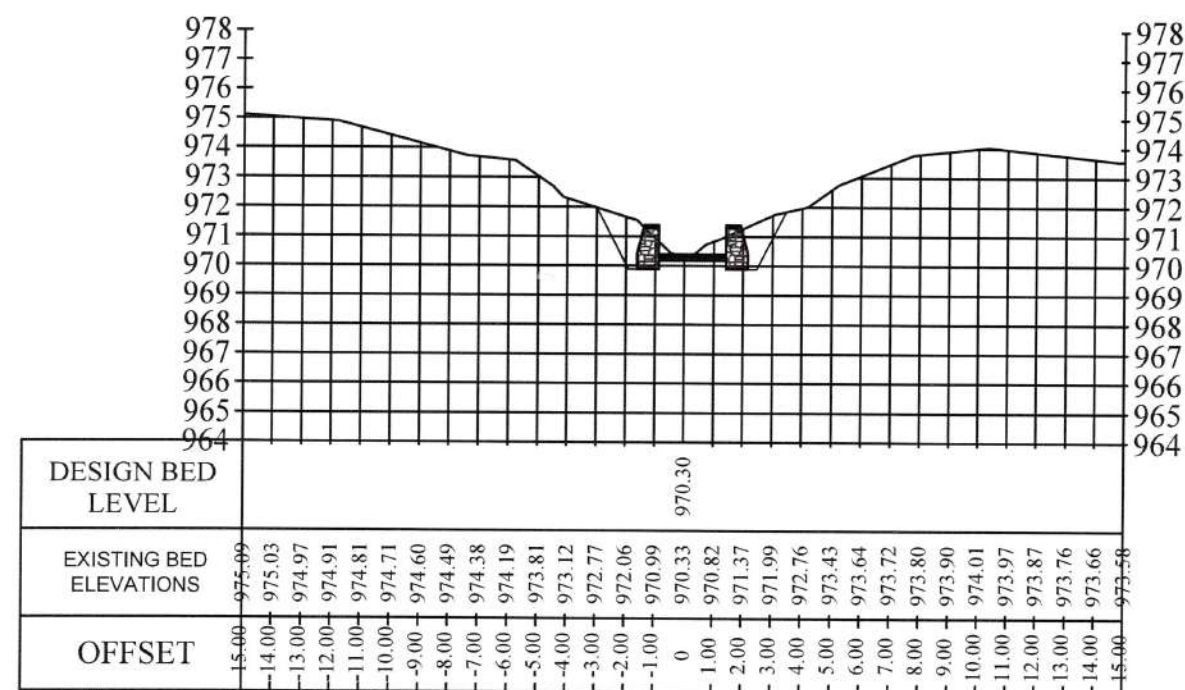


Strengthening Watershed and
Irrigation Management (SWIM)
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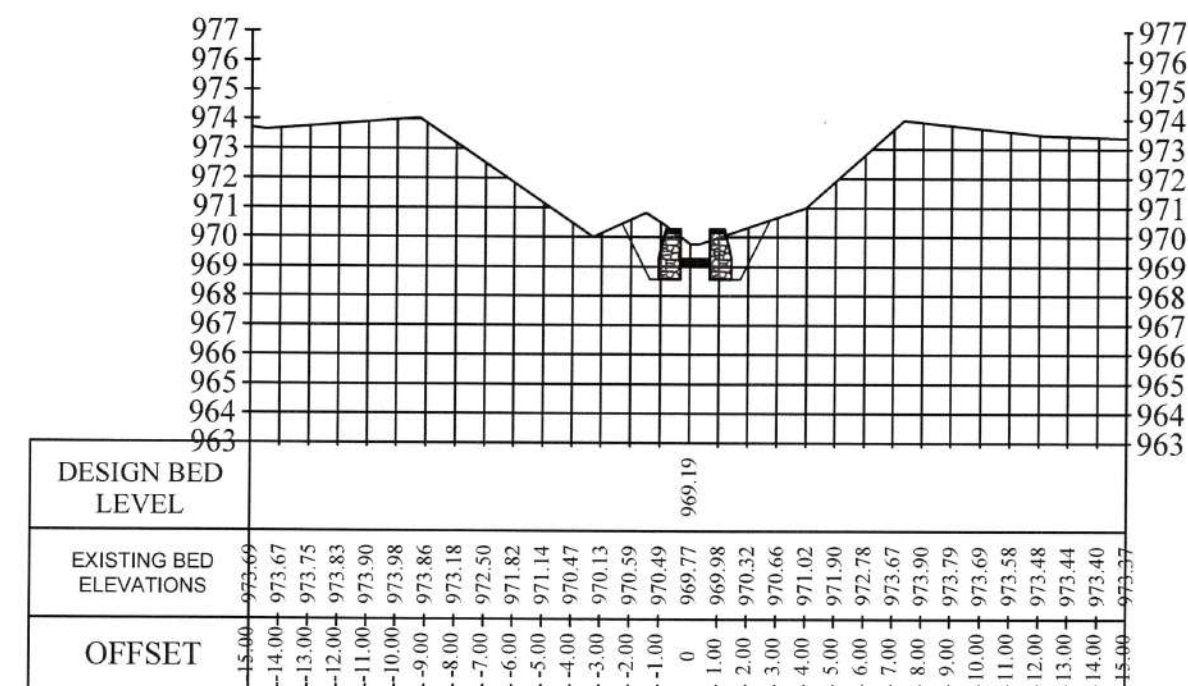
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05 MAY 2019

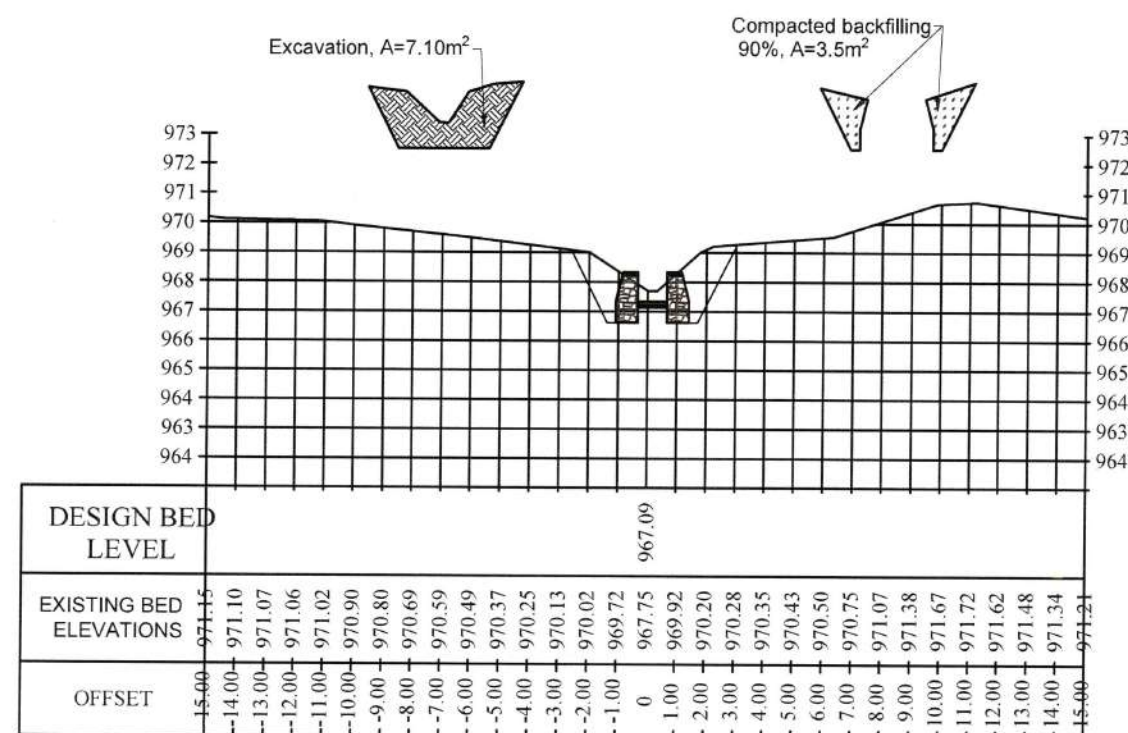
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		DATE: 04/01/17		DATE: 04/01/17		DATE: 04/01/17		DATE: 04/01/17		



JOY KARIZ SECONDARY CANAL ST: 0+050



JOY KARIZ SECONDARY CANAL ST: 0+100



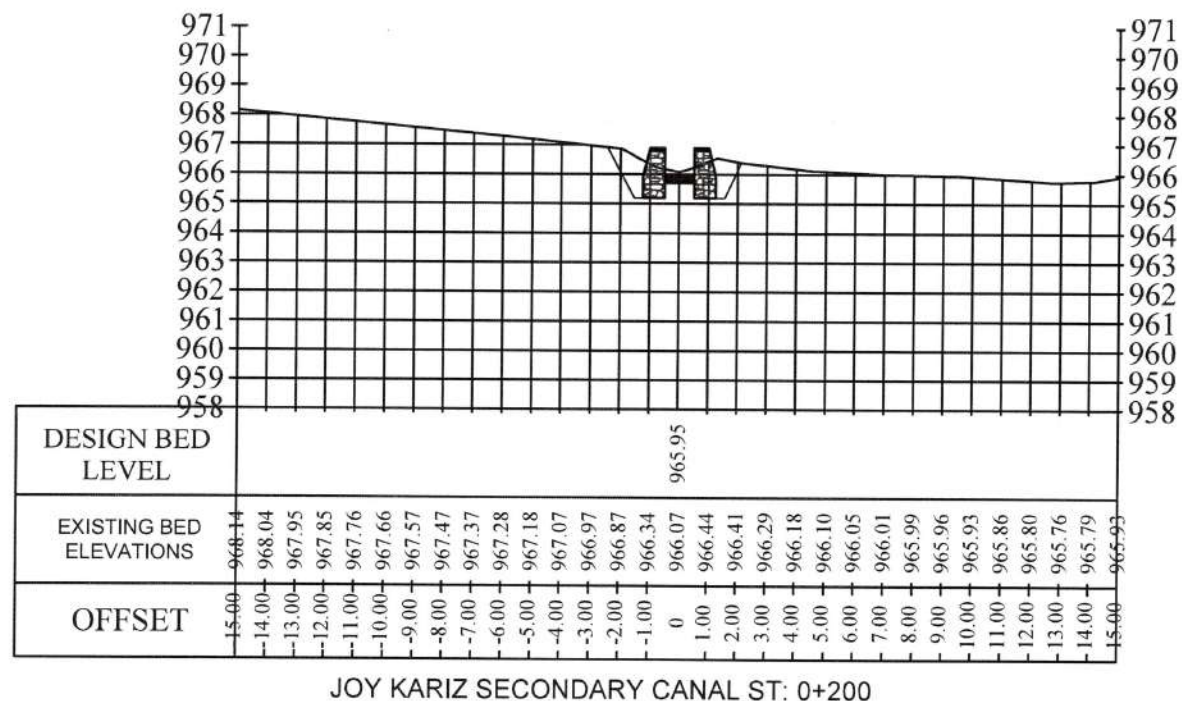
AVERAGE EXCAVATION AND FILLING IN JOY KARIZ
SECONDARY CANAL ST: 0+150



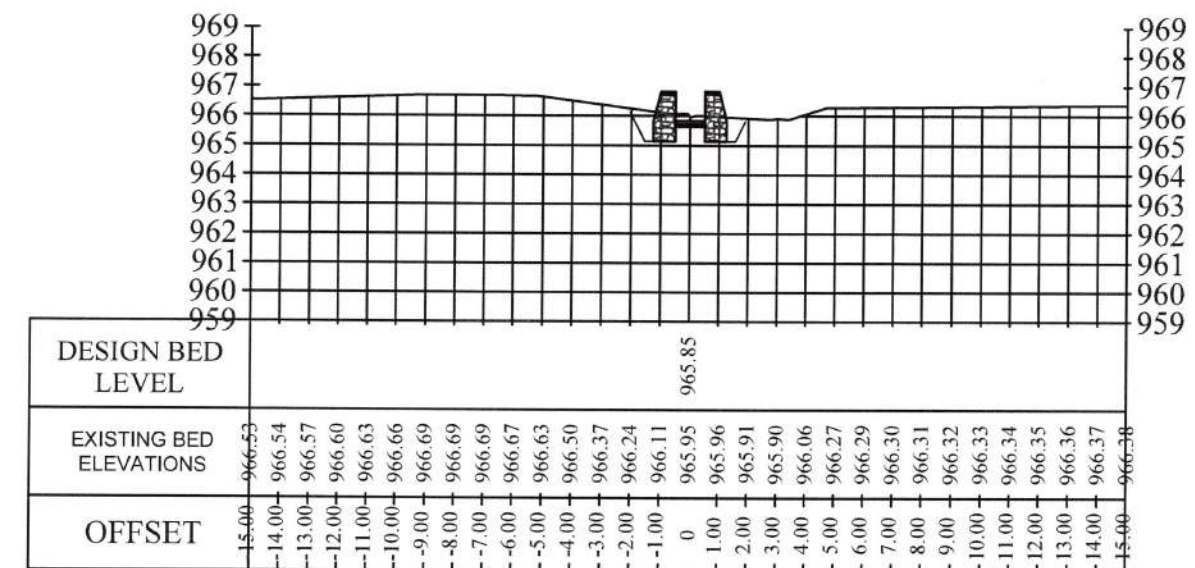
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			JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	SURVEY SECTIONS	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST DATE: 17/03/2019	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR DATE: 18/03/2019	DR. DARREN SAYWELL ACTING CHIEF OF PARTY DATE: 18/03/2019		



JOY KARIZ SECONDARY CANAL ST: 0+200

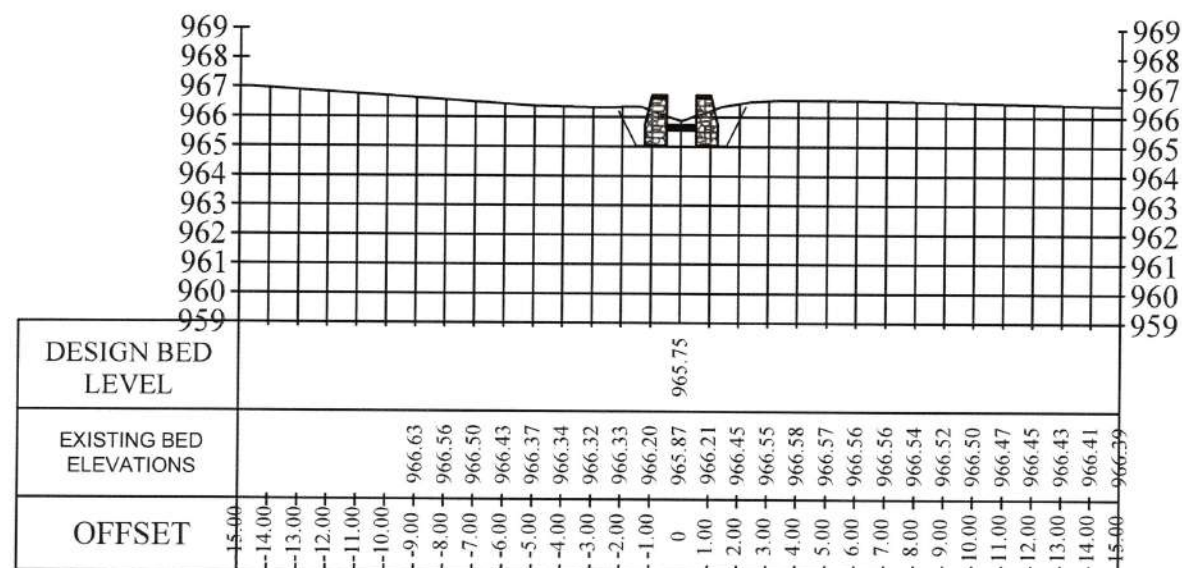


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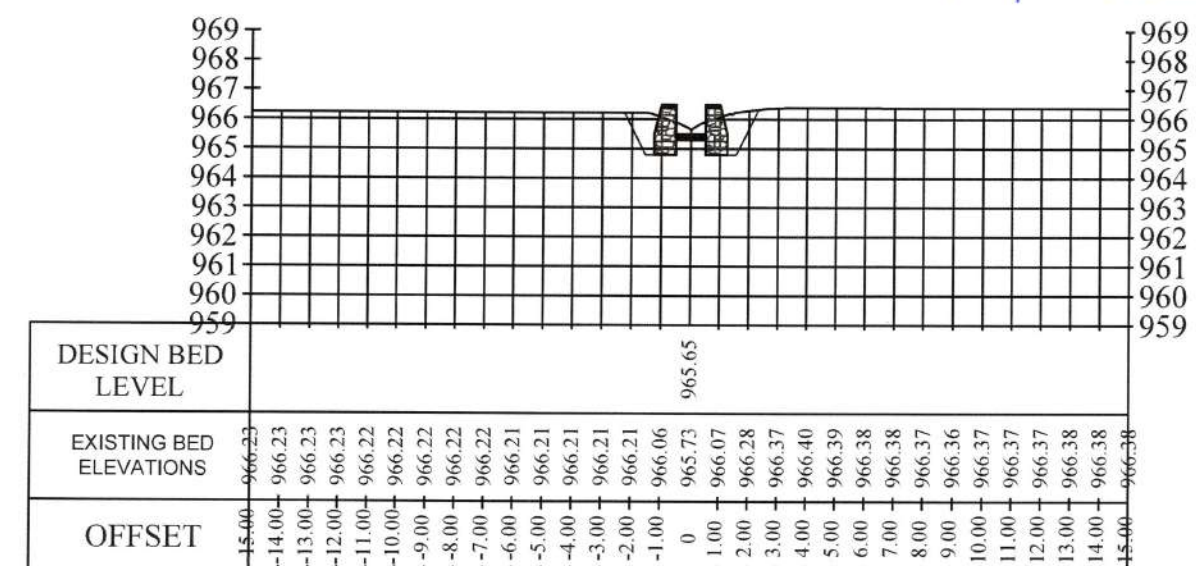
Strengthening Watershed and
Irrigation Management (SWIM)

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Dissemination 05 MAY 2019



JOY KARIZ SECONDARY CANAL ST: 0+300



JOY KARIZ SECONDARY CANAL ST: 0+350



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ
SECONDARY
CANAL

LOCATION
DISTRICT: AYBAK
PROVINCE: SAMANGAN

DRAWING TITLE
SURVEY SECTIONS

SURVEYED BY
SWIM

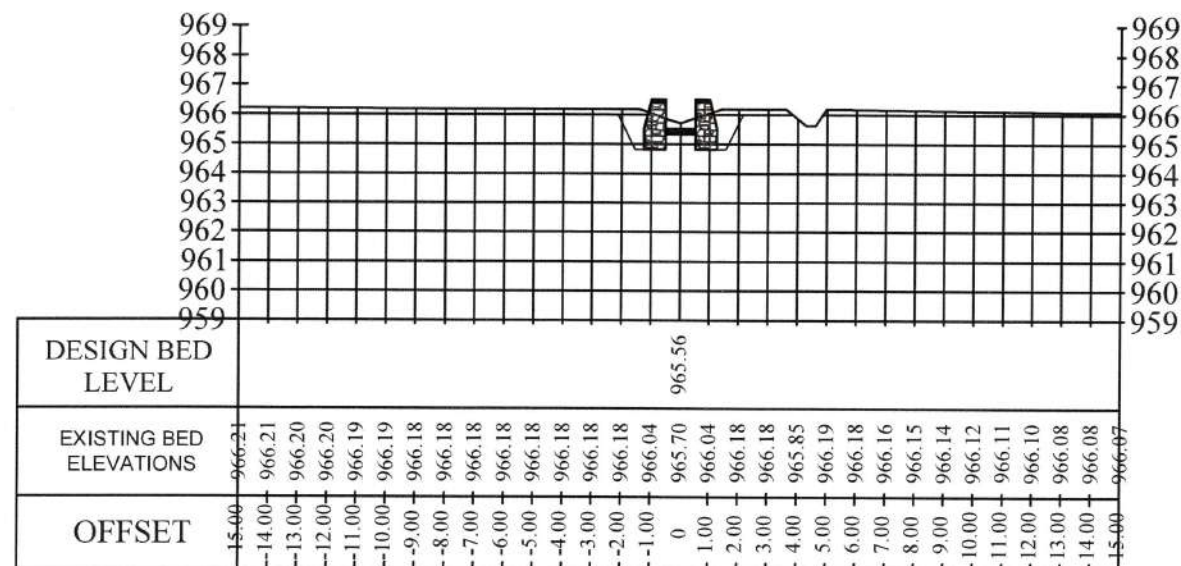
DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST
DATE: 18/03/2019

REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL
COMPLIANCE DIRECTOR
DATE: 18/03/2019

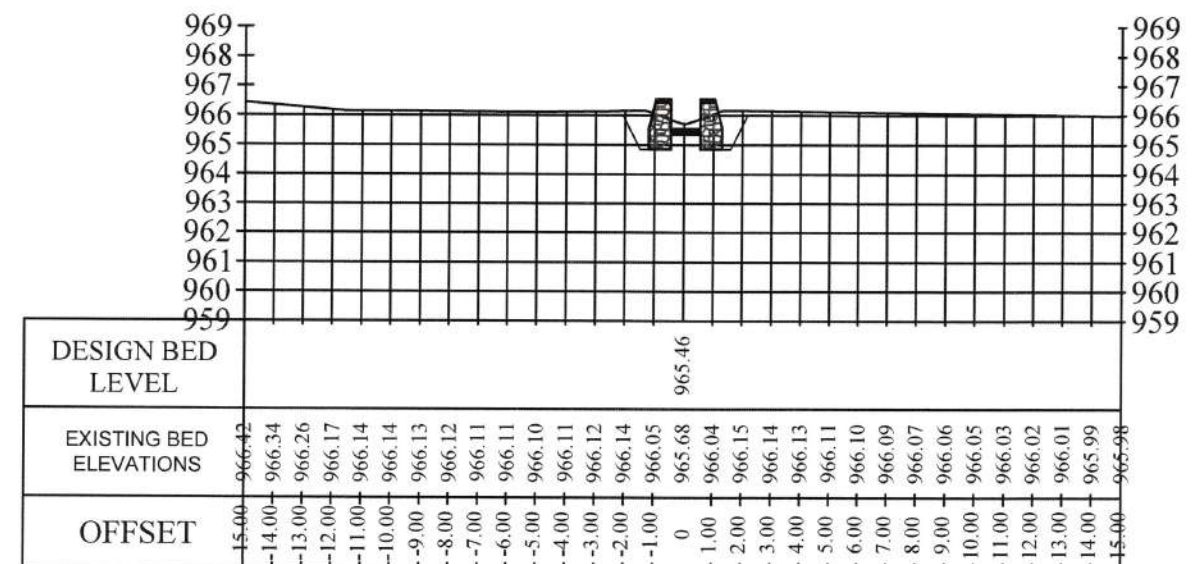
SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY
DATE: 18/03/2019

MAIL/DAIL APPROVAL
DATE: 18/03/2019

SHEET NO.
09/28



JOY KARIZ SECONDARY CANAL ST: 0+400



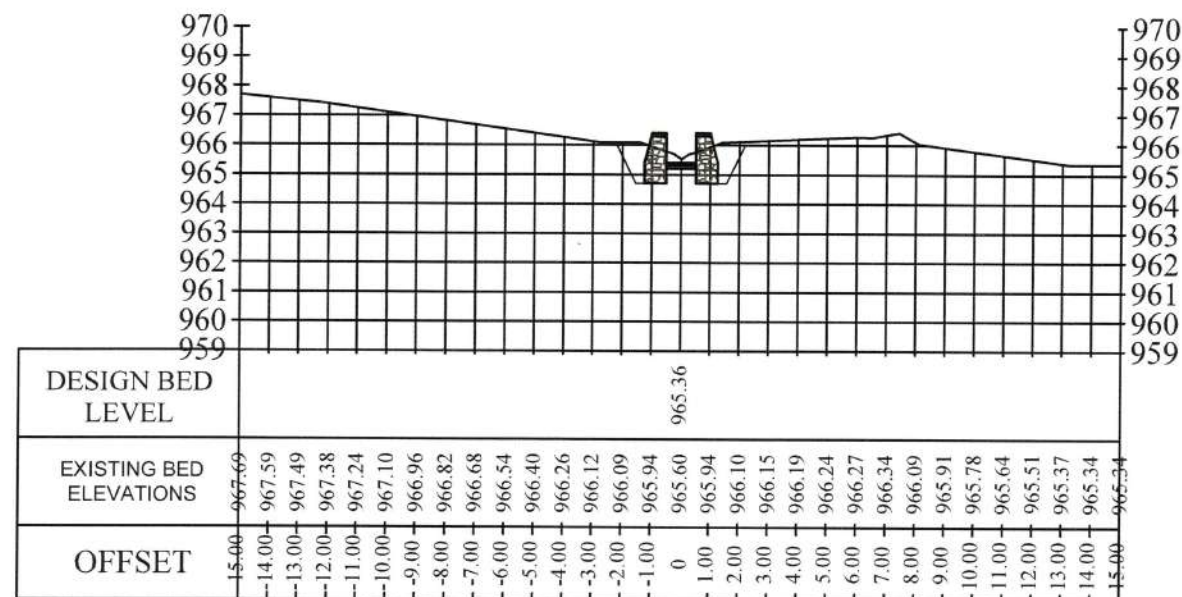
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Strengthening Watershed and Irrigation Management (SWIM)

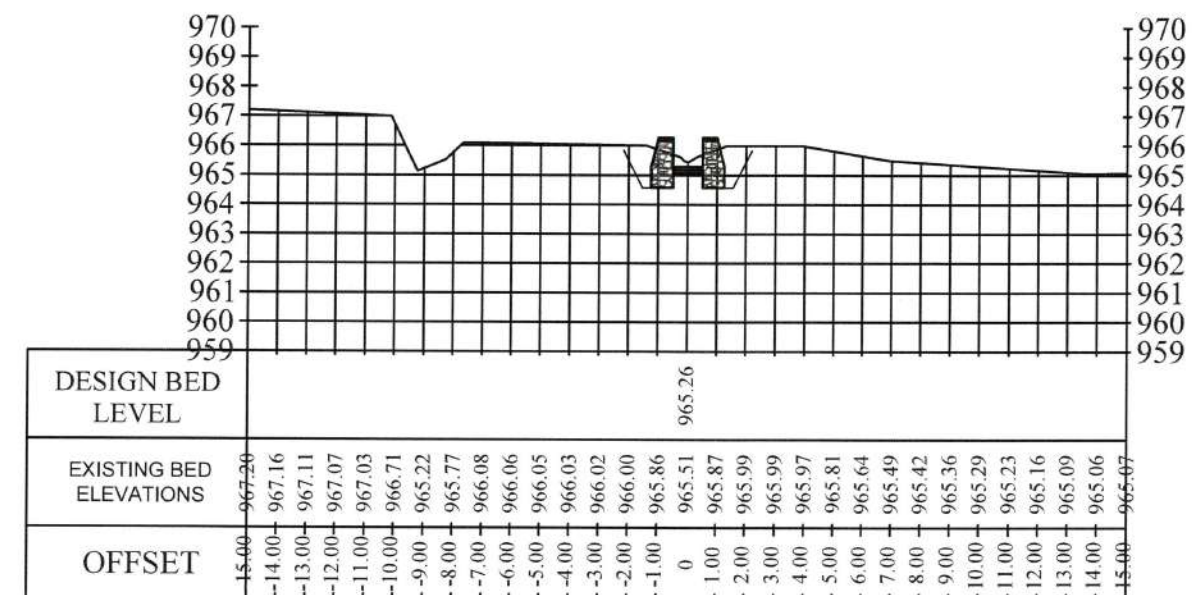
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DL Saywell

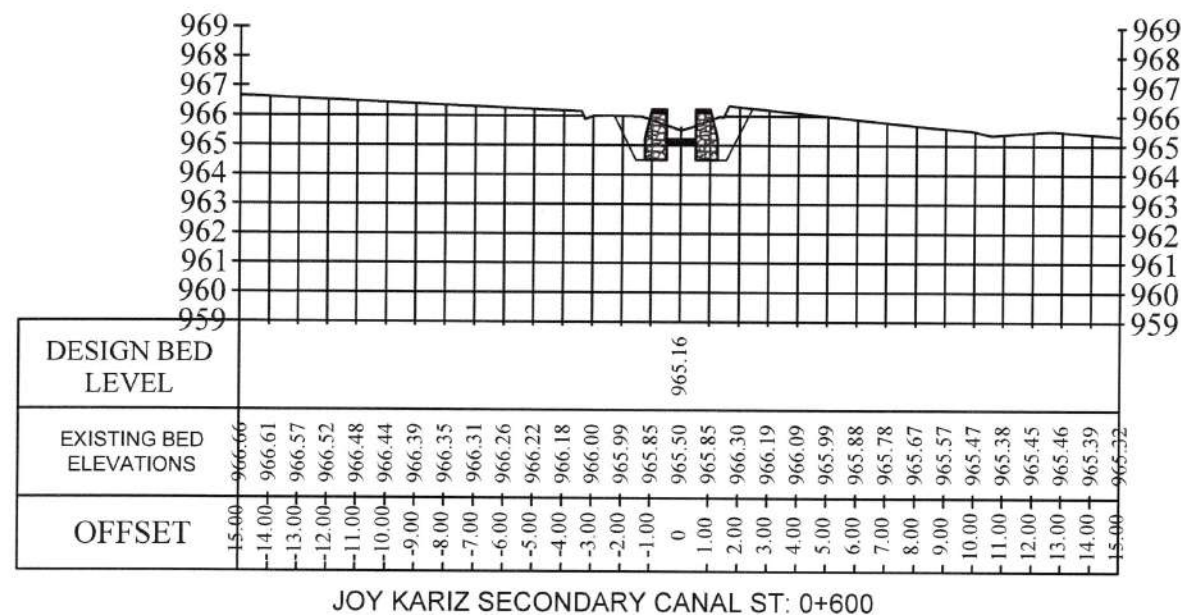
05 MAY 2019



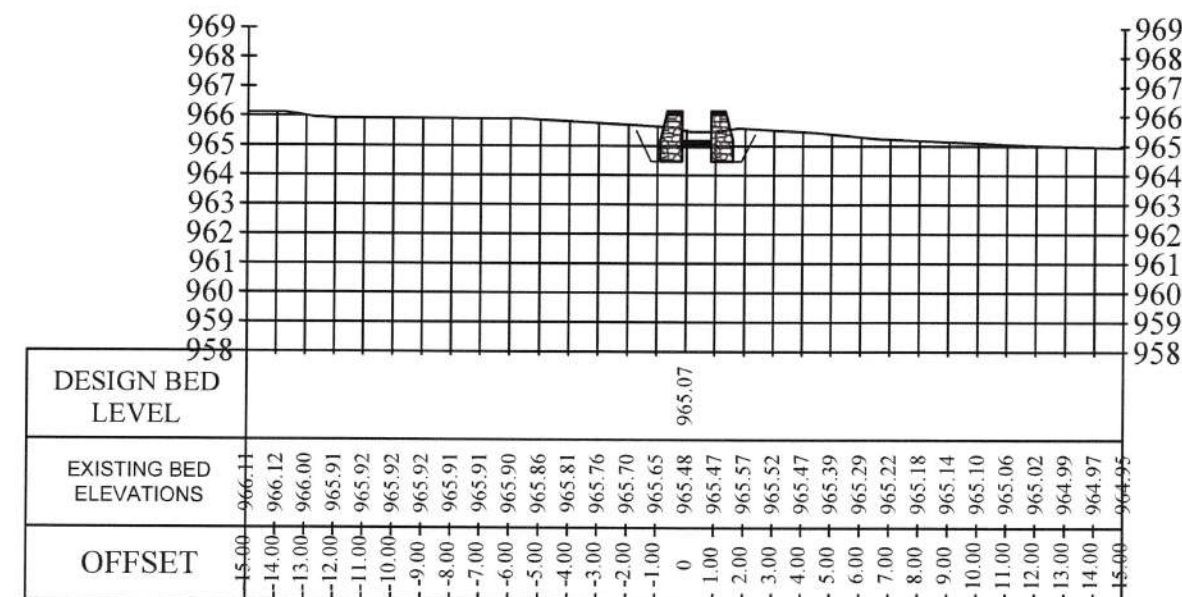
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JOY KARIZ SECONDARY CANAL ST: 0+550



JOY KARIZ SECONDARY CANAL ST: 0+600



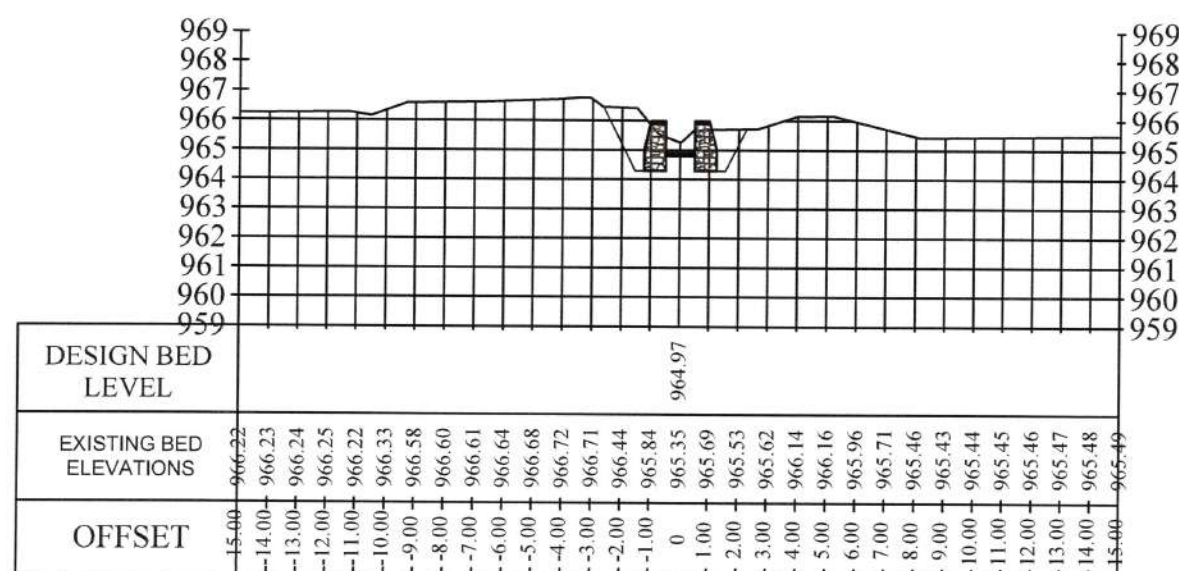
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Strengthening Watershed and Irrigation Management (SWIM)

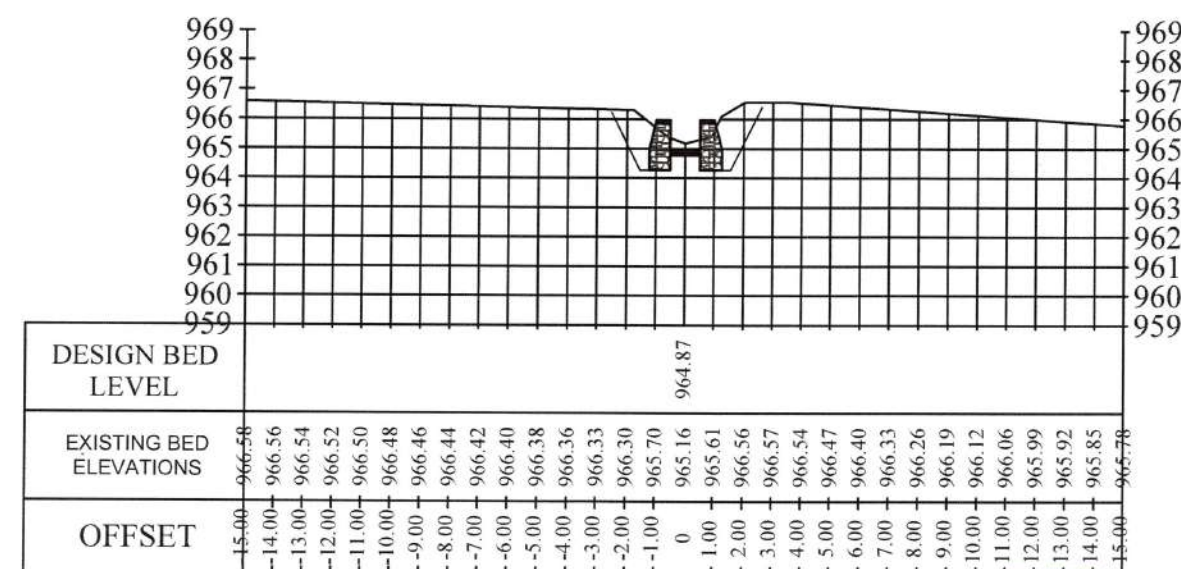
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JOY KARIZ SECONDARY CANAL ST: 0+700



JOY KARIZ SECONDARY CANAL ST: 0+750



STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ SECONDARY CANAL

LOCATION
DISTRICT: AYBAK PROVINCE: SAMANGAN

DRAWING TITLE
SURVEY SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST

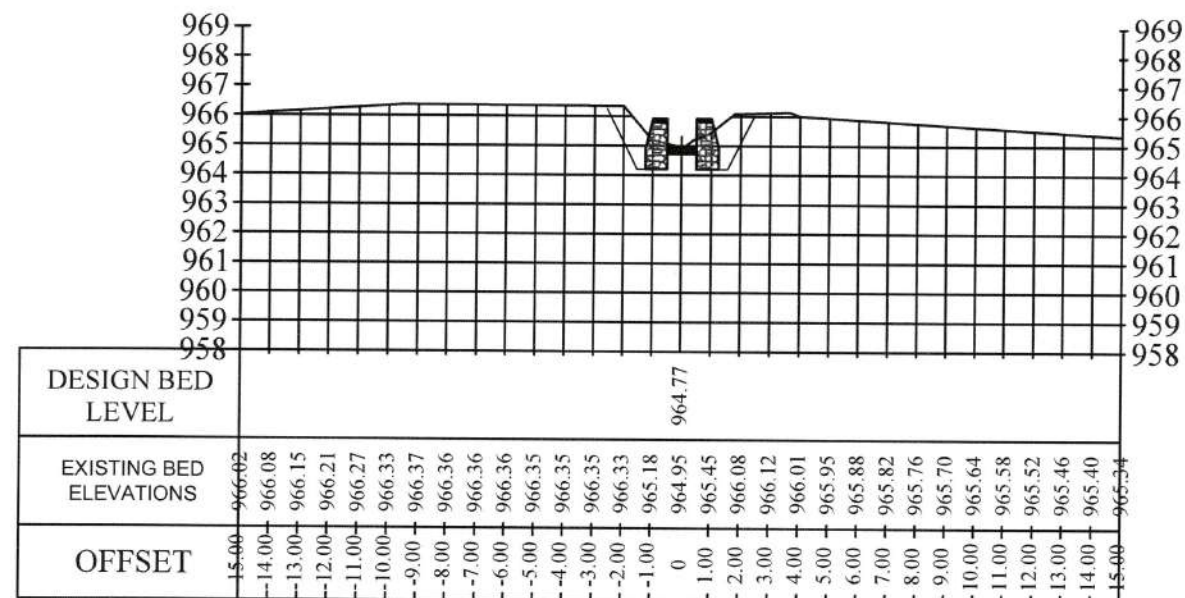
REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR

SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY

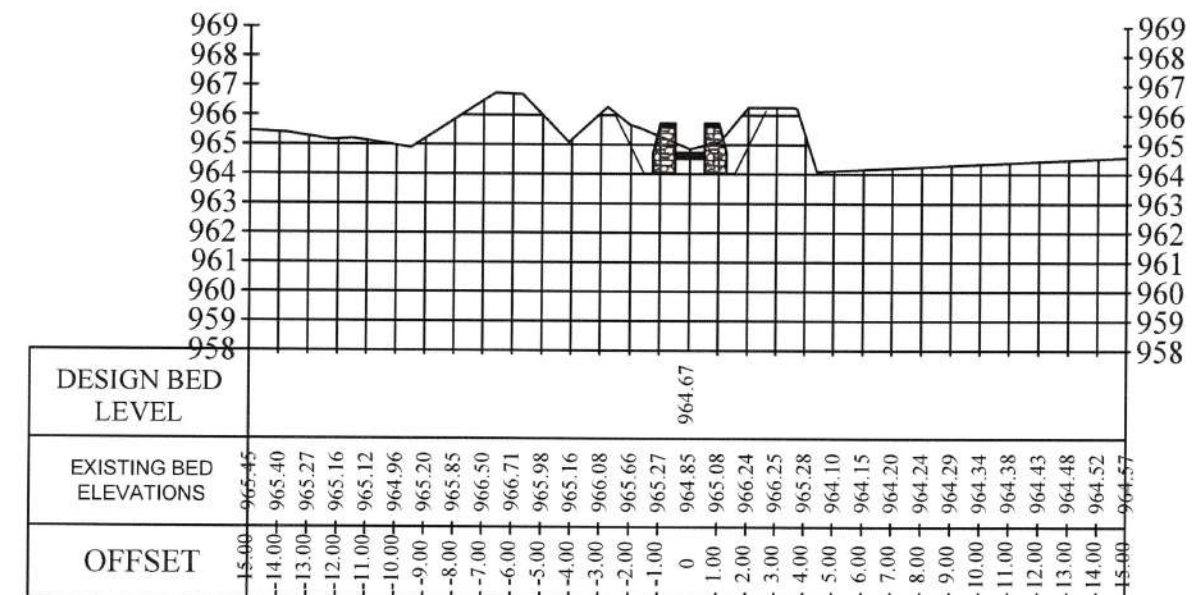
MAIL/DAIL APPROVAL
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SHEET NO.
11/28

DATE: 18 MAR 2013



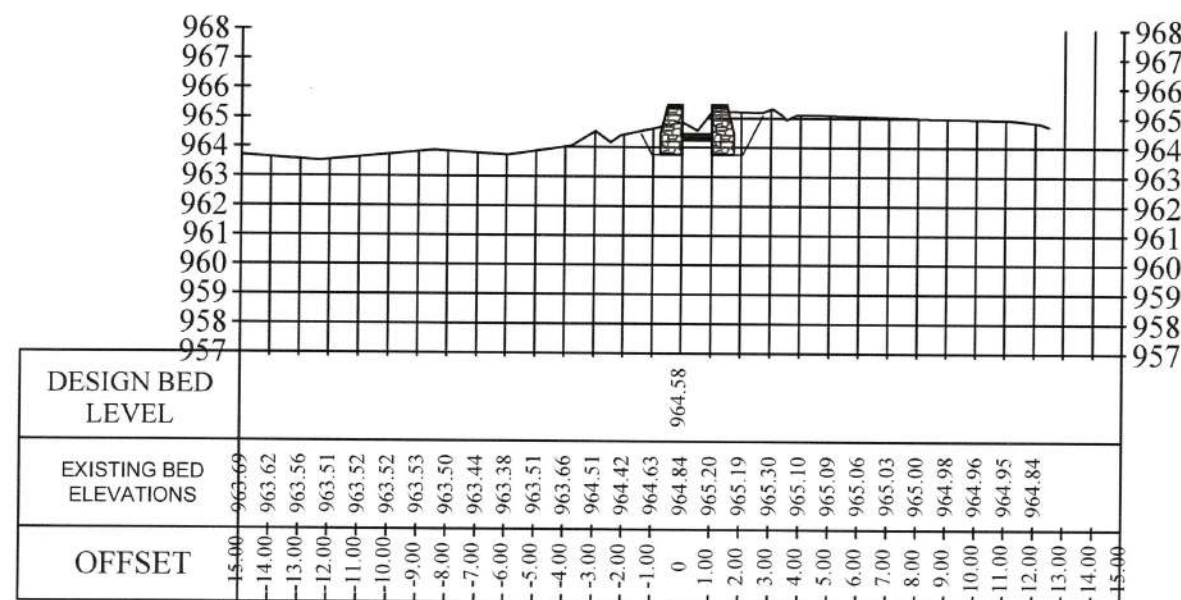
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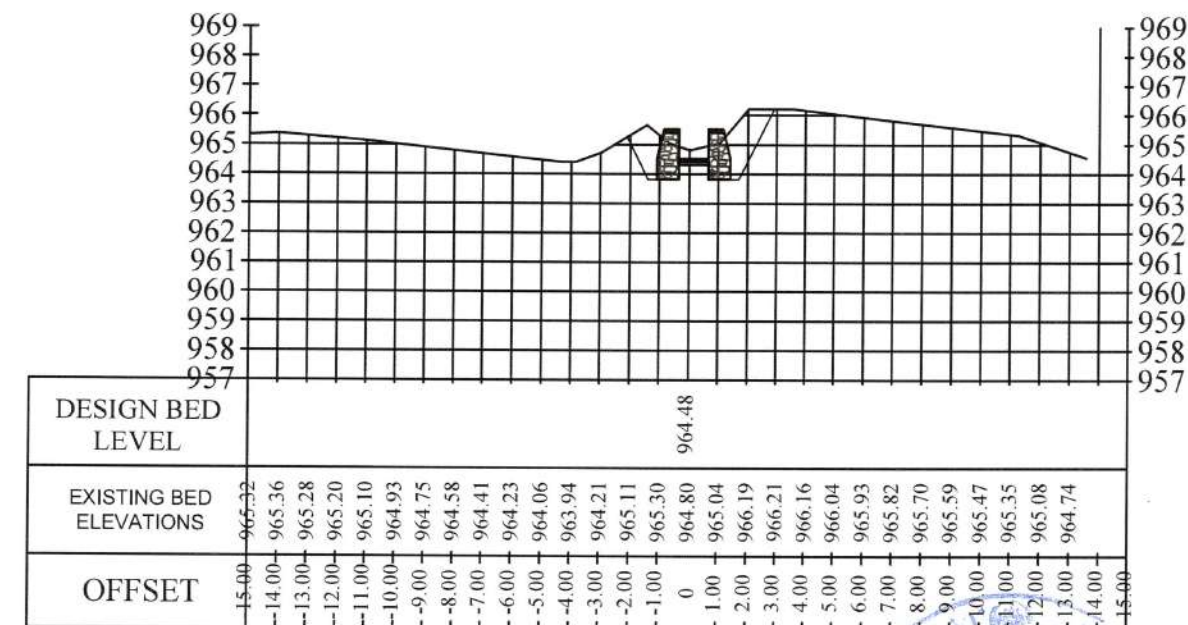
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Issued for Construction
Dr. Saywell
05 MAY 2013

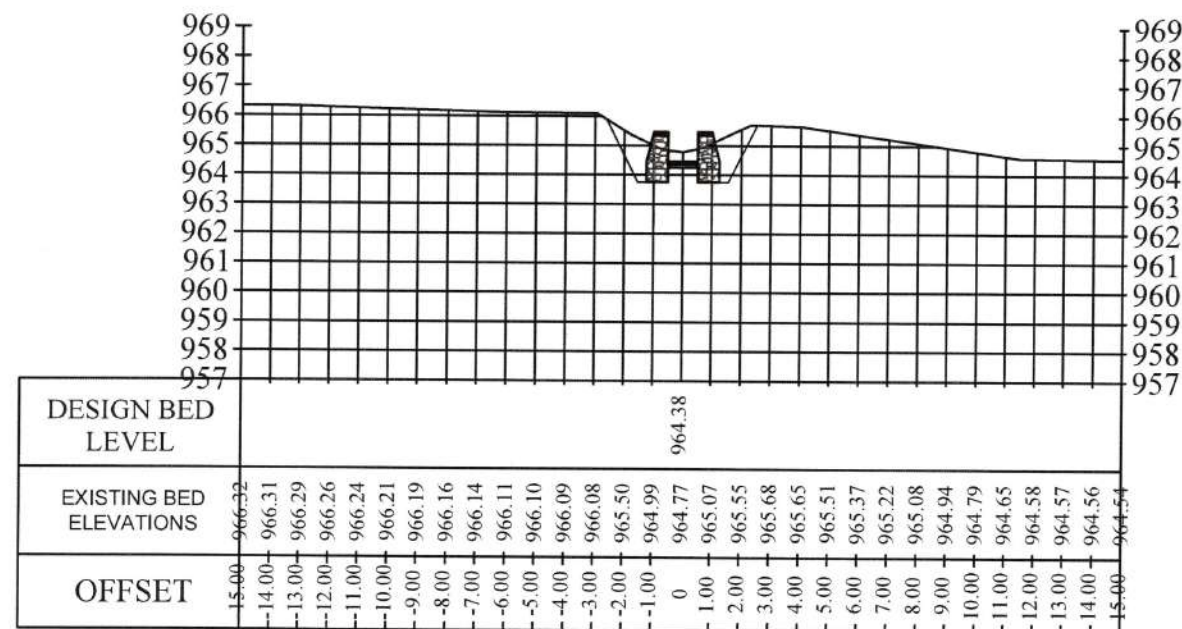


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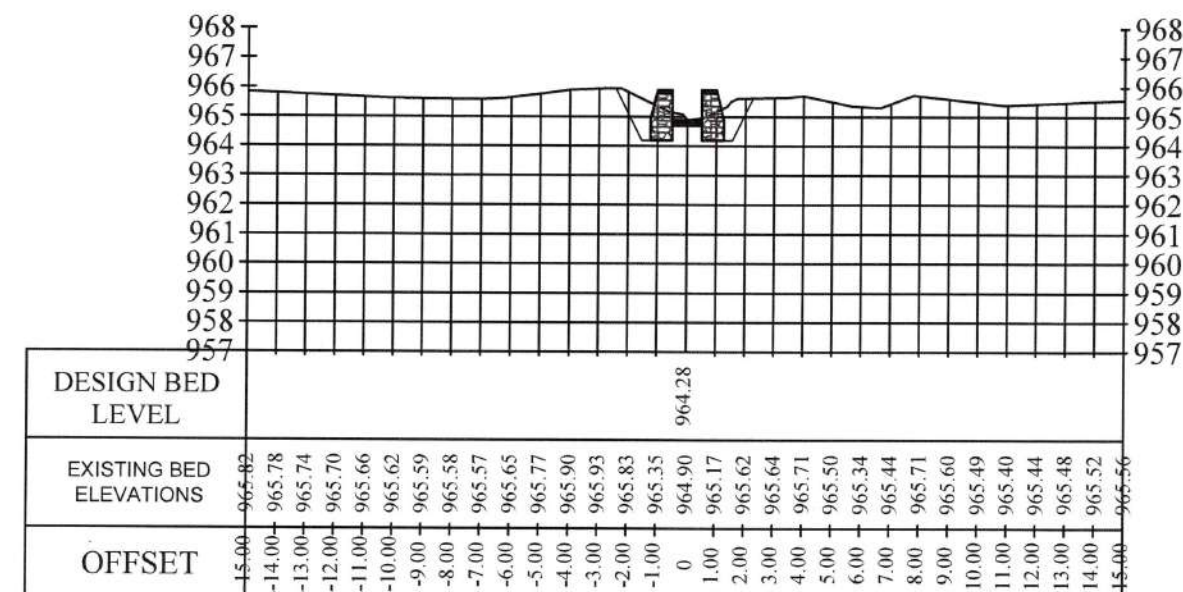


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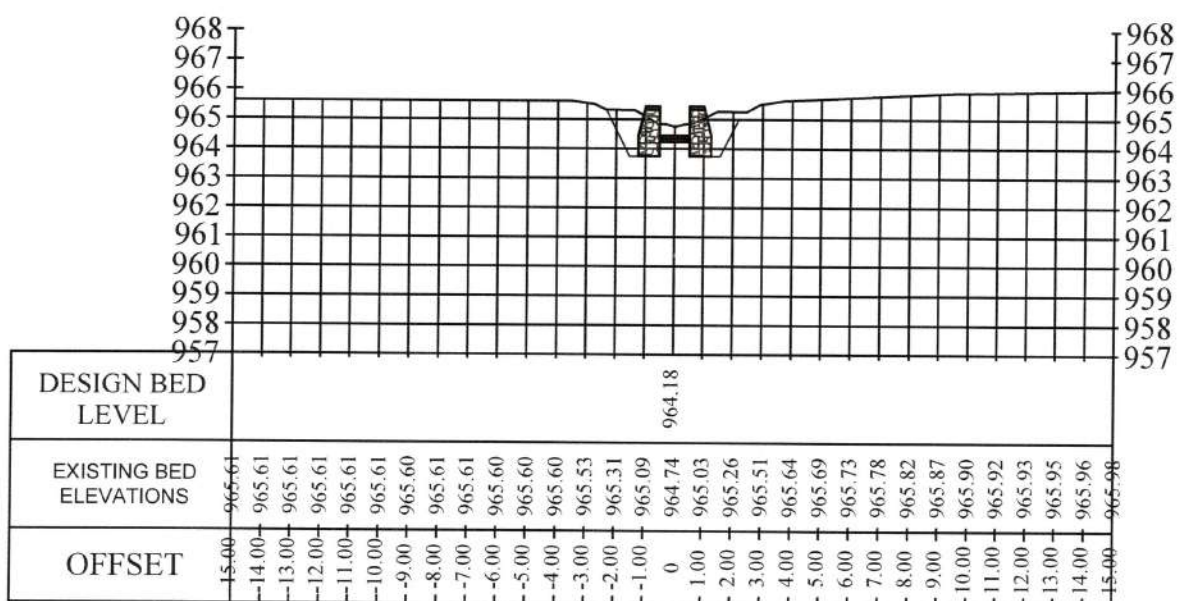
USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DAIL APPROVAL	SHEET NO. 12/28
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		DATE: 3/5/13			DATE: 3/5/13	DATE: 8 MAR 2013		DATE: 15/05/13		



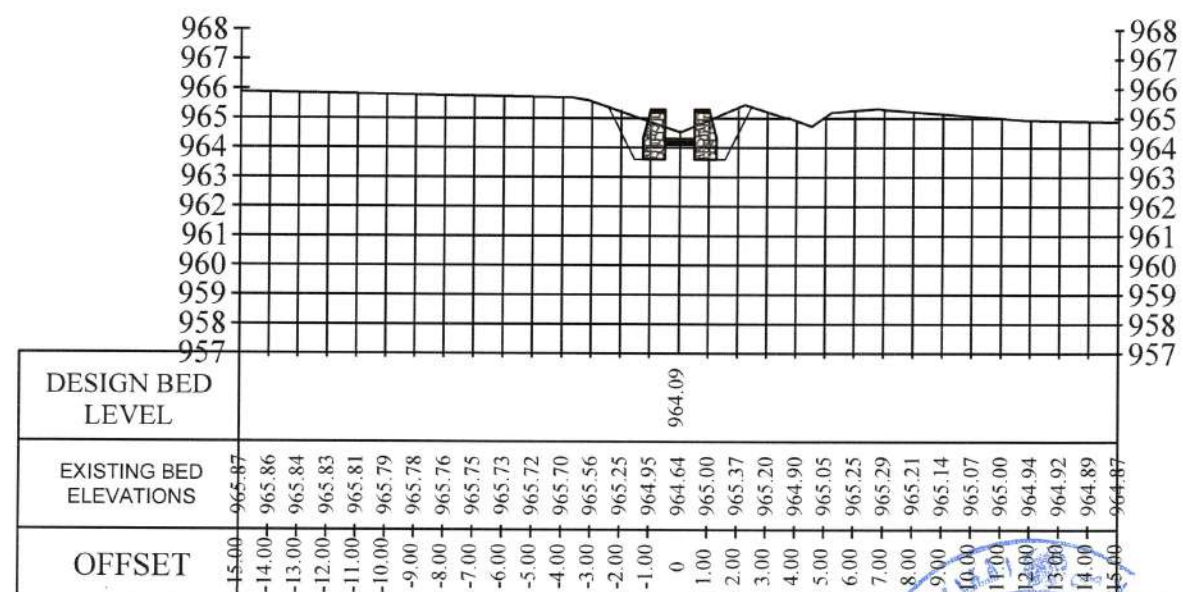
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JOY KARIZ SECONDARY CANAL ST: 1+050



JOY KARIZ SECONDARY CANAL ST: 1+100



JOY KARIZ SECONDARY CANAL ST: 1+150

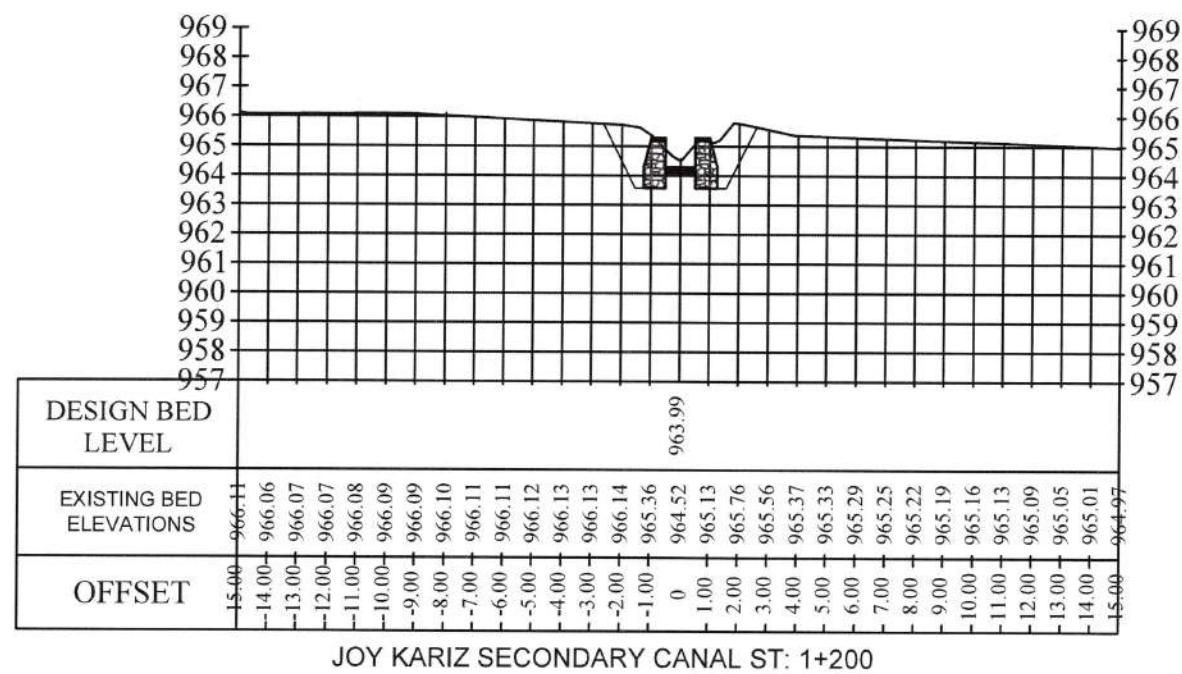
Strengthening Watershed and Irrigation Management (SWIM)

AECOM

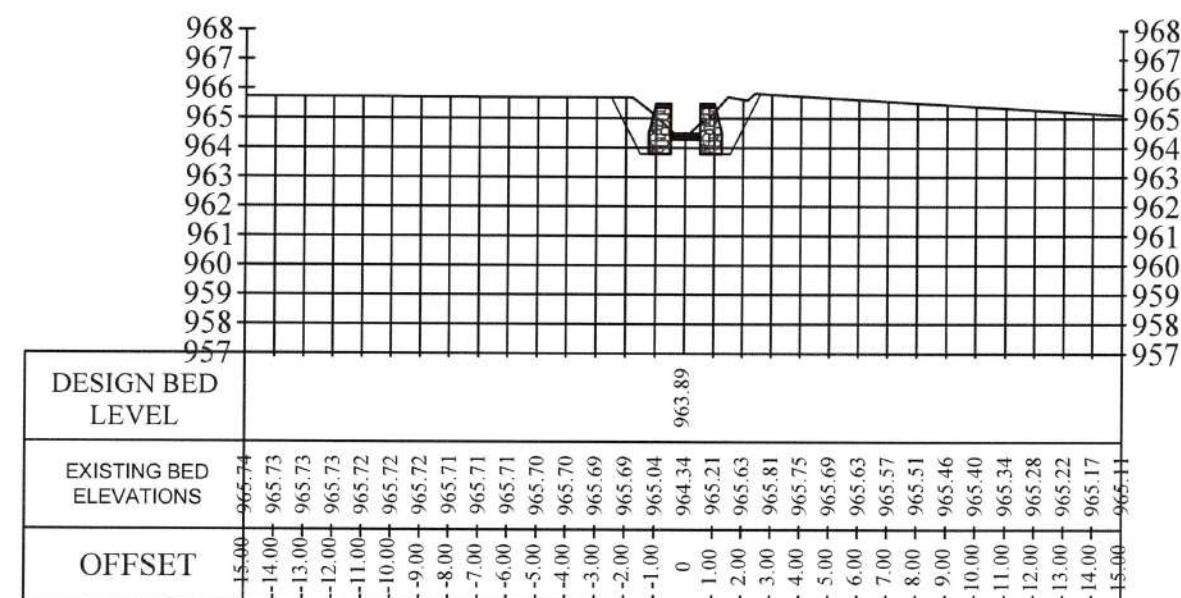
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DLSanwen

05 MAY 2019

<p>USAID FROM THE AMERICAN PEOPLE</p>	<p>STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT</p> <p>SWIM</p>	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DAL APPROVAL	SHEET NO. 13/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	SURVEY SECTIONS	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
						DATE: 18 MAR 2019	DATE: 18 MAR 2019	DATE: 18 MAR 2019	DATE: 18 MAR 2019	



JOY KARIZ SECONDARY CANAL ST: 1+200



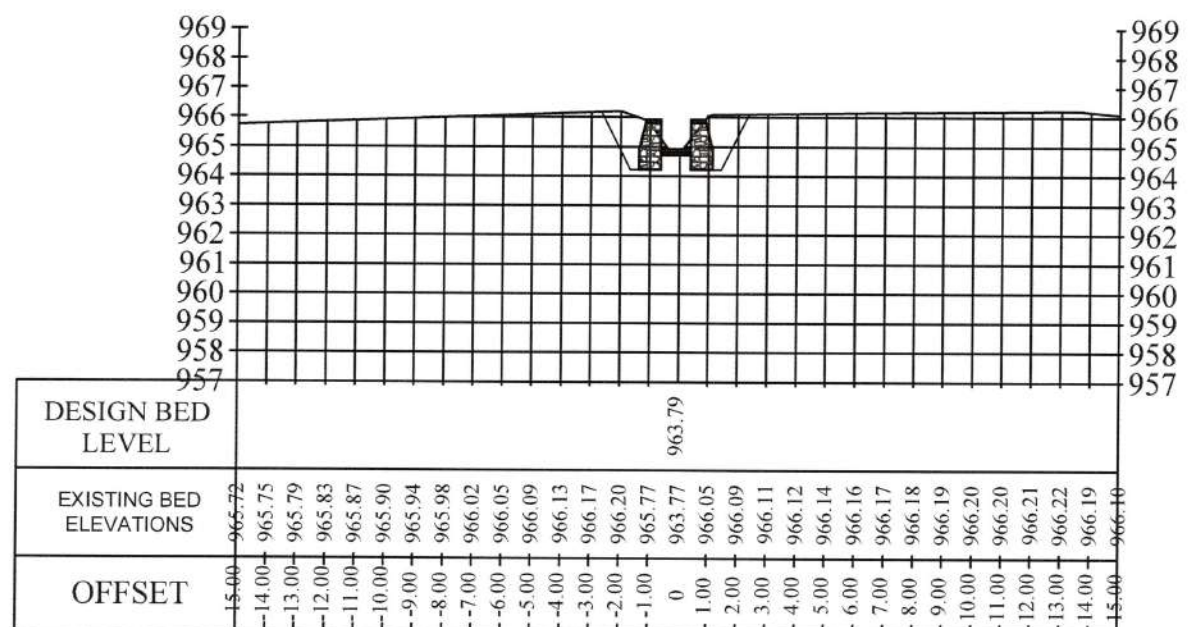
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Strengthening Watershed and Irrigation Management (SWIM)

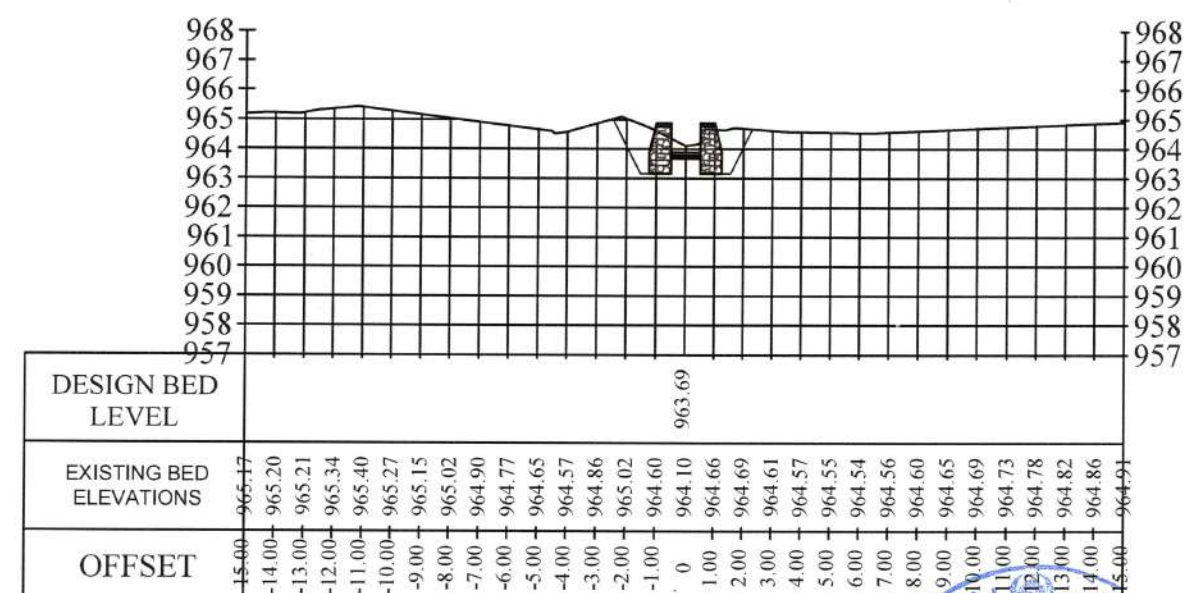
AECOM

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D. Saywell

05 MAY 2019



JOY KARIZ SECONDARY CANAL ST: 1+300



JOY KARIZ SECONDARY CANAL ST: 1+350



STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ SECONDARY CANAL

LOCATION
DISTRICT: AYBAK PROVINCE: SAMANGAN

DRAWING TITLE
SURVEY SECTIONS

SURVEYED BY
SWIM

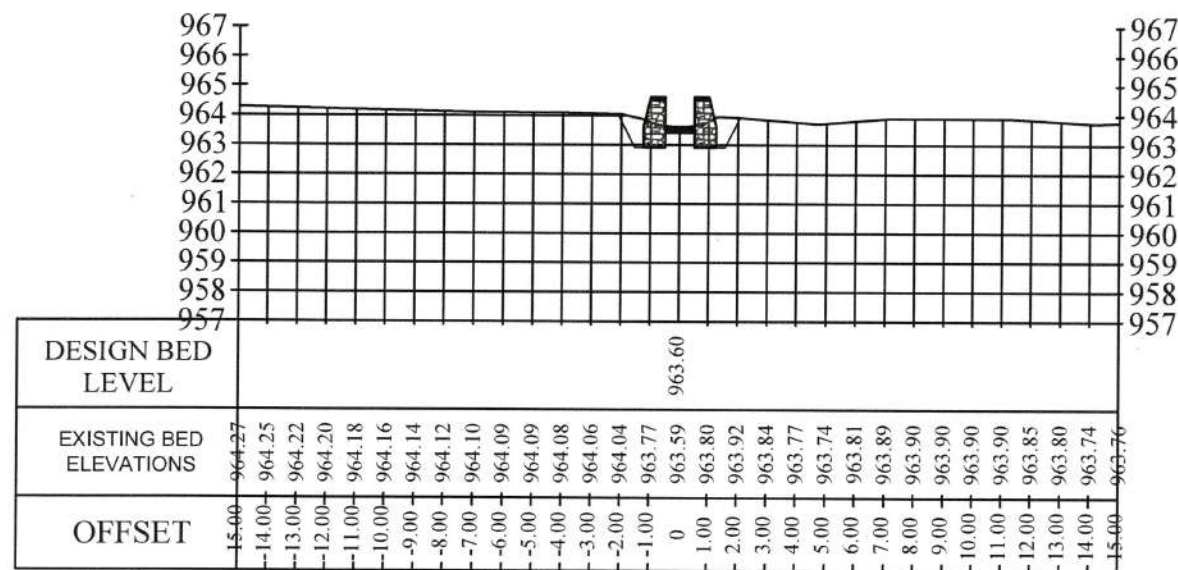
DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST
DATE: 17/05/19

REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR
DATE: 17/05/19

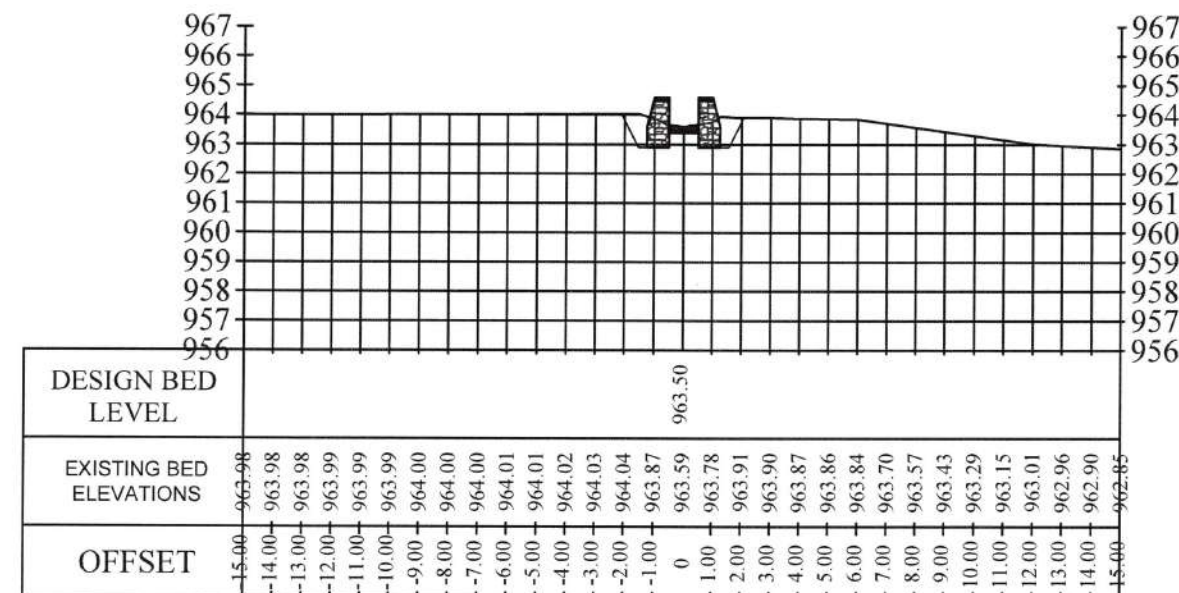
SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY
DATE: 18 MAR 2019

MAIL/DAIL APPROVAL
DATE: 17/05/19

SHEET NO.
14/28



JOY KARIZ SECONDARY CANAL ST: 1+400

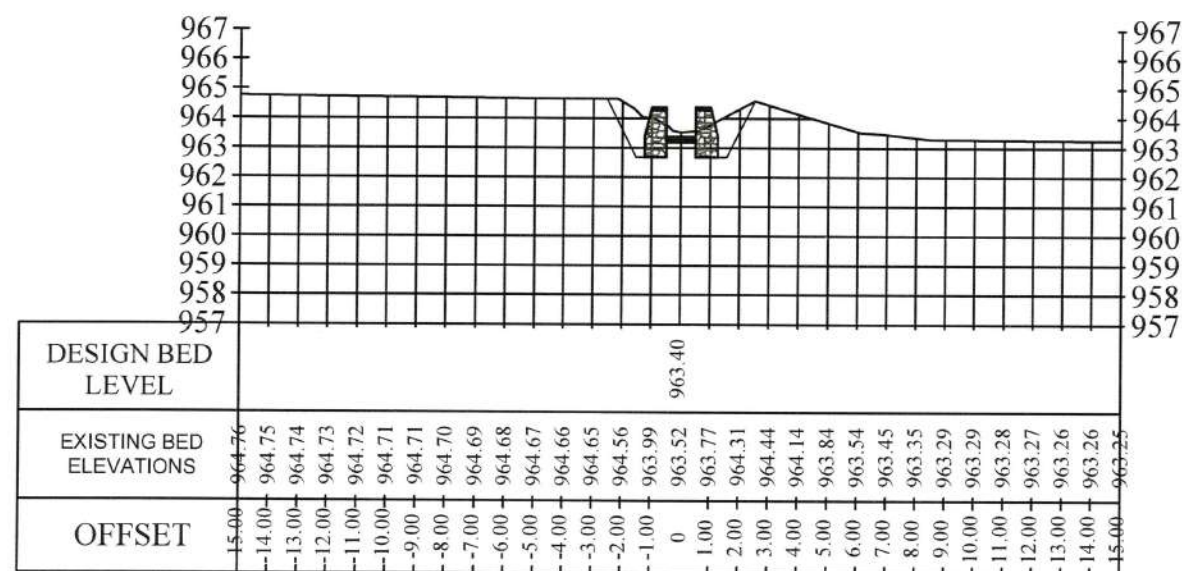


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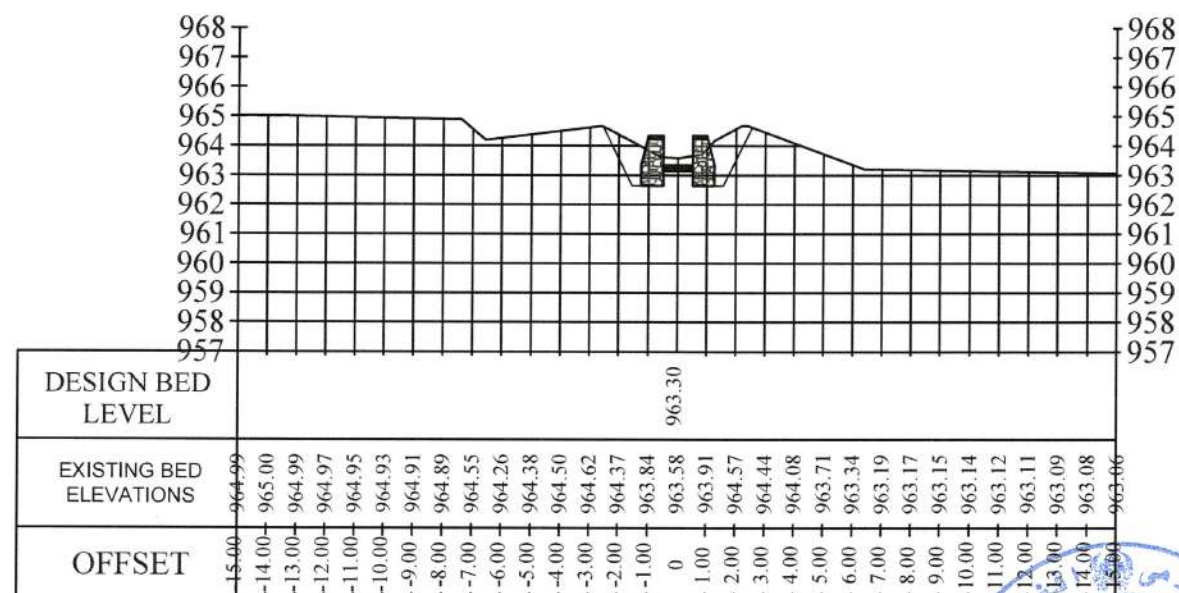


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05 MAY 2019

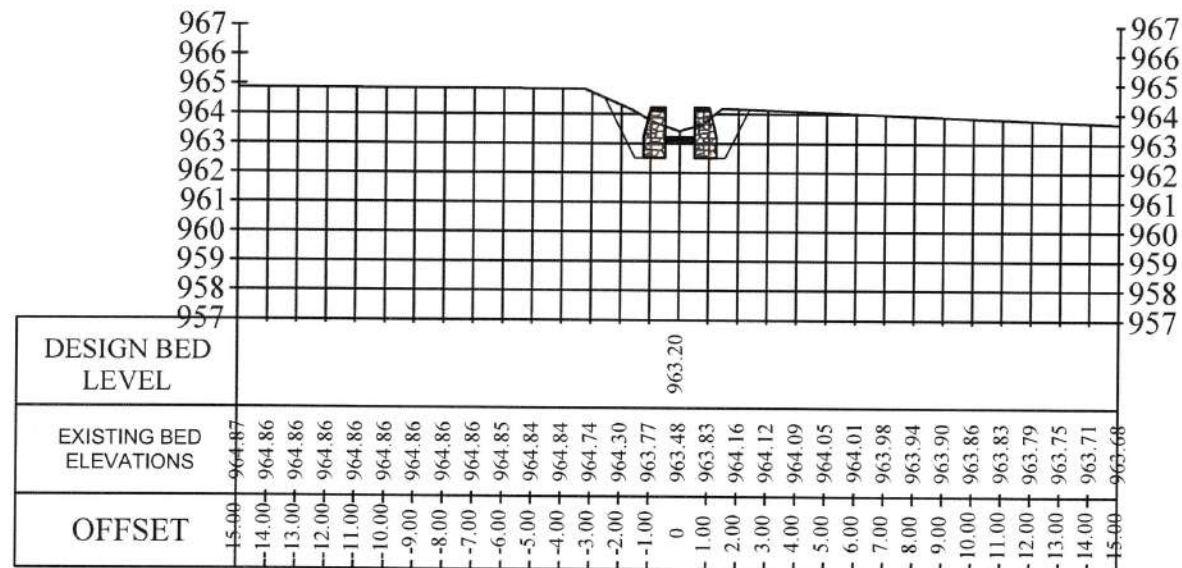


JOY KARIZ SECONDARY CANAL ST: 1+500

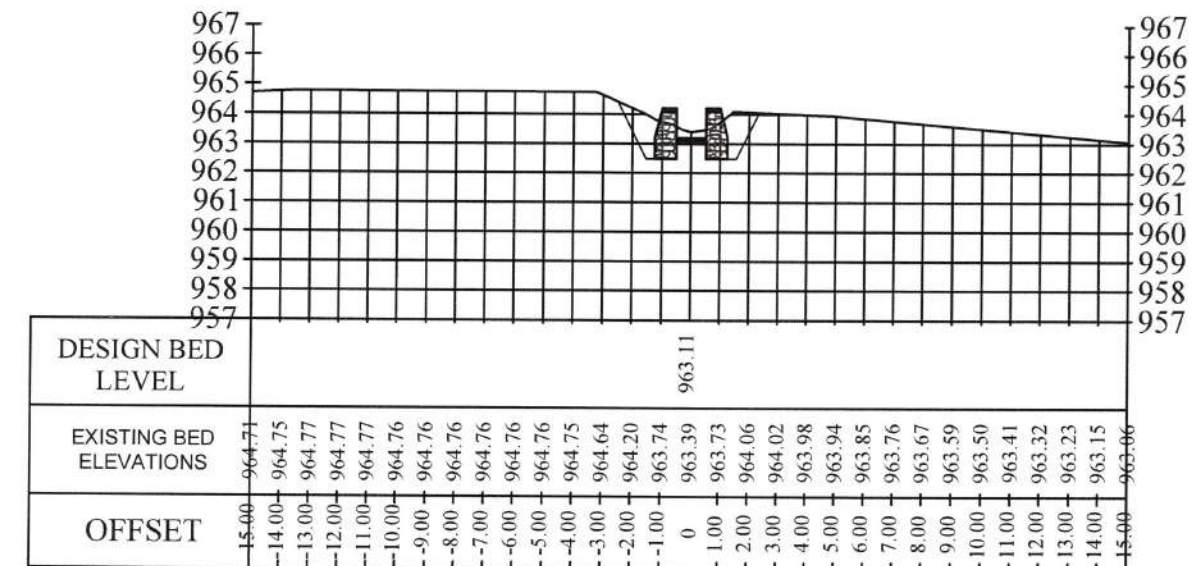


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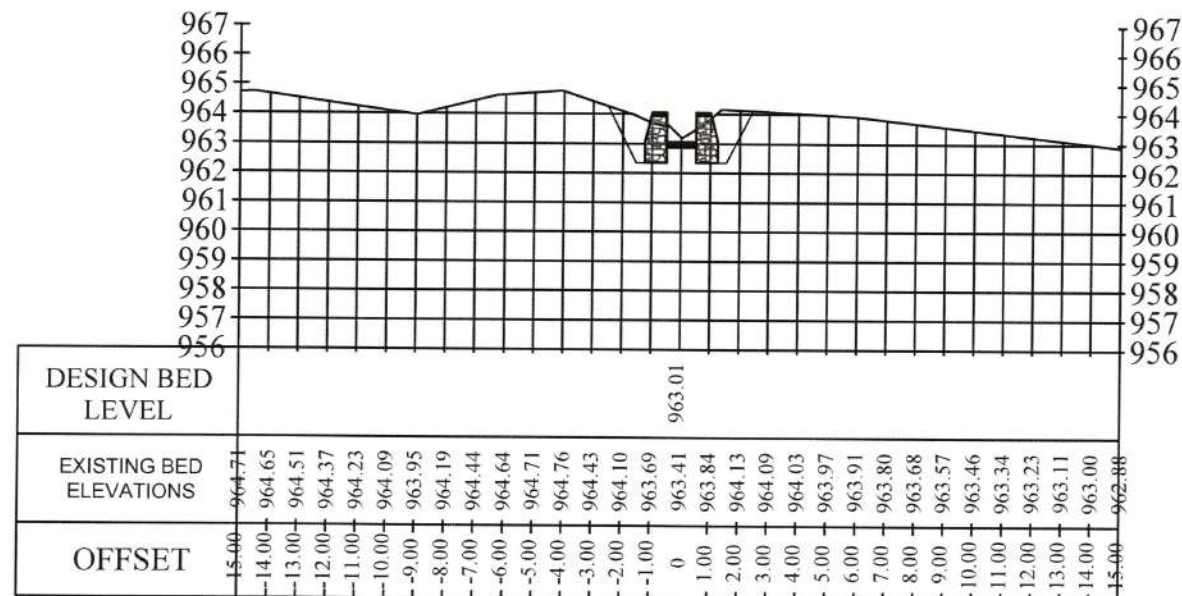
USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAT/DAIL APPROVAL	SHEET NO. 15/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	SURVEY SECTIONS	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
		DATE:		DATE:		DATE:	8 MAR 2019	DATE:	11 9 15 10	



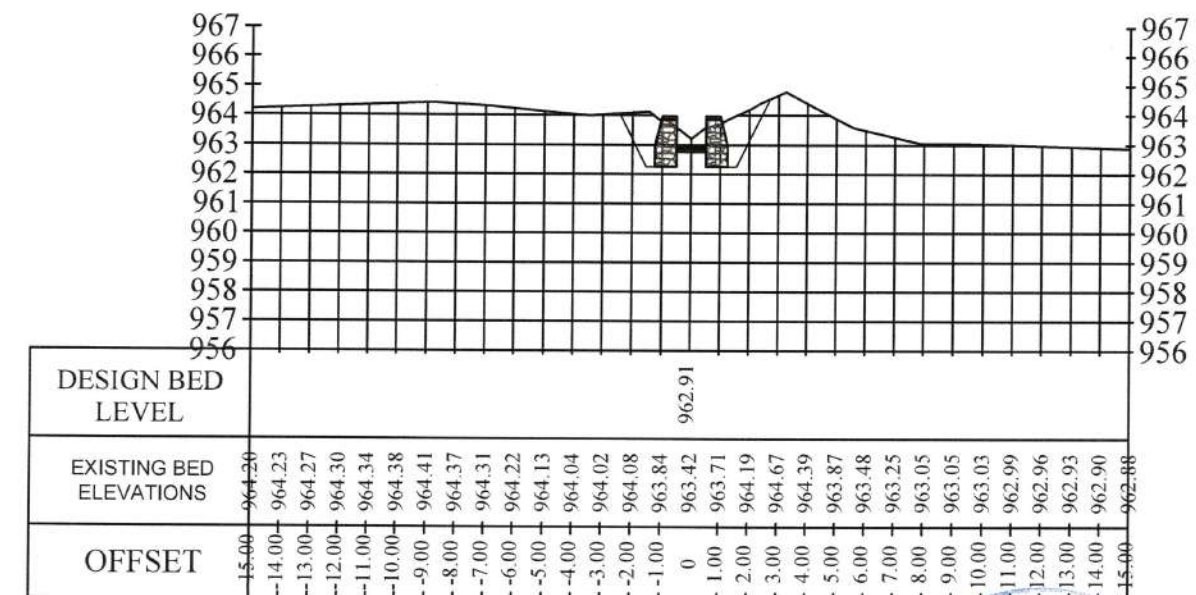
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JOY KARIZ SECONDARY CANAL ST: 1+650



JOY KARIZ SECONDARY CANAL ST: 1+700



JOY KARIZ SECONDARY CANAL ST: 1+750

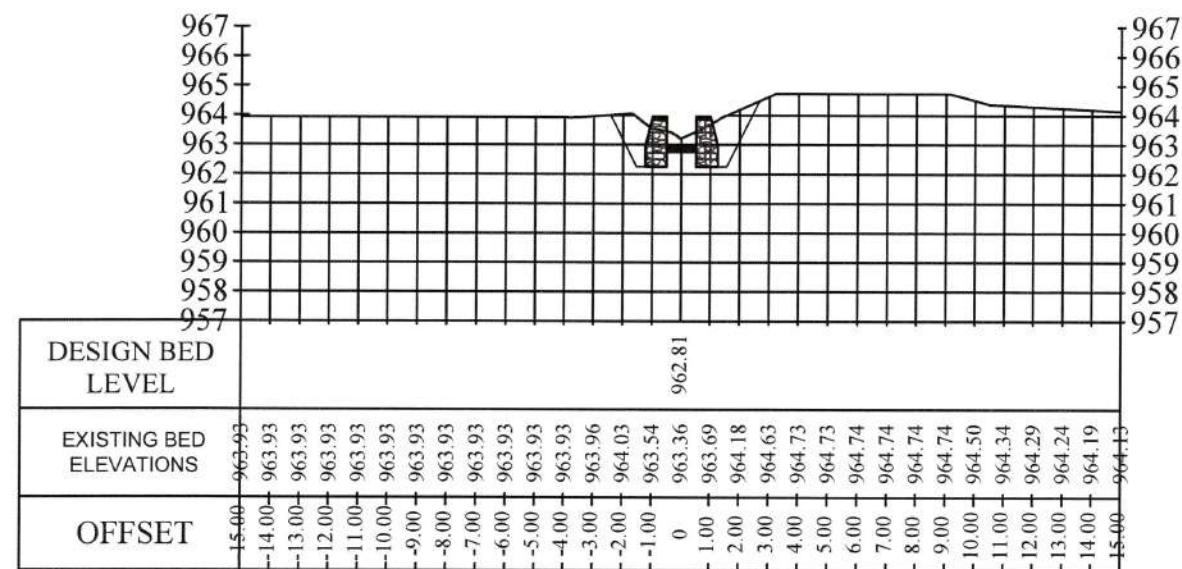
Strengthening Watershed and Irrigation Management (SWIM)

AECOM

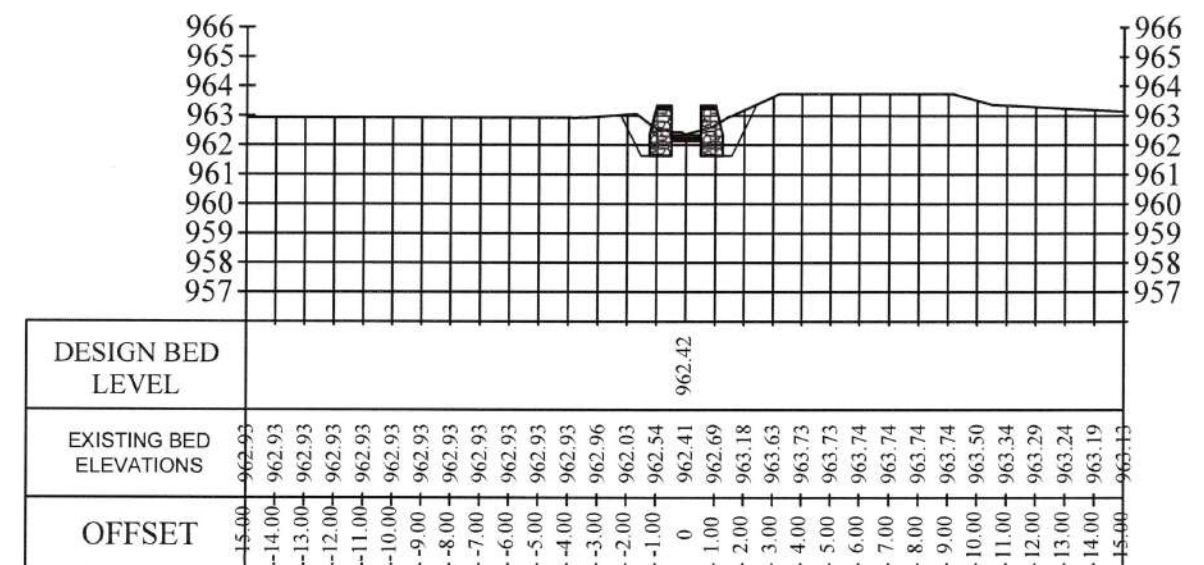
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D. Saywell

05 MAY 2019

<p>USAID FROM THE AMERICAN PEOPLE</p>	<p>STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT</p> <p>SWIM</p>	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DIAL APPROVAL	SHEET NO. 16/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	SURVEY SECTIONS	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
				DATE: 15/05/19		DATE: 18/03/2019		DATE: 18/03/2019		



JOY KARIZ SECONDARY CANAL ST: 1+800



JOY KARIZ SECONDARY CANAL ST: 2+000



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Dr. Saywell

05 MAY 2019

	USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME JOY KARIZ SECONDARY CANAL	LOCATION DISTRICT: AYBAK PROVINCE: SAMANGAN	DRAWING TITLE SURVEY SECTIONS	SURVEYED BY SWIM	DRAWING AND DESIGN BY SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	REVIEWED AND CHECKED BY ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	SWIM APPROVAL DR. DARREN SAYWELL ACTING CHIEF OF PARTY	MAIL/DATE APPROVAL 	SHEET NO. 17/28



JOY KARIZ CANAL STRUCTURE LIST ALONG WITH GPS COORDINATES

S.NO	Station	Description	NORTHING	EASTHING	Elevation	S.NO	Station	Description	NORTHING	EASTHING	Elevation
1	0+062	Control Structure (Turnout-1)	36.26970	67.97268	970.30	29	1+540	Proposed Turnout-23	36.27188	67.95454	963.30
2	0.084	Drop Structure-1	36.26970	67.97180	970.23	30	1+570	Proposed Turnout-24	36.27232	67.95189	963.25
3	0+109	Drop Structure-2	36.26970	67.97150	969.22	31	1+670	Proposed Turnout-25	36.27380	67.95144	963.06
4	0+138	Drop Structure-3	36.26960	67.97120	968.12	32	1+715	Proposed Turnout-26	36.27268	67.95069	962.98
5	0+167	Drop Structure-4	36.26960	67.97090	967.06	33	1+740	Proposed Turnout-27	36.27313	67.95015	962.63
6	0+130	Existing Culvert	36.26797	67.97188	968.25	34	1+860	Proposed Turnout-28	36.27313	67.95015	962.68
7	0+210	Proposed Turnout-2	36.26978	67.96973	965.95	35	1+920	Proposed Turnout-29	36.27333	67.94949	962.59
8	0+250	Proposed Turnout-3	36.26961	67.96739	965.85	36	1+940	Proposed Turnout-30	36.27353	67.94910	962.53
9	0+375	Proposed Turnout-4	36.27054	67.96621	965.61	37	1+950	Proposed Turnout-31	36.27373	67.94883	962.49
10	0+365	Proposed Turnout-5	36.27100	67.96447	965.60	38	1+980	Proposed Turnout-32	36.27407	67.94851	962.45
11	0+460	Proposed Turnout-6	36.27104	67.96420	965.46	39	2+185	Proposed Turnout-33	36.27447	67.94827	959.12
12	0+500	Proposed Turnout-7	36.27047	67.96337	965.39	40	2+350	Proposed Culvert-1	36.27220	67.95306	957.14
13	0+510	Proposed Turnout-8	36.27001	67.96247	965.36	41	2+460	Proposed Turnout-34	36.27474	67.94819	957.07
14	0+520	Existing-Aqueduct	36.26926	67.96344	965.62	42	2+655	Proposed Turnout-35	36.27499	67.94792	956.47
15	0+590	Proposed Turnout-9	36.26996	67.96205	965.15	43	3+000	Proposed Turnout-36	36.27525	67.94763	955.20
16	0+635	Proposed Turnout-10	36.27028	67.96191	965.09	44	3+020	Proposed Turnout-37	36.27561	67.94766	955.17
17	0+660	Proposed Turnout-11	36.27060	67.96118	965.04	45	3+550	Proposed Turnout-38	36.27762	67.94704	946.90
18	0+710	Proposed Turnout-12	36.27064	67.95967	964.94	46	3+640	Proposed Turnout-39	36.27642	67.94727	946.80
19	0+820	Proposed Turnout-13	36.27057	67.95931	964.72	47	3+790	Proposed Turnout-40	36.27800	67.94699	946.74
20	0+895	Proposed Turnout-14	36.27067	67.95884	964.58	48	3+880	Proposed Turnout-41	36.27954	67.94598	945.38
21	1+010	Proposed Turnout-15	36.27046	67.95801	964.35	49	3+950	Proposed Turnout-42	36.28132	67.94616	942.42
22	1+040	Proposed Turnout-16	36.27046	67.95801	964.30	50	4+020	Proposed Turnout-43	36.28209	67.94587	942.35
23	1+140	Proposed Turnout-17	36.27061	67.95715	964.11	51	4+050	Proposed Turnout-44	36.28231	67.94561	942.27
24	1+280	Proposed Turnout-18	36.27052	67.95670	963.81	52	4+120	Proposed Turnout-45	36.28259	67.94538	942.15
25	1+345	Proposed Turnout-19	36.27034	67.95613	963.69	53	4+165	Proposed Turnout-46	36.28317	67.94503	942.10
26	1+385	Proposed Turnout-20	36.27105	67.95558	963.62	54	4+330	Proposed Turnout-47	36.28367	67.94396	942.00
27	1+430	Proposed Turnout-21	36.27132	67.95533	963.52	55	4+440	Proposed Turnout-48	36.28519	67.94279	941.50
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Strengthening Watershed and
Irrigation Management (SWIM)

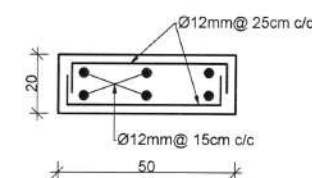
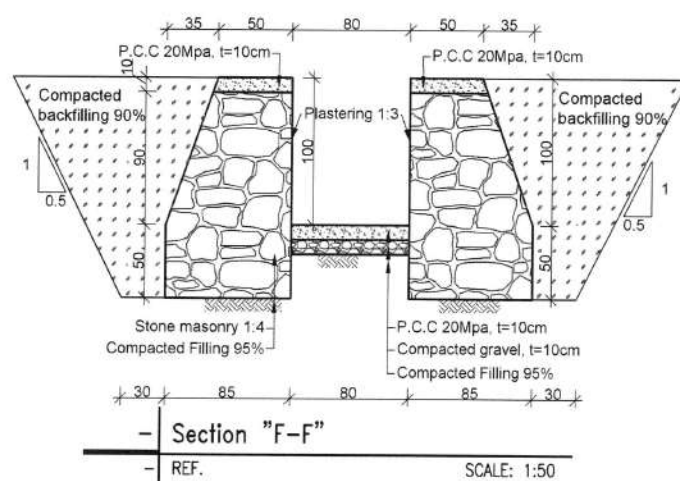
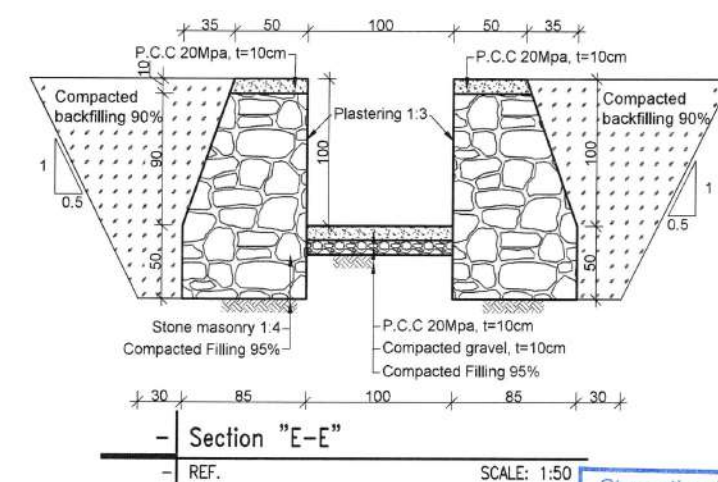
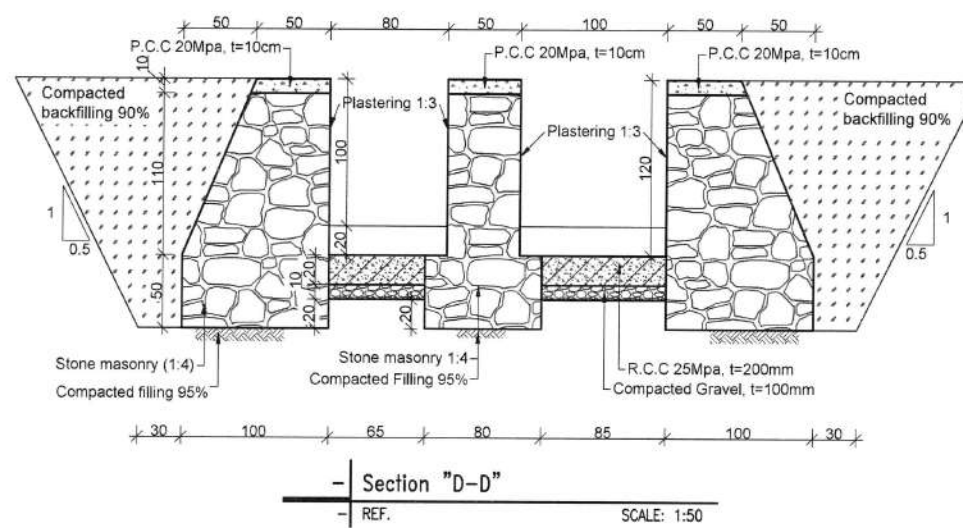
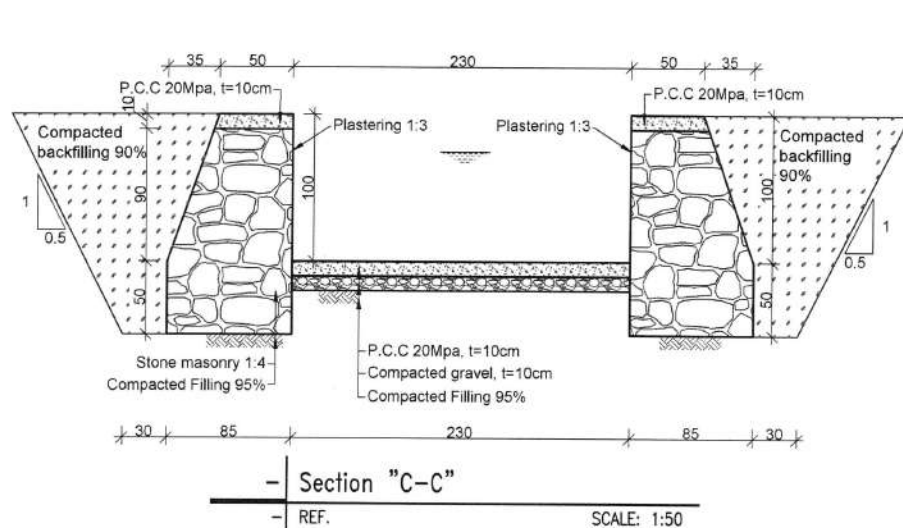
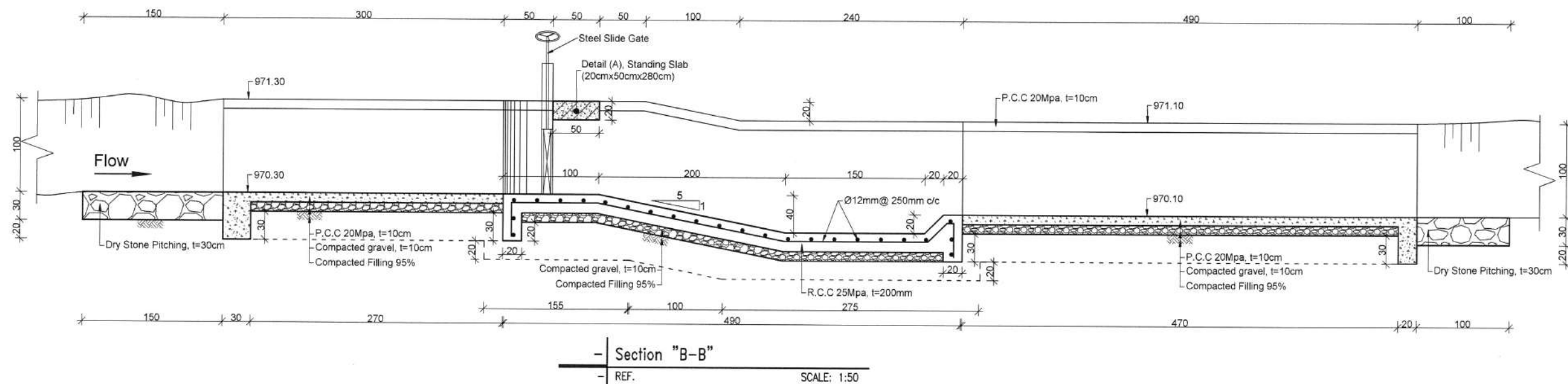
AECOM

Issued for construction
D. Saywell

05 MAY 2019



	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MEW/RBA APPROVAL	SHEET NO. 18/28
	SWIM	JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	STRUCTURE LIST ALONG WITH GPS COORDINATES	SWIM	SAYED ROHULLAH ATAYI (HYDRAULIC SPECIALIST)	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
					DATE: <i>[Signature]</i>	DATE: <i>[Signature]</i>	DATE: <i>[Signature]</i>	05 MAR 2019	DATE: 15/01/20	










- Note:
- 1: Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters (m).
 - 2: Excavation for the Foundation should be checked by the site Engineer
 - 3: Sand and Gravel should be clean and free from organic material
 - 4: All filling should be compacted properly in layers of 15cm each as specified in drawing and Tech Specs.
 - 5: Stone masonry should be done by Mortar (1:4)
 - 6: Mild steel Grad 60 rebar to be used.
 - 7: Fresh cement to be used
 - 8: Clean water should be used (suitable for drinking)
 - 9: Angle and length of wing walls to be adjusted by SWIM engineer as per site conditions.

Strengthening Watershed and
Irrigation Management (SWIM)

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Issued for Construction

05 MAY 2019

 <div>USAID FROM THE AMERICAN PEOPLE</div>	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DAIL APPROVAL	SHEET N 20/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	CONTROL STRUCTURE SECTIONS & DETAIL ST: (0+062)	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
		DATE: 	DATE: 	DATE: 	DATE: 					

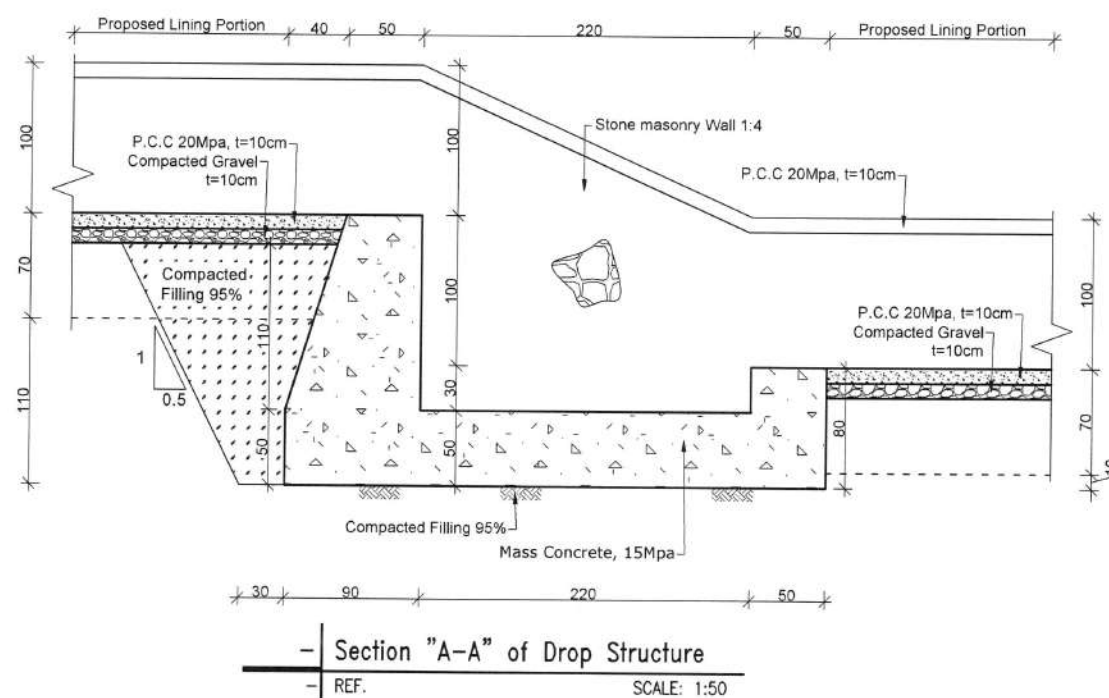
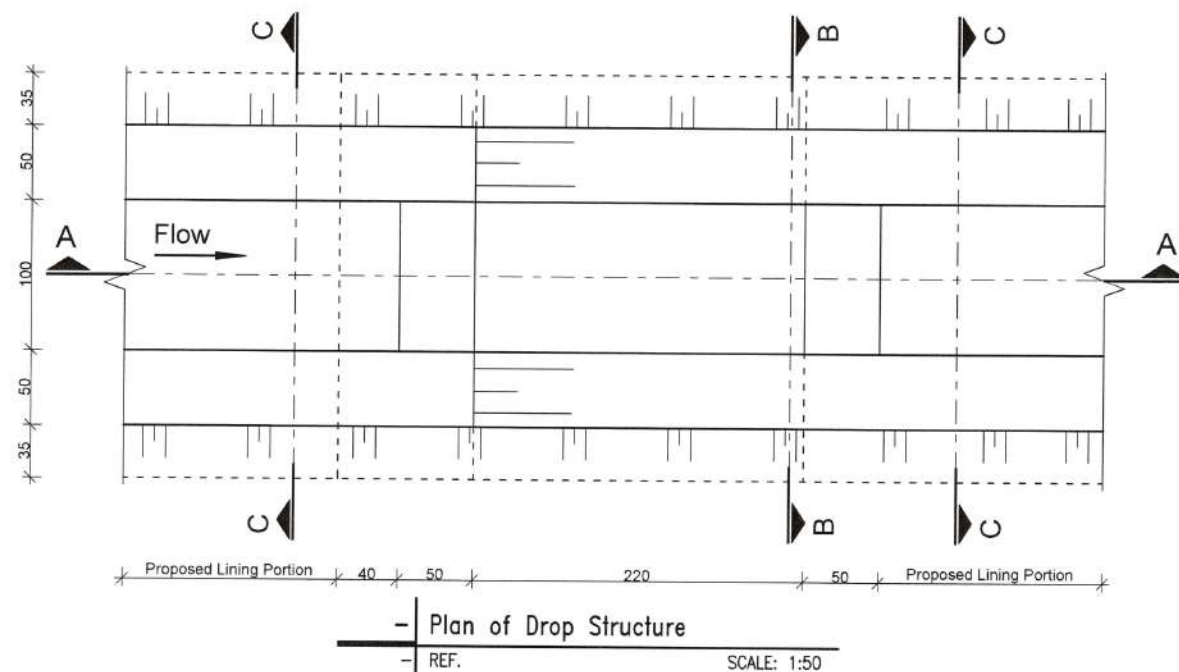
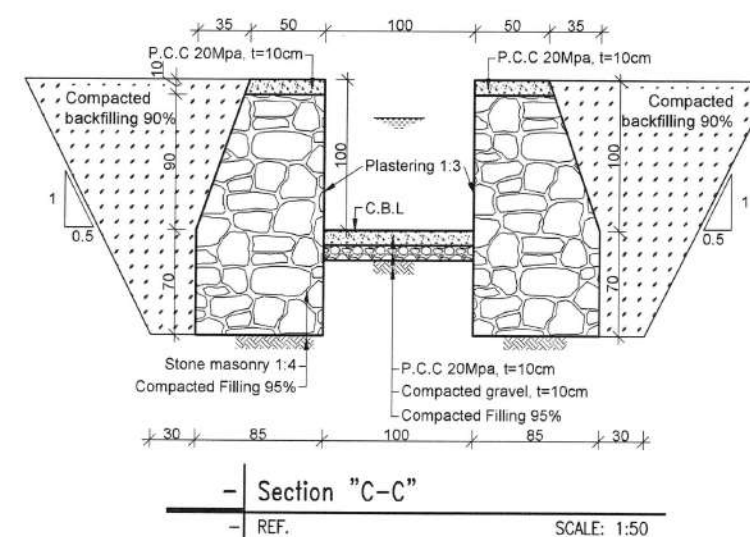
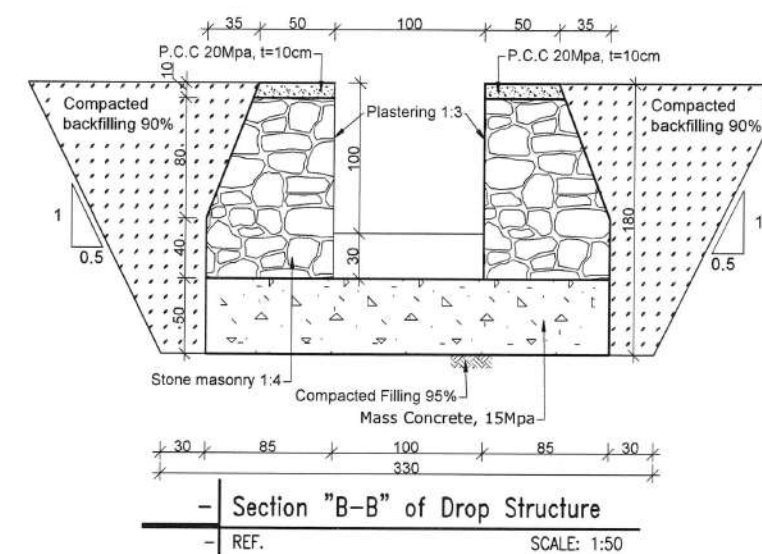


TABLE OF DROP STRUCTURE

No	Station	Culvert Detail	Dimensions (M)			GPS Coordinate		Bed Elevation (m)	Remarks
			Length(m)	Height (m)	Width (m)	North	East		
1	0+084	Drop Structure	2.20	1.0	1.0	36.26970	67.97180	970.23	
2	0+109	Drop Structure	2.20	1.0	1.0	36.26970	67.97150	969.22	
3	0+138	Drop Structure	2.20	1.0	1.0	36.26960	67.97120	968.12	
4	0+167	Drop Structure	2.20	1.0	1.0	36.26960	67.97090	967.06	



Issued for construction
D. Saywell

05 MAY 2019

Note:

1. Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters (m).
2. Excavation for the Foundation should be checked by the site Engineer as per drawing and Tech Specs.
3. Sand and Gravel should be clean and free from organic material.
4. Stone masonry should be done by Mortar (1:4).
5. All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification.
6. Fresh cement to be used.
7. Clean water should be used (suitable for drinking).
8. Angle of walls to be adjusted by SWIM engineer as per site conditions.



STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ
SECONDARY
CANAL

LOCATION
DISTRICT: AYBAK
PROVINCE: SAMANGAN

DRAWING TITLE
DROP STRUCTURE
PLAN AND SECTIONS
ST: (0+084, 0+109, 0+138, & 0+167)

SURVEYED BY
SWIM

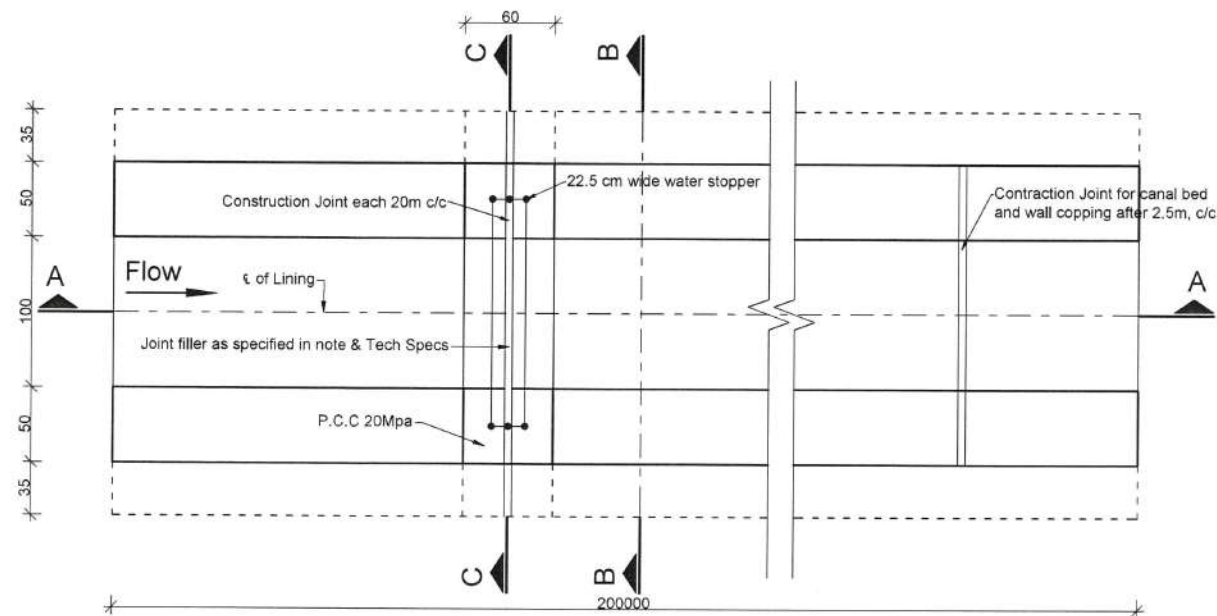
DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST
DATE: 13/04/19

REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL
COMPLIANCE DIRECTOR
DATE: 13/04/19

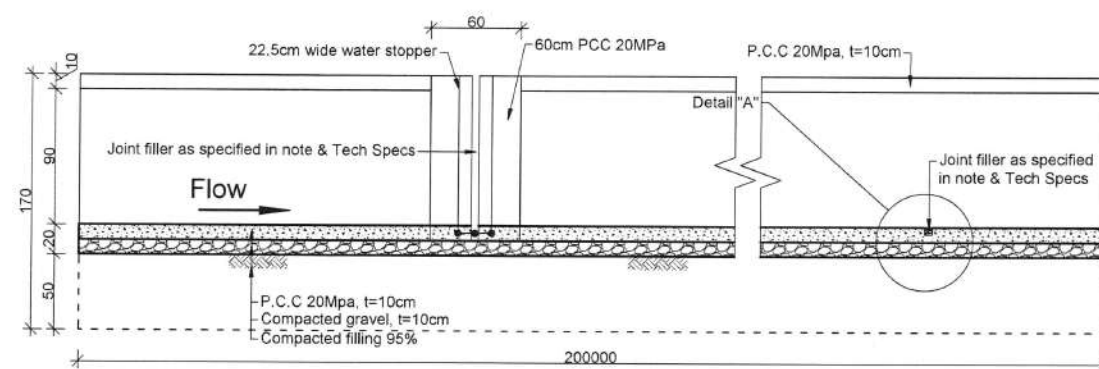
SWIM APPROVAL
1 APR 2019
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY
DATE: 04/05/19

MEW/RBA APPROVAL
DATE: 04/05/19

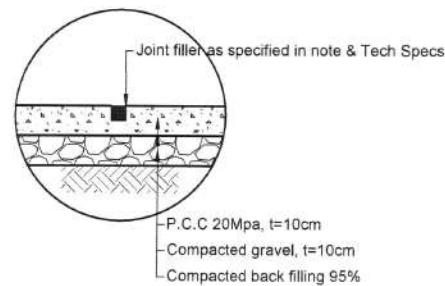
SHEET NO.
21/28



- Plan of Canal Lining, L=2000m
- REF. St: (0+000 to 2+000) SCALE: 1:50



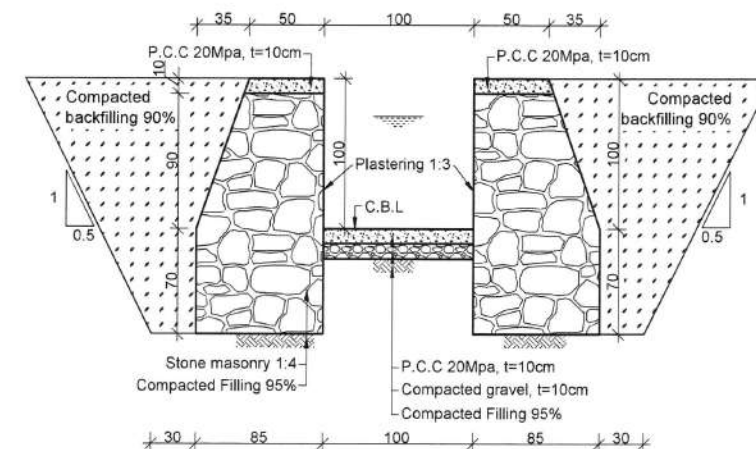
- Section "A-A", L=2000m
- REF. St: (0+000 to 2+000) SCALE: 1:50



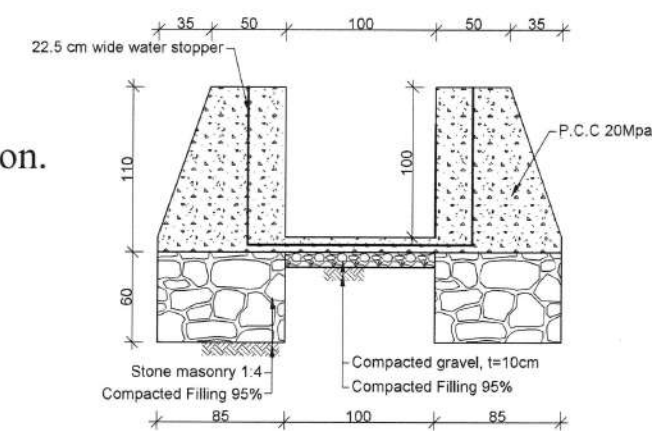
- Detail "A"
- REF. Construction Joint SCALE: 1:25

TABLE OF LINING

No	Canal Lining Detail	Dimensions (M)			GPS Coordinate		Slope	D of Flow	Discharge
		Length	High	Wide	Start (St: 0+000)	End (St: 2+000)			
1	Joy Kariz Secondary Canal	2000	1.0	1.0	N=36.26976, E=67.972591	N=36.27114, E=67.95638	0.002	0.8	1.0 cum



- Section "B-B", L=2000m
- REF. St: (0+000 to 2+000) SCALE: 1:50



- Section "C-C", Detail of Construction Joint
- REF. SCALE: 1:50



Issued for construction
D. Saywell

Note:

1. Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters (m).
2. The construction joints are recommended after each segment of 20M length of stone masonry along canal lining.
3. The joint's gape will be around (3.5 to 4)cm and should be filled properly as specified in technical specification (Construction Joint).
4. The control joints are recommend on P.C.C coping and Canal Bed of all canal linings @ 2.5M c/c with approximately 5mm wide.
5. Excavation for the Foundation should be checked by the site Engineer as per drawing and Tech Specs.
6. Sand and Gravel should be clean and free from organic material.
7. All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification.
8. Stone masonry should be done by Mortar (1:4).
9. Fresh cement to be used.
10. Clean water should be used (suitable for drinking).
11. Angle of walls to be adjusted by SWIM engineer as per site conditions.

05 MAY 2019



STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ SECONDARY CANAL
LOCATION
DISTRICT: AYBAK PROVINCE: SAMANGAN

DRAWING TITLE
LINING PLAN AND SECTIONS L=2.0KM

SURVEYED BY
SWIM

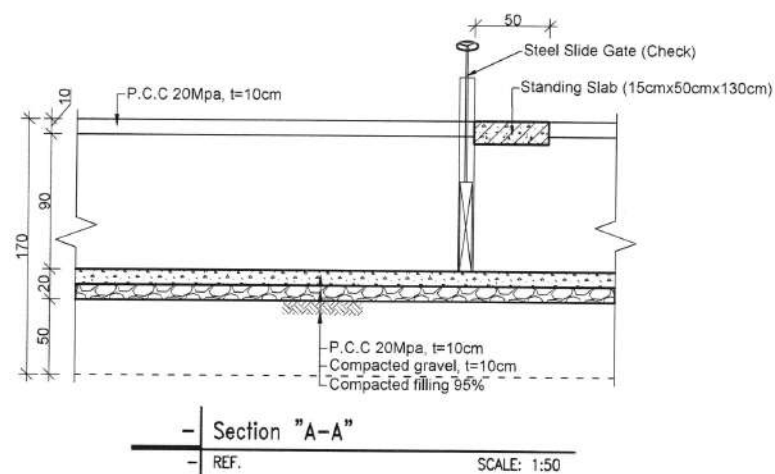
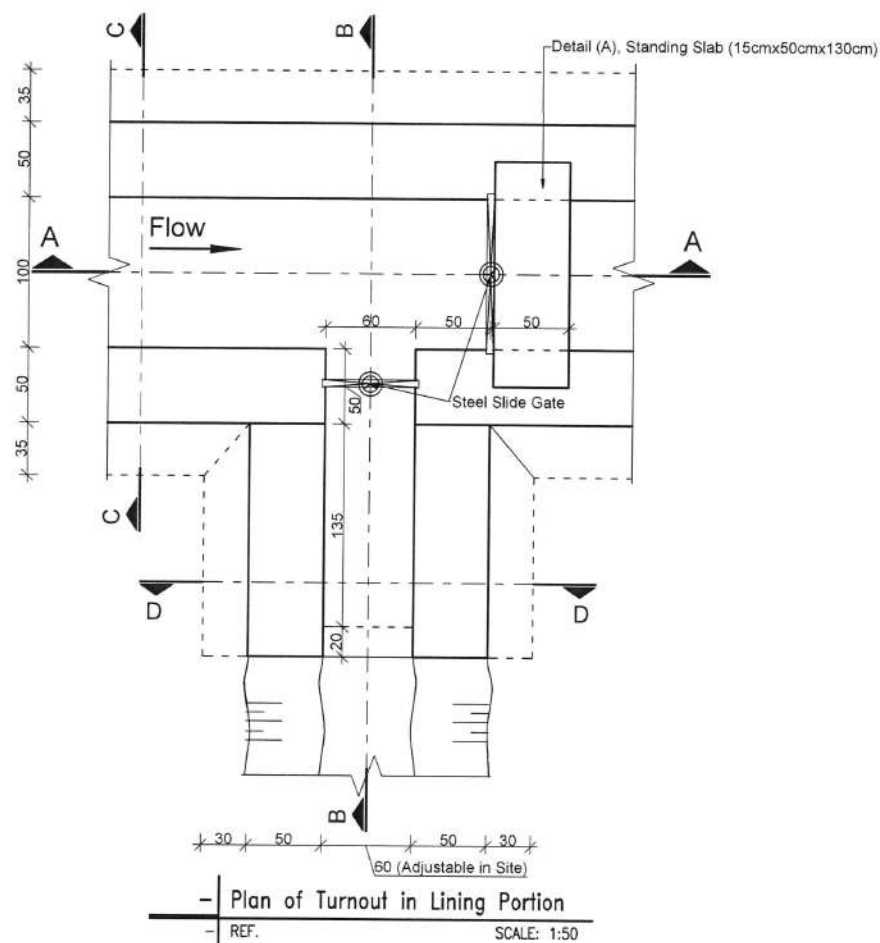
DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST

REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID QA/QC ENVIRONMENTAL COMPLIANCE DIRECTOR

SWIM APPROVAL
1 APR 2019
DR. DARREN SAYWELL ACTING CHIEF OF PARTY

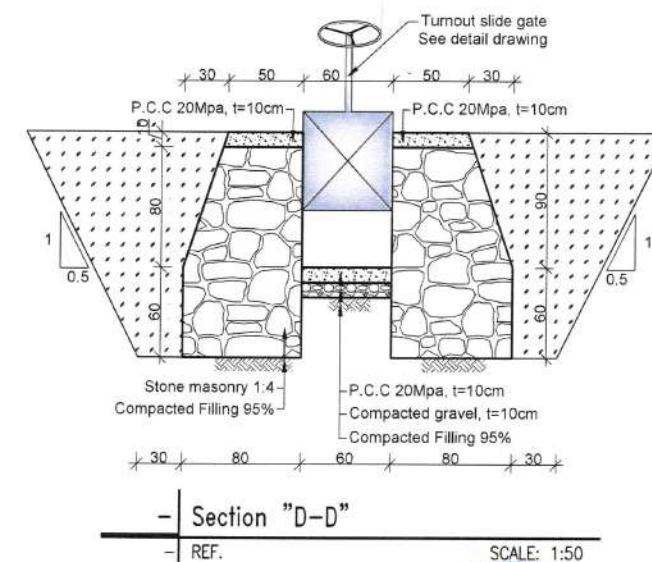
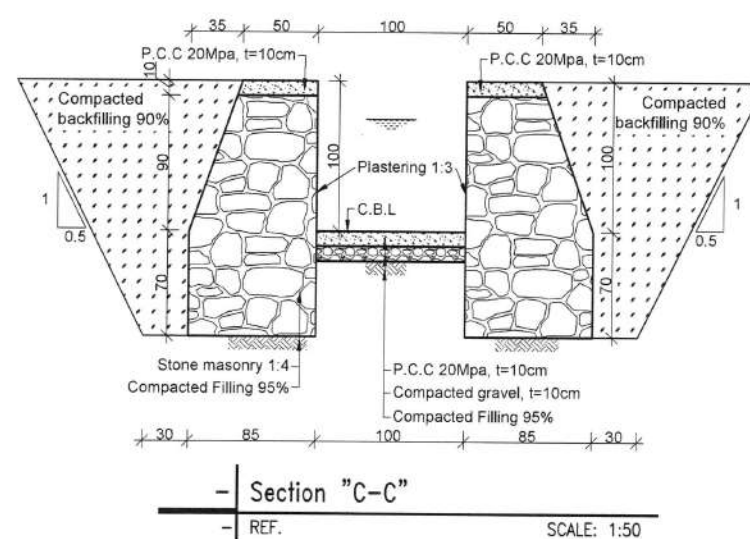
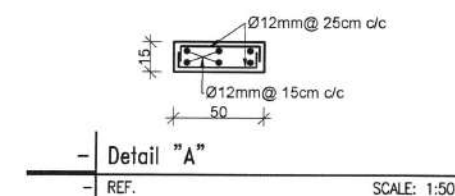
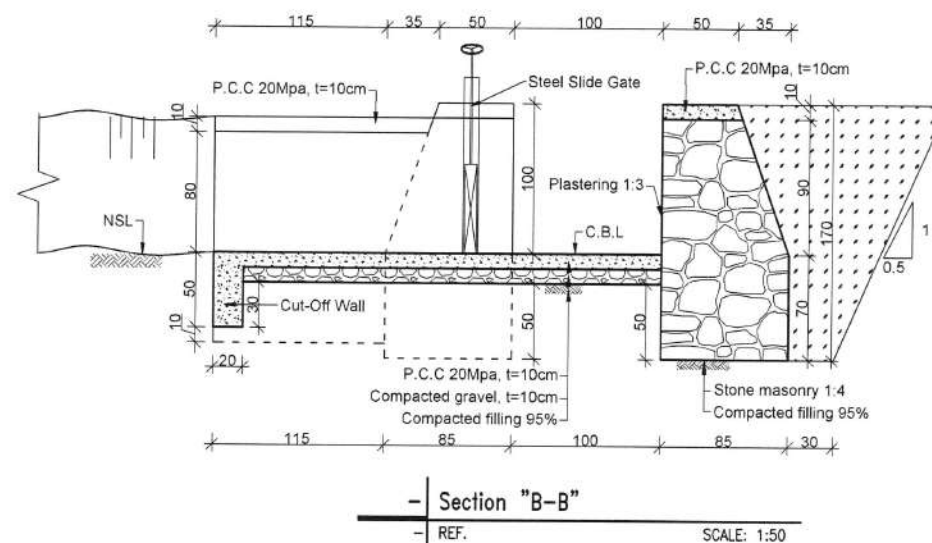
MAIL/DAIL APPROVAL
DATE: 11/9/15/10

SHEET NO.
22/28



Note:

- 1: Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters (m).
- 2: Excavation for the Foundation should be checked by the site Engineer,
- 3: Sand and Gravel should be clean and free from organic material
- 4: All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification
- 5: Stone masonry should be done by Mortar (1:4)
- 6: Angle and length of wing walls to be adjusted by SWIM engineer as per site conditions



Strengthening Watershed and
Irrigation Management (SWIM)

AECOM

Issued for Construction
D. Saywell

05 MAY 2019



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ
SECONDARY
CANAL
LOCATION
DISTRICT: AYBAK
PROVINCE: SAMANGAN

DRAWING TITLE
TURNOUT IN LINING CANAL
PLAN AND SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
HYDRAULIC SPECIALIST
DATE: 12/03/2019

REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL
COMPLIANCE DIRECTOR
DATE: 18/03/2019

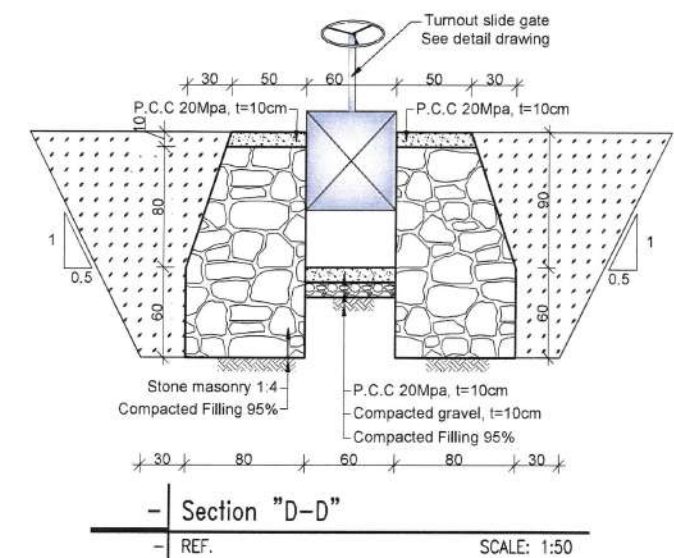
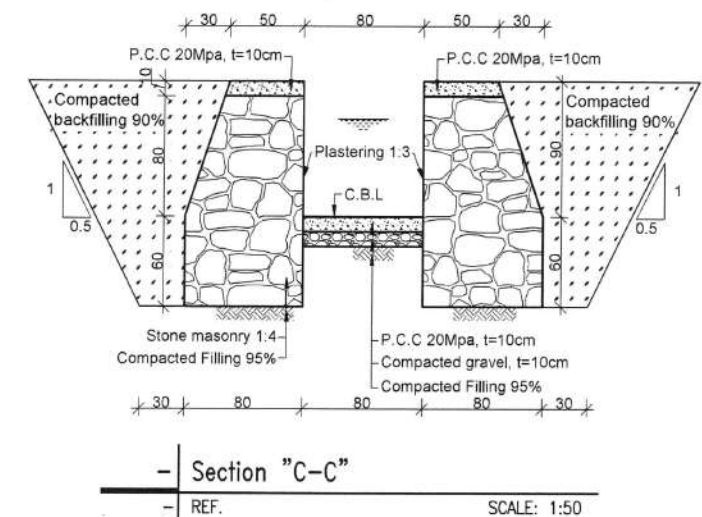
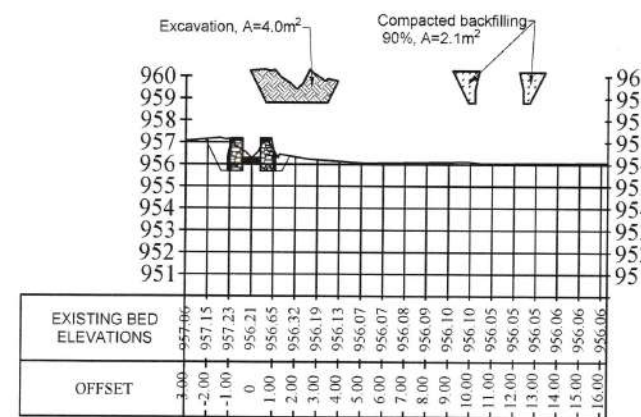
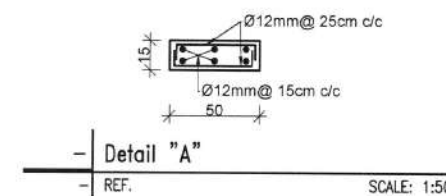
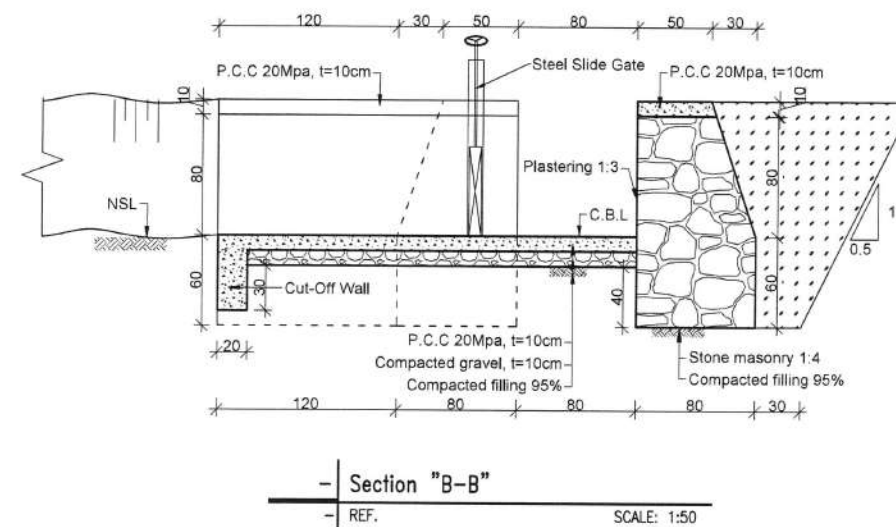
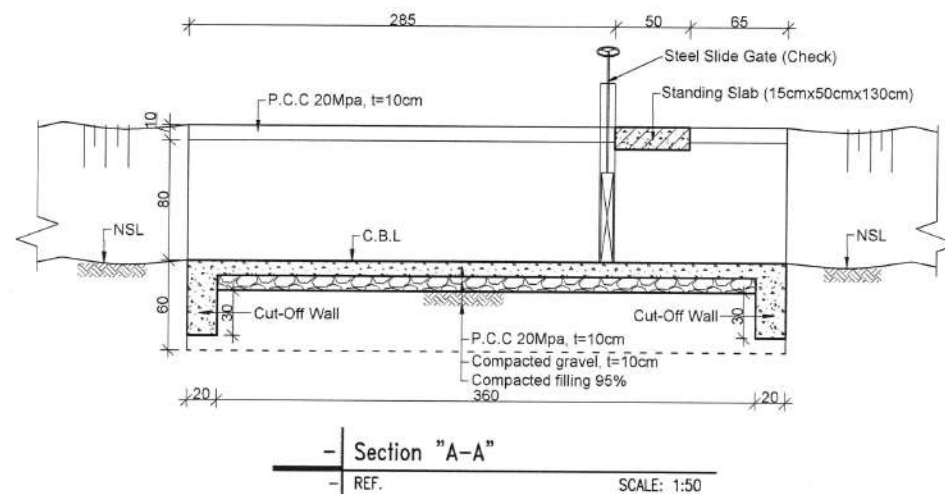
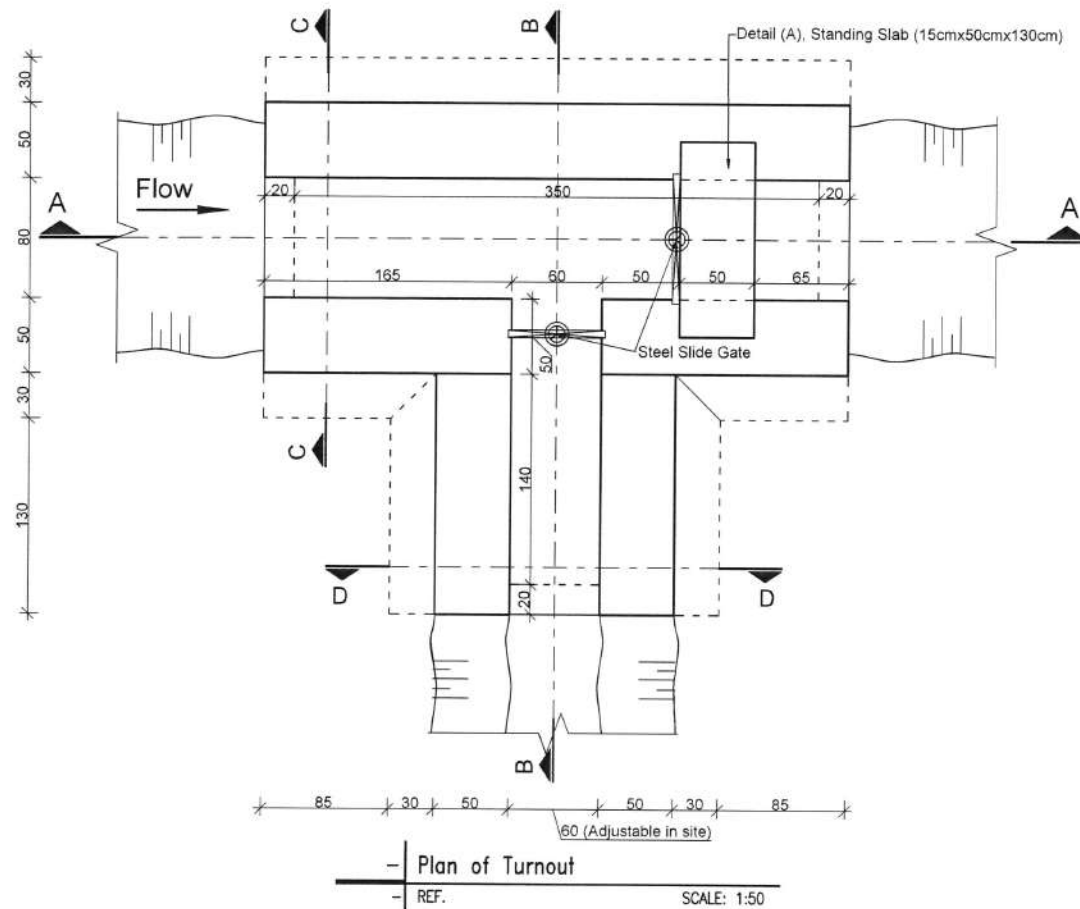
SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY
DATE: 18/03/2019

MAIL/DAIL APPROVAL
DATE: 18/03/2019

SHEET NO.
23/28

Note:

- 1: Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters (m).
- 2: Excavation for the Foundation should be checked by the site Engineer,
- 3: Sand and Gravel should be clean and free from organic material
- 4: All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification
- 5: Stone masonry should be done by Mortar (1:4)
- 6: Angle and length of wing walls to be adjusted by SWIM engineer as per site conditions









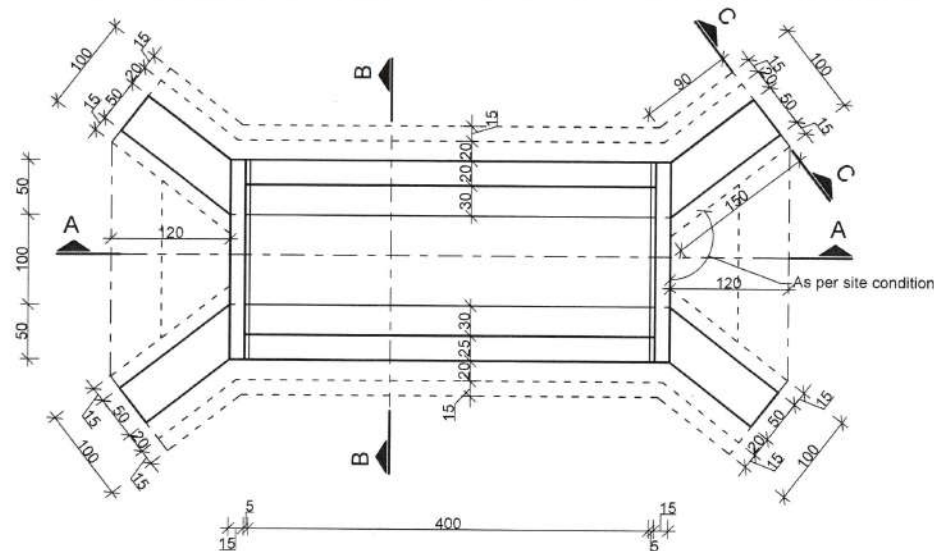
Strengthening Watershed and Irrigation Management (SWIM)

AECOM

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D. Saywell

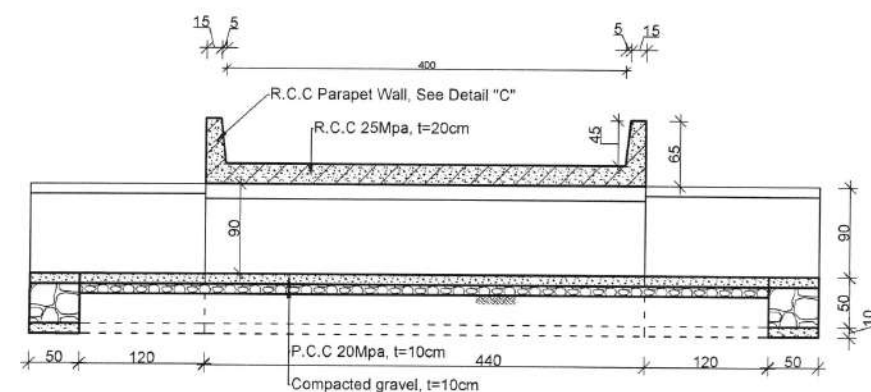
05 MAY 2019

 <div>USAID FROM THE AMERICAN PEOPLE</div>	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MAIL/DAIL. APPROVAL	SHEET NO. 24/28
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	TURNOUT IN EARTHEN CANAL PLAN AND SECTIONS	SWIM	SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DARREN SAYWELL ACTING CHIEF OF PARTY		
		DATE: 	DATE: 	18 MAR 2019	DATE: 					



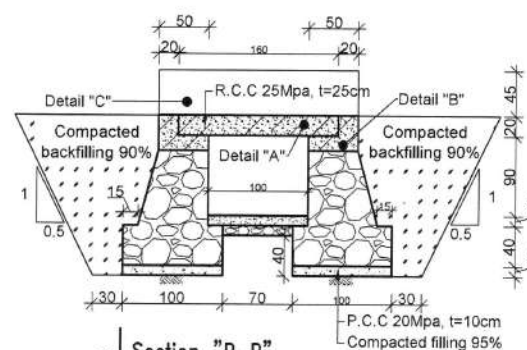
- Plan of Slab Culvert

- REF. SCALE: 1:75



- Section "A-A"

- REF. SCALE: 1:75

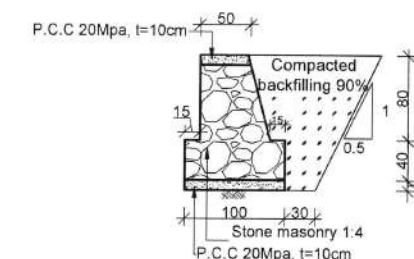


- Section "B-B"

- REF. SCALE: 1:75

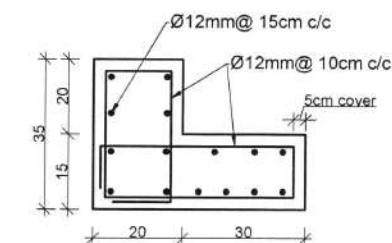
TABLE OF SLAB CULVERT

No	Station	Culvert Detail	Dimensions (M)			GPS Coordinate		Bed Elevation (m)	Remarks
			Length(m)	Height (m)	Width (m)	North	East		
1	2+350	Deck Slab Culvert	4.0	0.9	1.0	36.27220	67.95306	957.14	



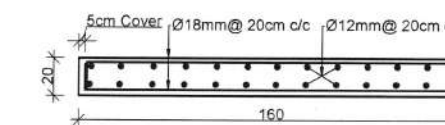
- Section "C-C"

- REF. SCALE: 1:75



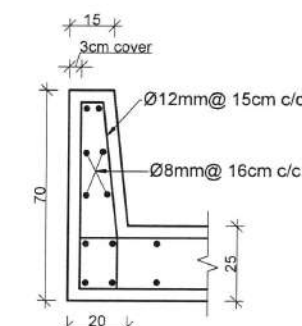
- Detail "B"

- REF. SCALE: 1:25



- Detail "A"

- REF. SCALE: 1:50



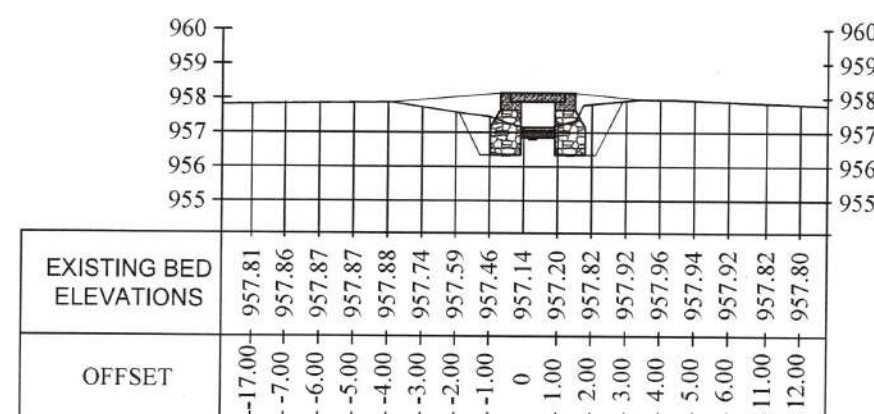
- Detail "C"

- REF. SCALE: 1:25

Bar Schedule (No. of bars and total bar length presented for 1m culvert)

Member	Bar Diameter	Shape Code	No. of Bars	Segment length (mm)					Total length - varies (metres)
				a	b	c	d	e	
Deck	18	a	5	150	1500				9.00
Deck	18	a	5	150	1500				9.00
Deck	12	a	5	3900					19.50
Deck	12	a	5	3900					19.50
Bearing Shelf	12	b	10		310	160	300	140	10.50
Bearing Shelf	12	c	10		440	100	420	90	11.40
Bearing Shelf	12	a	13	1000					13.000
Parapet Wall	8	a	13	1000					13.000
Parapet wall	12	a	16	600	400	200	140	100	23.04

Note: No. of bars and total bar length Should be calculate as per required length



Station: 2+350

Strengthening Watershed and Irrigation Management (SWIM)

AECOM

Issued for construction
D. Saywell

05 MAY 2019

- Note:
- 1: All dimension are in centimeter
 - 2: Excavation for the Foundation should be checked by the site Engineer,
 - 3: Sand and Gravel should be clean and free from organic material
 - 4: Compressive strength of plain cement concrete is 20MPa
 - 5: Compressive strength of Reinforced cement concrete is 25MPa
 - 6: Mild steel Grad 60 rebar to be used.
 - 7: All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification
 - 8: Stone masonry should be done by Type B (1:4)
 - 9: Fresh cement to be used
 - 10: Clean water should be used (suitable for drinking)
 - 11: Angle and length of wing walls to be adjusted by SWIM engineer as per site conditions



STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ SECONDARY CANAL

LOCATION
DISTRICT: AYBAK PROVINCE: SAMANGAN

DRAWING TITLE
DECK SLAB CULVERT PLAN, SECTIONS & DETAILS ST: (2+350)

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI HYDRAULIC SPECIALIST

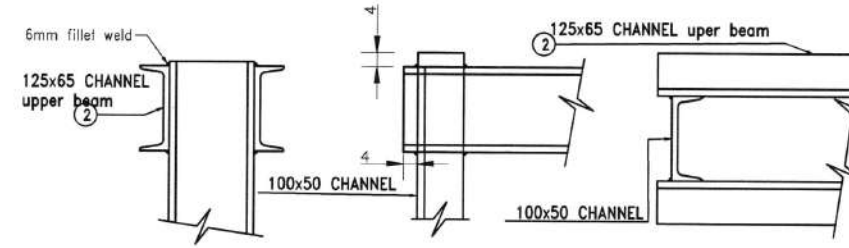
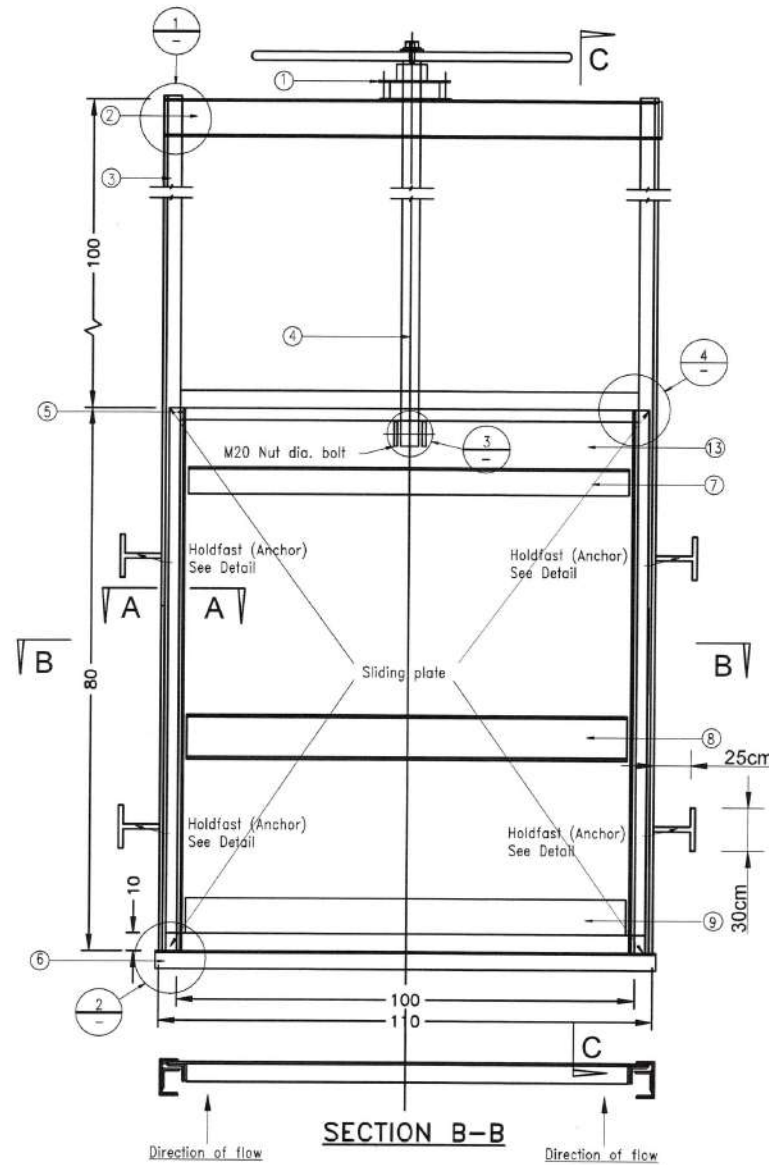
REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE SUPERVISOR

SWIM APPROVAL
1 APR 2019
DR. DARREN SAYWELL ACTING CHIEF OF PARTY

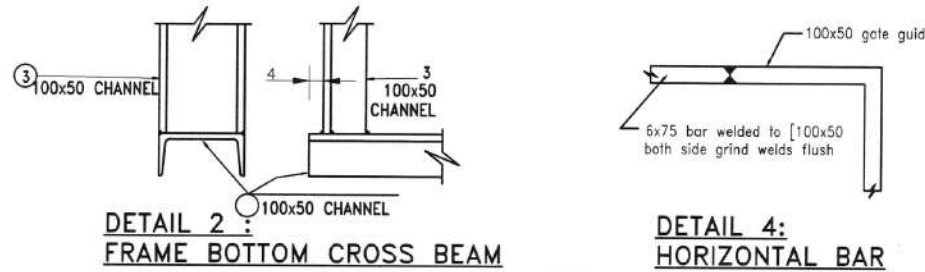
MEW/RBA APPROVAL
1 APR 2019
DR. DARREN SAYWELL ACTING CHIEF OF PARTY

SHEET NO.
25/28

Steel Slide Gate Detail For Check and Control Structure Size (110*80)cm

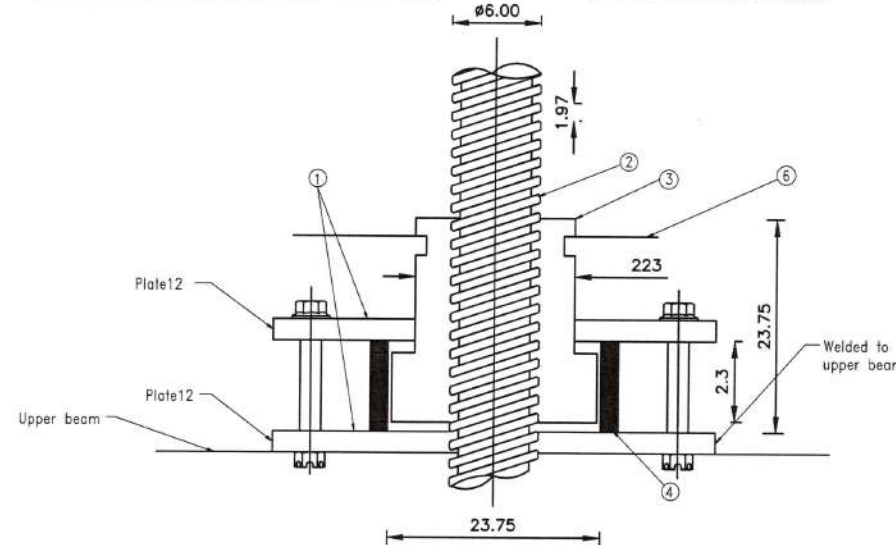


DETAIL 1:
FRAME CROSS BEAM(TOP)



DETAIL 2:
FRAME BOTTOM CROSS BEAM

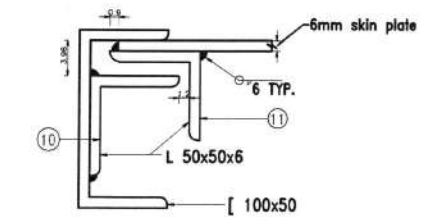
DETAIL 4:
HORIZONTAL BAR



SECTION C-C

TABLE (2)
LIFTING COMPONENT

Item	Description
1	Upper&lower plate 250x250x12mm
2	Spindle
3	Bearing nut
4	Spacer
5	Four M12 bolts , nuts
6	ø700mm handle



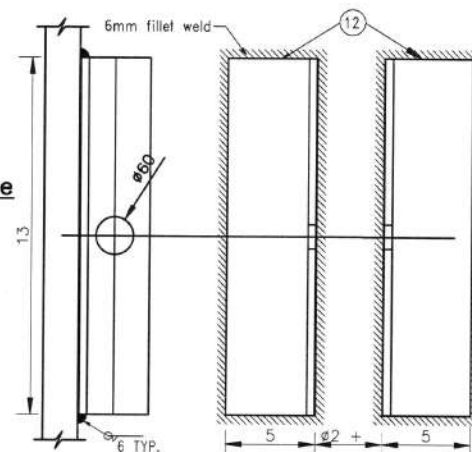
SECTION A-A

TABLE(1)
GATE COMPONENT

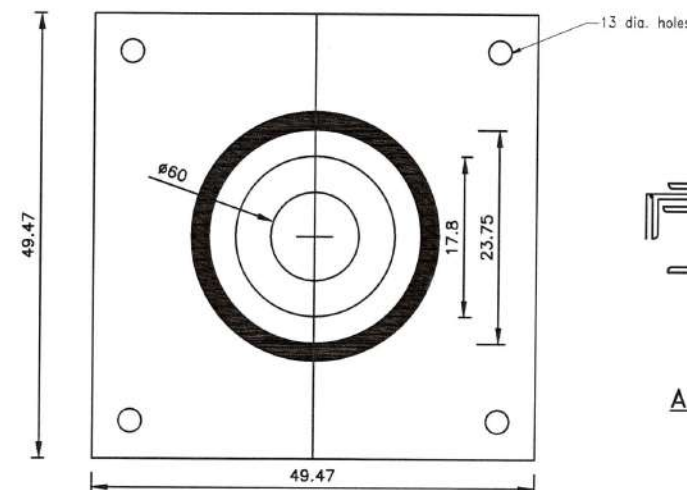
Item	Description
1	Thrust bearing/nut assembly
2	[125 x 65 Channel Upper beam
3	[100 x 50 Channel
4	Spindle ø 60mm
5	6 x 75 bar
6	[100 x 50 Channel (Lower beam)
7	Stiffener L 75x75x6
8	Stiffener [100x65
9	Stiffener L 100x100x6
10	L 50x 50x 6øNSLe
11	L 50x 50x 6øNSLe
12	L 50 X 50 X 6 lifting brackets
13	Plate 6 mm (see notes)

NOTE:

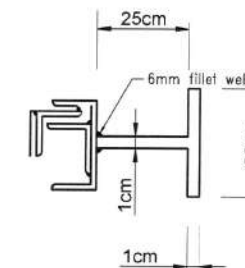
1. Three coats of enamel paint (one coat of red-oxide+ two coat of enamel paint).
2. Operation of the gates to be done by Mirab as per their scheduling.



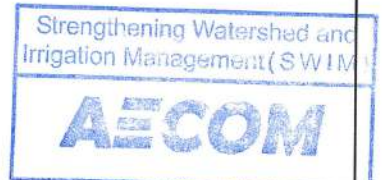
DETAIL 3:
LIFTING BRACKETS



PLAN
THRUST BEARING



ANCHOR DETAIL



Issued for construction

D. Saywen

05 MAY 2019



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
JOY KARIZ
SECONDARY
CANAL

LOCATION
DISTRICT: AYBAK
PROVINCE: SAMANGAN

DRAWING TITLE
CONTROL & CHECK
STRUCTURE
STEEL SLIDE GATE

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
SAYED ROHULLAH ATAYI
(HYDRAULIC SPECIALIST)

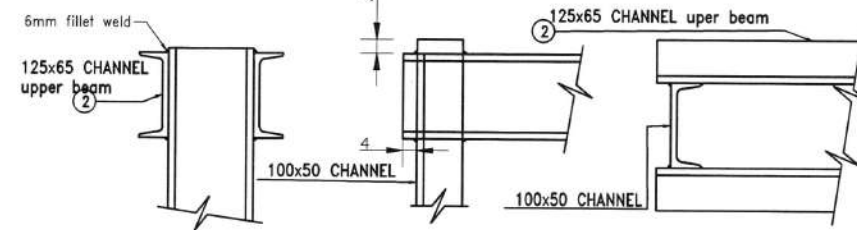
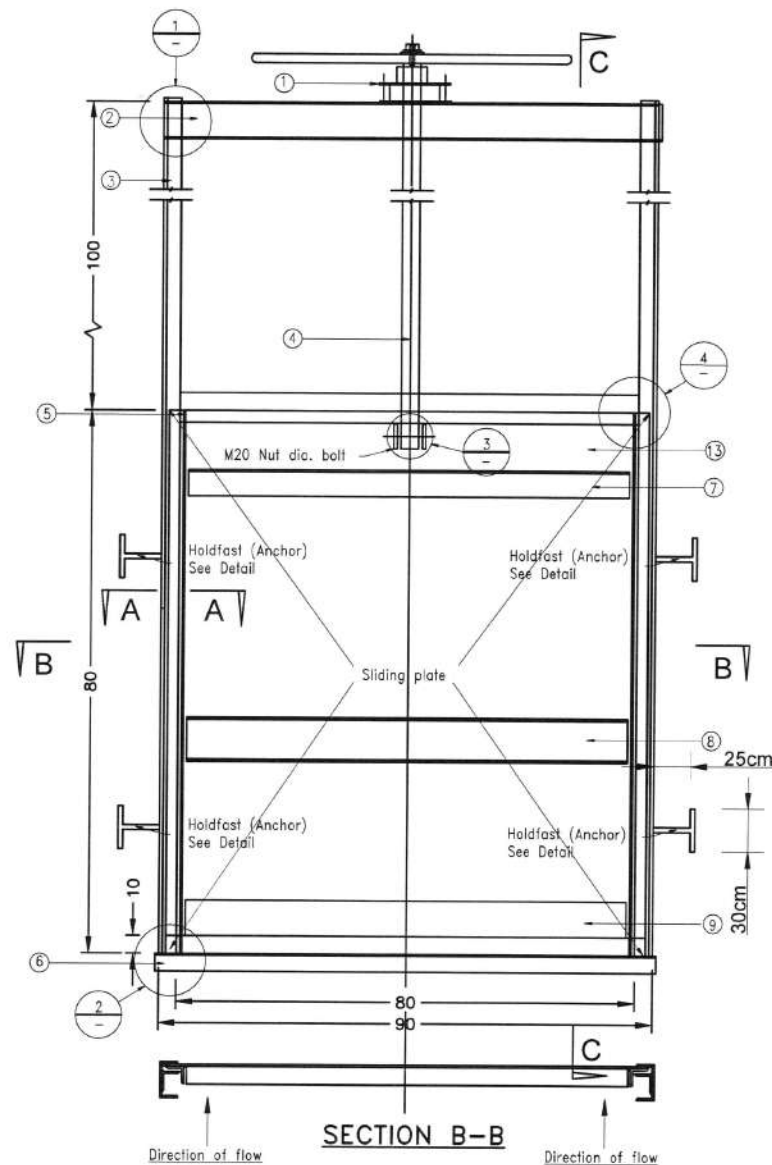
REVIEWED AND CHECKED BY
ENG. MOHAMMAD MOBIN OMID
QA/QC & ENVIRONMENTAL
COMPLIANCE DIRECTOR

SWIM APPROVAL
DR. DARREN SAYWELL
ACTING CHIEF OF PARTY

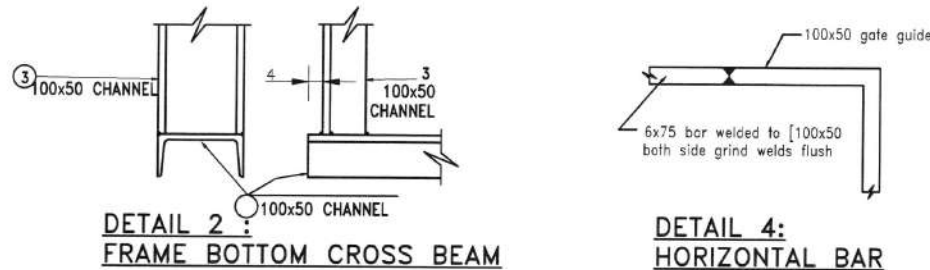
MEW/RBA APPROVAL
[Signature]

SHEET NO.
26/28

Steel Slide Gate Detail For Control Structure Size (90*80)cm

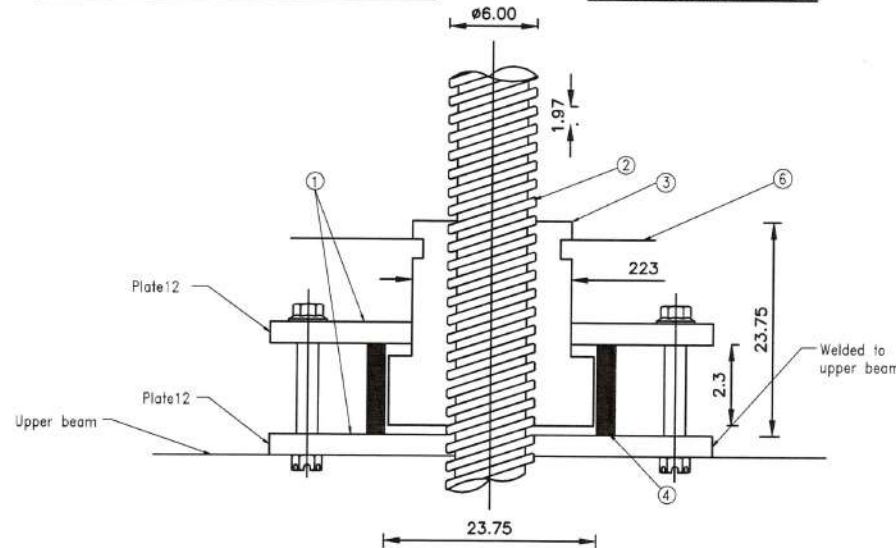


DETAIL 1:
FRAME CROSS BEAM(TOP)

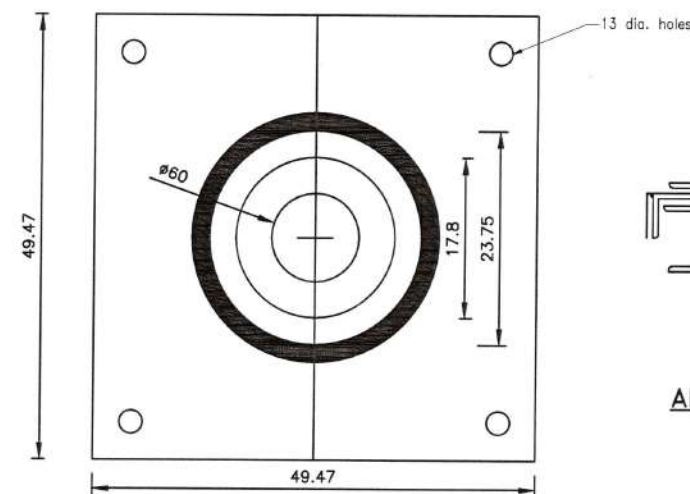


DETAIL 2:
FRAME BOTTOM CROSS BEAM

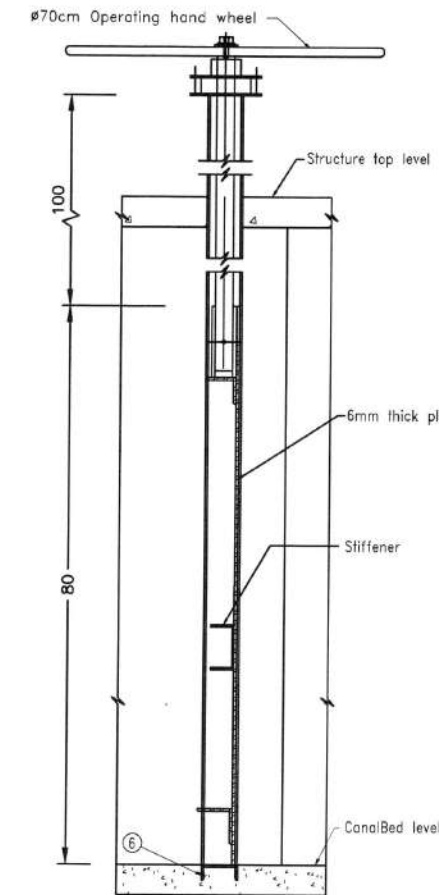
DETAIL 4:
HORIZONTAL BAR



DETAIL 3:
LIFTING BRACKETS



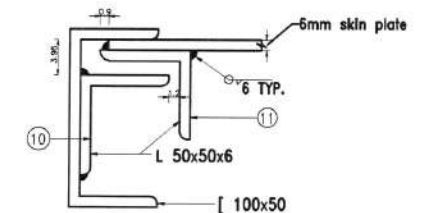
PLAN
THRUST BEARING



SECTION C-C

TABLE (2)
LIFTING COMPONENT

Item	Description
1	Upper&lower plate 250x250x12mm
2	Spindle
3	Bearing nut
4	Spacer
5	Four M12 bolts , nuts
6	ø700mm handle



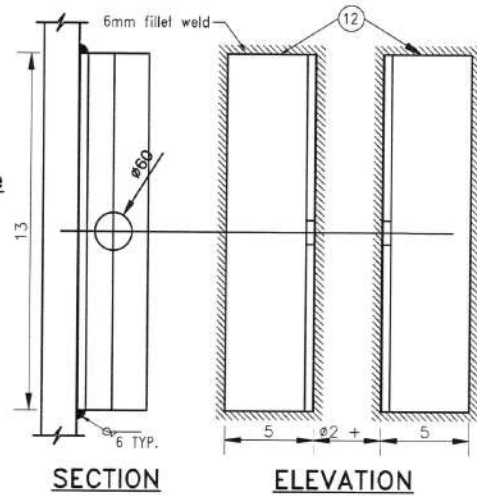
SECTION A-A

TABLE(1)
GATE COMPONENT

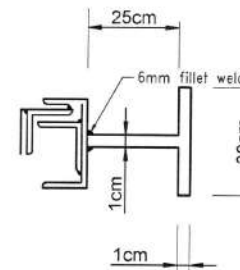
Item	Description
1	Thrust bearing/nut assembly
2	[125 x 65 Channel Upper beam
3	[100 x 50 Channel
4	Spindle ø 60mm
5	6 x 75 bar
6	[100 x 50 Channel (Lower beam)
7	Stiffener L 75x75x6
8	Stiffener [100x65
9	Stiffener L 100x100x6
10	L 50x 50x 6aNSLe
11	L 50x 50x 6aNSLe
12	L 50 X 50 X 6 lifting brackets
13	Plate 6 mm (see notes)

NOTE:

1. Three coats of enamel paint (one coat of red-oxide+ two coat of enamel paint).
2. Operation of the gates to be done by Mirab as per their scheduling.



SECTION
ELEVATION



ANCHOR DETAIL

Strengthening Watershed and
Irrigation Management (SWIM)
AECOM
Issued for construction
D. Saywell
05 MAY 2019

Steel Slide Gate Detail For Turnouts Control Size (70*80)cm

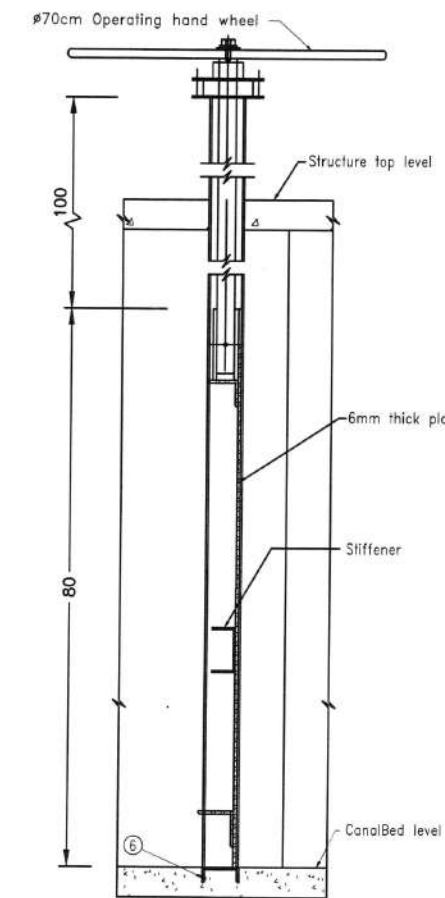
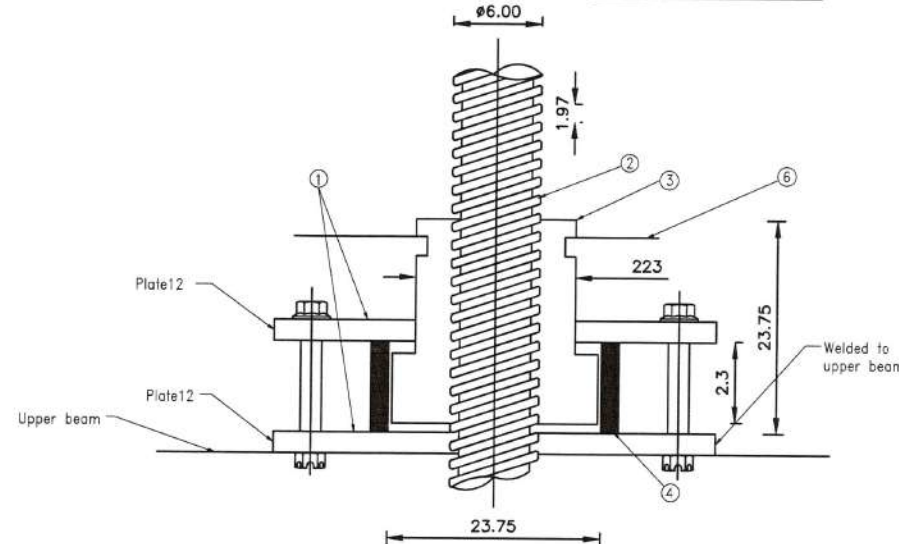
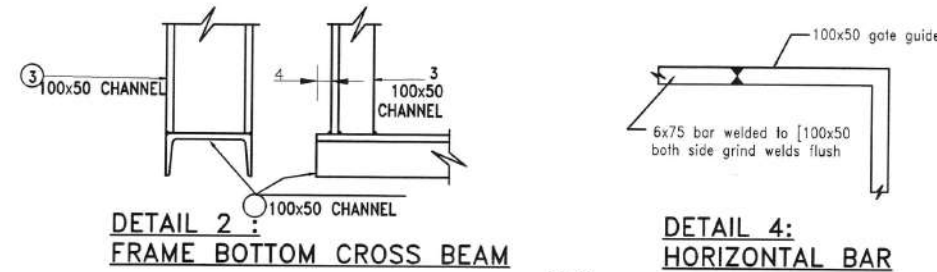
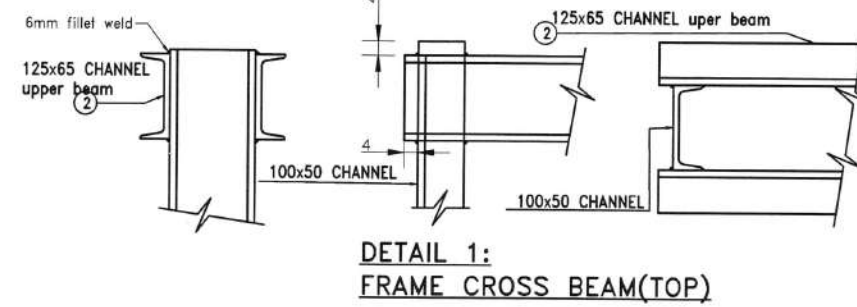
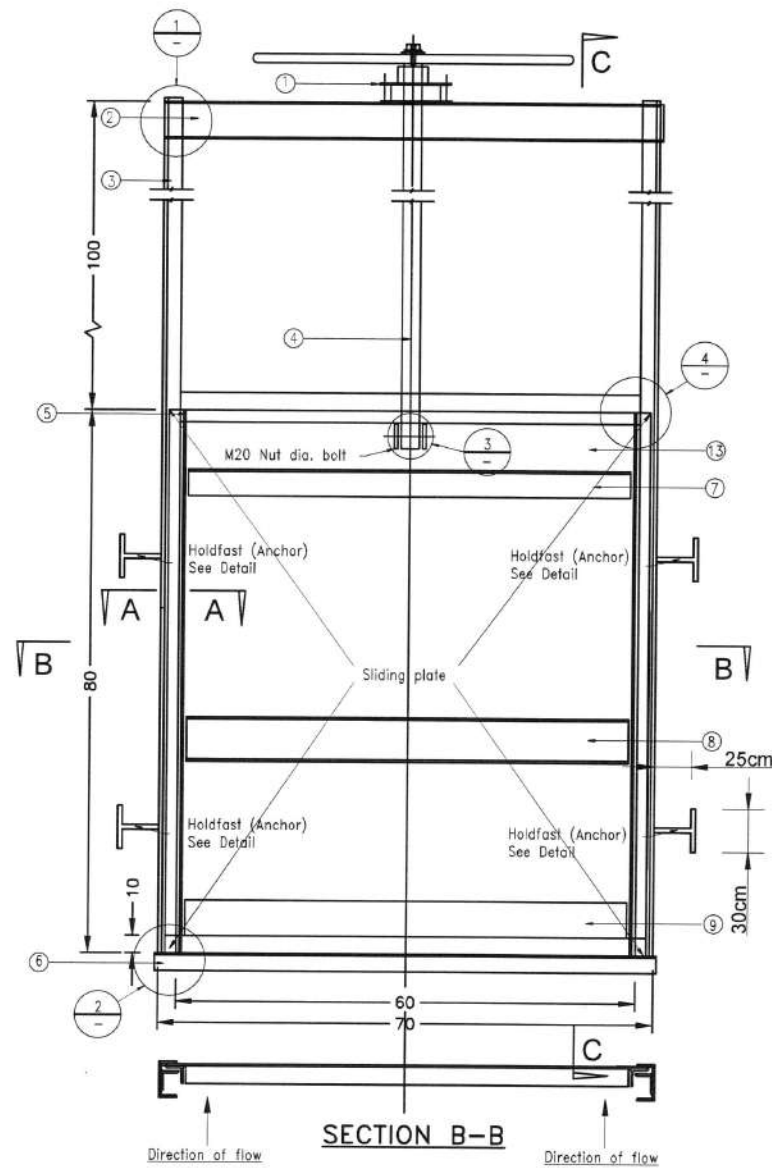
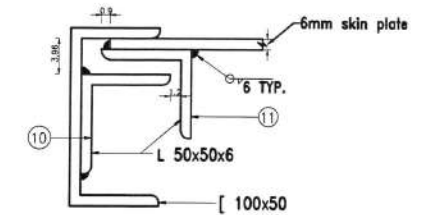


TABLE (2)
LIFTING COMPONENT

Item	Description
1	Upper&lower plate 250x250x12mm
2	Spindle
3	Bearing nut
4	Spacer
5	Four M12 bolts , nuts
6	Ø700mm handle



SECTION A-A

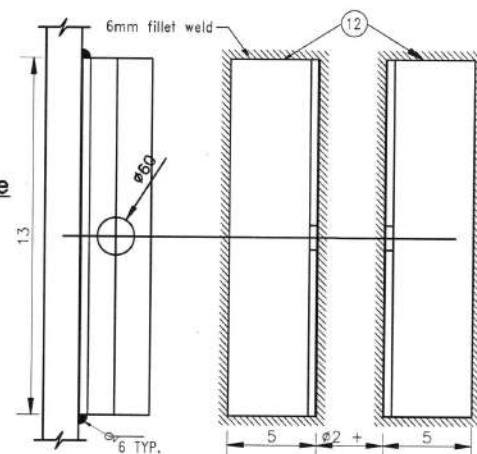
SECTION C-C

TABLE(1)
GATE COMPONENT

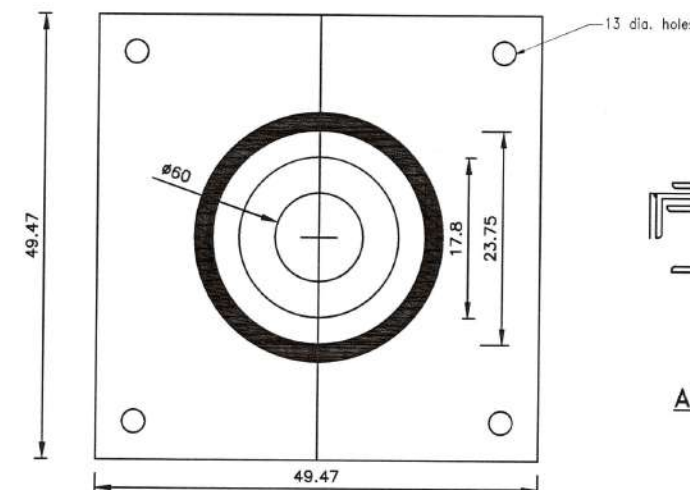
Item	Description
1	Thrust bearing/nut assembly
2	[125 x 65 Channel Upper beam
3	[100 x 50 Channel
4	Spindle Ø 60mm
5	6 x 75 bar
6	[100 x 50 Channel (Lower beam)
7	Stiffener L 75x75x6
8	Stiffener [100x65
9	Stiffener L 100x100x6
10	L 50x 50x 6aNSLe
11	L 50x 50x 6aNSLe
12	L 50 X 50 X 6 lifting brackets
13	Plate 6 mm (see notes)

NOTE:

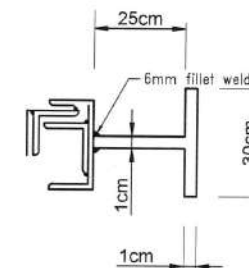
1. Three coats of enamel paint (one coat of red-oxide+ two coat of enamel paint).
2. Operation of the gates to be done by Mirab as per their scheduling.



DETAIL 3:
LIFTING BRACKETS



PLAN
THRUST BEARING








ANCHOR DETAIL

Strengthening Watershed and
Irrigation Management (SWIM)
AECOM

Issued for Construction
05 MAY 2019



 <div>USAID FROM THE AMERICAN PEOPLE</div>	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MEW/RBA APPROVAL	SHEET NO. 28/28	
		JOY KARIZ SECONDARY CANAL	DISTRICT: AYBAK PROVINCE: SAMANGAN	TURNOUT STRUCTURE STEEL SLIDE GATE	SWIM	SAYED ROHULLAH ATAYI (HYDRAULIC SPECIALIST)	ENG. MOHAMMAD MOBIN OMID QA/QC & ENVIRONMENTAL COMPLIANCE DIRECTOR	DR. DAKREN SAYWELL ACTING CHIEF OF PARTY	1 APR 2019		
		DATE: 	DATE: 	DATE: 	DATE: 						



دکترنی، اوبولگولو او مالدارۍ وزارت
وزارت زراعت، آبیاری و مالدارۍ

د افغانستان اسلامي جمهوري دولت
دولت جمهوري اسلامي افغانستان



Islamic Republic of Afghanistan
Ministry of Agriculture, Irrigation and Livestock

معینیت آبیاری و منابع طبیعی
ریاست آبیاری
آمریت انجنیری

تاریخ: 1398/2 / 0

شماره: (۱۲۲ / ۸۷)

به پروژه محترم SWIM:

به جواب مکتوب شماره 82 مورخ 15 اپریل 2019 شما احتراماً مینگاریم اینکه :
اوراق تخنیکي کانال های زراعتي جوی کاریز و جوی زندان واقع مرکز ولایت
سمنگان (ایبک) بعد از چک و بررسی دوباره به شما ارسال شد.

با احترام
حشمت الله (مغفوری)
معین آبیاری و منابع طبیعی
وسرپرست وزارت زراعت، آبیاری و مالدارۍ