

Government of Nepal
Ministry of Energy, Water Resources and Irrigation
Alternative Energy Promotion Centre (AEPC)

NEP: South Asia Sub-regional Economic Cooperation Power System Expansion Project
(SASEC/ADB)

ADB Project Number: 44219, Loan No. 3139-NEP (SF), Grant No. 0398-NEP (EF)



DETAIL 9B; ढ99Fढ; '89G, B'STUDY
VOLUME 2 (DRAWINGS)

AANKHE KHOLA MINI HYDRO SUBPROJECT, 750 KW

THULIBHERI MUNICIPLAITY, DOLPA, KARNALI PROVINCE

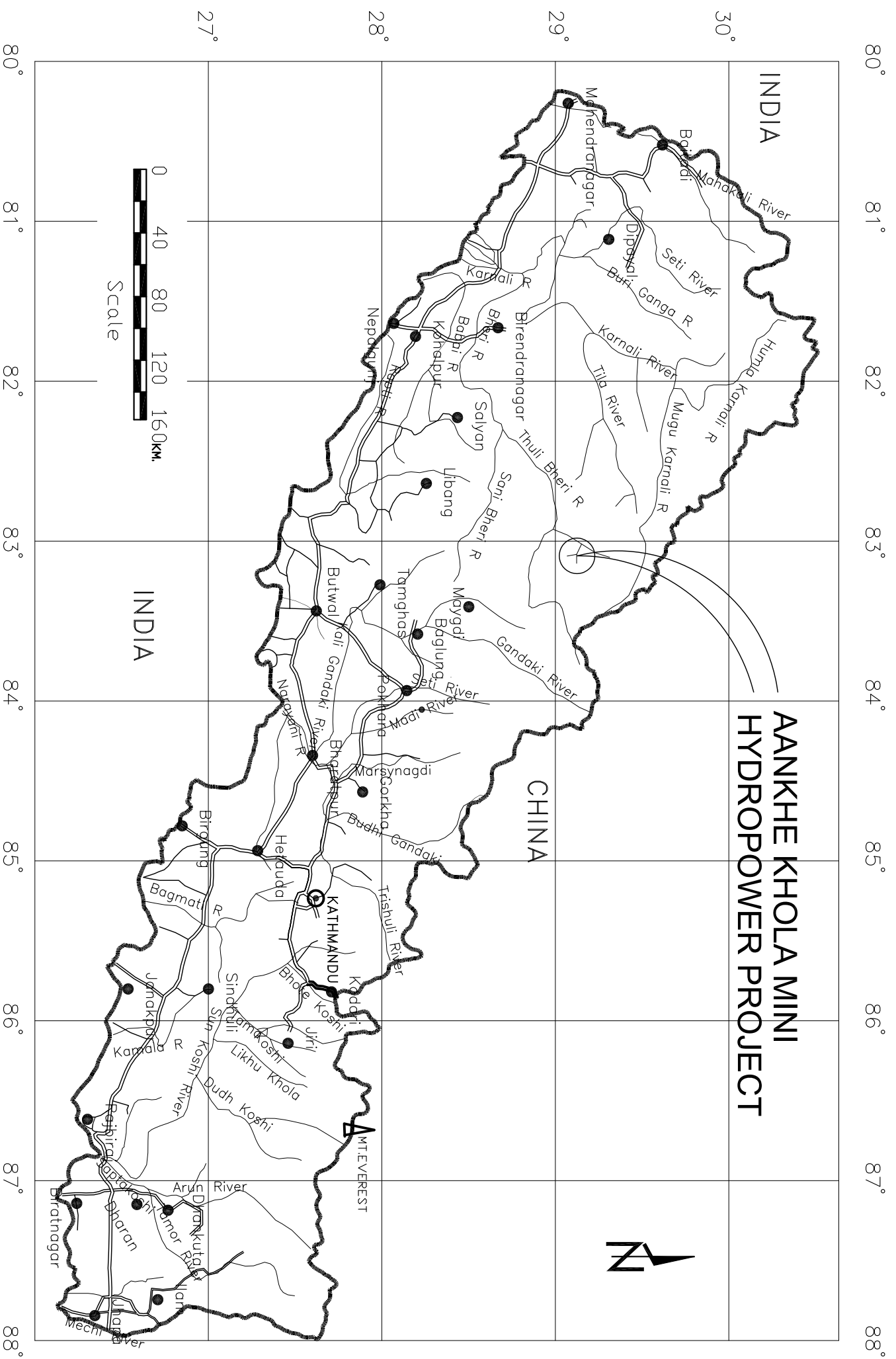
Date: August 2019

Prepared by:
SASEC-Power System Extension Project, AEPC
Mini Hydro Design Team

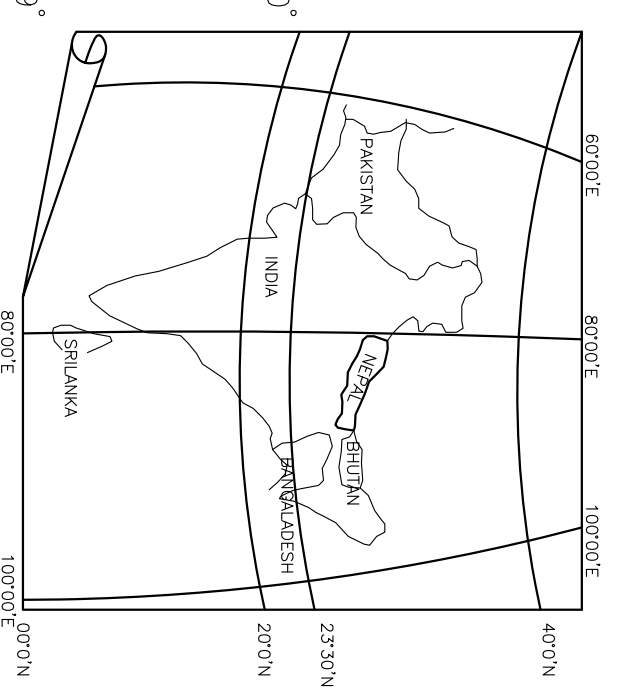
**AANKHE KHOLA MINI HYDROPOWER PROJECT (750 KW), DOLPA
DETAIL DRAWING LIST**

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LOCATION MAP

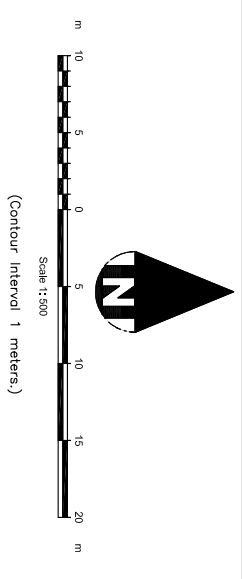


KEY PLAN

Rev.	Amendment	By	Okd.	Rec.	App.	Date
<p>Aankhe Khola Mini Hydro User Committee</p> <p>AANKHE KHOLA MINI HYDROPOWER PROJECT</p>						
<p>GENERAL</p> <p>LOCATION MAP</p>						
<p>Alternative Energy Promotion Centre (AEP/C) South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB) Khatunja, Lalitpur, Nepal Tel: +9771-5539390, 5539391 Email: saeec@aepc.gov.np</p>						
Date:	Jan 2020	Scale:	AS SHOWN			
Drawing No.:	AKMHP/DED-10A-01	Revision:				
Designed:	N. Singh	Name:	N. Singh	Initials:		Date:
Drawn:	N. Singh	Checked:	B. Singh	Recommended:	B. Singh	Approved:
					N. P. Adhikari	

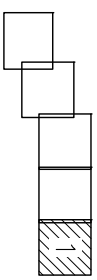
TOPOGRAPHICAL MAP

SCALE : 1 : 500

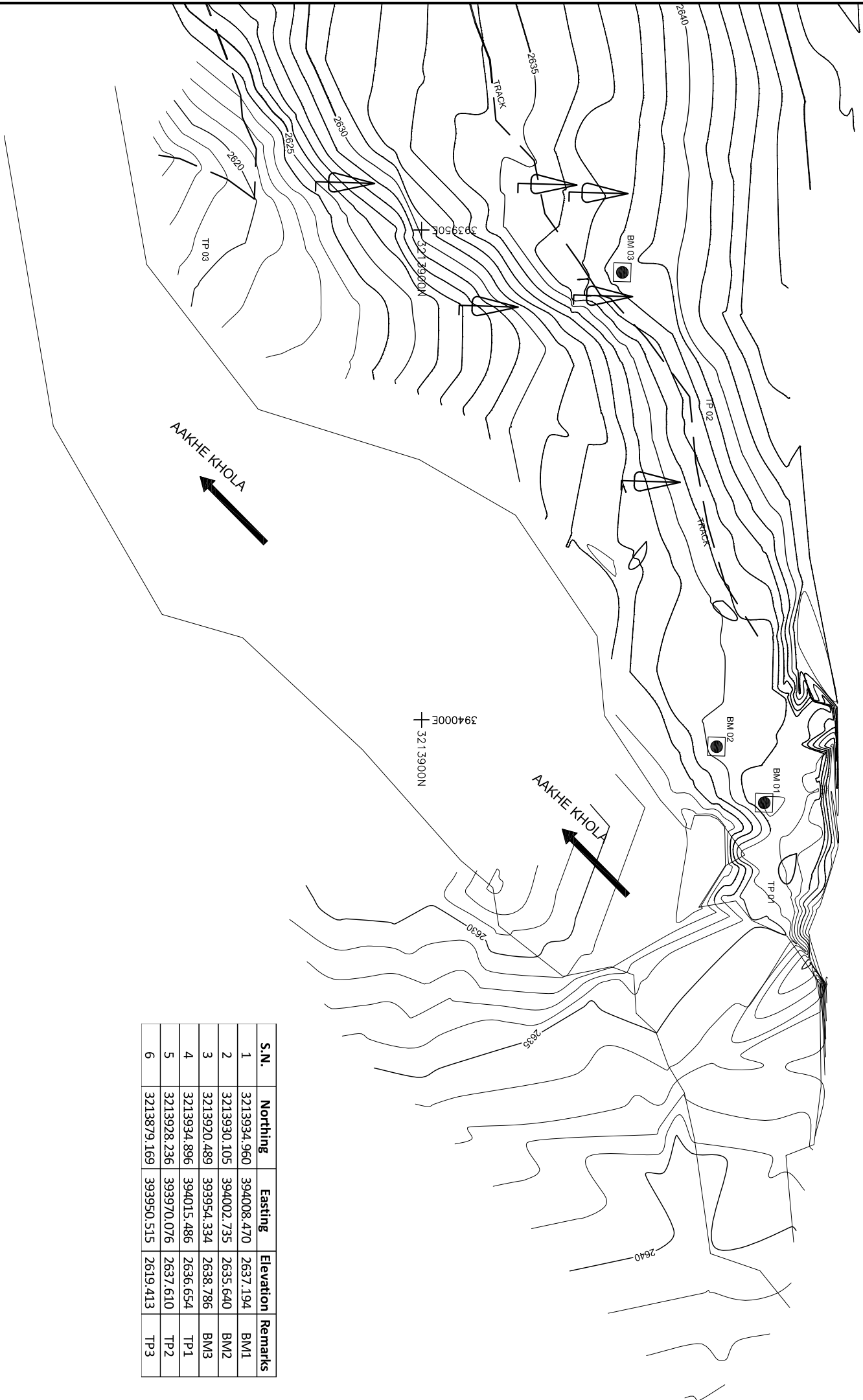


Topographical Index	
SYMBOL	DESCRIPTIONS
	Major Trail
	Minor Trail
	Road
	River / Stream
	Kuwa
	House / Goth
	Water Tank
	Devsthan
	Tree / Bamboo
	Cultivation
	Cliff
	Spot height
	Contour with land slide
	Trigonometrical Point
	Bench Mark
	Boulder
	Rock Exposed line
	Landslide Area

SHEET INDEX



- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
 - All the bench mark points are engraved in big boulders or concrete surface as per availability in site.



S.N.	Northing	Easting	Elevation	Remarks
1	3213934.960	394008.470	2637.194	BM1
2	3213930.105	394002.735	2635.640	BM2
3	3213920.489	393954.334	2638.786	BM3
4	3213934.896	394015.486	2636.654	TP1
5	3213928.236	393970.076	2637.610	TP2
6	3213879.169	393950.515	2619.413	TP3

393950E + 3213850N

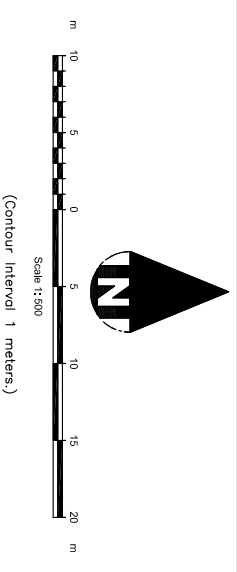
394000E + 3213850N

Rev.	Amendment	By	Ckd.	Rec.	App.	Date

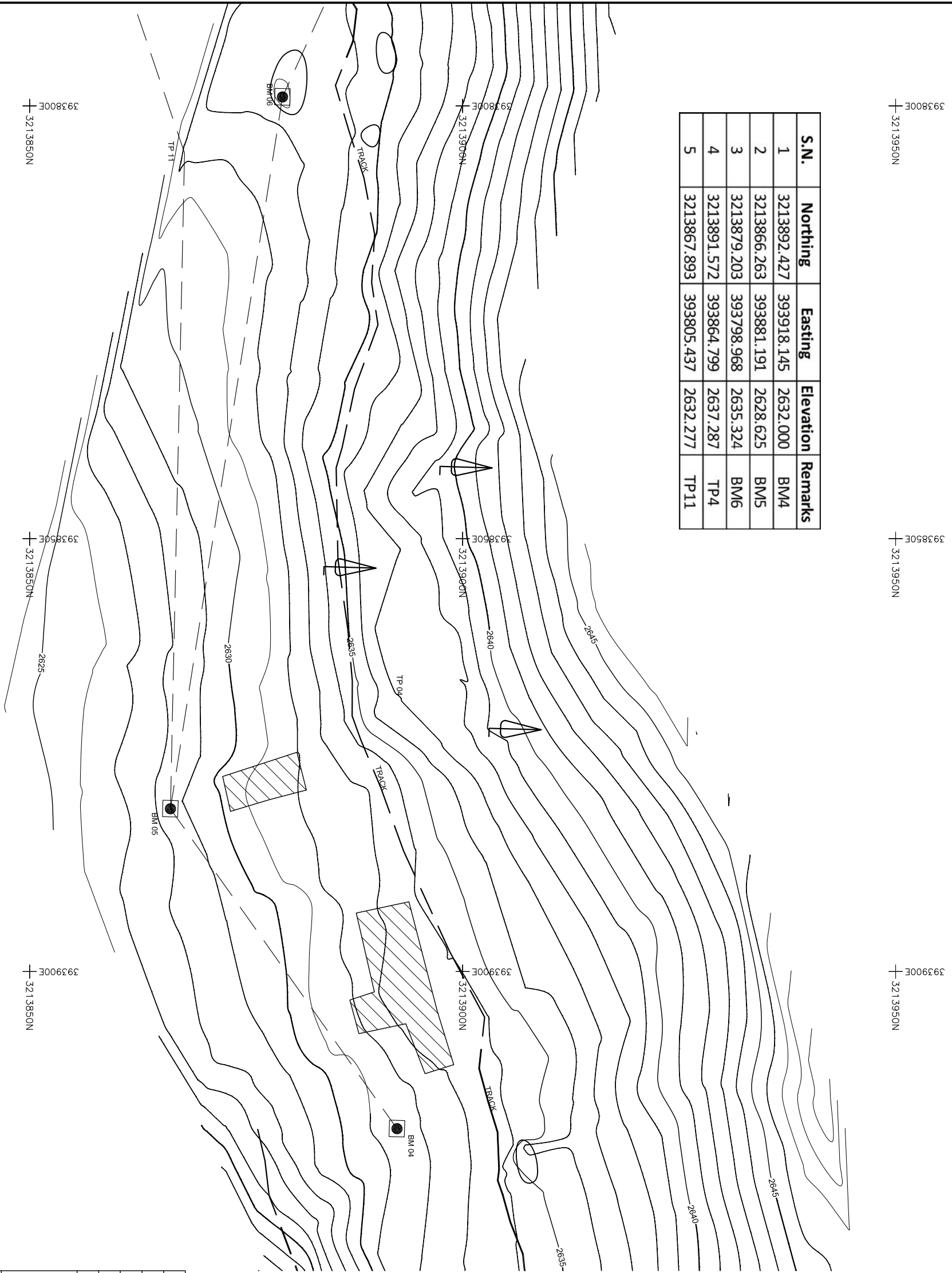
Aankhe Khola Mini Hydro User Committee	
AANKHE KHOLA MINI HYDROPOWER PROJECT	
DETAIL	
TOPOGRAPHICAL MAP	
SHEET 1 OF 4	
Alternative Energy Promotion Centre (AEP/C) South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB) Khumaltar, Lalitpur, Nepal Tel: +9771-5539390, 5539391 Email: saeec@aepc.gov.np	
Date: Jan 2020	Scale: AS SHOWN
Drawing No: AKMHP/DED-10T-01	Revision:

TOPOGRAPHICAL MAP

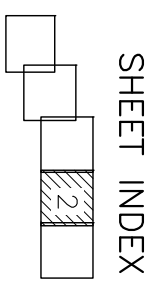
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S.N.	Northing	Easting	Elevation	Remarks
1	3213892.427	393918.145	2632.000	BM4
2	3213866.263	393881.191	2628.625	BM5
3	3213879.203	393798.968	2635.324	BM6
4	3213891.572	393864.799	2637.287	TP4
5	3213867.893	393805.437	2632.277	TP11



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	Spot height
	Contour with land slide
	Trigonometrical Point
	Bench Mark
	Boulder
	Rock Exposed line
	Landslide Area



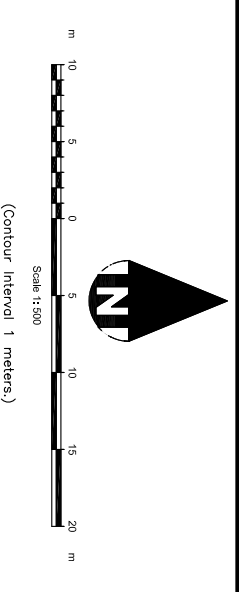
- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
 - All the bench mark points are engraved in big bolders or concrete surface as per availability in site.

Rev.	Amendment	Name	Initials	Date

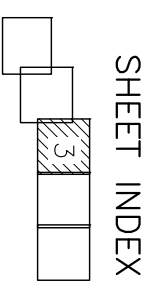
Aankhe Khola Mini Hydro User Committee	
AANKHE KHOLA MINI HYDROPOWER PROJECT	
<p align="center">DETAIL TOPOGRAPHICAL MAP</p>	
SHEET 1 OF 4	
<p>Alternative Energy Promotion Centre (AEPCC) South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB) Kumilaur, Lalpur, Nepal Tel: +9771-5539390, 5539391 Email: saeec@nepc.gov.np</p>	
Date:	Scale
Jan 2020	AS SHOWN
Drawing No.	Revision
AKMHP/DED-10T-02	

TOPOGRAPHICAL MAP

SCALE : 1 : 500

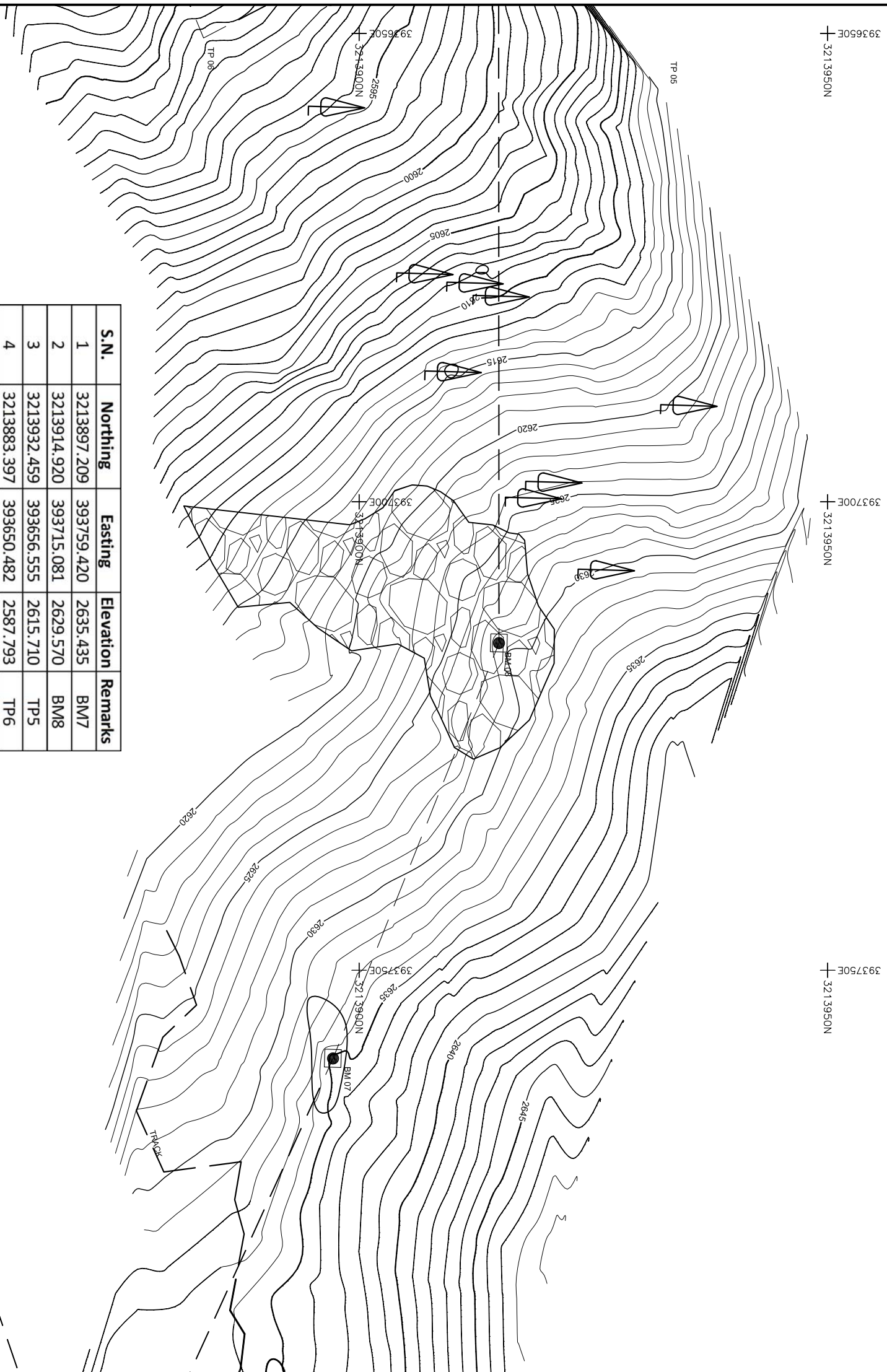


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S.N.	Northing	Easting	Elevation	Remarks
1	3213897.209	393759.420	2635.435	BM7
2	3213914.920	393715.081	2629.570	BM8
3	3213932.459	393656.555	2615.710	TP5
4	3213883.397	393650.482	2587.793	TP6

393650E + 3213850N

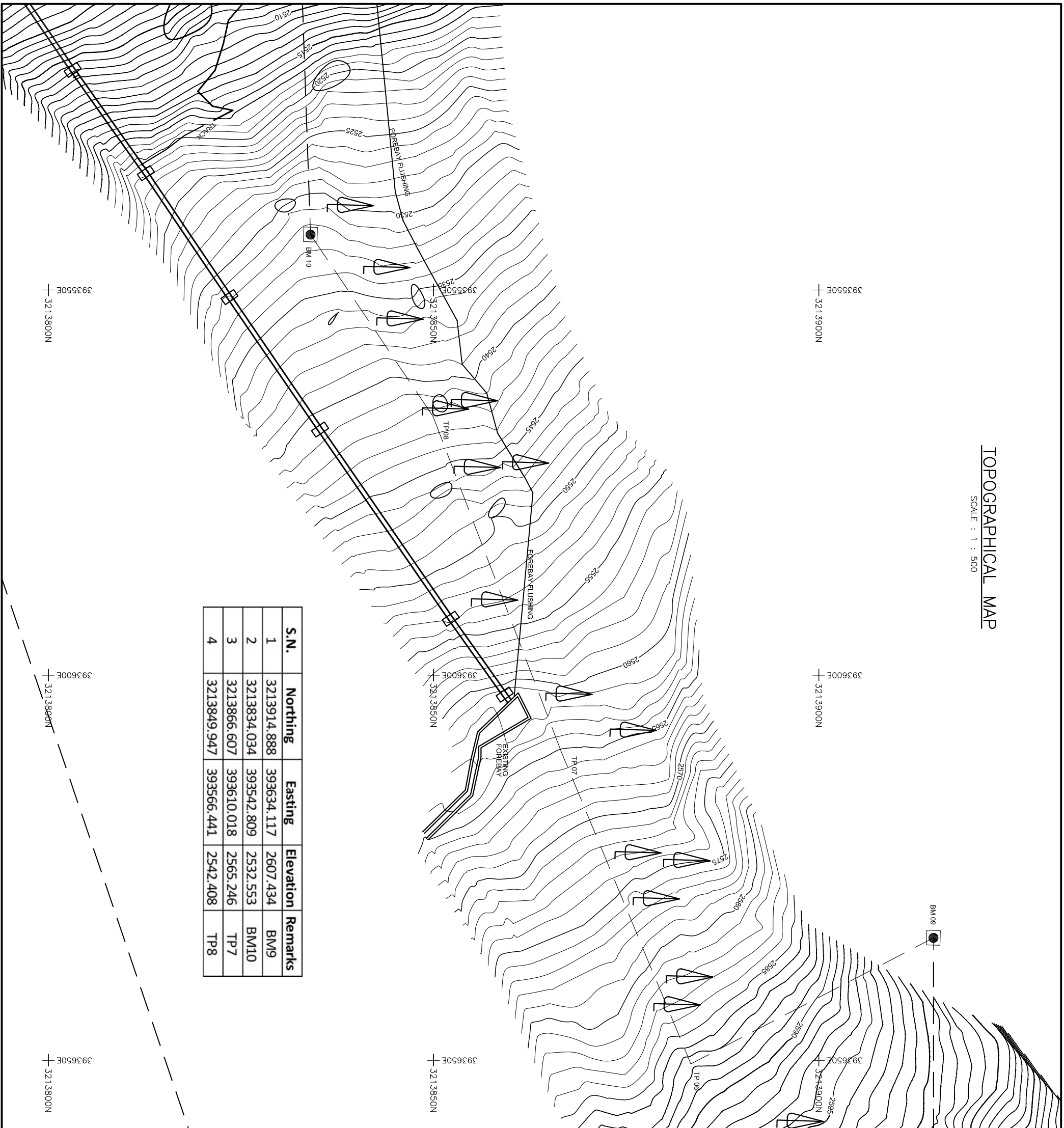
393700E + 3213850N

393750E + 3213850N

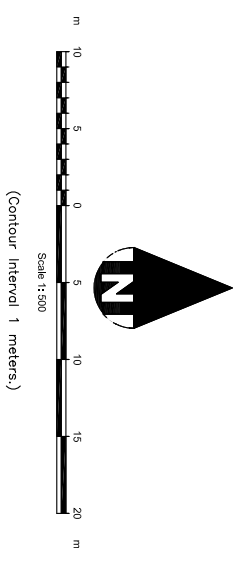
Rev.	Amendment	By	Ckd.	Rec.	App.
<p>ANKHE KHOLA MINI HYDROPOWER PROJECT</p> <p>DETAIL TOPOGRAPHICAL MAP</p> <p>SHEET 3 OF 4</p>					
<p>ANKHE KHOLA MINI Hydro User Committee</p>			<p>Surveyed: A. K. MAHARJAN</p> <p>Drawn: A. K. MAHARJAN</p> <p>Checked: N. Singh</p> <p>Recommended: B. Singh</p> <p>Approved: N. P. Adhikari</p>		
<p>Alternative Energy Promotion Centre (AEPIC)</p> <p>South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)</p> <p>Khulmuri, Lalpur, Nepal</p> <p>Tel: +9771-4539390, 4539391</p> <p>Email: saasec@epc.gov.np</p>			<p>Date: Jan 2020</p> <p>Scale: AS SHOWN</p> <p>Drawing No: AKMHP/DED-10T-03</p> <p>Revision</p>		

TOPOGRAPHICAL MAP

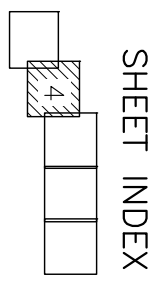
SCALE : 1 : 500



S.N.	Northing	Easting	Elevation	Remarks
1	3213914.888	393634.117	2607.434	BM9
2	3213834.034	393542.809	2532.553	BM10
3	3213866.607	393610.018	2565.246	TP7
4	3213849.947	393566.441	2542.408	TP8



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Rev.	Amendment	By	Ckd.	Rec.	App.

Aankhe Khola Mini Hydro User Committee		Name	Initials	Date
SANKHE KHOLA MINI HYDROPOWER PROJECT		Surveyed	A. K. MAHARJAN	
		Drawn:	A. K. MAHARJAN	
		Checked:	N. Singh	
		Recommended:	B. Singh	
		Approved:	N. P. Adhikari	

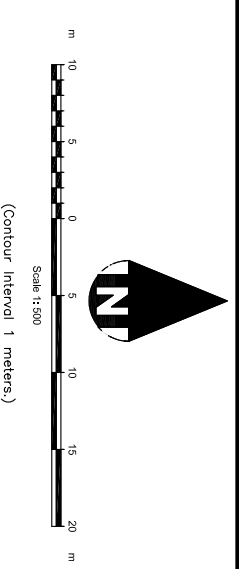
Alternative Energy Promotion Centre (AEPCC)		Date:	Scale
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)		Jan 2020	AS SHOWN
Kathmandu, Lalpur, Nepal		Drawing No.	Revision
Tel: +9771-4539390, 5539391		AKMHP/DED-10T-04	
Email: saasec@epcc.gov.np			

DETAIL TOPOGRAPHICAL MAP

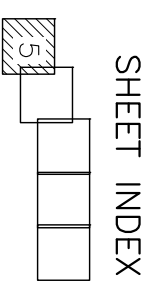
SHEET 1 OF 4

TOPOGRAPHICAL MAP

SCALE : 1 : 500



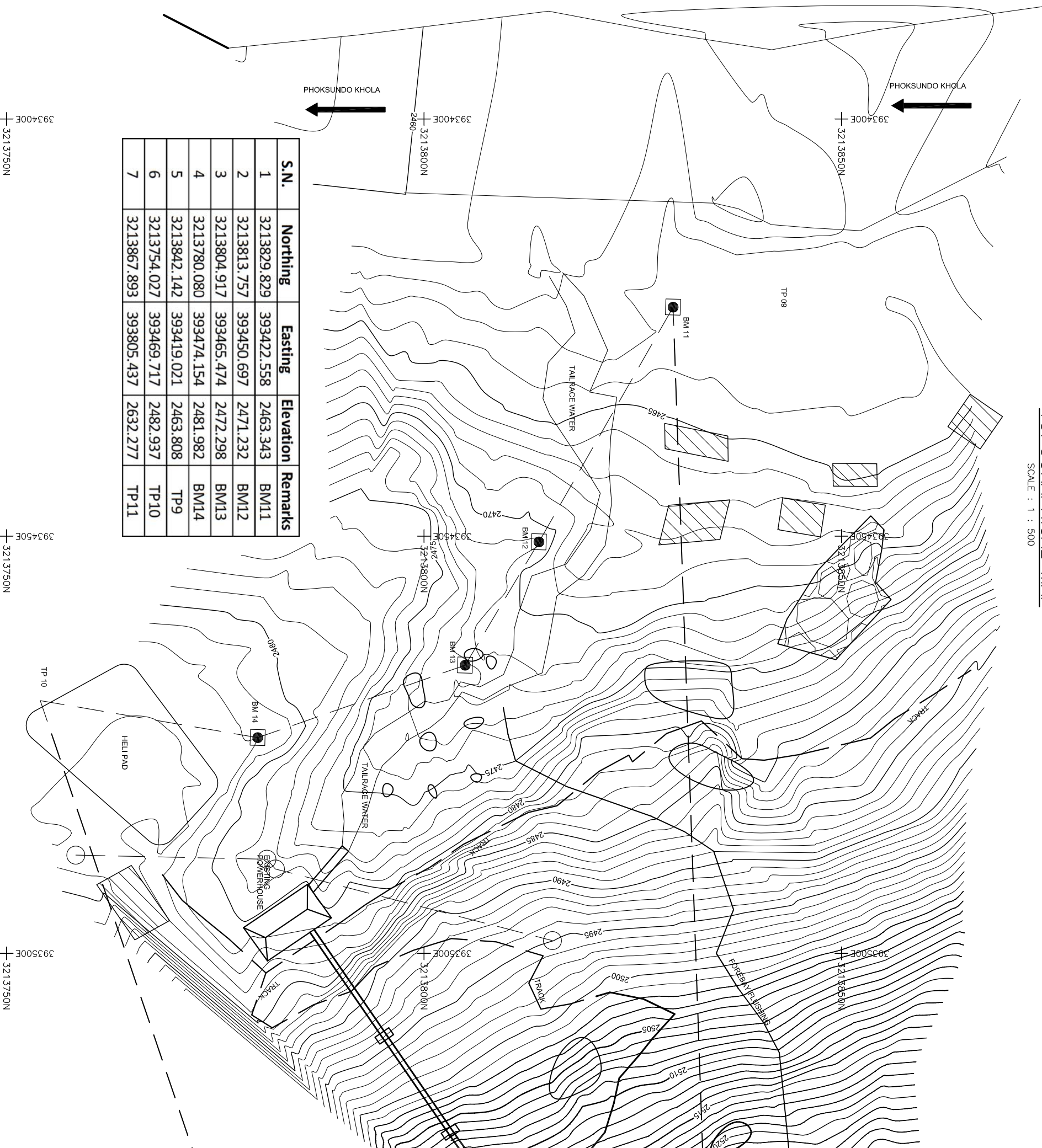
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S.N.	Northing	Easting	Elevation	Remarks
1	3213829.829	393422.558	2463.343	BM11
2	3213813.757	393450.697	2471.232	BM12
3	3213804.917	393465.474	2472.298	BM13
4	3213780.080	393474.154	2481.982	BM14
5	3213842.142	393419.021	2463.808	TP9
6	3213754.027	393469.717	2482.937	TP10
7	3213867.893	393805.437	2632.277	TP11



DETAIL TOPOGRAPHICAL MAP

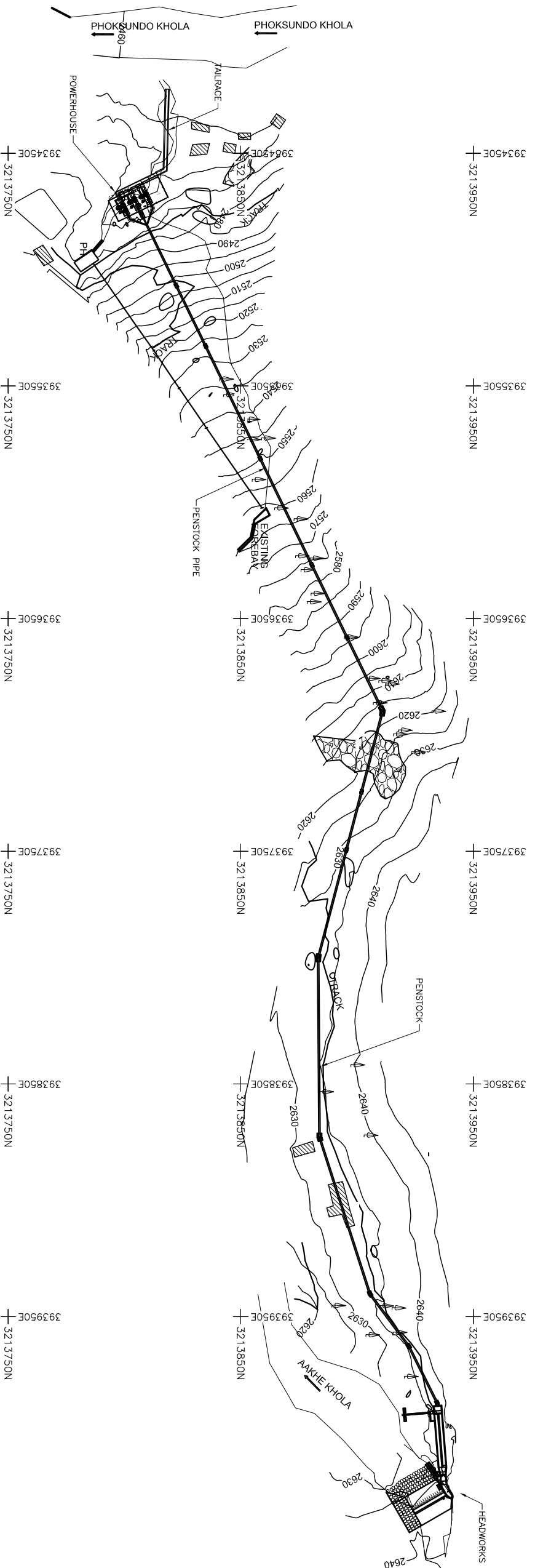
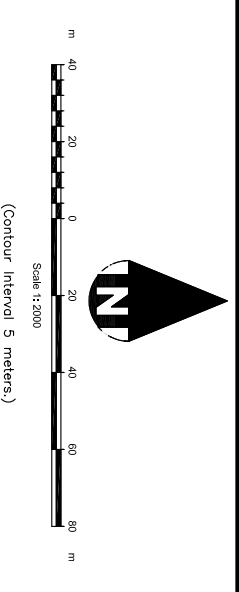
SHEET 1 OF 4

Rev.	Amendment	By	Ckd.	Rec.	App.

Aankhe Khola Mini Hydro User Committee		Name	Initials	Date
SHEET 1 OF 4		Surveyed	A. K. MAHARJAN	
AANKHE KHOLA MINI HYDROPOWER PROJECT		Drawn:	A. K. MAHARJAN	
DETAIL TOPOGRAPHICAL MAP		Checked:	N. Singh	
Alternative Energy Promotion Centre (AEPCC)		Recommended:	B. Singh	
South Asia Sub-regional Economic Cooperation - Power		Approved:	N. P. Adhikari	
Expansion Project (SASEC/ADB)		Date:	Jan 2020	Scale
Kathmandu, Lalpur, Nepal				AS SHOWN
Tel: +9771-4539390, 5539391		Drawing No.	AKMHP/DED-10T-05	Revision
Email: saasec@epc.gov.np				

GENERAL LAYOUT MAP

SCALE : 1 : 2000



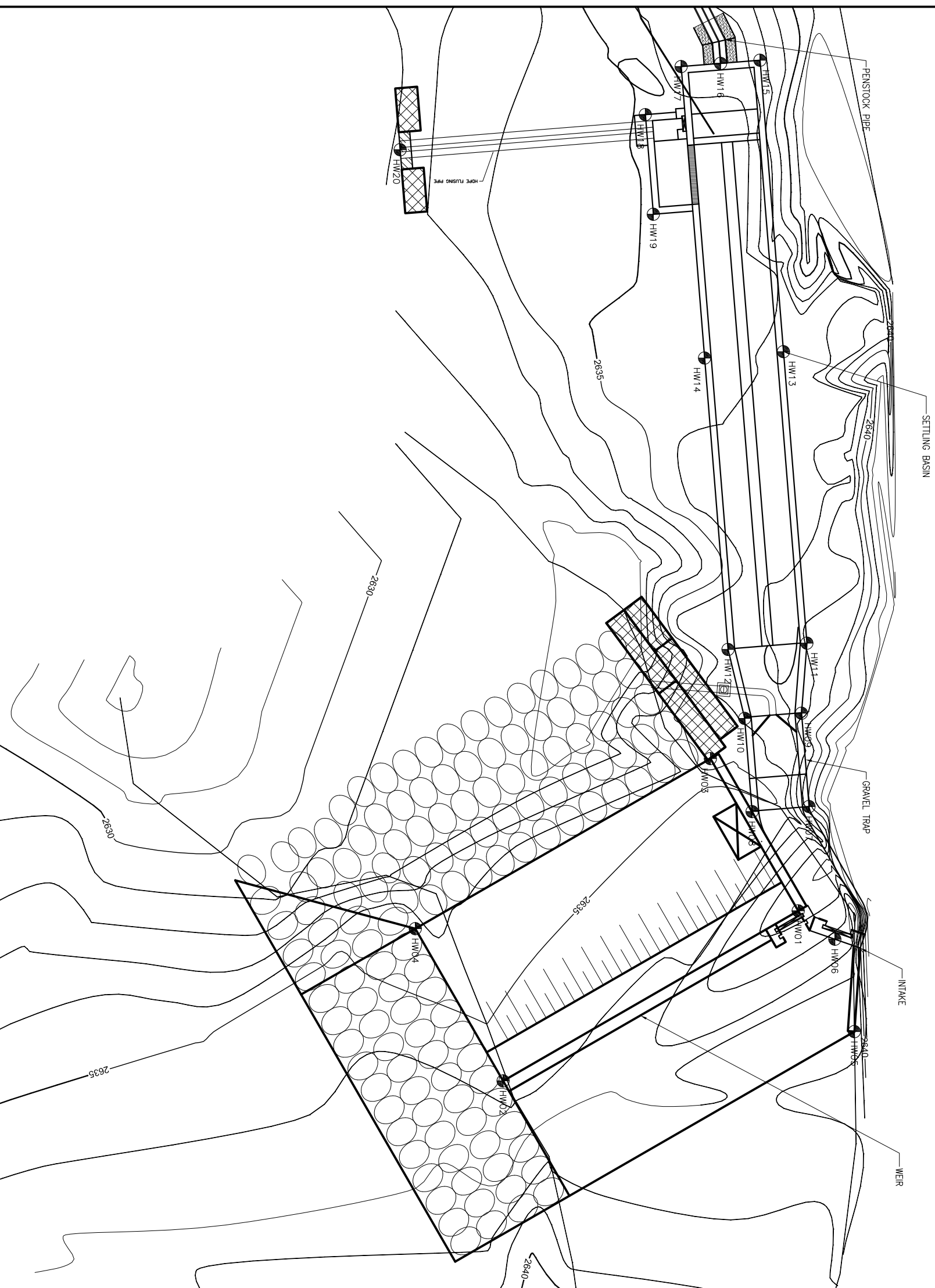
NOTES:

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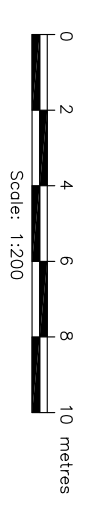
Rev.	Amendment	By	Ckd.	Rec.	App.	Date
DOLPA BIKASH PVT. LTD.						
ANKHE KHOLA MINI HYDROPOWER PROJECT						
GENERAL PROJECT LAYOUT MAP						
SHEET 1 OF 1						
Alternative Energy Promotion Centre (AEPIC)						
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)						
Kathmandu, Lalpur, Nepal						
Tel: +9771-4539390, 5539391						
Email: saasec@nepal.gov.np						
Date: Feb 2020		Scale: AS SHOWN				
Drawing No. AKMHP/DED-10G-01					Revision	

HEADWORKS: GENERAL LAYOUT

SCALE : 1 : 200



SOP No.	Coordinate X and Y
HW01	X = 394026.815 Y = 3213938.134
HW02	X = 394034.557 Y = 3213924.706
HW03	X = 394019.884 Y = 3213934.138
HW04	X = 394027.626 Y = 3213920.710
HW05	X = 394032.313 Y = 3213940.690
HW06	X = 394028.107 Y = 3213939.802
HW07	X = 394022.067 Y = 3213938.626
HW08	X = 394022.318 Y = 3213936.038
HW09	X = 394017.818 Y = 3213938.284
HW10	X = 394018.054 Y = 3213935.699
HW11	X = 394014.626 Y = 3213938.529
HW12	X = 394014.914 Y = 3213934.940
HW13	X = 394001.357 Y = 3213937.462
HW14	X = 394001.645 Y = 3213933.873
HW15	X = 393988.088 Y = 3213936.395
HW16	X = 393988.232 Y = 3213934.601
HW17	X = 393988.376 Y = 3213932.806
HW18	X = 393990.564 Y = 3213931.177
HW19	X = 393995.099 Y = 3213931.541
HW20	X = 393992.163 Y = 3213920.020



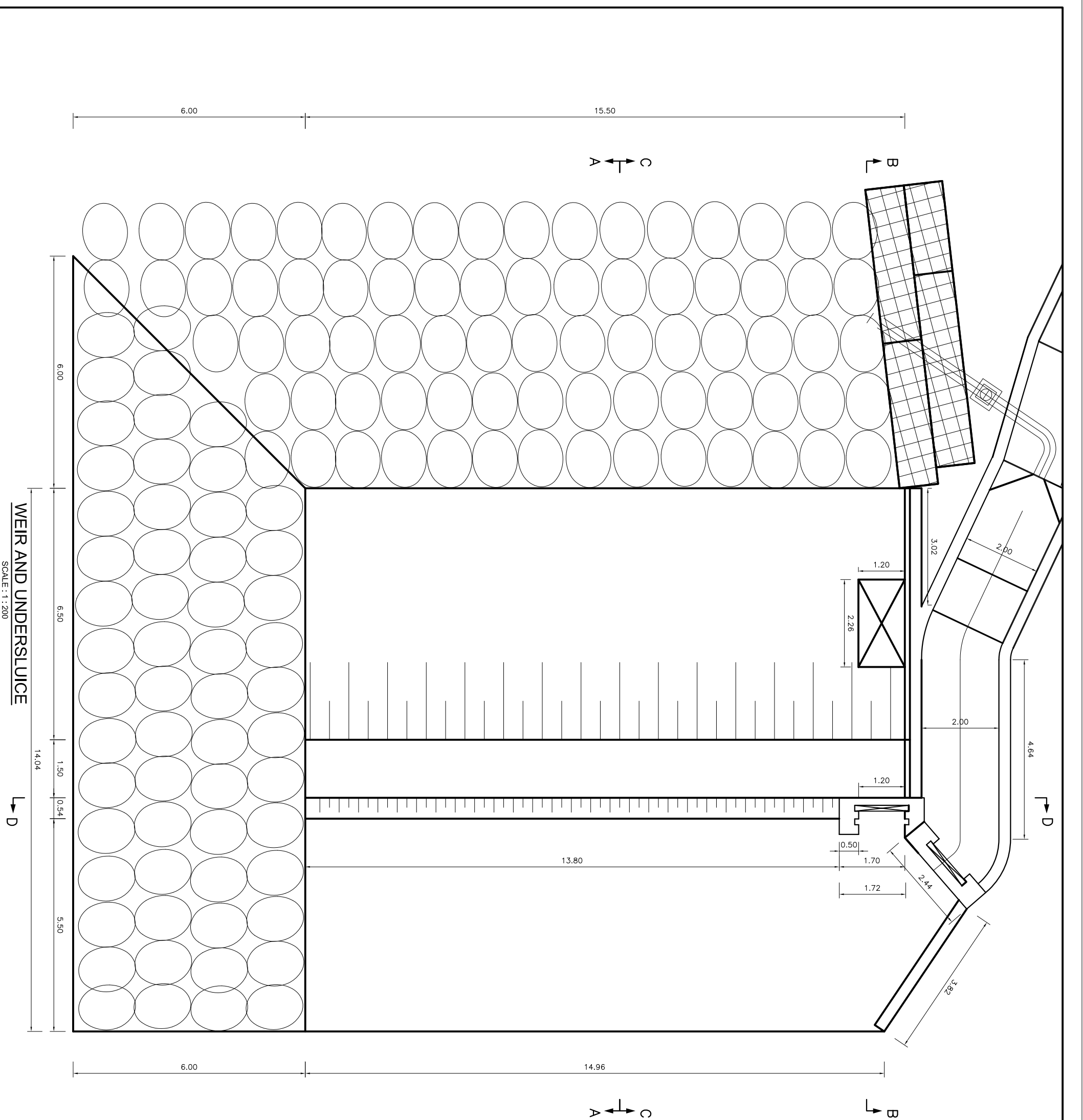
- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
 - Concrete grades
 - M20 – Structural Concrete (1:1.5:3)
 - M10 – 75mm blinding concrete (1:3:6)
 - Excavation lines will be confirmed as per site condition.
 - Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.
 - The size of boulders in boulder riprap should be 1.5m dia at least.

Rev.	Amendment	By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT					
Name			Initials		
Designed: N. Singh					
Drawn: N. Singh					
Checked: T. Limbu					
Recommended: B. Singh					
Approved: N. P. Adhikari					
Date: FEB 2020		Scale: AS SHOWN		Revision	
Drawing No. AKMHP/DED-20G-01					

HEADWORKS GENERAL ARRANGEMENT

SHEET 1 OF 1

Alternative Energy Promotion Centre (AEP/C)
 South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB)
 Khatimbar, Lalitpur, Nepal
 Tel: +9771-5539390, 5539391
 Email: saeec@aepc.gov.np



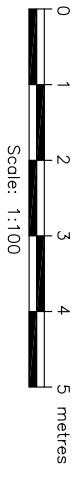
Rev.	Amendment	By	Ckd.	Rec.	App.

AANKHE KHOLA MINI HYDRO USER COMMITTEE		Name	Initials	Date
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	N. Singh	
		Drawn:	N. Singh	
		Checked:	T. Limbu	
		Recommended:	B. Singh	
		Approved:	N. P. Adhikari	

Alternative Energy Promotion Centre (AEP/C)		Date:	Scale:
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/AEB)		FEB 2020	AS SHOWN
Kumilur, Lalpur, Nepal		Drawing No.	Revision
Tel: +9771-5539390, 5539391		AKMHP/DED-22C-01	
Email: saeec@aepc.gov.np			

NOTES:

- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
- Concrete grades
M20 - Structural Concrete (1:1.5:3)
M10 - 75mm binding concrete (1:3:6)
- Excavation lines will be confirmed as per site condition.
- Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.



WEIR AND UNDERSLUICE

SCALE : 1 : 200

← D

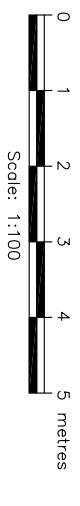
C
↑
A

B
↑

C
↑
A

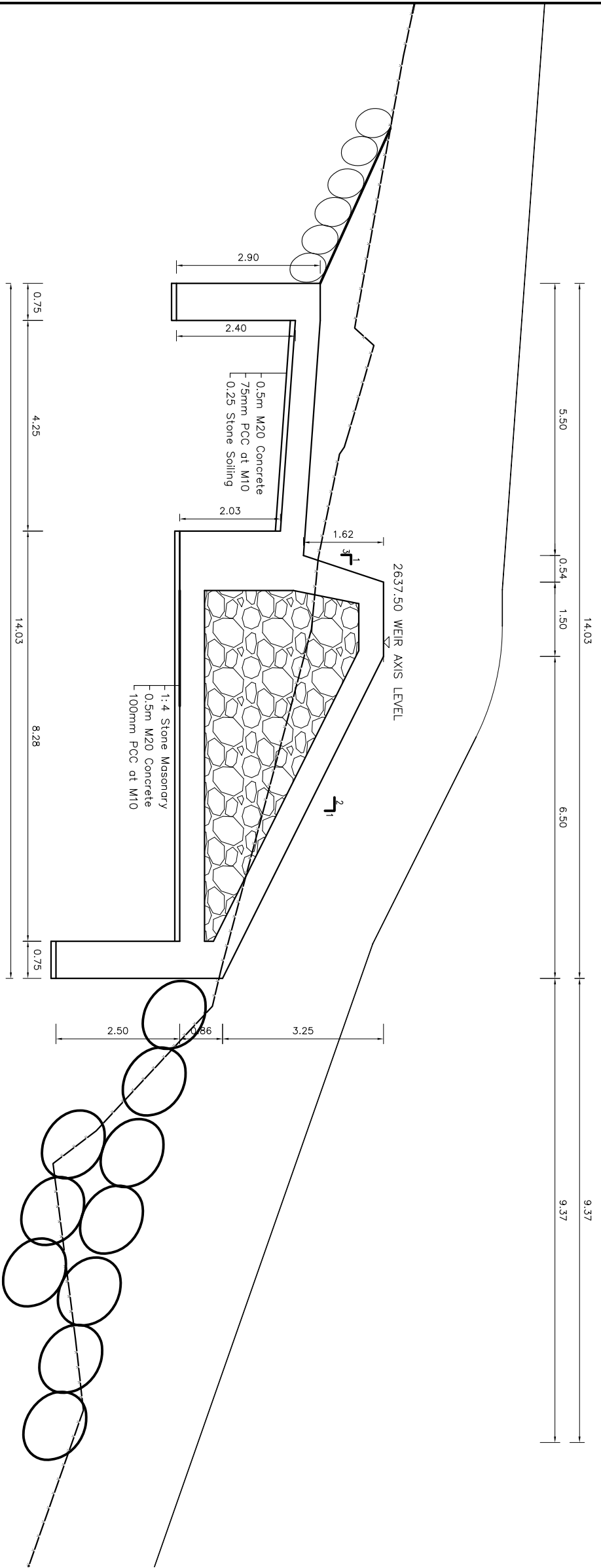
B
↑

→ D



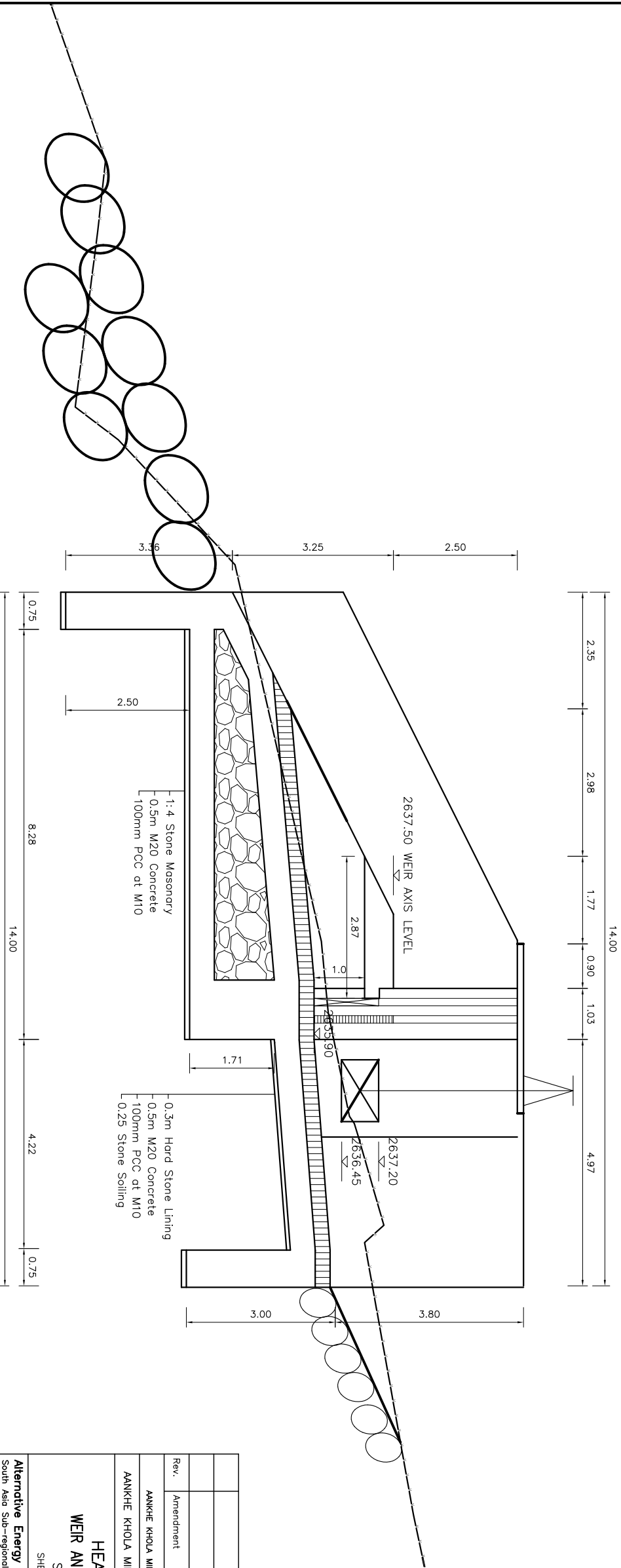
NOTES:

1. All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
2. Concrete grades
M20 – Structural Concrete (1:1.5:3)
M10 – 75mm binding concrete (1:3:6)
Excavation lines will be confirmed as per site condition. Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.
- 3.
- 4.



SECTION AT A-A

SCALE : 1 : 100



SECTION AT B-B

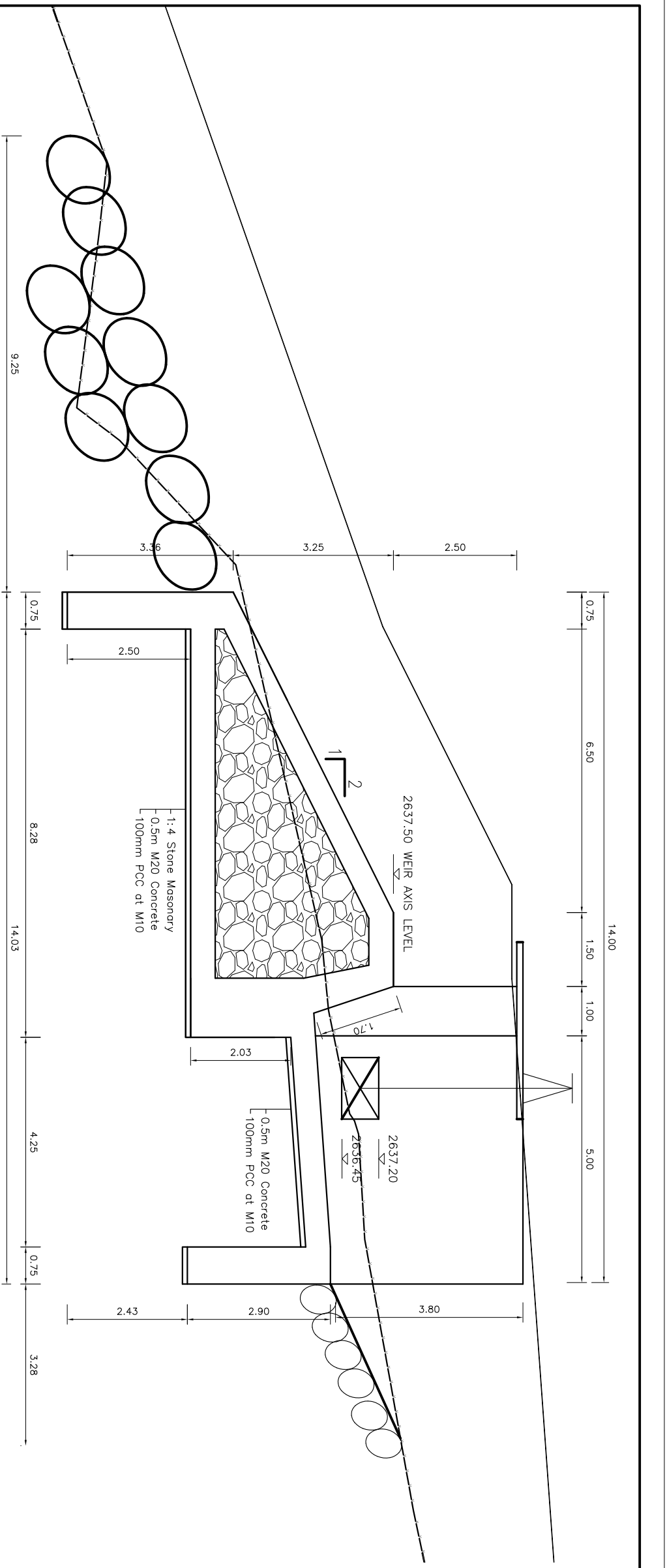
SCALE : 1 : 100

Rev.	Amendment	By	Ckd.	Rec.	App.	Date

AANKHE KHOLA MINI HYDRO USER COMMITTEE	
Designed:	N. Singh
Drawn:	N. Singh
Checked:	T. Limbu
Recommended:	B. Singh
Approved:	N. P. Adhikari

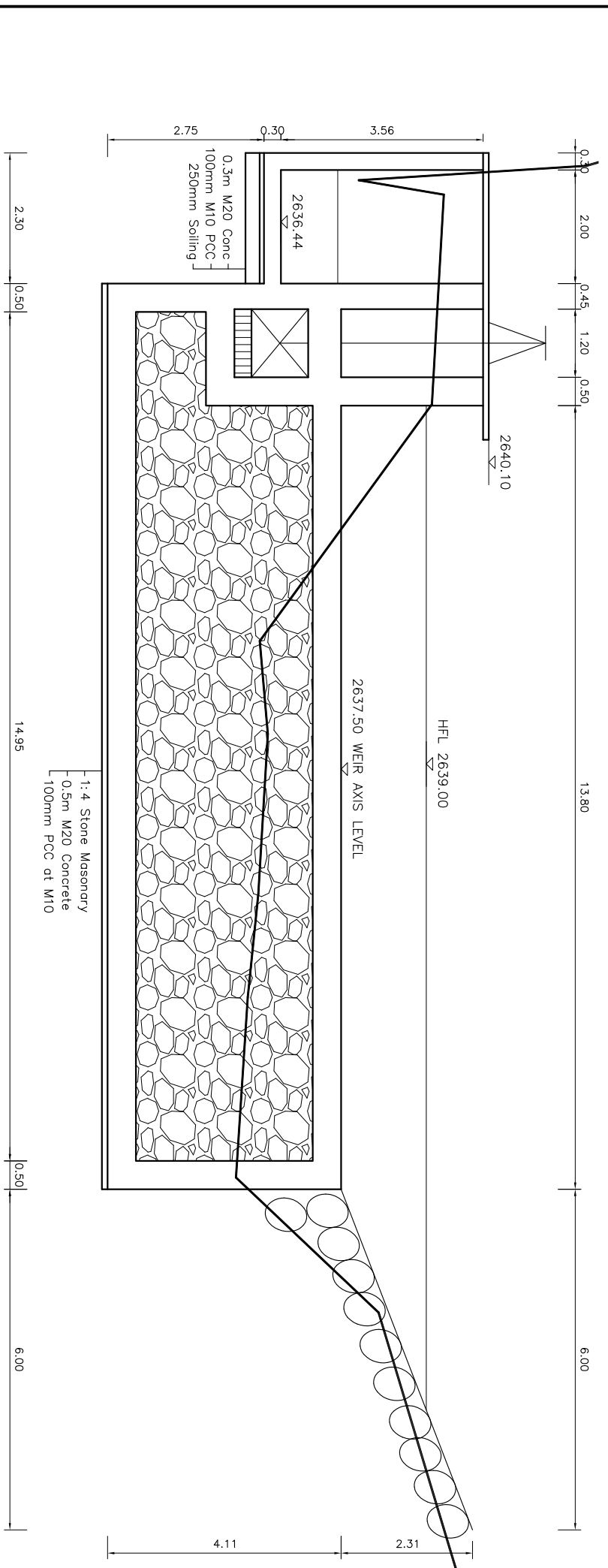
Alternative Energy Promotion Centre (AEP/C)			
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB)			
Kumilbur, Lalpur, Nepal			
Tel: +9771-5539390, 5539391			
Email: saeec@aepc.gov.np			

HEADWORKS	
WEIR AND UNDERSLUICE	
SECTIONS	
SHEET 1 OF 2	
Date:	FEB 2020
Drawing No.	AKMHP/DED-22C-02
Scale	AS SHOWN
Revision	



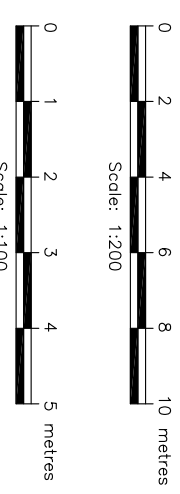
SECTION AT C-C

SCALE : 1 : 200



SECTION AT D-D

SCALE : 1 : 200



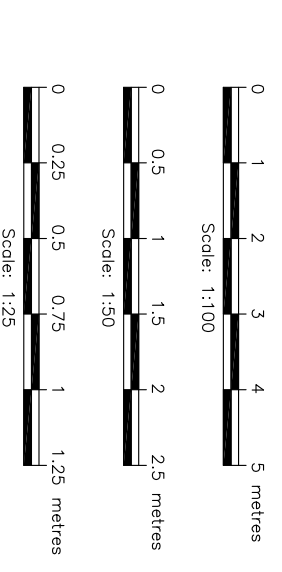
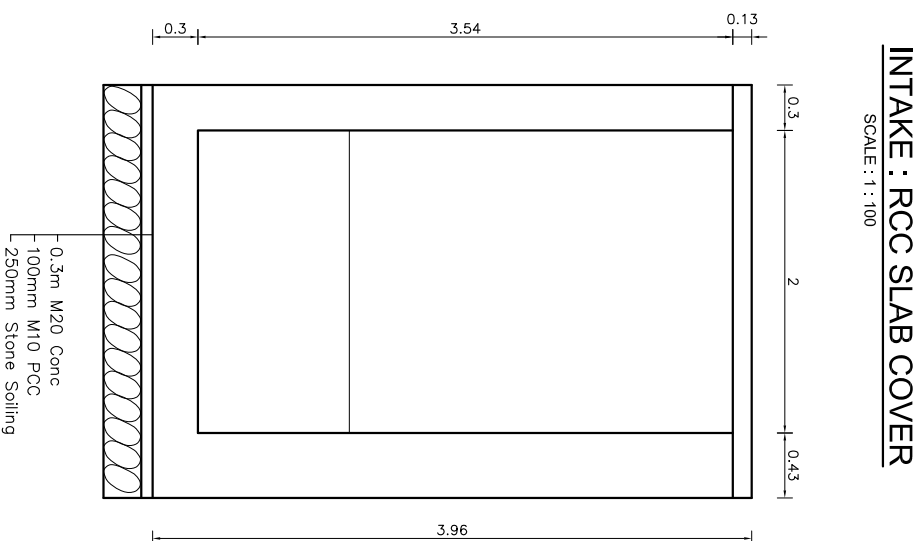
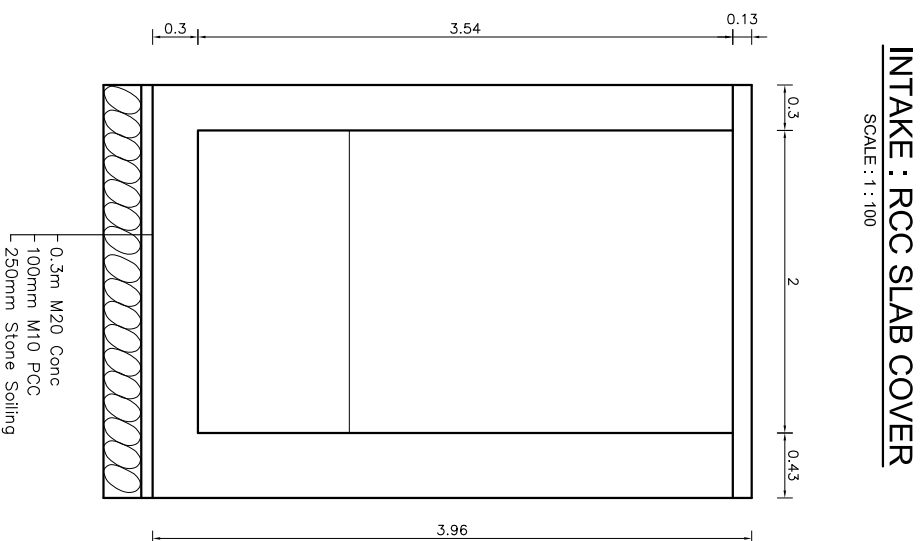
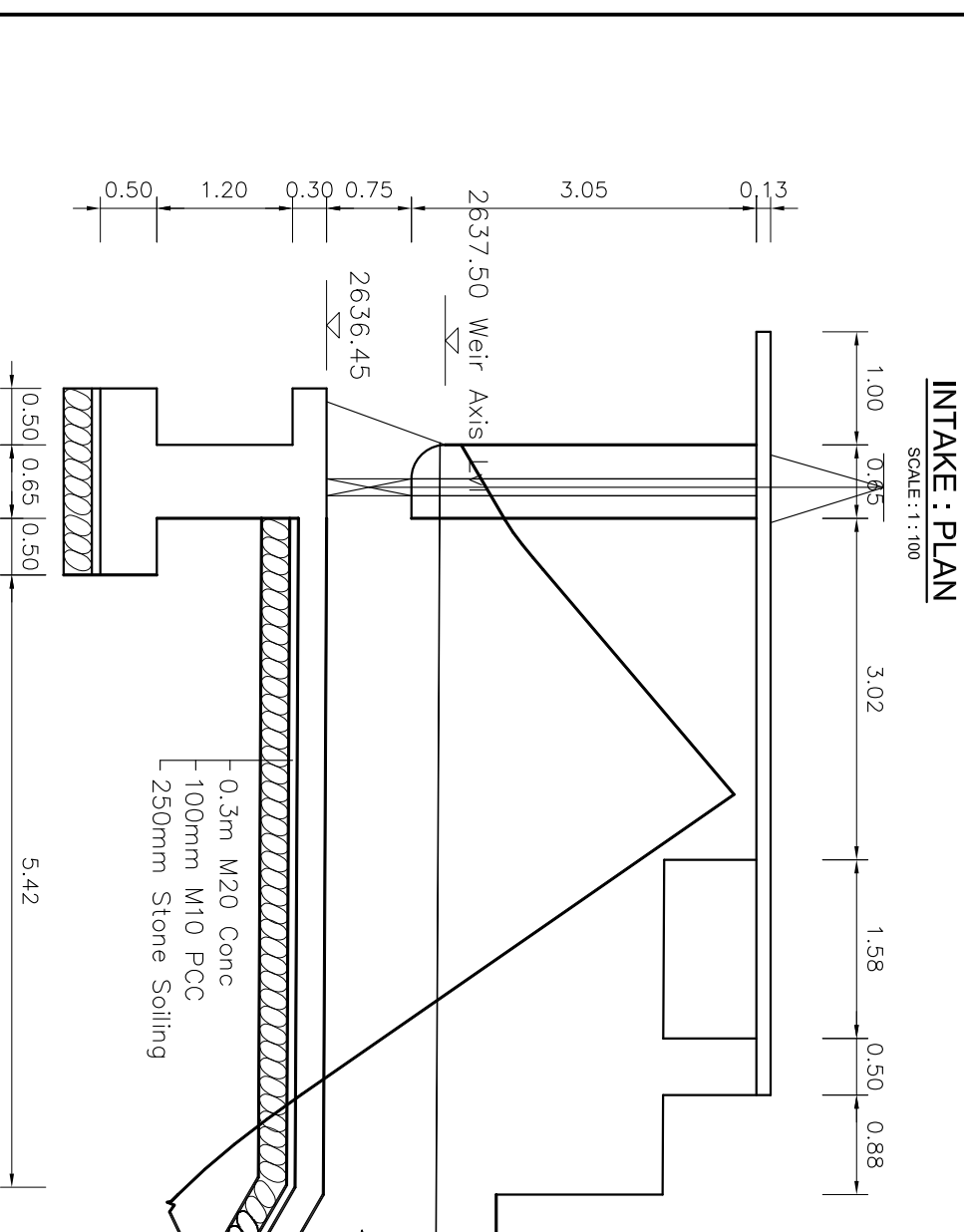
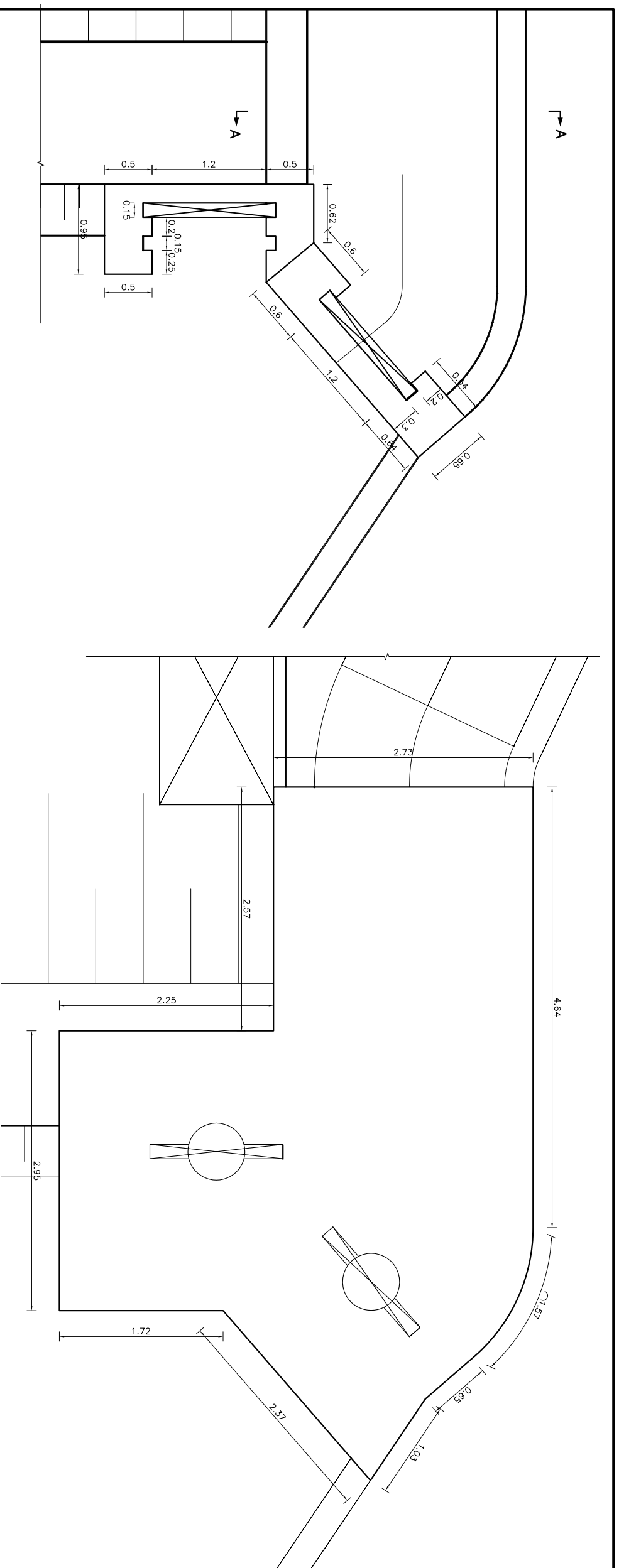
NOTES:

- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
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- M20 – Structural Concrete (1:1.5:3)
- M10 – 75mm binding concrete (1:3:6)
- Excavation lines will be confirmed as per site condition.
- Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

Rev.	Amendment	By	Ckd.	Rec.	App.	Date

AANKHE KHOLA MINI HYDRO USER COMMITTEE		Name	Initials	Date
Designed:	N. Singh			
Drawn:	N. Singh			
Checked:	T. Limbu			
Recommended:	B. Singh			
Approved:	N. P. Adhikari			

Alternative Energy Promotion Centre (AEPCC)			
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB)			
Khumilar, Lalitpur, Nepal			
Tel: +9771-5539390, 5539391			
Email: saeec@aepcc.gov.np			
Date:	FEB 2020	Scale:	AS SHOWN
Drawing No.:	AKMHP/DED-22C-03		Revision

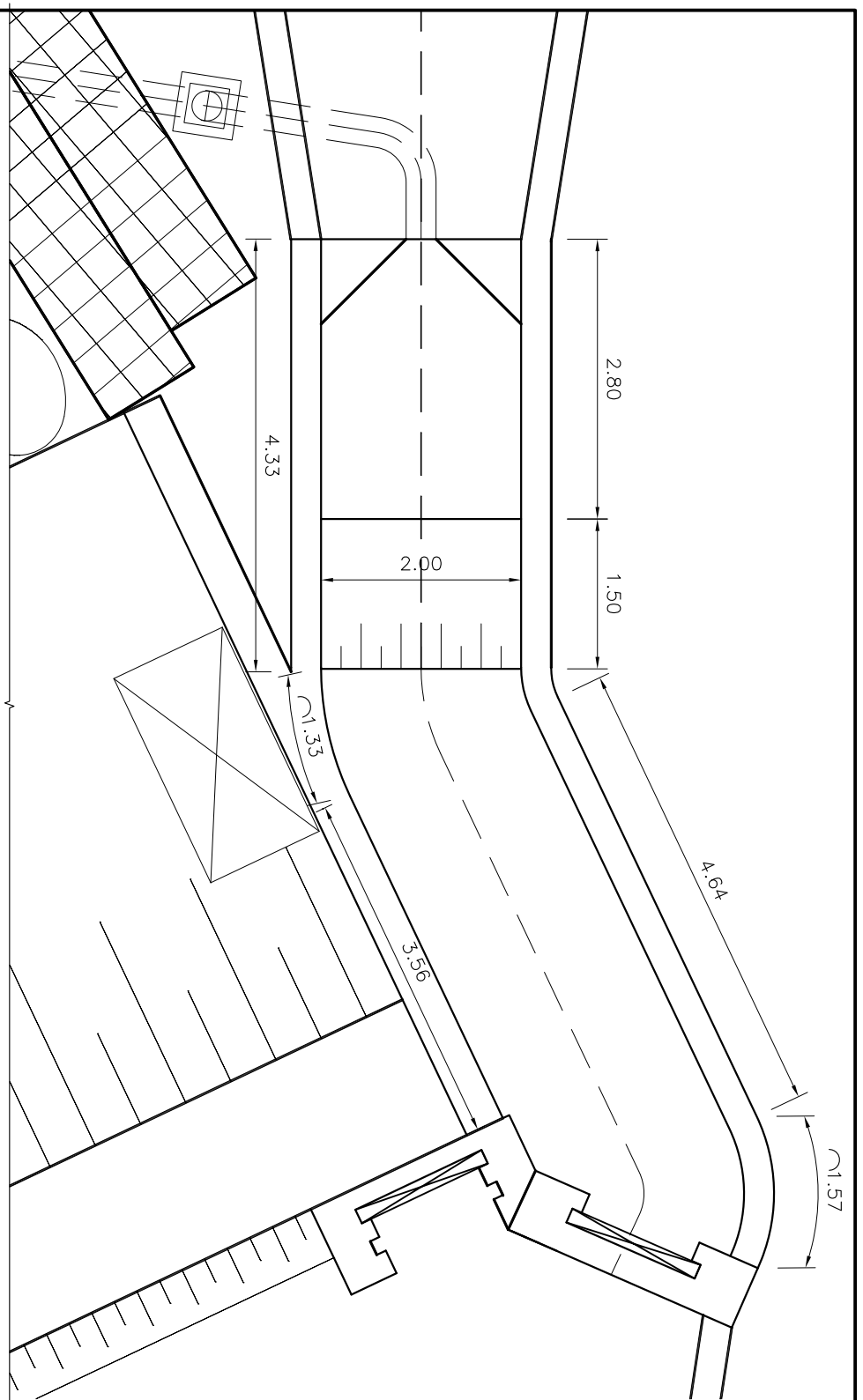


- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
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 M20 – Structural Concrete (1:1.5:3)
 M10 – 75mm blinding concrete (1:3:6)
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 -

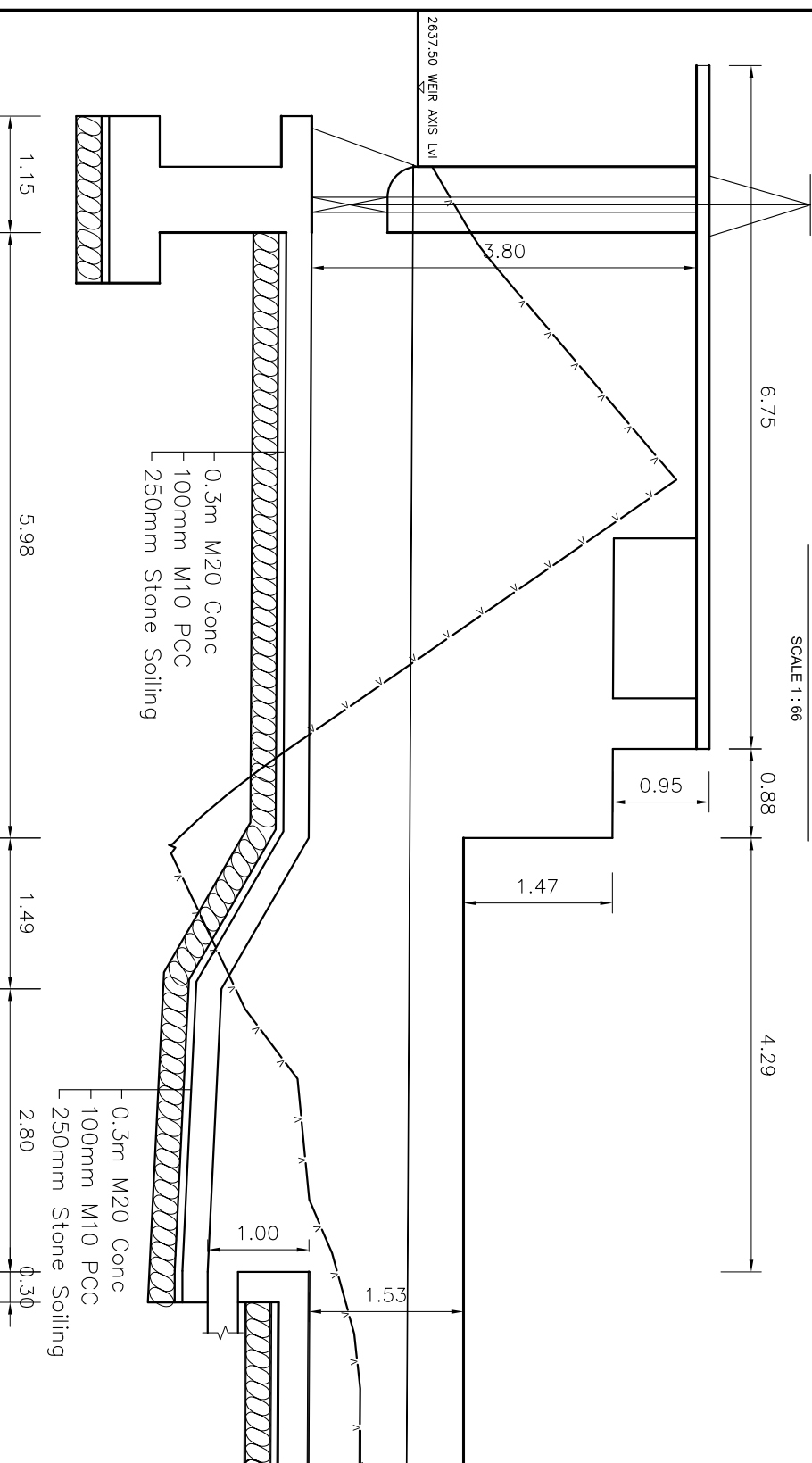
Rev.	Amendment	By	Ckd.	Rec.	App.	Date

Name	Initials	Date
Designed: N. Singh		
Drawn: N. Singh		
Checked: T. Limbu		
Recommended: B. Singh		
Approved: N. P. Adhikari		

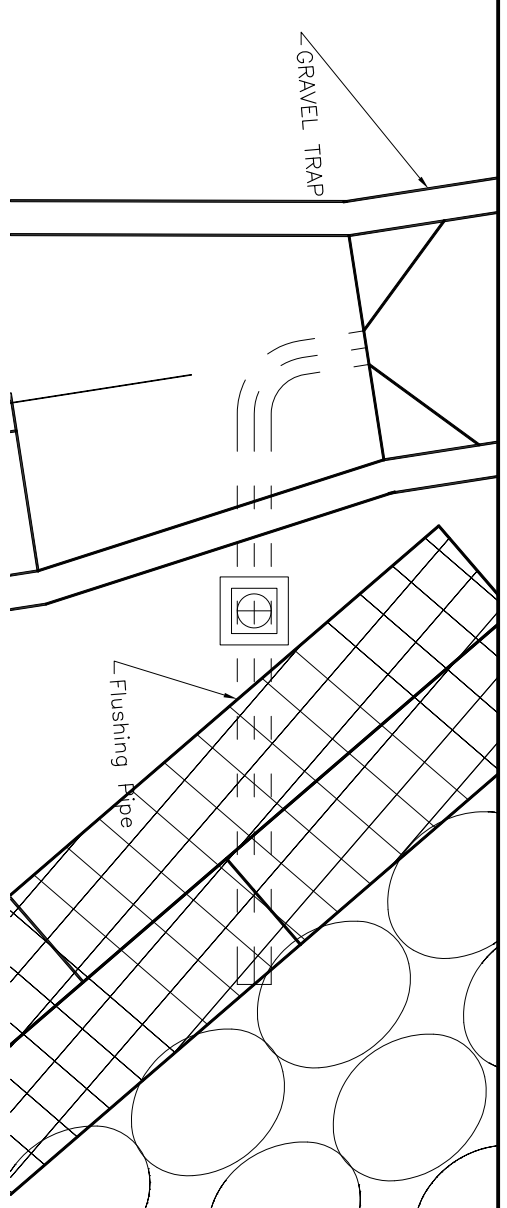
Alternative Energy Promotion Centre (AEPCC)		Date: FEB 2020	Scale: AS SHOWN
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB)		Drawing No: AKMHP/DED-23C-01	Revision:
Kumilbur, Lalitpur, Nepal Tel: +9771-5539390, 5539391 Email: saeec@aepcc.gov.np			



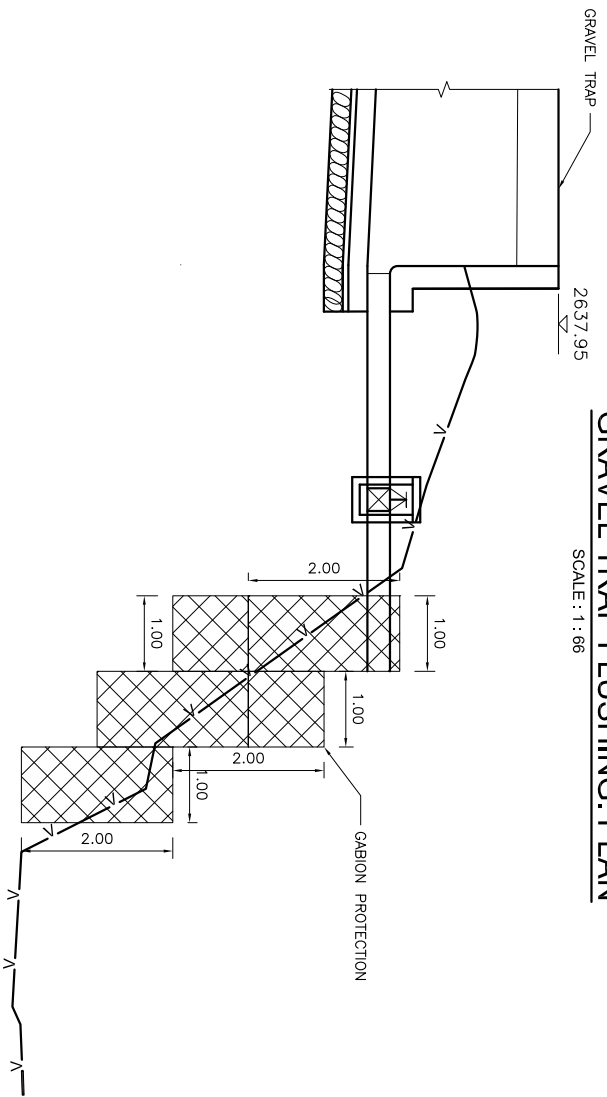
GRAVEL TRAP : PLAN
SCALE : 1 : 66



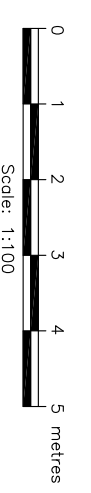
SECTION AT A-A
SCALE : 1 : 66



GRAVEL TRAP FLUSHING: PLAN
SCALE : 1 : 66

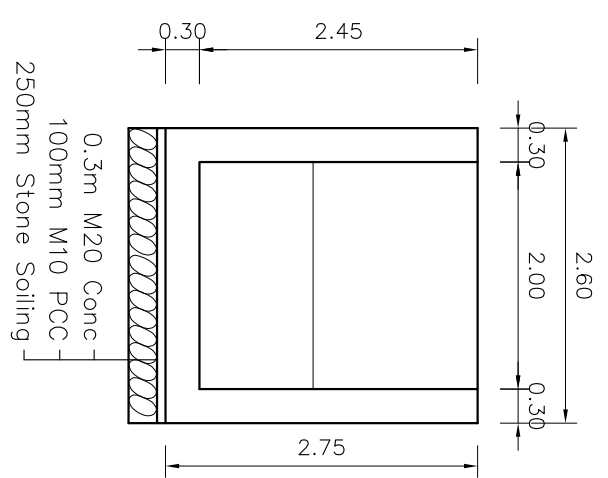


GRAVEL TRAP FLUSHING: PROFILE
SCALE : 1 : 100



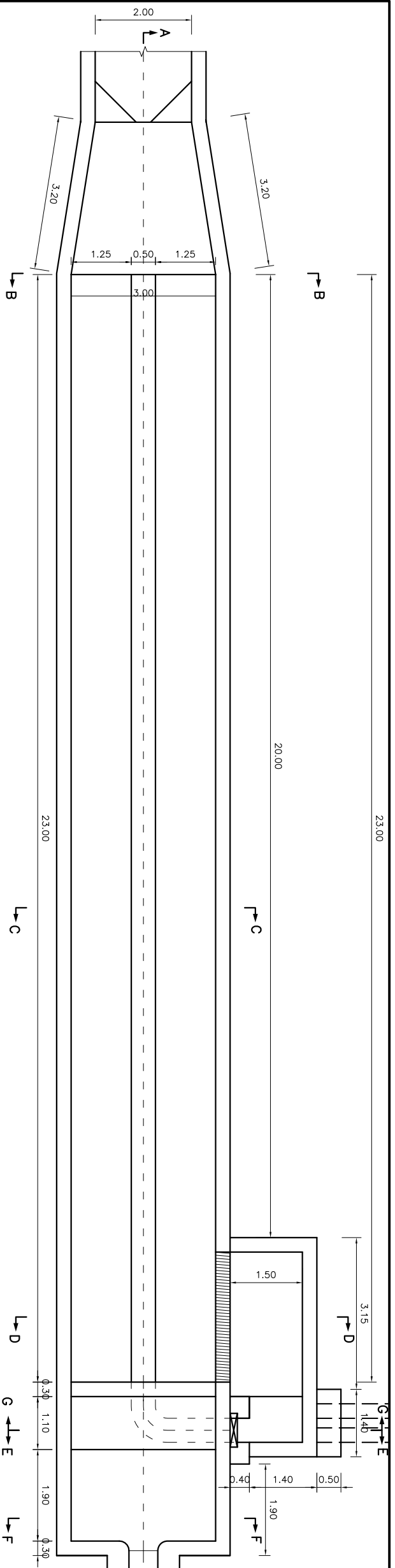
NOTES:

- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
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M20 - Structural Concrete (1:1.5:3)
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-

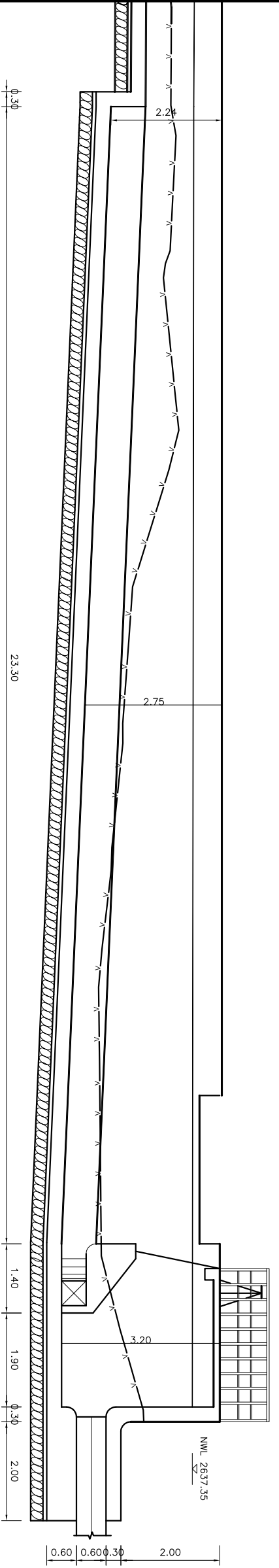
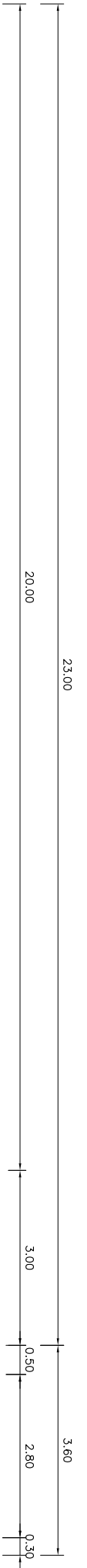


SECTION AT B-B
SCALE : 1 : 66

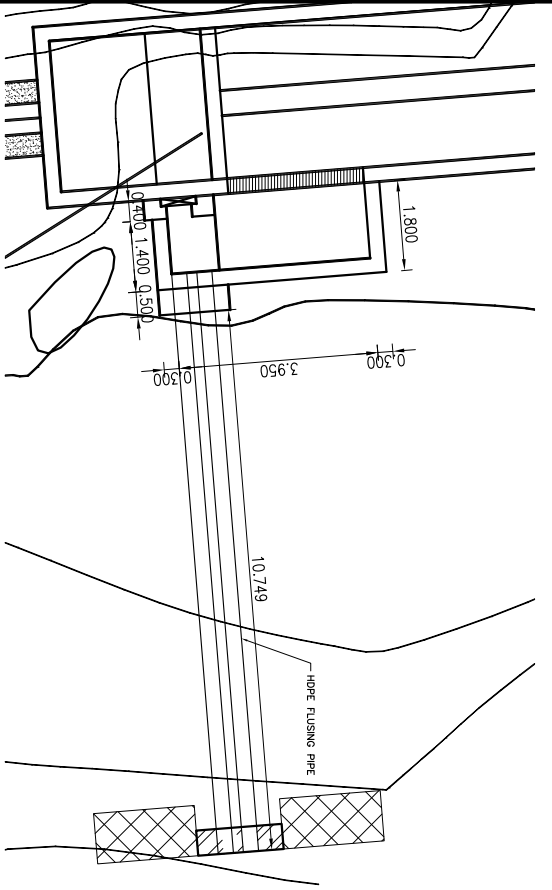
Amendment		Name	By	Ckd.	Rec.	App.	Date
ANKHE KHOLA MINI HYDRO USER COMMITTEE		N. Singh					
ANKHE KHOLA MINI HYDROPOWER PROJECT		N. Singh					
HEADWORKS		T. Limbu					
GRAVEL TRAP		B. Singh					
PLAN AND SECTION		N. P. Adhikari					
SHEET 1 OF 1							
Alternative Energy Promotion Centre (AEPCC)				Date: FEB 2020			
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)				Scale AS SHOWN			
Kumilbur, Lalitpur, Nepal				Drawing No. AKMHP/DED-24C-01			
Tel: +9771-5539390, 5539391				Revision			
Email: saeec@aepcc.gov.np							



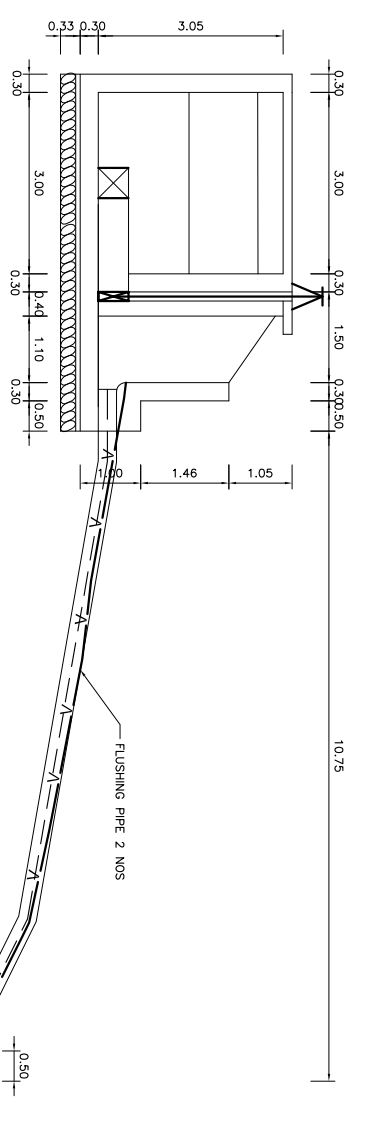
SETTLING BASIN: PLAN
SCALE : 1 : 100



SECTION AT A-A
SCALE : 1 : 100



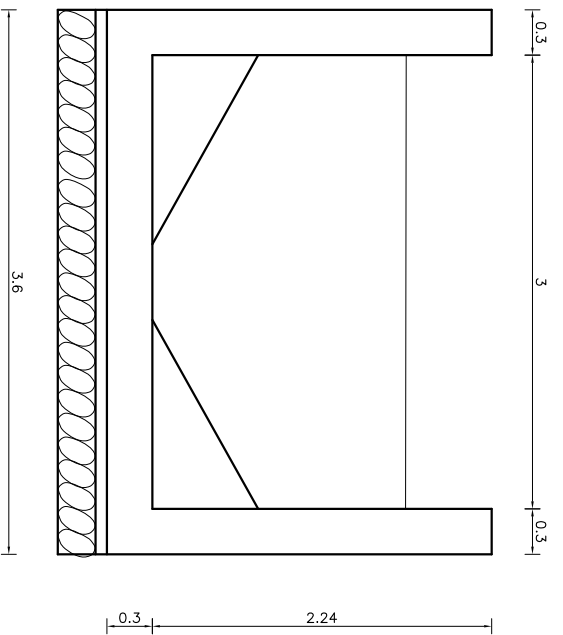
FLUSHING PIPE: PLAN
SCALE : 1 : 150



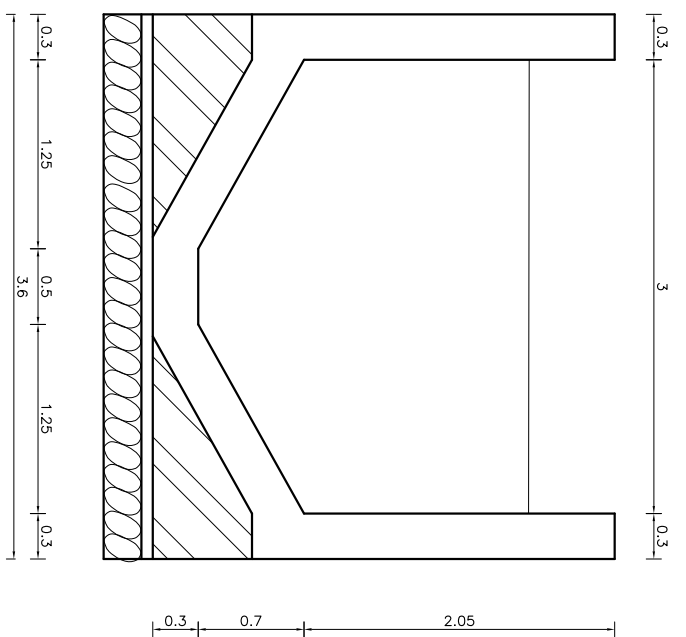
SECTION AT E-E
SCALE : 1 : 125

- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
 - Concrete grades
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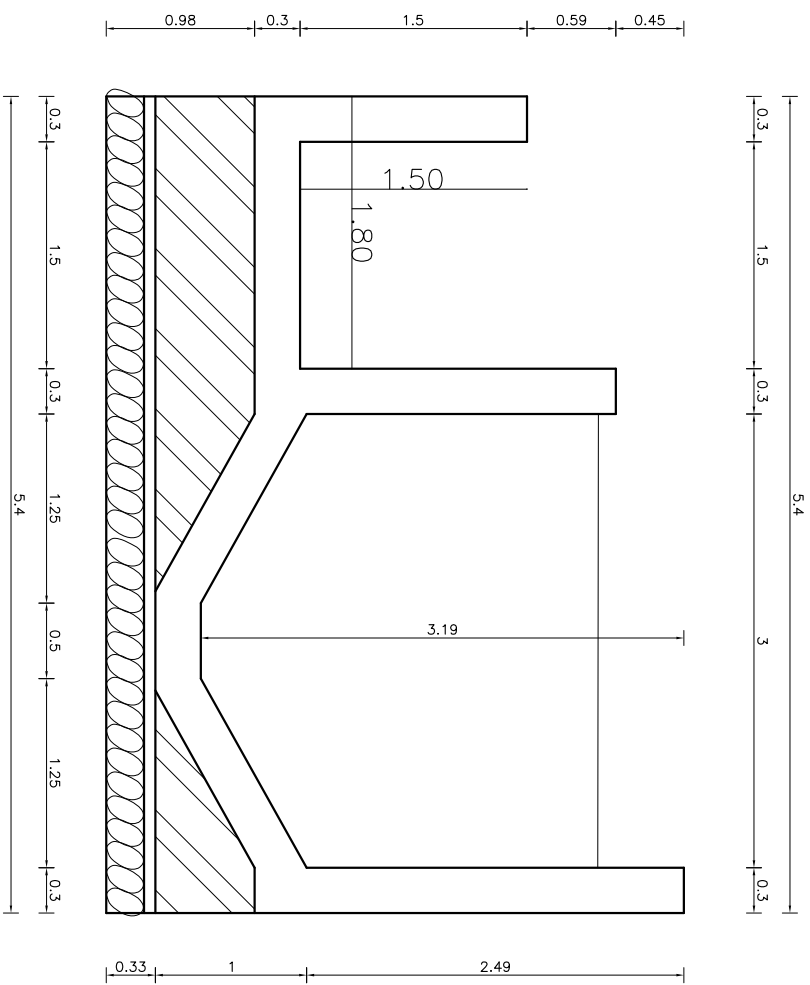
Amendment		Name		Date	
ANKHE KHOLA MINI HYDRO USER COMMITTEE		N. Singh		FEB 2020	
ANKHE KHOLA MINI HYDROPOWER PROJECT		N. Singh		AS SHOWN	
Designed: N. Singh		Checked: T. Limbu		Drawing No. AKMHP/DED-26C-01	
Drawn: N. Singh		Recommended: B. Singh		Revision	
Checked: T. Limbu		Approved: N. P. Adhikari			
Recommended: B. Singh					
Approved: N. P. Adhikari					
SHEET 1 OF 1					
HEADWORKS SETTLING BASIN PLAN AND SECTION					
Alternative Energy Promotion Centre (AEPCC)					
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB)					
Kumilbur, Lalitpur, Nepal					
Tel: +9771-5539390, 5539391					
Email: saeec@aepcc.gov.np					



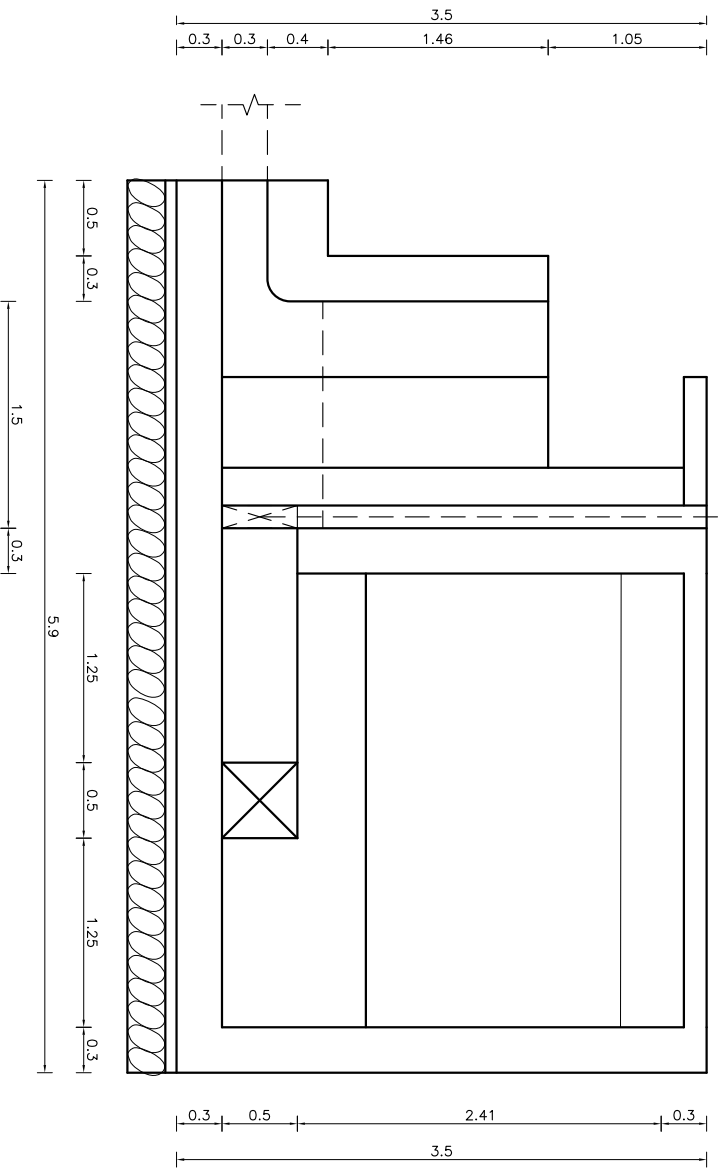
SECTION AT B-B
SCALE : 1 : 50



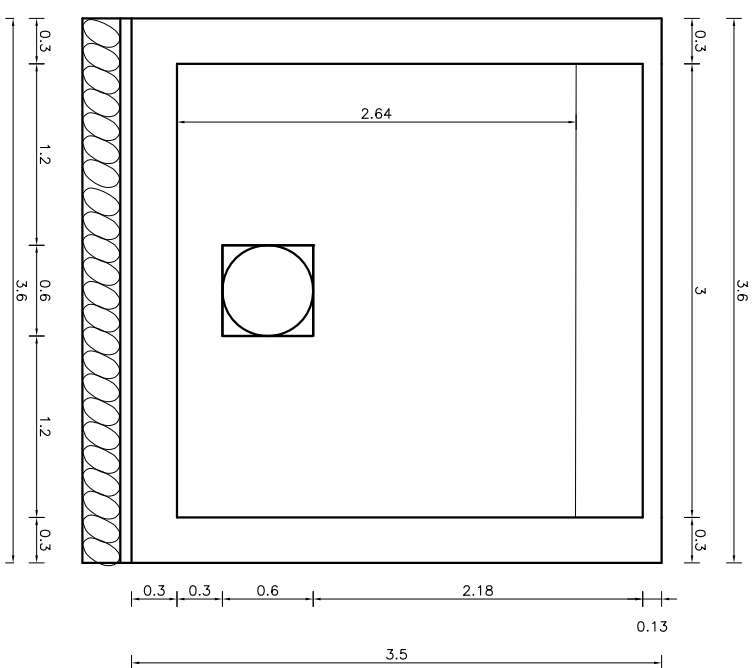
SECTION AT C-C
SCALE : 1 : 50



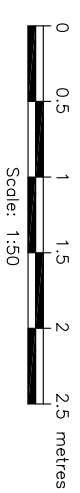
SECTION AT D-D
SCALE : 1 : 50



SECTION AT E-E
SCALE : 1 : 50



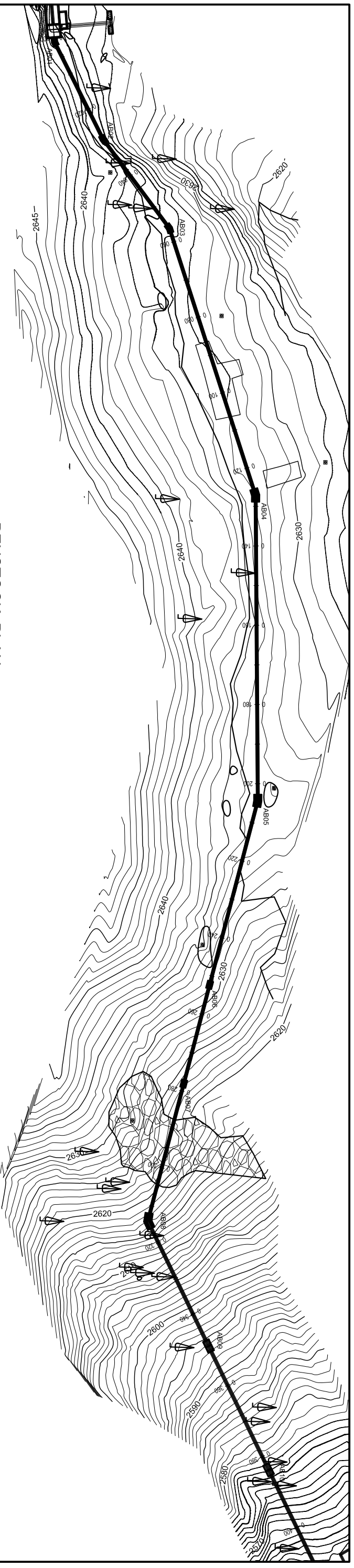
SECTION AT F-F
SCALE : 1 : 50



NOTES:

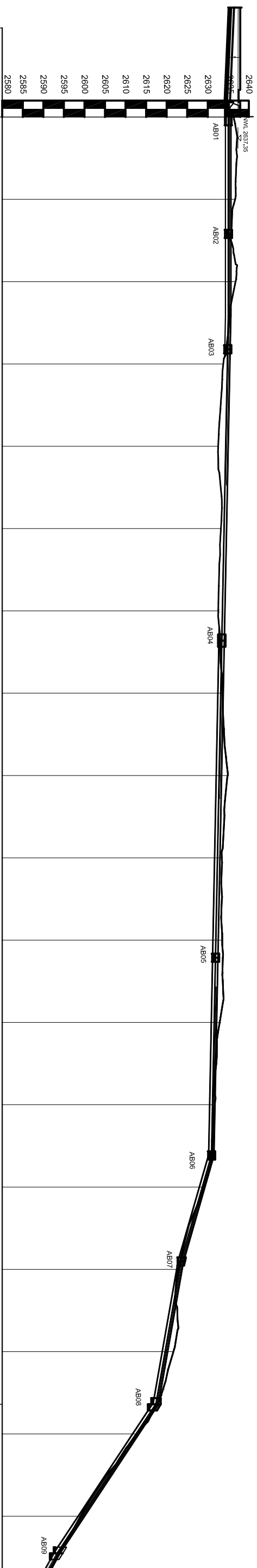
1. All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
2. Concrete grades
M20 – Structural Concrete (1:1.5:3)
M10 – 75mm binding concrete (1:3:6)
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Amendment		By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	Name	Initials	Date
		Drawn:	N. Singh		
		Checked:	T. Limbu		
		Recommended:	B. Singh		
		Approved:	N. P. Adhikari		
<p>HEADWORKS SETTLING BASIN SECTIONS SHEET 1 OF 1</p>					
<p>Alternative Energy Promotion Centre (AEPCC) South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB) Kumilbur, Lalitpur, Nepal Tel: +9771-45539390, 5539391 Email: saeec@aepcc.gov.np</p>					
Date:	Scale:	AS SHOWN			
FEB 2020					
Drawing No.	AKMHP/DED-26C-02		Revision		



PENSTOCK: PLAN

SCALE : 1 : 1000

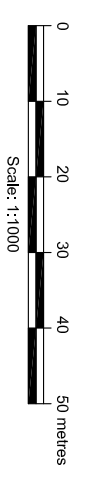


THICKNESS		5mm thickness		600mm Diameter		5mm thickness		600mm Diameter		5mm thickness		600mm Diameter		5mm thickness		600mm Diameter		5mm thickness		600mm Diameter	
2640	2630	2625	2620	2615	2610	2605	2600	2595	2590	2585	2580										
AB01	AB02	AB03	AB04	AB05	AB06	AB07	AB08	AB09													
PENSTOCK CENTRE LINE	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00
GROUND LEVEL	2636.37	2636.65	2636.77	2633.77	2632.53	2633.21	2632.56	2633.63	2634.85	2633.41	2633.51	2632.89	2631.63	2629.04	2622.81	2621.64	2612.64	2599.04	2599.04	2599.04	2599.04
CHAINAGE	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340			

SOP No.	Coordinate X and Y
AB01	X = 393987.237 Y = 3213934.514
AB02	X = 393982.723 Y = 3213922.296
AB03	X = 393940.232 Y = 3213905.555
AB04	X = 393872.861 Y = 3213893.841
AB05	X = 393795.806 Y = 3213883.302
AB06	X = 393749.322 Y = 3213895.445
AB07	X = 393724.395 Y = 3213801.956
AB08	X = 393689.691 Y = 3213911.022
AB09	X = 393658.156 Y = 3213895.714
AB10	X = 393626.957 Y = 3213880.569

PENSTOCK: PROFILE

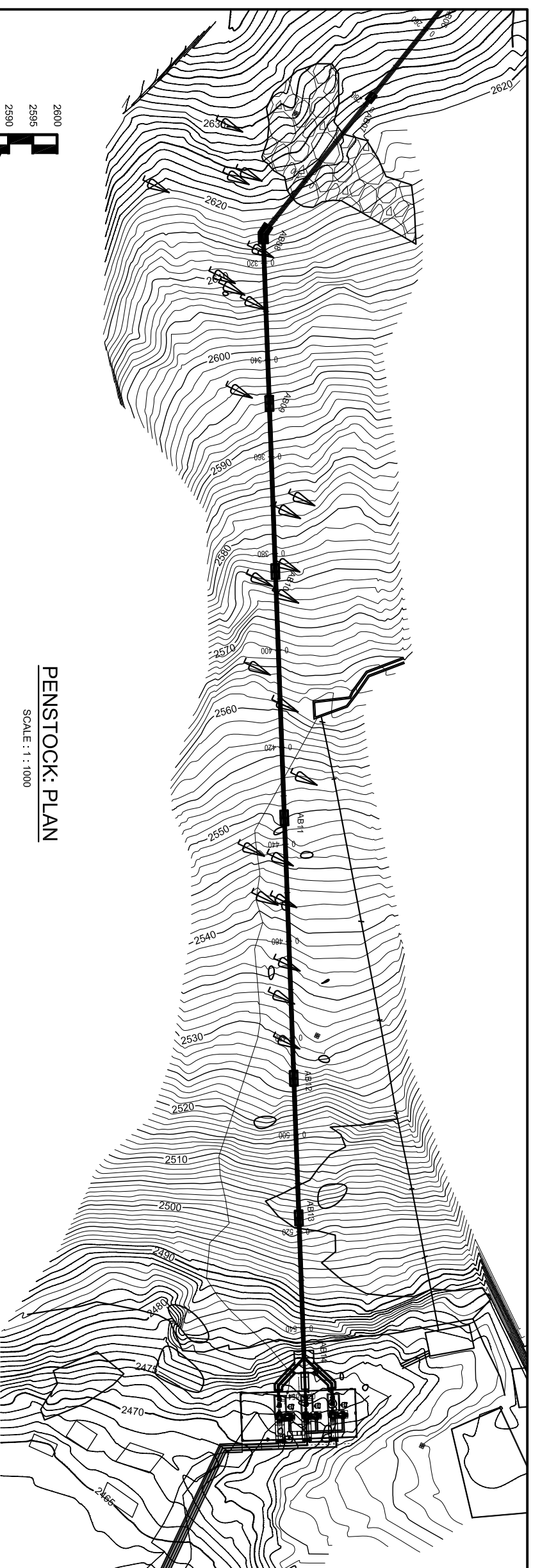
SCALE : 1 : 1000



NOTES:

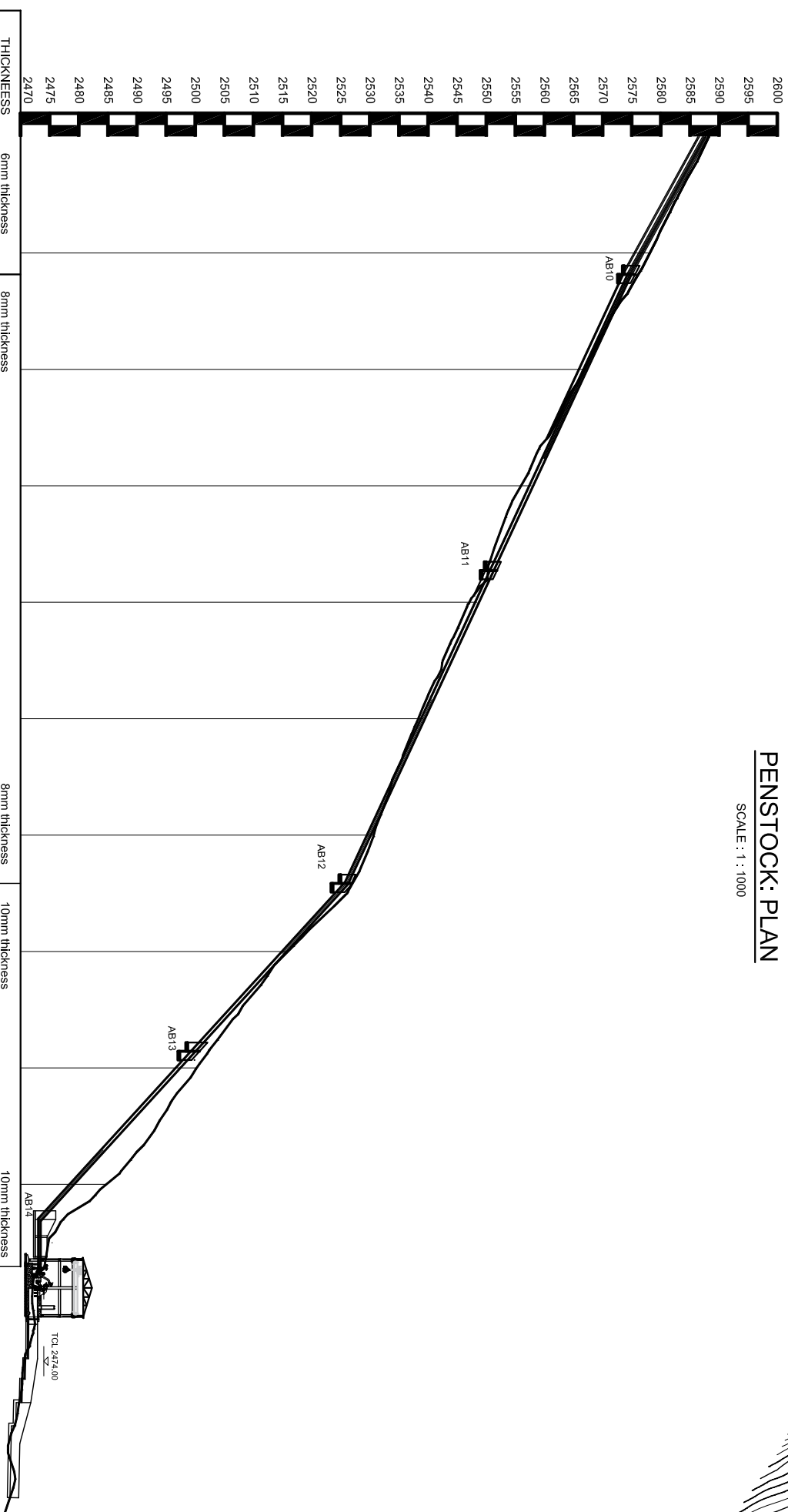
- All co-ordinates are in meter with reference to GRS, levels are in m above mean sea level and dimensions are in meter unless specified.
 - Concrete grades
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Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

<p>Alternative Energy Promotion Centre (AEPCC) South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB) Kumhar, Ludhara, Nepal Tel: +9771-5539306, 5539391 Email: sahaa@nepc.gov.np</p>		<p>Design: N. Singh Drawn: N. Singh Checked: T. Limbu Recommended: B. Singh Approved: N. P. Adhikari</p>	
<p>Amendment:</p>		<p>By: Ckd. Rec. App.</p>	
<p>AAANKHE KHOLA MINI HYDRO USER COMMITTEE</p>		<p>Name: Initials Date</p>	
<p>PENSTOCK PLAN AND PROFILE</p>		<p>Date: FEB 2020 Scale: AS SHOWN</p>	
<p>SHEET 1 OF 2</p>		<p>Drawing No.: AKMHP/DED-28C-01 Revision:</p>	

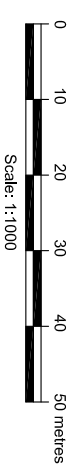


SOP No.	Coordinate X and Y
AB07	X = 393724.395 Y = 3213901.956
AB08	X = 393689.691 Y = 3213911.022
AB09	X = 393658.156 Y = 3213895.714
AB10	X = 393626.957 Y = 3213890.589
AB11	X = 393561.185 Y = 3213858.350
AB12	X = 393532.840 Y = 3213834.882
AB13	X = 393506.896 Y = 3213822.287
AB14	X = 393480.996 Y = 3213809.686

PENSTOCK: PLAN
SCALE : 1 : 1000



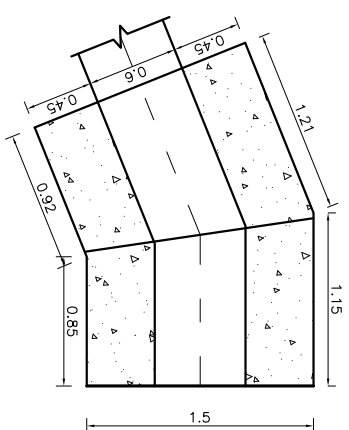
THICKNESS	6mm thickness	8mm thickness	8mm thickness	8mm thickness	8mm thickness	10mm thickness	10mm thickness	10mm thickness
DIAMETER	600mm Diameter	600mm Diameter	600mm Diameter	600mm Diameter	600mm Diameter	600mm Diameter	600mm Diameter	450mm Dia
PENSTOCK CENTRE LINE	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2555.00	2473.23
GROUND LEVEL	2588.28	2578.12	2566.90	2556.00	2547.12	2538.35	2530.68	2474.14
CHAINAGE	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+554



- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
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M20 - Structural Concrete (1:1.5:3)
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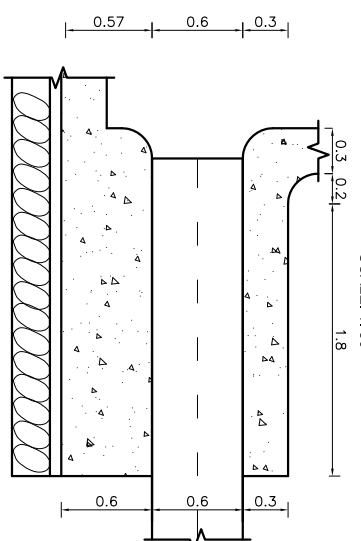
Amendment	By	Ckd.	Rec.	App.	Date
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT					
PENSTOCK PLAN AND PROFILE					
SHEET 2 OF 2					
Alternative Energy Promotion Centre (AEPIC)					
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)					
Khumbar, Lalpur, Nepal					
Tel: +9771-6593901, 5593931					
Email: aepic@nepal.gov.np					
Date:	Feb 2020	Scale:	AS SHOWN		
Drawing No.:	AKMHP/DED-28C-02	Revision:			

PENSTOCK: PROFILE
SCALE : 1 : 1000



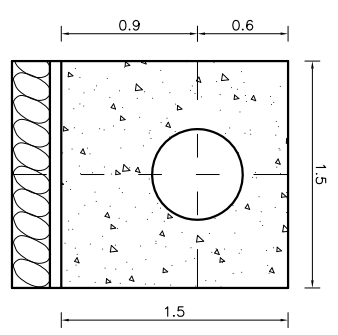
ANCHOR BLOCK (HAB01): PLAN

SCALE: 1:50



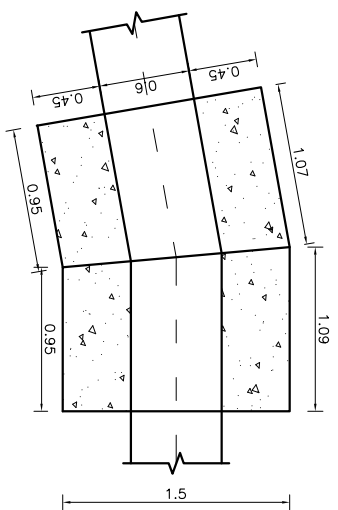
SECTION AT X-X

SCALE: 1:50



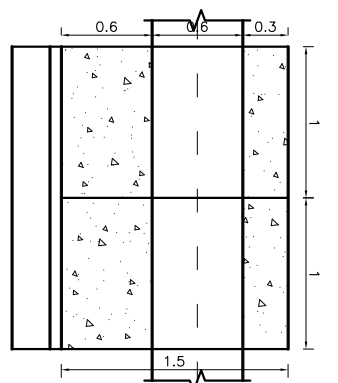
SECTION AT Y-Y

SCALE: 1:50



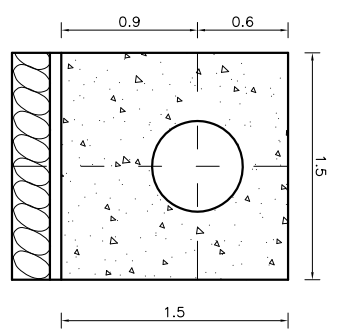
ANCHOR BLOCK (HAB02): PLAN

SCALE: 1:50



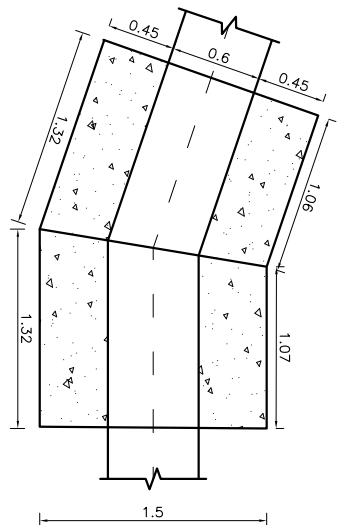
SECTION AT X-X

SCALE: 1:50



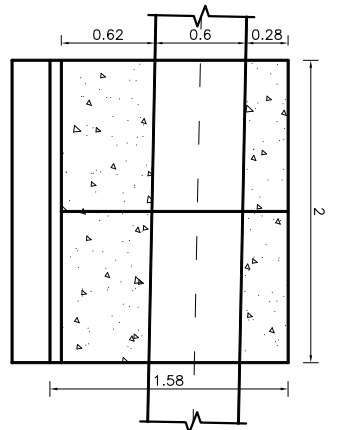
SECTION AT Y-Y

SCALE: 1:50



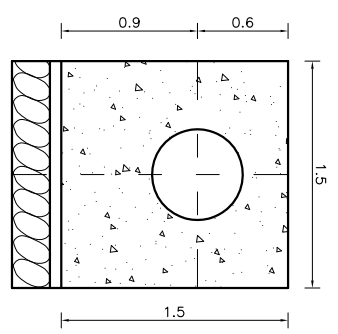
ANCHOR BLOCK (HAB03): PLAN

SCALE: 1:50



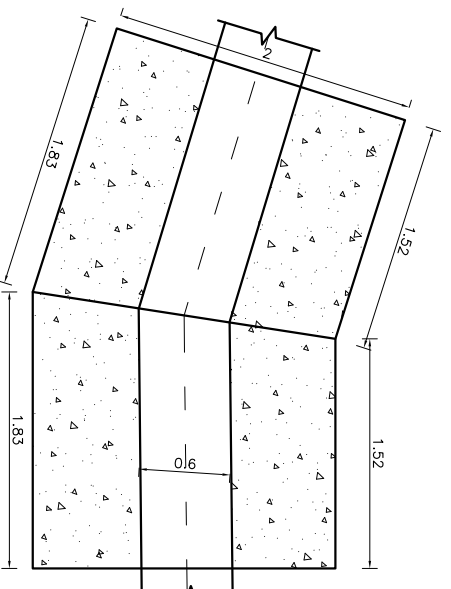
SECTION AT X-X

SCALE: 1:50



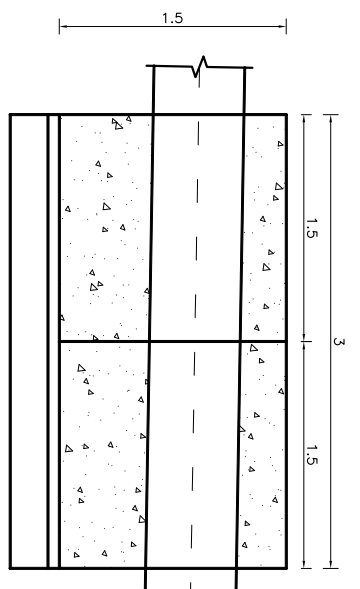
SECTION AT Y-Y

SCALE: 1:50



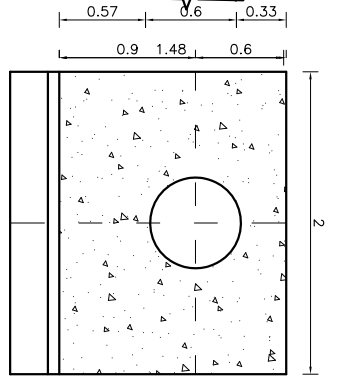
ANCHOR BLOCK (HAB04): PLAN

SCALE: 1:50



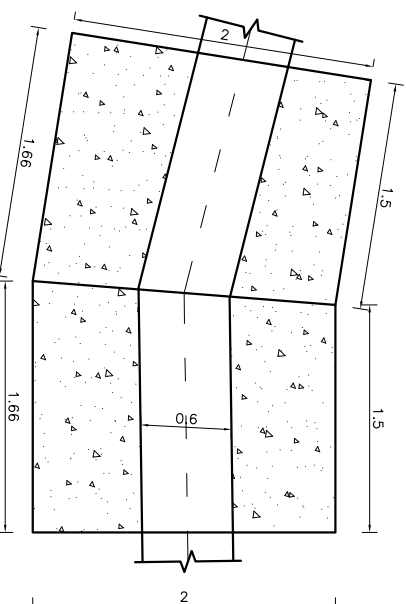
SECTION AT X-X

SCALE: 1:50



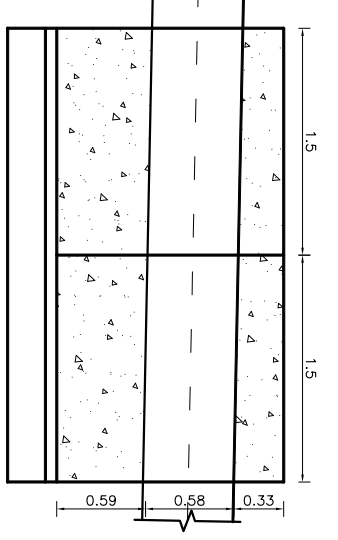
SECTION AT Y-Y

SCALE: 1:50



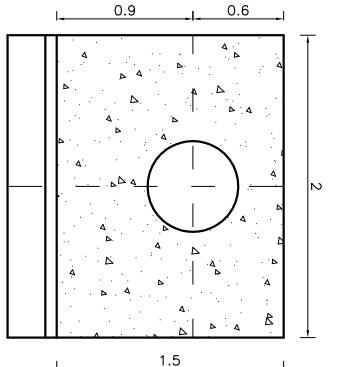
ANCHOR BLOCK (HAB05): PLAN

SCALE: 1:50



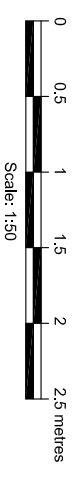
SECTION AT X-X

SCALE: 1:50



SECTION AT Y-Y

SCALE: 1:50



NOTES:

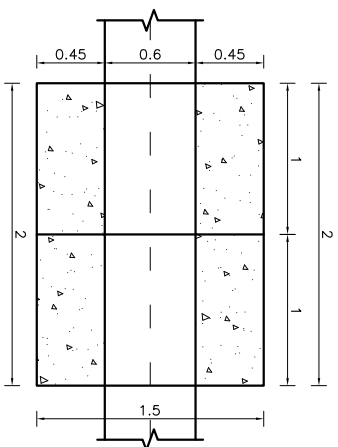
1. All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
2. Concrete grades M20 - Structural Concrete (1:1.5:3) M10 - 75mm Blinding Concrete (1:3:6)
3. Excavation lines will be confirmed as per site condition.
4. Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

**ANCHOR BLOCKS
PLAN AND PROFILE**

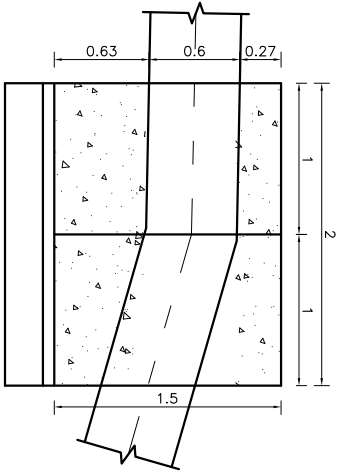
SHEET 1 OF 4

ANANKHE KHOLA MINI HYDRO USER COMMITTEE		Name	
ANANKHE KHOLA MINI HYDROPOWER PROJECT		Designed: N. Singh	
Amendment		Drawn: N. Singh	
		Checked: T. Limbu	
		Recommended: B. Singh	
		Approved: N. P. Adhikari	
		Date: FEB 2020	
		Scale: AS SHOWN	
		Drawing No. AKMHP/DED-30C-01	
		Revision	

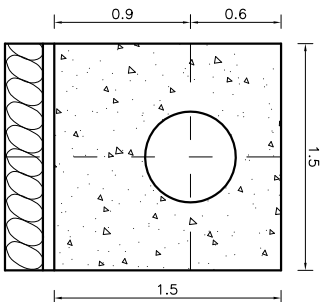
Alternative Energy Promotion Centre (AEPCC)
South Asia Sub-regional Economic Cooperation - Power
Expansion Project (SASEC/ADB)
Kumhar, Lalpur, Nepal
Tel: +9771-4553930, 5539391
Email: saee@nepcc.gov.np



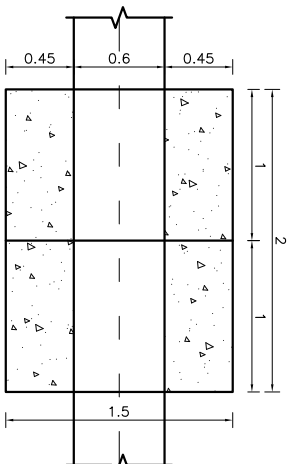
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SCALE: 1:50



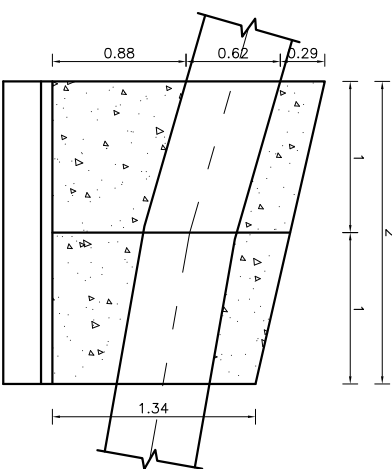
SECTION AT X-X
SCALE: 1:50



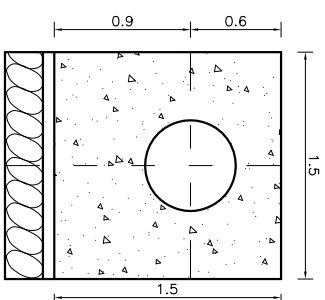
SECTION AT Y-Y
SCALE: 1:50



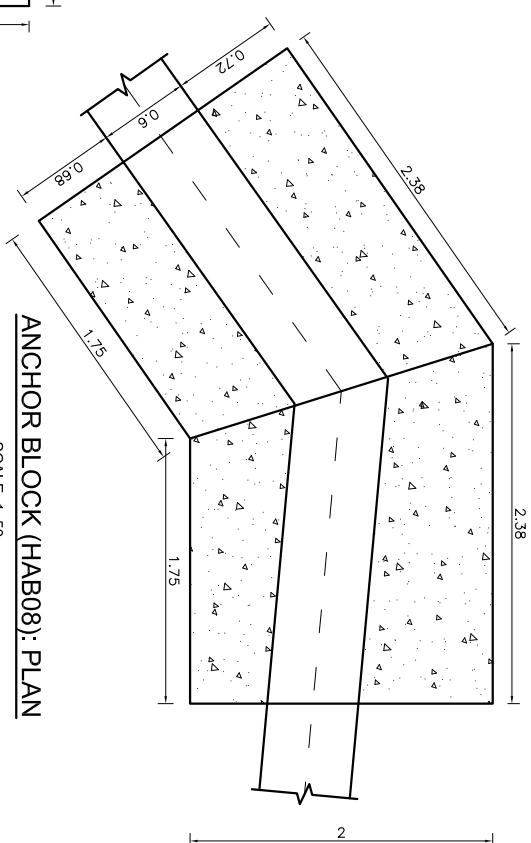
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SCALE: 1:50



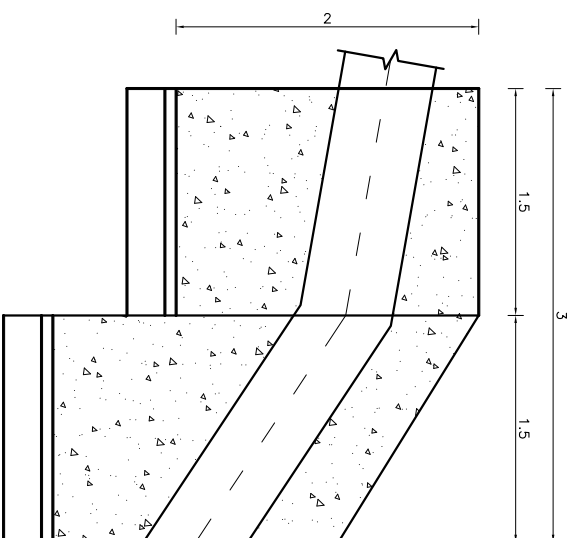
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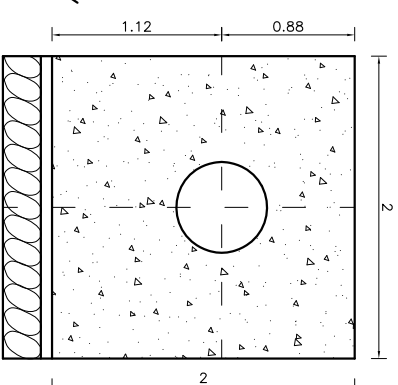
SECTION AT Y-Y
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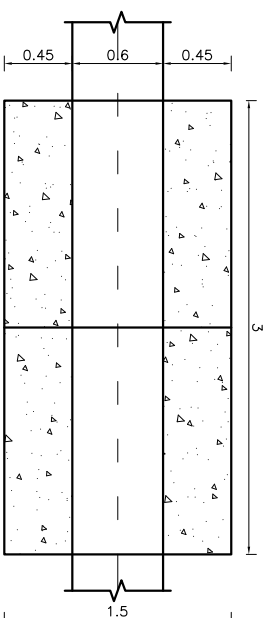
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SCALE: 1:50



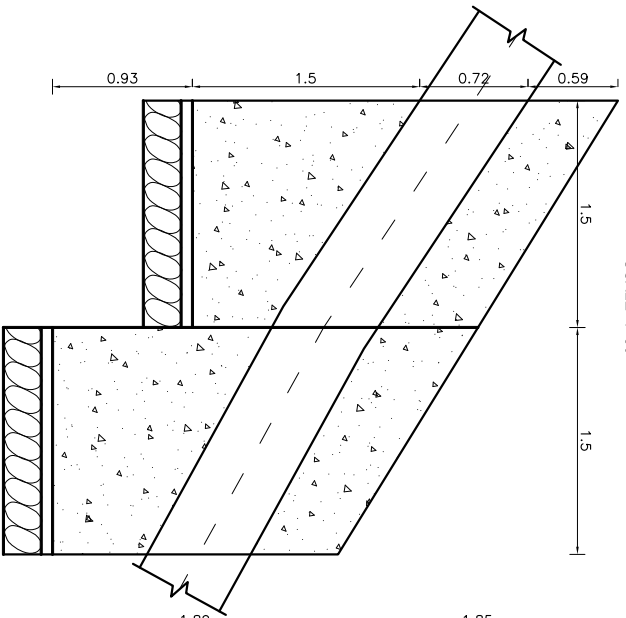
SECTION AT X-X
SCALE: 1:50



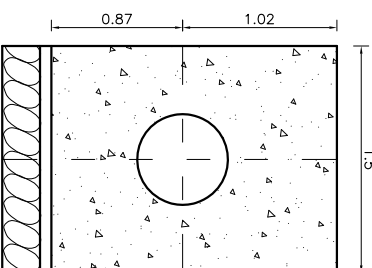
SECTION AT Y-Y
SCALE: 1:50



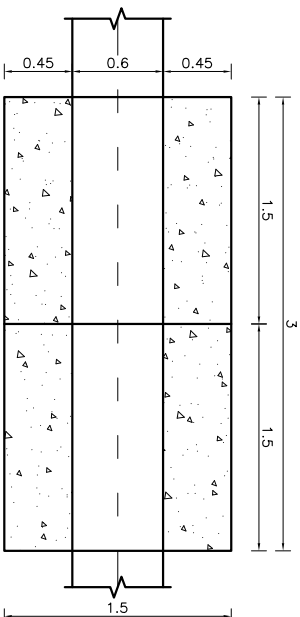
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SCALE: 1:50



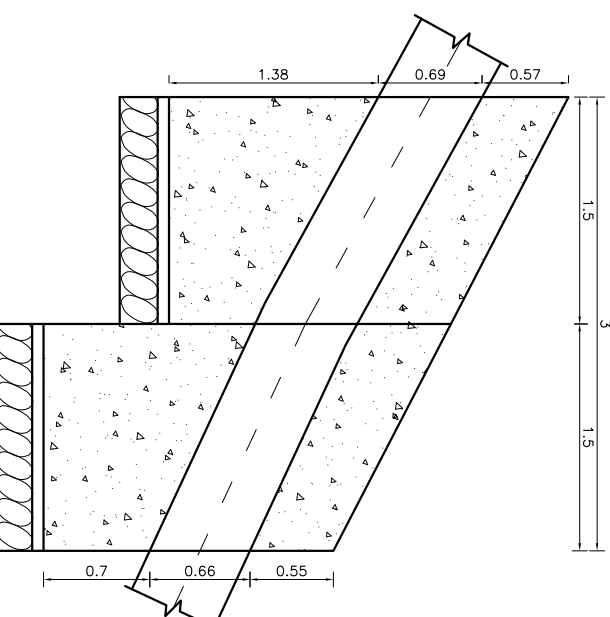
SECTION AT X-X
SCALE: 1:50



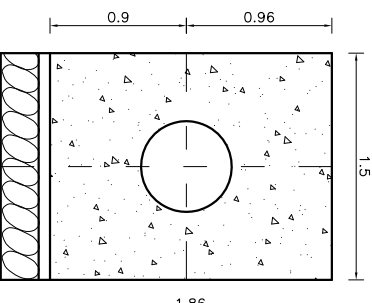
SECTION AT Y-Y
SCALE: 1:50



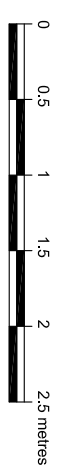
ANCHOR BLOCK (VAB10): PLAN
SCALE: 1:50



SECTION AT X-X
SCALE: 1:50



SECTION AT Y-Y
SCALE: 1:50

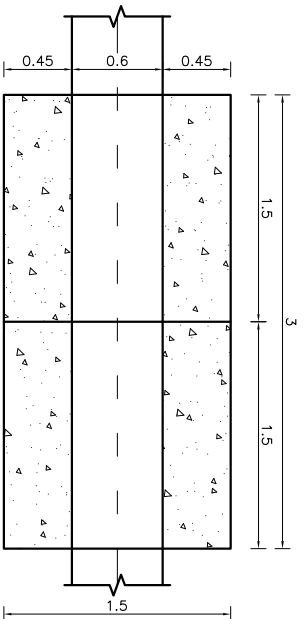


NOTES:

- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
- Concrete grades
M20 - Structural Concrete (1:1.5:3)
M10 - 75mm blinding concrete (1:3:6)
- Excavation lines will be confirmed as per site condition.
- Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

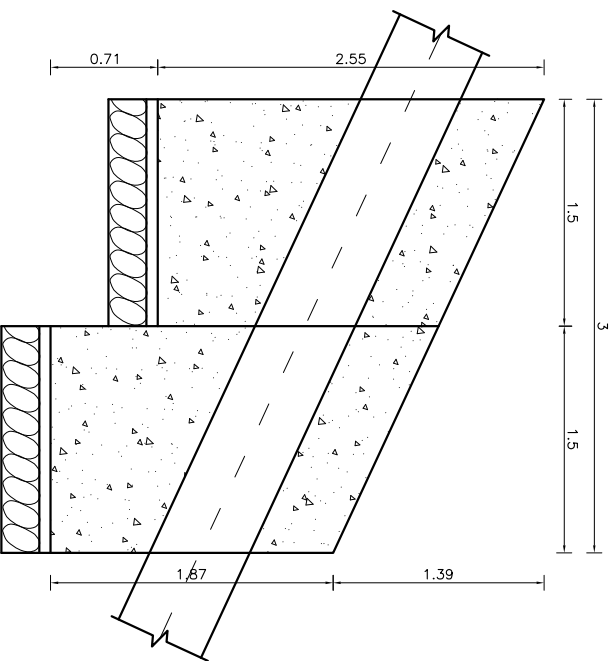
ANANKHE KHOLA MINI HYDRO USER COMMITTEE			
Amendment	By	Ckd.	Rec.
Designed:	N. Singh		
Drawn:	N. Singh		
Checked:	T. Limbu		
Recommended:	B. Singh		
Approved:	N. P. Adhikari		

ANANKHE KHOLA MINI HYDRO USER COMMITTEE			
ANCHOR BLOCKS PLAN AND PROFILE			
SHEET 2 OF 4			
Alternative Energy Promotion Centre (AEPCC)			
South Asia Sub-regional Economic Cooperation - Power			
Expansion Project (SASEC/ADB)			
Kumhar, Lalpur, Nepal			
Tel: +9771-6539306, 5539391			
Email: saee@nepc.gov.np			
Date:	FEB 2020	Scale:	AS SHOWN
Drawing No.	AKMHP/DED-30C-02	Revision:	



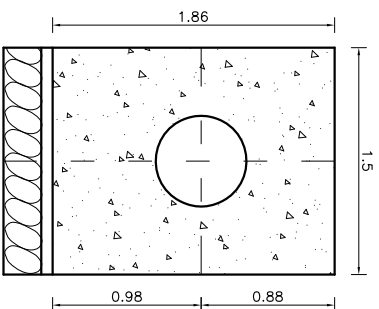
ANCHOR BLOCK (VAB11): PLAN

SCALE: 1:50



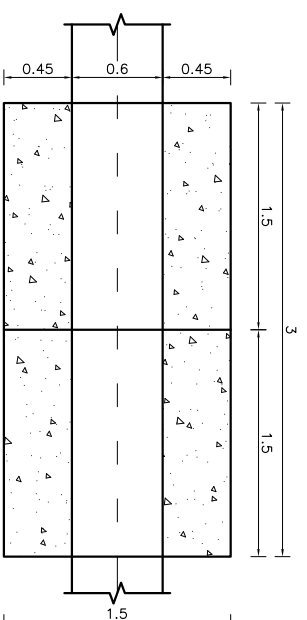
SECTION AT X-X

SCALE: 1:50



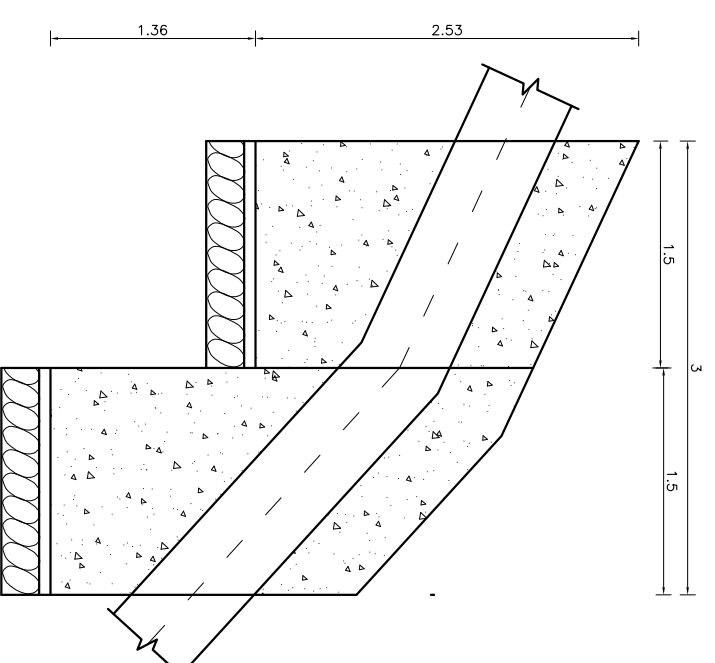
SECTION AT Y-Y

SCALE: 1:50



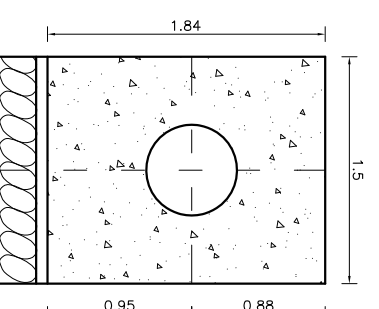
ANCHOR BLOCK (VAB12): PLAN

SCALE: 1:50



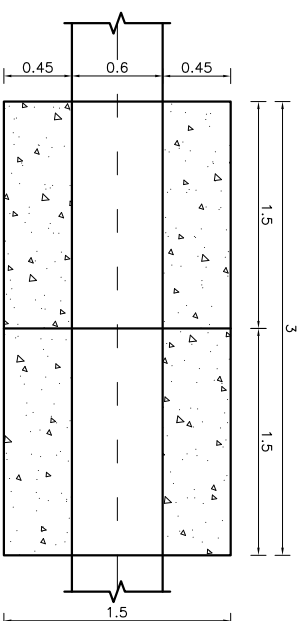
SECTION AT X-X

SCALE: 1:50



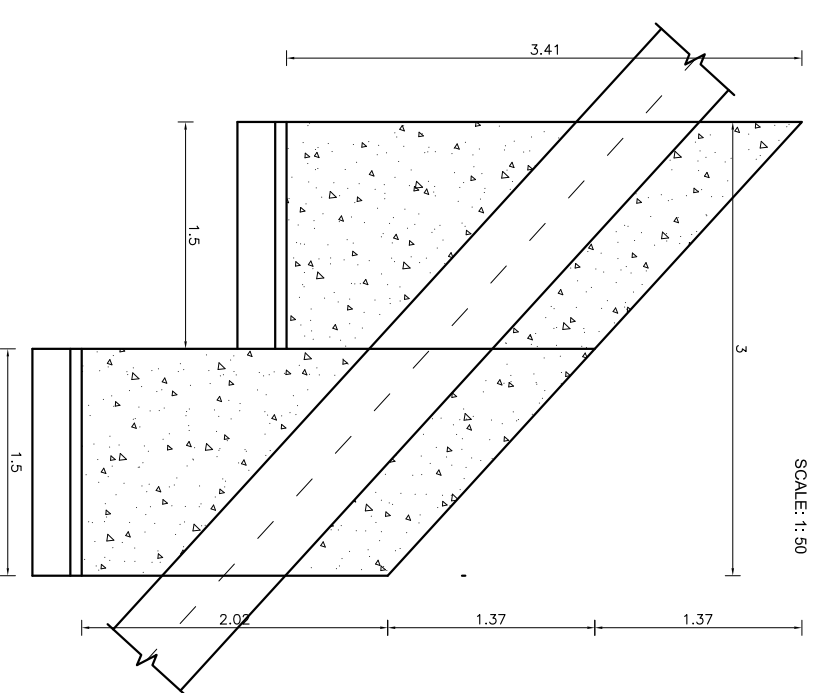
SECTION AT Y-Y

SCALE: 1:50



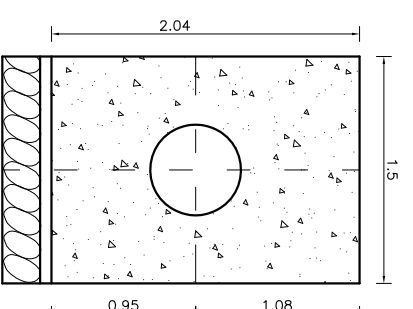
ANCHOR BLOCK (VAB13): PLAN

SCALE: 1:50



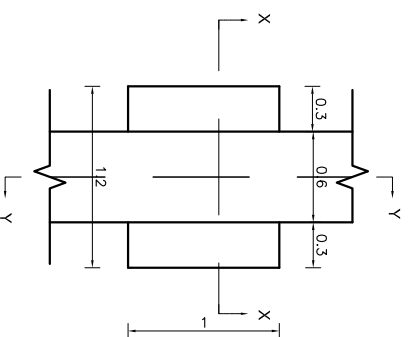
SECTION AT X-X

SCALE: 1:50



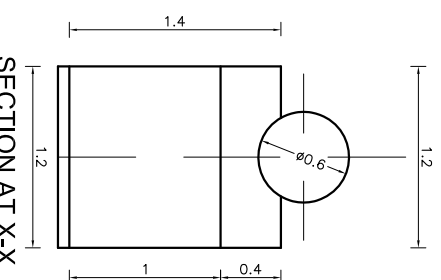
SECTION AT Y-Y

SCALE: 1:50



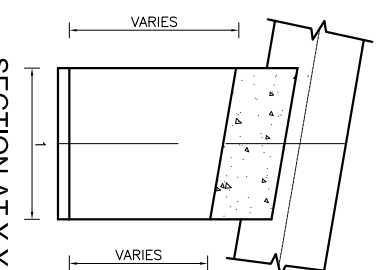
TYPICAL SADDLE SUPPORT : PLAN

SCALE: 1:50



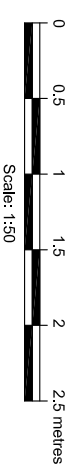
SECTION AT X-X

SCALE: 1:50



SECTION AT Y-Y

SCALE: 1:50

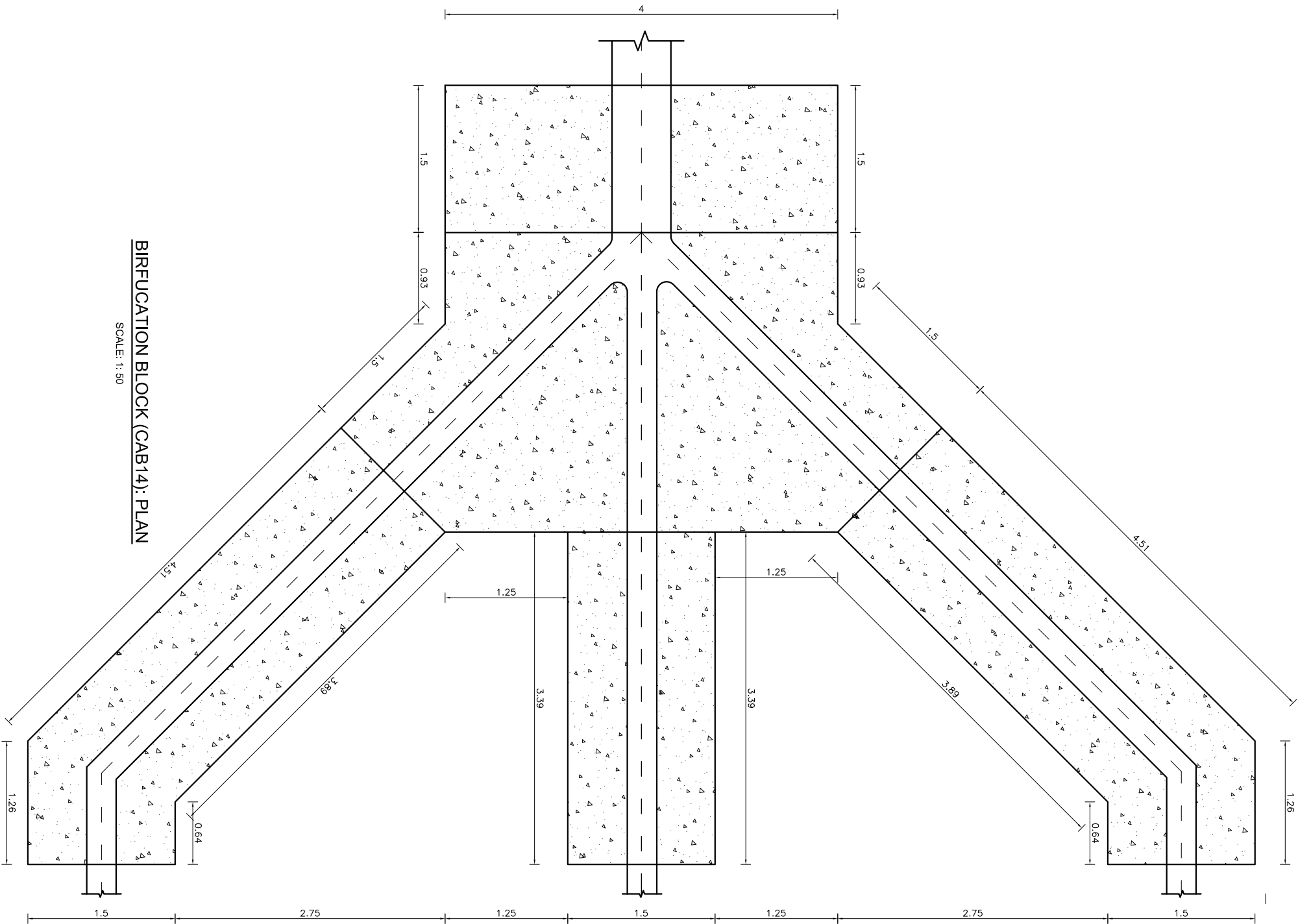


Scale: 1:50

NOTES:

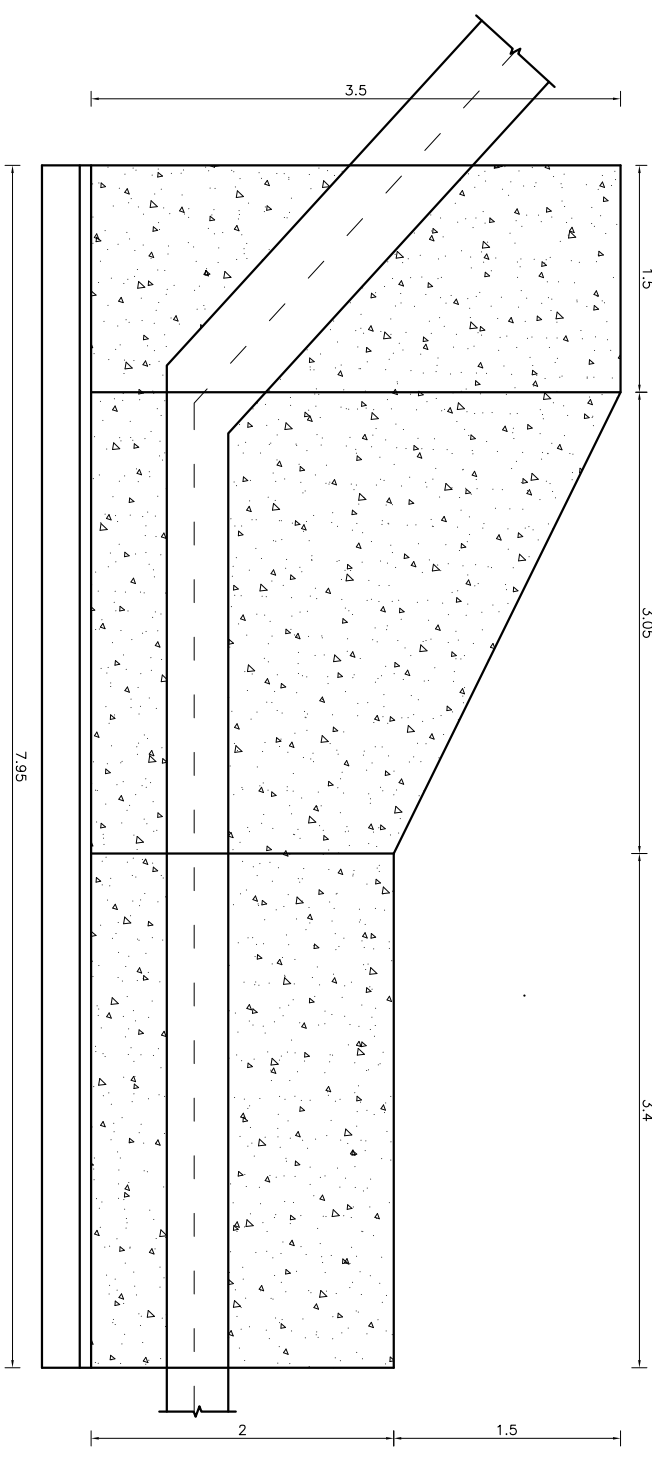
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
- Concrete grades
M20 - Structural Concrete (1:1.5:3)
M10 - 75mm blinding concrete (1:3:6)
- Excavation lines will be confirmed as per site condition.
- Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

Amendment		By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	Name	Initials	Date
		Drawn:	N. Singh		
		Checked:	T. Limbu		
		Recommended:	B. Singh		
		Approved:	N. P. Adhikari		
ANCHOR BLOCKS PLAN AND PROFILE					
SHEET 3 OF 4					
Alternative Energy Promotion Centre (AEP/C) South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB) Kumhar, Lalpur, Nepal Tel: +9771-5539306, 5539391 Email: saeec@nepc.gov.np			Date:	Scale:	Revision:
			FEB 2020	AS SHOWN	
			Drawing No.		
			AKMHP/DED-30C-03		



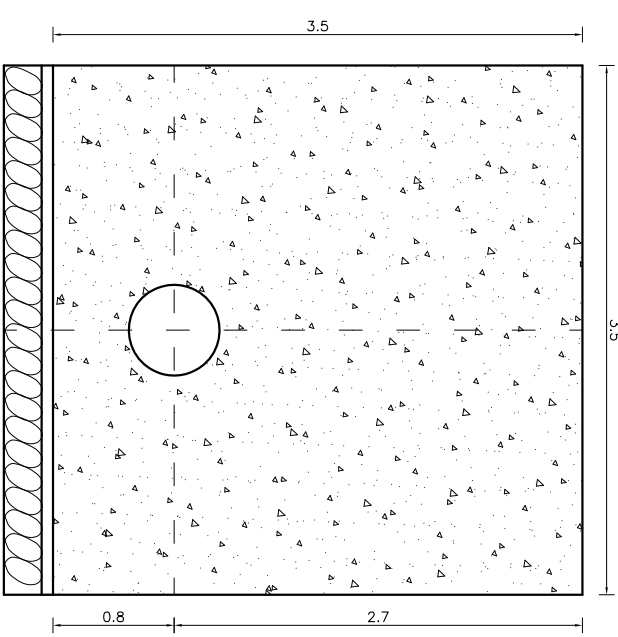
BIRFUCATION BLOCK (CAB14): PLAN

SCALE: 1:50



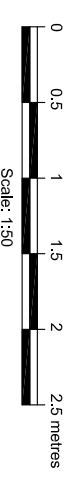
SECTION AT X-X

SCALE: 1:50



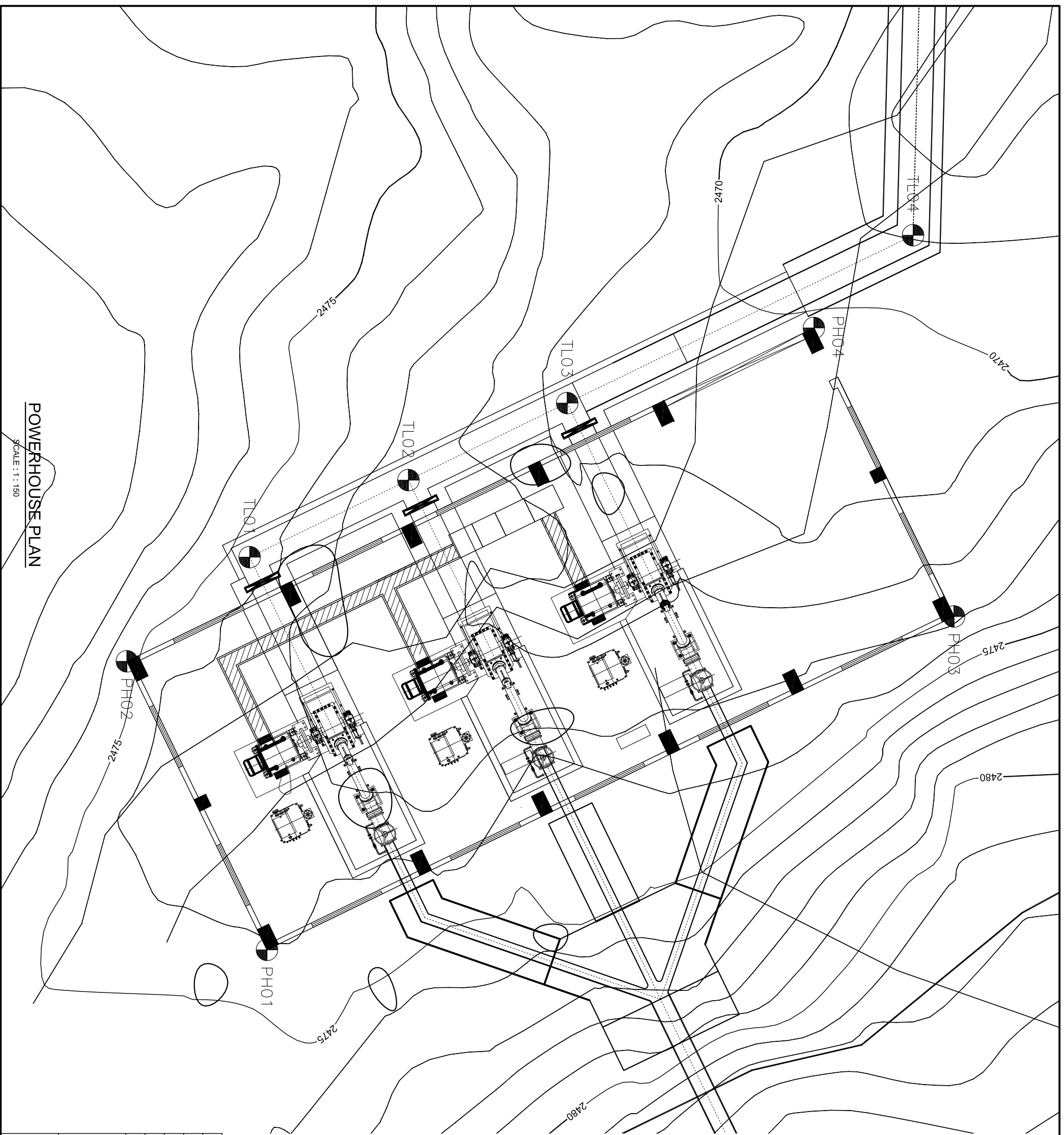
SECTION AT Y-Y

SCALE: 1:50

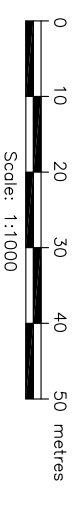


- NOTES:**
- All co-ordinates are in meter with reference to GPS. Levels are in above mean sea level and dimensions are in meter unless specified.
 - Concrete grades
 - M20 - Structural Concrete (1:1.5:3)
 - M10 - 75mm blinding concrete (1:3:6)
 - Excavation lines will be confirmed as per site condition. Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

Amendment		By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE		Name	Initials	Date	
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	N. Singh		
		Drawn:	N. Singh		
		Checked:	T. Linbu		
		Recommended:	B. Singh		
		Approved:	N. P. Adhikari		
Alternative Energy Promotion Centre (AEPCC)		Date:	FEB 2020	Scale	AS SHOWN
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)		Drawing No.	AKMHP/DED-30C-04	Revision	
Khumjung, Lathur, Nepal Tel: +9771-5539300, 5539391 Email: aaweb@nepc.gov.np					



SOP No.	Coordinate X and Y
PH01	X = 393479.357 Y = 3213797.403
PH02	X = 393470.361 Y = 3213793.036
PH03	X = 393469.964 Y = 3213818.814
PH04	X = 393459.968 Y = 3213814.447
TL01	X = 393467.114 Y = 3213796.863
TL02	X = 393462.311 Y = 3213806.758
TL03	X = 393462.311 Y = 3213806.758
TL04	X = 393457.078 Y = 3213817.539



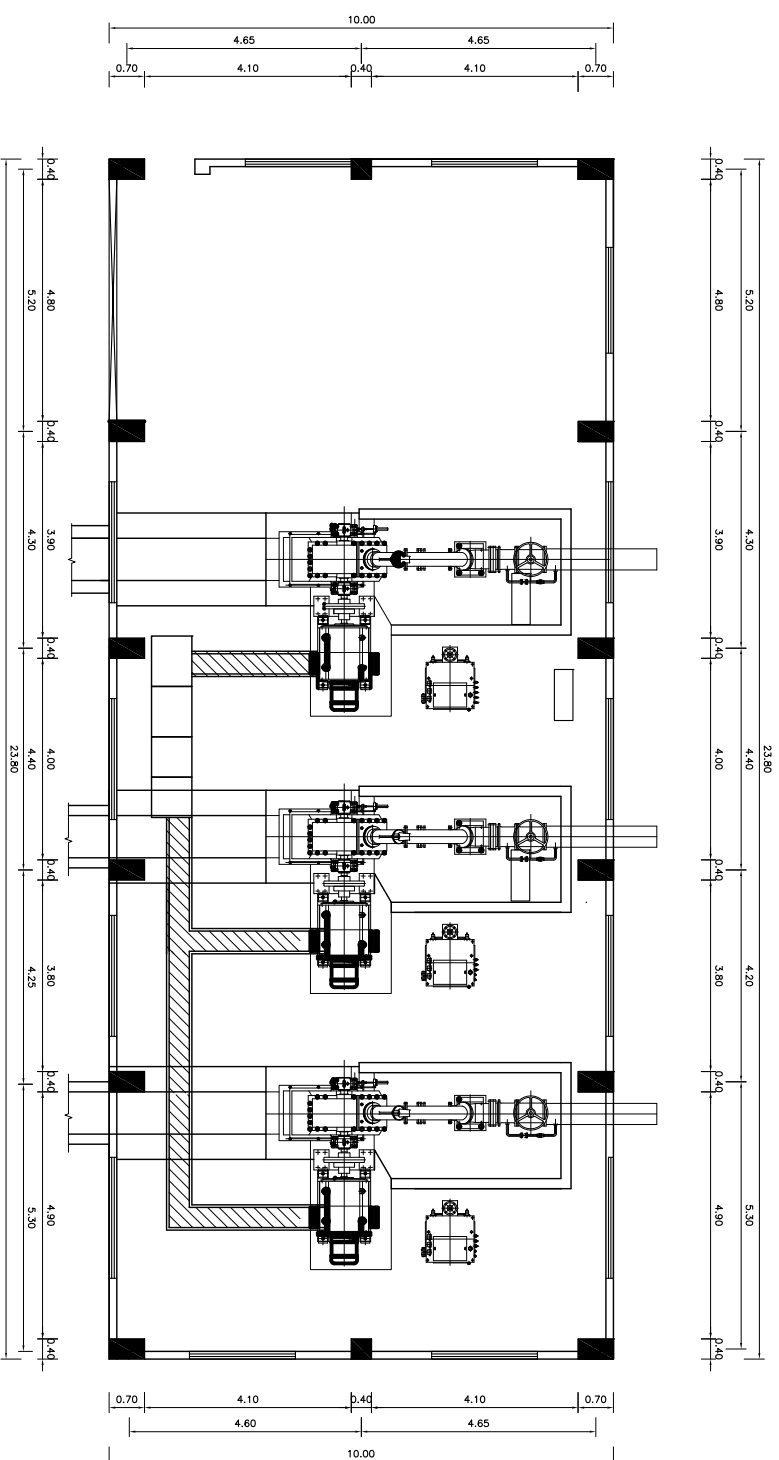
NOTES:

- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
- Concrete grades
M20 – Structural Concrete (1:1.5:3)
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-

Amendment		By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	Name	Initials	Date
		Drawn:	N. Singh	N. Singh	
		Checked:	T. Limbu	T. Limbu	
		Recommended:	B. Singh	B. Singh	
		Approved:	N. P. Adhikari	N. P. Adhikari	
<p align="center">POWERHOUSE PLAN AND SECTION</p> <p align="center">SHEET 1 OF 1</p>		Date:	Scale	AS SHOWN	Revision
<p>Alternative Energy Promotion Centre (AEPCC) South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB) Khumaltar, Lalpur, Nepal Tel: +9771-5539390, 5539391 Email: saeec@aepcc.gov.np</p>		FEB 2020			
		Drawing No.	AKMHP/DED-32C-01		

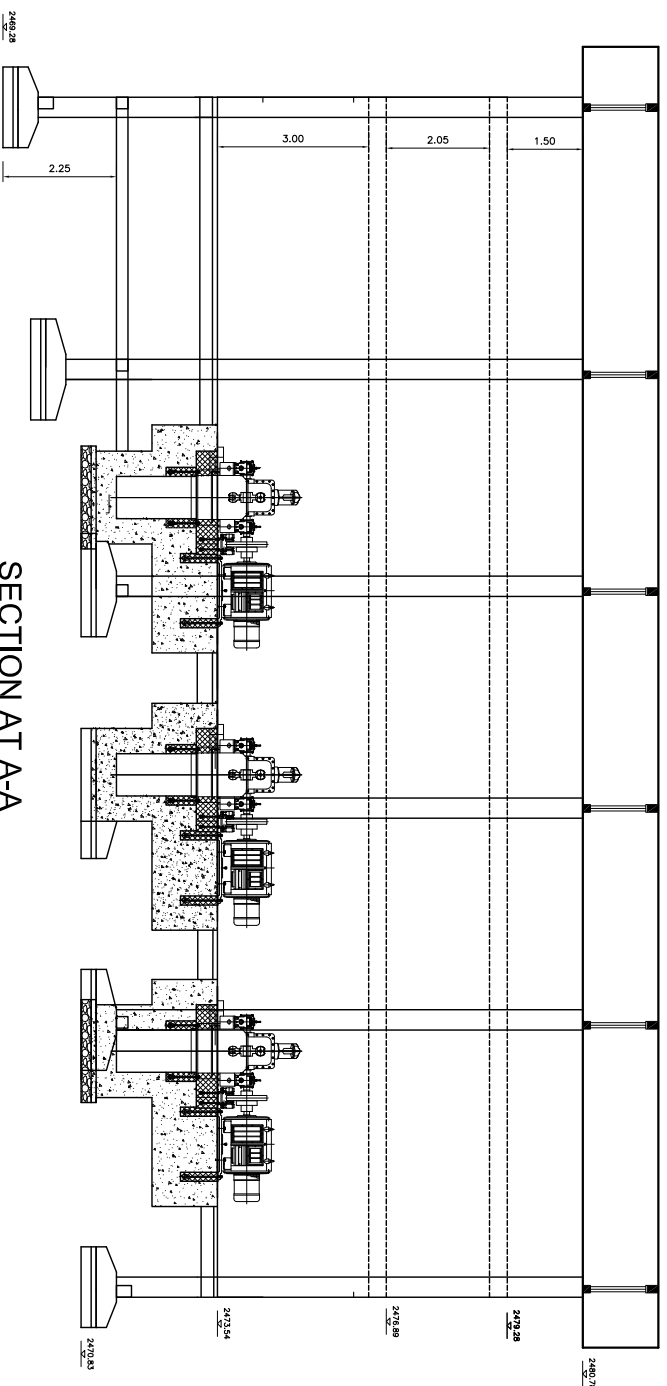
POWERHOUSE PLAN

SCALE : 1 : 150



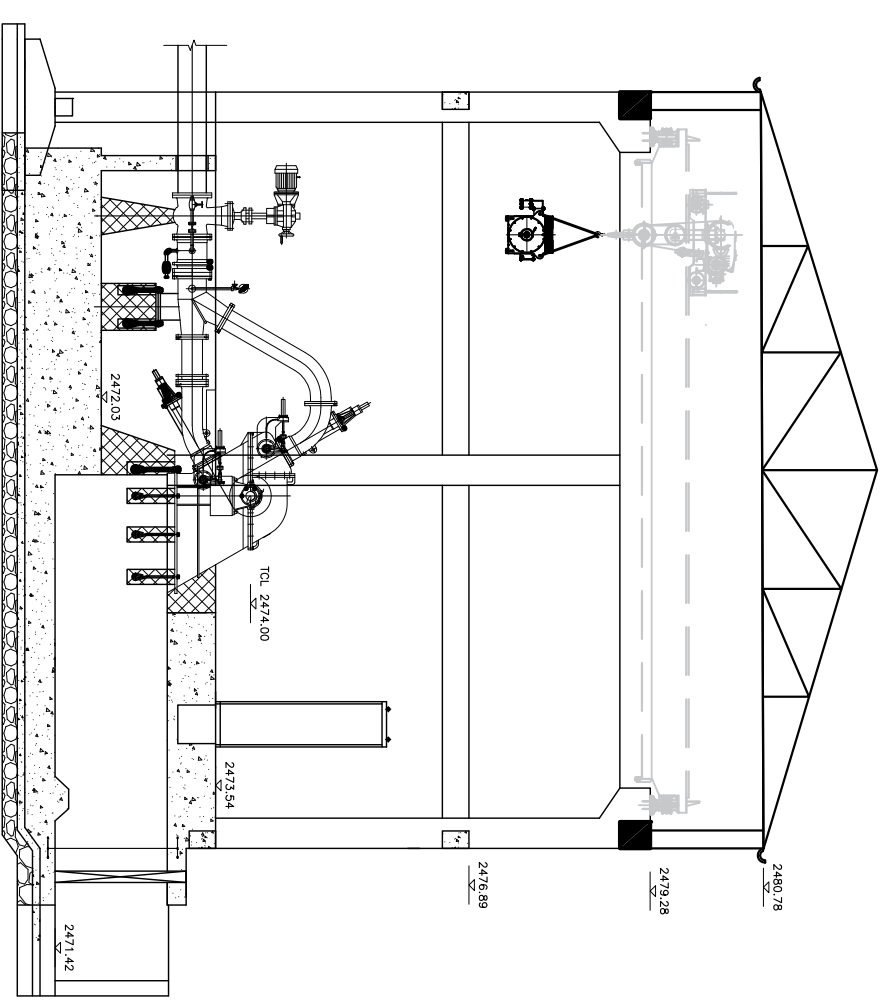
POWERHOUSE: PLAN

SCALE : 1 : 150



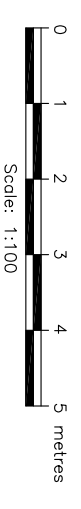
SECTION AT A-A

SCALE : 1 : 150



SECTION AT B-B

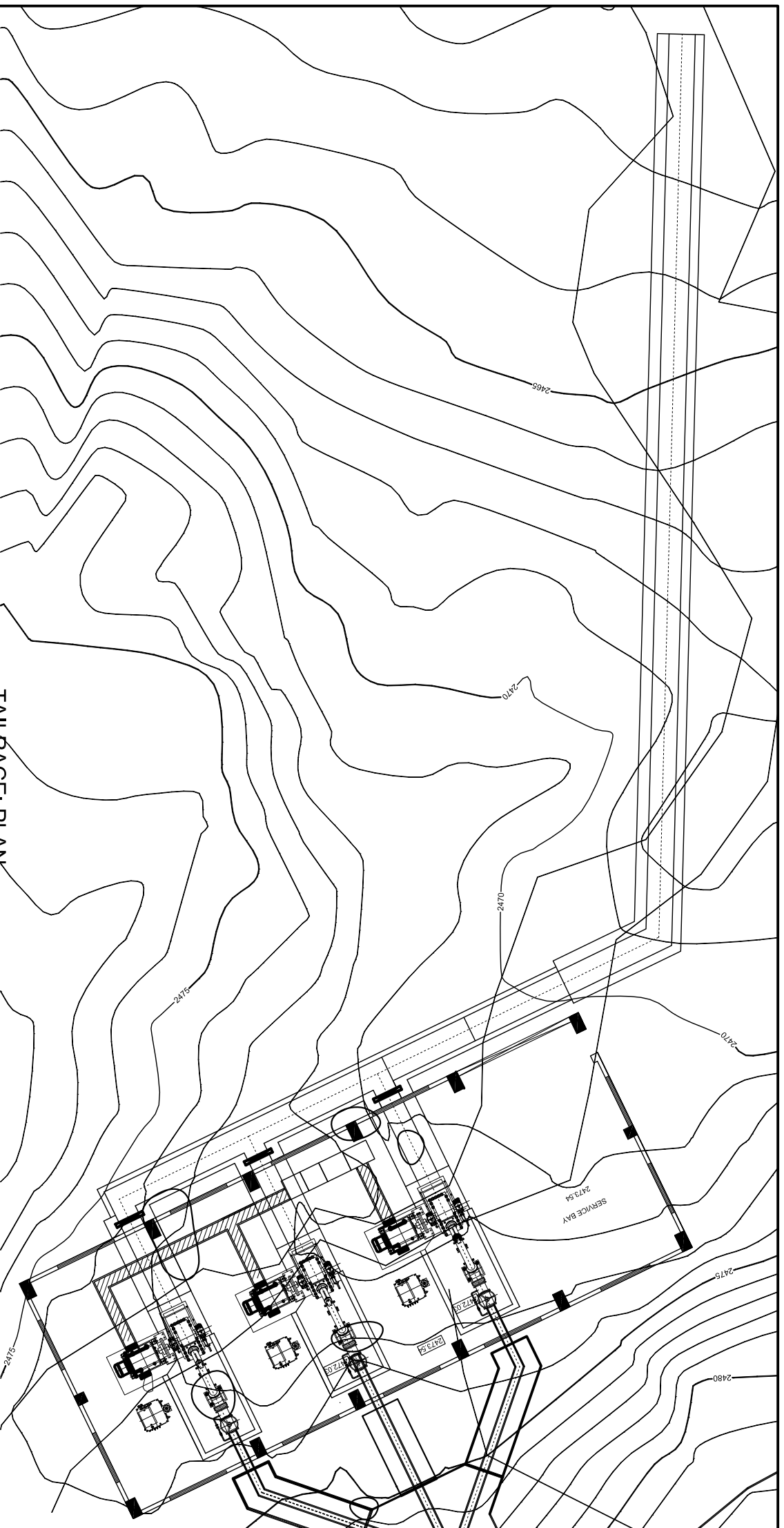
SCALE : 1 : 150



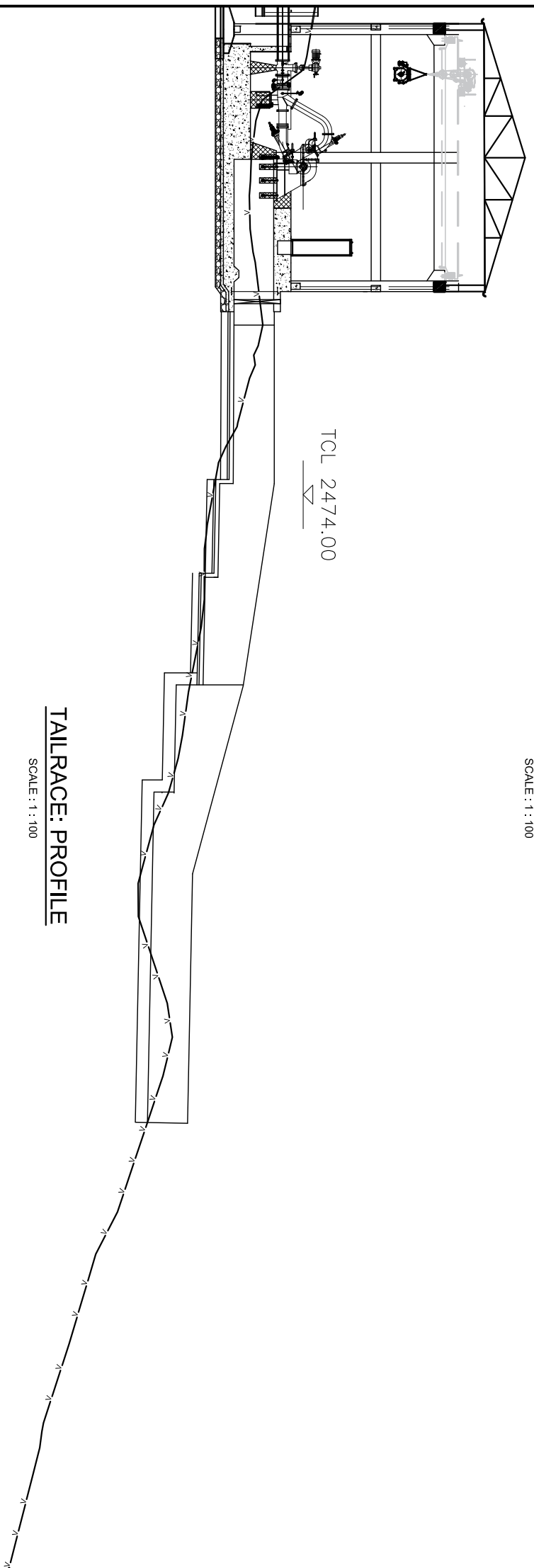
NOTES:

1. All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
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- 4.

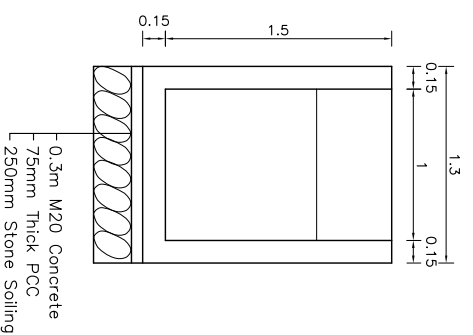
Amendment		By	Ckd.	Rec.	App.	Date
AANKHE KHOLA MINI HYDRO USER COMMITTEE						
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	Name		Initials	
		Drawn:	N. Singh		N. Singh	
		Checked:	T. Limbu		T. Limbu	
		Recommended:	B. Singh		B. Singh	
		Approved:	N. P. Adhikari		N. P. Adhikari	
<p>POWERHOUSE PLAN AND SECTION</p> <p>SHEET 1 OF 1</p>						
<p>Alternative Energy Promotion Centre (AEP/C) South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB) Kumilur, Lalitpur, Nepal Tel: +9771-5539390, 5539391 Email: saeec@aepc.gov.np</p>						
Date:	Feb 2020	Scale:	AS SHOWN			
Drawing No.	AKMHP/DED-32C-02	Revision:				



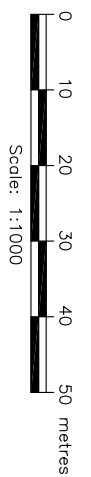
TAILRACE PLAN
SCALE : 1 : 100



TAILRACE PROFILE
SCALE : 1 : 100

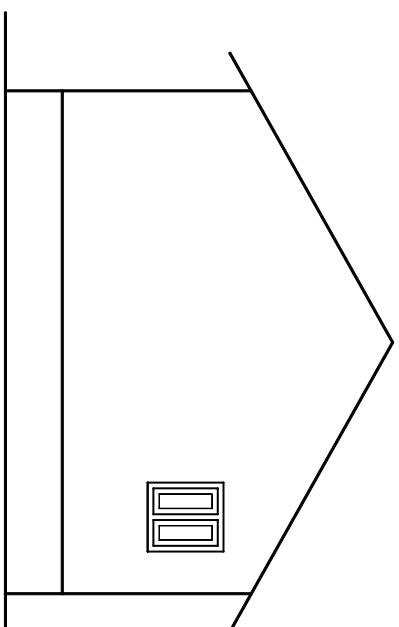
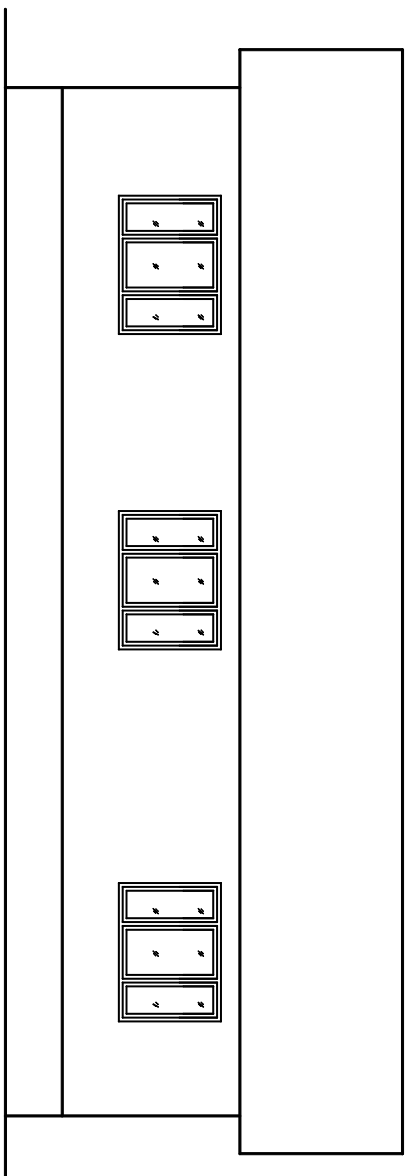
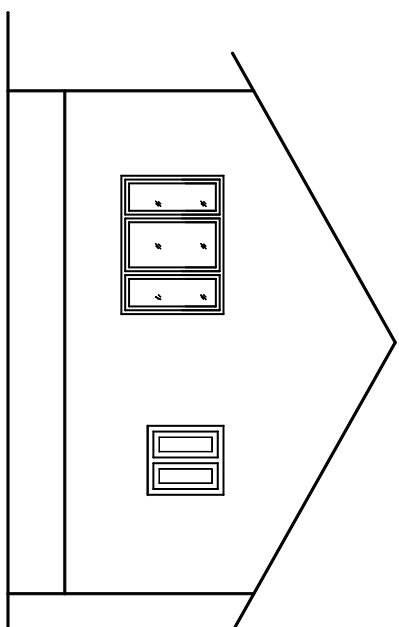
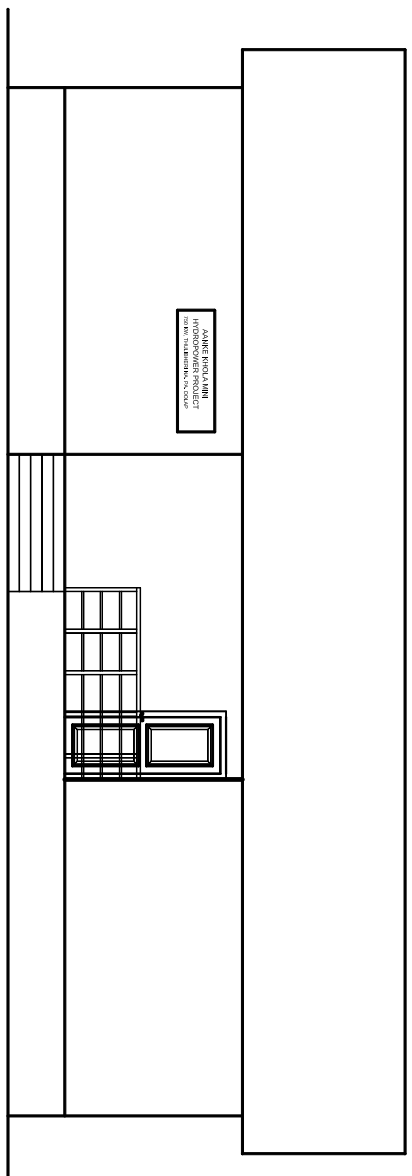
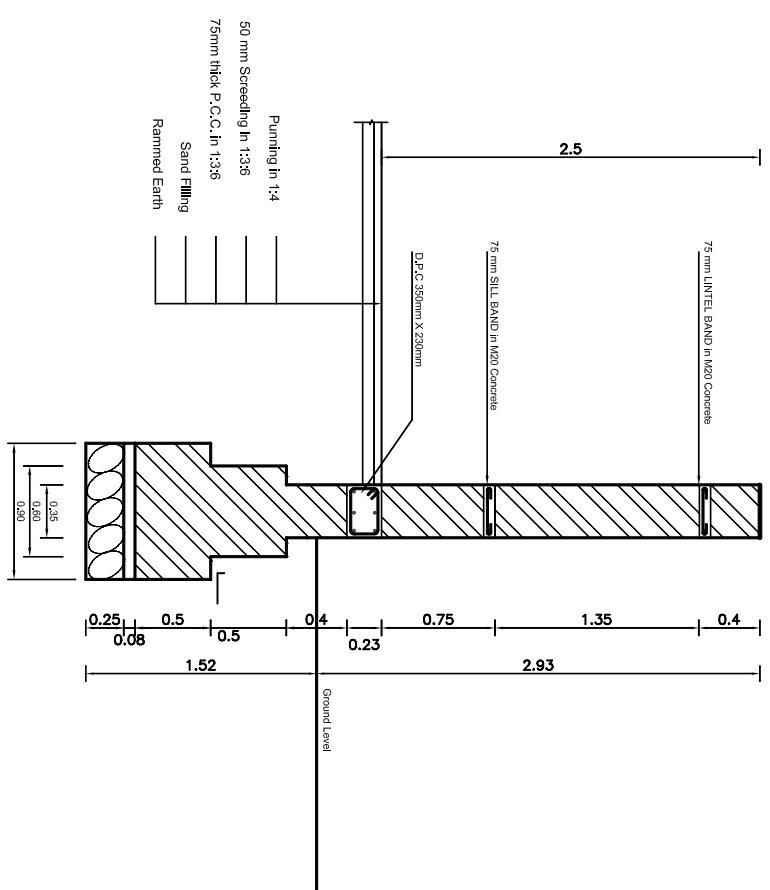
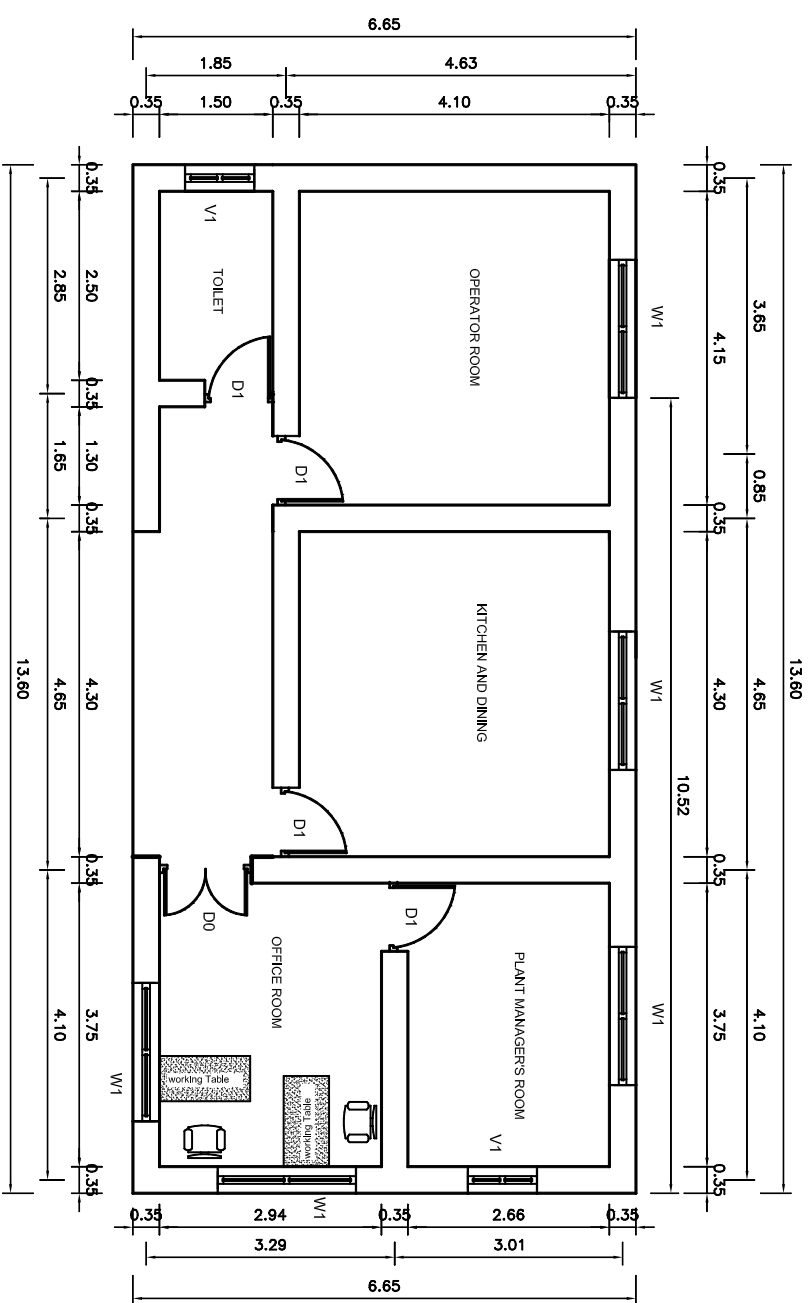


SECTION AT A-A
SCALE : 1 : 50

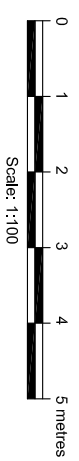


- NOTES:**
1. All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
 2. Concrete grades
M20 – Structural Concrete (1:1.5:3)
M10 – 75mm binding concrete (1:3:6)
 3. Excavation lines will be confirmed as per site condition.
 4. Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.

Amendment		By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	N. Singh	Initials	Date
		Drawn:	N. Singh		
		Checked:	T. Limbu		
		Recommended:	B. Singh		
		Approved:	N. P. Adhikari		
TAILRACE PLAN AND SECTIONS					
SHEET 1 OF 1					
Alternative Energy Promotion Centre (AEPCC)					
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB)					
Kumilur, Lalpur, Nepal					
Tel: +9771-5539390, 5539391					
Email: saeec@aepcc.gov.np					
Date:	Feb 2020	Scale:	AS SHOWN		
Drawing No.	AKMHP/DED-34C-01	Revision			



- NOTES:**
- All co-ordinates are in meter with reference to GPS, levels are in m above mean sea level and dimensions are in meter unless specified.
 - Concrete grades
 - M20 - Structural Concrete (1:1.5:3)
 - M10 - 75mm blinding concrete (1:3:6)
 - Excavation lines will be confirmed as per site condition.
 - Backfilling should be done with non-cohesive material and well compacted to the satisfaction of the Engineer.
 - The size of boulders in boulder riprap should be 2m dia atleast.



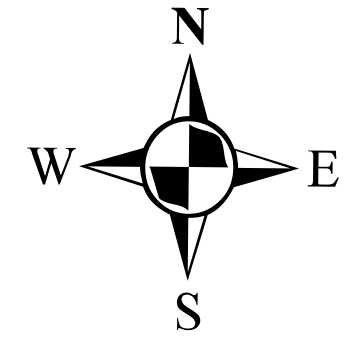
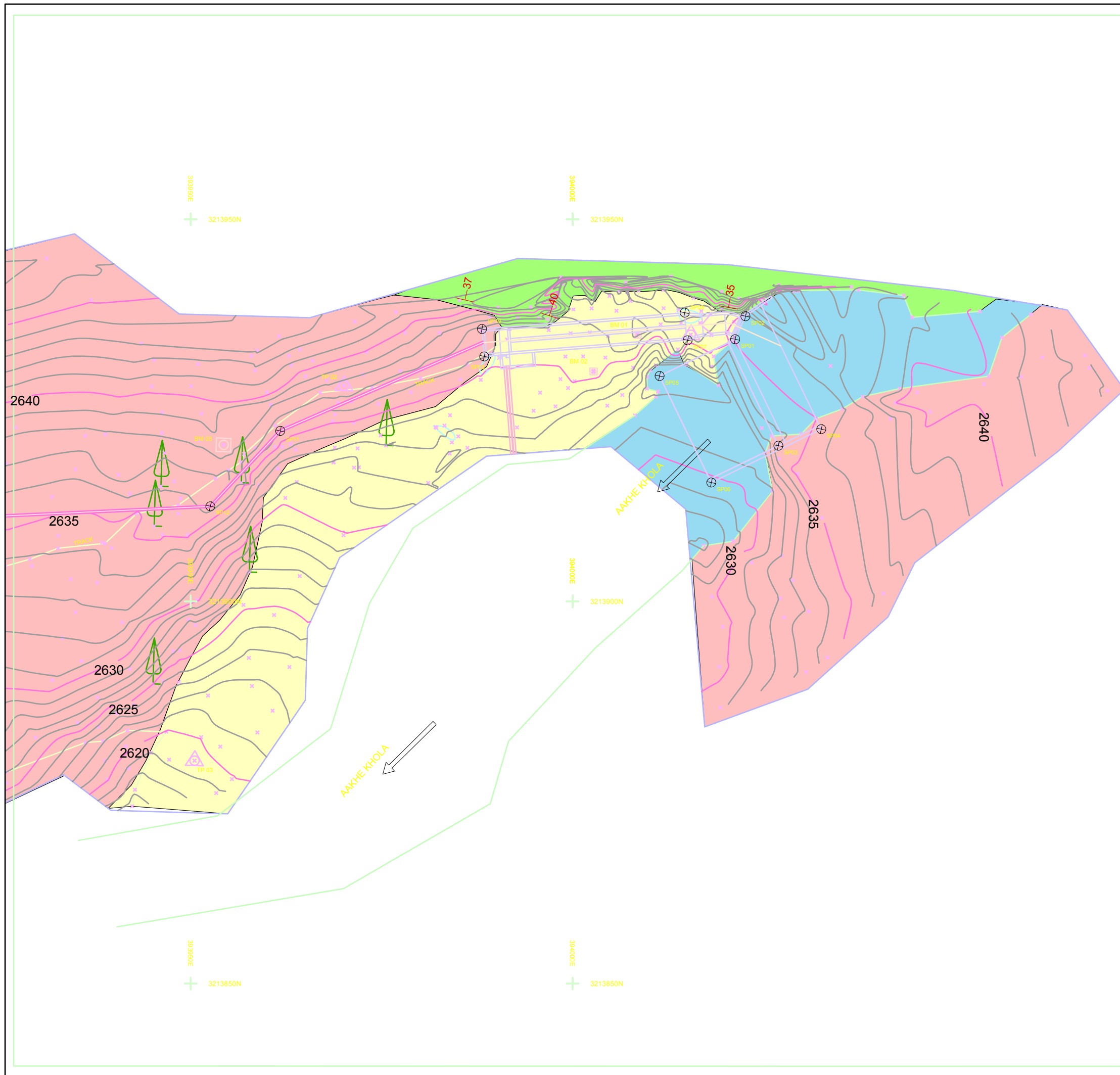
Rev.	Amendment	By	Ckd.	Rec.	App.	Date

AAKHE KHOLA MINI HYDRO USER COMMITTEE		Name	
AAKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	N. Singh
		Drawn	N. Singh
		Checked:	T. Limbu
		Recommended:	B. Singh
		Approved:	N. P. Adhikari

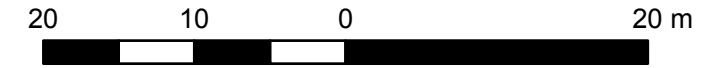
Alternative Energy Promotion Centre (AEPIC)		Date:	FEB 2020	Scale	AS SHOWN
South Kulu Subregional Economic Cooperation - Power Expansion Project (SASEC/ADB)		Drawing No.	AKMHP/DED-36C-01	Revision	
Khumlu, Lumbur, Nepal					
Tel: +9771-6529300, 6520391					
Email: aasec@nepc.gov.np					

SHEET 1 OF 1

**OFFICE QUATER BUILDING
PLAN AND SECTIONS**



1:500



Legend

- Attitude
- River
- Alluvium
- Colluvium Boulder dominated
- Bedrock

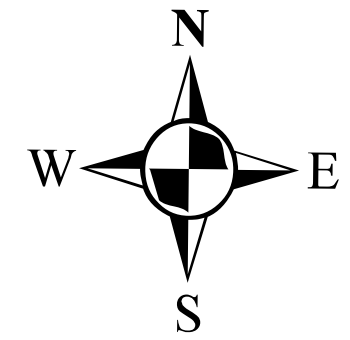
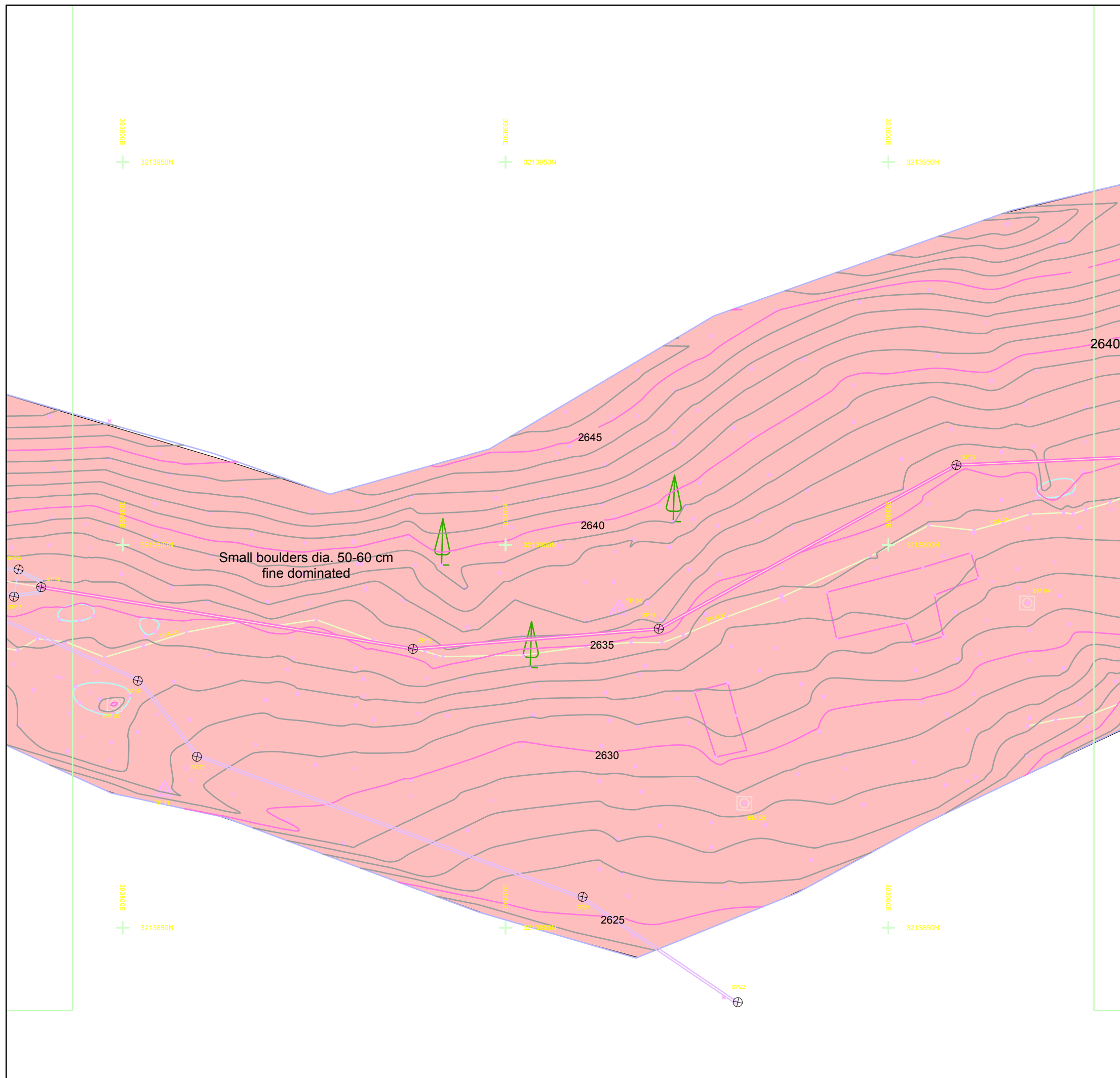
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Map Title: Surface Geological Map
Map ID: Geo_Map_1
Location: Syangta, Dolpa

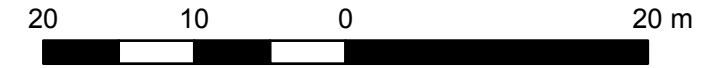
Client	Consultant

Horizontal Datum

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 Projection: Transverse Mercator False Northing: 0.0000 Latitude Of Origin: 0.0000
 Datum: Everest 1830 Central Meridian: 81.0000 Units: Meter



1:500



Legend

- River
- Alluvium
- Colluviun Boulder dominated
- Bedrock

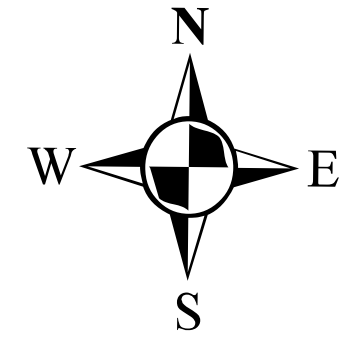
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Map Title: Surface Geological Map
Map ID: Geo_Map_2
Location: Syangta, Dolpa

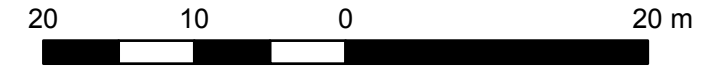
Client	Consultant

Horizontal Datum



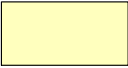


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 Datum: Everest 1830 Central Meridian: 81.0000 Units: Meter



1:500



Legend

-  Attitude
-  River
-  Alluvium
-  Colluvium Boulder dominated
-  Bedrock

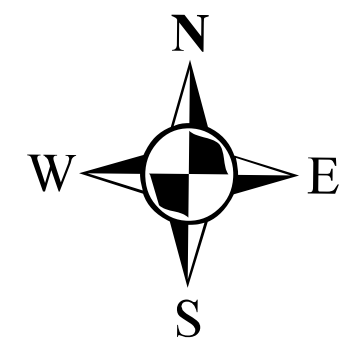
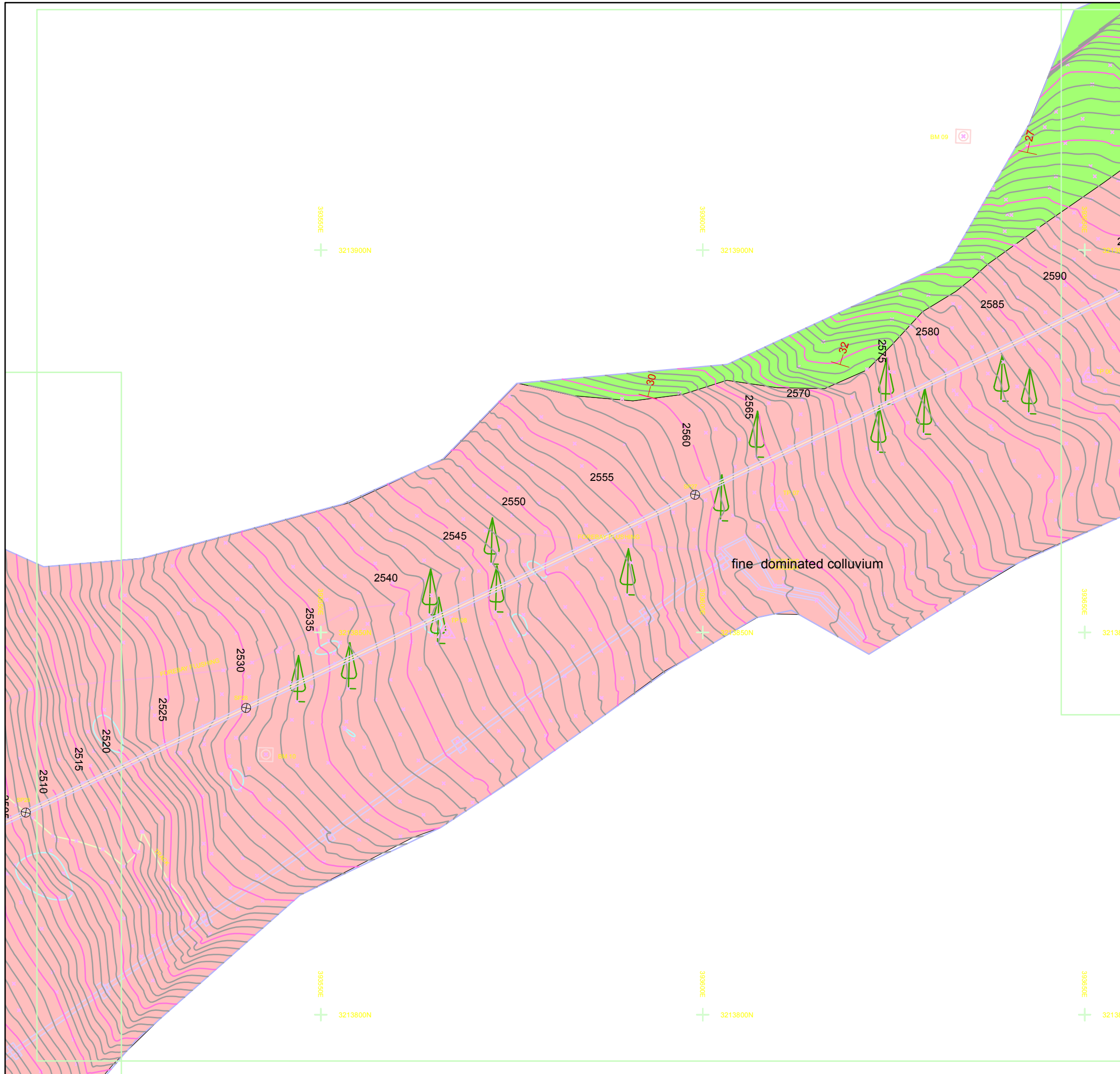
Map Information

Project Title: Aankhe Khola Mini Hydropower Project
Map Title: Surface Geological Map
Map ID: Geo_Map_3
Location: Syangta, Dolpa

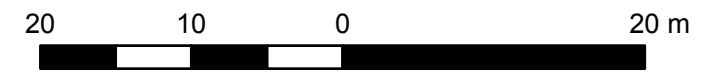
Client	Consultant

Horizontal Datum



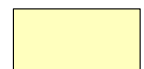


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 Datum: Everest 1830 Central Meridian: 81.0000 Units: Meter



1:500



Legend

-  Attitude
-  River
-  Alluvium
-  Colluviun Boulder dominated
-  Bedrock

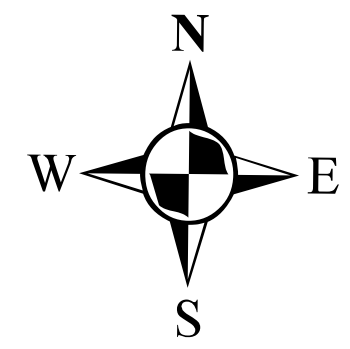
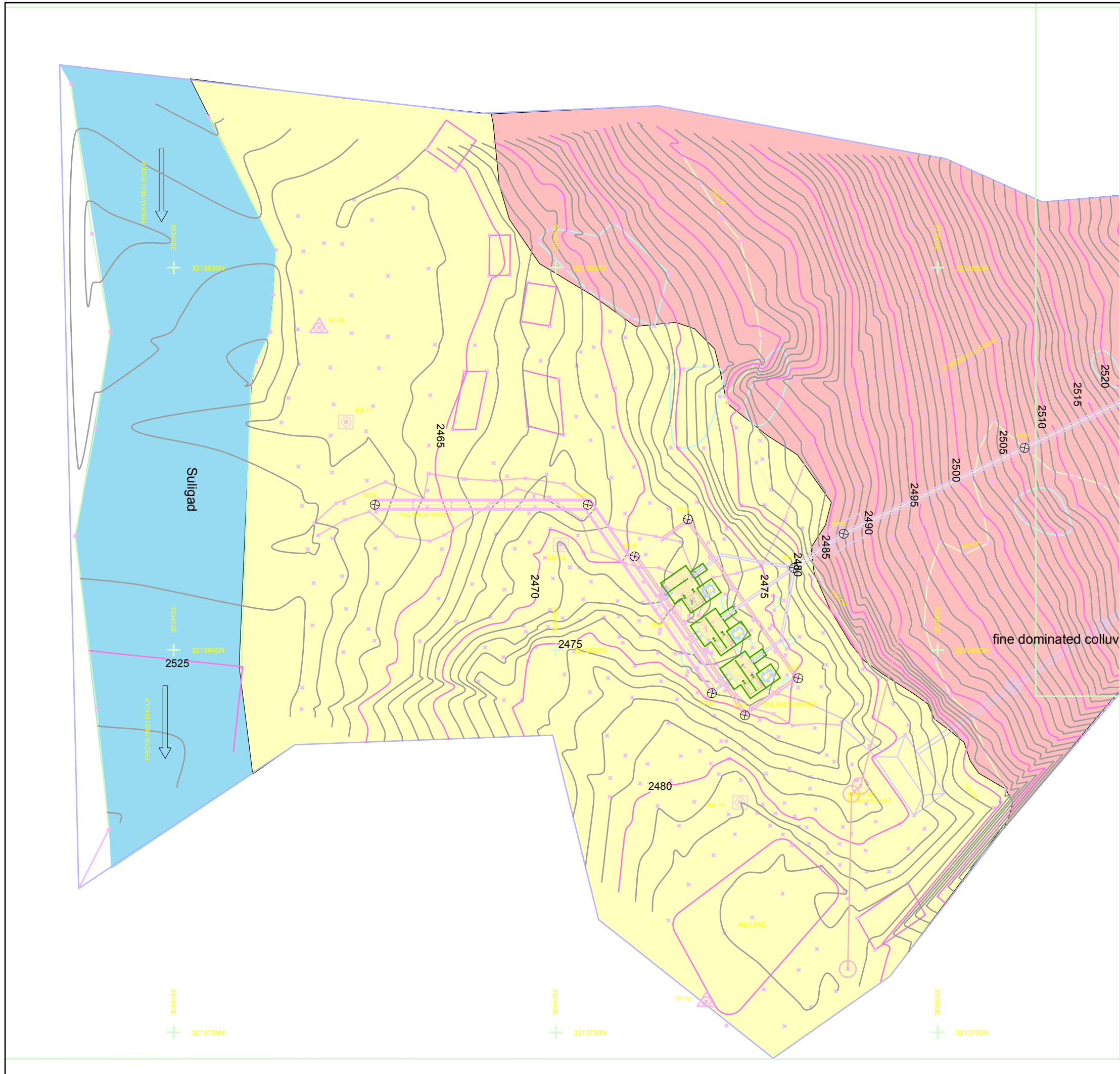
Map Information

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Map Title: Surface Geological Map
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Location: Syangta, Dolpa

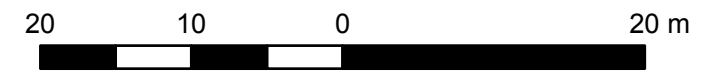
Client	Consultant

Horizontal Datum

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 Projection: Transverse Mercator False Northing: 0.0000 Latitude Of Origin: 0.0000
 Datum: Everest 1830 Central Meridian: 81.0000 Units: Meter



1:500



Legend

- River
- Alluvium
- Colluvium Boulder dominated
- Bedrock

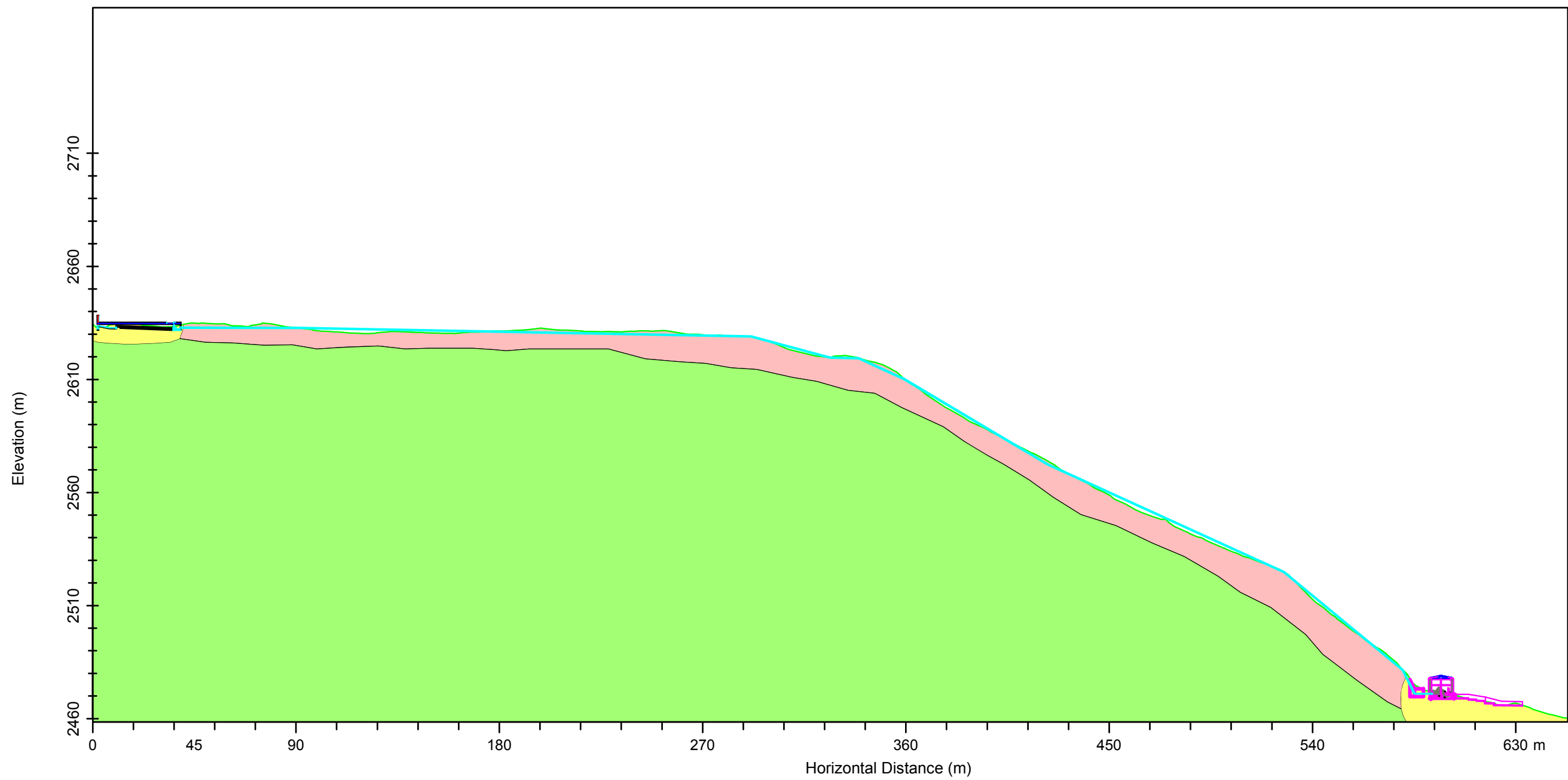
Map Information

Project Title: Aankhe Khola Mini Hydropower Project
Map Title: Surface Geological Map
Map ID: Geo_Map_5
Location: Syangta, Dolpa

Client	Consultant

Horizontal Datum

Coordinate System: Nepal MUTM Central 84 False Easting: 500,000.0000 Scale Factor: 0.9999
 Projection: Transverse Mercator False Northing: 0.0000 Latitude Of Origin: 0.0000
 Datum: Everest 1830 Central Meridian: 81.0000 Units: Meter



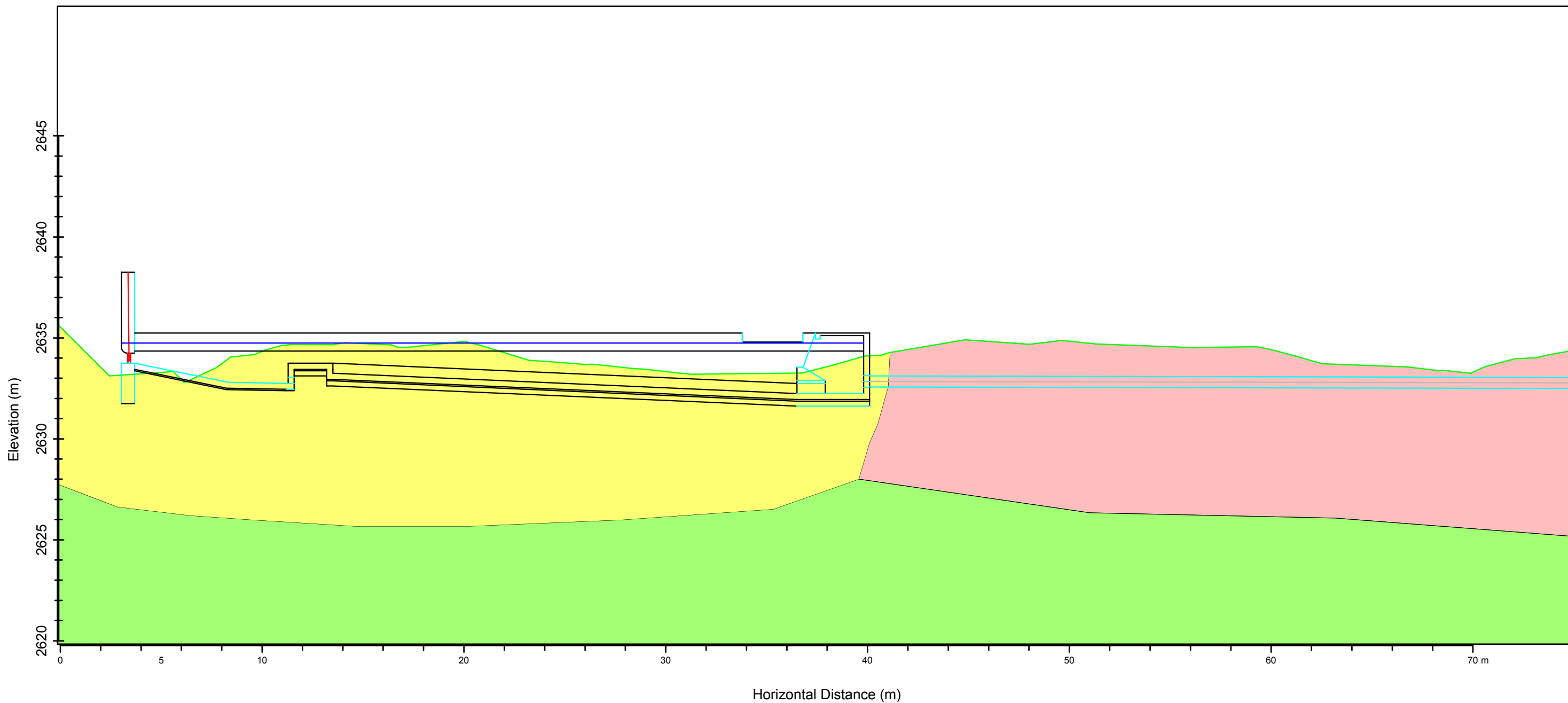
Legend

- Alluvium
- Colluviun Boulder dominated
- Bedrock

Map Information

Project Title: Aankhe Khola Mini Hydropower Project
Map Title: Cross-section along the Headworks to powerhouse
Map ID: Geo_Section
Location: Syangta, Dolpa

Client	Consultant



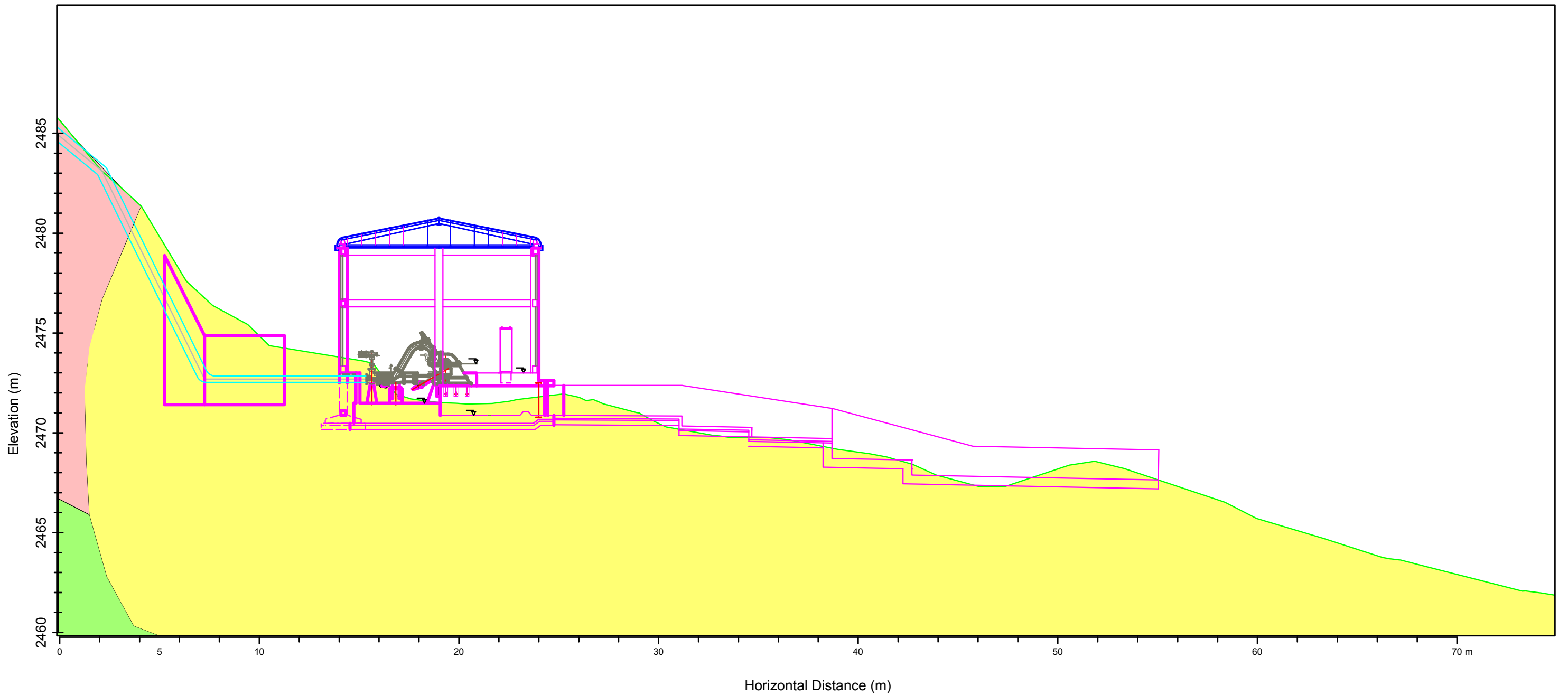
Legend

- Alluvium
- Colluviun Boulder dominated
- Bedrock

Map Information

Project Title: Aankhe Khola Mini Hydropower Project
Map Title: Cross-section along the Headworks area
Map ID: Geo_Section_HW
Location: Syangta, Dolpa

Client	Consultant



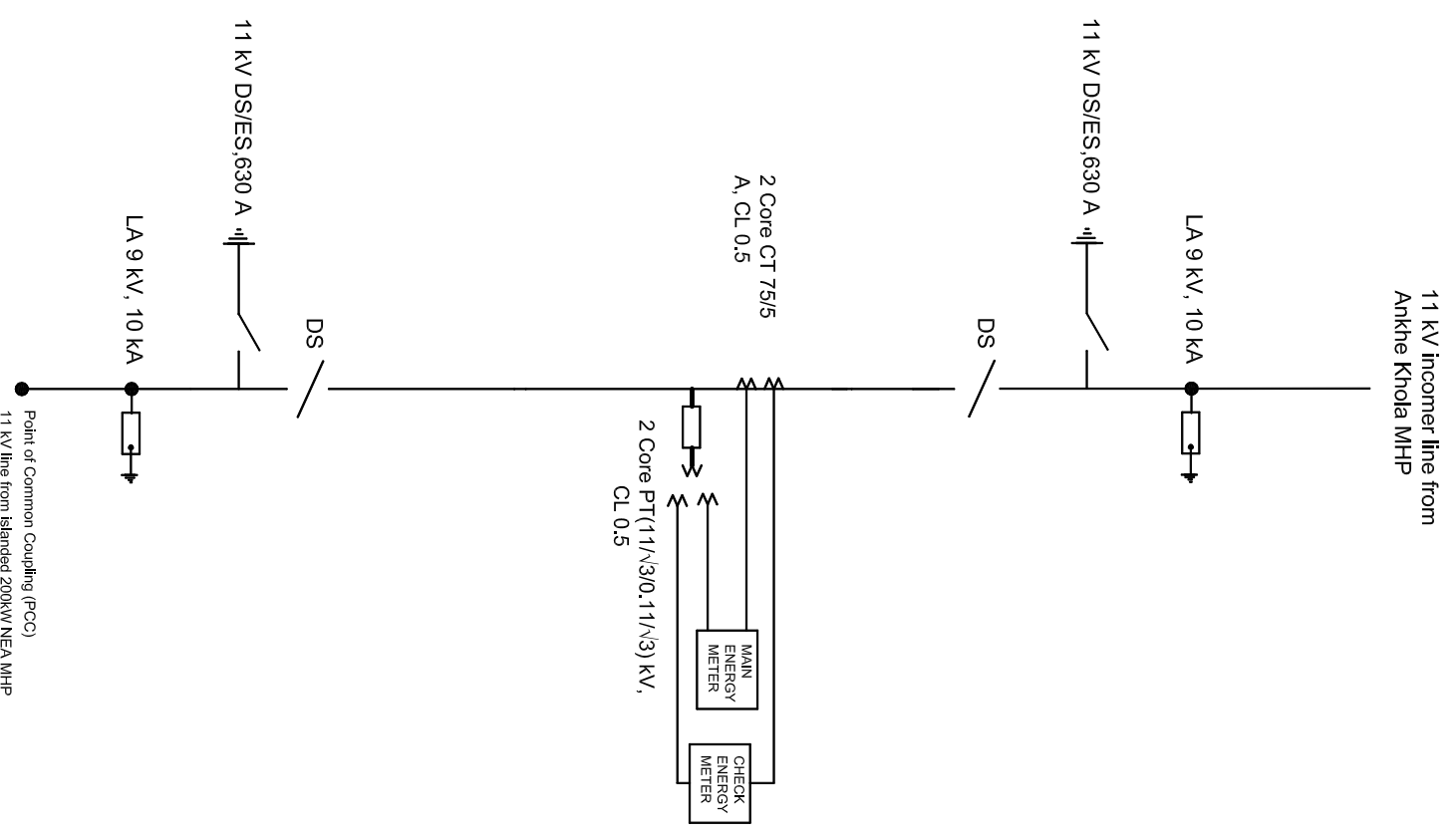
Legend

- Alluvium
- Colluviun Boulder dominated
- Bedrock

Map Information

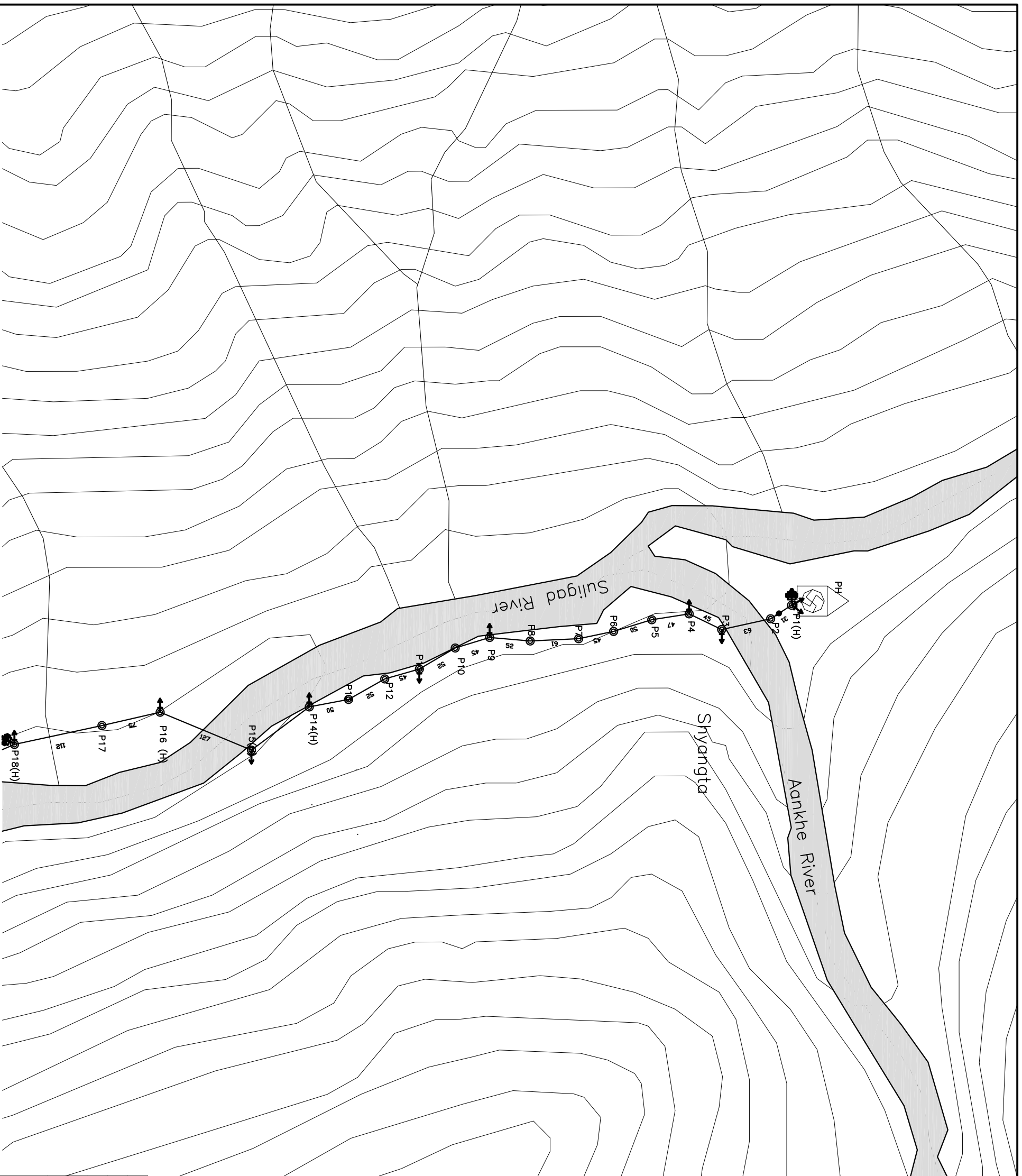
Project Title: Aankhe Khola Mini Hydropower Project
Map Title: Cross-section along the powerhouse area
Map ID: Geo_Section_PW
Location: Syangta, Dolpa

Client	Consultant



INTERCONNECTION DIAGRAM
NOT TO SCALE

Amendment		By	Ckd.	Rec.	App.
AANKHE KHOLA MINI HYDRO USER COMMITTEE					
AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:	Name		
		Drawn:	J. Mallik	Initials	
		Checked:	S. Poudel	Date	
		Recommended:	J. Mallik		
		Approved:	B. Singh		
			N. P. Adhikari		
SHEET 1 OF 1					
Alternative Energy Promotion Centre (AEP/C)					
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB)					
Kumilbur, Lalitpur, Nepal					
Tel: +9771-45539390, 5539391					
Email: saeec@aepc.gov.np					
Date:	Feb 2020	Scale:	AS SHOWN		Revision:
Drawing No.:	AKMHP/DED-40E-02				



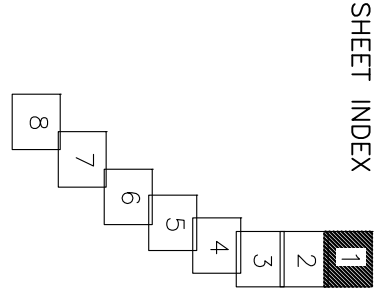
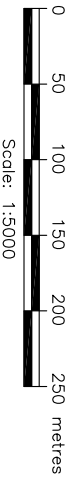
TRANSMISSION LINE LAYOUT MAP

SCALE : 1 : 5000



LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	H
2	11kV/3-ph Composite Line	#####
3	0.4kV Line	---3D---
4	0.2kV Line	---1D---
5	Transformer	
6	Load Break Switch	
7	Disconnecting Switch With DO	
8	Drop Out Fuse(DO)	
9	STP with Stay	
10	Four Pole Structure	
11	Lightening Arrester(LA), LT	
12	Lightening Arrester(LA),9kV	

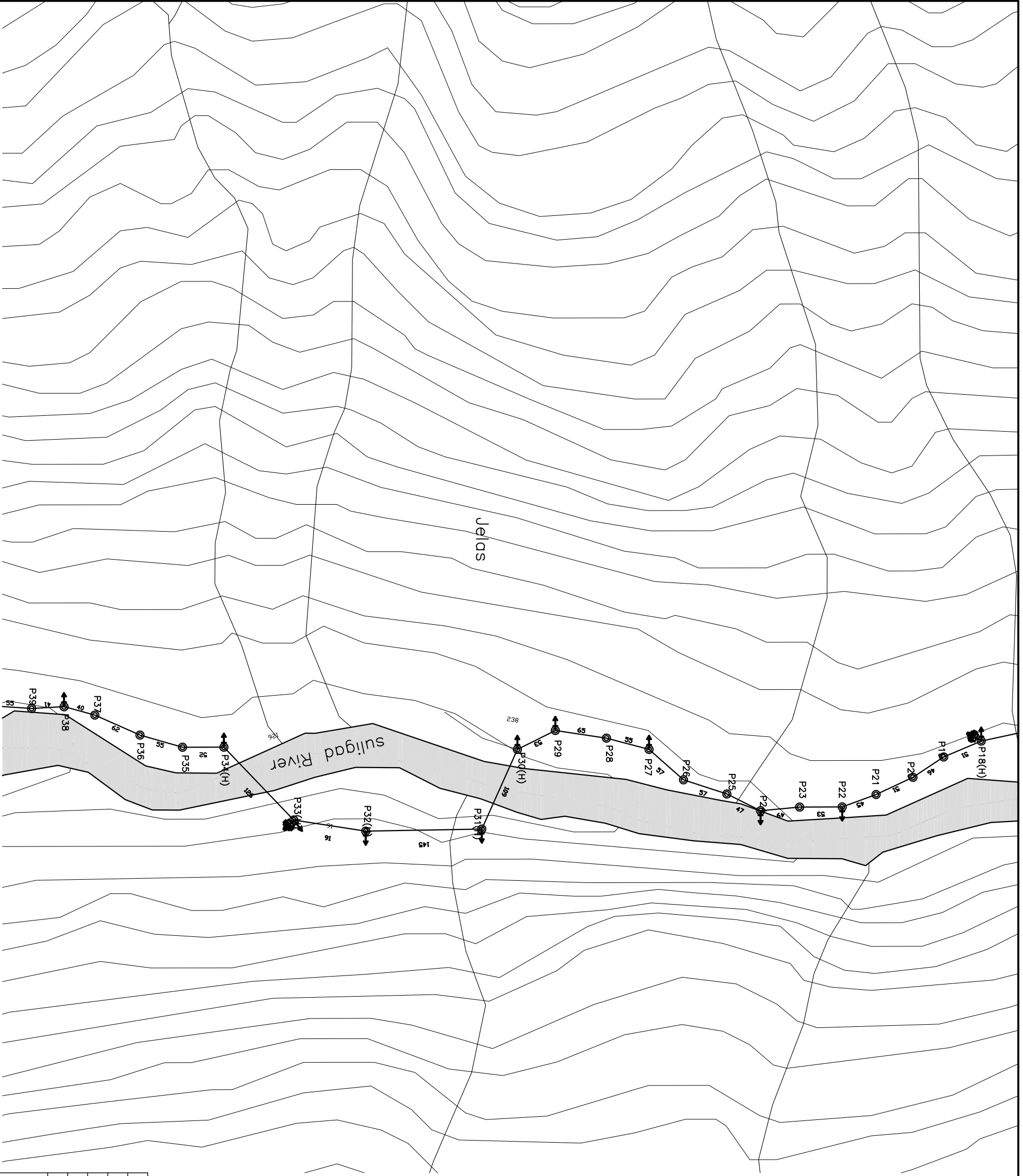
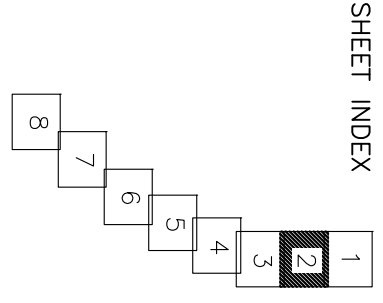
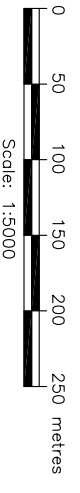


Ananke Khola Minhydro User Sub Committee		Name				
ANANKHE KHOLA MINI HYDROPOWER PROJECT		S. Poudel				
TRANSMISSION LINE PLAN		S. Poudel				
Checked: J. K. Malik		Checked: J. K. Malik				
Recommended: B. Singh		Recommended: B. Singh				
Approved: N. P. Adhikari		Approved: N. P. Adhikari				
Rev.	Amendment	By	Ckd.	Rec.	App.	Date
SHEET 1 OF 8						
Alternative Energy Promotion Centre (AEP/C)						
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/AEB)						
Kumhur, Laligur, Nepal						
Tel: +9771-5539390, 5539391						
Email: saeec@aepc.gov.np						
Date:	Feb 2020	Scale:	AS SHOWN			
Drawing No.	AKMHP/DED-42C-01	Revision:				



LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	
2	11kV/3-ph Composite Line	
3	0.4kV Line	
4	0.2kV Line	
5	Transformer	
6	Load Break Switch	
7	Disconnecting Switch With DO	
8	Drop Out Fuse(DO)	
9	STP with Stay	
10	Four Pole Structure	
11	Lightening Arrester(LA), LT	
12	Lightening Arrester(LA),9kV	



TRANSMISSION LINE LAYOUT MAP

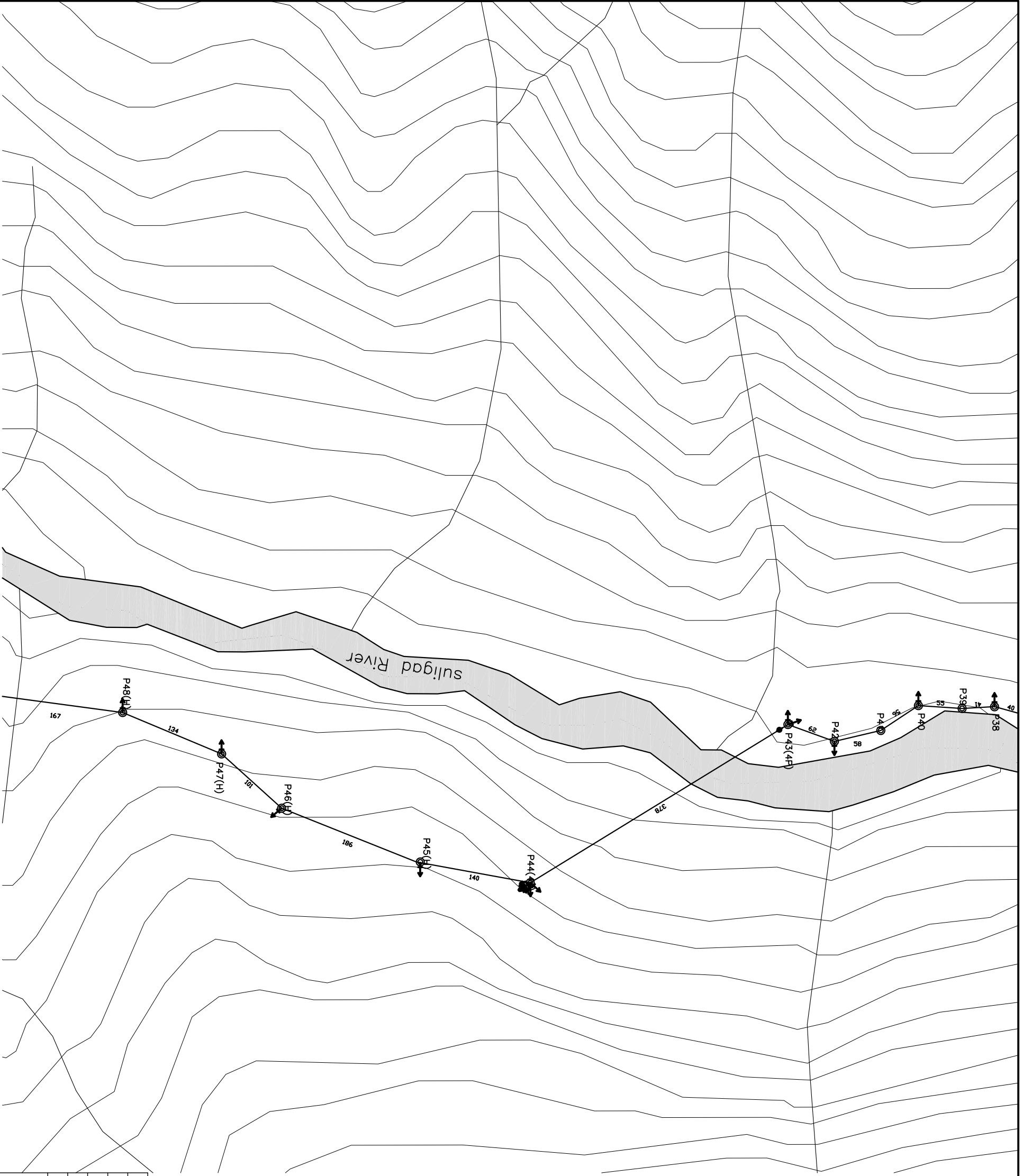
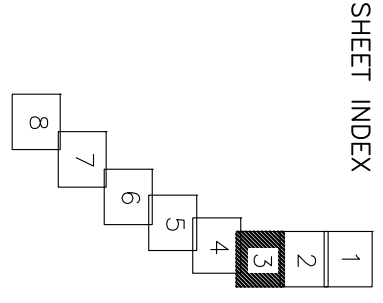
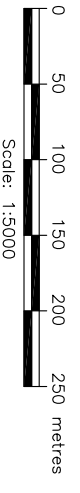
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Rev.		Amendment		By		Ckd.		Rec.		App.		Date			
Ananke Khola Minhydro User Sub Committee															
AANKHE KHOLA MINI HYDROPOWER PROJECT															
TRANSMISSION LINE PLAN															
SHEET 2 OF 8															
Alternative Energy Promotion Centre (AEP/C)															
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/AEB)															
Kumilur, Laligur, Nepal															
Tel: +9771-5539390, 5539391															
Email: saeec@aepc.gov.np															
Designed: S. Poudel				Name				Initials				Date			
Drawn: S. Poudel				Checked: J. K. Malik				Recommended: B. Singh				Approved: N. P. Adhikari			
Date: Feb 2020				Scale: AS SHOWN				Drawing No: AKMHP/DED-42C-02				Revision			



LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	H
2	11kV/3-ph Composite Line	#####
3	0.4kV Line	---3D---
4	0.2kV Line	---1D---
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7	Disconnecting Switch With DO	
8	Drop Out Fuse(DO)	
9	STP with Stoy	
10	Four Pole Structure	
11	Lightening Arrester(LA), LT	
12	Lightening Arrester(LA),9kV	



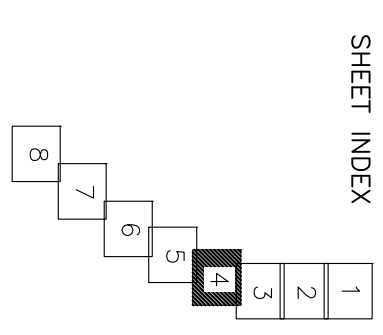
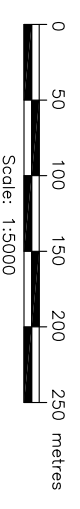
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Rev.		Amendment		By		Ckd.		Rec.		App.	
Name		Initials		Date		Date		Date		Date	
Ananke Khola Minhydro User Sub Committee						AANKHE KHOLA MINI HYDROPOWER PROJECT					
TRANSMISSION LINE						PLAN					
SHEET 3 OF 8						Alternative Energy Promotion Centre (AEP/C)					
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)						Kumilbur, Lalitpur, Nepal					
Tel: +9771-5539390, 5539391						Email: saeec@nepc.gov.np					
Date:		Feb 2020		Scale		AS SHOWN		Drawing No.		AKMHP/DED-42C-03	
Revision											



LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	
2	11kV/3-ph Composite Line	
3	0.4kV Line	
4	0.2kV Line	
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6	Load Break Switch	
7	Disconnecting Switch With DO	
8	Drop Out Fuse(DO)	
9	STP with Stay	
10	Four Pole Structure	
11	Lightening Arrester(LA), LT	
12	Lightening Arrester(LA),9kV	



Rev.		Amendment		By	Ckd.	Rec.	App.	Date
Name		Ananke Khola Minhydro User Sub Committee						
Project		AANKHE KHOLA MINI HYDROPOWER PROJECT						
Title		TRANSMISSION LINE PLAN						
Designed:		S. Poudel						
Drawn:		S. Poudel						
Checked:		J. K. Malik						
Recommended:		B. Singh						
Approved:		N. P. Adhikari						
Date:		Feb 2020						
Drawing No.		AKMHP/DED-42C-04						
Scale		AS SHOWN						
Revision								

TRANSMISSION LINE LAYOUT MAP

SCALE : 1 : 5000

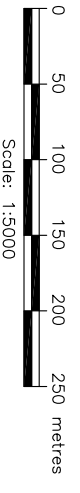
SHEET 4 OF 8

Alternative Energy Promotion Centre (AEP/C)
 South Asia Sub-regional Economic Cooperation - Power
 Expansion Project (SASEC/AEB)
 Khatimbar, Lalitpur, Nepal
 Tel: +9771-5539390, 5539391
 Email: saeec@aepc.gov.np

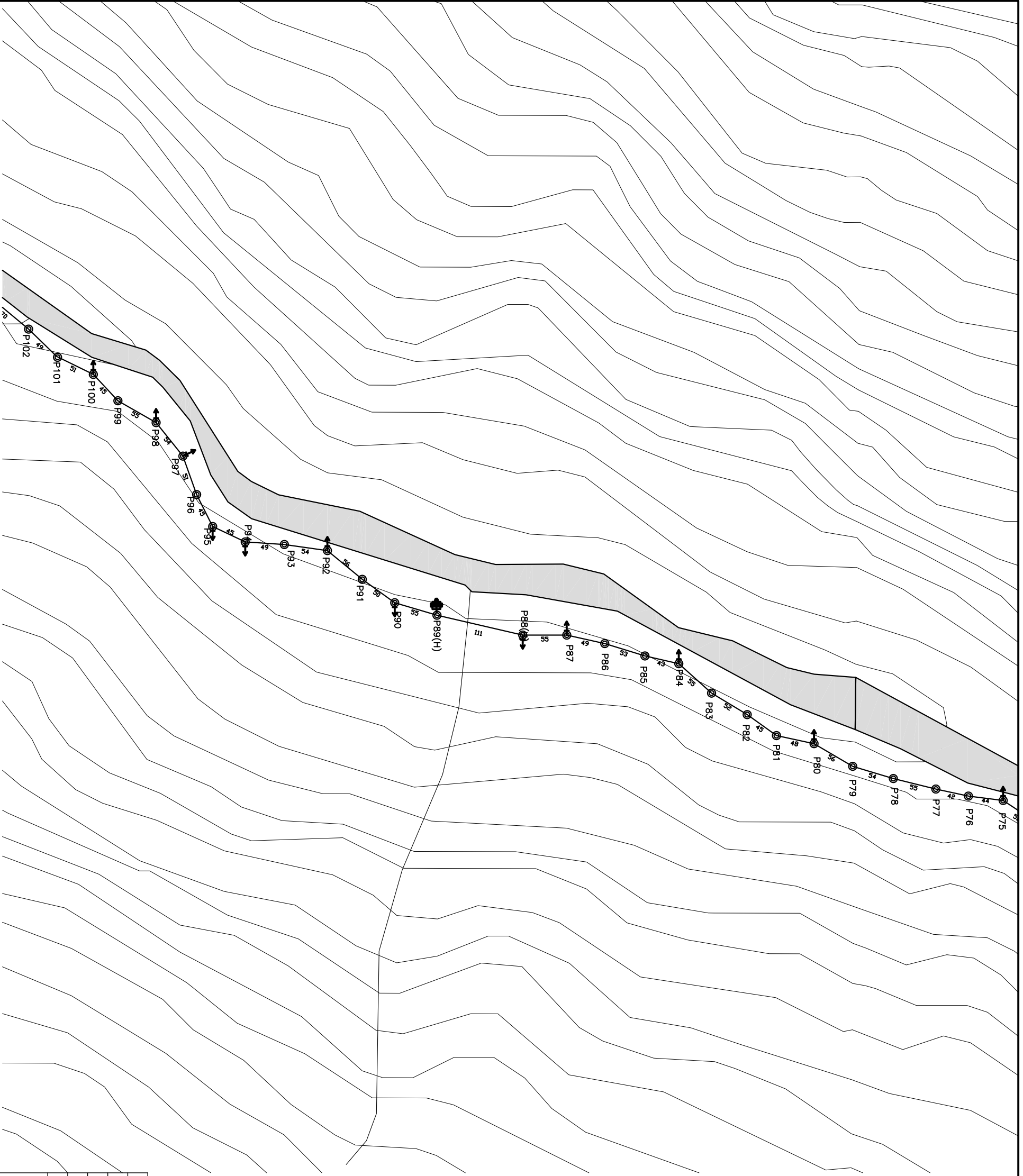
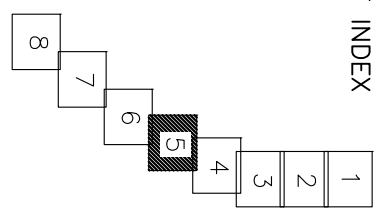


LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	H
2	11kV/3-ph Composite Line	#####
3	0.4kV Line	---3D---
4	0.2kV Line	---1D---
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6	Load Break Switch	
7	Disconnecting Switch With DO	
8	Drop Out Fuse(DO)	
9	STP with Stay	
10	Four Pole Structure	
11	Lightening Arrester(LA), LT	
12	Lightening Arrester(LA),9kV	



SHEET INDEX



TRANSMISSION LINE LAYOUT MAP

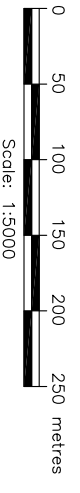
SCALE : 1 : 5000

Rev.		Amendment		By		Ckd.		Rec.		App.	
Name		Ananke Khola Minhydro User Sub Committee		Name		S. Poudel		Initials		Date	
Project		AANKHE KHOLA MINI HYDROPOWER PROJECT		Designed:		S. Poudel		Drawn:		S. Poudel	
Plan		TRANSMISSION LINE PLAN		Checked:		J. K. Malik		Recommended:		B. Singh	
Center		Alternative Energy Promotion Centre (AEPc)		Approved:		N. P. Adhikari		Date:		Feb 2020	
Scale		AS SHOWN		Drawing No.		AKMHP/DED-42C-05		Revision			
South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)		Kumilur, Lalpur, Nepal		Tel: +9771-5539390, 5539391		Email: saeec@nepc.gov.np					

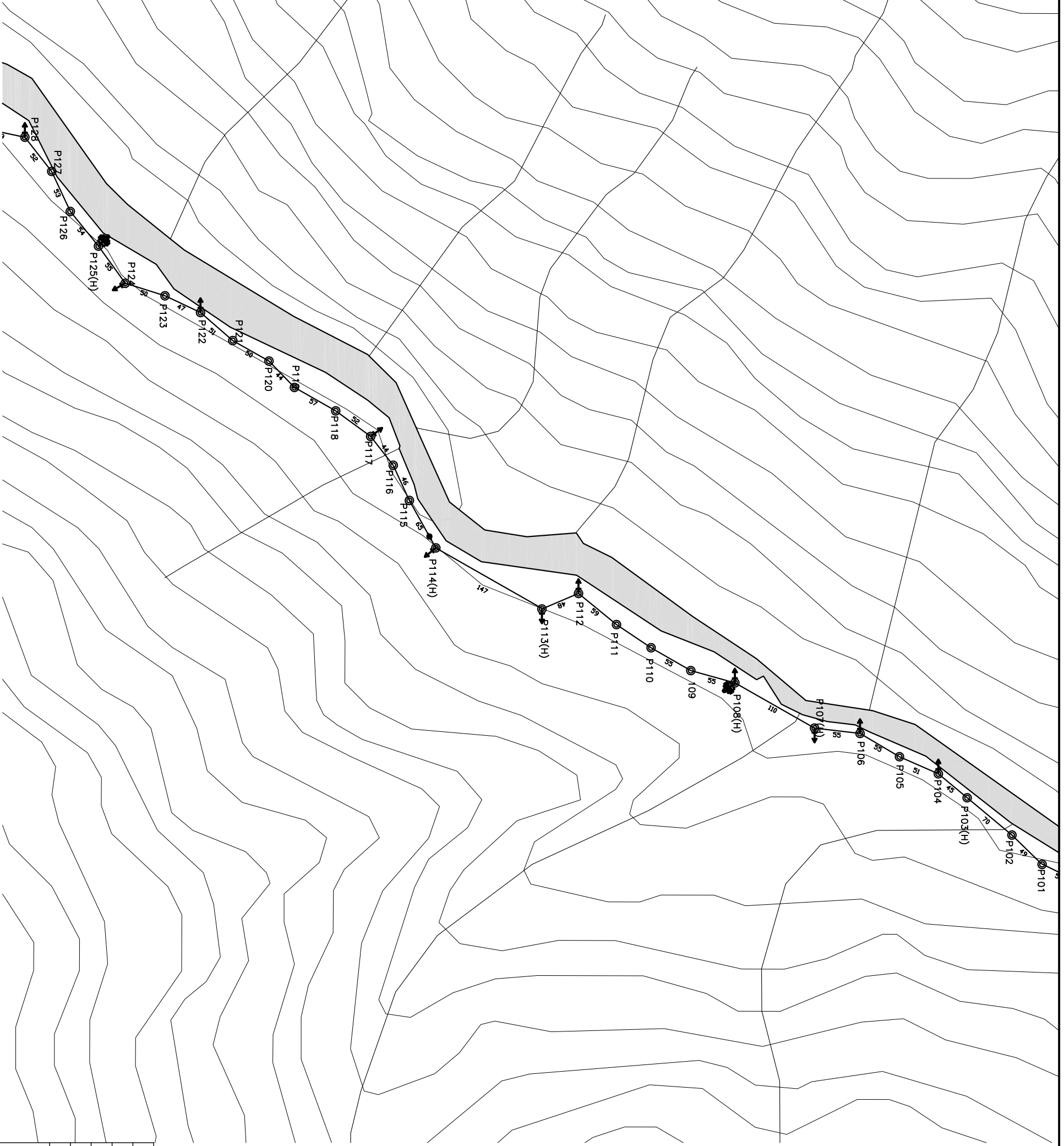
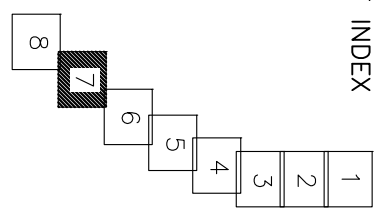


LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	H
2	11kV/3-ph Composite Line	#####
3	0.4kV Line	---3D---
4	0.2kV Line	---1D---
5	Transformer	
6	Load Break Switch	
7	Disconnecting Switch With DO	
8	Drop Out Fuse(DO)	
9	STP with Stay	
10	Four Pole Structure	
11	Lightening Arrester(LA), LT	
12	Lightening Arrester(LA),9kV	



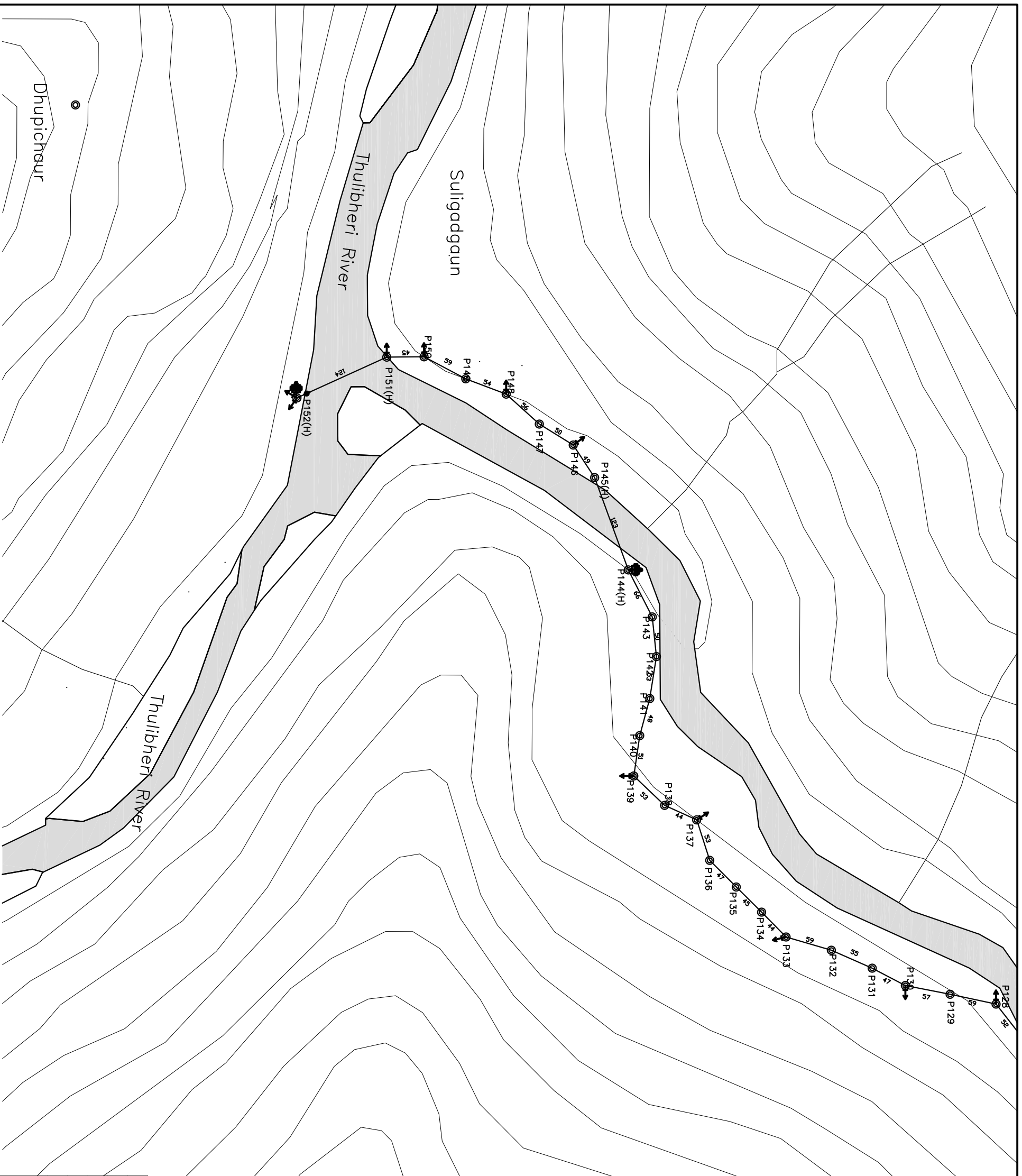
SHEET INDEX



TRANSMISSION LINE LAYOUT MAP

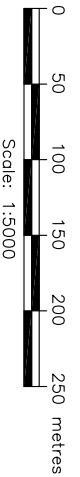
SCALE : 1 : 5000

Rev.		Amendment		By		Ckd.		Rec.		App.	
Ananke Khola Minhydro User Sub Committee		AANKHE KHOLA MINI HYDROPOWER PROJECT		S. Poudel		S. Poudel		J. K. Malik		B. Singh	
TRANSMISSION LINE		PLAN		Designed:		Drawn:		Checked:		Recommended:	
SHEET 7 OF 8		Alternative Energy Promotion Centre (AEP/C)		South Asia Sub-regional Economic Cooperation - Power Expansion Project (SASEC/ADB)		Kumilbur, Lalitpur, Nepal		Tel: +9771-5539390, 5539391		Email: saeec@nepc.gov.np	
Date:		Feb 2020		Scale:		AS SHOWN		Drawing No:		AKMHP/DED-42C-07	
Revision:											

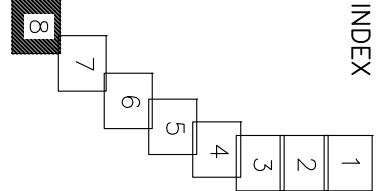


LEGEND		
S.N	DESCRIPTIONS	SYMBOL
1	Airport	
2	Road	
3	River/Stream	
4	House	
5	School	
6	Hospital	
7	Contour	
8	Forest Area	
9	Bridge/Culvert	
10	Power House	

ELECTRICAL SYMBOLS		
S.N	DESCRIPTIONS	SYMBOL
1	11kV Line	H
2	11kV/3-ph Composite Line	#####
3	0.4kV Line	---3D---
4	0.2kV Line	---1D---
5	Transformer	
6	Load Break Switch	
7	Disconnecting Switch With DO	
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Rev.	Amendment	By	Ckd.	Rec.	App.	Date
Ananke Khola Minhydro User Sub Committee						
AANKHE KHOLA MINI HYDROPOWER PROJECT						
TRANSMISSION LINE PLAN						
SHEET 7 OF 8						
Alternative Energy Promotion Centre (AEP/C)						
South Asia Sub-regional Economic Cooperation – Power Expansion Project (SASEC/ADB)						
Kumilar, Lalpur, Nepal						
Tel: +9771-5539390, 5539391						
Email: saeec@aepc.gov.np						
Designed:		Name		Initials		Date
S. Poudel		S. Poudel				
Drawn:		Name		Initials		Date
S. Poudel		S. Poudel				
Checked:		Name		Initials		Date
J. K. Malik		J. K. Malik				
Recommended:		Name		Initials		Date
B. Singh		B. Singh				
Approved:		Name		Initials		Date
N. P. Adhikari		N. P. Adhikari				
Date:	Feb 2020	Scale	AS SHOWN			
Drawing No.	AKMHP/DED-42C-08	Revision				

TRANSMISSION LINE LAYOUT MAP

SCALE : 1 : 5000

