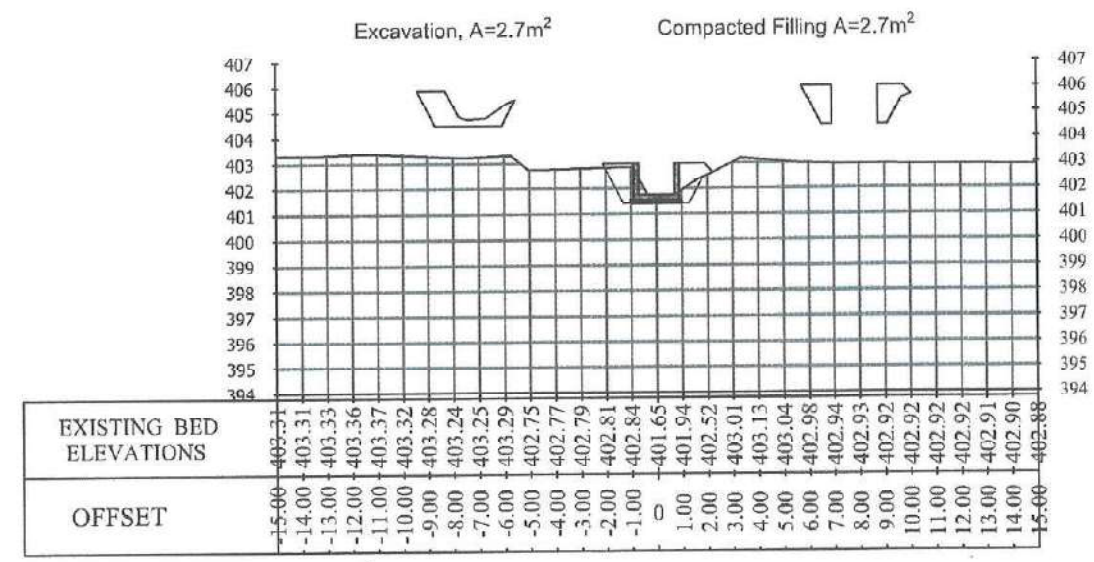


SURVEY SECTIONS

REF. ST: 5+400

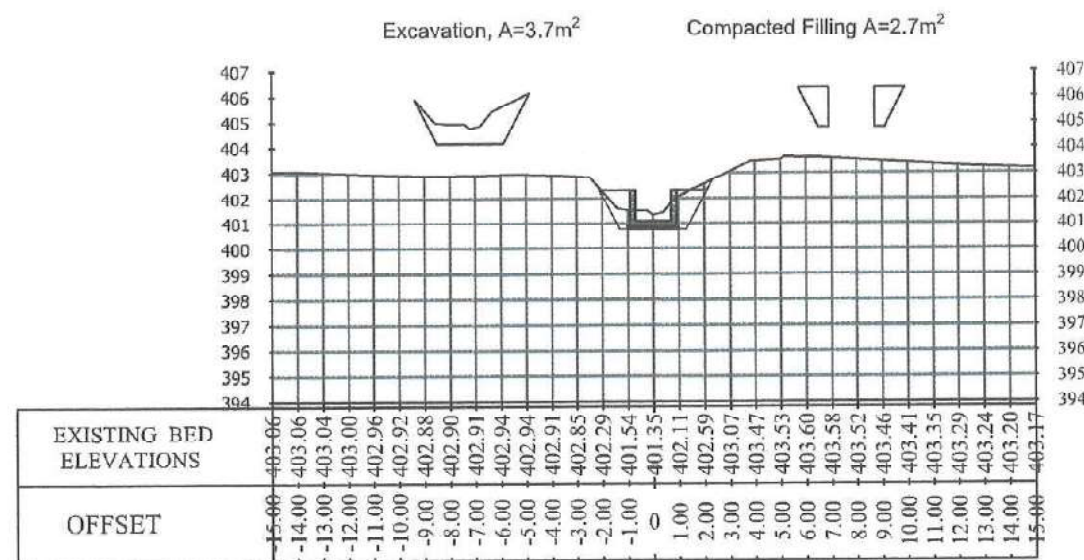
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 5+450

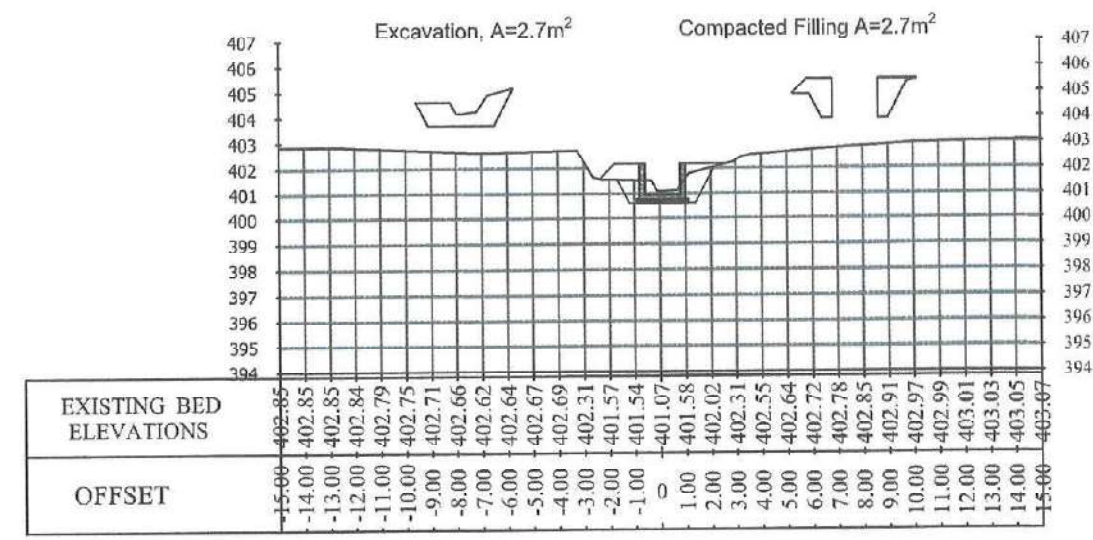
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 5+500

SCALE: NOT IN SCALE



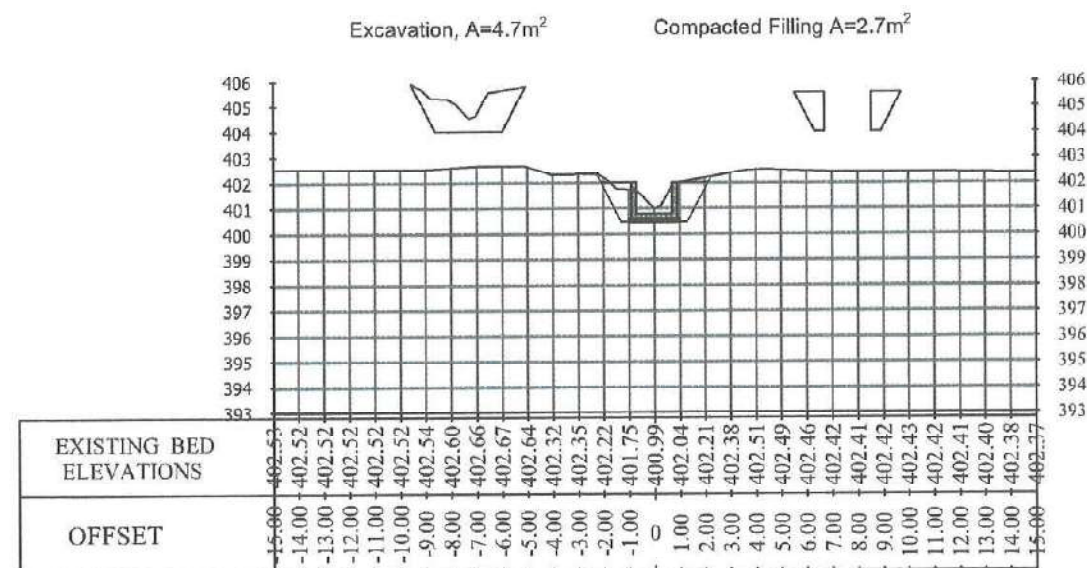
SURVEY SECTIONS

REF. ST: 5+550

SCALE: NOT IN SCALE

USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME CHOCHMAN MAIN CANAL CHOCHMAN BRANCH	LOCATION DISTRICT: KHULM PROVINCE: SAMANGAN	DRAWING TITLE CROSS SECTIONS	SURVEYED BY SWIM	DRAWING AND DESIGN BY MOHAMMAD AFZAL MUHAMMAD ENGINEER (HYDRAULIC SPECIALIST)	REVIEWED AND CHECKED BY GERALD MALON IRRIGATION ENGINEER EXPERT	SWIM APPROVAL HOPPY MAZIER CHIEF OF PARTY	MEW/RBA APPROVAL 	SHEET NO. 37/94
						DATE: 6/21/2020	DATE: 21-6-2020	DATE: 21-6-2020	DATE: 23/6/2020	

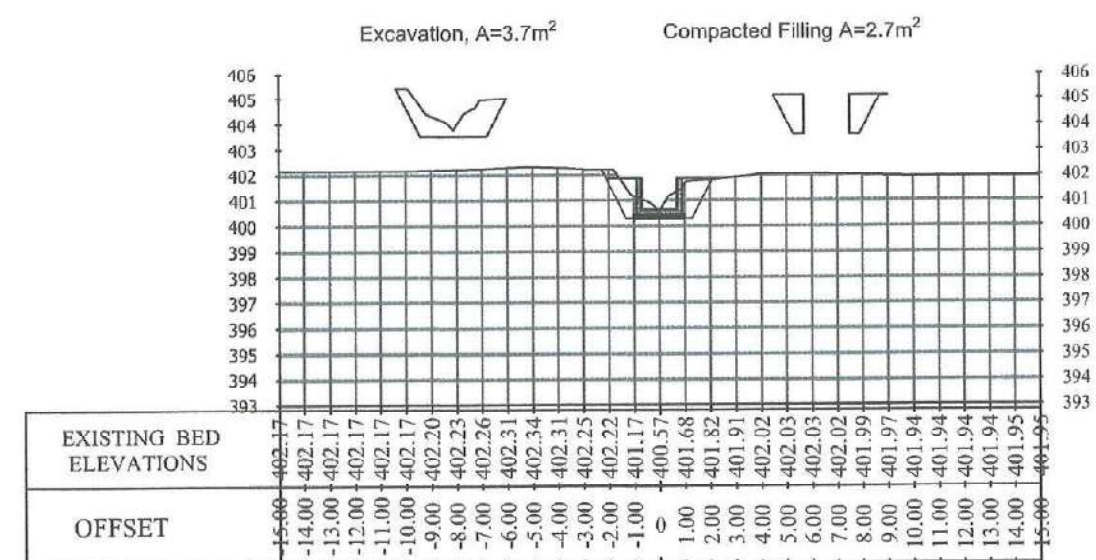
For H.M



- SURVEY SECTIONS

- REF. ST: 5+600

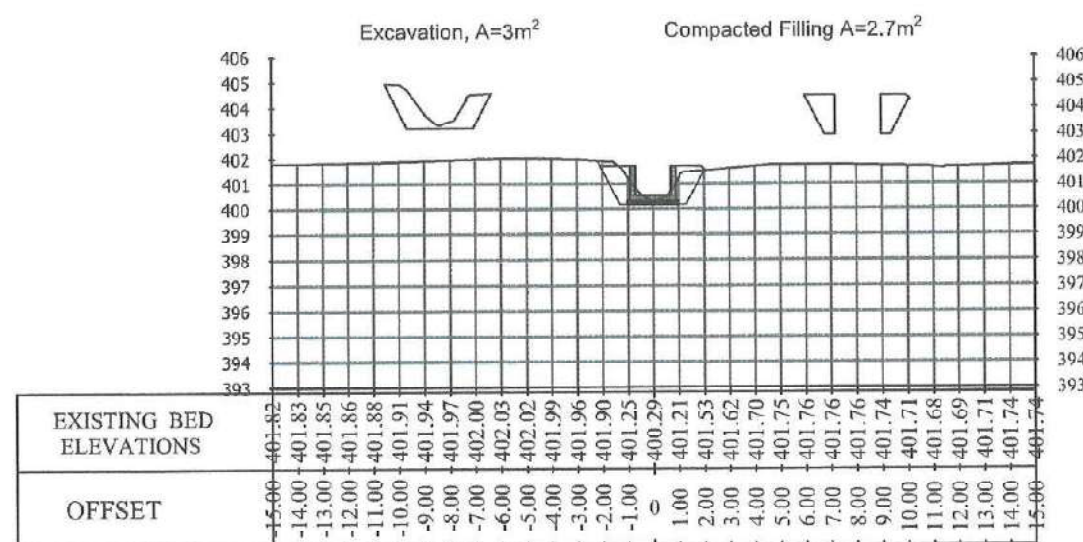
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 5+650

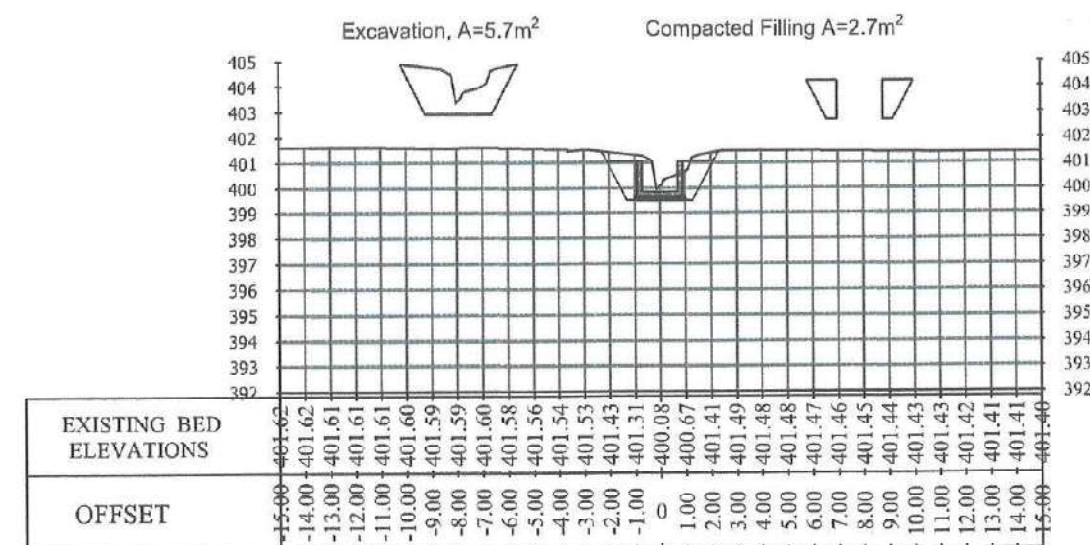
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 5+700

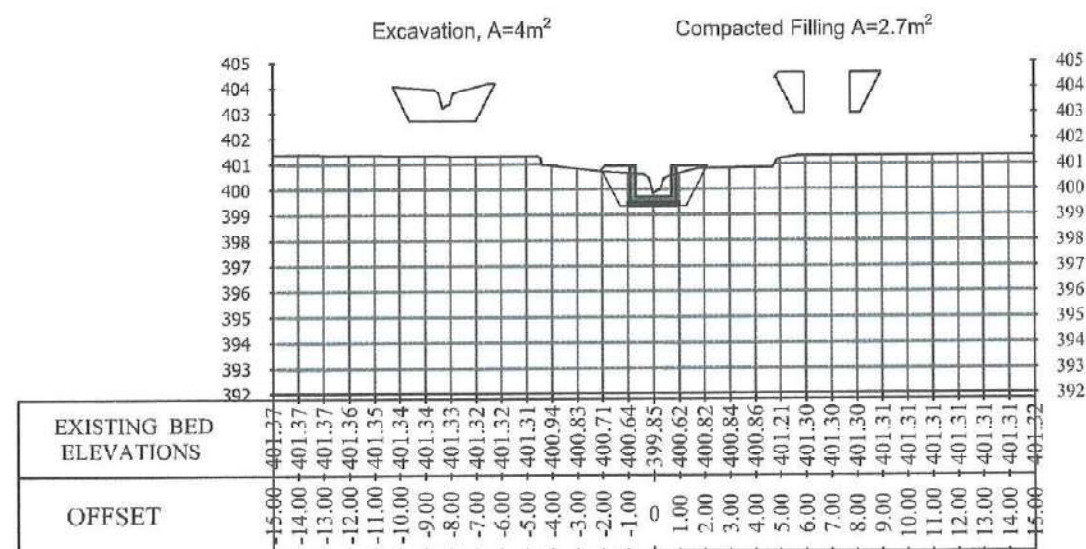
SCALE: NOT IN SCALE



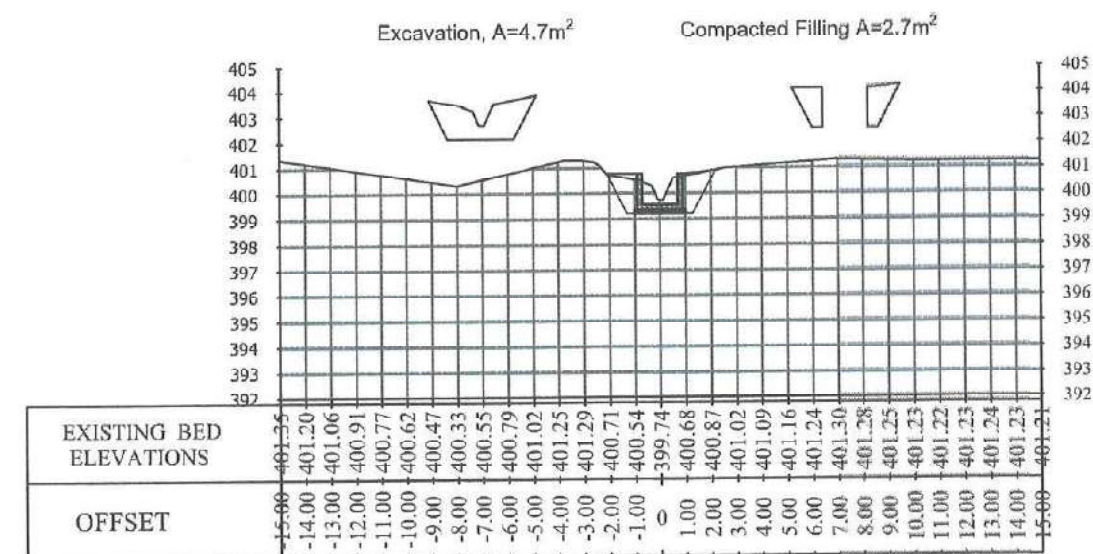
- SURVEY SECTIONS

- REF. ST: 5+750

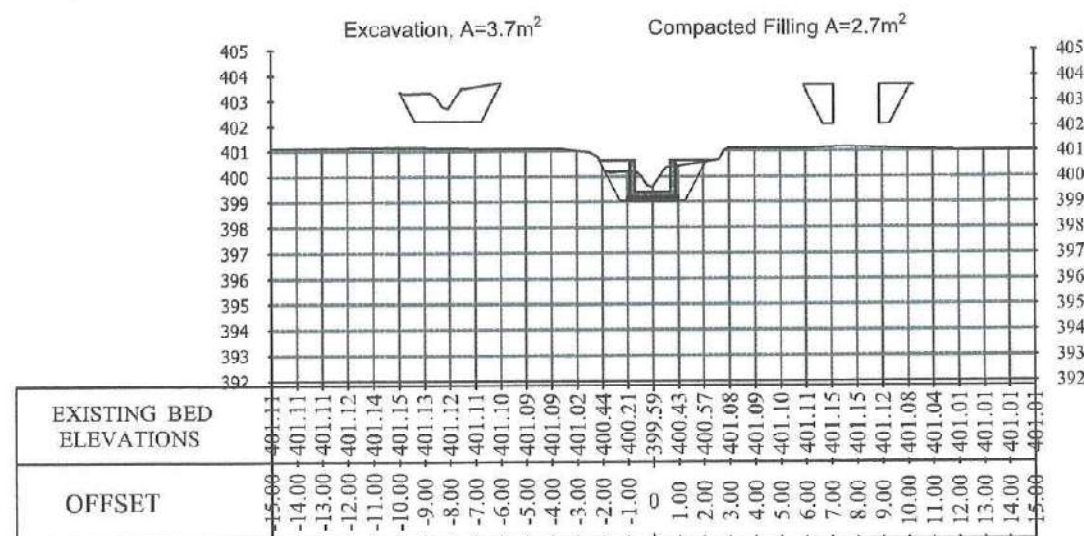
SCALE: NOT IN SCALE



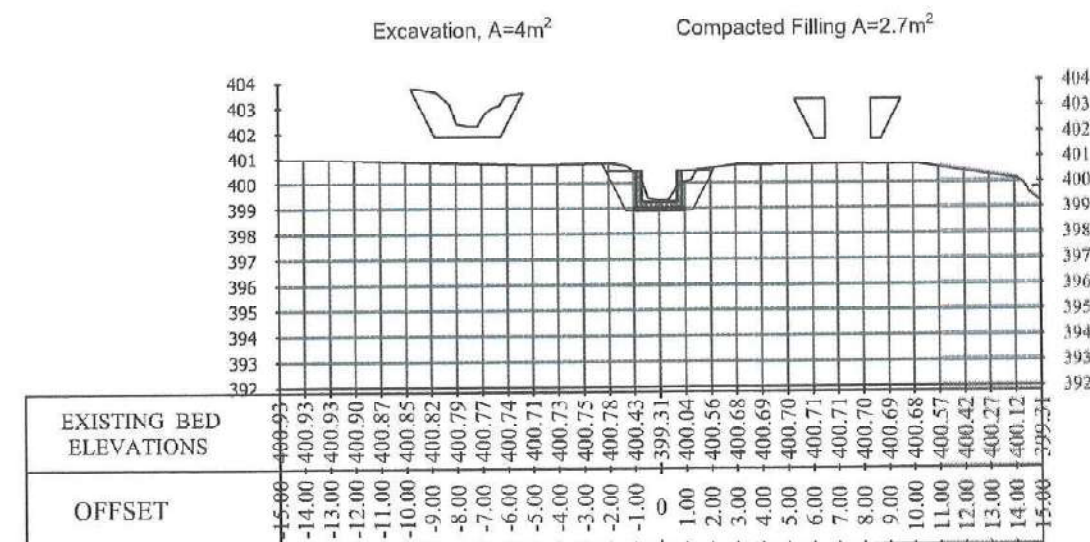
SURVEY SECTIONS
REF. ST: 5+800 SCALE: NOT IN SCALE



SURVEY SECTIONS
REF. ST: 5+850 SCALE: NOT IN SCALE



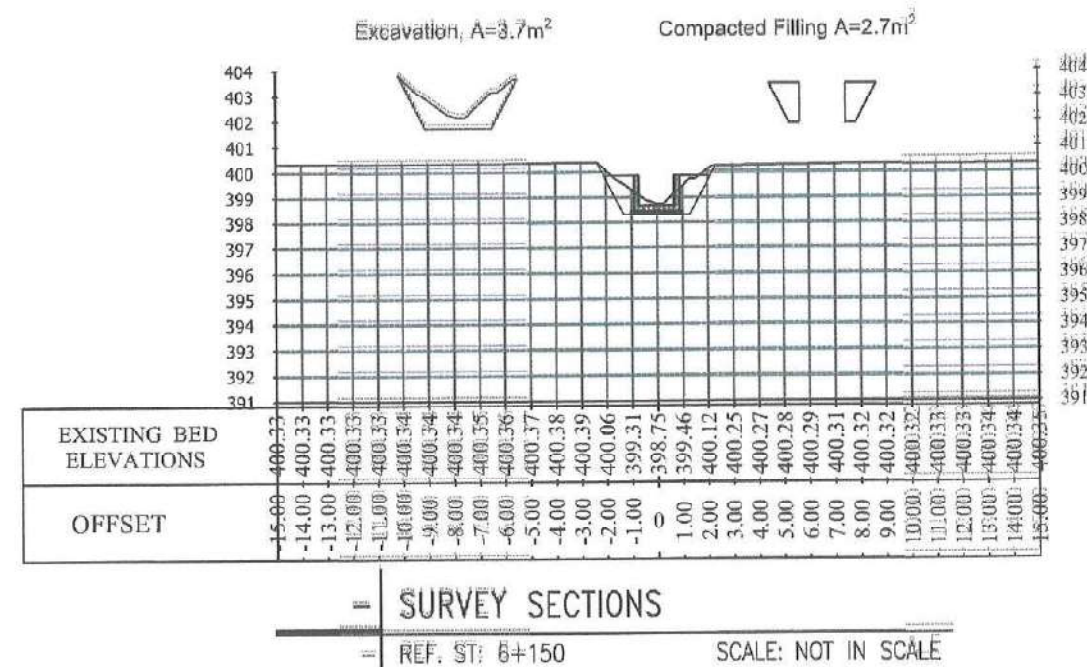
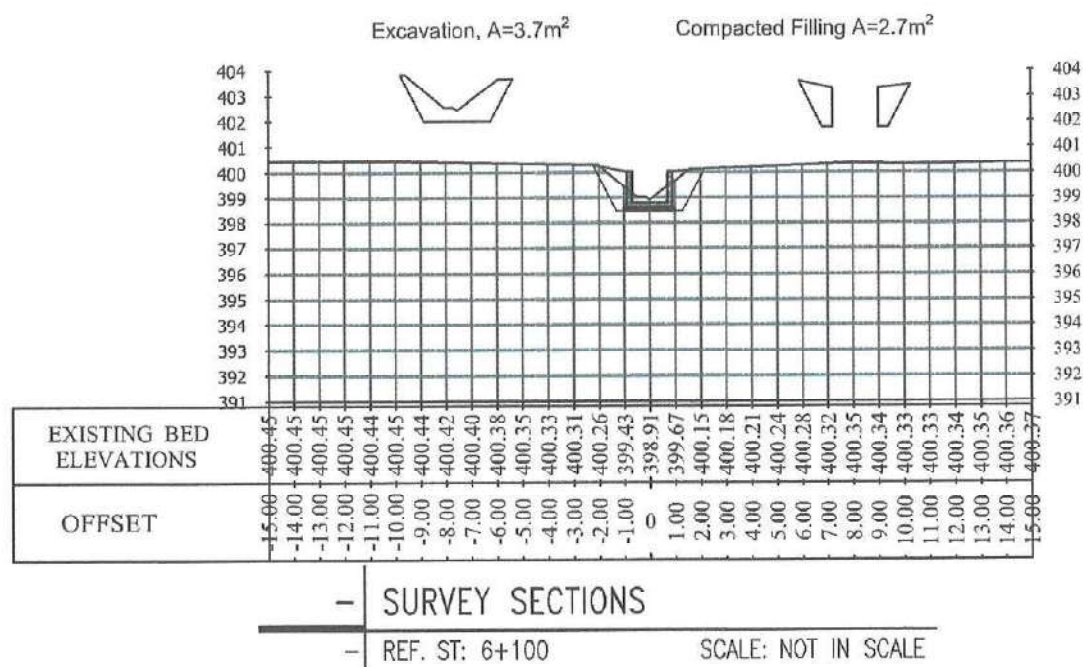
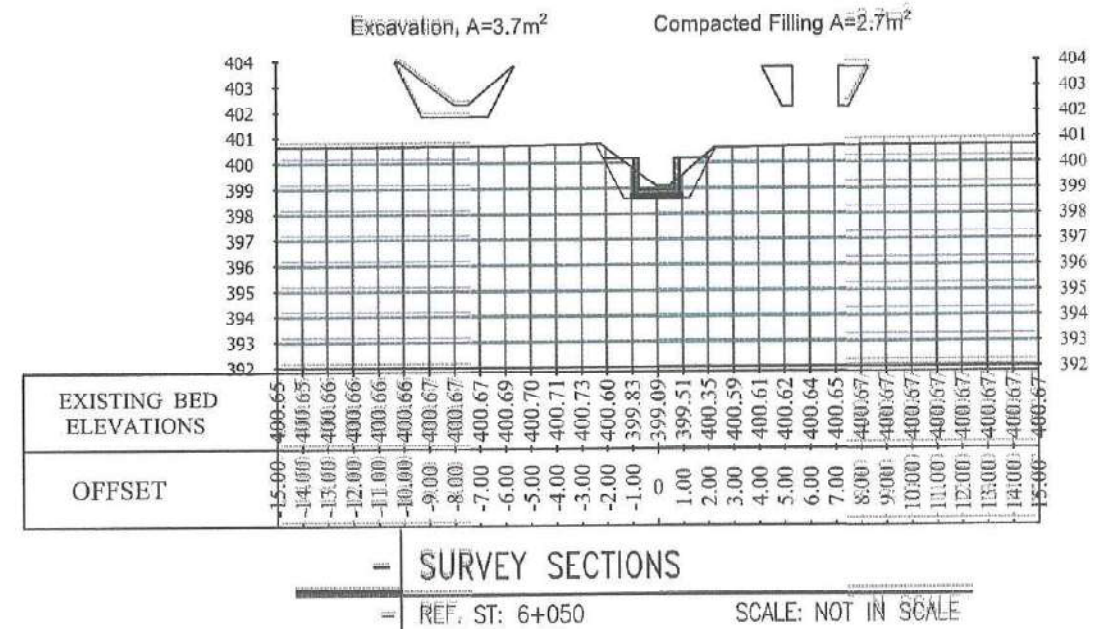
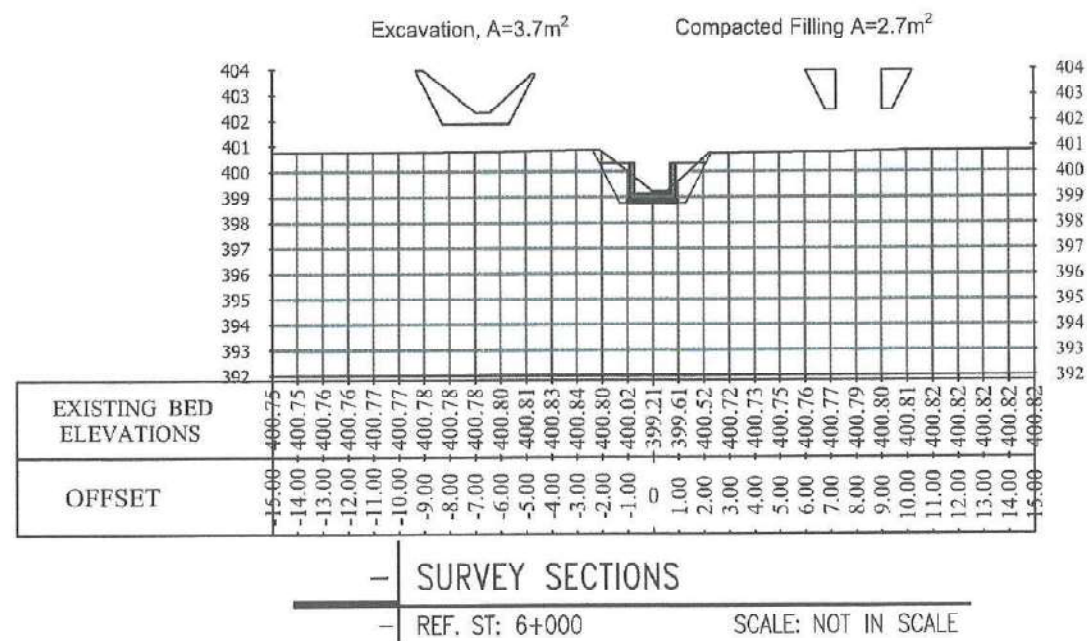
SURVEY SECTIONS
REF. ST: 5+900 SCALE: NOT IN SCALE

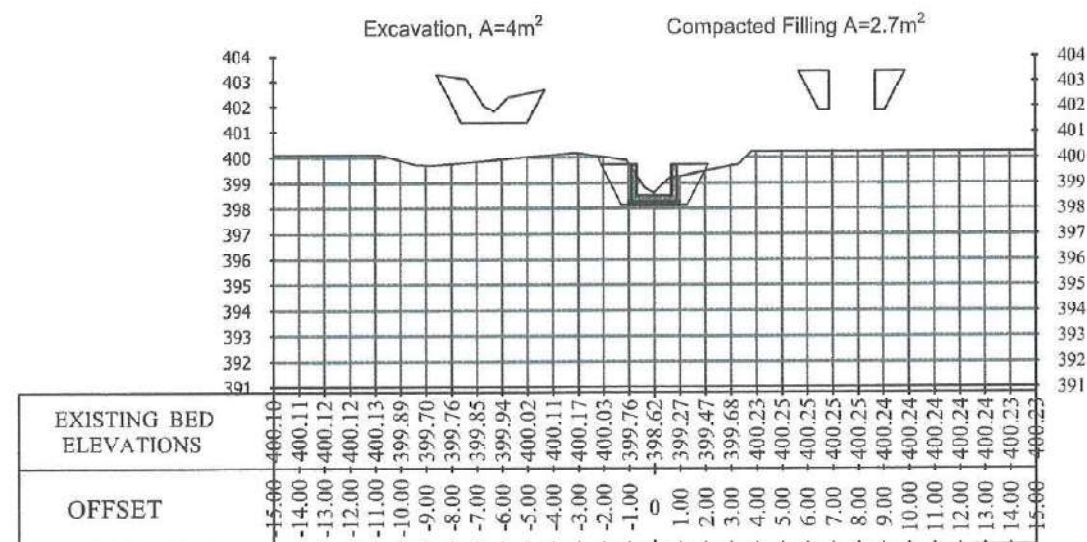


SURVEY SECTIONS
REF. ST: 5+950 SCALE: NOT IN SCALE

USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME CHOCHMAN MAIN CANAL CHOCHMAN BRANCH	LOCATION DISTRICT: KHULM PROVINCE: SAMANGAN	DRAWING TITLE CROSS SECTIONS	SURVEYED BY SWIM	DRAWING AND DESIGN BY MOHAMMAD AFZAL MUJAHID ENGINEER (HYDRAULIC SPECIALIST)	REVIEWED AND CHECKED BY GERALD MALON IRRIGATION ENGINEER EXPERT	SWIM APPROVAL HOPPY MAZIR CHIEF OF PARTY	MEW/RBA APPROVAL	SHEET NO. 39/94
						DATE: 6/21/2020	DATE: 21-6-2020	DATE: 21-6-2020	DATE: 23/6/2020	

For H.M

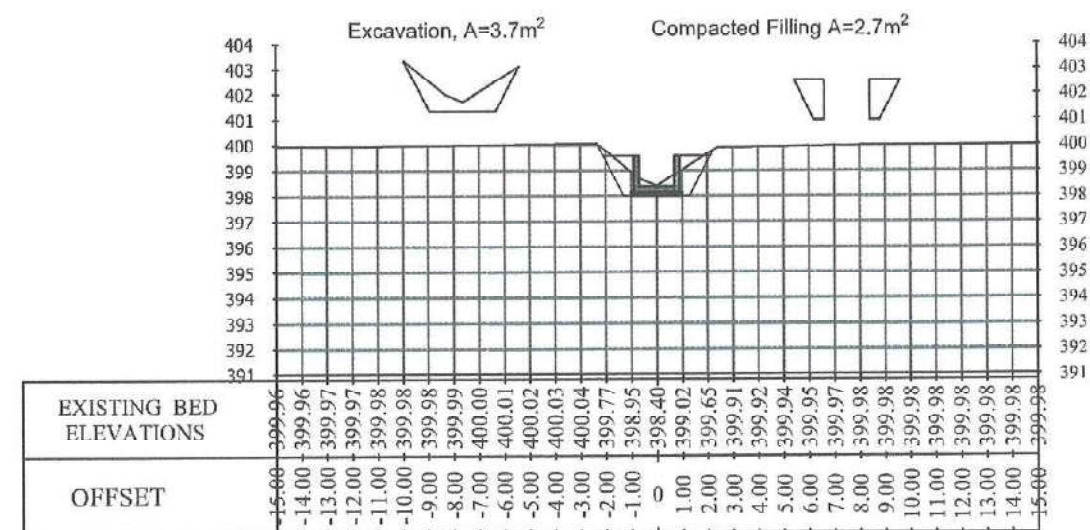




- SURVEY SECTIONS

- REF. ST: 6+200

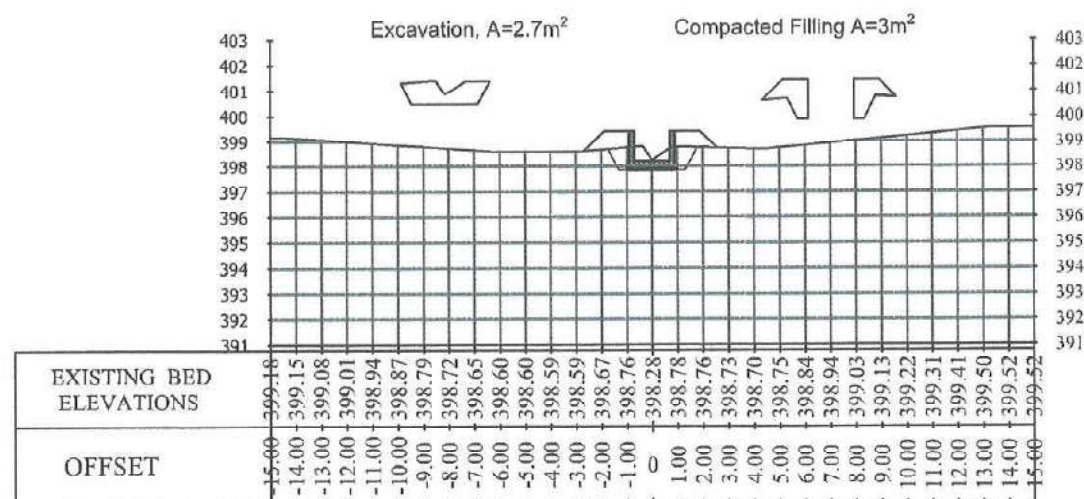
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 6+250

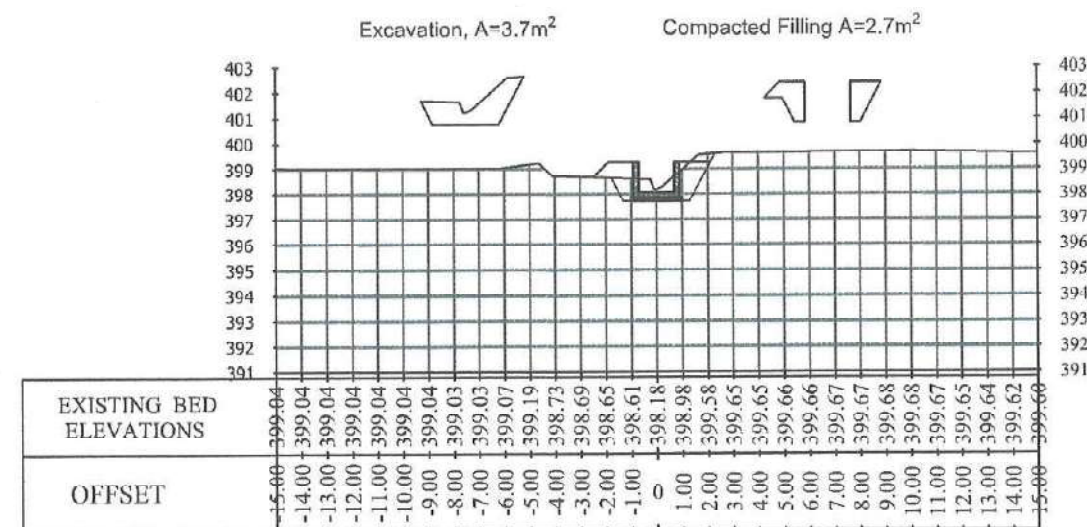
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 6+300

SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 6+350

SCALE: NOT IN SCALE



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
CHOCHMAN
MAIN CANAL
CHOCHMAN
BRANCH

LOCATION
DISTRICT: KHULM
PROVINCE: SAMANGAN

DRAWING TITLE
CROSS SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
MOHAMMAD AFZAL MUHAMMAD
ENGINEER
(HYDRAULIC SPECIALIST)
DATE: 6/21/2020

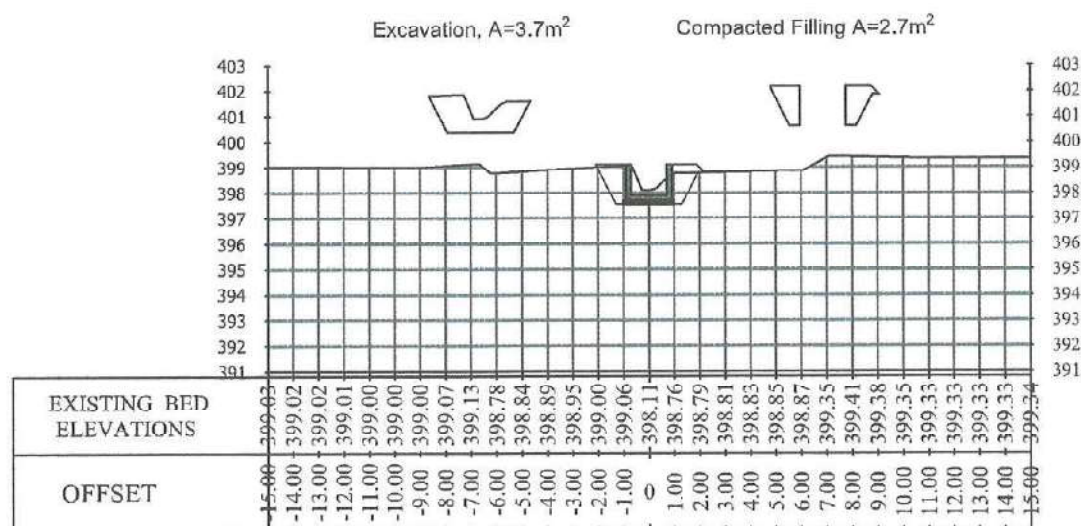
REVIEWED AND CHECKED BY
GERALD MALCOLM
IRRIGATION ENGINEER EXPERT
DATE: 21-6-2020

SWIM APPROVAL
HOPPY MAZIER
CHIEF OF PARTY
DATE: 21-6-2020

MEW/RBA APPROVAL
DATE: 23/6/2024

SHEET NO.
41/94

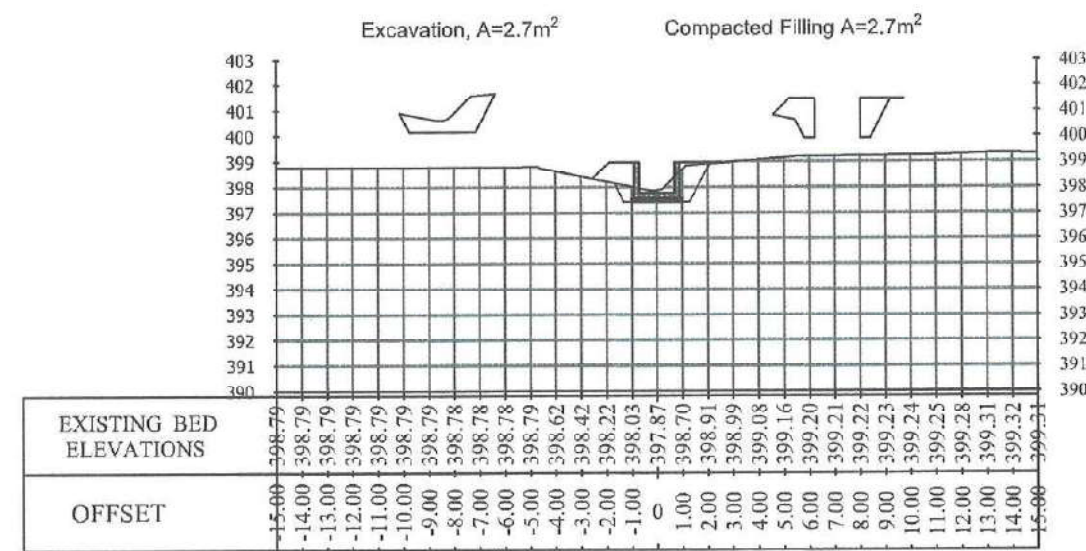
For H.M



SURVEY SECTIONS

REF. ST: 6+400

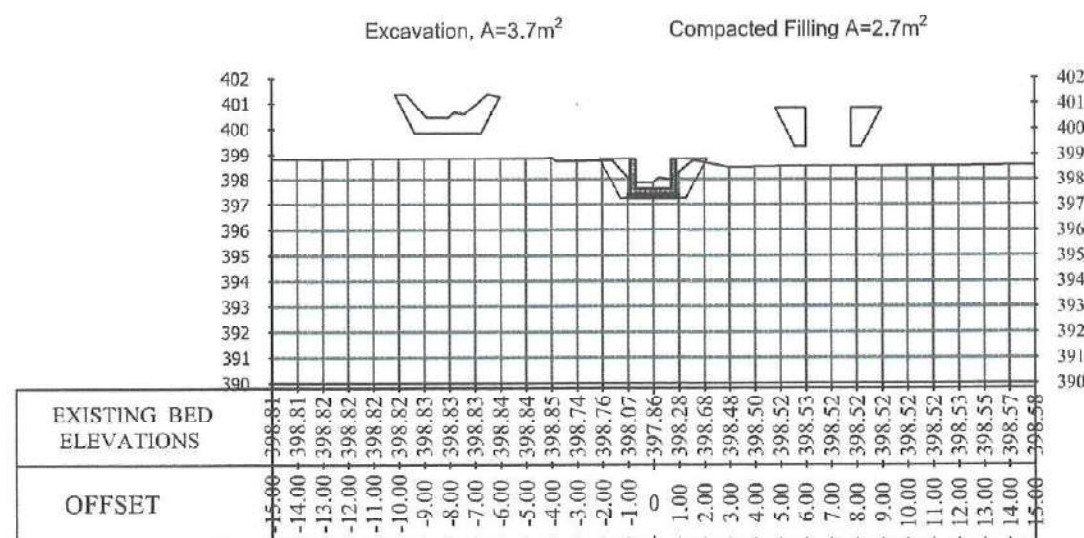
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 6+450

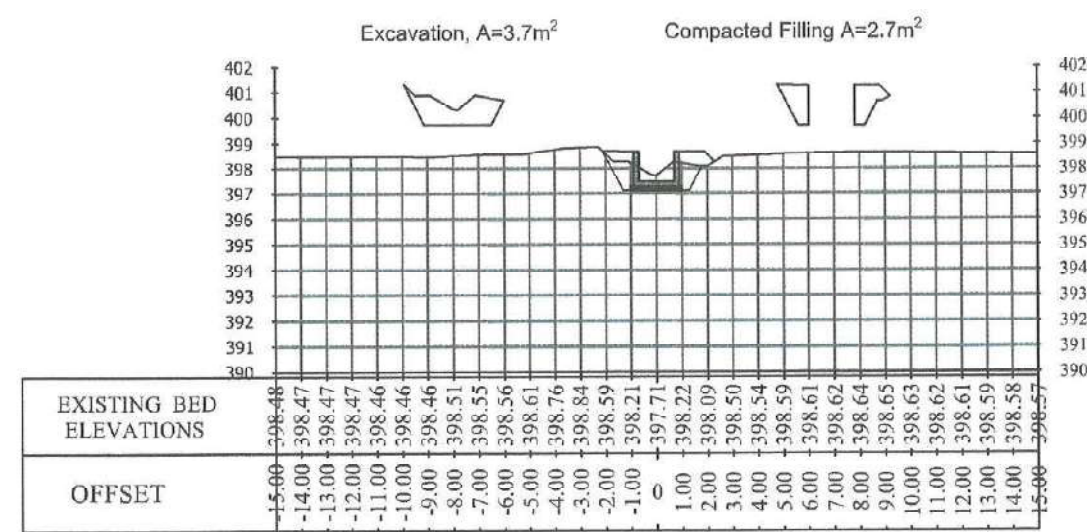
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 6+500

SCALE: NOT IN SCALE



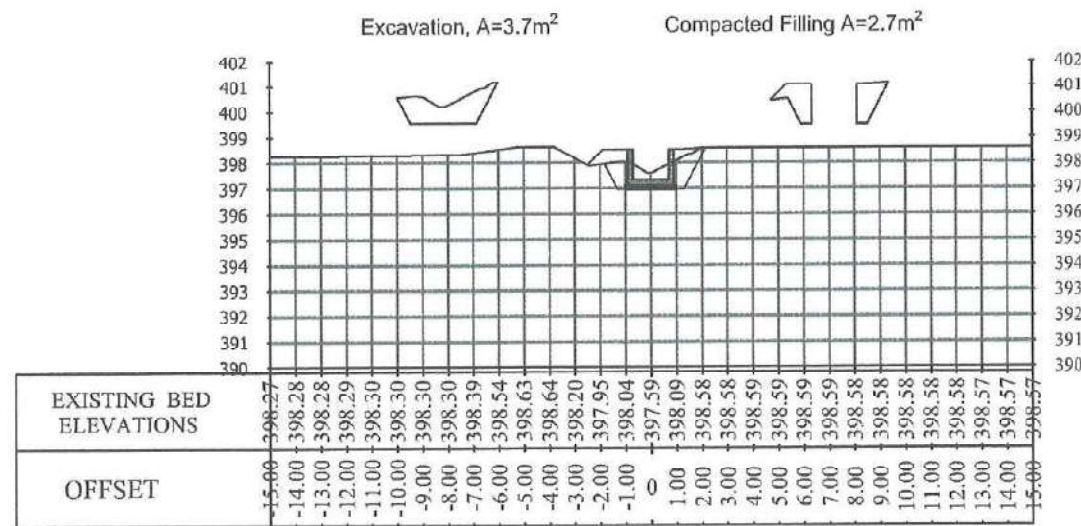
SURVEY SECTIONS

REF. ST: 6+550

SCALE: NOT IN SCALE

	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. 42/94
		CHOCHMAN MAIN CANAL CHOCHMAN BRANCH	DISTRICT: KHULM PROVINCE: SAMANGAN	CROSS SECTIONS	SWIM	MOHAMMAD AFZAL MUJAHID ENGINEER (HYDRAULIC SPECIALIST) DATE: 6/21/2020	GERALD MALON IRRIGATION ENGINEER EXPERT DATE: 21-6-2020	HOPPY MAZIER CHIEF OF PARTY DATE: 21-6-2020	DATE: 23/6/2020	

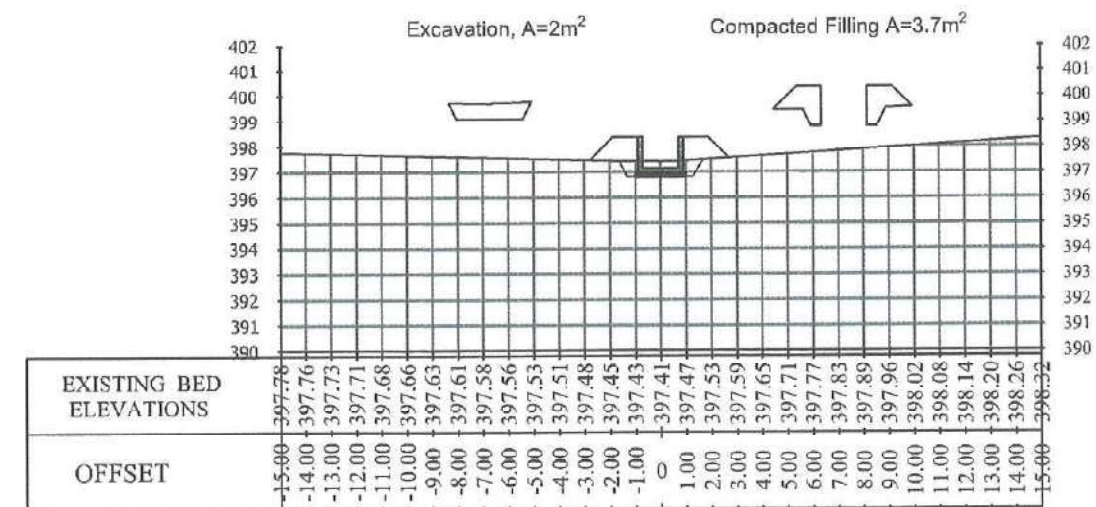
For H.M



SURVEY SECTIONS

REF. ST: 6+600

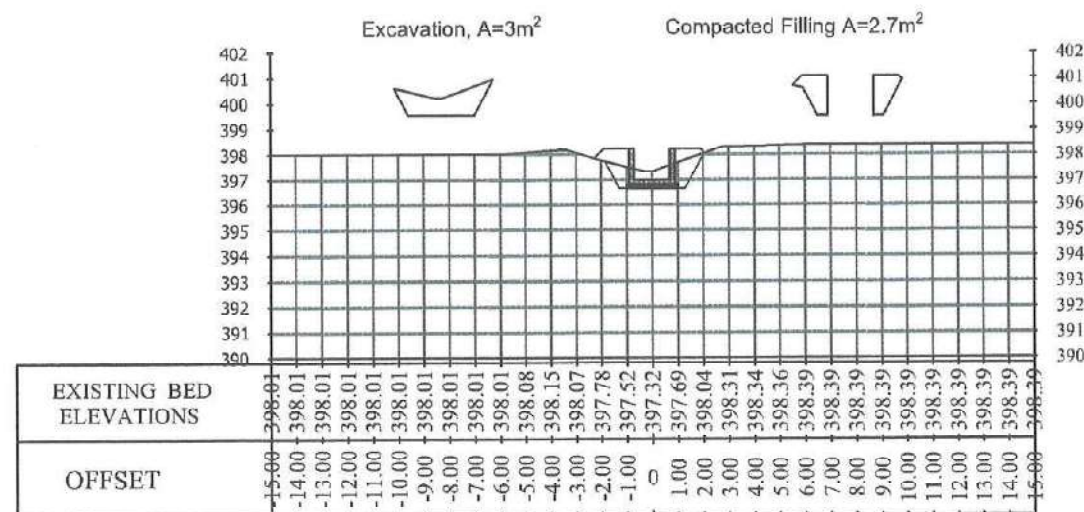
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 6+650

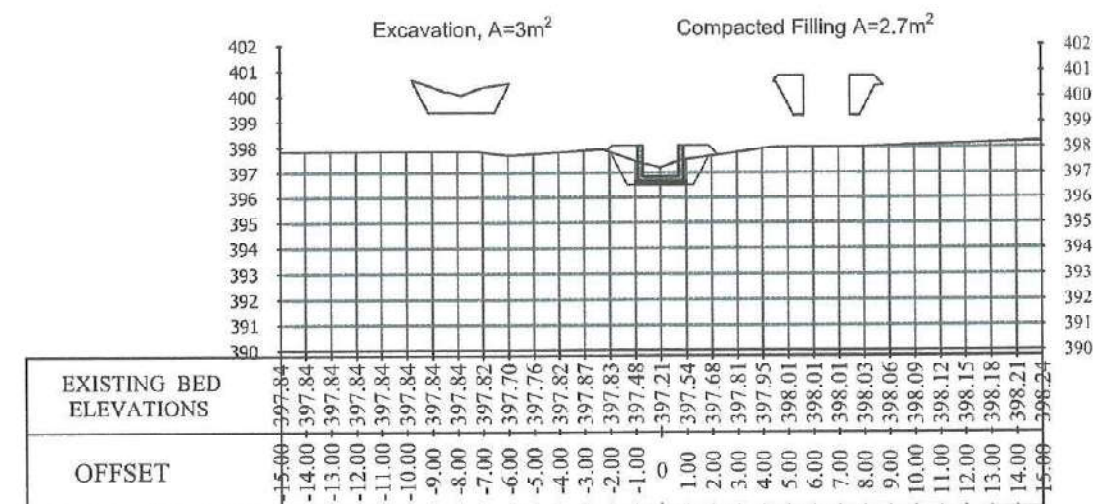
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 6+700

SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 6+750

SCALE: NOT IN SCALE



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
CHOCHMAN
MAIN CANAL
CHOCHMAN
BRANCH

LOCATION
DISTRICT: KHULM
PROVINCE: SAMANGAN

DRAWING TITLE
CROSS SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
MOHAMMAD AFZAL MUJAHID
ENGINEER
(HYDRAULIC SPECIALIST)
DATE: 6/21/2020

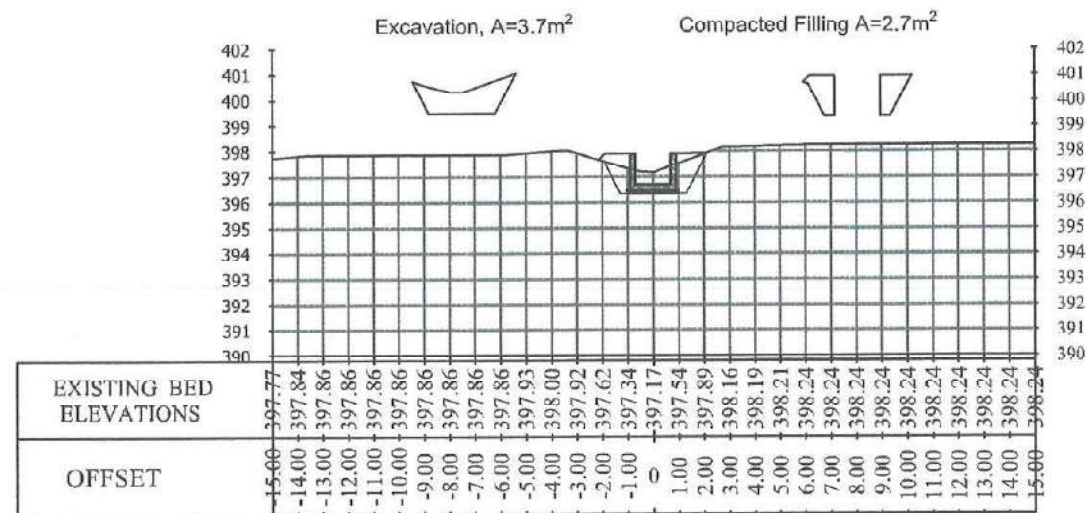
REVIEWED AND CHECKED BY
GERALD STALON
IRRIGATION SPECIALIST
DATE: 21-6-2020

SWIM APPROVAL
HOPPY MAZIR
CHIEF OF PARTY
DATE: 21-6-2020

MEW/RBA APPROVAL
DATE: 23/6/2020

SHEET NO.
43/94

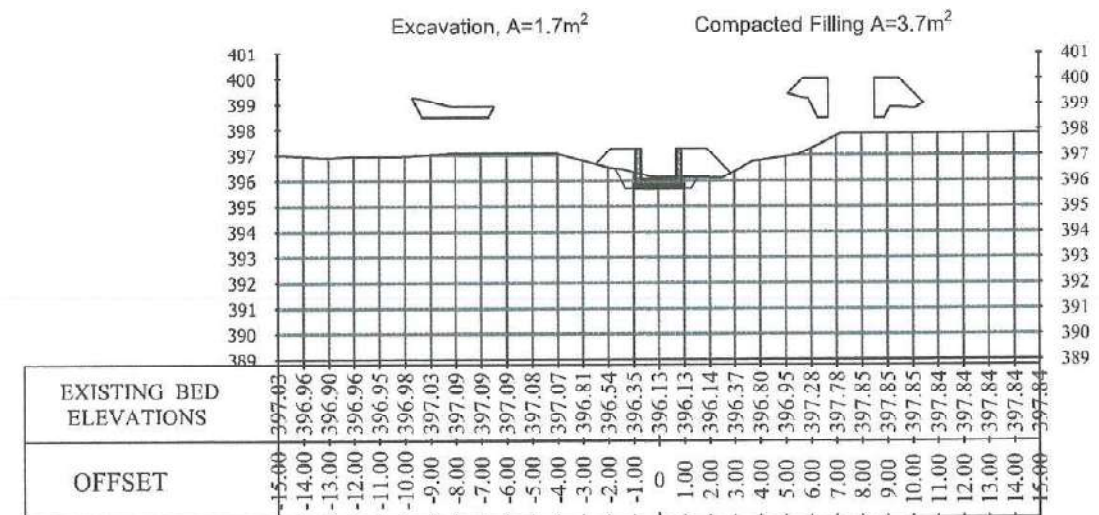
For H.M



- SURVEY SECTIONS

- REF. ST: 6+800

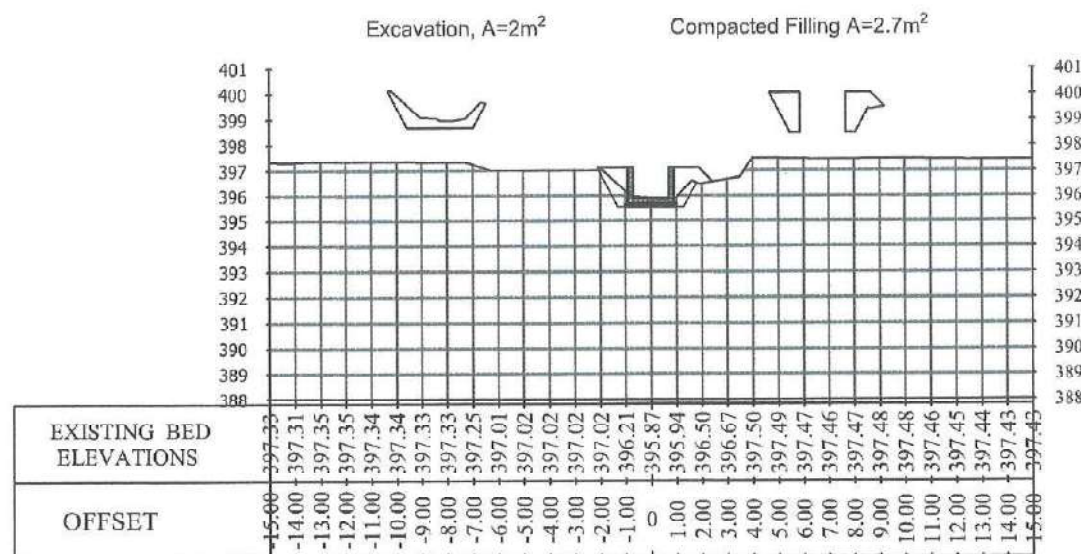
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 6+850

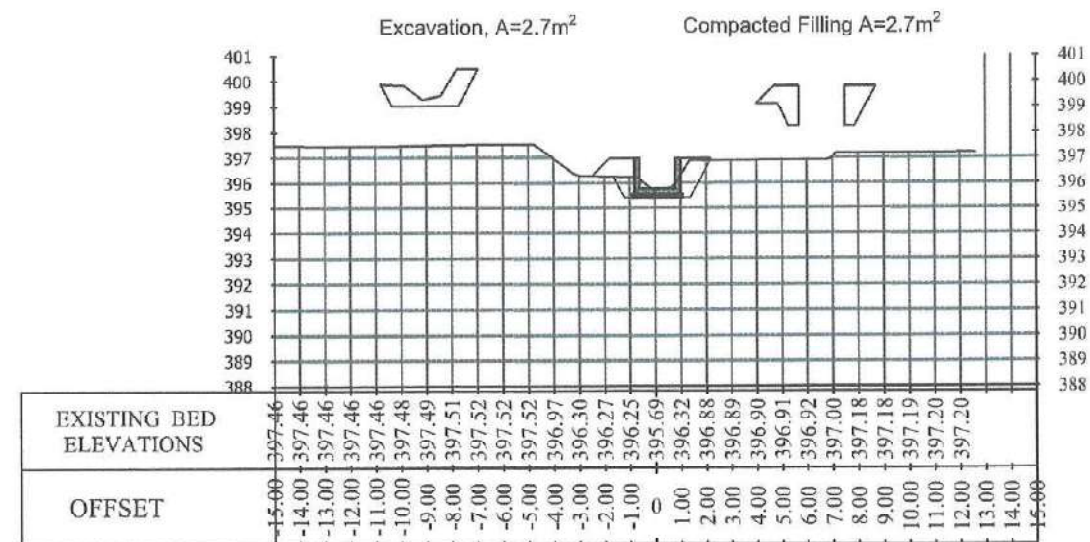
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 6+900

SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 6+950

SCALE: NOT IN SCALE



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
CHOCHMAN
MAIN CANAL
CHOCHMAN
BRANCH

LOCATION
DISTRICT: KHULM
PROVINCE: SAMANGAN

DRAWING TITLE
CROSS SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
MOHAMMAD AFZAL MUJAHID
ENGINEER
(HYDRAULIC SPECIALIST)
DATE: 6/21/2020

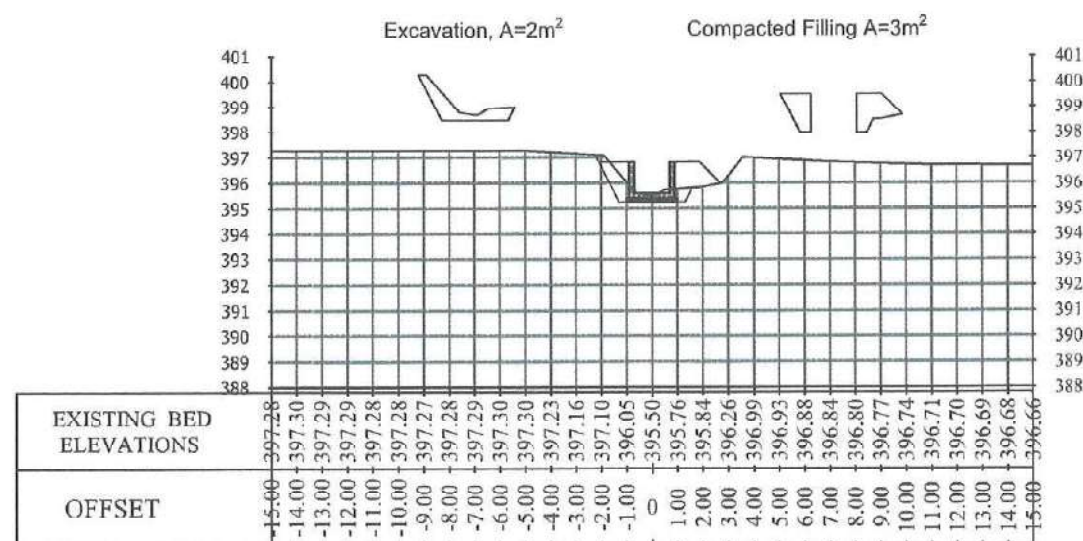
REVIEWED AND CHECKED BY
GERALD MALCOLM
IRRIGATION ENGINEER EXPERT
DATE: 21-6-2020

SWIM APPROVAL
HOPPY MAZIER
CHIEF OF PARTY
DATE: 21-6-2020

MEW/RBA APPROVAL
DATE: 23/6/2020

SHEET NO.
44/94

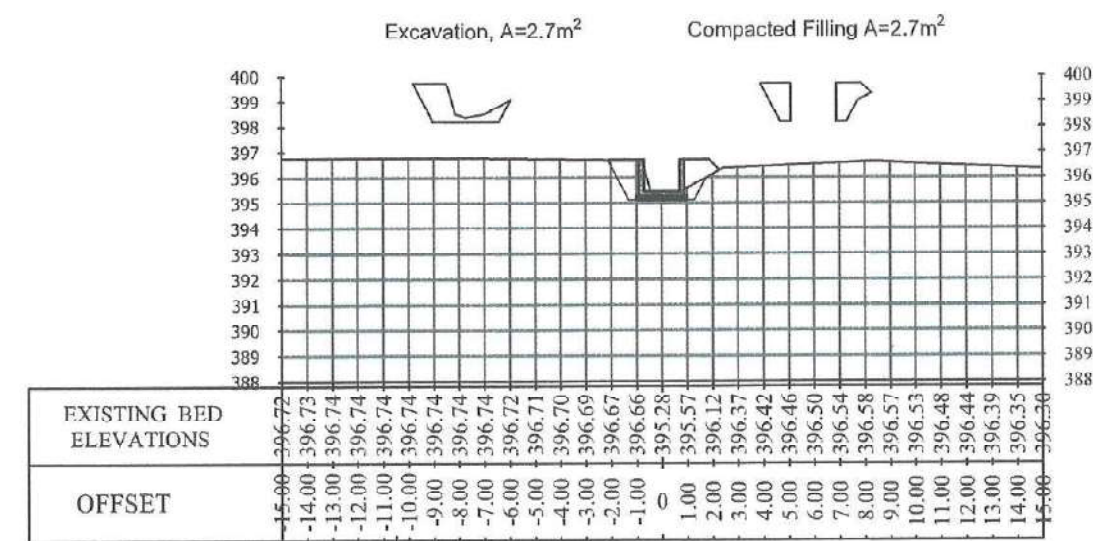
For H.M



- SURVEY SECTIONS

- REF. ST: 7+000

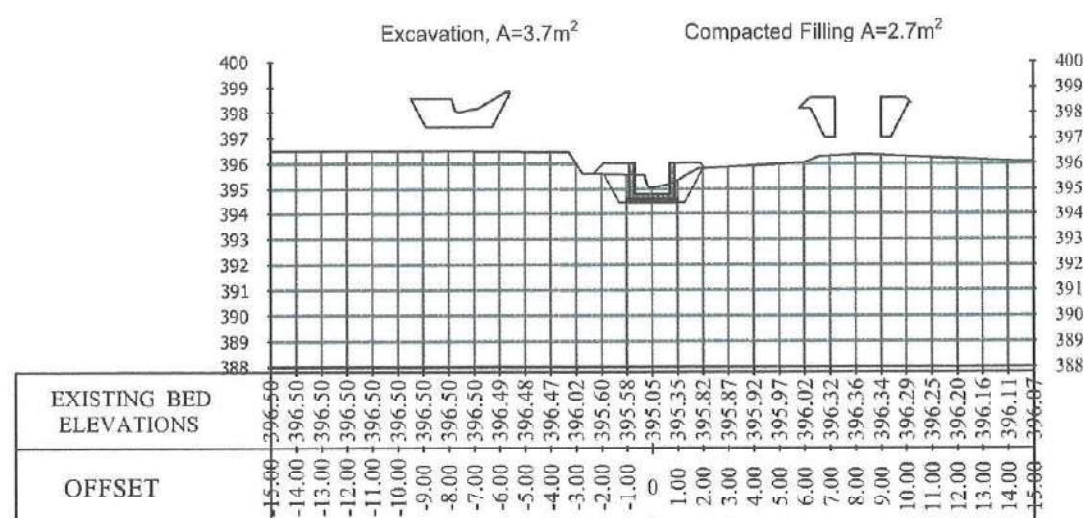
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+050

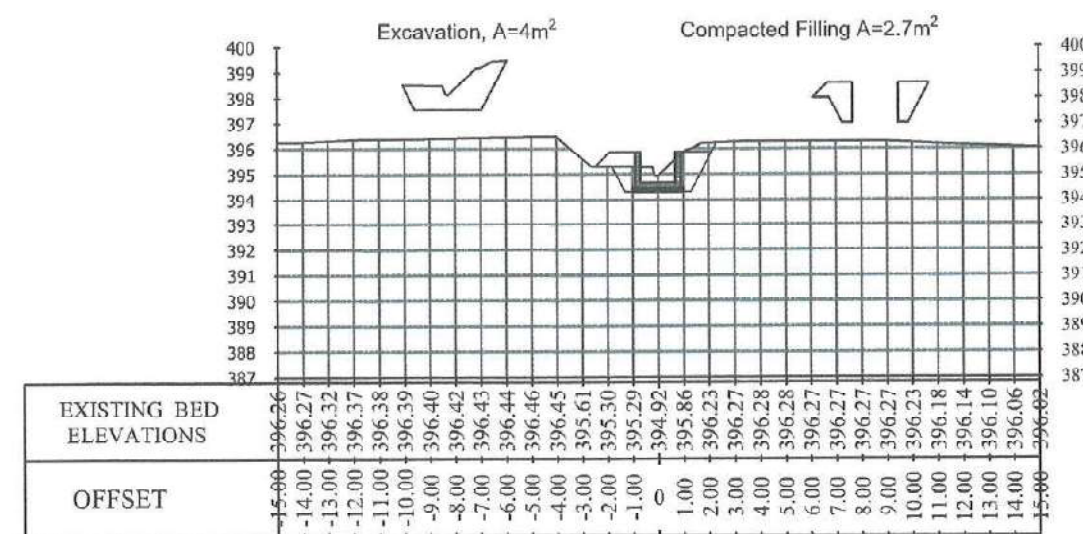
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+100

SCALE: NOT IN SCALE

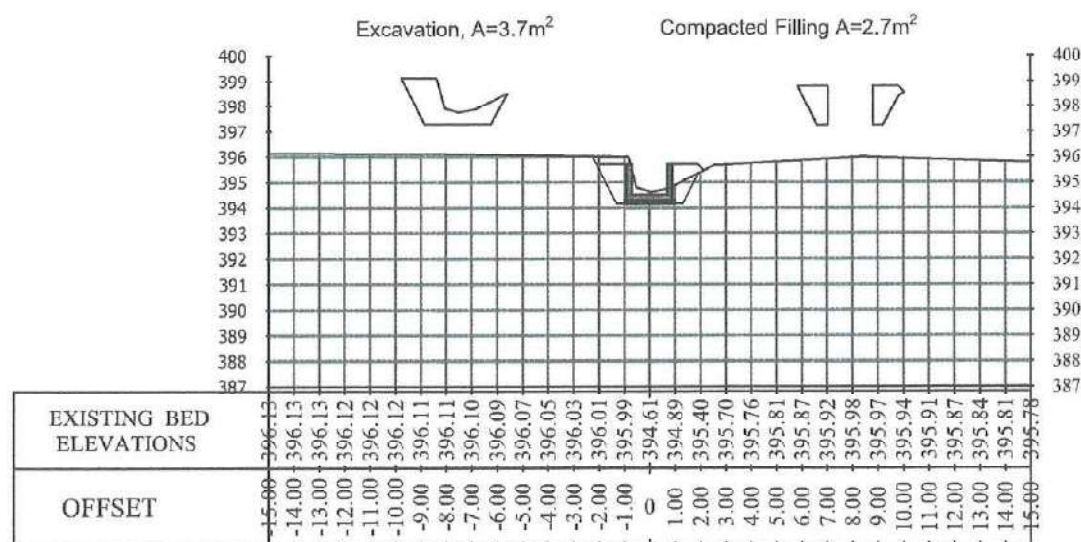


- SURVEY SECTIONS

- REF. ST: 7+150

SCALE: NOT IN SCALE

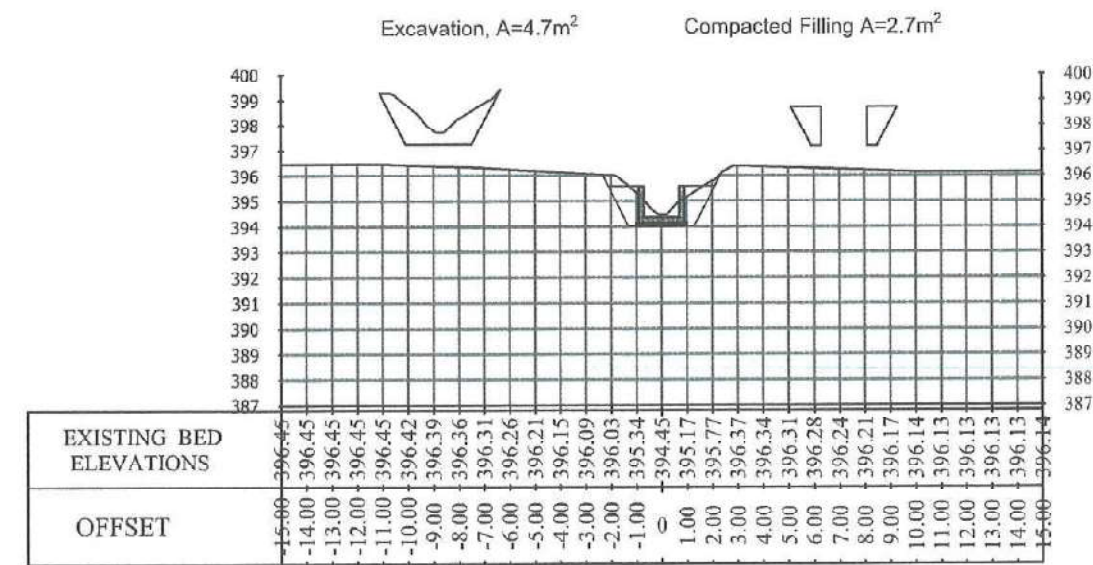
For H.M



- SURVEY SECTIONS

- REF. ST: 7+200

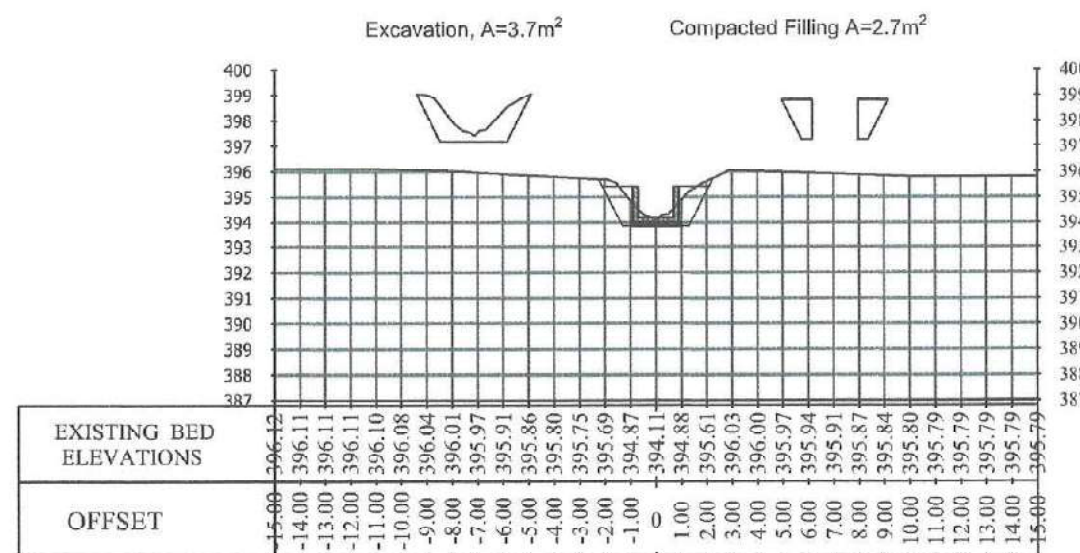
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+250

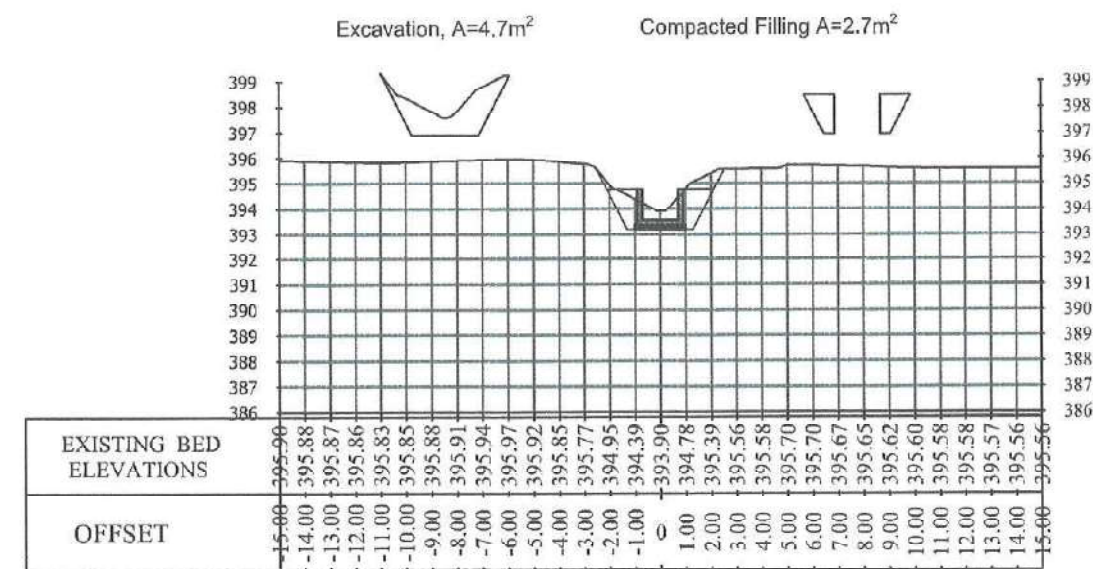
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+300

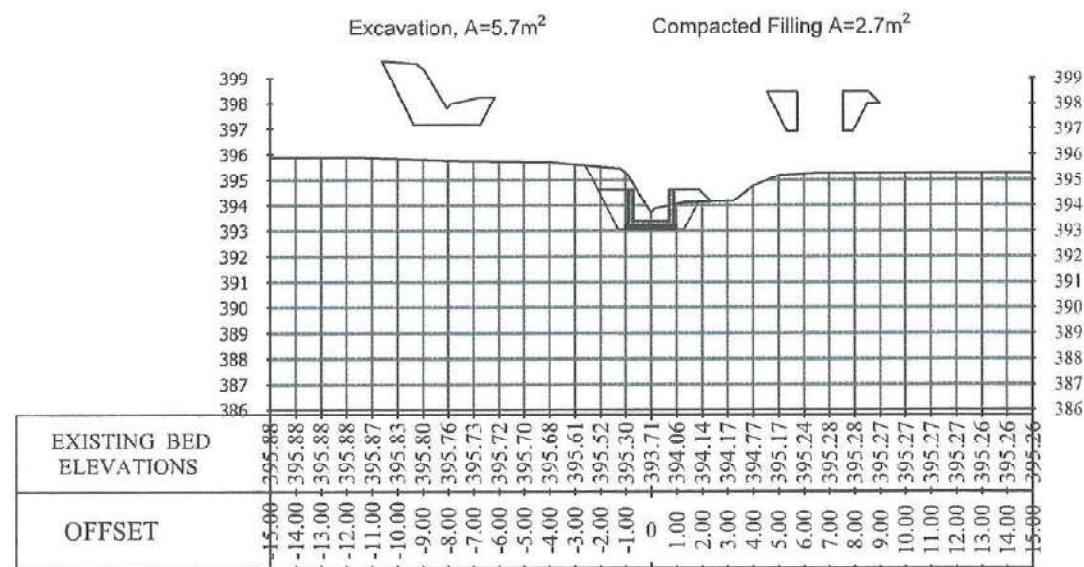
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+350

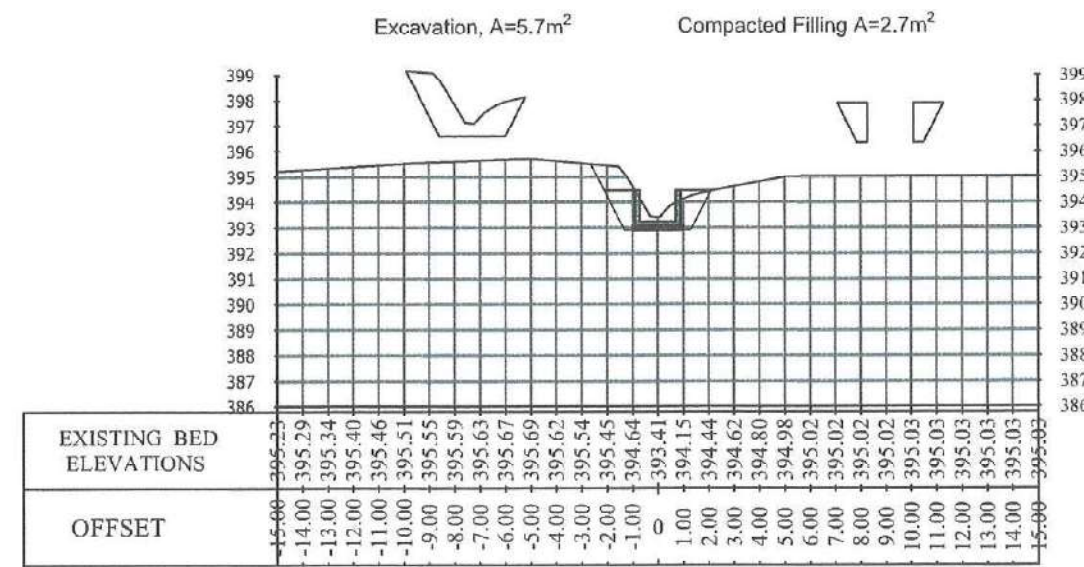
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+400

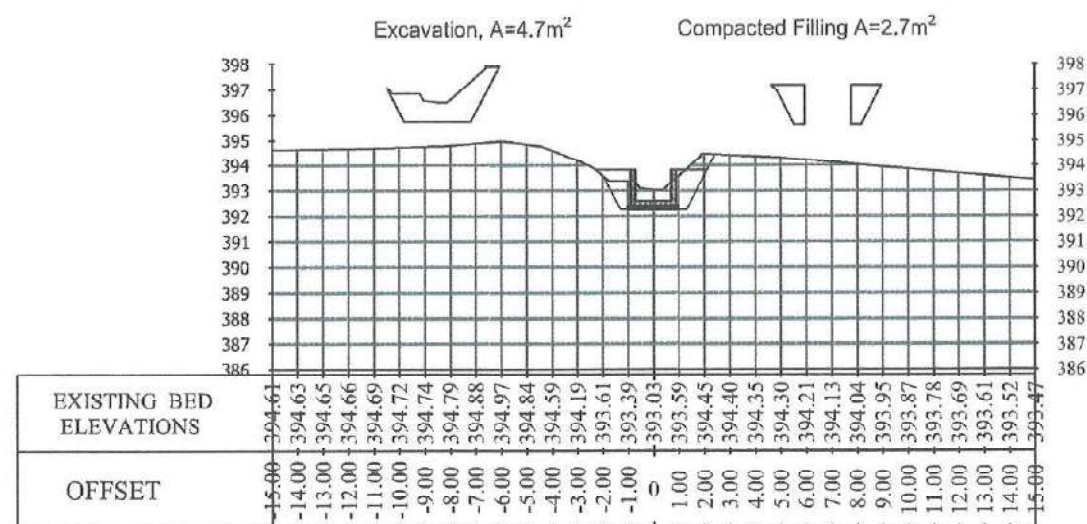
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+450

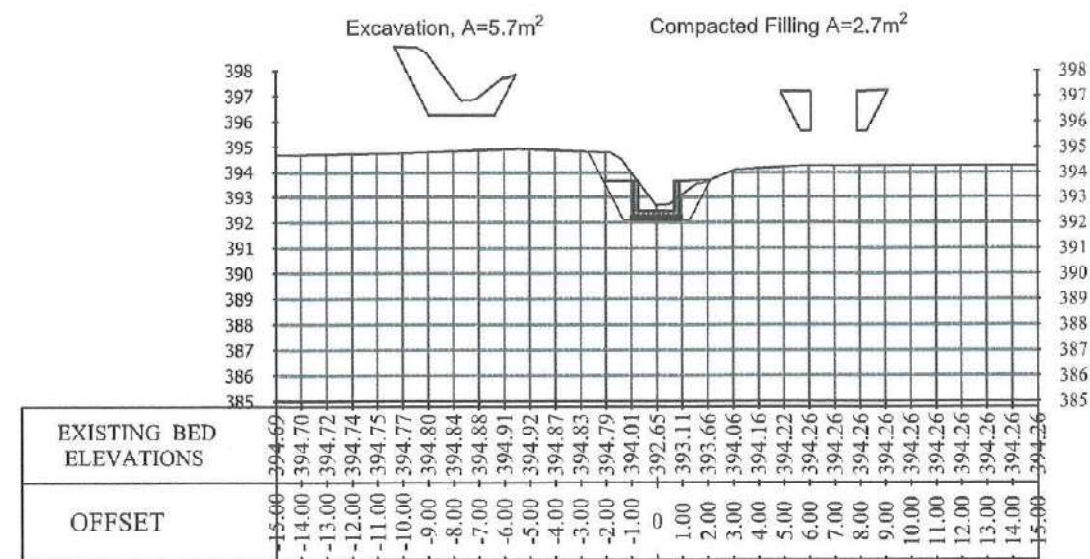
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 7+500

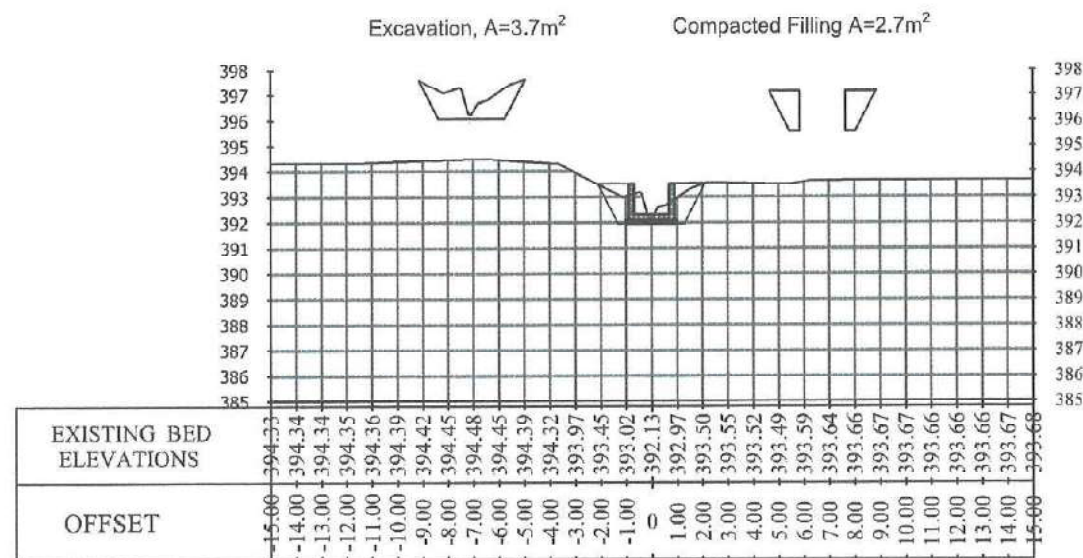
SCALE: NOT IN SCALE



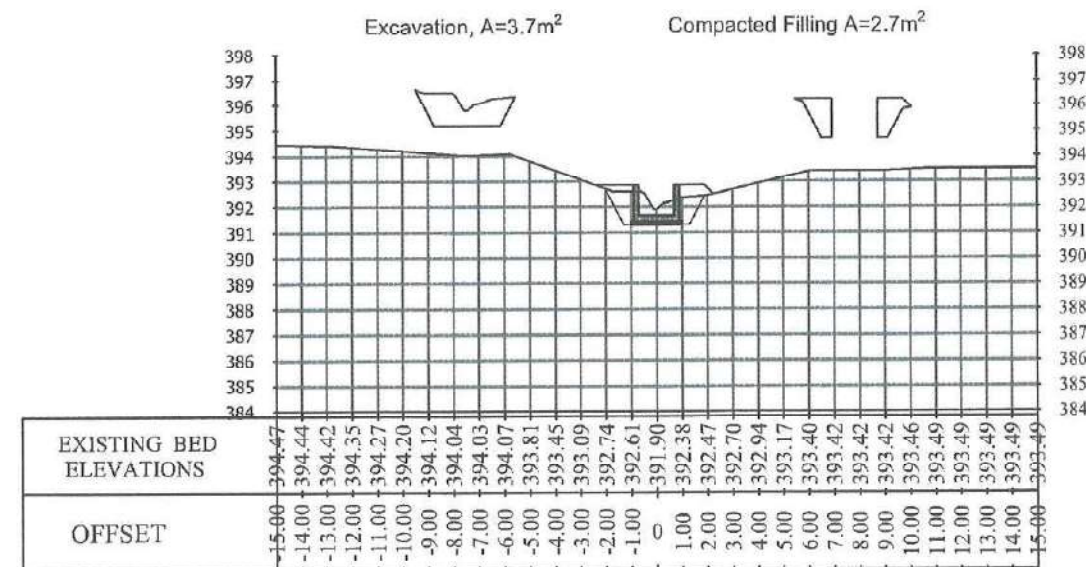
- SURVEY SECTIONS

- REF. ST: 7+550

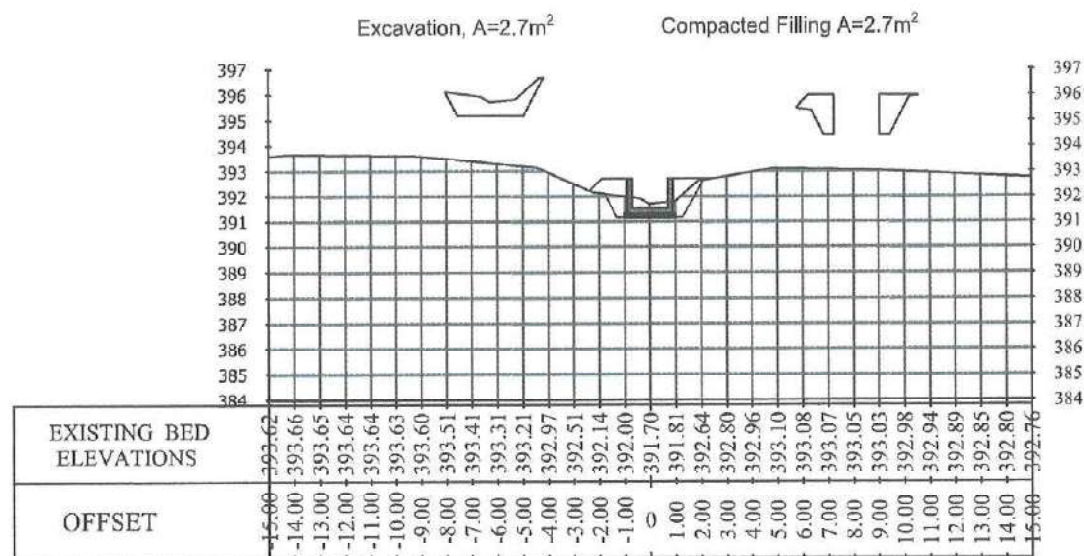
SCALE: NOT IN SCALE



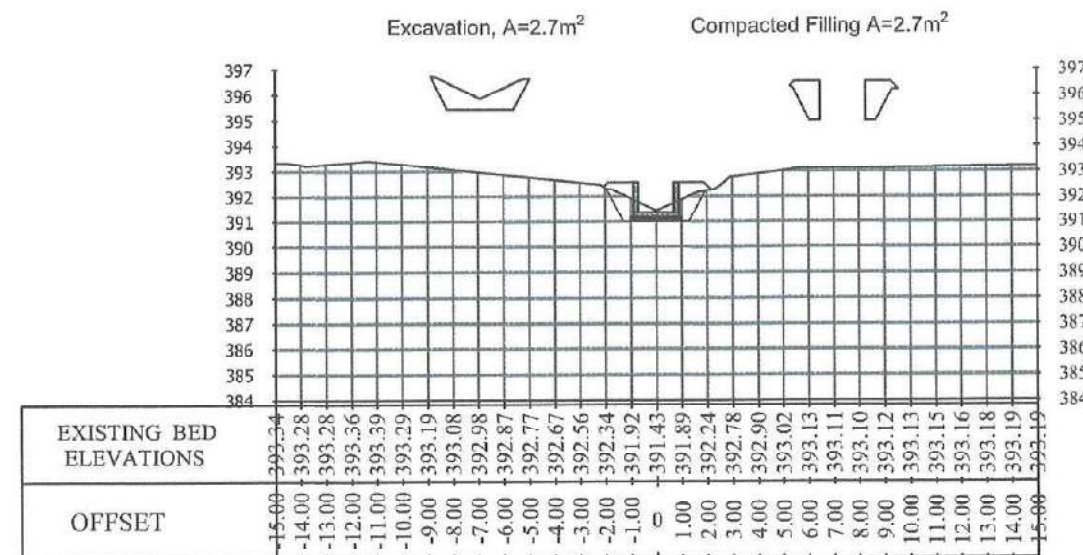
SURVEY SECTIONS
REF. ST: 7+600 SCALE: NOT IN SCALE



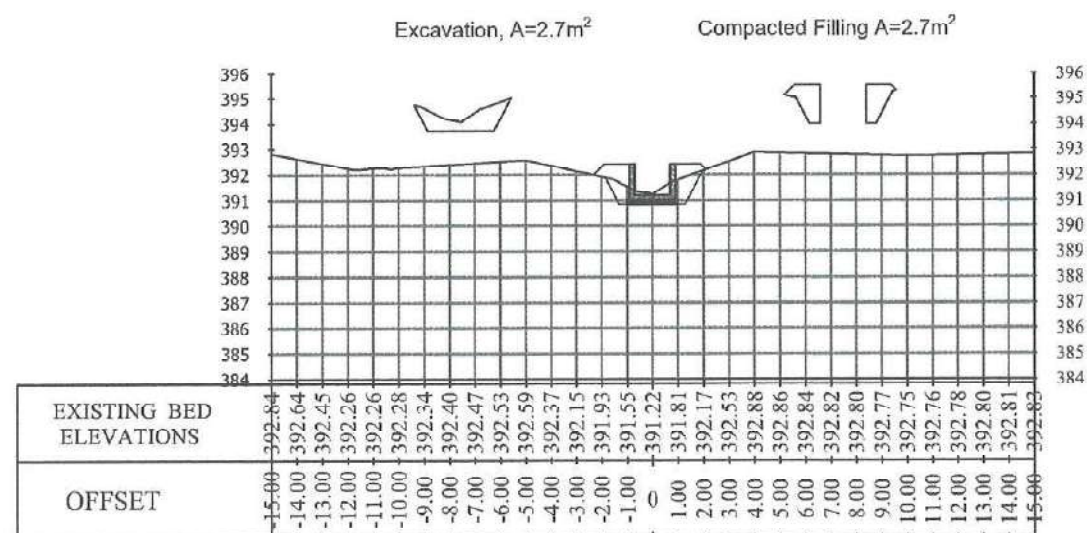
SURVEY SECTIONS
REF. ST: 7+650 SCALE: NOT IN SCALE



SURVEY SECTIONS
REF. ST: 7+700 SCALE: NOT IN SCALE



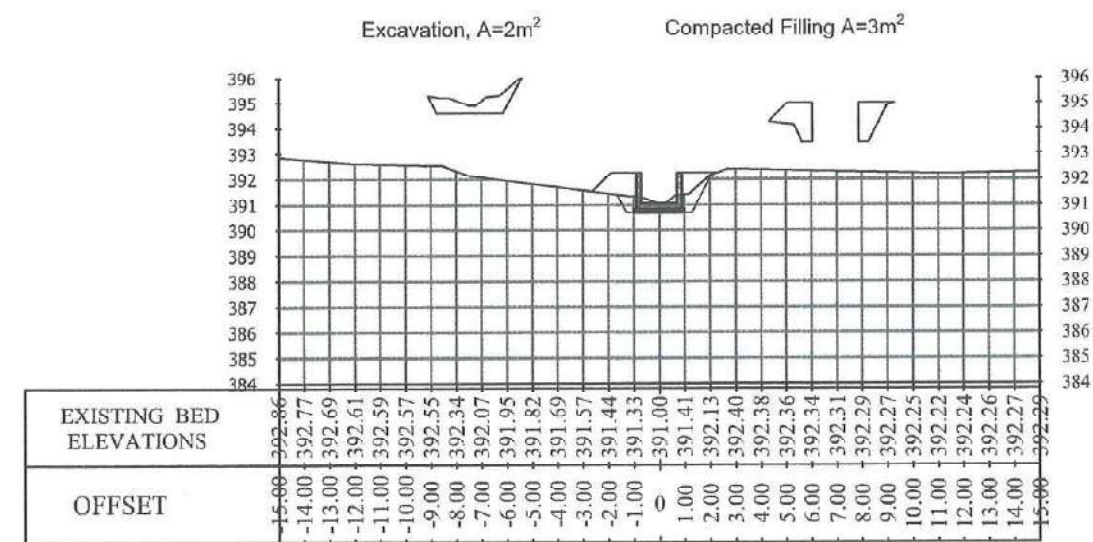
SURVEY SECTIONS
REF. ST: 7+750 SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 7+800

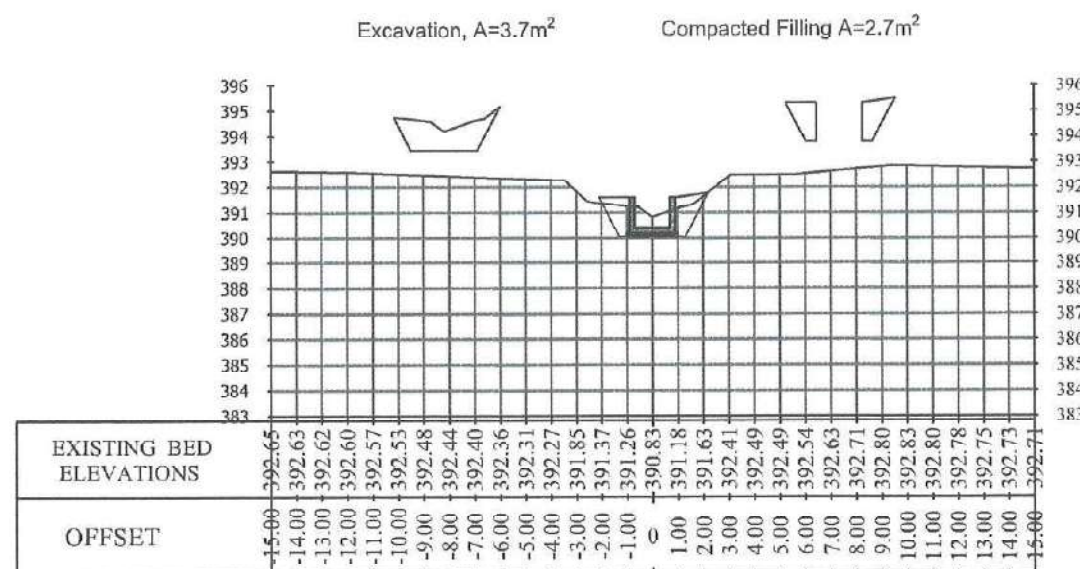
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 7+850

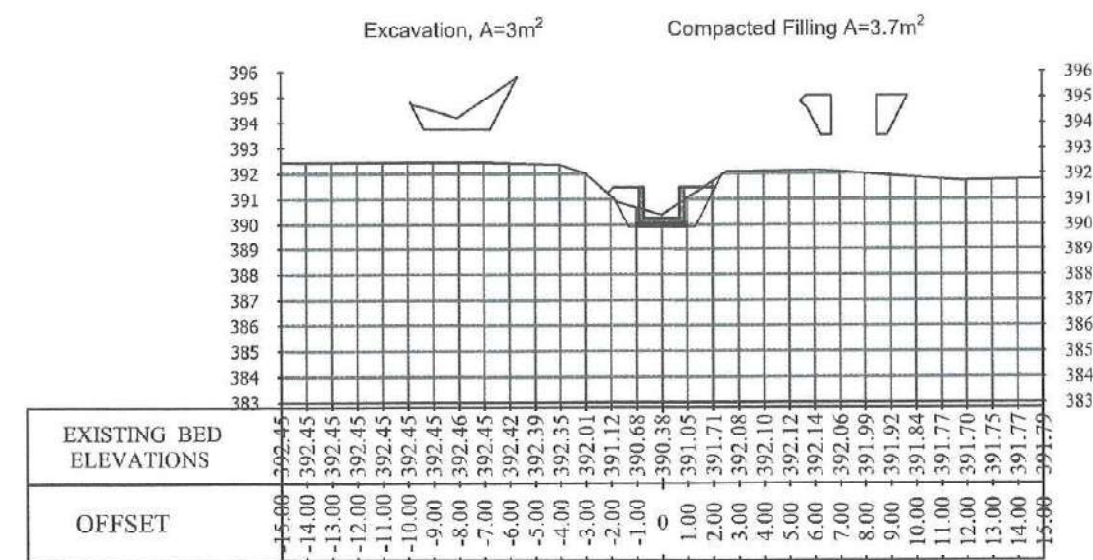
SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 7+900

SCALE: NOT IN SCALE



SURVEY SECTIONS

REF. ST: 7+950

SCALE: NOT IN SCALE



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
CHOCHMAN
MAIN CANAL
CHOCHMAN
BRANCH

LOCATION
DISTRICT: KHULM
PROVINCE: SAMANGAN

DRAWING TITLE
CROSS SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
MOHAMMAD AFZAL MUJAHID
ENGINEER
(HYDRAULIC SPECIALIST)
DATE: 6/21/2020

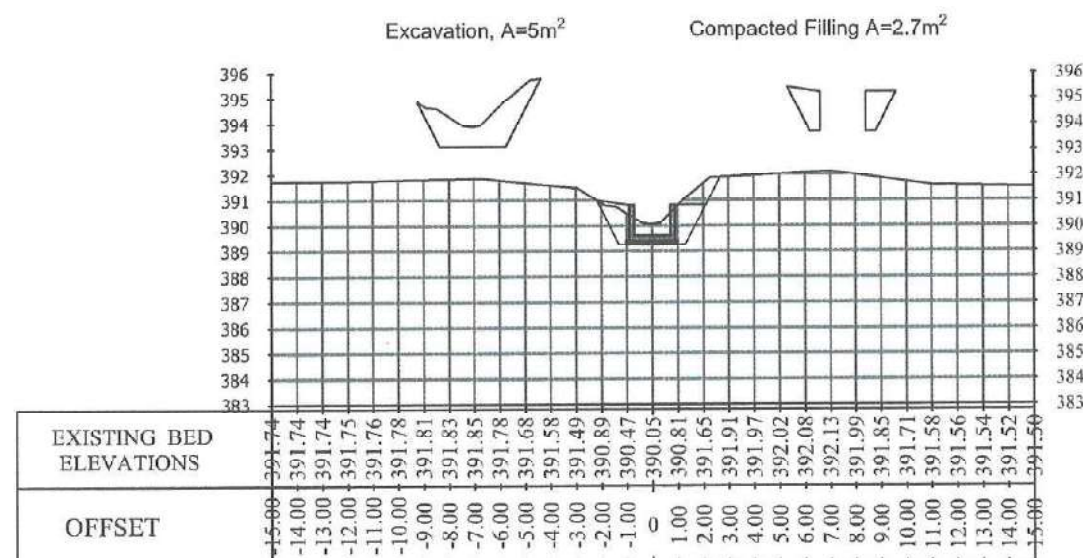
REVIEWED AND CHECKED BY
GERALD MALONE
IRRIGATION ENGINEER EXPERT
DATE: 21-6-2020

SWIM APPROVAL
HOPPY MAZIER
CHIEF OF PARTY
DATE: 21-6-2020

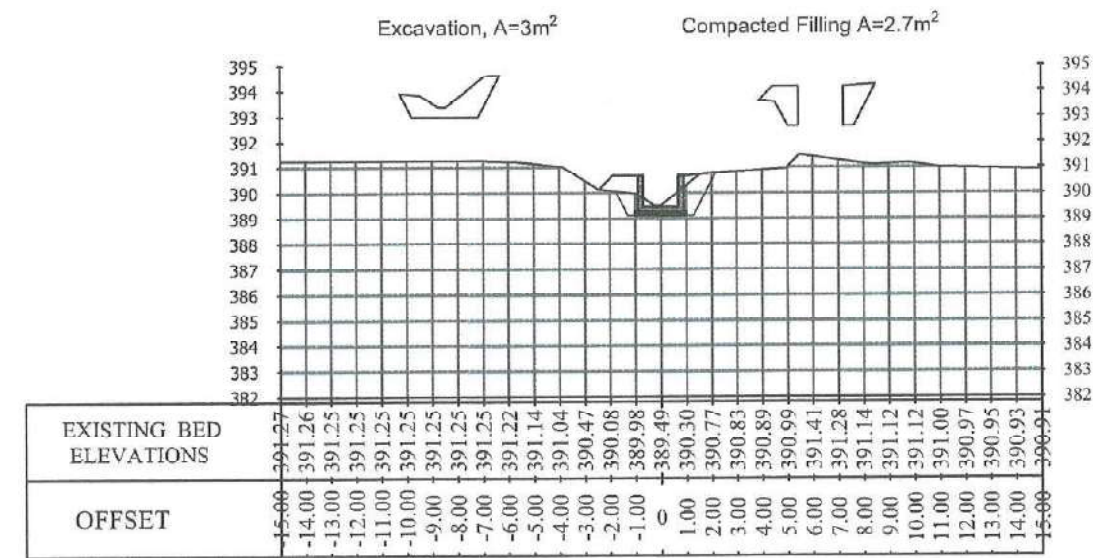
MEW/RBA APPROVAL
DATE: 23/6/2020

SHEET NO.
49/94

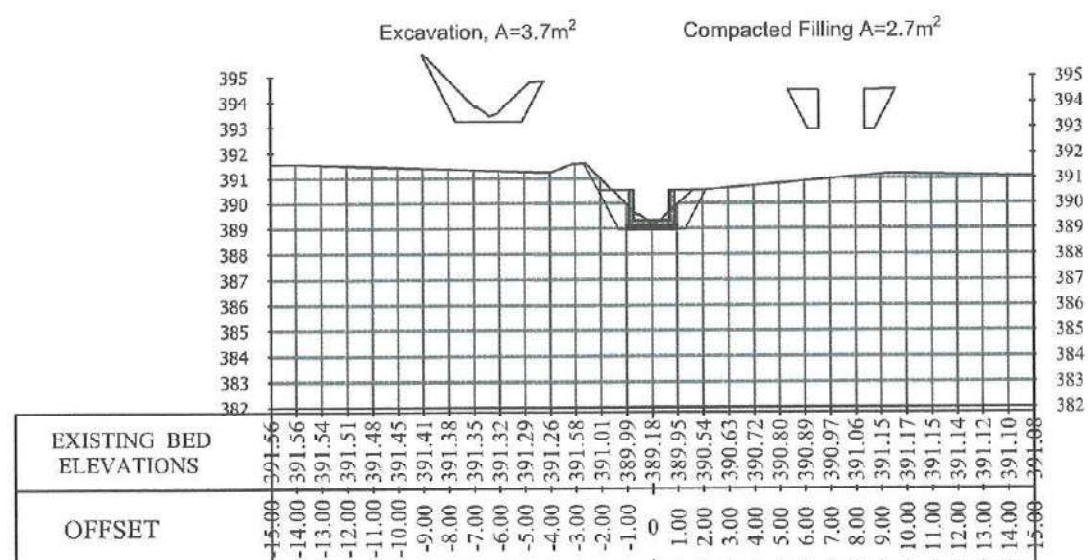
For H.M



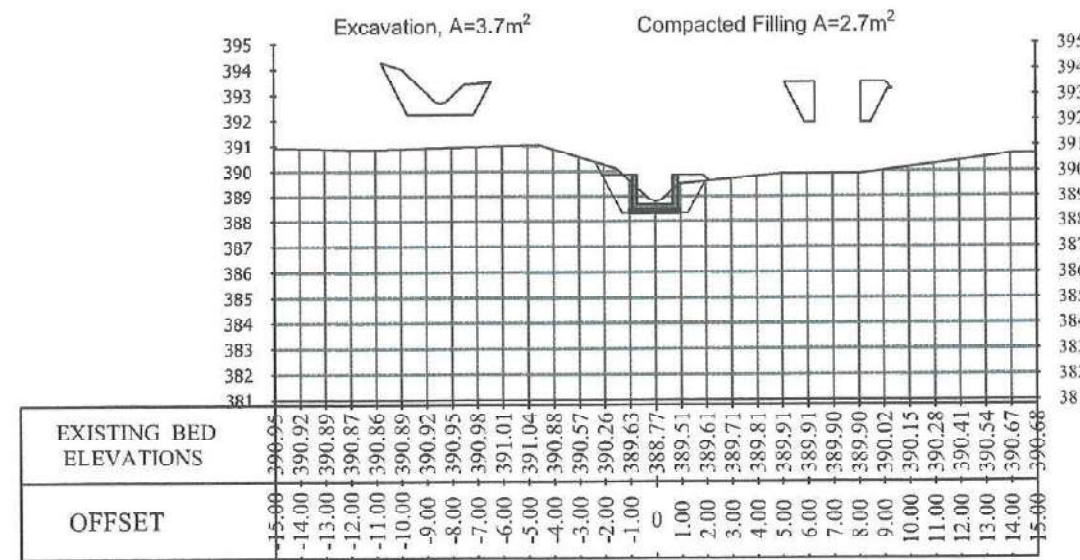
- SURVEY SECTIONS
- REF. ST: 8+000 SCALE: NOT IN SCALE



- SURVEY SECTIONS
- REF. ST: 8+050 SCALE: NOT IN SCALE



- SURVEY SECTIONS
- REF. ST: 8+100 SCALE: NOT IN SCALE



- SURVEY SECTIONS
- REF. ST: 8+150 SCALE: NOT IN SCALE



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
CHOCHMAN
MAIN CANAL
CHOCHMAN
BRANCH

LOCATION
DISTRICT: KHULM
PROVINCE: SAMANGAN

DRAWING TITLE
CROSS SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
MOHAMMAD AFZAL MUJAHID
ENGINEER
(HYDRAULIC SPECIALIST)
DATE: 6/21/2020

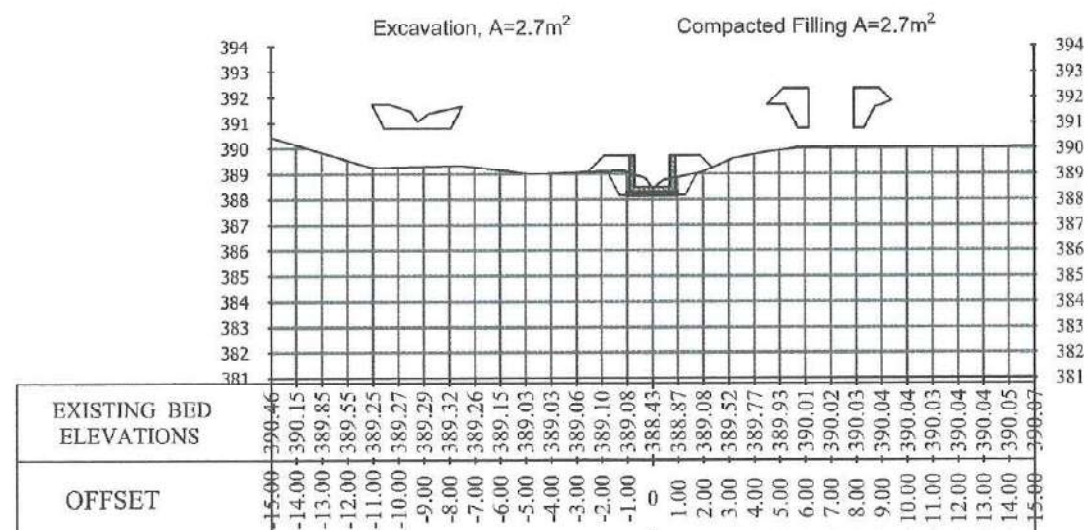
REVIEWED AND CHECKED BY
GERALD MALONE
BRIGADE ENGINEER EXPERT
DATE: 21-6-2020

SWIM APPROVAL
HOPPY MAZIR
CHIEF OF PARTY
DATE: 21-6-2020

MEW/RBA APPROVAL
DATE: 23/6/2020

SHEET NO.
50/94

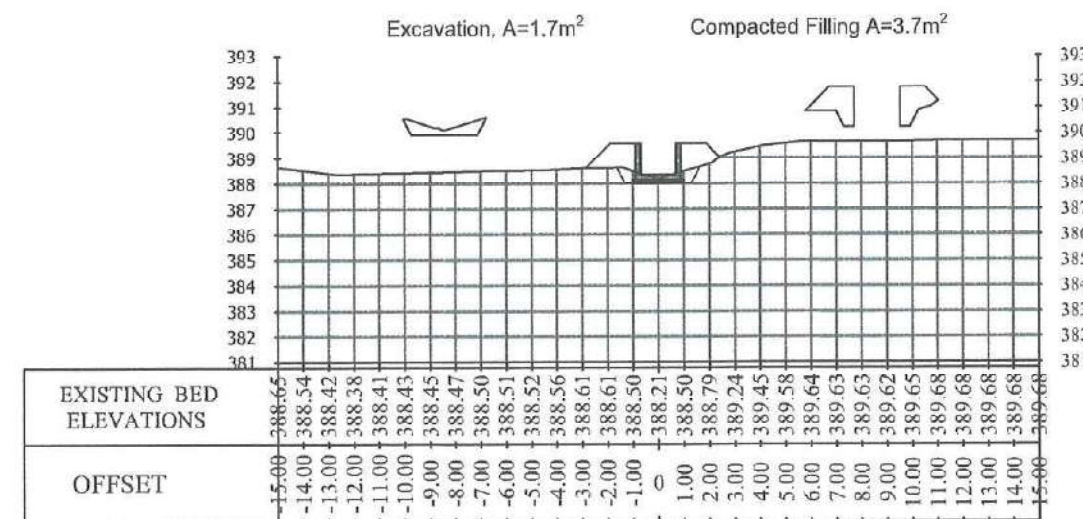
For H.M



- SURVEY SECTIONS

- REF. ST: 8+200

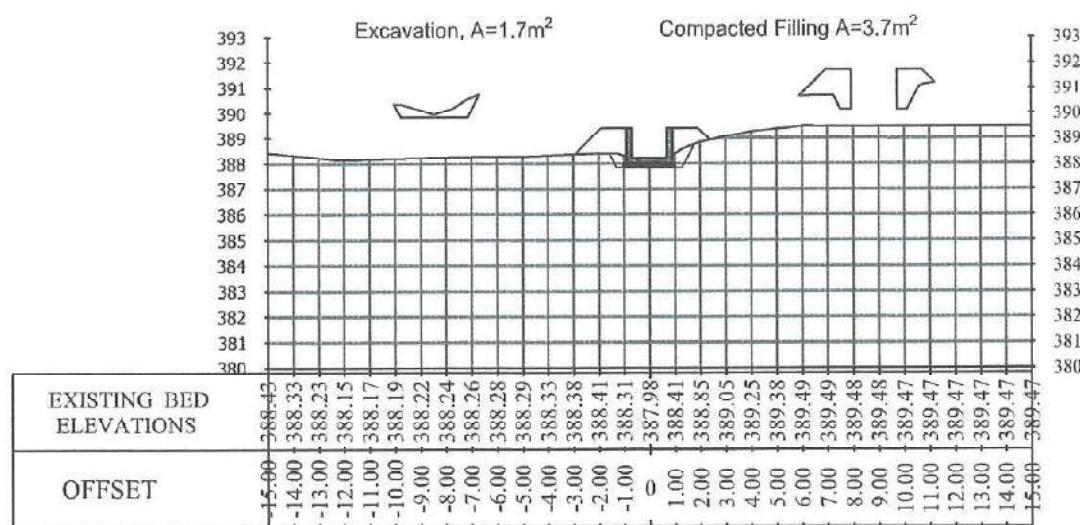
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 8+250

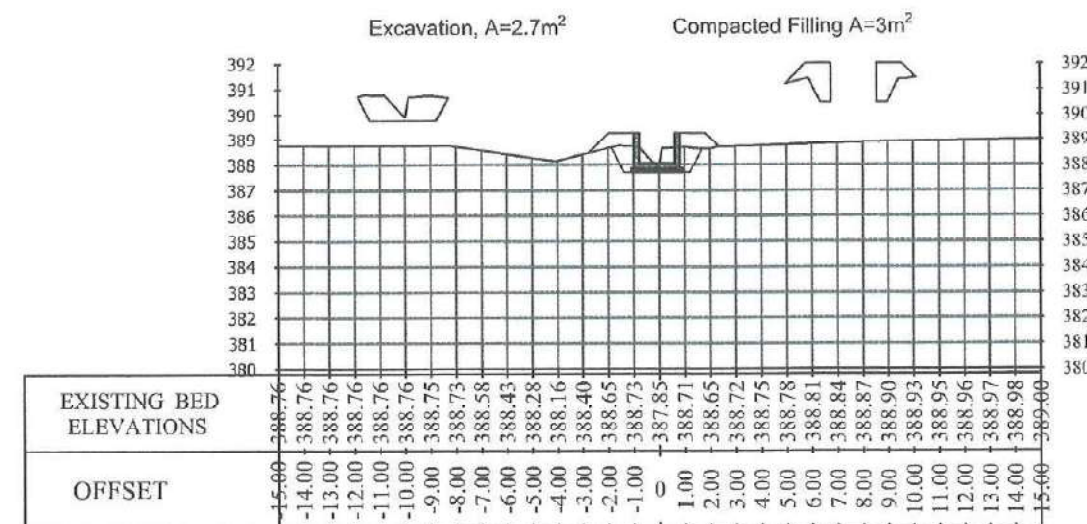
SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 8+300

SCALE: NOT IN SCALE



- SURVEY SECTIONS

- REF. ST: 8+350

SCALE: NOT IN SCALE



STRENGTHENING WATERSHED
&
IRRIGATION MANAGEMENT
SWIM

CANAL NAME
CHOCHMAN
MAIN CANAL
CHOCHMAN
BRANCH

LOCATION
DISTRICT: KHULM
PROVINCE: SAMANGAN

DRAWING TITLE
CROSS SECTIONS

SURVEYED BY
SWIM

DRAWING AND DESIGN BY
MOHAMMAD AFZAL MUJAHID
ENGINEER
(HYDRAULIC SPECIALIST)
DATE: 6/21/2020

REVIEWED AND CHECKED BY
GERALD MALCOLM
IRRIGATION ENGINEER EXPERT
DATE: 21-6-2020

SWIM APPROVAL
HOPPY MAZIER
CHIEF OF PARTY
DATE: 21-6-2020


MEW/RBA APPROVAL
DATE: 23/6/2020

SHEET NO.
51/94

For H.M

CHOCHMAN CANAL (CHOCHMAN BRANCH) STRUCTURE LIST ALONG WITH GPS COORDINATES, KHULM DISTRICT, SAMANGAN PROVINCE

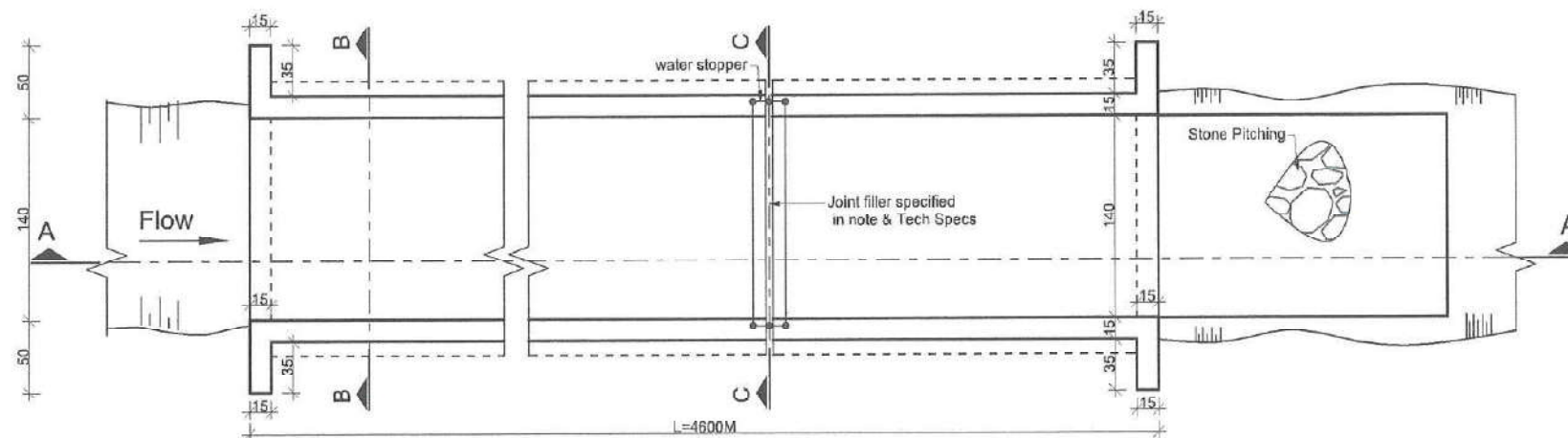
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED LINING							CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED TURNOUT						
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS
1	3+750	Start of Proposed Lining	36.7110	67.6720	407.36		1	6+810	Turnout-Proposed (Type-1)-1	36.71066	67.66727	396.77	
2	8+350	End of Proposed Lining	36.7200	67.6280	388.06		2	8+580	Turnout-Proposed (Type-2)-2	36.72004	67.62544	387.08	
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED BOX CULVERTS							3	9+070	Turnout-Proposed (Type-2)-3	36.72125	67.62068	385.95	
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	4	9+300	Turnout-Proposed (Type-2)-4	36.72183	67.61826	385.48	
1	5+110	Proposed Box Culvert-1	36.712727	67.655391	402.58		5	9+670	Turnout-Proposed (Type-2)-5	36.72374	67.61365	384.80	
2	5+400	Proposed Box Culvert-2	36.714089	67.65296	401.91		6	9+750	Turnout-Proposed (Type-2)-6	36.72445	67.61219	384.66	
3	6+460	Proposed Box Culvert-3	36.719459	67.643033	397.89		7	9+910	Turnout-Proposed (Type-2)-7	36.72903	67.60723	384.24	
4	7+400	Proposed Box Culvert-4	36.719964	67.633451	393.41		8	10+620	Turnout-Proposed (Type-2)-8	36.73062	67.60451	381.79	
5	7+460	Proposed Box Culvert-5	36.720204	67.632902	393.26		9	10+910	Turnout-Proposed (Type-2)-9	36.73168	67.60207	380.64	
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED SLAB CULVERTS							10	11+190	Turnout-Proposed (Type-2)-10	36.73302	67.59867	379.19	
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	11	11+540	Turnout-Proposed (Type-2)-11	36.73382	67.59622	377.72	
1	8+570	Proposed Slab Culvert-1	36.72	67.62500	387.10		12	11+780	Turnout-Proposed (Type-2)-12	36.73430	67.59210	376.79	
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED FOOT CULVERTS							13	12+170	Turnout-Proposed (Type-2)-13	36.73400	67.59108	375.96	
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	14	12+260	Turnout-Proposed (Type-2)-14	36.73388	67.58873	375.71	
1	7+120	Proposed Foot Culvert -1	36.720	67.641	394.77		15	12+480	Turnout-Proposed (Type-2)-15	36.73333	67.58380	375.24	
2	7+840	Proposed Foot Culvert -2	36.720	67.633	391.09		16	12+570	Turnout-Proposed (Type-2)-16	36.73278	67.57967	375.05	
3	7+990	Proposed Foot Culvert -3	36.720	67.632	389.69		17	12+920	Turnout-Proposed (Type-2)-17	36.73264	67.57882	374.28	
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED DROP STRUCTURE							18	13+300	Turnout-Proposed (Type-2)-18	36.73284	67.57710	373.47	
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	19	13+380	Turnout-Proposed (Type-2)-19	36.73276	67.57803	373.31	
1	4+200	Proposed Drop Structure	36.7110	67.6670	405.51		20	13+420	Turnout-Proposed (Type-2)-20	36.73242	67.56938	373.17	
2	5+500	Proposed Drop Structure	36.7130	67.6540	401.11		21	13+460	Turnout-Proposed (Type-2)-21	36.73509	67.55556	373.15	
3	5+750	Proposed Drop Structure	36.7140	67.6530	399.86		22	13+540	Turnout-Proposed (Type-2)-22	36.73523	67.55457	372.83	
4	6+840	Proposed Drop Structure	36.7190	67.6430	396.06		23	14+260	Turnout-Proposed (Type-2)-23	36.73538	67.55338	371.31	
5	7+100	Proposed Drop Structure	36.7200	67.6410	394.81		24	15+540	Turnout-Proposed (Type-2)-24	36.74007	67.54096	367.64	
6	7+350	Proposed Drop Structure	36.7200	67.6380	393.56		25	15+630	Turnout-Proposed (Type-2)-25	36.74257	67.53378	367.23	
7	7+500	Proposed Drop Structure	36.7200	67.6370	392.61		26	15+740	Turnout-Proposed (Type-2)-26	36.74299	67.53272	367.00	
8	7+650	Proposed Drop Structure	36.7200	67.6350	391.66		27	17+020	Turnout-Proposed (Type-2)-27	36.74591	67.52679	362.23	
9	7+900	Proposed Drop Structure	36.7200	67.6330	390.41		28	17+720	Turnout-Proposed (Type-2)-28	36.74727	67.52295	358.95	
10	8+000	Proposed Drop Structure	36.7200	67.6320	389.61		29	17+830	Turnout-Proposed (Type-2)-29	36.74300	67.53300	358.62	
11	8+150	Proposed Drop Structure	36.7200	67.6300	388.66		30	18+460	Turnout-Proposed (Type-2)-30	36.74600	67.52700	355.34	
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED DRAIN INLET							31	18+840	Turnout-Proposed (Type-2)-31	36.74800	67.52300	354.42	
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	CHOCHMAN MAIN CANAL EXISTING STRUCTURE AND CORDINATE LIST						
1	6+150	Proposed Drain inlet	36.71600	67.65000	398.66		No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS
2	7+800	Proposed Drain inlet	36.72000	67.63400	391.21		1	0+000	Lining St: (0+000 to 3+750)	36.694	67.697	444.10	
3	7+890	Proposed Drain inlet	36.72000	67.63300	390.89		2	0+000	Divider	36.694	67.697	444.10	
CHOCHMAN CANAL STRUCTURE LIST AND GPS COORDINATES FOR PROPOSED ACCESS POINT							3	3+650	Divider	36.711	67.673	408.04	
No	STATION	Description	NORTHING	EASTHING	BED ELEVATION	REMARKS	4	3+740	Aqueduct	36.711	67.672	407.36	
1	8+110	Proposed Public Utility Struture	36.7200	67.6310	389.05		5	4+125	Culvert	36.711	67.668	406.02	
2	8+230	Proposed Public Utility Struture	36.7200	67.6290	388.31		6	8+350	Culvert	36.720	67.628	388.06	

 USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT	CANAL NAME	LOCATION	DRAWING TITLE	SURVEYED BY	DRAWING AND DESIGN BY	REVIEWED AND CHECKED BY	SWIM APPROVAL	MEW/RBA APPROVAL
	SWIM	CHOCHMAN MAIN CANAL (CHOCHMAN BRANCH)	DISTRICT: KHULM PROVINCE: SAMANGAN	STRUCTURE LIST ALONG WITH GPS COORDINATES	SWIM	MOHAMMAD AFZAL MUJAHID ENGINEER (HYDRAULIC SPECIALIST)	GERALD BALONG IRRIGATION ENGINEER EXPERT	HOPPY MAZIER CHIEF OF PARTY	
						DATE: 6/21/2020	DATE: 21-6-2020	DATE: 21-6-2020	DATE: 23/6/2020

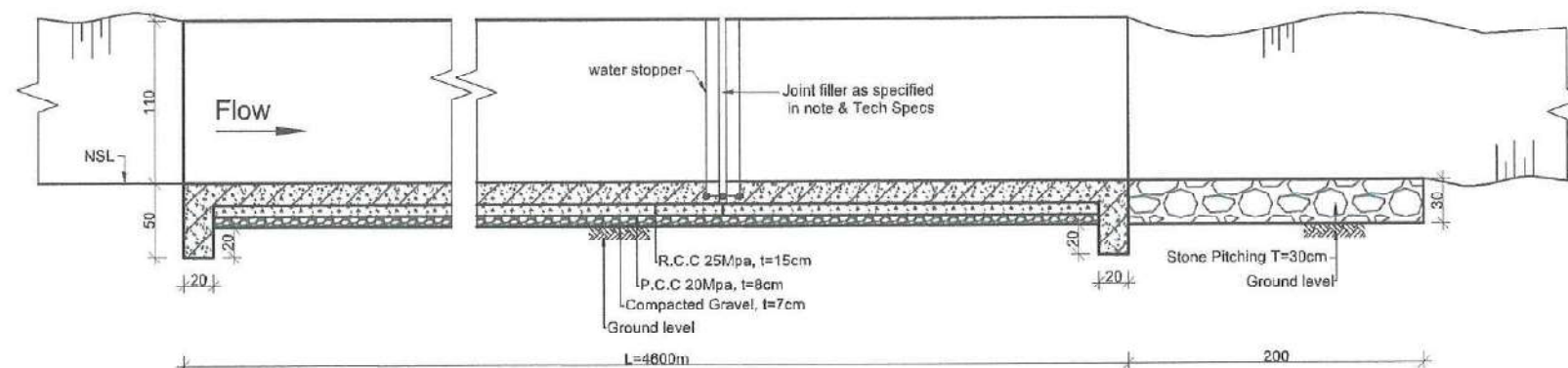
For H.M

SHEET NO.
52/94

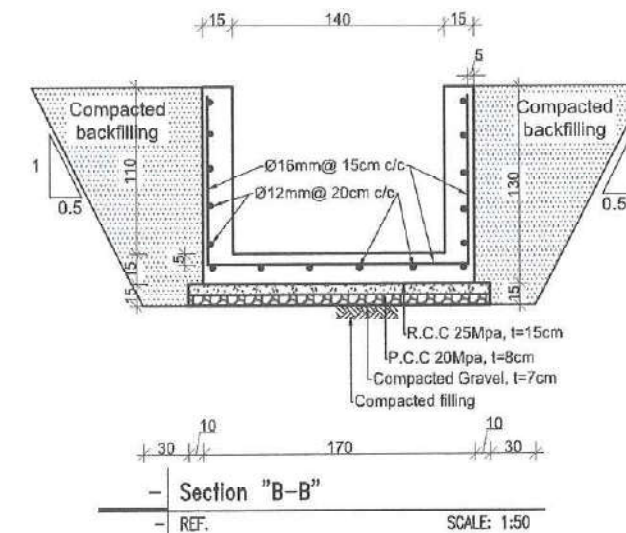
TABLE OF LINING					
No	Canal Lining Detail	Dimensions (M)		Start and End Station	
		Length	High Wide		Remarks
1	Chochman Main Canal(Chochman Branch)	4600	1.1 1.4	Start (St: 3+750) End (St: 8+350)	0.003



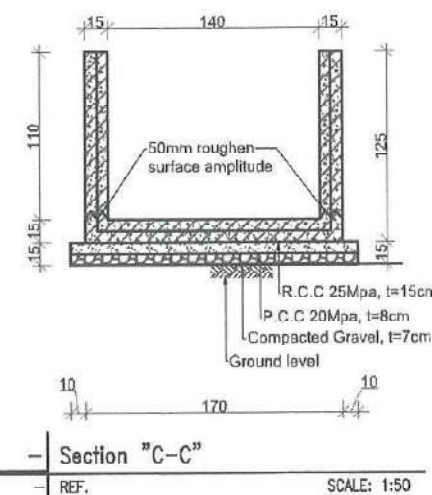
- Plan of R.C.C Lining, L=4600m
- REF. St: (3+750 TO 8+350) SCALE: 1:50



- Section "A-A"
- REF. SCALE: 1:50



- Section "B-B"
- REF. SCALE: 1:50



- Section "C-C"
- REF. SCALE: 1:50

Note:

- Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters(m).
- The construction joints are recommended after each segment of 10M length of R.C.C Lining along the canal.
- The joint's gape will be around (3 to 4)cm and should be filled properly as specified in technical specification.
- Excavation for the Foundation should be checked by the site Engineer as per drawing and Tech Specs.
- Sand and Gravel should be clean and free from organic material.
- All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification.
- Fresh cement to be used.
- Compressive strength of Reinforced cement concrete is 25MPa
- Mild steel Grad 60 rebar to be used.
- Clean water should be used as specified in technical specification
- Angle of walls to be adjusted by SWIM engineer as per site conditions.
- The alignment of wall should be straight as possible, and curved the alignment breaks.
- Installation of PVC or HDPE water stoppers must be securely positioned in the forms to prevent deflection or misalignment during concrete placement. Type of water stopper shall be conform with ASTM D 2240 and wide of water stopper $W \geq 20\text{cm}$

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

Member	Bar Diameter	Shape Code	No. of Bars	Segment length (mm)					Total length - varies (metres)
				a	b	c	d	e	
Slab and wall	16	a	5	1100	1550				27
Slab	12	a	5	1000					5.00
Wall	12	a	5	1000					5.00

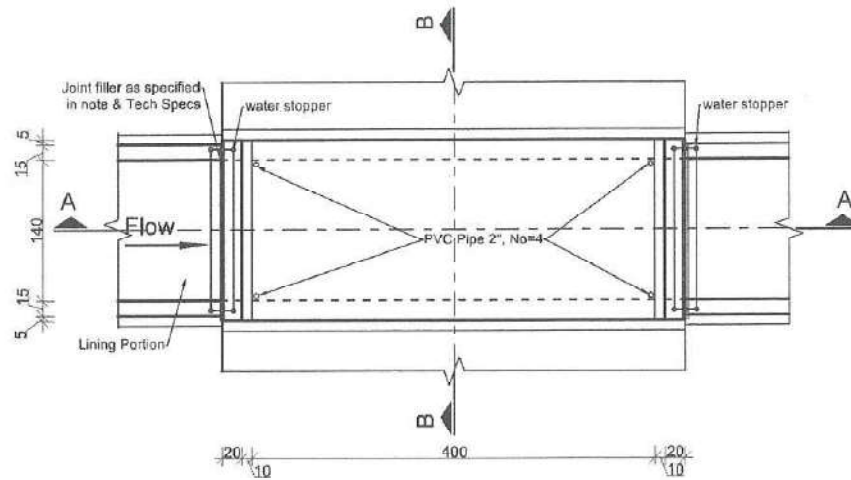
Note: No. of bars and total bar length Should be calculate as per required length

USAID FROM THE AMERICAN PEOPLE	STRENGTHENING WATERSHED & IRRIGATION MANAGEMENT SWIM	CANAL NAME CHOCHMAN MAIN CANAL (CHOCHMAN BRANCH)	LOCATION DISTRICT: KHULM PROVINCE: SAMANGAN	DRAWING TITLE R.C.C Lining Plan and Sections	SURVEYED BY SWIM	DRAWING AND DESIGN BY MOHAMMAD AFZAL MUJAHID ENGINEER (HYDRAULIC SPECIALIST)	REVIEWED AND CHECKED BY GERALD MALOUSO IRRIGATION ENGINEER EXPERT	SWIM APPROVAL HOPPY MAZIER CHIEF OF PARTY	MEW/RBA APPROVAL	SHEET NO. 53/94
						DATE: 6/21/2020	DATE: 21-6-2020	DATE: 21-6-2020	DATE: 23/6/2020	

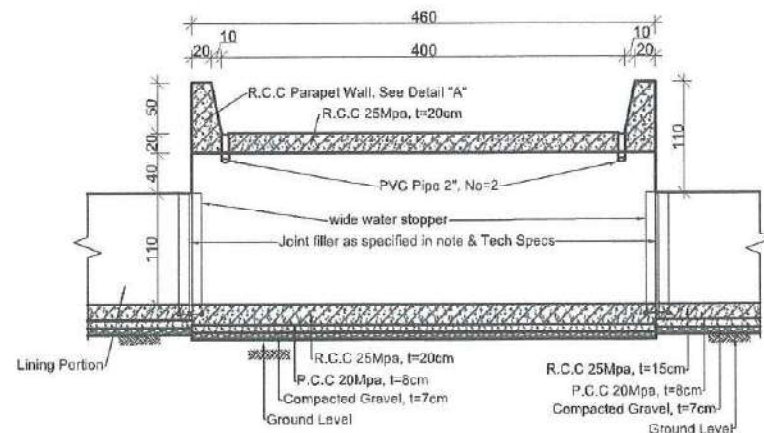
For H.M

TABLE OF BOX CULVERT

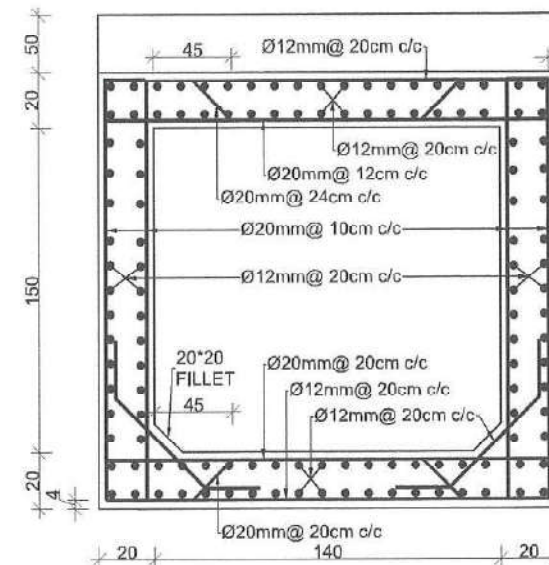
No	Station	Description	Dimensions (M)			GPS Point		Remarks
			Length	High	Wide	North	East	
1	5+110	Box Culvert	4.0	1.70	2.00	36.712727	67.655391	
2	5+400	Box Culvert	4.0	1.70	2.00	36.714089	67.652960	
3	6+460	Box Culvert	4.0	1.70	2.00	36.719459	67.643033	
4	7+400	Box Culvert	4.0	1.70	2.00	36.719964	67.633451	
5	7+460	Box Culvert	4.0	1.70	2.00	36.720204	67.632902	



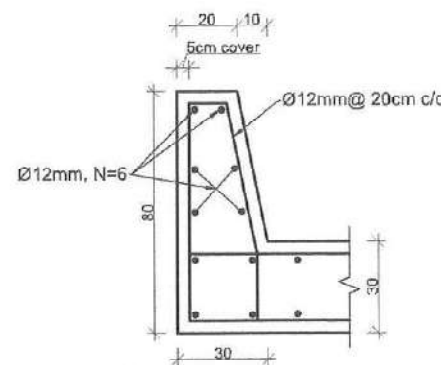
Plan of Box Culvert
REF. SCALE: 1:75



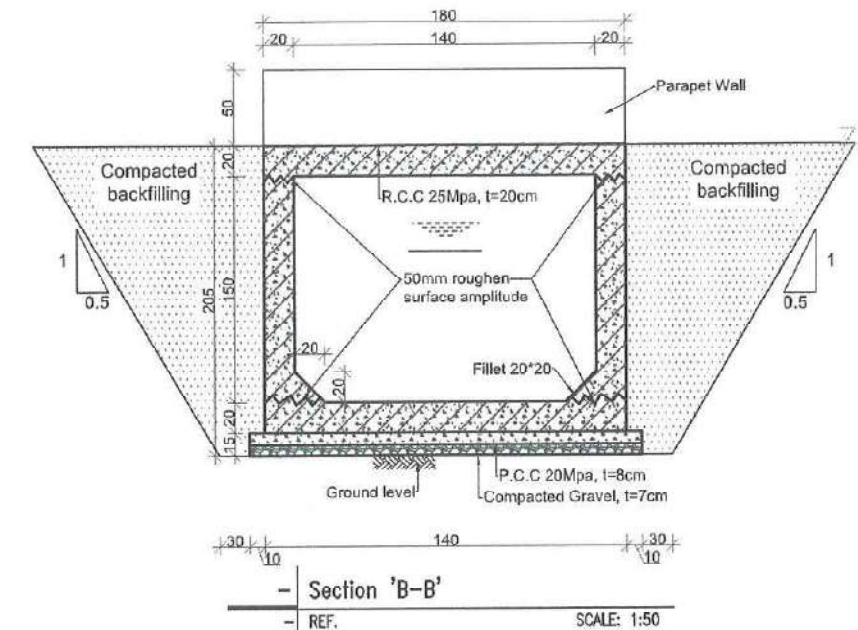
Section "A-A"
REF. SCALE: 1:75



SECTION "B-B", REBAR DETAILS OF TOP SLAB,
BOTTOM SLAB, & VERTICAL MEMBERS
REF. SCALE: 1:75



Detail "A"
REF. SCALE: 1:25



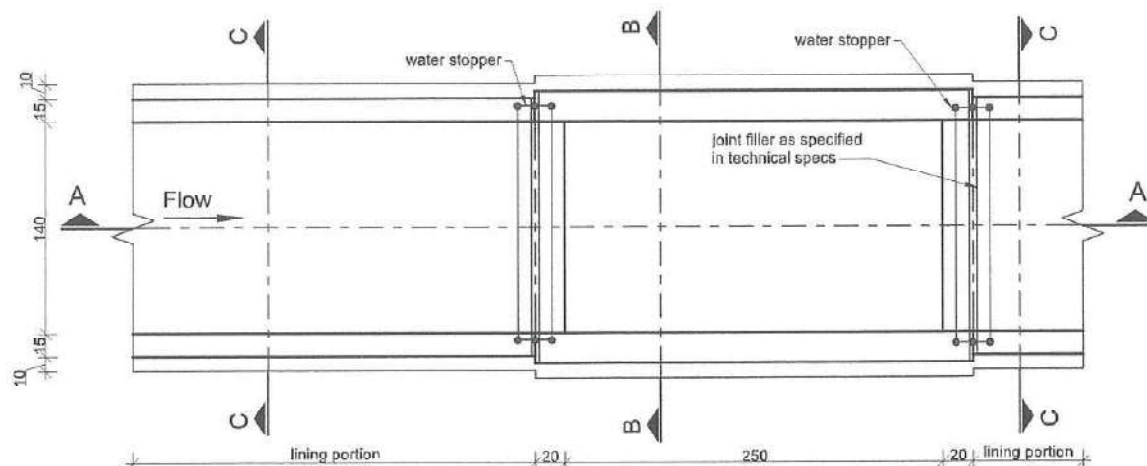
Bar Schedule (No. of bars and total bar length presented for 1m Box Culvert)

Member	Bar Diameter	Shape Code	No. of Bars	Segment length (mm)					Total length - varies (metres)
				a	b	c	d	e	
Bot Slab	12	a	5	200	2500				14.50
Bot Slab	20	b	5	200	2500				14.50
Bot Slab	12	a	5	1000					5.00
Bot Slab	12	a	5	1000					5.00
Bot Slab	12	a b c b a	5	400	425	1100			13.75
Bot Slab	12	a b	5	300	900				7.50
Wall	20	a	7	200	2000				16.8
Wall	20	a	7	200	2000				16.8
Wall	12	a	5	1000					5.00
Wall	12	a	5	1000					5.00
Top Slab	12	a b a	5	200	2500				14.50
	20	a b a	8	200	2500				23.20
	12	a	5	1000					5.00
	12	a	5	1000					5.00
	20	a b c b a	5	400	425	1100			13.75
Parapet Wall	12	a b c d c	5	700	500	250	200	100	8.75
	12	a	6	1000					6.00

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

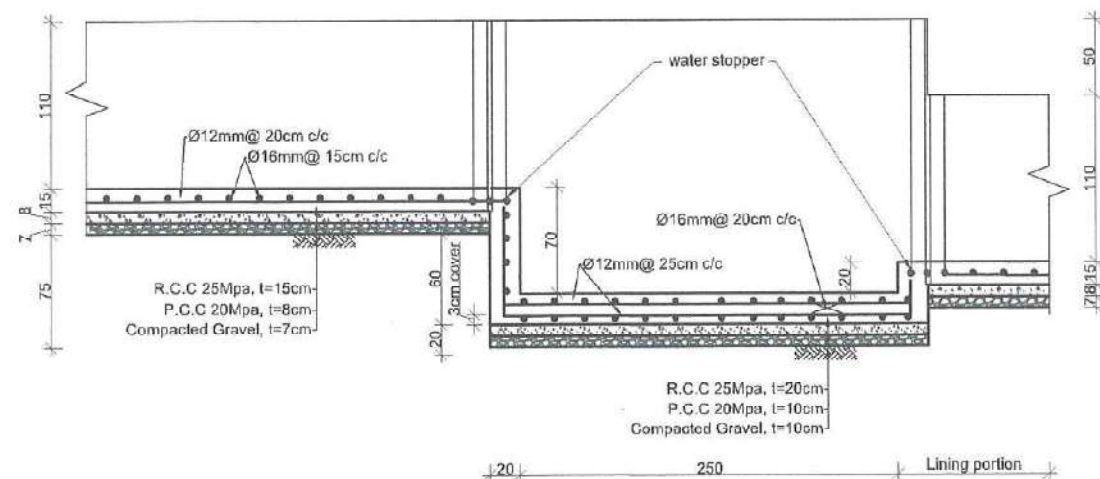
Note:

- Unless noted otherwise, linear dimensions shown on drawing are in centimeters (cm), and elevations are in meters (m).
- The joint's gape will be around (3 to 4)cm and should be filled properly as specified in technical specification.
- Excavation for the Foundation should be checked by the site Engineer as per drawing and Tech Specs.
- Sand and Gravel should be clean and free from organic material.
- All filling should be compacted properly in layers of 15cm each as specified in drawing and technical specification.
- Stone masonry should be done by Mortar (1:4).
- Fresh cement to be used.
- Compressive strength of Reinforced cement concrete is 25MPa
- Mild steel Grad 60 rebar to be used.
- Clean water should be used as specified in technical specification
- Angle of walls to be adjusted by SWIM engineer as per site conditions.
- The alignment of wall should be straight as possible, and curved the alignment breaks.
- Installation of PVC or HDPE water stoppers must be securely positioned in the forms to prevent deflection or misalignment during concrete placement. Type of water stopper shall be conform with ASTM D 2240 and wide of water stopper $W \geq 20\text{cm}$



Plan of Drop Structure

REF. SCALE: 1:50

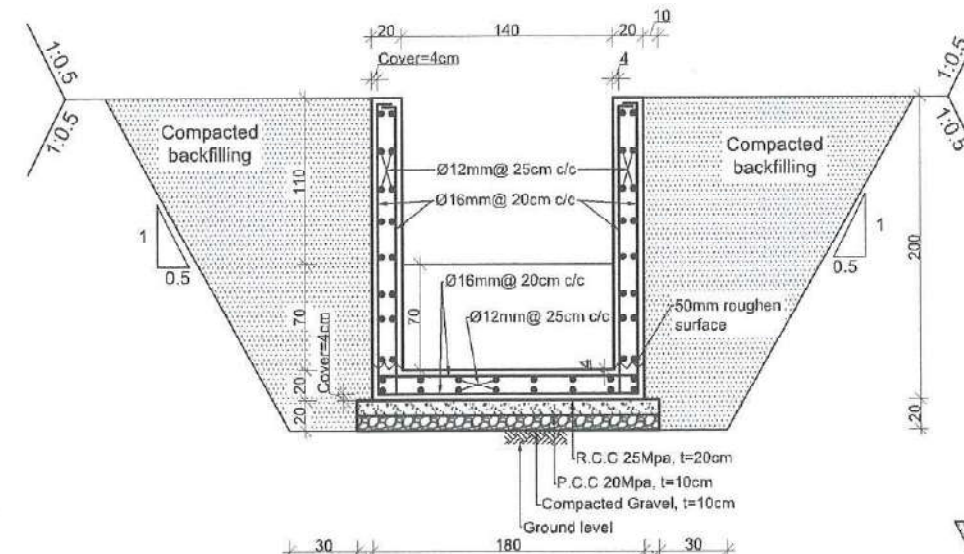


Section A-A of Drop

REF. SCALE: 1:50

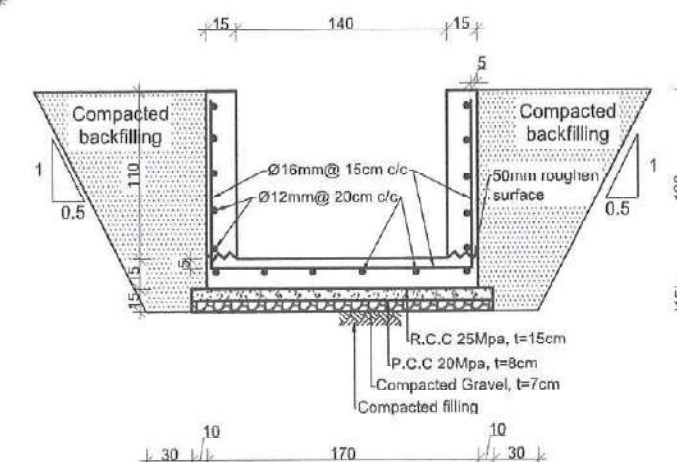
TABLE OF DROP STRUCTURE

No	Station	Description (Drop in lining portion)	Dimensions (M)			Remark
			Length	High	Wide	
1	4+200	Drop Structure	2.5	0.7	1.40	
2	5+500	Drop Structure	2.5	0.7	1.40	
3	5+750	Drop Structure	2.5	0.7	1.40	
4	6+840	Drop Structure	2.5	0.7	1.40	
5	7+100	Drop Structure	2.5	0.7	1.40	
6	7+350	Drop Structure	2.5	0.7	1.40	
7	7+500	Drop Structure	2.5	0.7	1.40	
8	7+650	Drop Structure	2.5	0.7	1.40	
9	7+900	Drop Structure	2.5	0.7	1.40	
10	8+000	Drop Structure	2.5	0.7	1.40	
11	8+150	Drop Structure	2.5	0.7	1.40	



Section B-B of Drop

REF. St. SCALE: 1:50




Section "C-C"

REF. SCALE: 1:50

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. All filling should be compacted properly in layers of 15cm each as specified in technical specification.
5. Fresh cement to be used.
6. Clean water should be used as specified in technical specification.
7. Angle of walls to be adjusted by SWIM engineer as per site conditions.
8. Compressive strength of plain cement concrete is 20MPa
9. Compressive strength of Reinforced cement concrete is 25MPa
10. Mild steel Grad 60 rebar to be used.
11. The canal alignment should be straight as possible, and curved the alignment breaks.
12. Installation of PVC or HDPE water stoppers must be securely positioned in the forms to prevent deflection or misalignment during concrete placement. Type of water stopper shall be conform with ASTM D 2240 and wide of water stopper $W \geq 20\text{cm}$

 <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	MEWRBA APPROVAL	SHEET NO. 55/94
		CHOCHMAN MAIN CANAL (CHOCHMAN BRANCH)	DISTRICT: KHULM PROVINCE: SAMANGAN	DROP STRUCTURE PLAN AND SECTION	SWIM	MOHAMMAD AFZAL MUJAHID ENGINEER (HYDRAULIC SPECIALIST)	GERALD MALONG IRRIGATION & WATER EXPERT	HOPPY MAZIE CHIEF OF PARTY		
		DATE: 6/21/2020		DATE: 21-6-2020		DATE: 21-6-2020		DATE: 23/6/2020		

For H.M

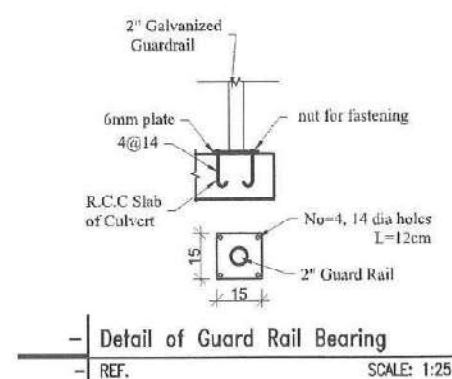
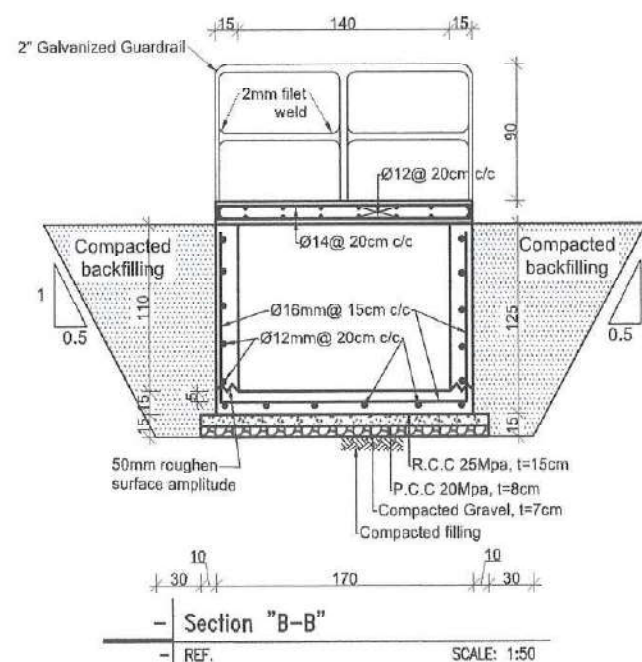
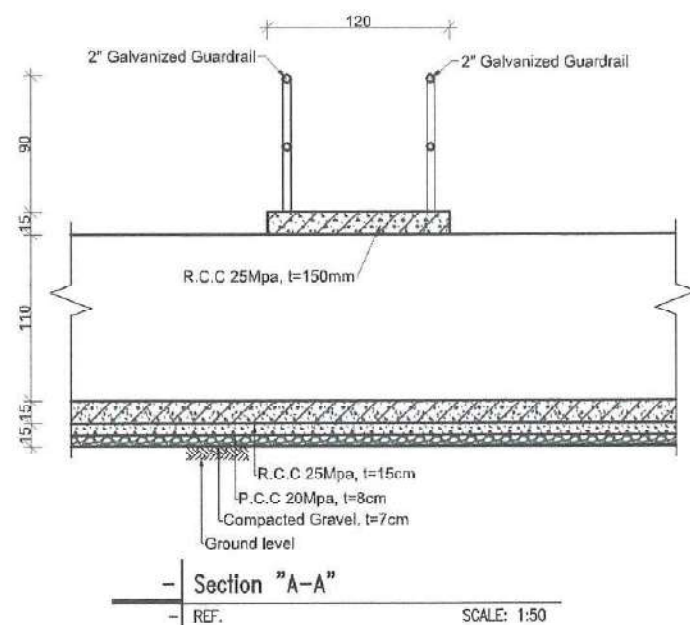
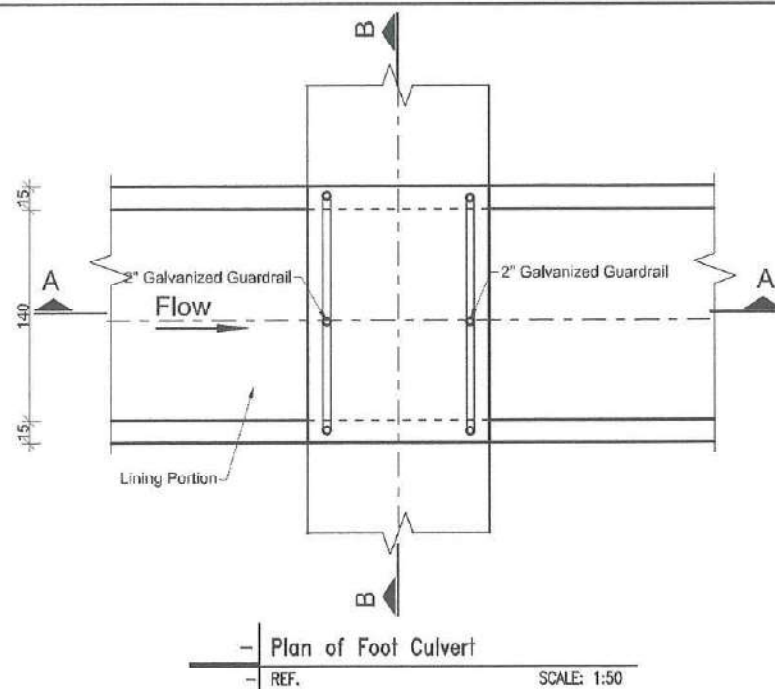


TABLE OF FOOT CULVERT

No	Station	Description	Dimensions (M)			Remarks
			Length	High	Wide	
1	7+120	Foot Culvert	1.4	1.1	1.20	
2	7+840	Foot Culvert	1.4	1.1	1.20	
3	7+990	Foot Culvert	1.4	1.1	1.20	


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

Member	Bar Diameter	Shape Code	No. of Bars	Segment length (mm)					Total length - varies (metres)
				a	b	c	d	e	
Slab and wall	16	a	5	1100	1550				27
Slab	12	a	5	1000					5.00
Wall	12	a	5	1000					5.00
Top Slab	14	b	5	90	1640				9.1
	14	a	5	90	1640				9.1
	12	b	5	90	1140				6.6
	12	a	5	90	1140				6.6

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

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 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
- 10: The anchors will be placed during concrete pouring
- 11: The cold galvanization paint shall be provided over the welded areas after welding is completed.
- 12: 2mm Fillet weld shall be provided for the guardrail with electrode strength of EX70.
- 13: The thickness of guardrail is 2mm with schedule No 80
- 14: Steel grade of guardrail shall be provided as per ASTM A36
- 15: steel grade of anchor bolts shall comply with the minimum requirements of ASTM F1554

 <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	MEW/RBA APPROVAL	SHEET NO. 56/94
	SWIM	CHOCHMAN MAIN CANAL CHOCHMAN BRANCH	DISTRICT: KHULM PROVINCE: SAMANGAN	FOOT CULVERT	SWIM	MOHAMMAD AFZAL MUJAHID ENGINEER (HYDRAULIC SPECIALIST)	GERALD MALONE IRRIGATION ENGINEER-EXPERT	HOPPY MAZHER CHIEF OF PARTY		
		DATE: 6/21/2020	DATE: 21-6-2020	DATE: 21-6-2020	DATE: 23/6/2020					

For H.M