

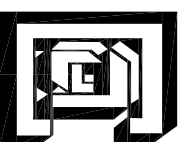
DETAIL DESIGN  
&  
CONSTRUCTION SUPERVISION OF  
ZAMIR GUL DAM  
DISTRICT KOHAT

(CONSTRUCTION DRAWINGS)

PACKAGE-02

CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHAWA  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT PESHAWAR



CONSULTANT:

CONSULTING ASSOCIATES  
NEAR DEANS COMPLEX APARTMENTS, BEHIND GUL  
CNG BOARD BAZAAR, JAMRUD ROAD, PESHAWAR  
PH#: 091-5701774-45 Fax - 091-5701775  
E-MAIL: [consultingassociates127@gmail.com](mailto:consultingassociates127@gmail.com)

(CONSTRUCTION DRAWINGS)

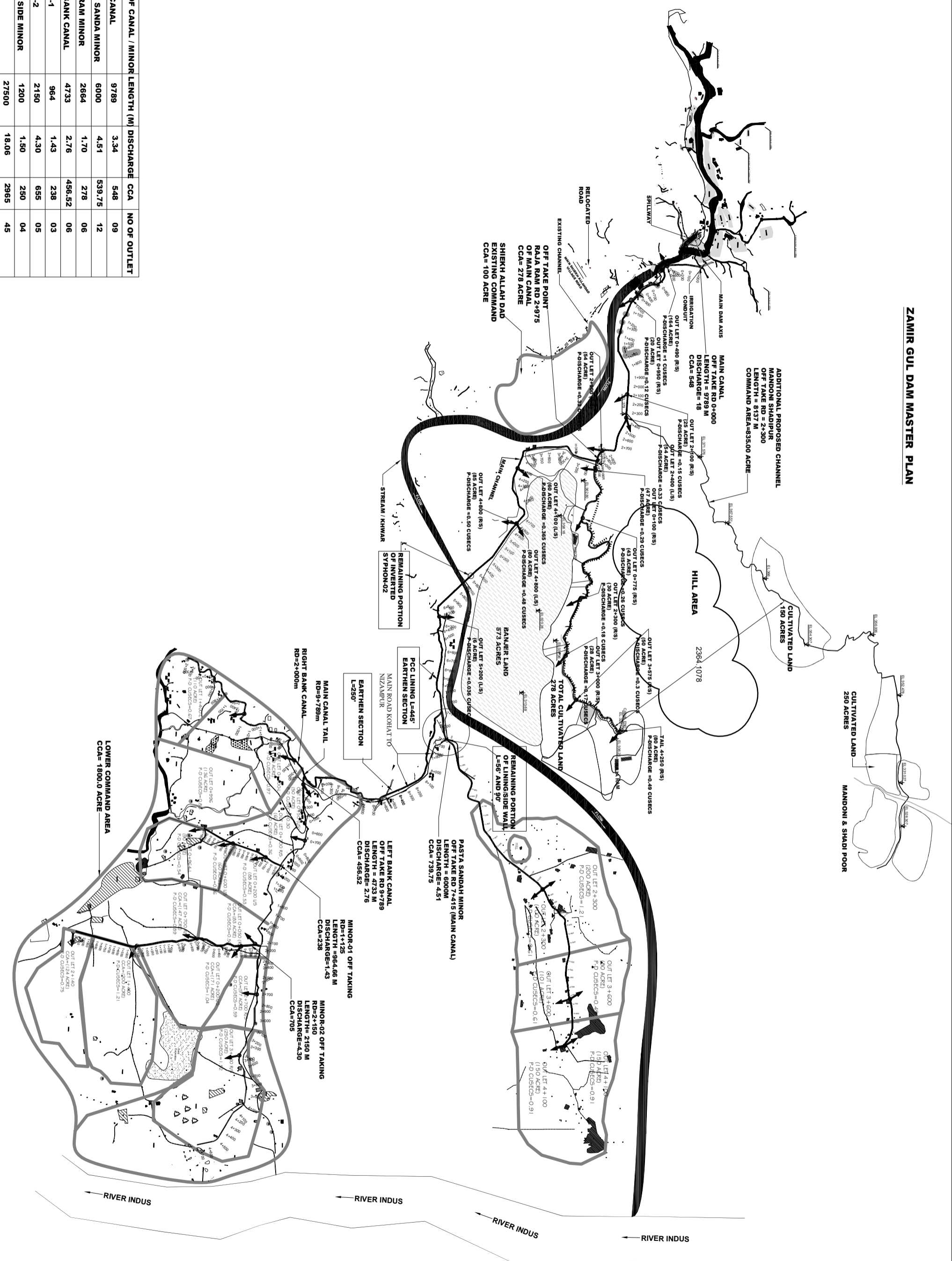
01 RAJA RAM MINOR

02 PASTA SANDA MINOR

PASTA SANDA MINOR CHANNEL  
PLAN AND PROFILE  
FROM RD 0+000 TO 6+475

**ZAMIR GUL DAM MASTER PLAN**

EGENDS	
P	PROPOSED
D	DISCHARGE



SLNO	NAME OF CANAL / MINOR	LENGTH (M)	DISCHARGE	CCA	NO OF OUTLET
01	MAIN CANAL	9789	3.34	548	09
02	PASTA SANDA MINOR	6000	4.51	539.75	12
03	RAJA RAM MINOR	2864	1.70	278	06
04	LEFT BANK CANAL	4733	2.76	456.52	06
05	MINOR-1	964	1.43	238	03
06	MINOR-2	2150	4.30	655	05
07	RIGHT SIDE MINOR	1200	1.50	250	04
TOTAL		27500	18.06	2965	45



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTING ASSOCIATES**  
 NEAR DEANS COMPLEX APARTMENTS BEHIND GUL  
 CNGB, BOARD BAZAAR, JAMRUD ROAD, PESHAWAR  
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 E-MAIL : consultingassociale127@gmail.com

**ZAMIR GUL DAM PROJECT**  
**KOHAT**

DRAWN BY: NAWAB ZADA  
 DESIGN BY: SALAH UD DIN  
 CHECKED & SUBMITTED BY: SHAKIL AHMAD

**KEY PLAN OF TOPOGRAPHIC MAP**  
**ZAMIR GUL DAM PROJECT**  
**DISTRICT KOHAT**  
 SHEET NO.



CLIENT:

GOVERNMENT OF PUNJAB  
DIRECTORATE GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR



CONSULTANTS:

CONSULTING ASSOCIATES  
NS TOWER HAVATABAD COMMERCIAL COMPLEX  
NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
P.H.#. 091-5701774-45 Fax - 091-5701775  
E-MAIL: consultingassociates127@gmail.com

PROJECT:

ZAMIR GUL DAM  
KOHAT

TITLE:

PASTA SANDA CHANNEL PLAN

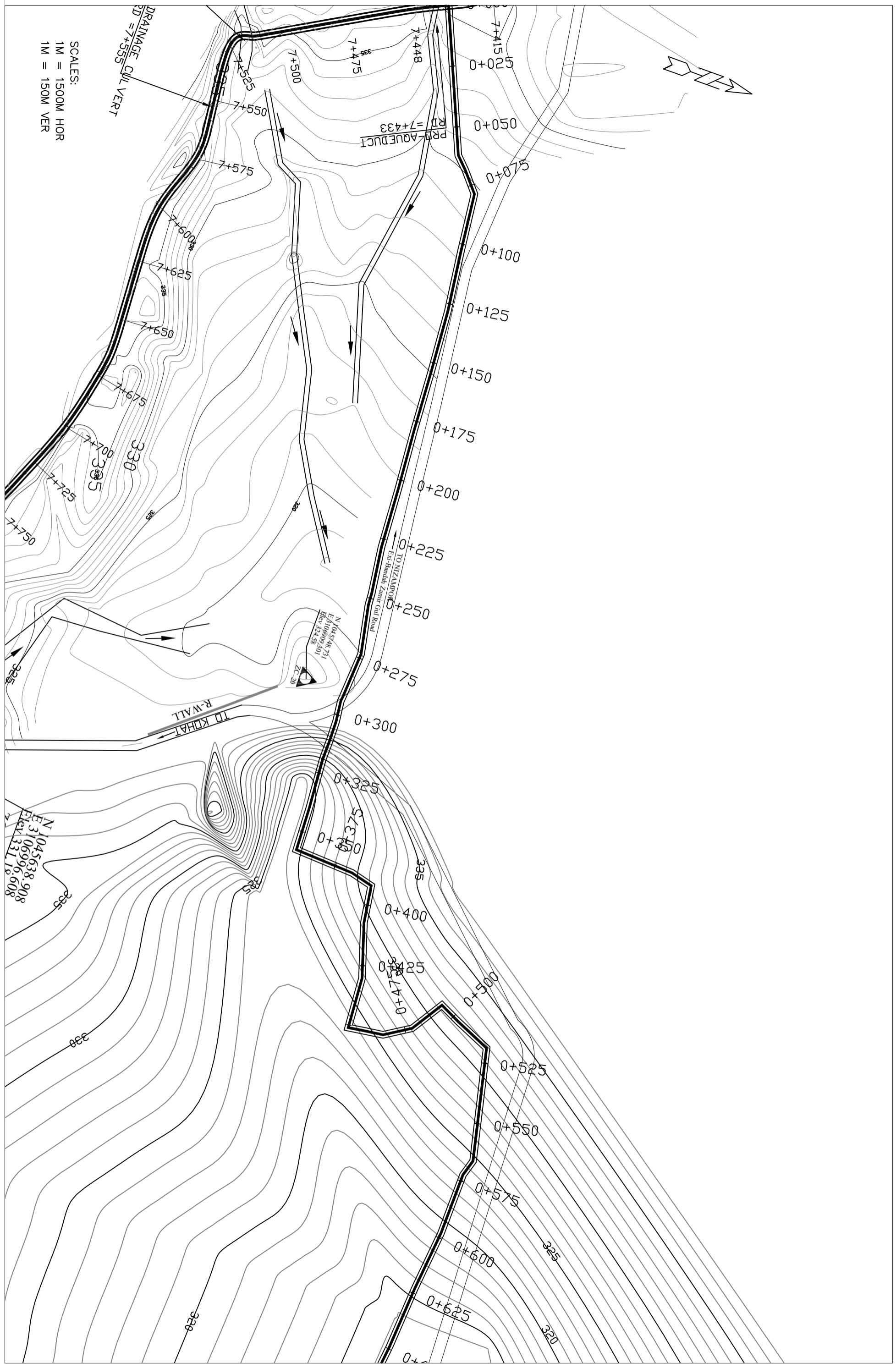
SUB TITLE:

RD= 0+000 TO 0+600

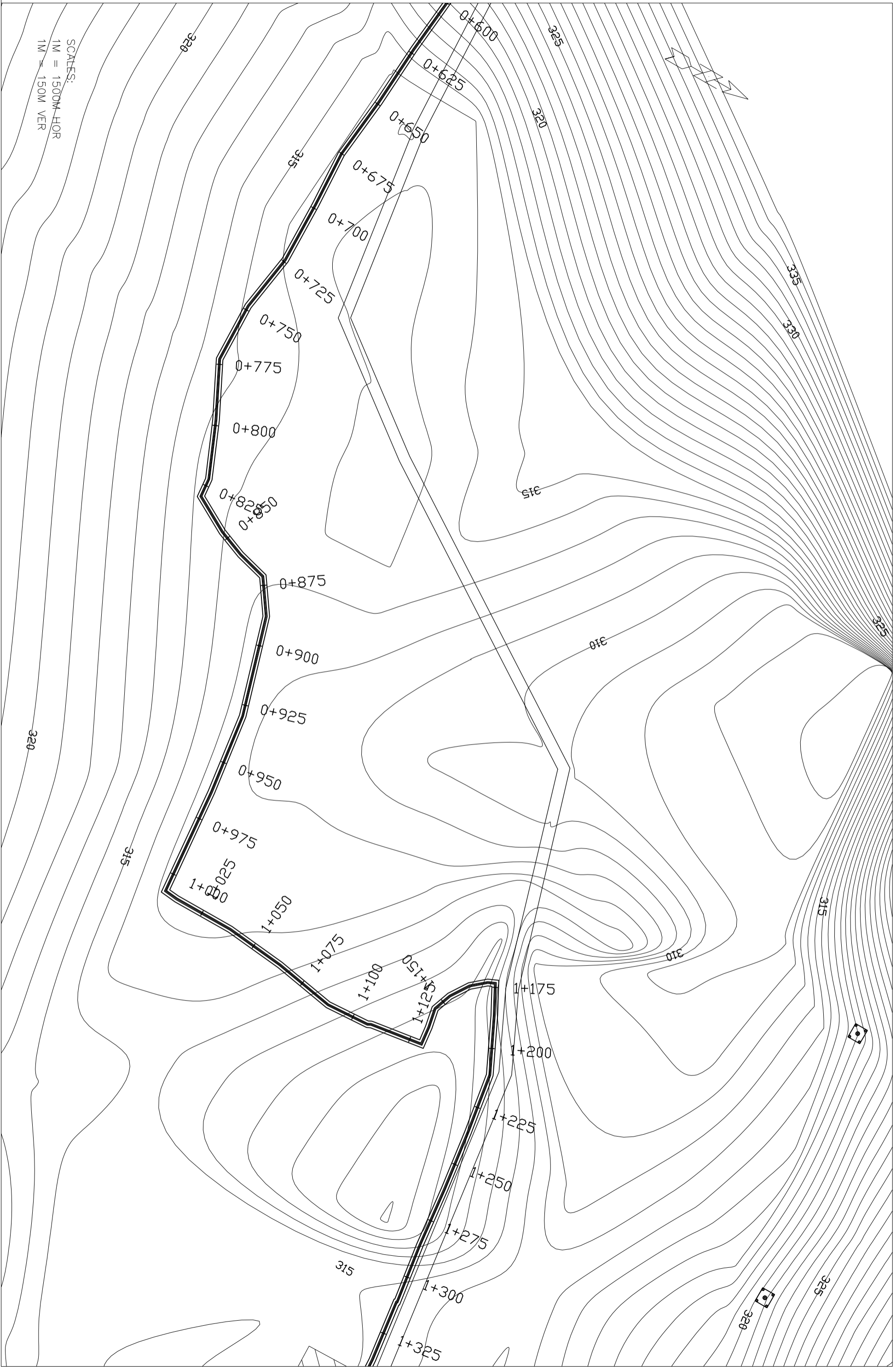
DRAWN BY	NAWAB ZADA
REVISOR BY	MUNEER KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	ZGD-IS-PCH-01
REVISION NO.	03
SHEET NO.	

DATE: MAY 2013



SCALES:  
1M = 1500M HOR  
1M = 150M VER



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER

**CLIENT:**  
  
 GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**  
  
 CONSULTING ASSOCIATES  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
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 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

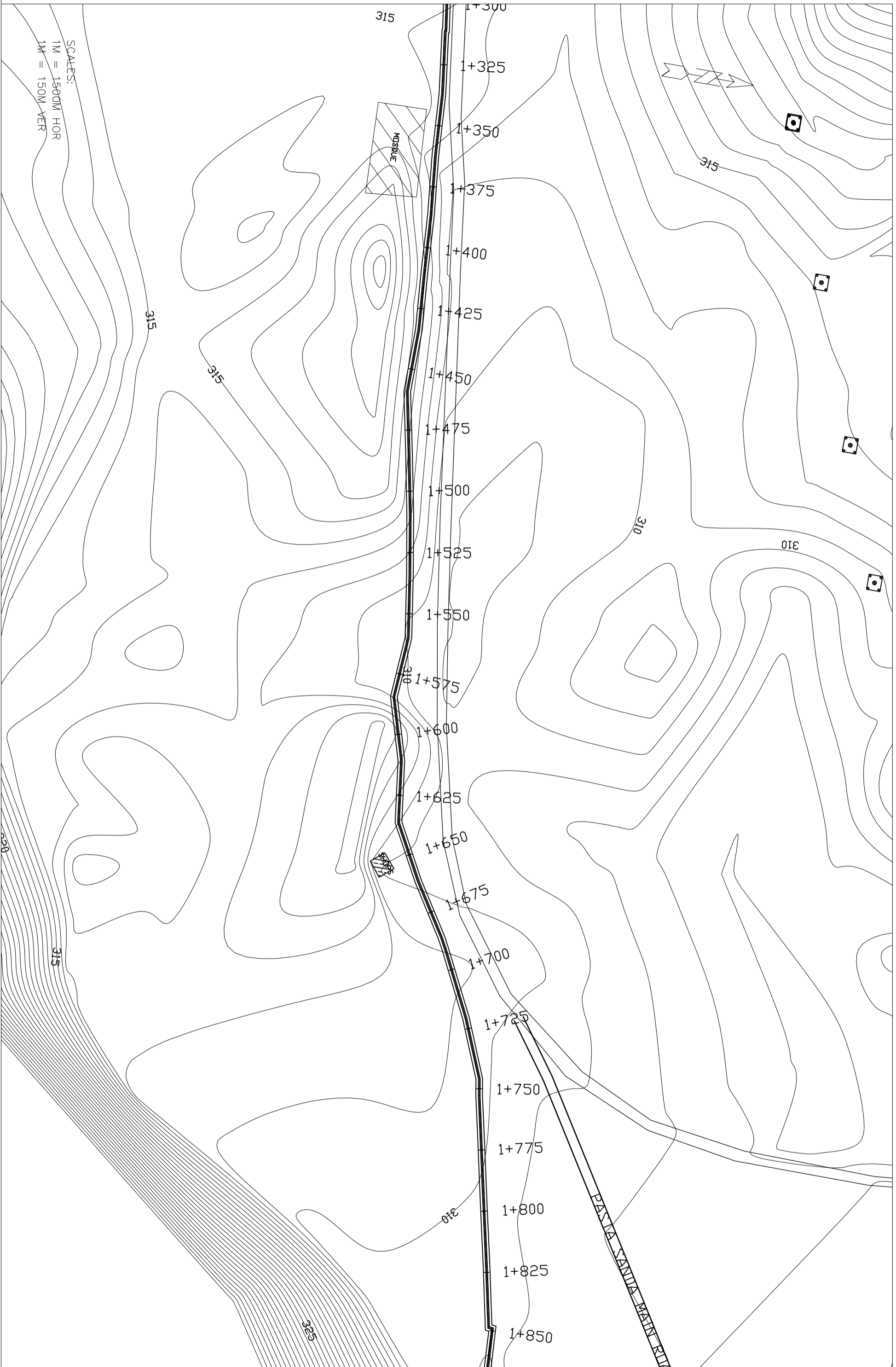
**PROJECT:**  
 ZAMIR GUL DAM  
 KOHAT

**TITLE:**  
 PASTA SANDA CHANNEL PLAN  
**SUB TITLE:**  
 RD= 0+600 TO 1+300

DRAWN BY	NAWAB ZADA
REVISED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	<b>ZGD-IS-PCH-02</b>
REVISION NO.	<b>03</b>
SHEET NO.	

**DATE:**  
 MAY 2013



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER



CLIENT:  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL, SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR



CONSULTANTS:  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

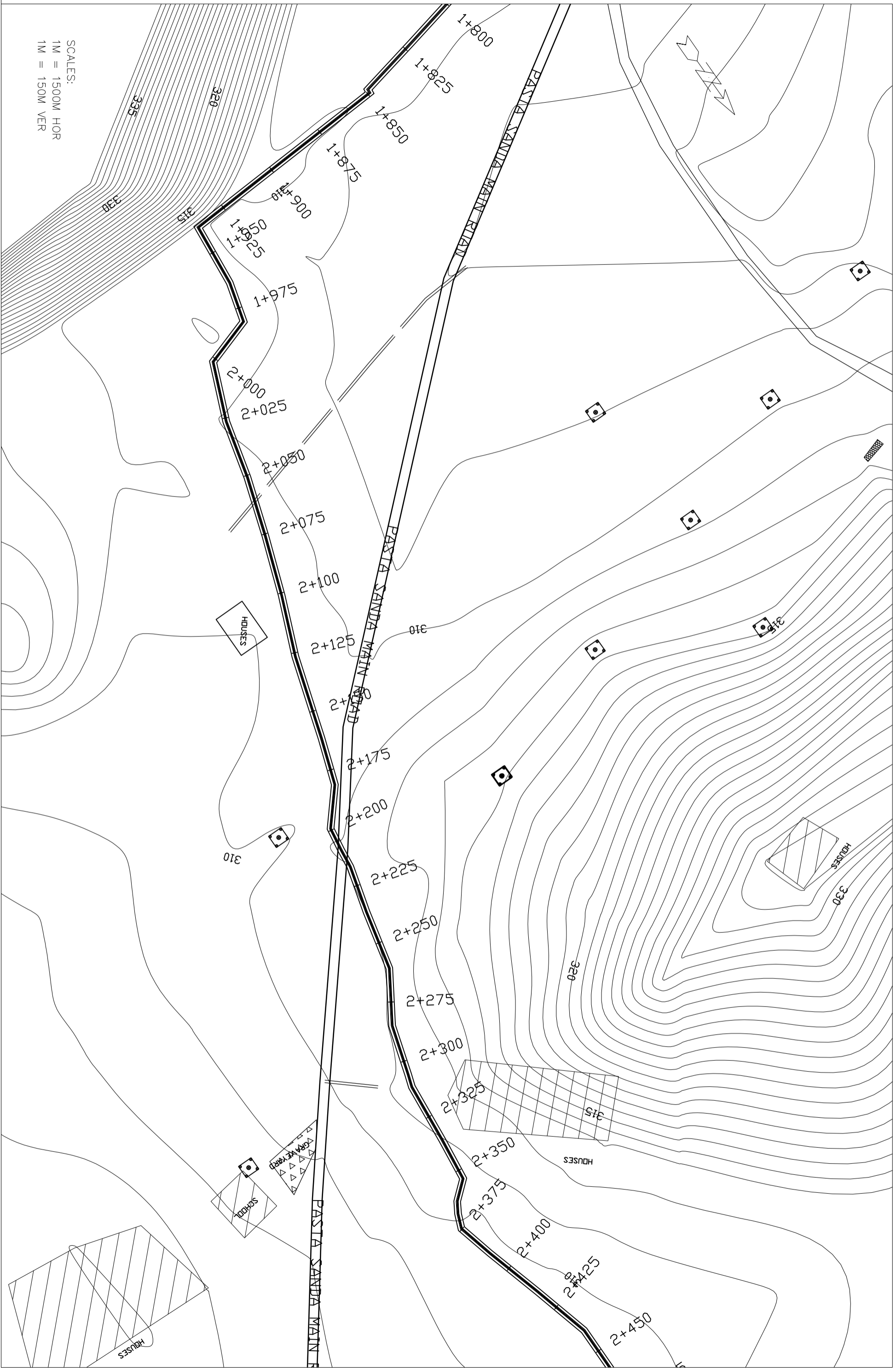
PROJECT:  
**ZAMIR GUL DAM  
 KOHAT**

TITLE:  
**PASTA SANDA CHANNEL PLAN**  
 SUB TITLE:  
**RD=1+300 TO 1+800**

DRAWN BY	NAWAB ZADA
REVISIED BY	MUNEER KHAN
DESIGN BY	SALAH UDD DIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	<b>ZGD-IS-PCH-03</b>
REVISION NO.	<b>03</b>
SHEET NO.	

DATE:  
**MAY 2013**



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER



CLIENT:  
 GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL, SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR



CONSULTANTS:  
 CONSULTING ASSOCIATES  
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 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

PROJECT:  
 ZAMIR GUL DAM  
 KOHAT

TITLE:  
 PASTA SANDA CHANNEL PLAN  
 SUB TITLE:  
 RD=1+800 TO 2+450

DRAWN BY	NAWAB ZADA
REVISIED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	ZGD-IS-PCH-04
REVISION NO.	03
SHEET NO.	

DATE:  
 MAY, 2013





SCALE  
 1:1500 HOR  
 1:1500 VER

HOUSES

HOUSES

DRAINAGE

CLIENT:  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL, SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

CONSULTANTS:  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
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 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

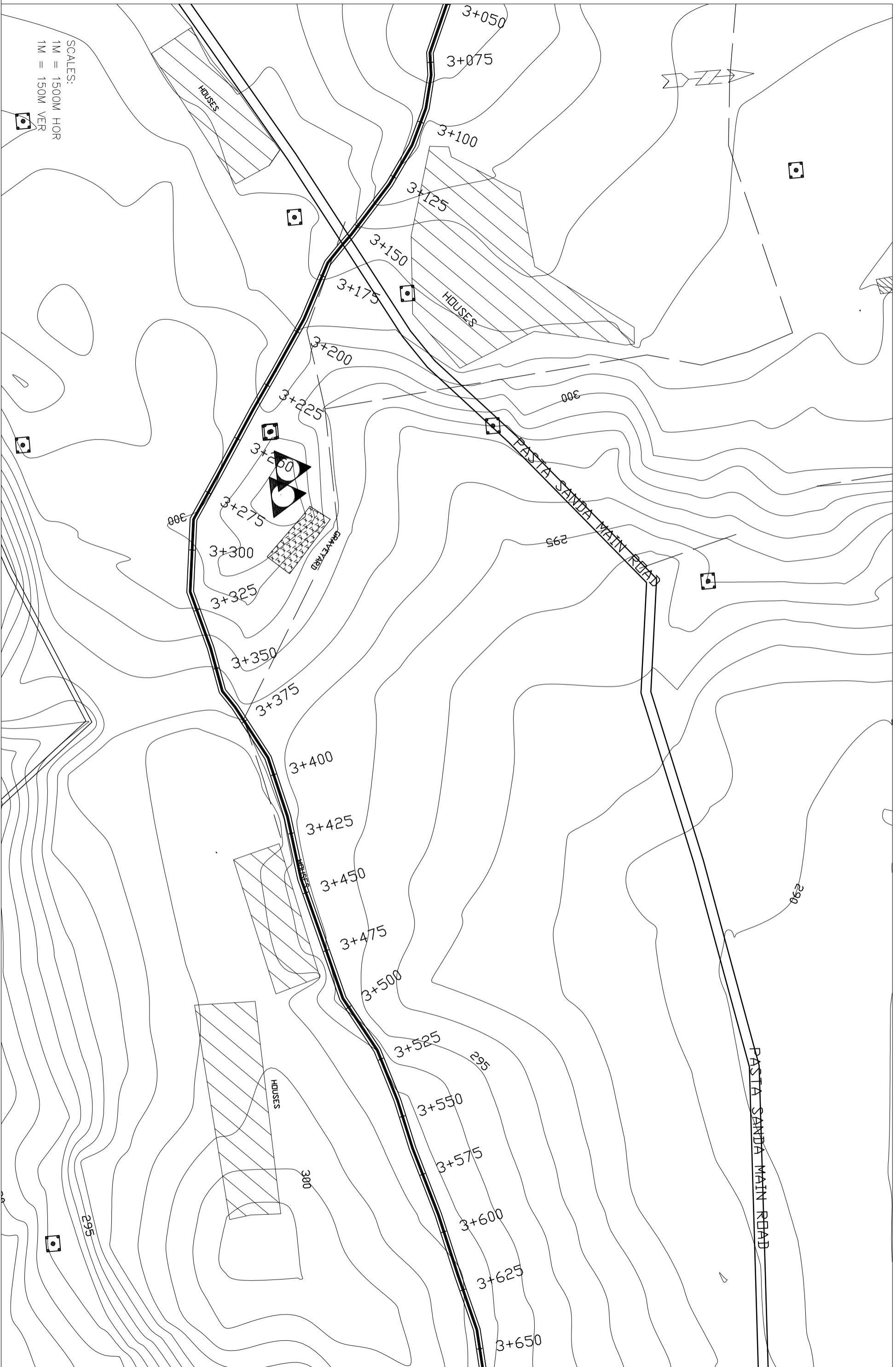
PROJECT:  
**ZAMIR GUL DAM**  
**KOHAT**

TITLE:  
**PASTA SANDA CHANNEL PLAN**  
 SUB TITLE:  
**RD= 2+450 TO 3+075**

DRAWN BY	NAWAB ZADA
REVISED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	<b>ZGD-IS-PCH-05</b>
REVISION NO.	<b>03</b>
SHEET NO.	

DATE:  
**MAY, 2013**



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER

CLIENT:  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL, SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

CONSULTANTS:  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

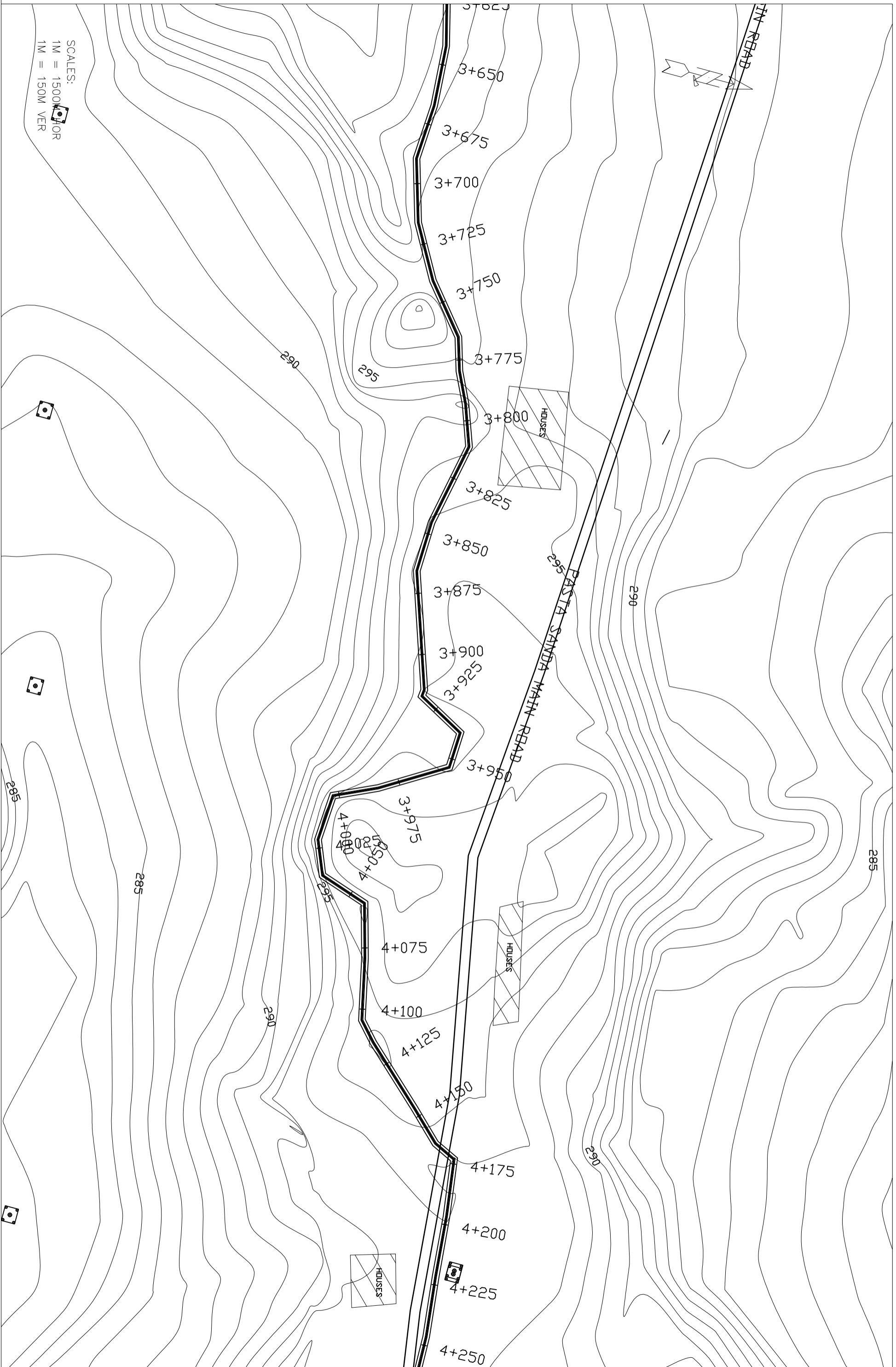
PROJECT:  
**ZAMIR GUL DAM  
 KOHAT**

TITLE:  
**PASTA SANDA CHANNEL PLAN**  
 SUB TITLE:  
**RD= 3+075 TO 3+650**

DRAWN BY	NAWAB ZADA
REVISED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	<b>ZGD-IS-PCH-06</b>
REVISION NO.	<b>03</b>
SHEET NO.	

DATE:  
**MAY 2013**



SCALES:  
 1M = 1500M FOR  
 1M = 150M VER

CLIENT:  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL, SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR

CONSULTANTS:  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
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 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

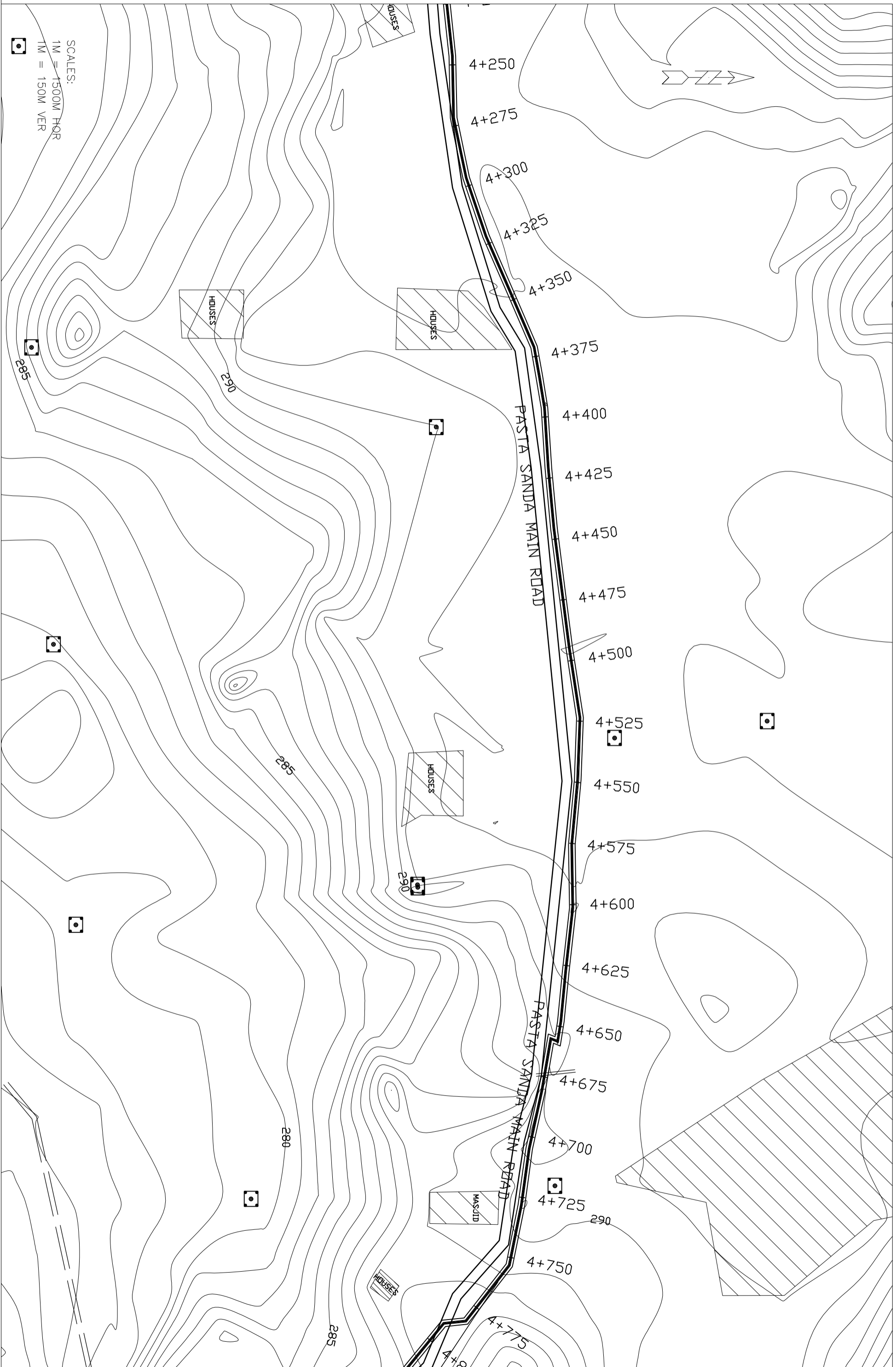
PROJECT:  
**ZAMIR GUL DAM  
 KOHAT**

TITLE:  
**PASTA SANDA CHANNEL PLAN**  
 SUB TITLE:  
**RD= 3+650 TO 4+250**

DRAWN BY	NAWAB ZADA
REVISED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	<b>ZGD-IS-PCH-07</b>
REVISION NO.	<b>03</b>
SHEET NO.	

DATE:  
**MAY 2013**



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER

**CLIENT:**



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL, SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**



**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

**PROJECT:**

**ZAMIR GUL DAM  
 KOHAT**

**TITLE:**

**PASTA SANDA CHANNEL PLAN**

**SUB TITLE:**

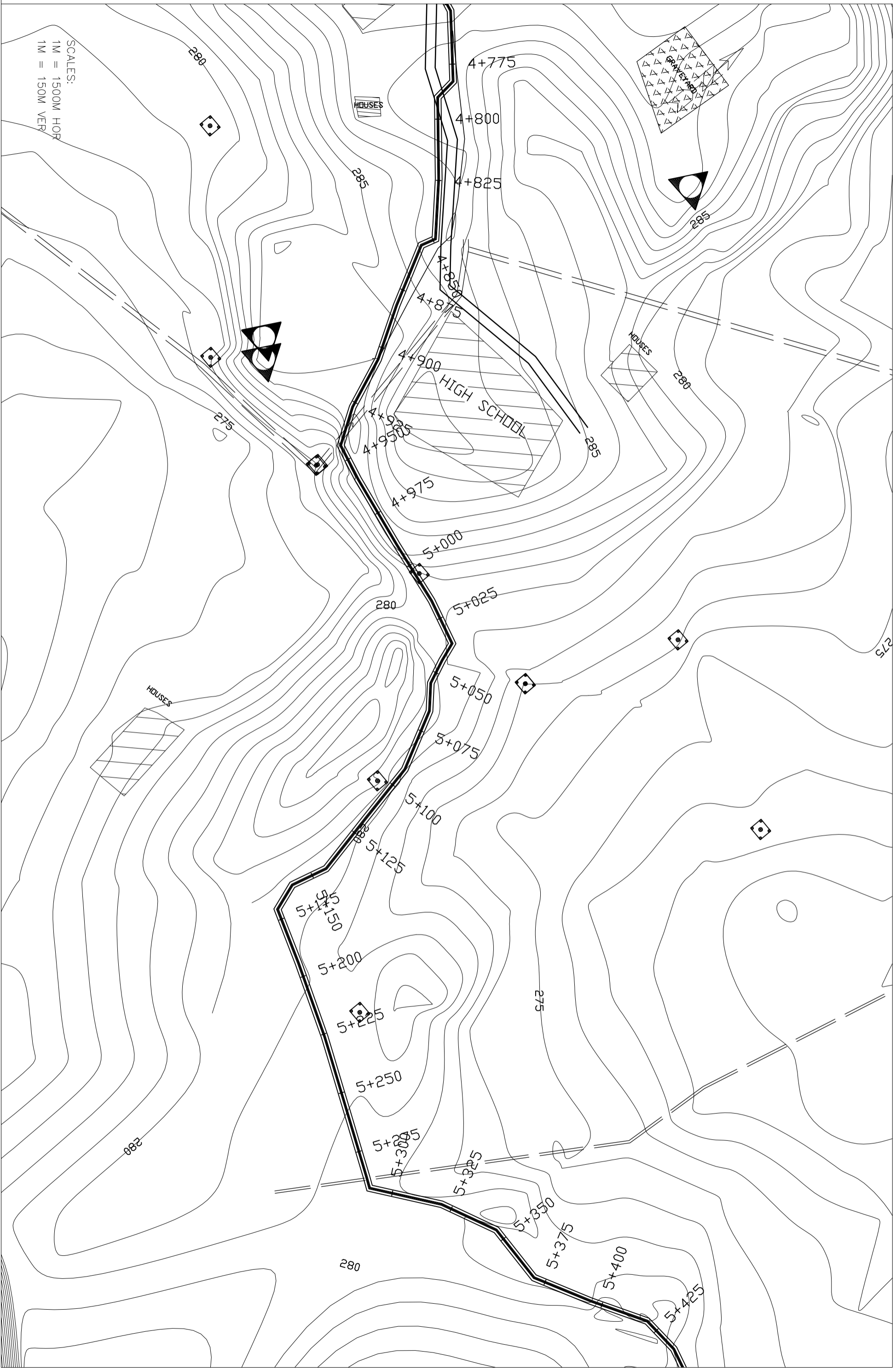
**RD= 4+250 TO 4+775**

<b>DRAWN BY</b>	NAWAB ZADA
<b>REVISED BY</b>	MUNEEB KHAN
<b>DESIGN BY</b>	SALAH UDDIN
<b>CHECKED &amp; SUBMITTED BY</b>	FARID KHAN

<b>DRAWING NO.</b>	<b>ZGD-IS-PCH-08</b>
<b>REVISION NO.</b>	<b>03</b>
<b>SHEET NO.</b>	

**DATE:**

**MAY 2013**



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER



CLIENT:

GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR



CONSULTANTS:

CONSULTING ASSOCIATES  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
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 PH# 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

PROJECT:

ZAMIR GUL DAM  
 KOHAT

TITLE:

PASTA SANDA CHANNEL PLAN

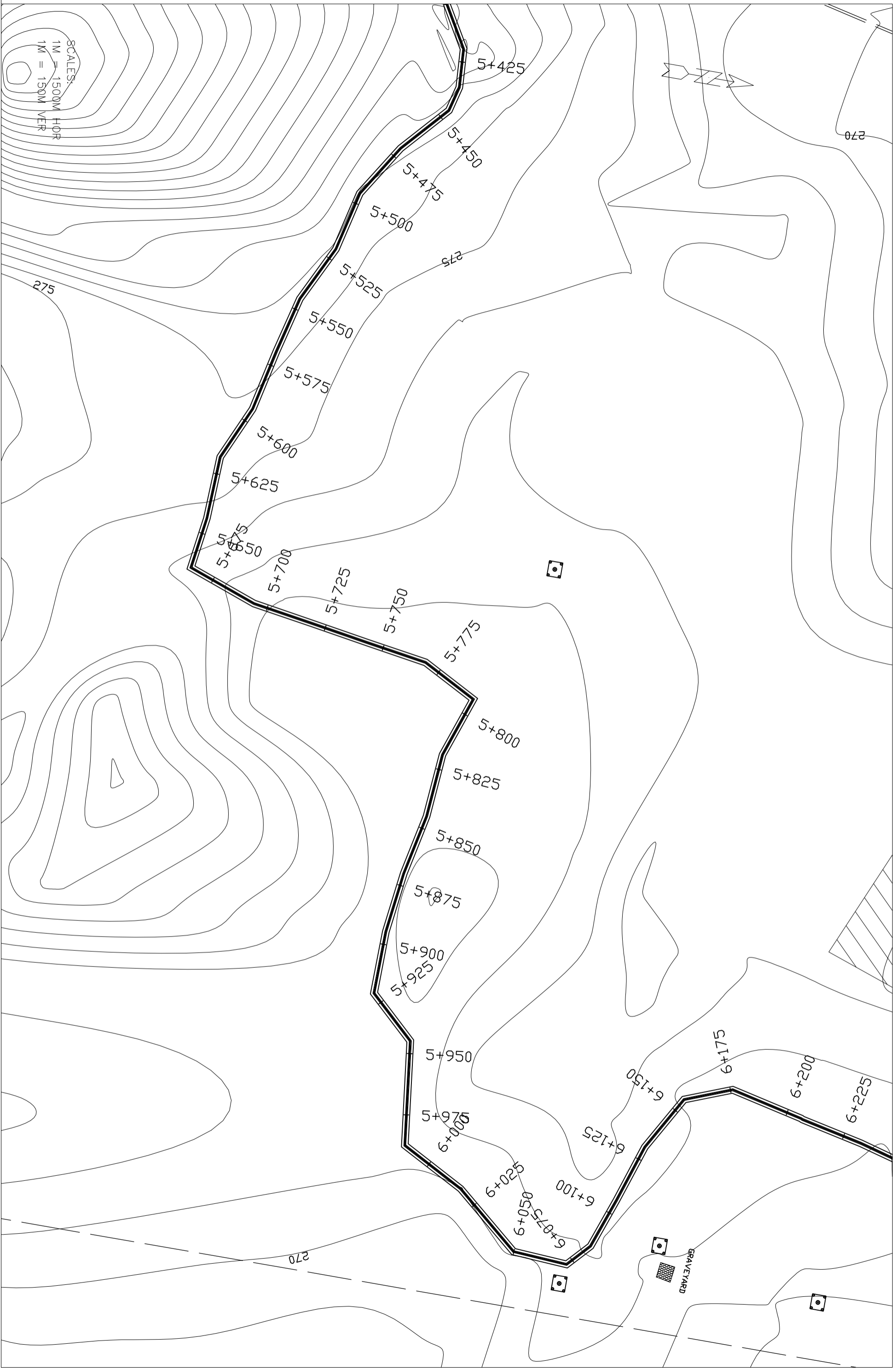
SUB TITLE:

RD= 4+775 TO 4+425

DRAWN BY	NAWAB ZADA
REVISIED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	ZGD-IS-PCH-09
REVISION NO.	03
SHEET NO.	

DATE:  
 MAY 2013



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER



CLIENT:  
 GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL, SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR



CONSULTANTS:  
 CONSULTING ASSOCIATES  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 PH# : 091-5701774-45 Fax : 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

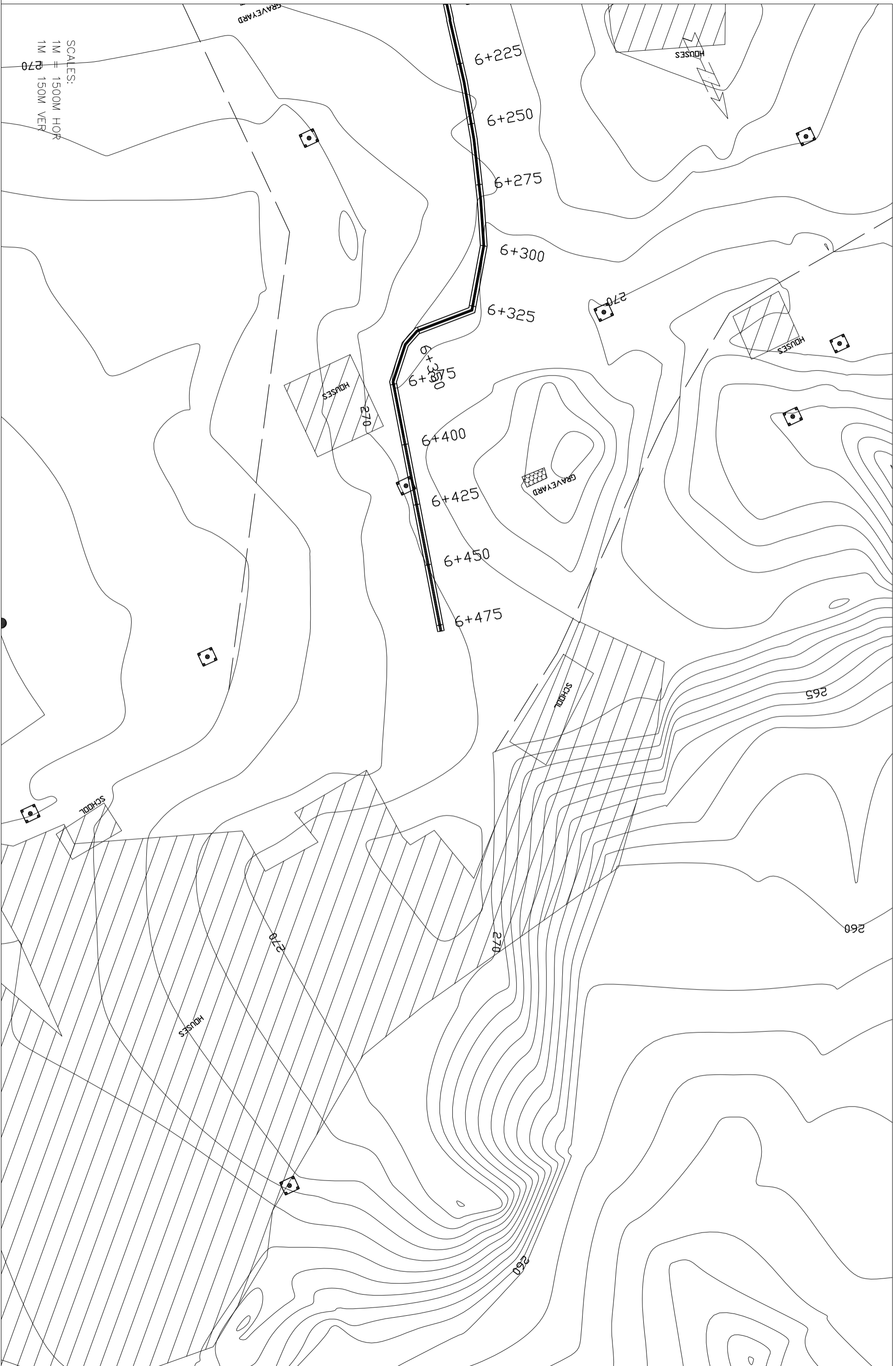
PROJECT:  
 ZAMIR GUL DAM  
 KOHAT

TITLE:  
 PASTA SANDA CHANNEL PLAN  
 SUB TITLE:  
 RD= 5+425 TO 6+225

DRAWN BY	NAWAB ZADA
REVISED BY	MUNEEB KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	FARID KHAN

DRAWING NO.	ZGD-IS-PCH-10
REVISION NO.	03
SHEET NO.	

DATE:  
 MAY, 2013



SCALES:  
 1M = 1500M HOR  
 1M = 150M VER

**CLIENT:**  
 GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL, SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**  
 CONSULTING ASSOCIATES  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN AJCHINI BALA ROAD, PESHAWAR  
 PH# 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

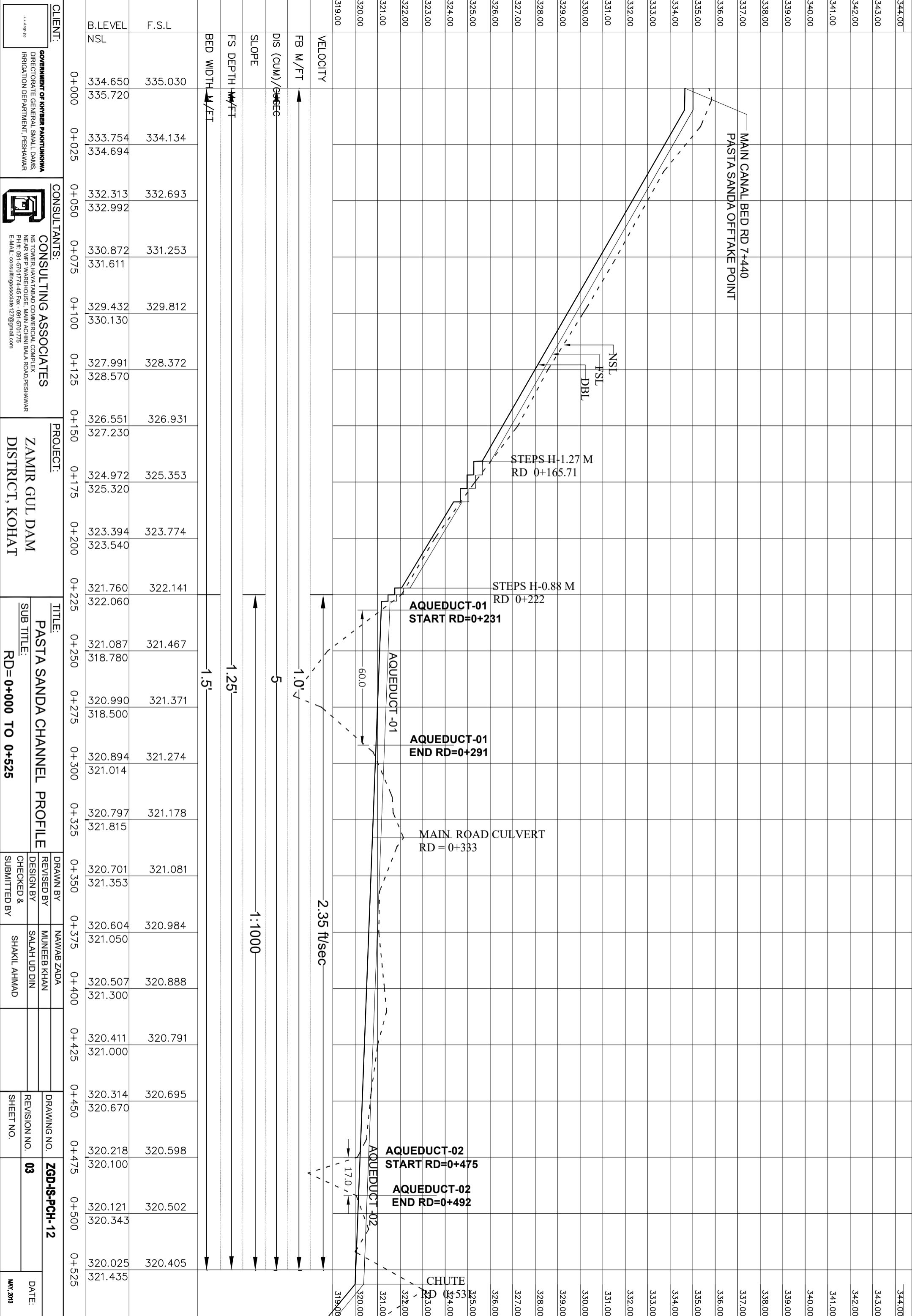
**PROJECT:**  
 ZAMIR GUL DAM  
 KOHAT

**TITLE:**  
 PASTA SANDA CHANNEL PLAN  
**SUB TITLE:**  
 RD= 6+225 TO 6+475

DRAWN BY	NAWAB ZADA
REVISIED BY	MUNEEB KHAN
DESIGN BY	SALAH UDD DIN
CHECKED & SUBMITTED BY	FARID KHAN

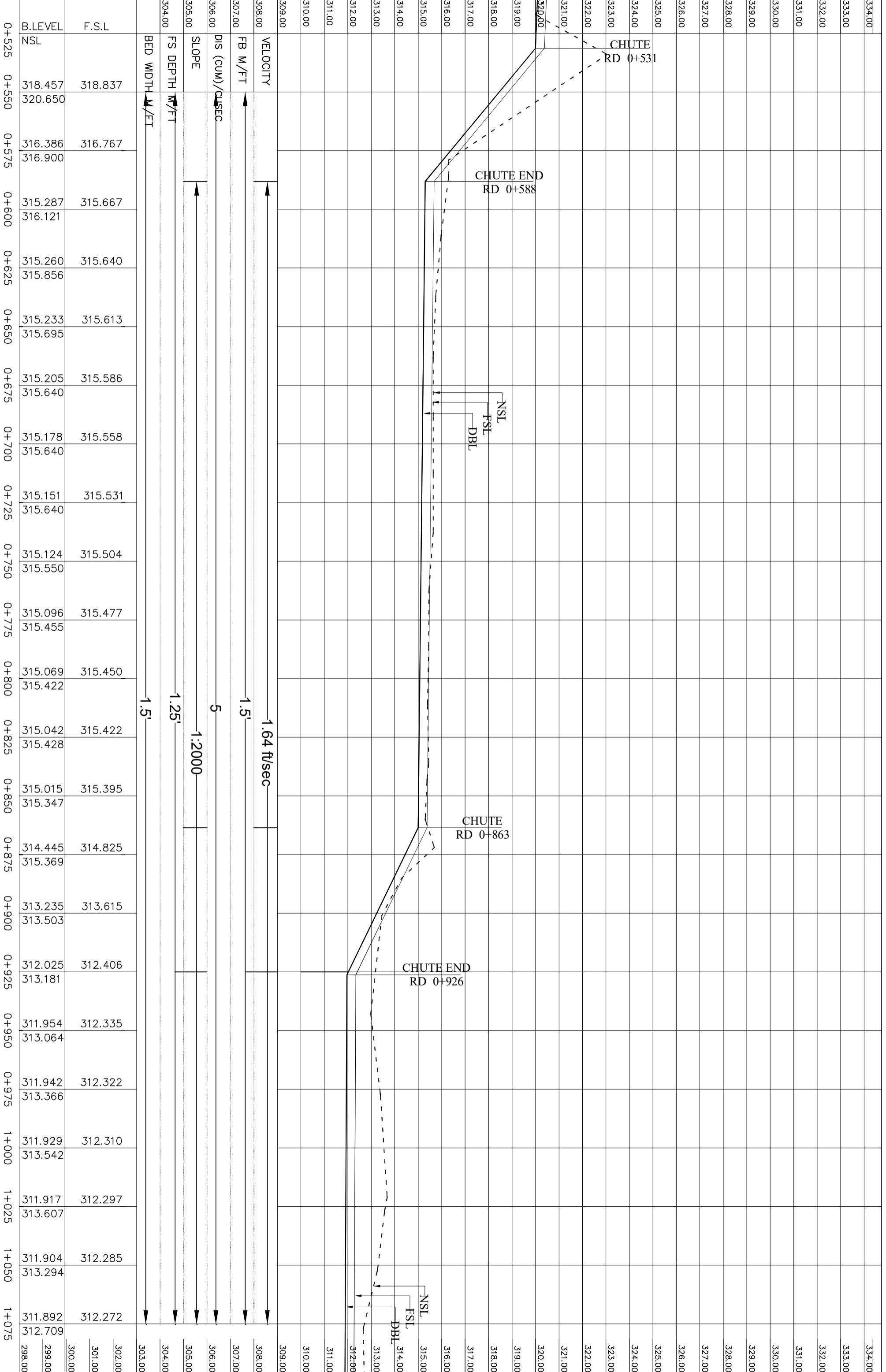
DRAWING NO.	<b>ZGD-IS-PCH-11</b>
REVISION NO.	<b>03</b>
SHEET NO.	

**DATE:**  
 MAY 2013



<b>CLIENT:</b> GOVERNMENT OF KHYBER PAKHTUNKHWA DIRECTORATE GENERAL SMALL DAMS IRRIGATION DEPARTMENT, PESHAWAR	<b>CONSULTANTS:</b> CONSULTING ASSOCIATES NS TOWER HAYATABAD COMMERCIAL COMPLEX NEAR WFP WAREHOUSE, MAIN AJCHINI BALA ROAD PESHAWAR PH # 091-5701774-45 Fax - 091-5701775 E-MAIL: consultingassociates127@gmail.com	<b>PROJECT:</b> ZAMIR GUL DAM DISTRICT, KOHAT	<b>TITLE:</b> PASTA SANDA CHANNEL PROFILE <b>SUB TITLE:</b> RD= 0+000 TO 0+525	<table border="1"> <tr> <td>DRAWN BY</td> <td>NAWAB ZADA</td> </tr> <tr> <td>DESIGNED BY</td> <td>MUNEEB KHAN</td> </tr> <tr> <td>CHECKED &amp; SUBMITTED BY</td> <td>SALAH UDDIN SHAKIL AHMAD</td> </tr> </table>	DRAWN BY	NAWAB ZADA	DESIGNED BY	MUNEEB KHAN	CHECKED & SUBMITTED BY	SALAH UDDIN SHAKIL AHMAD	<table border="1"> <tr> <td>DRAWING NO.</td> <td rowspan="2"><b>ZGD-IS-PCH-12</b></td> </tr> <tr> <td>REVISION NO.</td> <td>03</td> </tr> <tr> <td>SHEET NO.</td> <td></td> </tr> </table>	DRAWING NO.	<b>ZGD-IS-PCH-12</b>	REVISION NO.	03	SHEET NO.		DATE: MAY, 2013
DRAWN BY	NAWAB ZADA																	
DESIGNED BY	MUNEEB KHAN																	
CHECKED & SUBMITTED BY	SALAH UDDIN SHAKIL AHMAD																	
DRAWING NO.	<b>ZGD-IS-PCH-12</b>																	
REVISION NO.		03																
SHEET NO.																		





STATION	ELEVATION (FT)	ELEVATION (M)	VELOCITY (FT/SEC)	DISCHARGE (CUSEC)	SLOPE	BED WIDTH (M/FT)
0+525	318.457	318.837				
0+550	320.650					
0+575	316.386	316.767				
0+600	315.287	315.667				
0+625	315.260	315.640				
0+650	315.233	315.613				
0+675	315.205	315.586				
0+700	315.178	315.558				
0+725	315.151	315.531				
0+750	315.124	315.504				
0+775	315.096	315.477				
0+800	315.069	315.450				
0+825	315.042	315.422				
0+850	315.015	315.395				
0+875	314.445	314.825				
0+900	313.235	313.615				
0+925	312.025	312.406				
0+950	311.954	312.335				
0+975	311.942	312.322				
1+000	311.929	312.310				
1+025	311.917	312.297				
1+050	311.904	312.285				
1+075	311.892	312.272				

**CLIENT:**  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

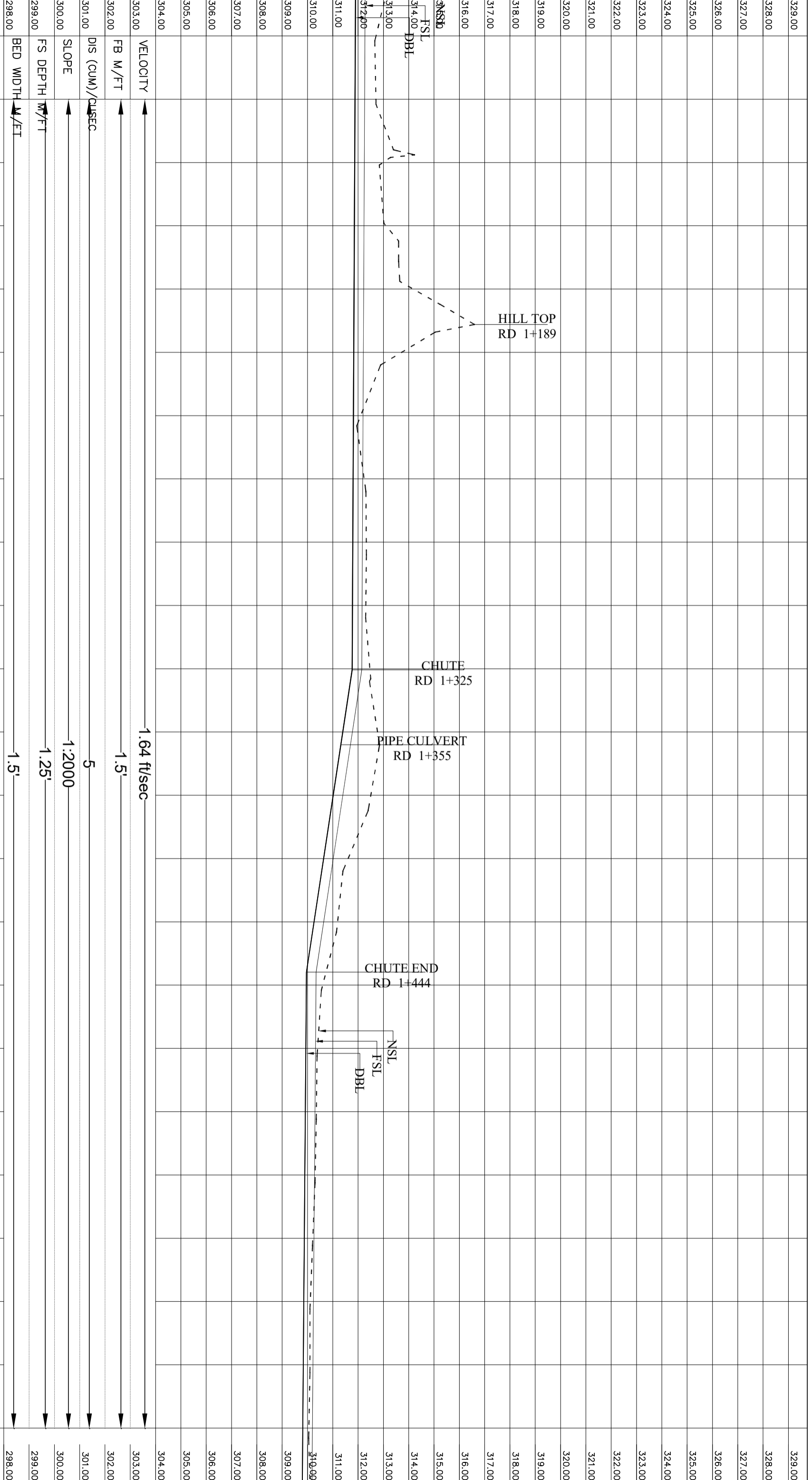
**CONSULTANTS:**  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN AJCHINI BALA ROAD PESHAWAR  
 PH# 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

**PROJECT:**  
**ZAMIR GUL DAM**  
**DISTRICT, KOHAT**

**TITLE:**  
**PASTA SANDA CHANNEL PROFILE**  
**SUB TITLE:**  
**RD= 0+525 TO 1+075**

<b>DRAWN BY</b>	NAWAB ZADA
<b>REVISOR BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	SALAH UDDIN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD

<b>DRAWING NO.</b>	<b>ZGD-IS-PCH-13</b>
<b>REVISION NO.</b>	<b>03</b>
<b>SHEET NO.</b>	
<b>DATE:</b>	<b>MAY 2013</b>



Station	Velocity (ft/sec)	FB M/FT	DIS (CUM)/CUSEC	SLOPE	FS DEPTH M/FT	BED WIDTH M/FT
304.00	1.64					1.5'
305.00						
306.00						
307.00						
308.00						
309.00						
310.00						
311.00						
312.00						
313.00						
314.00						
315.00						
316.00						
317.00						
318.00						
319.00						
320.00						
321.00						
322.00						
323.00						
324.00						
325.00						
326.00						
327.00						
328.00						
329.00						

Station	F.S.L	B.LEVEL NSL
1+075	312.260	311.879
1+100		312.706
1+125	312.247	311.867
1+150	312.235	311.854
1+175	312.222	314.177
1+200	312.210	313.721
1+225	312.197	312.107
1+250	312.185	311.804
1+275	312.172	311.792
1+300	312.160	311.779
1+325	312.147	311.767
1+350	311.776	311.395
1+375	311.398	311.017
1+400	311.020	310.639
1+425	310.642	310.262
1+450	310.338	309.957
1+475	310.318	309.937
1+500	310.298	309.917
1+525	310.278	309.897
1+550	310.258	309.877
1+575	310.238	309.857
1+600	310.218	309.837
1+625	310.198	309.817

**CLIENT:** GOVERNMENT OF KHYBER PAKHTUNKHWA  
DIRECTORATE GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:** CONSULTING ASSOCIATES  
NS TOWER HAVATABAD COMMERCIAL COMPLEX  
NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR  
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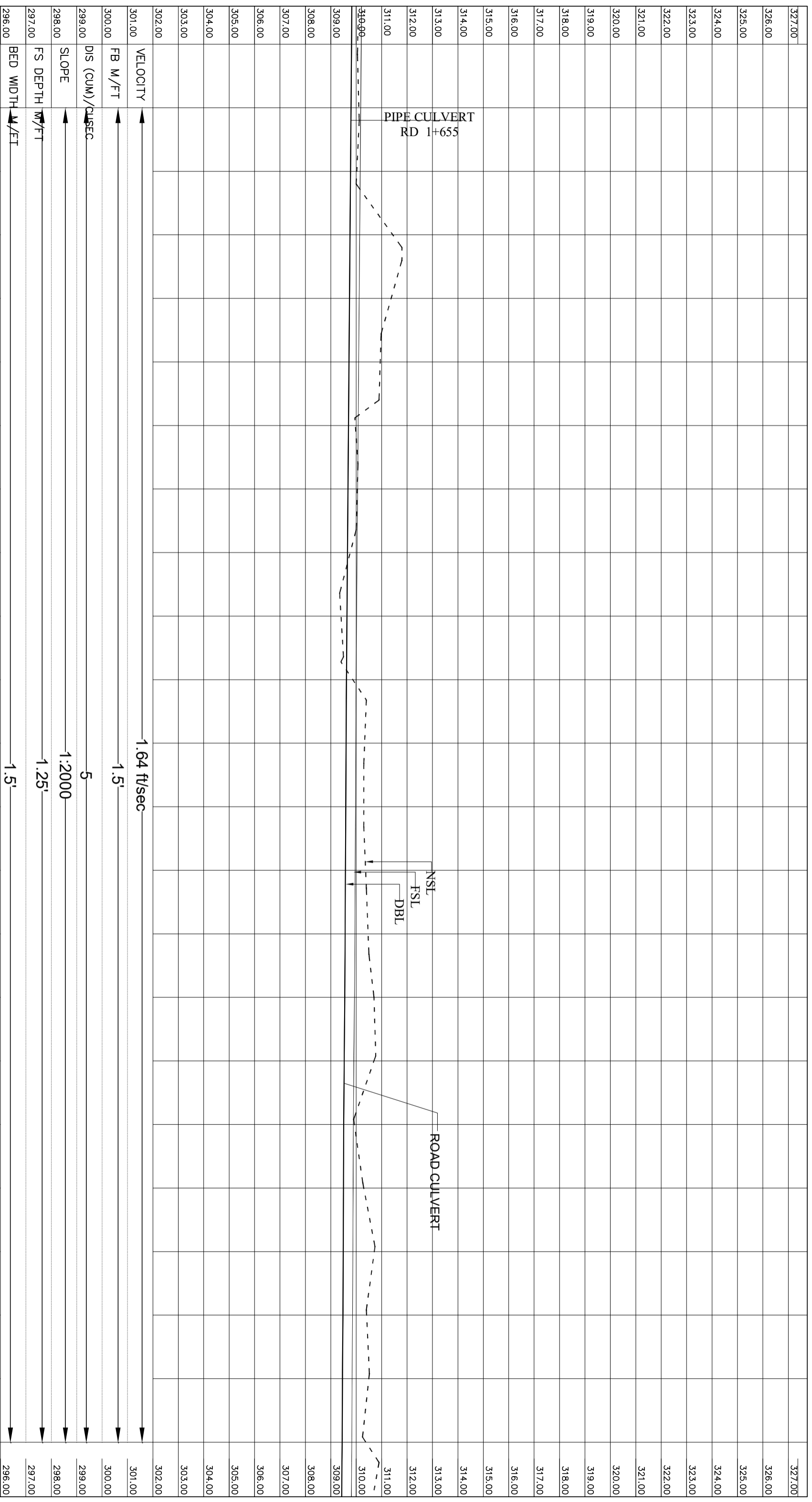
**PROJECT:** ZAMIR GUL DAM  
DISTRICT, KOHAT

**TITLE:** PASTA SANDA CHANNEL PROFILE  
**SUB TITLE:** RD=1+075 TO 1+625

DRAWN BY	NAWAB ZADA
REVISOR BY	MUNEER KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	SHAKIL AHMAD

DRAWING NO.	ZGD-IS-PCH-14
REVISION NO.	03
SHEET NO.	

**DATE:** MAY 2013



Station	NSL	F.S.L.	BED WIDTH	VELOCITY	FB M/FT	DIS (CUM) / CUSEC	SLOPE	FS DEPTH M/FT
327.00								
326.00								
325.00								
324.00								
323.00								
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305.00								
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301.00								
300.00								
299.00								
298.00								
297.00								
296.00								

**CLIENT:**  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 P# 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

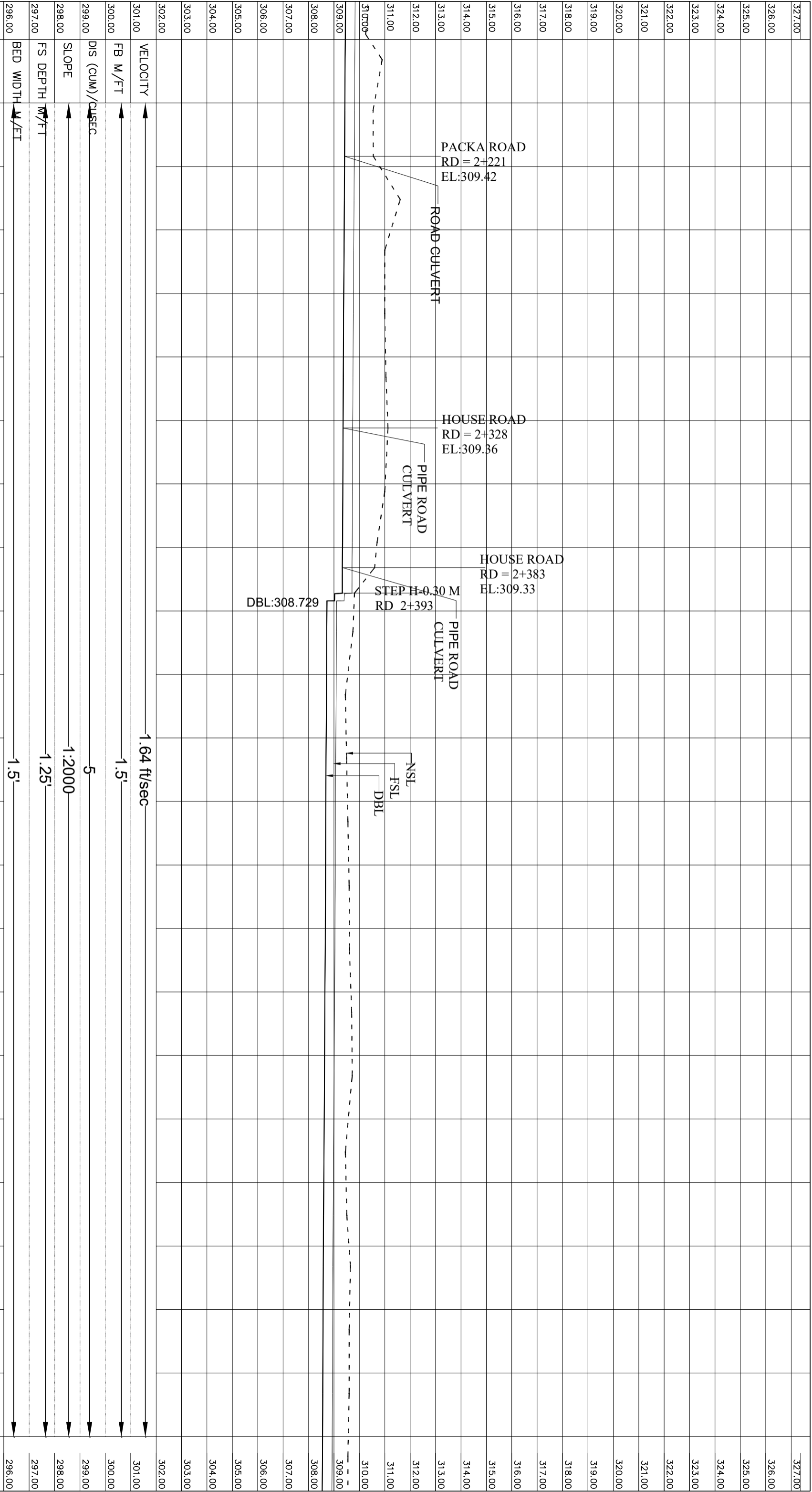
**PROJECT:**  
**ZAMIR GUL DAM**  
 DISTRICT, KOHAT

**TITLE:**  
**PASTA SANDA CHANNEL PROFILE**  
**SUB TITLE:**  
**RD=1+625 TO 2+175**

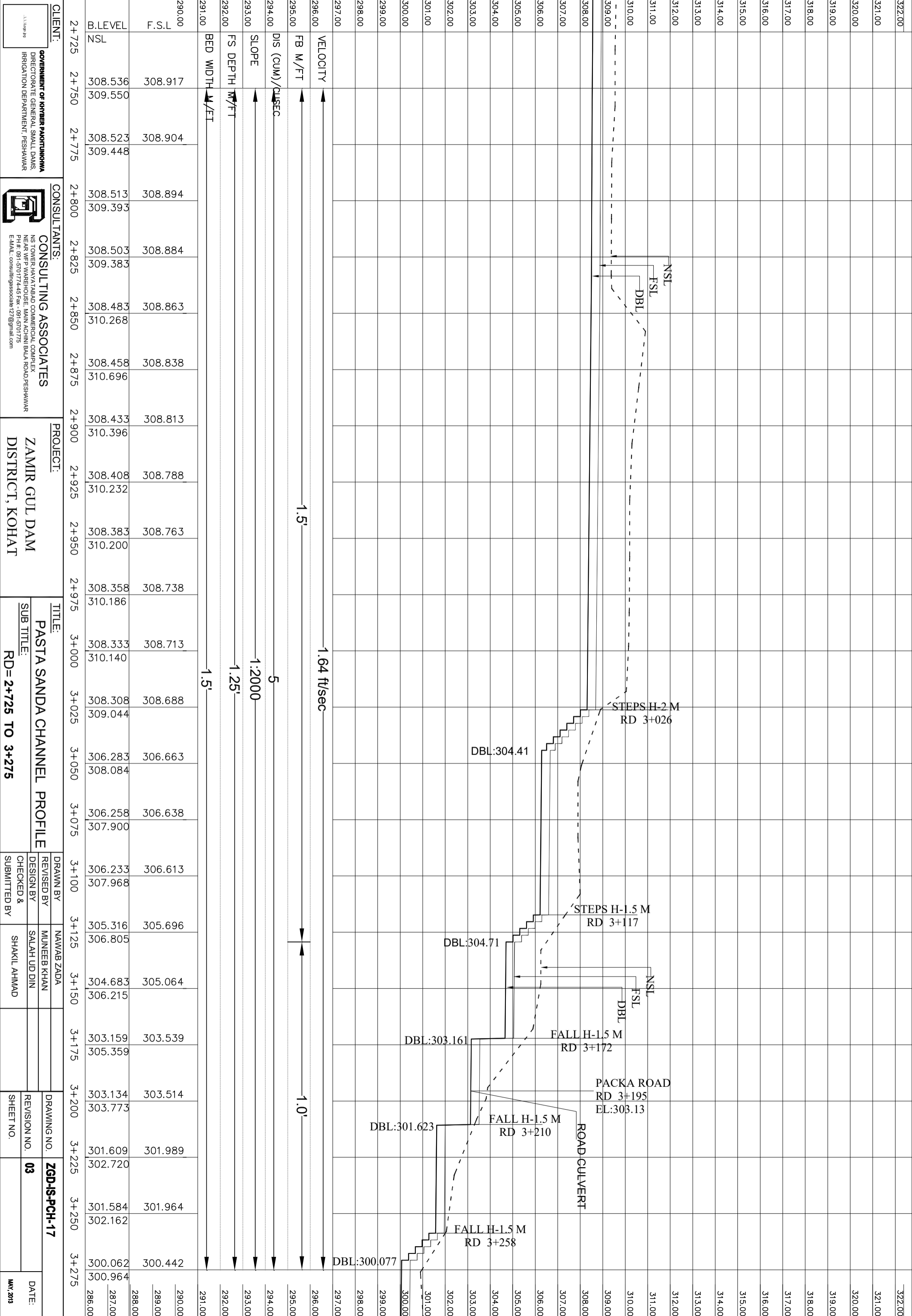
<b>DRAWN BY</b>	NAWAB ZADA
<b>REVISIED BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	SALAH UDDIN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD

<b>DRAWING NO.</b>	<b>ZGD-IS-PCH-15</b>
<b>REVISION NO.</b>	<b>03</b>
<b>SHEET NO.</b>	

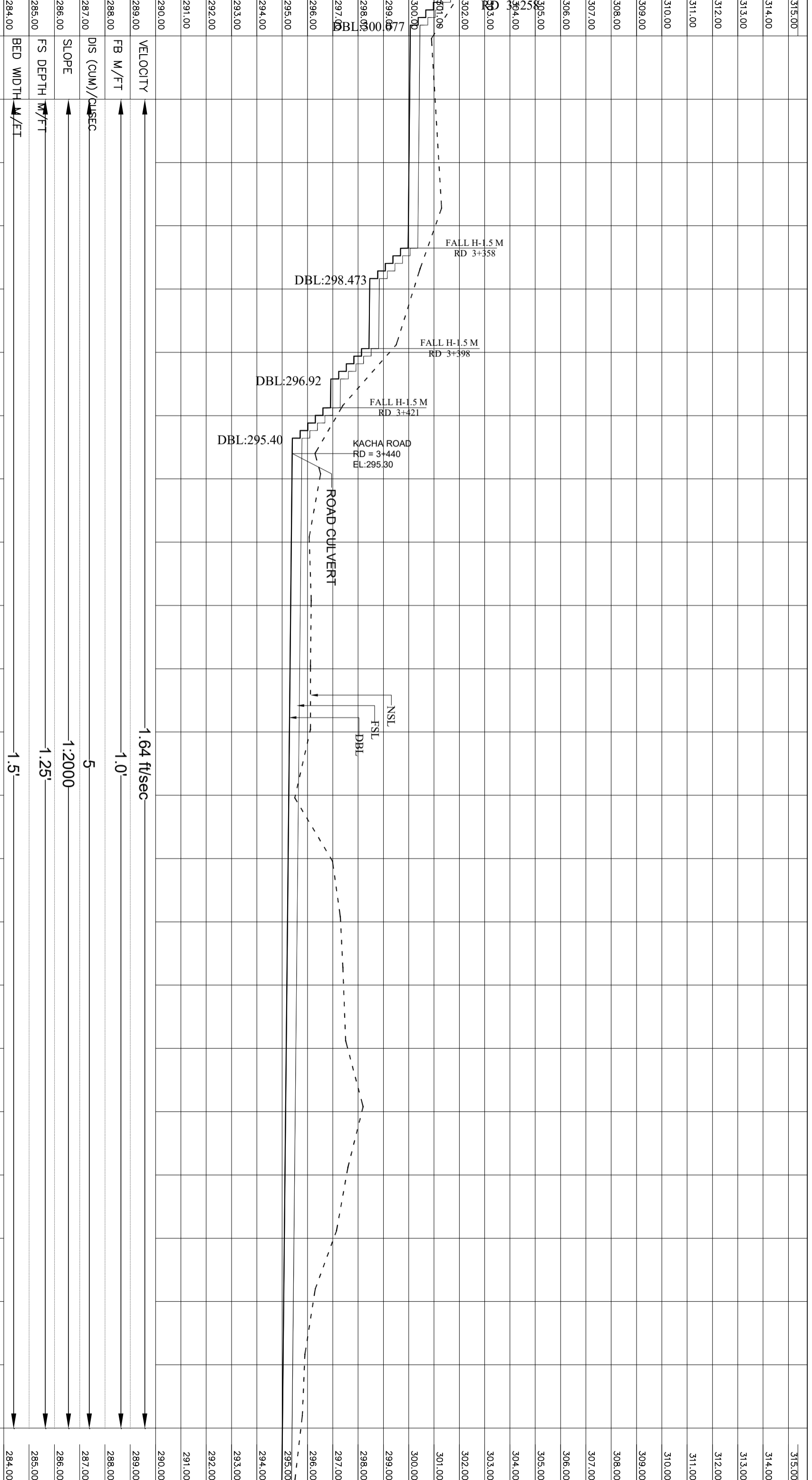
**DATE:** MAY, 2013



<p><b>CLIENT:</b></p> <p>GOVERNMENT OF KYBER PAKHTUNKHWA          DIRECTORATE GENERAL SMALL DAMS          IRRIGATION DEPARTMENT, PESHAWAR</p>	<p><b>CONSULTANTS:</b></p> <p>NS TOWER HAVATABAD COMMERCIAL COMPLEX          NEAR WFP WAREHOUSE, MAIN AJHINI BALA ROAD PESHAWAR          PH# : 091-5701774-45 Fax : 091-5701775          E-MAIL: consultingassociates127@gmail.com</p>	<p><b>PROJECT:</b></p> <p>ZAMIR GUL DAM          DISTRICT, KOHAT</p>	<p><b>TITLE:</b></p> <p>PASTA SANDA CHANNEL PROFILE</p> <p><b>SUB TITLE:</b></p> <p>RD= 2+175 TO 2+725</p>
<p><b>DRAWN BY:</b> NAWAB ZADA</p> <p><b>REVISIONED BY:</b> MUNEEB KHAN</p> <p><b>DESIGN BY:</b> SALAH UDDIN</p> <p><b>CHECKED &amp; SUBMITTED BY:</b> SHAKIL AHMAD</p>		<p><b>DRAWING NO.:</b> ZGD-IS-PCH-16</p> <p><b>REVISION NO.:</b> 03</p> <p><b>SHEET NO.:</b> 03</p>	
<p><b>DATE:</b> MAY 2013</p>			



CLIENT:		CONSULTANTS:		PROJECT:		TITLE:	
GOVERNMENT OF KHYBER PAKHTUNKHWA DIRECTORATE GENERAL SMALL DAMS IRRIGATION DEPARTMENT, PESHAWAR		NS TOWER HAVATABAD COMMERCIAL COMPLEX NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR PH# 091-5701774-45 Fax - 091-5701775 E-MAIL: consultingassociates127@gmail.com		ZAMIR GUL DAM DISTRICT, KOHAT		PASTA SANDA CHANNEL PROFILE SUB TITLE: RD= 2+725 TO 3+275	
DRAWN BY		REVISOR BY		CHECKED & SUBMITTED BY		DRAWING NO.	
NAWAB ZADA		MUNEER KHAN		SALAH UDDIN		ZGD-IS-PCH-17	
3+100		3+125		3+150		REVISION NO.	
3+125		3+175		3+200		03	
3+175		3+225		3+250		DATE:	
3+200		3+275		MAY 2013			



Station	B.L. Level	F.S.L	NSL	DBL	Velocity (ft/sec)	Discharge (cusec)	Slope	FS Depth (m/ft)	Bed Width (m/ft)
3+275	300.037	300.417							
3+300	301.043								
3+325	300.012	300.392							
3+350	299.987	300.367							
3+375	298.457	298.838							
3+400	298.136	298.517							
3+425	296.313	296.694							
3+450	295.388	295.768							
3+475	295.363	295.743							
3+500	295.338	295.718							
3+525	295.313	295.693							
3+550	295.288	295.668							
3+575	295.263	295.643							
3+600	295.238	295.618							
3+625	295.213	295.593							
3+650	295.188	295.568							
3+675	295.163	295.543							
3+700	295.138	295.518							
3+725	295.113	295.493							
3+750	295.088	295.468							
3+775	295.063	295.443							
3+800	295.038	295.418							
3+825	295.013	295.393							

**CLIENT:**  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

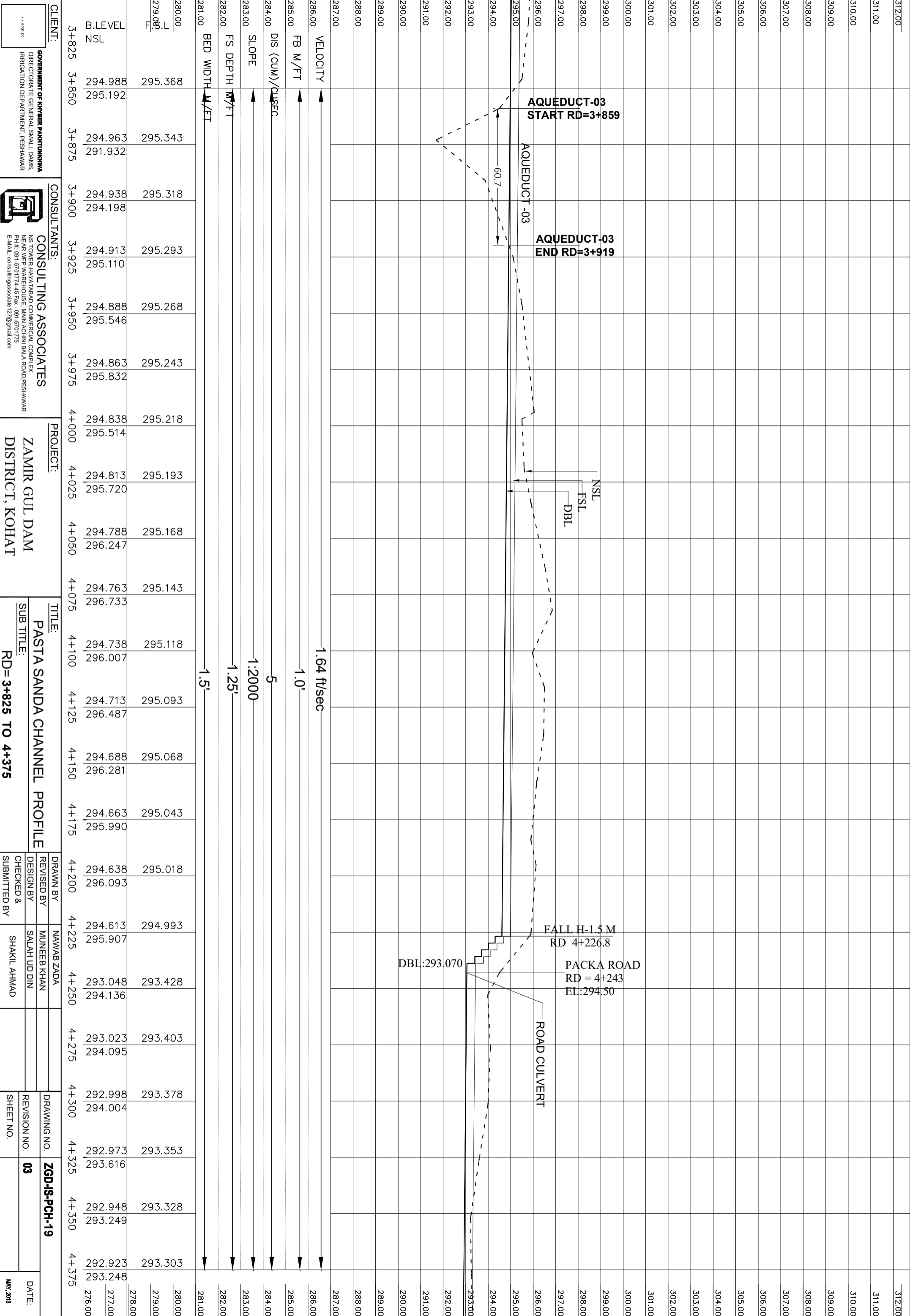
**CONSULTANTS:**  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR  
 P.H.#: 091-5701774-45 Fax: -091-5701775  
 E-MAIL: consultingassociates127@gmail.com

**PROJECT:**  
**ZAMIR GUL DAM**  
**DISTRICT, KOHAT**

**TITLE:**  
**PASTA SANDA CHANNEL PROFILE**  
**SUB TITLE:**  
**RD= 3+275 TO 3+825**

**DRAWN BY:** NAWAB ZADA  
**REVISOR BY:** MUNEEB KHAN  
**DESIGN BY:** SALAH UDDIN  
**CHECKED & SUBMITTED BY:** SHAKIL AHMAD

**DRAWING NO.:** ZGD-IS-PCH-18  
**REVISION NO.:** 03  
**SHEET NO.:**  
**DATE:** MAY 2013



**AQUEDUCT-03  
START RD=3+859**

**AQUEDUCT-03  
END RD=3+919**

NSL  
FSL  
DBL

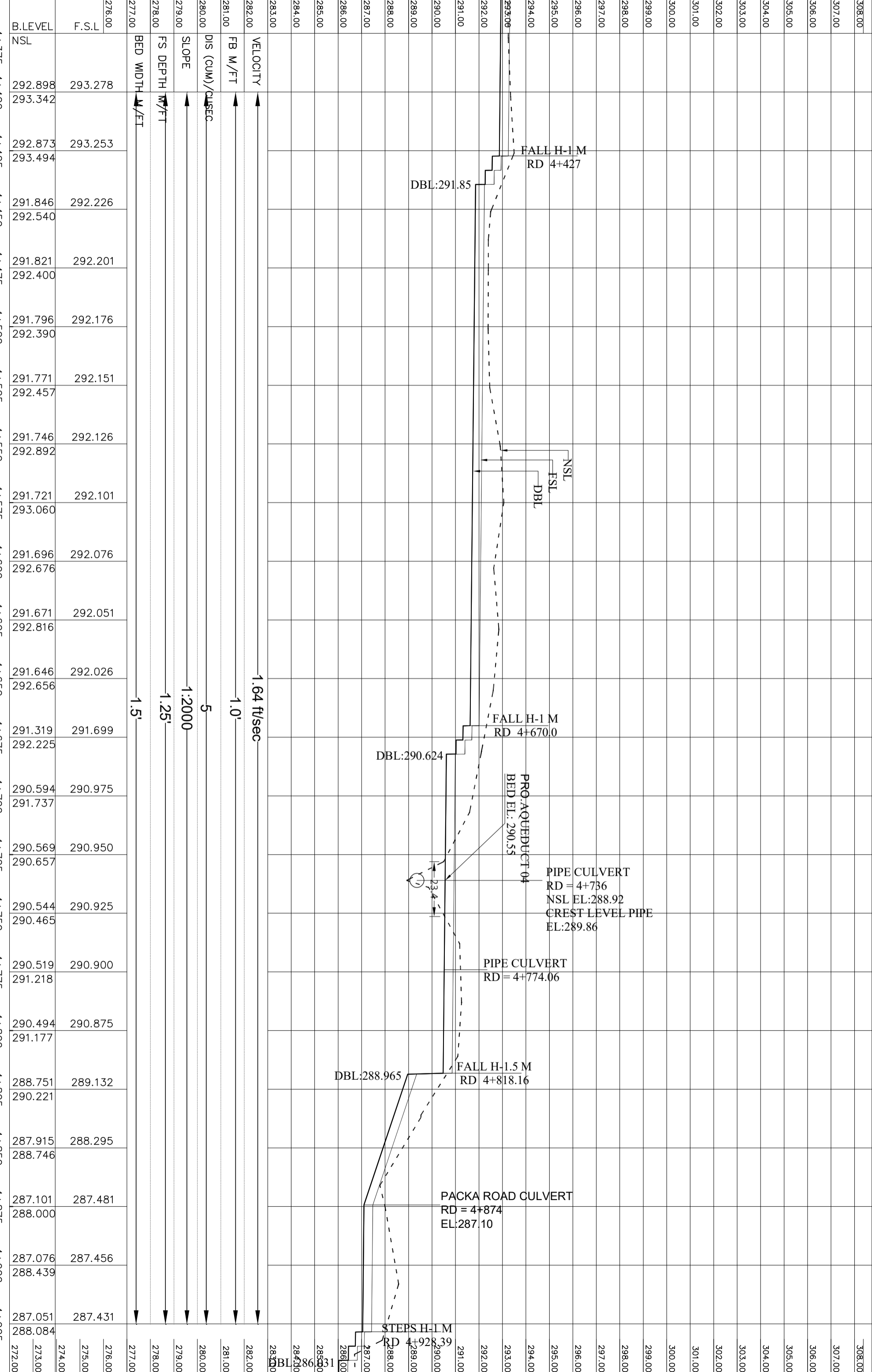
**FALL H-1.5 M  
RD 4+226.8**

**PACKA ROAD  
RD = 4+243  
EL:294.50**

**ROAD CULVERT**

DBL:293.070

60.7



272.00		277.00		277.00	BED WIDTH	M/FT	1.5'
276.00	F.S.L	276.00		276.00			
279.00		279.00		279.00	FS DEPTH	M/FT	1.25'
280.00		280.00		280.00	SLOPE		1:2000
281.00		281.00		281.00	DIS (CUM) /	CUSEC	5
282.00		282.00		282.00	FB M/FT		1.0'
283.00		283.00		283.00	VELOCITY		1.64 ft/sec

**CLIENT:**  
**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**  
**CONSULTING ASSOCIATES**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD, PESHAWAR  
 PH #. 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

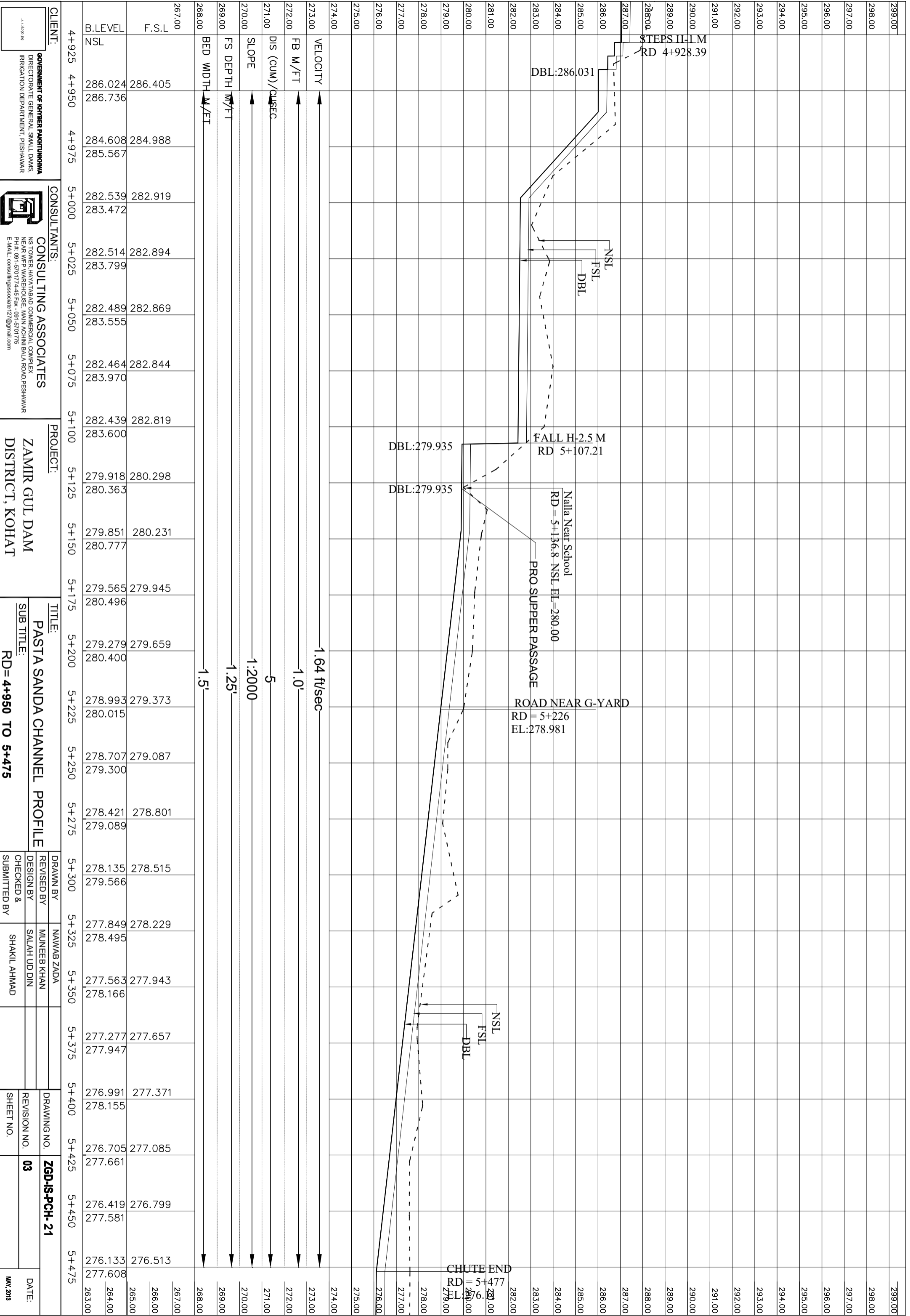
**PROJECT:**  
**ZAMIR GUL DAM**  
**DISTRICT, KOHAT**

**TITLE:**  
**PASTA SANDA CHANNEL PROFILE**  
**SUB TITLE:**  
**RD= 4+375 TO 4+925**

DRAWN BY	NAWAB ZADA
REVISION NO.	03
CHECKED & SUBMITTED BY	SHAKIL AHMAD
DESIGN BY	SALAH UDDIN
REVISION NO.	03
DATE:	MAY 2013
SHEET NO.	

**ZGD-ISPCH- 20**





**CLIENT:**  
 GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**  
 CONSULTING ASSOCIATES  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR  
 PH# 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

**PROJECT:**  
 ZAMIR GUL DAM  
 DISTRICT, KOHAT

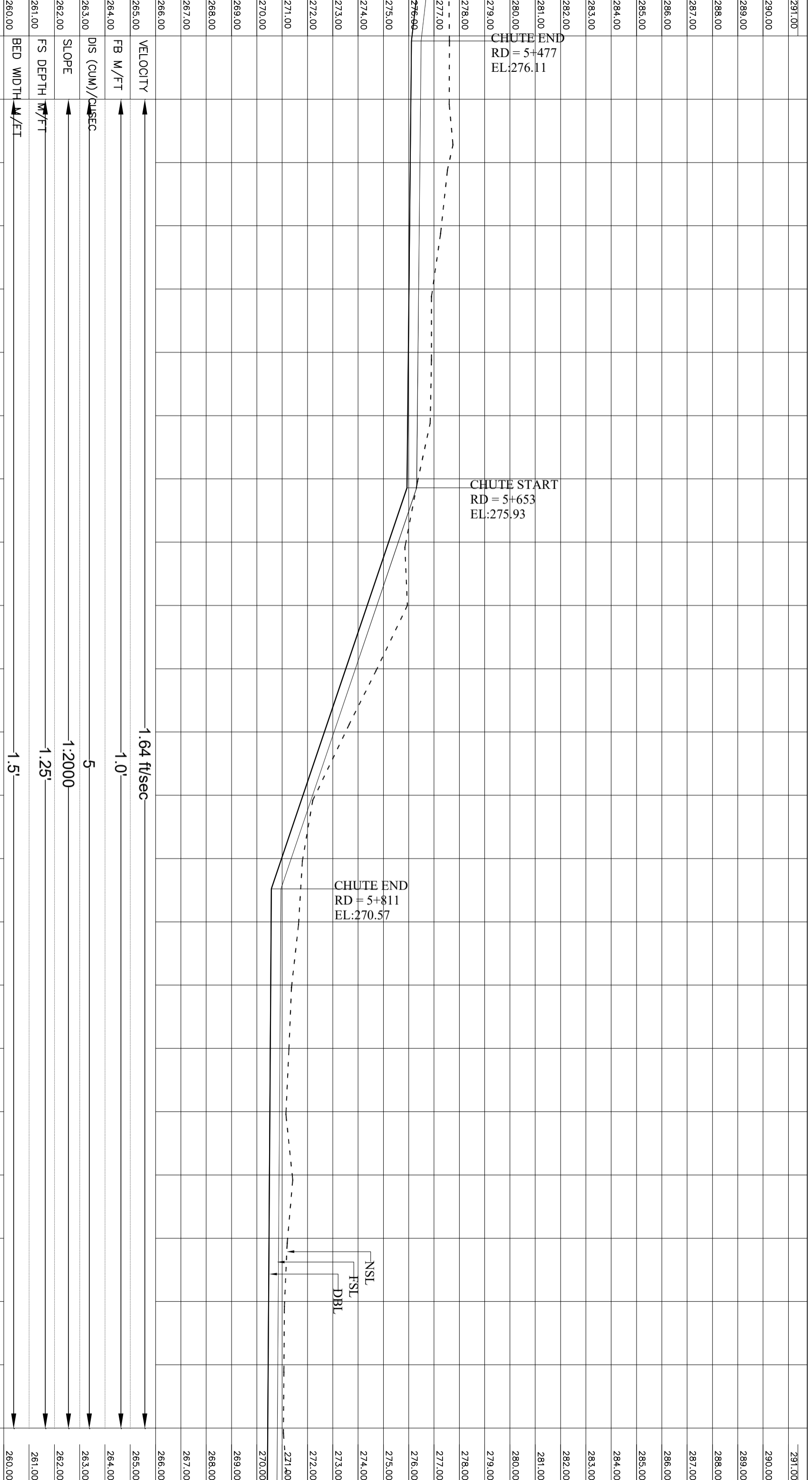
**TITLE:**  
 PASTA SANDA CHANNEL PROFILE  
**SUB TITLE:**  
 RD= 4+950 TO 5+475

<b>DRAWN BY</b>	NAWAB ZADA
<b>REVISIED BY</b>	MUNEEB KHAN
<b>DESIGN BY</b>	SALAH UDDIN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD

**DRAWING NO.** ZGD-IS-PCH-21  
**REVISION NO.** 03  
**DATE:** MAY 2013

STATION	EL ELEVATION	NSL	FSL	DBL
267.00	286.405			
268.00	286.736			
269.00	284.608			
270.00	285.567			
271.00	282.539			
272.00	283.472			
273.00	282.514			
274.00	283.799			
275.00	282.489			
276.00	283.555			
277.00	282.464			
278.00	283.970			
279.00	282.439			
280.00	282.819			
281.00	283.600			
282.00	279.918			
283.00	280.298			
284.00	280.363			
285.00	279.851			
286.00	280.231			
287.00	280.777			
288.00	279.565			
289.00	279.945			
290.00	280.496			
291.00	279.279			
292.00	279.659			
293.00	280.400			
294.00	278.993			
295.00	279.373			
296.00	280.015			
297.00	278.707			
298.00	279.087			
299.00	278.421			
263.00	279.089			
264.00	278.135			
265.00	278.515			
266.00	279.566			
267.00	277.849			
268.00	278.229			
269.00	278.495			
270.00	277.563			
271.00	277.943			
272.00	278.166			
273.00	277.277			
274.00	277.657			
275.00	277.947			
276.00	276.991			
277.00	277.371			
278.00	278.155			
279.00	276.705			
280.00	277.085			
281.00	277.661			
282.00	276.419			
283.00	276.799			
284.00	277.581			
285.00	276.133			
286.00	276.513			
287.00	277.608			

**VELOCITY** 1.64 ft/sec  
**FB M/FT** 1.0'  
**DIS (CUM)/CUSEC** 5  
**SLOPE** 1:2000  
**FS DEPTH M/FT** 1.25'  
**BED WIDTH M/FT** 1.5'



STATION	NSL	F.S.L	DBL	VELOCITY	FB M/FT	DIS (CUM)/CUSEC	SLOPE	FS DEPTH M/FT	BED WIDTH M/FT
291.00									
290.00									
289.00									
288.00									
287.00									
286.00									
285.00									
284.00									
283.00									
282.00									
281.00									
280.00									
279.00									
278.00									
277.00									
276.00									
275.00									
274.00									
273.00									
272.00									
271.00									
270.00									
269.00									
268.00									
267.00									
266.00									
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264.00									
263.00									
262.00									
261.00									
260.00									
259.00									
258.00									
257.00									
256.00									
255.00									

**CLIENT:**  
 GOVERNMENT OF KHYBER PAKHTUNKHWA  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANTS:**  
 NS TOWER HAVATABAD COMMERCIAL COMPLEX  
 NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR  
 P.H.#. 091-5701774-45 Fax - 091-5701775  
 E-MAIL: consultingassociates127@gmail.com

**PROJECT:**  
 ZAMIR GUL DAM  
 DISTRICT, KOHAT

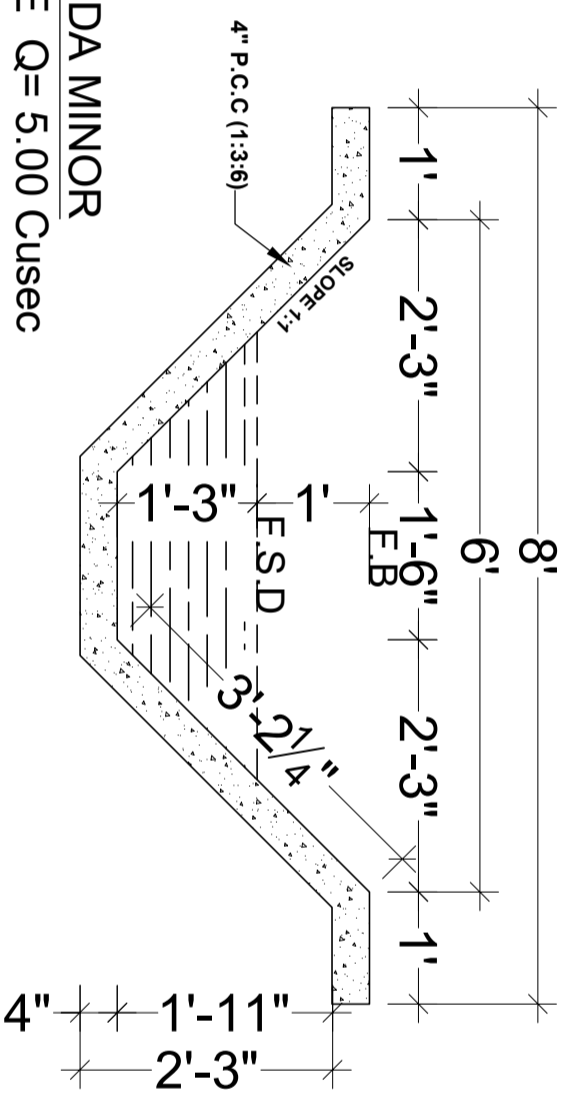
**TITLE:**  
 PASTA SANDA CHANNEL PROFILE  
**SUB TITLE:**  
 RD= 5+500 TO 6+025

DRAWN BY	NAWAB ZADA
REVISOR BY	MUNEER KHAN
DESIGN BY	SALAH UDDIN
CHECKED & SUBMITTED BY	SHAKIL AHMAD

DRAWING NO.	ZGD-IS-PCH-22
REVISION NO.	03
SHEET NO.	

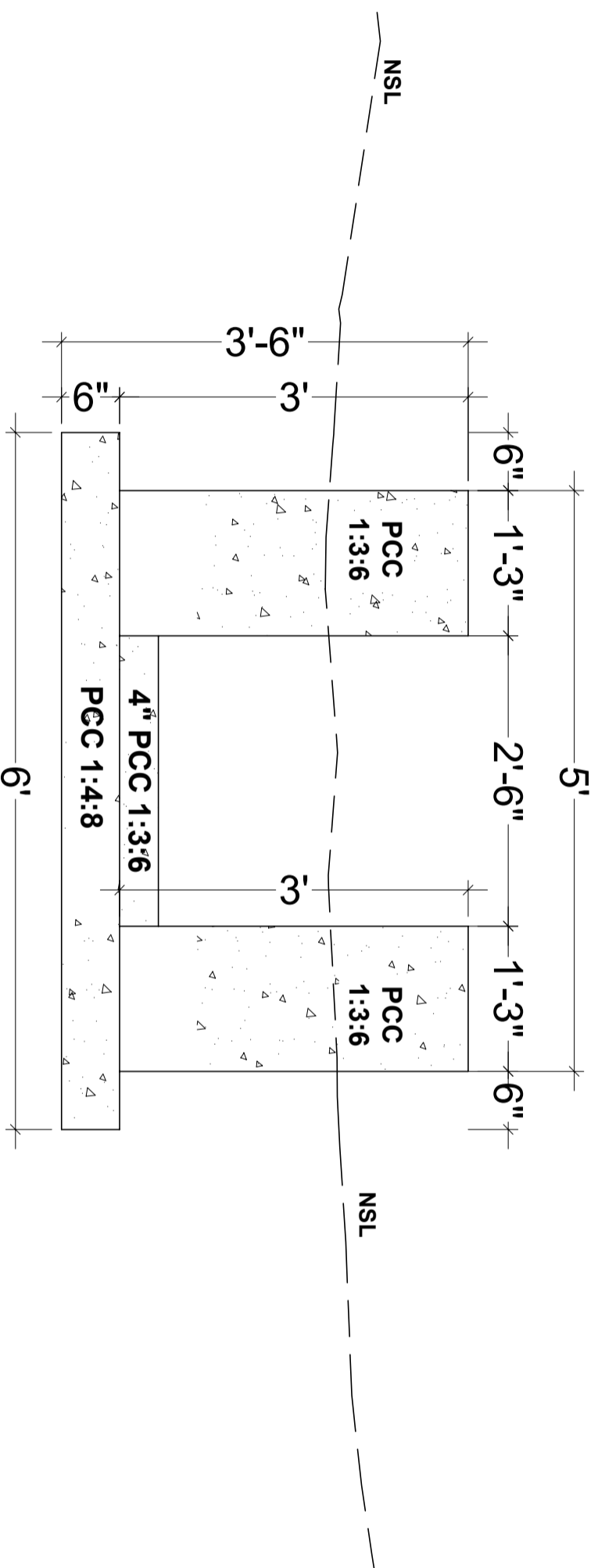
DATE: MAY 2013





PASTA SANDA MINOR  
DISCHARGE Q= 5.00 Cusec

RD 0+000 TO 6+000



PASTA SANDA MINOR  
CHANNEL SECTION U/S OF BOX CULVERT  
LENGTH U/S = 56'  
LENGTH D/S = 12' ONLY WINGS



CLIENT:  
GOVERNMENT OF KHYBER PAKHTUNKHWA  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR



CONSULTANTS:  
CONSULTING ASSOCIATES  
NS TOWER HAVATABAD COMMERCIAL COMPLEX  
NEAR WFP WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR  
PH #: 091-5701774-45 Fax - 091-5701775  
E-MAIL: consultingassociates127@gmail.com

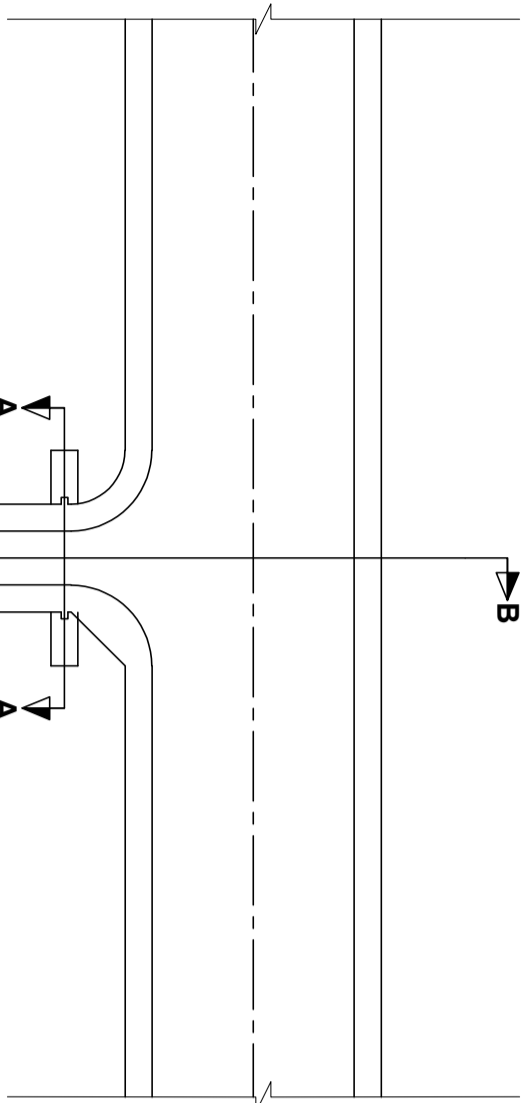
PROJECT:  
ZAMIR GUL DAM  
DISTRICT, KOHAT

TITLE:  
HYDRAULIC STRUCTURE  
SUB TITLE:  
PASTA SANDA MINOR

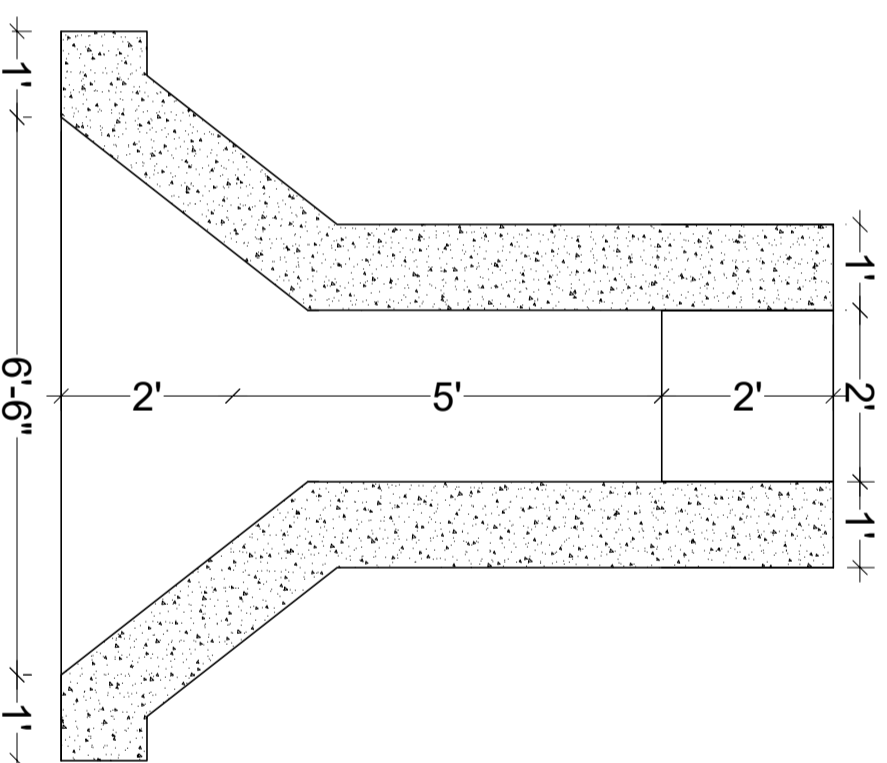
DRAWN BY: MUNEEB KHAN  
DESIGN BY: SALAH UD DIN  
CHECKED & SUBMITTED BY: SHAKIL AHMAD

DRAWING NO.: ZGD-IS-HYD-PSM-1  
REVISION NO.: 03  
SHEET NO.:  
DATE: August 24

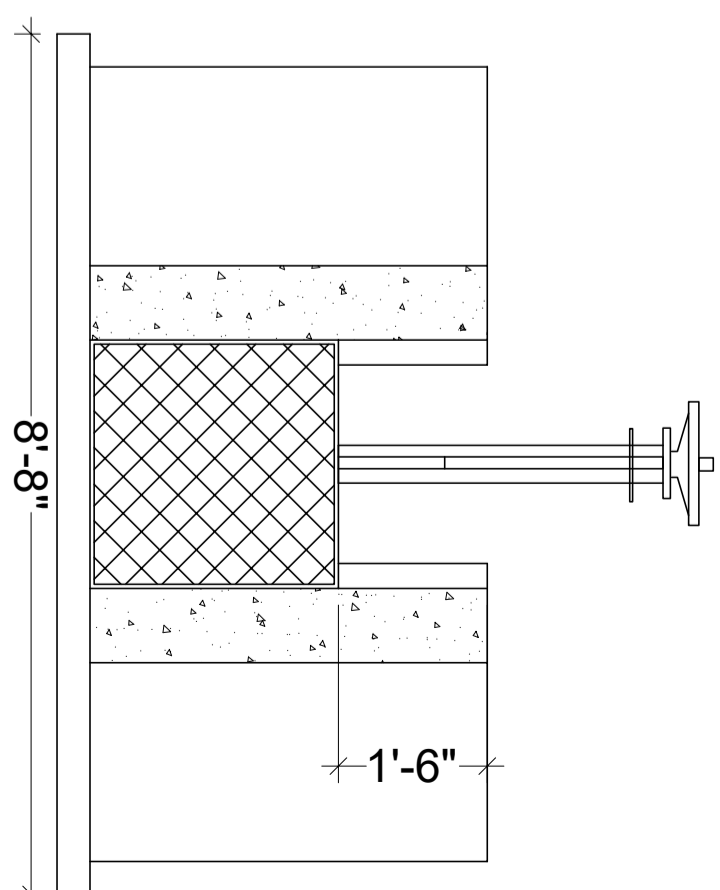
# HYDRAULIC STRUCTURE



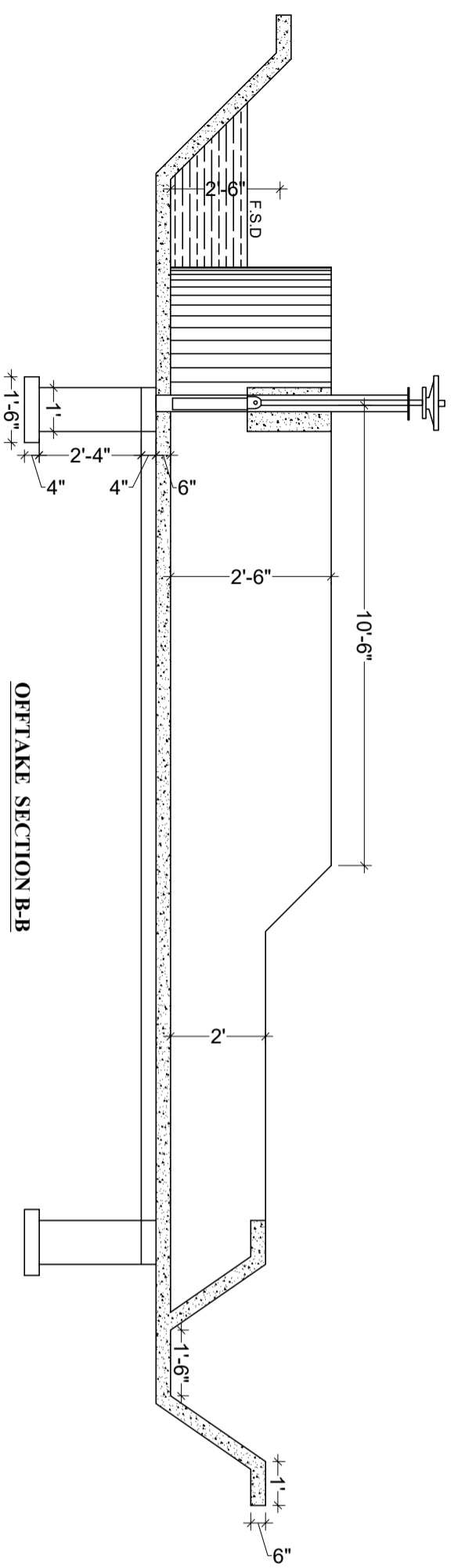
PLAN



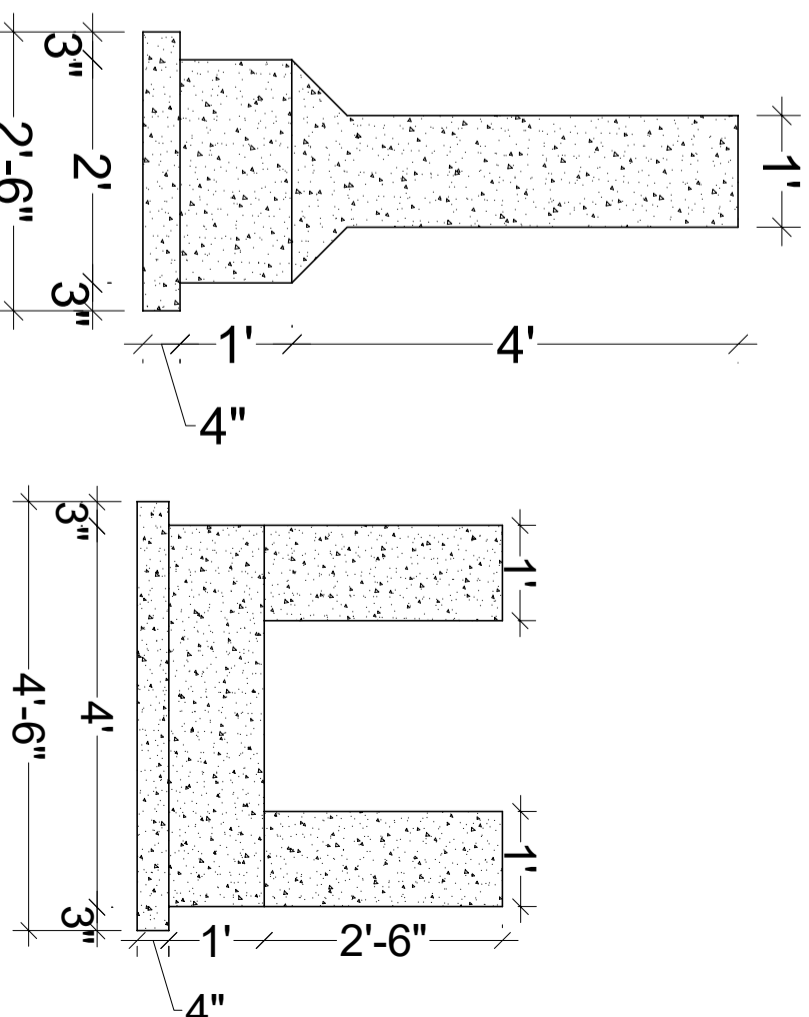
SECTION D-D



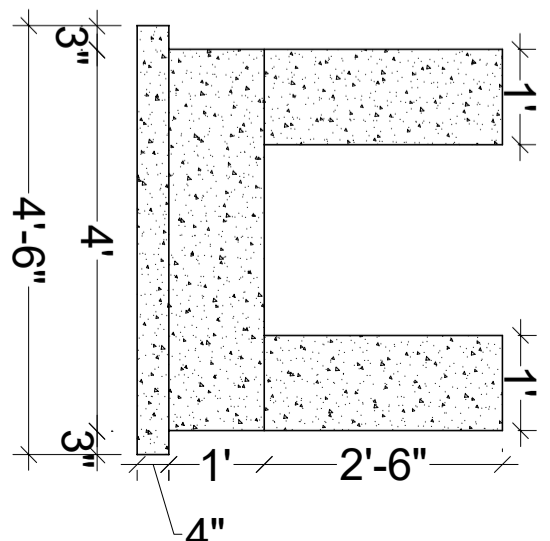
SECTION A-A



OFFTAKE SECTION B-B



DETAIL WING WALL



SECTION C-C

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



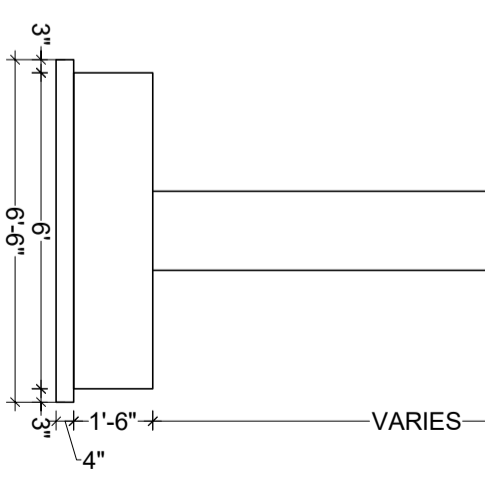
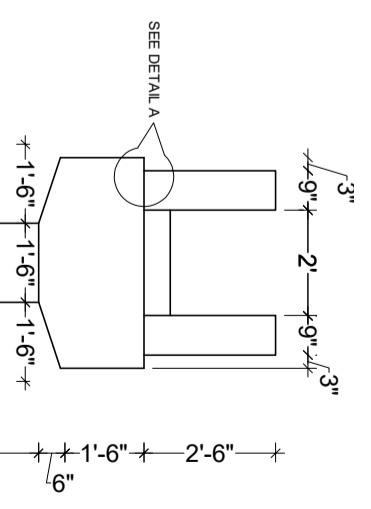
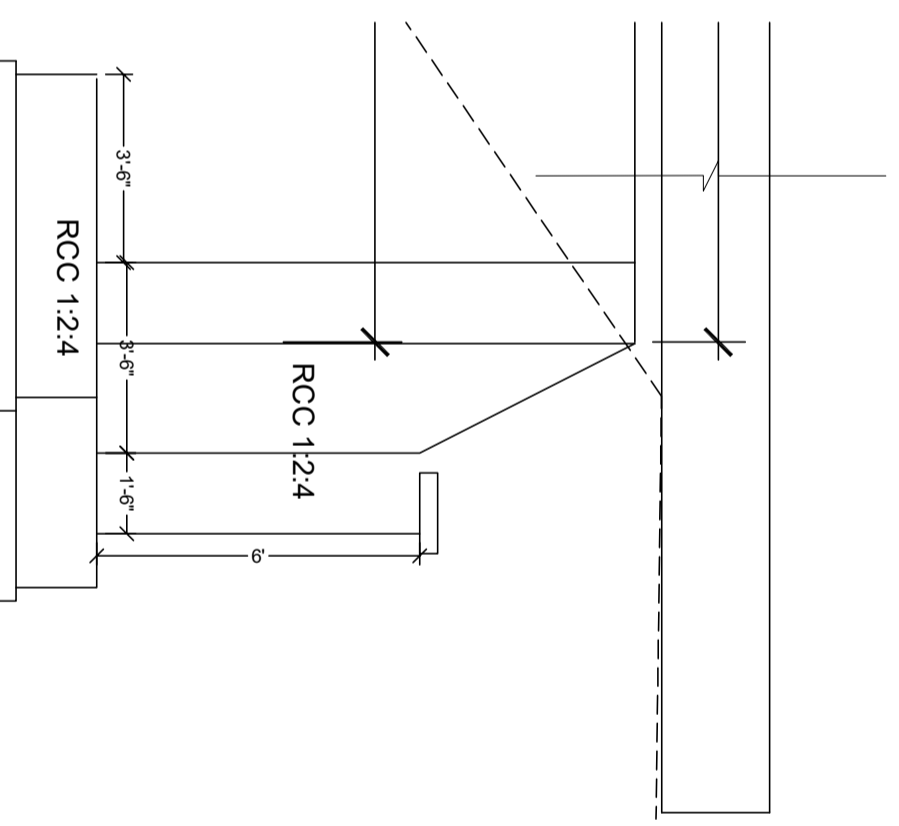
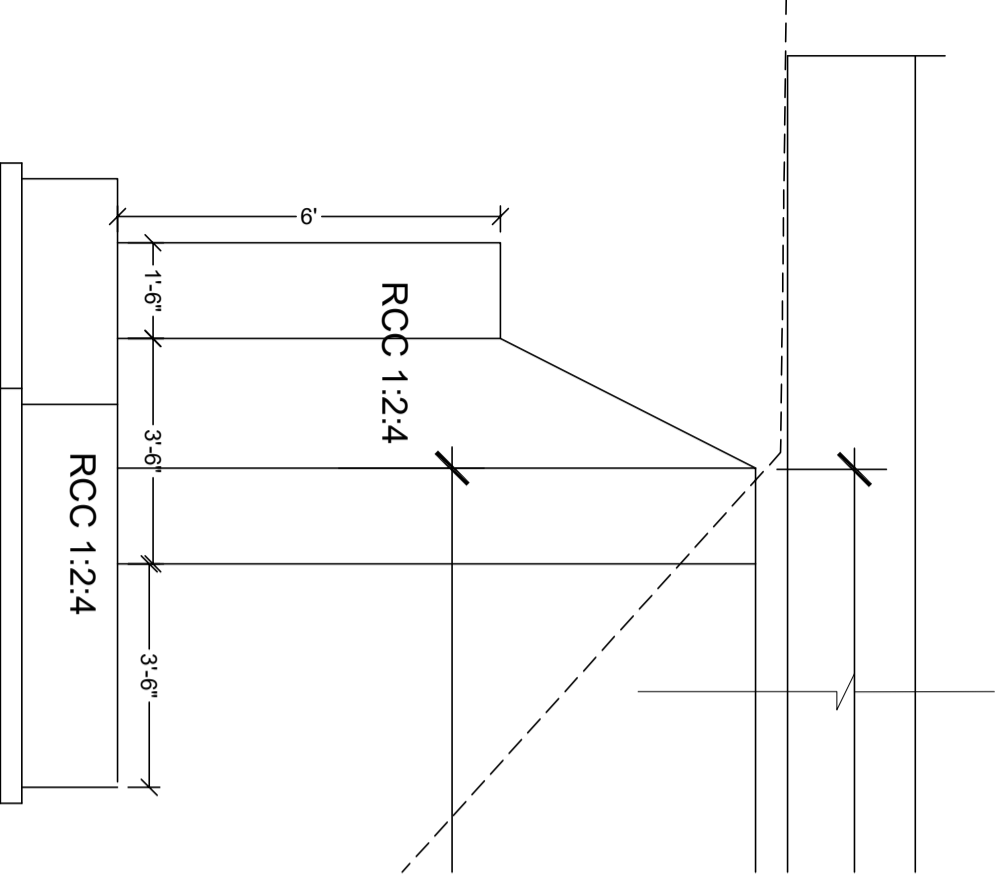
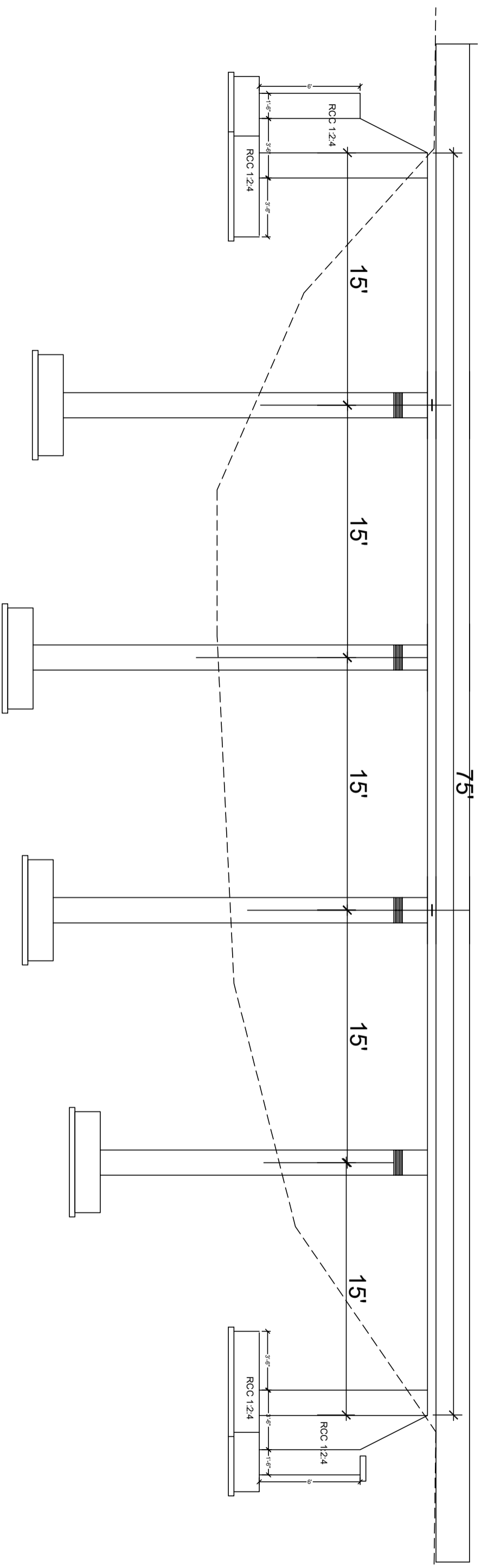
CONSULTING ASSOCIATES  
 HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

TITLE:-  
 ZAMIR GUL DAM PROJECT  
 KOHAT

DRAWING TITLE:-  
**HYDRAULIC STRUCTURES**  
 OFFTAKE

DRAWING:-  
 PLAN, SECTION A-A & SECTION B-B,  
 CUT OFF WALL

DRAWN BY	MUNEER KHAN
DESIGN BY	DAWOOD KHAN
CHECKED & SUBMITTED BY	SHAKIL AHMAD
SHEET NO.	



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



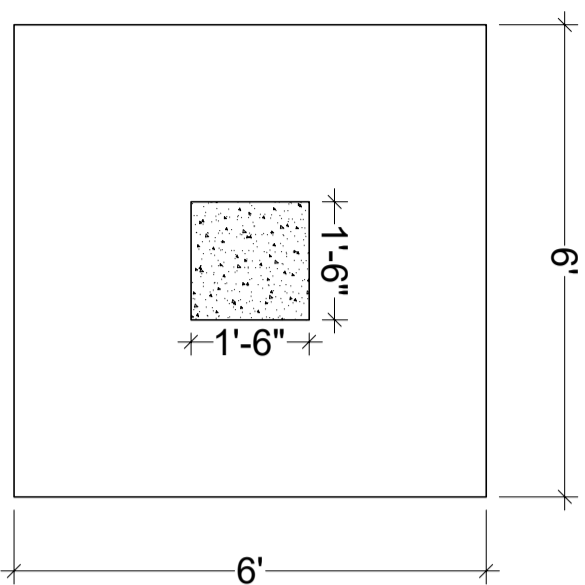
CONSULTING ASSOCIATES  
 HOUSE #99A, STEED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

TITLE:-  
 ZAMIR GUL DAM PROJECT  
 KOHAT

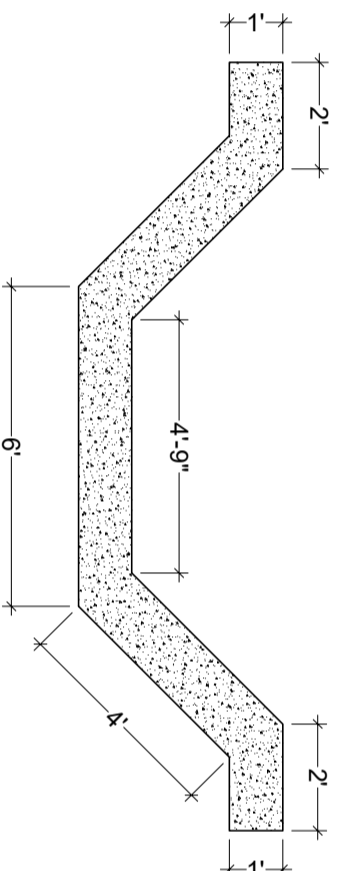
DRAWING TITLE:-  
 HYDRAULIC STRUCTURES  
 PASTA SANDA  
 AQUEDUCT

DRAWING:-  
 PLAN  
 ABUTMENT, WING WALLS AND  
 CUTOFF WALL

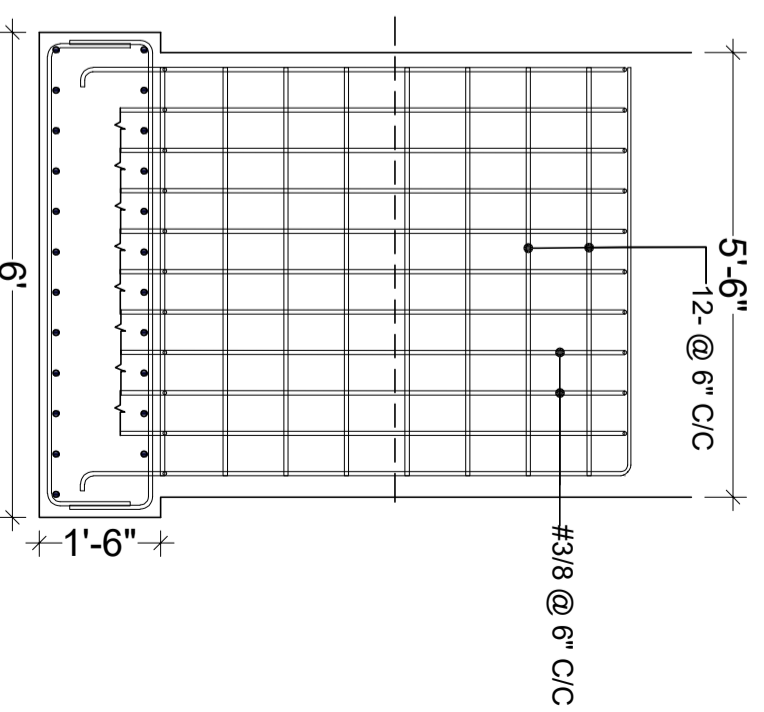
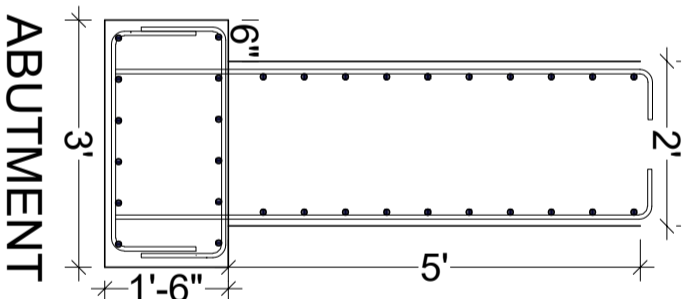
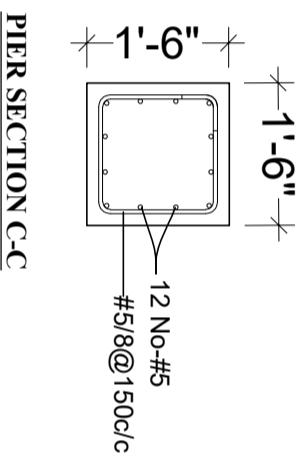
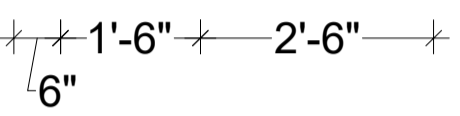
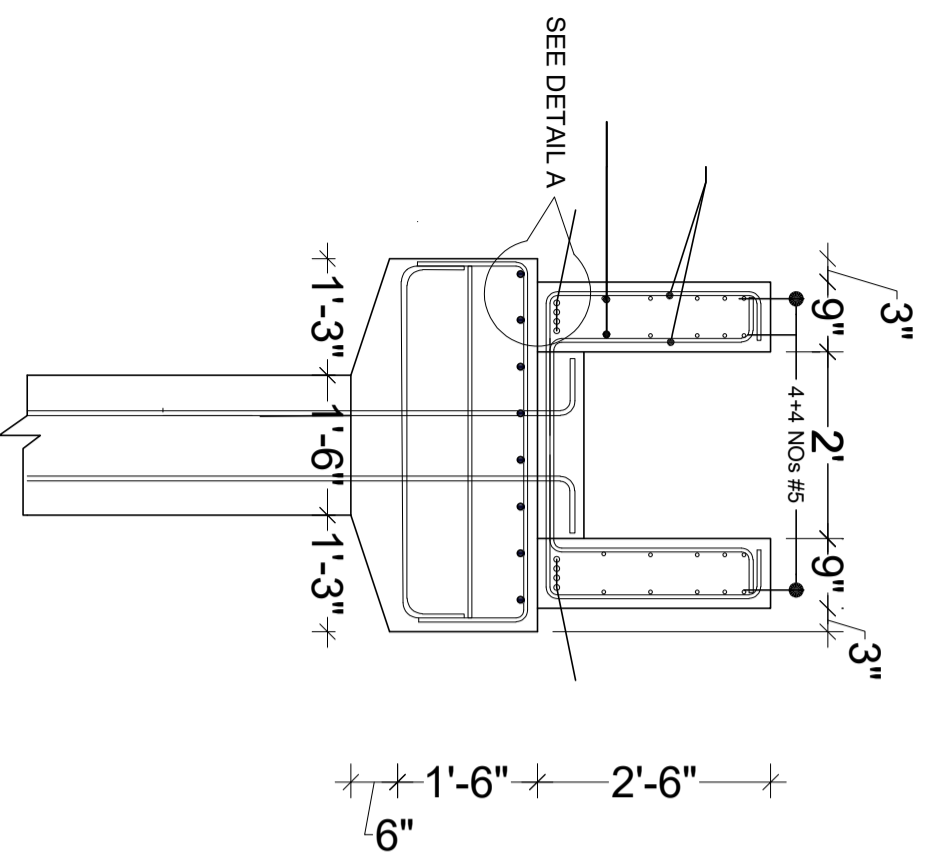
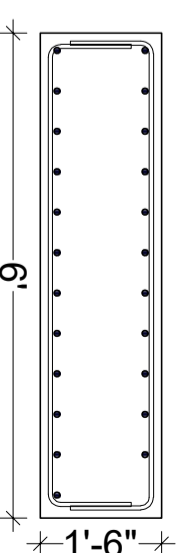
DRAWN BY	MUNEER KHAN
DESIGN BY	DAWOOD KHAN
CHECKED & SUBMITTED BY	SHAKIL AHMAD
SHEET NO.	



**PIER AND FOUNDATION PLAN**



**ABUTMENT PLAN**



**REINFORCEMENT DETAILS**

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



**CONSULTING ASSOCIATES**  
 HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

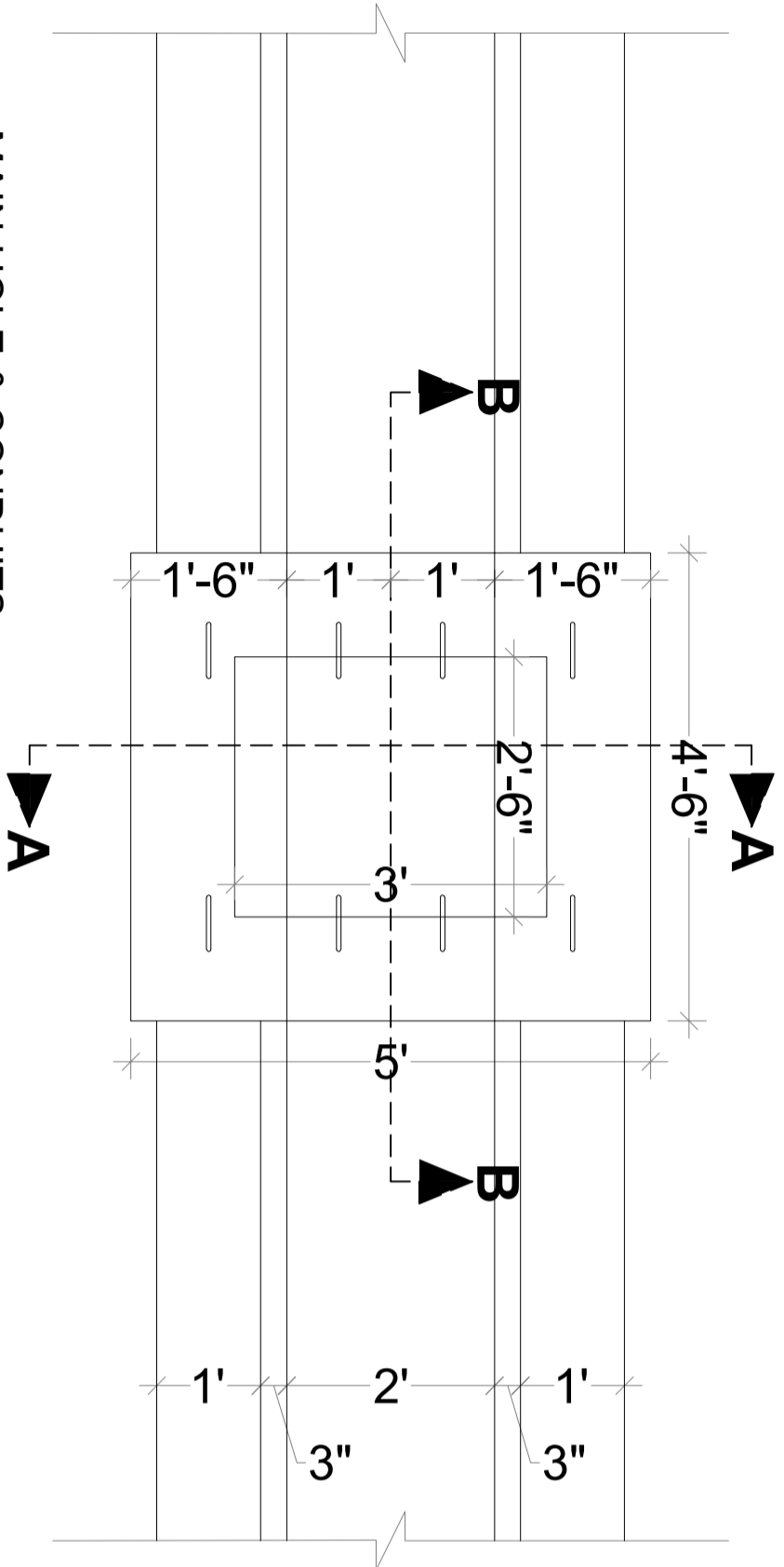
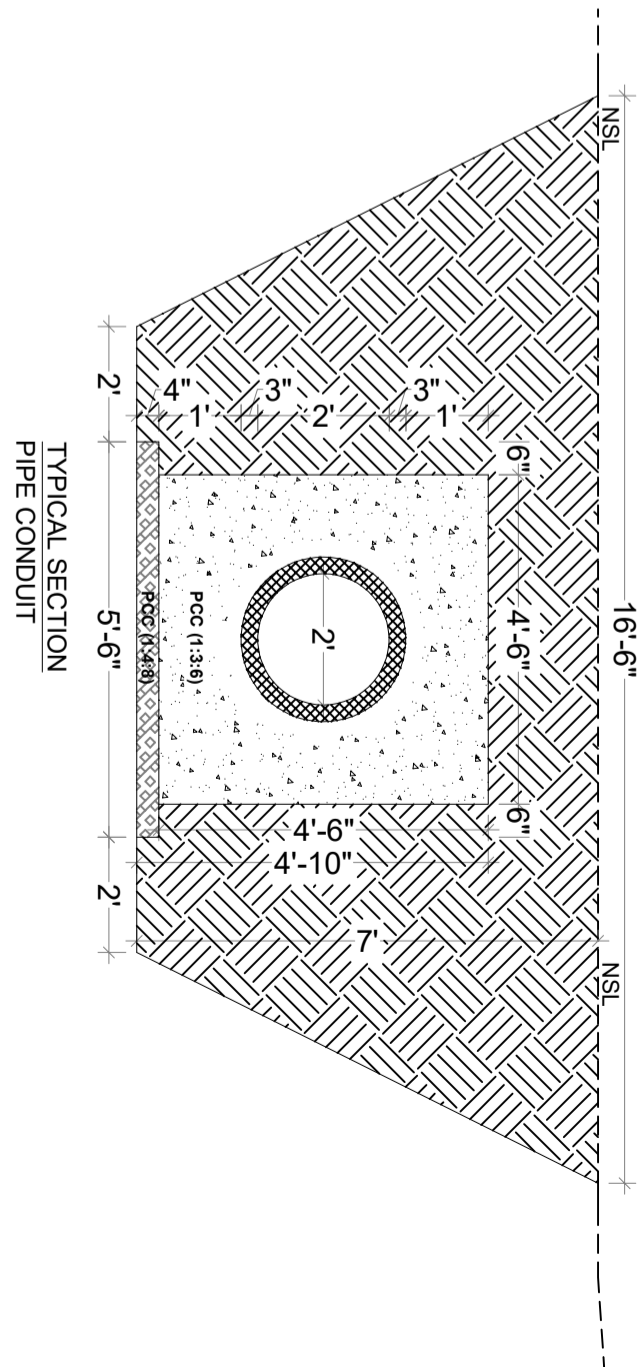
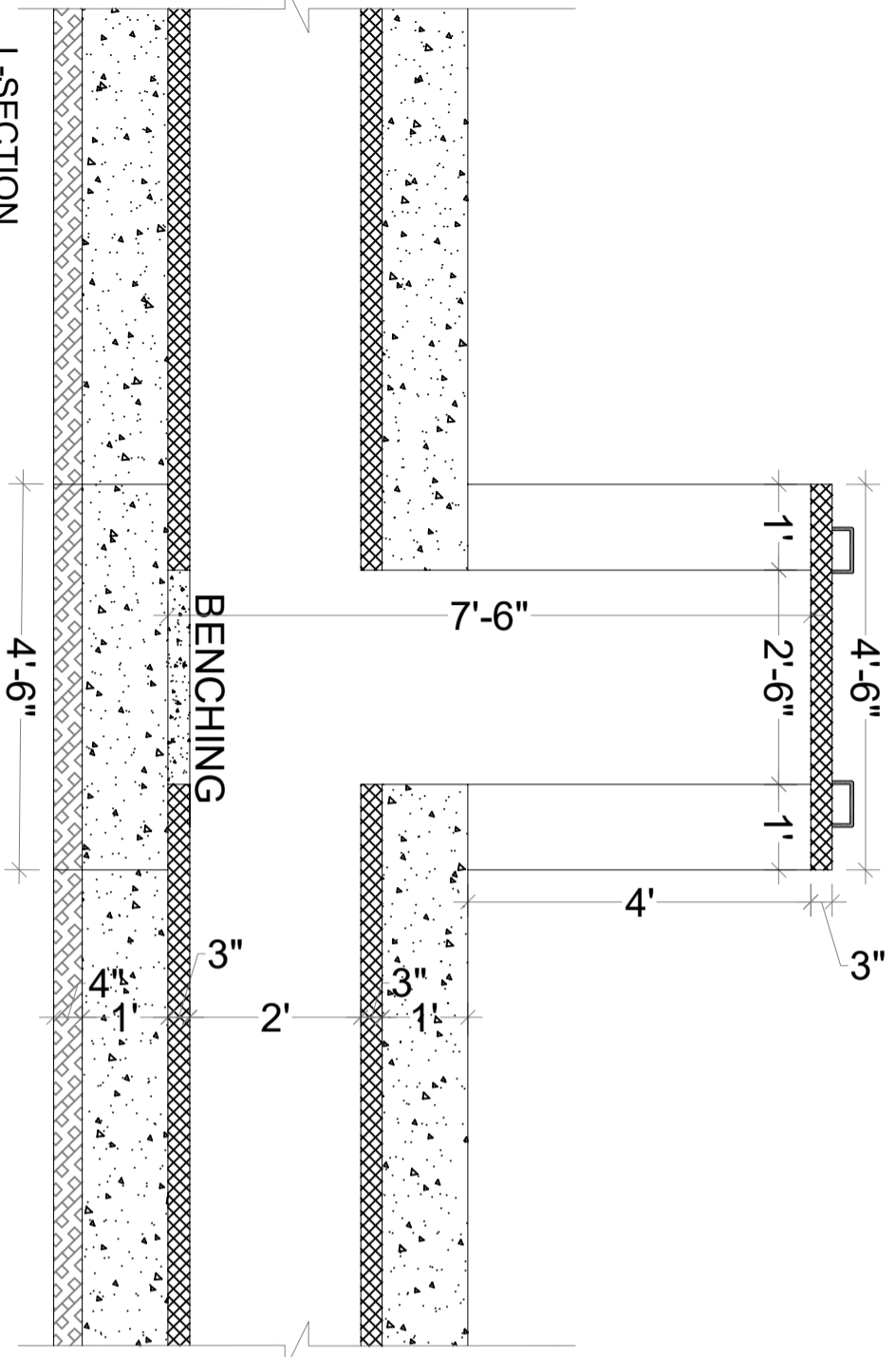
**TITLE:-**  
 ZAMIR GUL DAM PROJECT  
 KOHAT

**DRAWING TITLE:-**  
 HYDRAULIC STRUCTURES  
 AQUEDUCT

**DRAWING:-**  
 PLAN  
 PASTA SNADA  
 REINFORCEMENT DETAILS

<b>DRAWN BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	





**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR

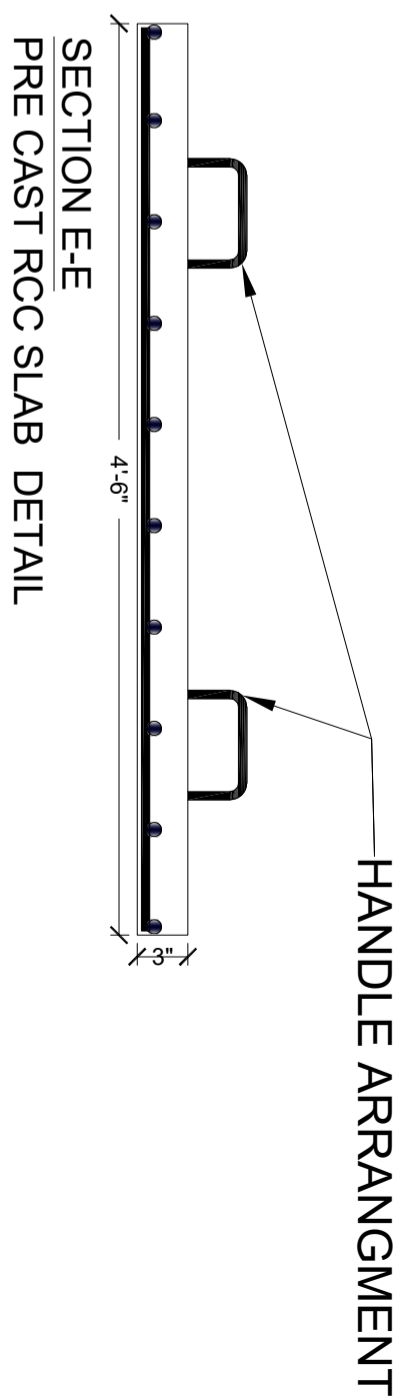
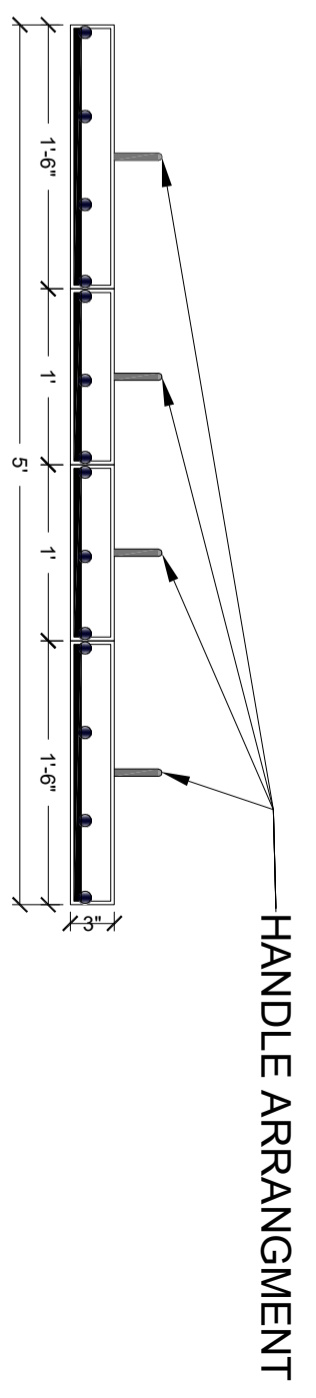
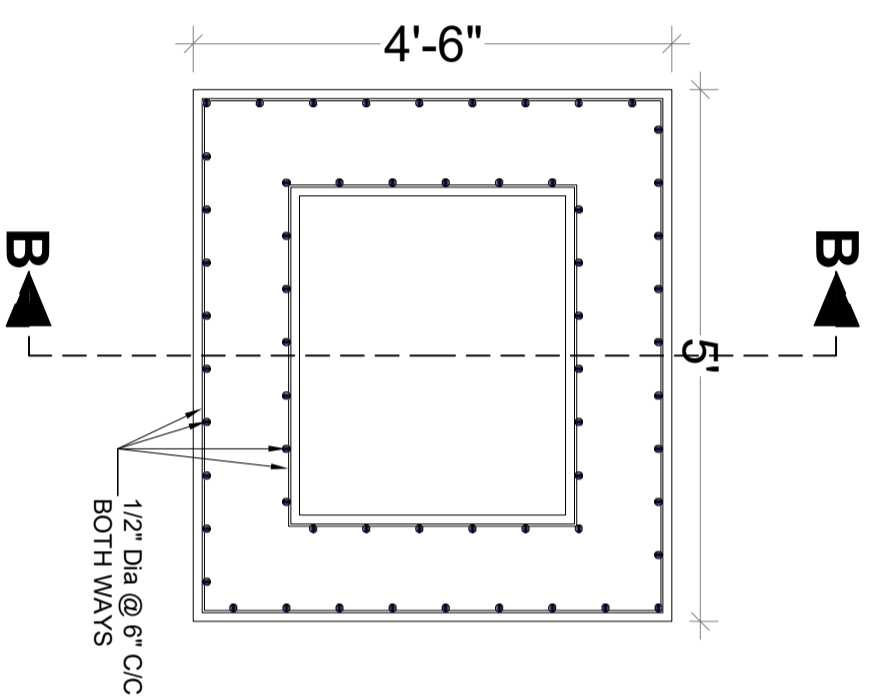
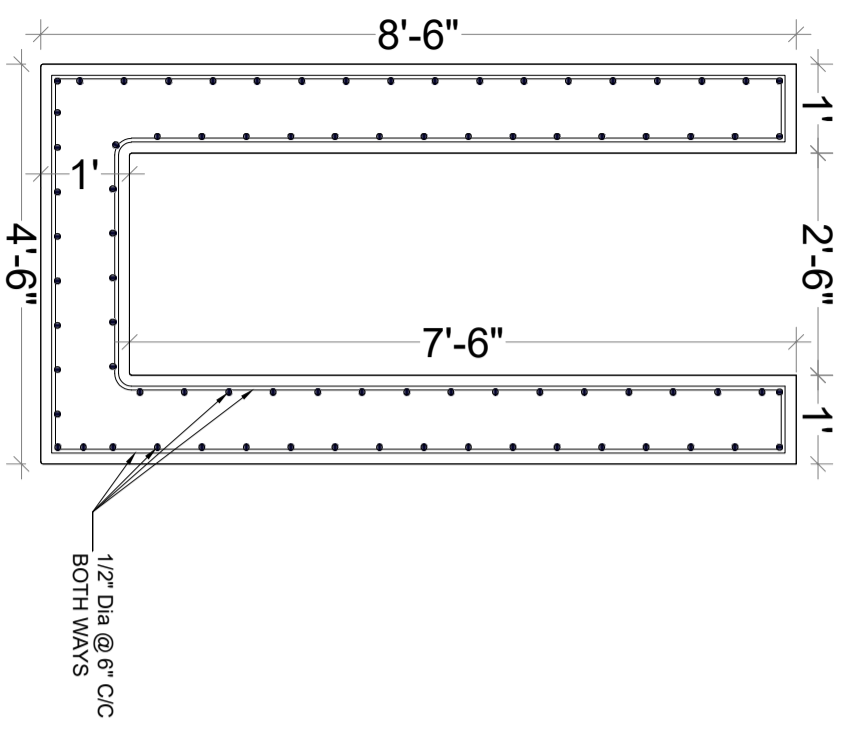
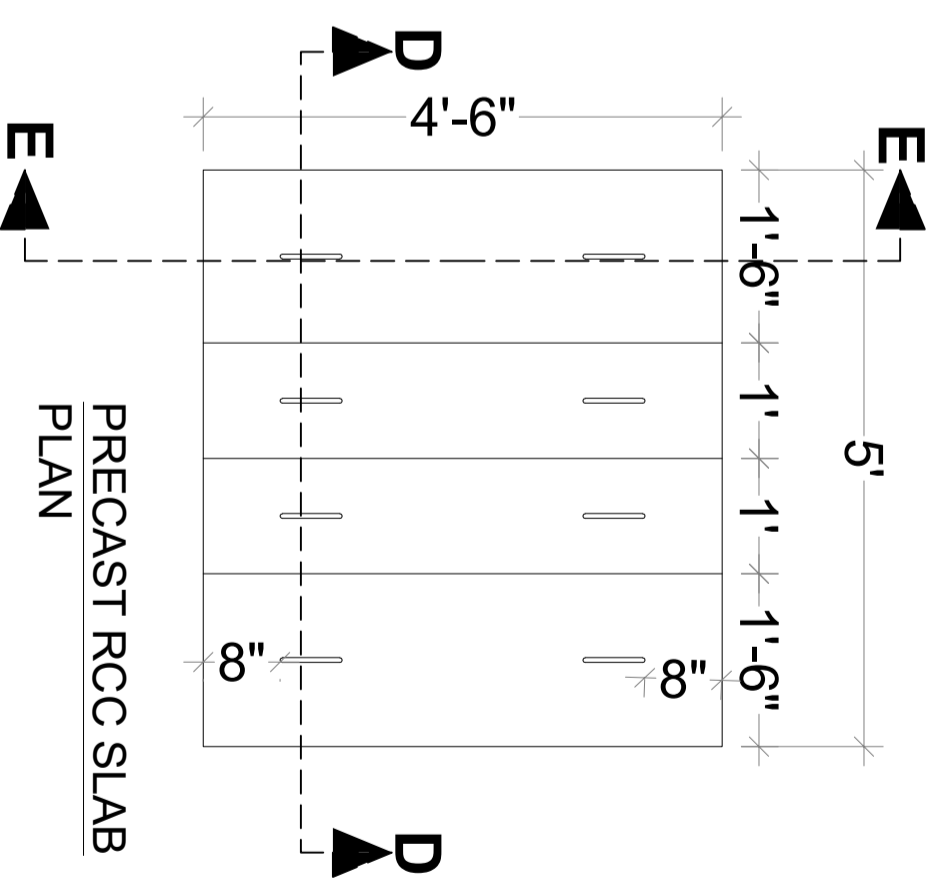
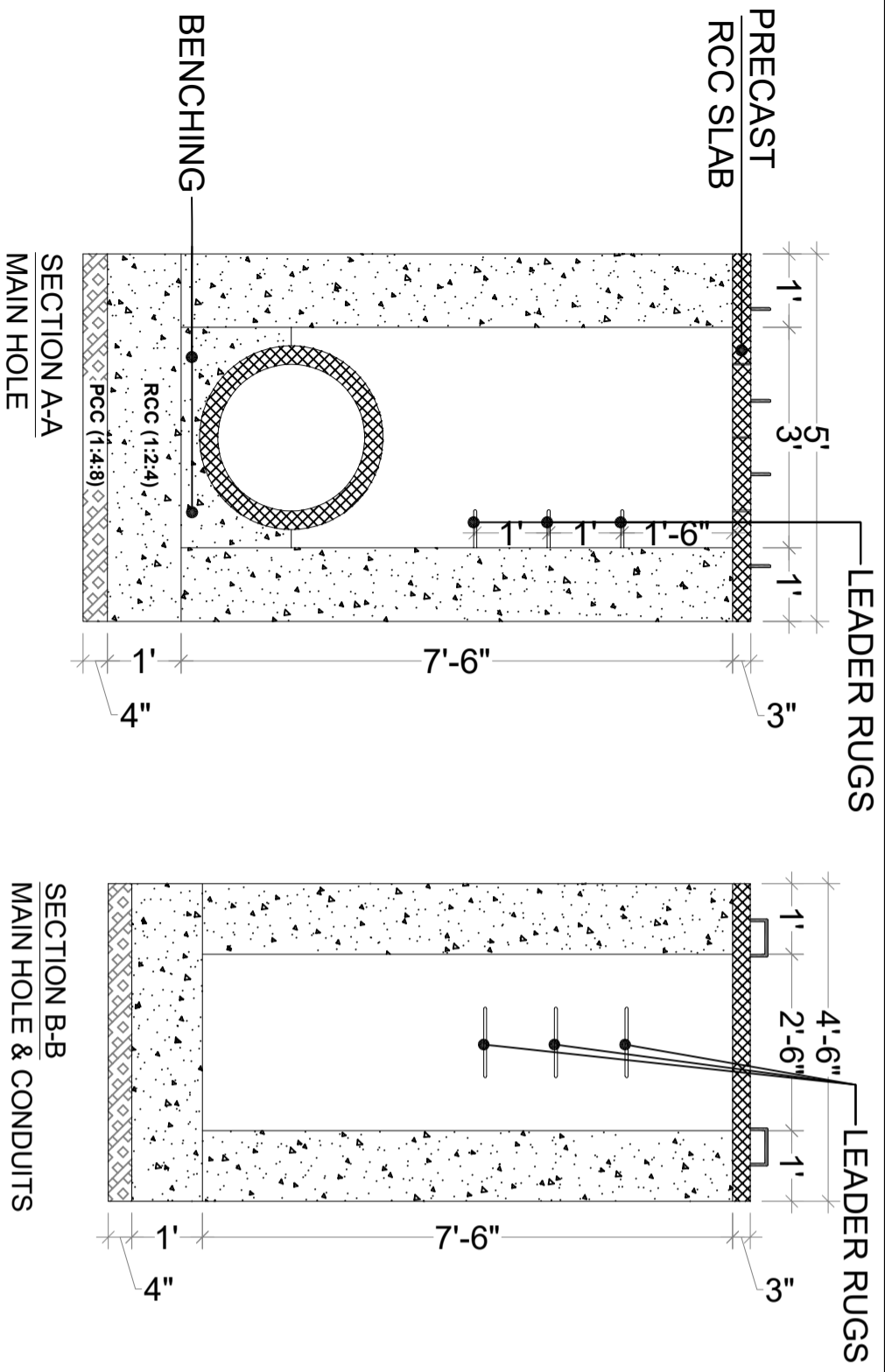
**CONSULTING ASSOCIATES**  
HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
PESHAWAR, PAKISTAN  
PH: +92 91 5701774  
EMAIL: Consultingassociates127@gmail.com

**TITLE:-**  
ZAMIR GUL DAM PROJECT  
KOHAT

**DRAWING TITLE:-**  
HYDRAULIC STRUCTURES  
PASTA SANDA  
MAIN HOLE & CONDUITS

**DRAWING:-**  
PLAN, CROSS SECTION & LONG  
SECTION

**DRAWN BY** MUNEEB KHAN  
**DESIGN BY** DAWOOD KHAN  
**CHECKED & SUBMITTED BY** SHAKIL AHMAD  
**SHEET NO.**



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR

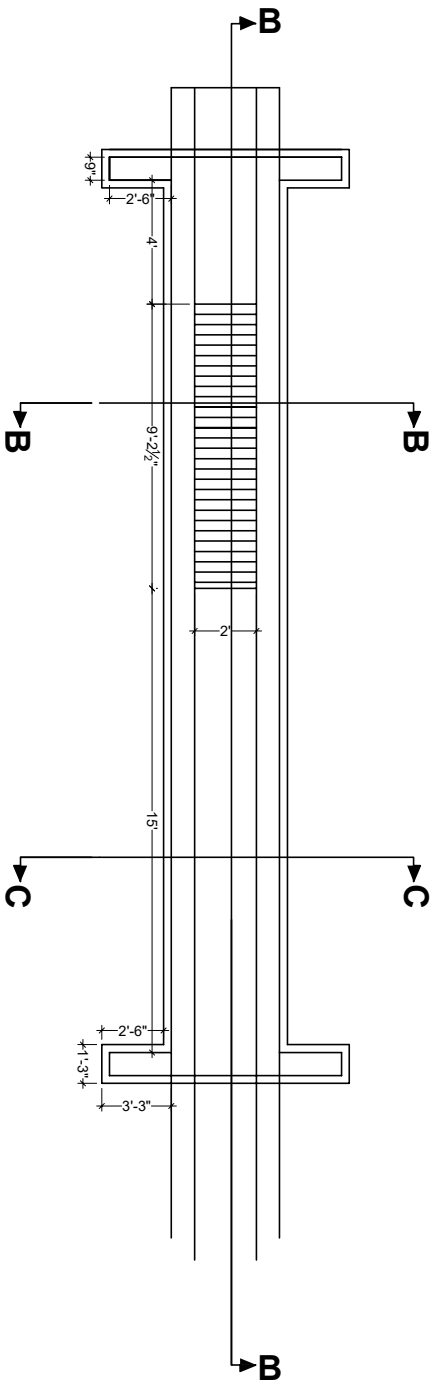
**CONSULTING ASSOCIATES**  
HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
PESHAWAR, PAKISTAN  
PH: +92 91 5701774  
EMAIL: Consultingassociates127@gmail.com

**TITLE:-**  
ZAMIR GUL DAM PROJECT  
KOHAT

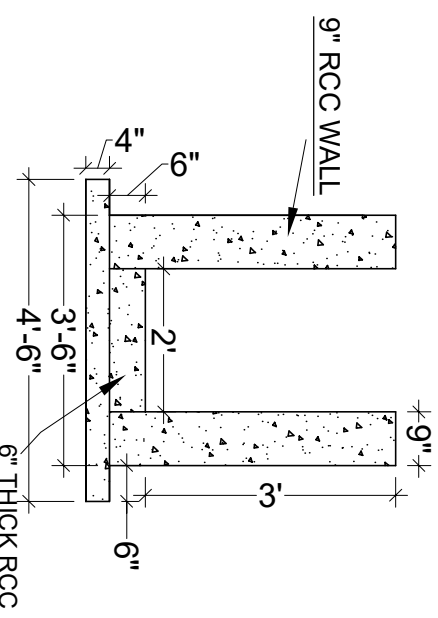
**DRAWING TITLE:-**  
HYDRAULIC STRUCTURES  
PASTA SANDA  
MAIN HOLE & CONDUITS

**DRAWING:-**  
TYPICAL SECTION, LONG SECTION  
AND REINFORCEMENT DETAILS

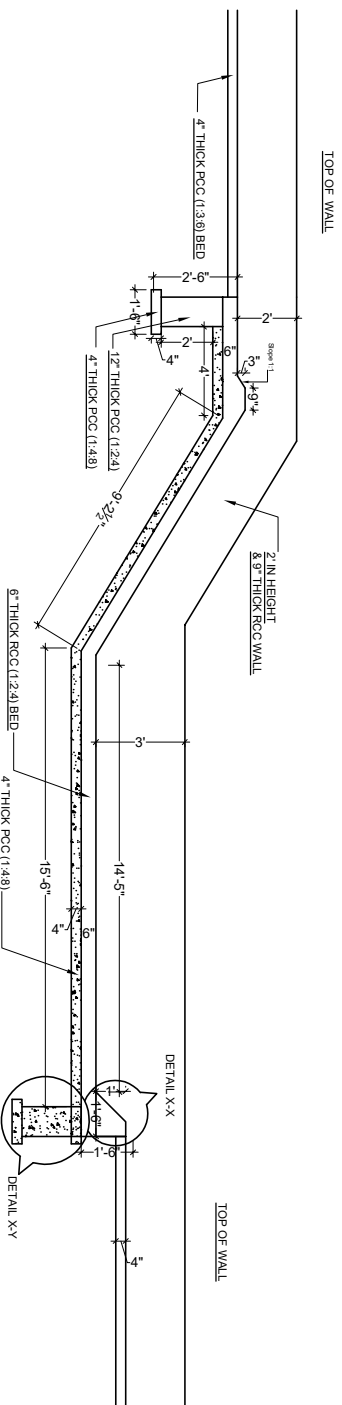
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<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	



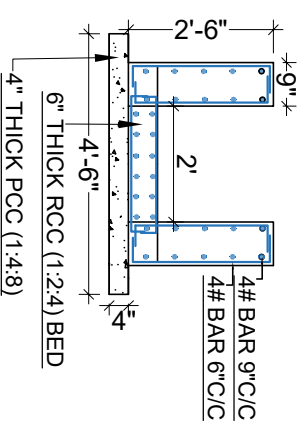
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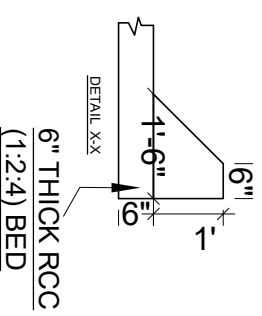
Section C-C  
(1:2.4) BED



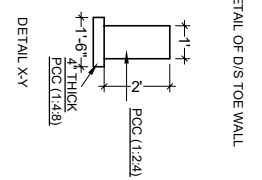
Section A-A



Section B-B



6" THICK RCC  
(1:2.4) BED



DETAIL OF DIS TOE WALL

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR



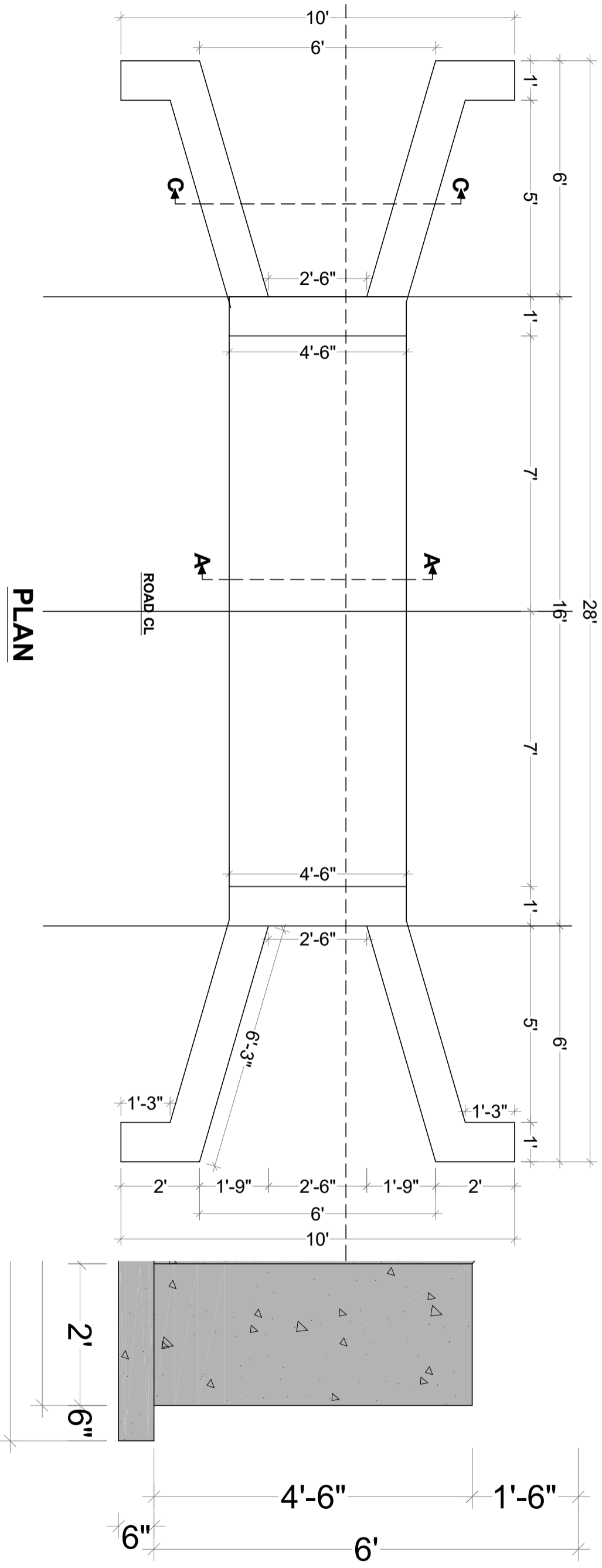
**CONSULTING ASSOCIATES**  
HOUSE 899, SEED JAMAL UD DIN ROAD, UNIVERSITY TOWN  
PESHAWAR, PAKISTAN  
PH: +92 91 2701774  
EMAIL: Consultingassociates127@gmail.com

TITLE:-  
**SATI KALLI DAM PROJECT**  
BANNU

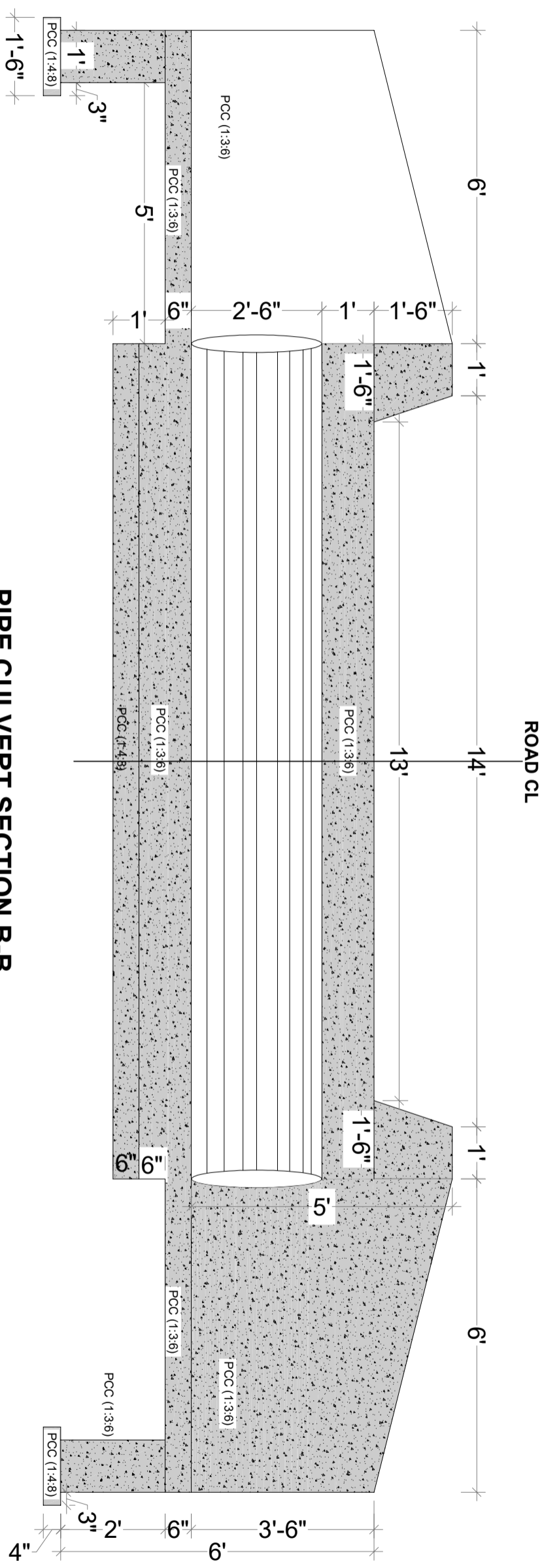
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**HYDRAULIC STRUCTURES**  
LEFT BANK CANAL  
DROP FALL

DRAWING:-  
PLAN, SECTION A-A, SECTION B-B &  
DETAILS M

DRAWN BY	MUNEER KHAN
DESIGN BY	DAWOOD KHAN
CHECKED & SUBMITTED BY	SHAKIL AHMAD
SHEET NO.	



**PLAN**



**PIPE CULVERT SECTION B-B**

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



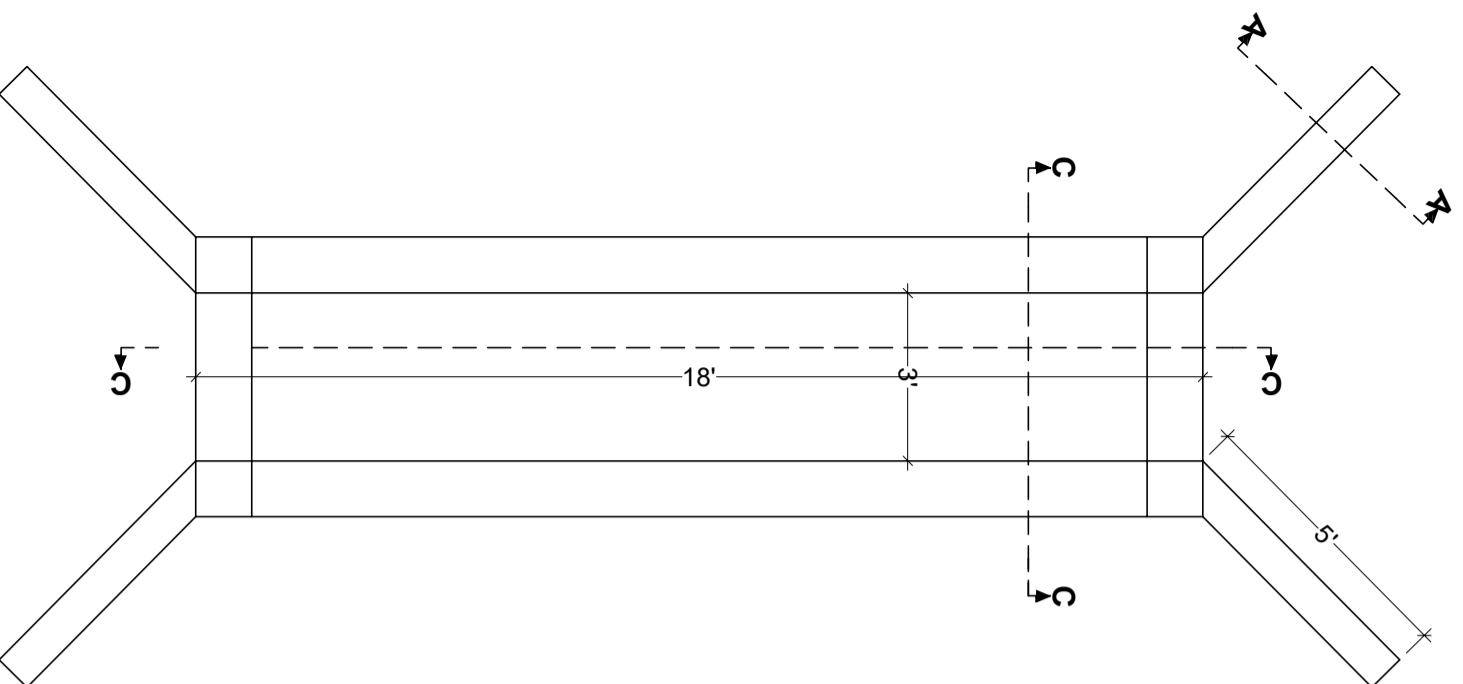
**CONSULTING ASSOCIATES**  
 HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

**TITLE:-**  
 ZAMIR GUL DAM PROJECT  
 KOHAT

**DRAWING TITLE:-**  
 HYDRAULIC STRUCTURES  
 PIPE CULVERT

**DRAWING:-**  
 PLAN, SECTION A-A, SECTION B-B

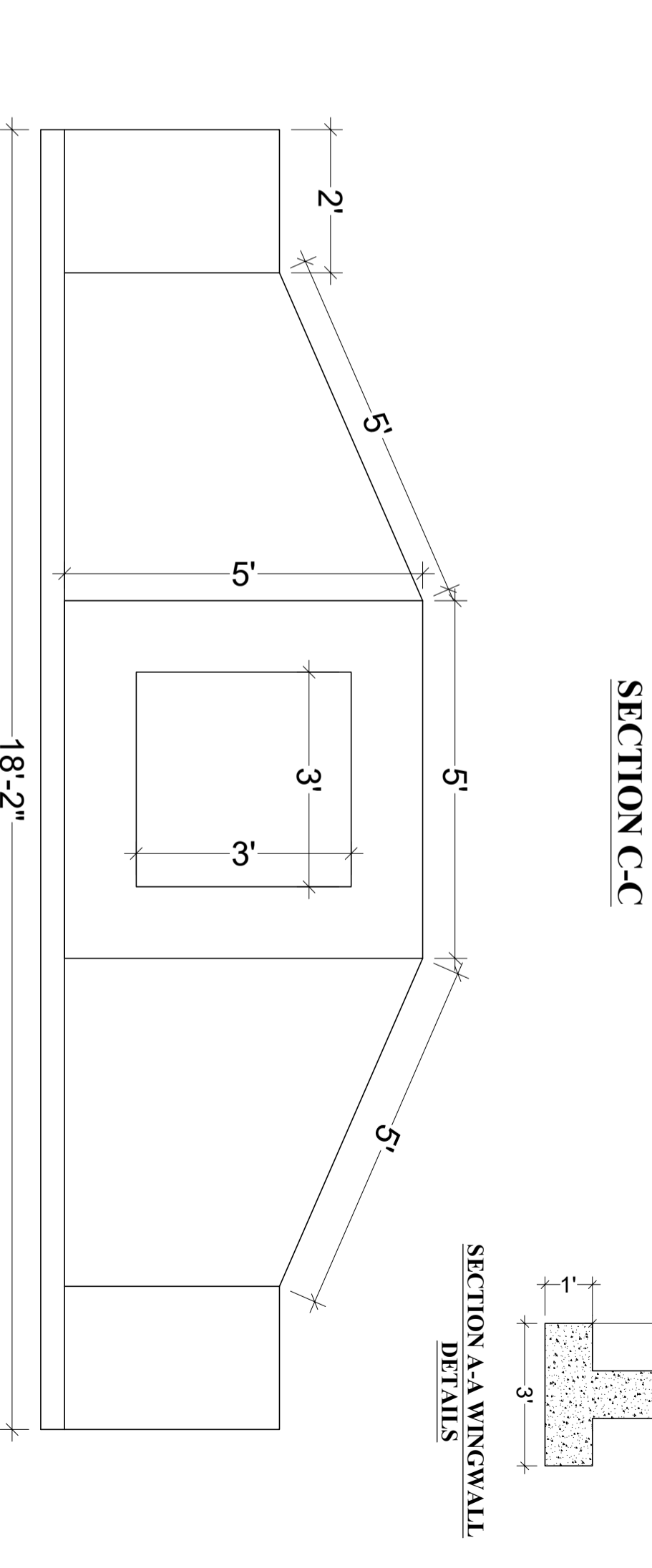
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<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	



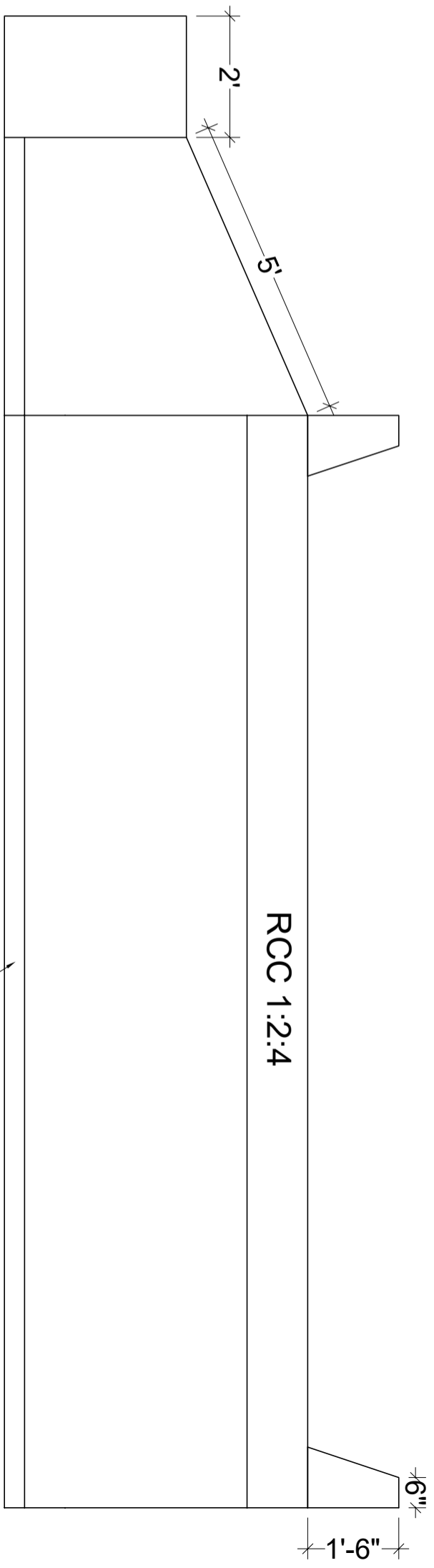
PLAN



SECTION A-A WINGWALL  
DETAILS



SECTION C-C



SECTION B-B LONG SECTION

RCC 1:2:4

RCC 1:4:8

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR



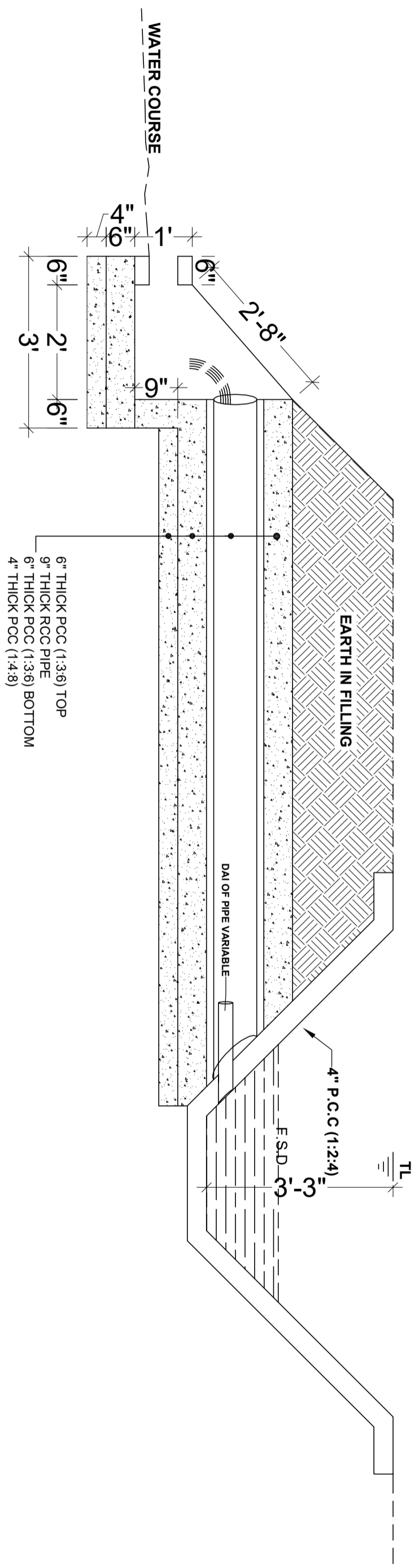
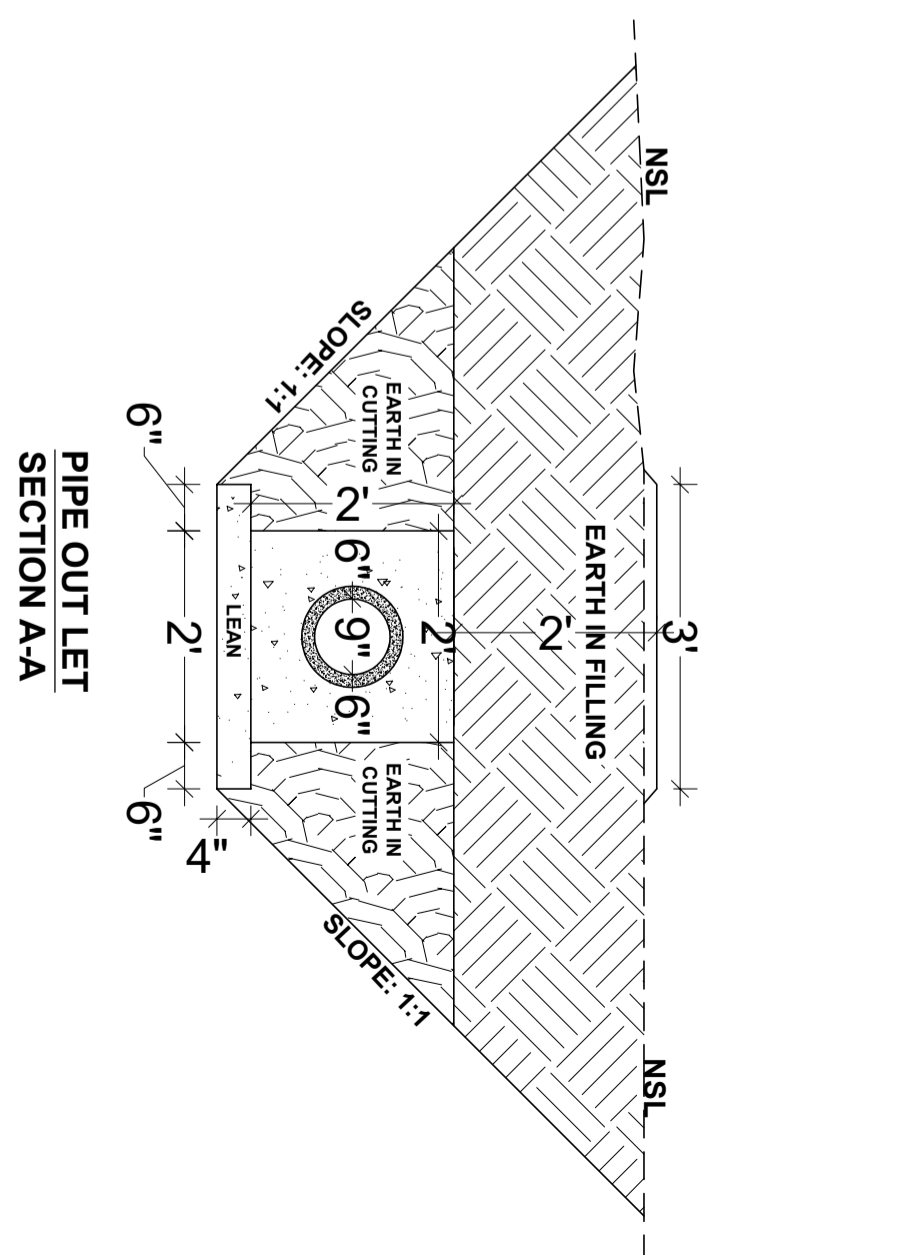
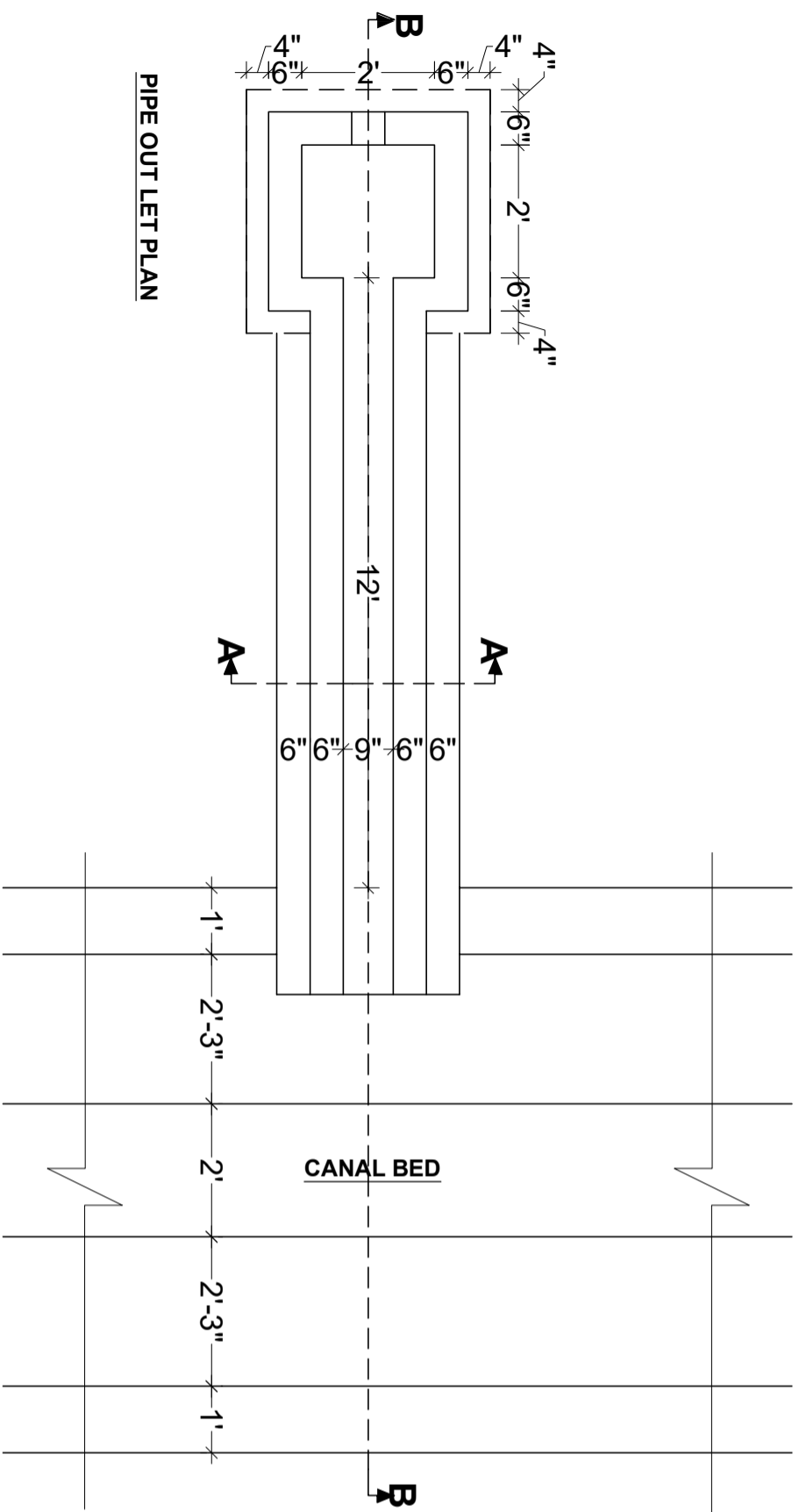
**CONSULTING ASSOCIATES**  
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PESHAWAR, PAKISTAN  
PH: +92 91 5701774  
EMAIL: Consultingassociates127@gmail.com

**TITLE:-**  
ZAMIR GUL DAM PROJECT  
KOHAT

**DRAWING TITLE:-**  
HYDRAULIC STRUCTURES  
PASTA SANDA  
BOX CULVERT

**DRAWING:-**  
PLAN, SECTION B-B & SECTION C-C

<b>DRAWN BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	



- 6" THICK PCC (1:3:6) TOP
- 9" THICK RCC PIPE
- 6" THICK PCC (1:3:6) BOTTOM
- 4" THICK PCC (1:4:8)

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



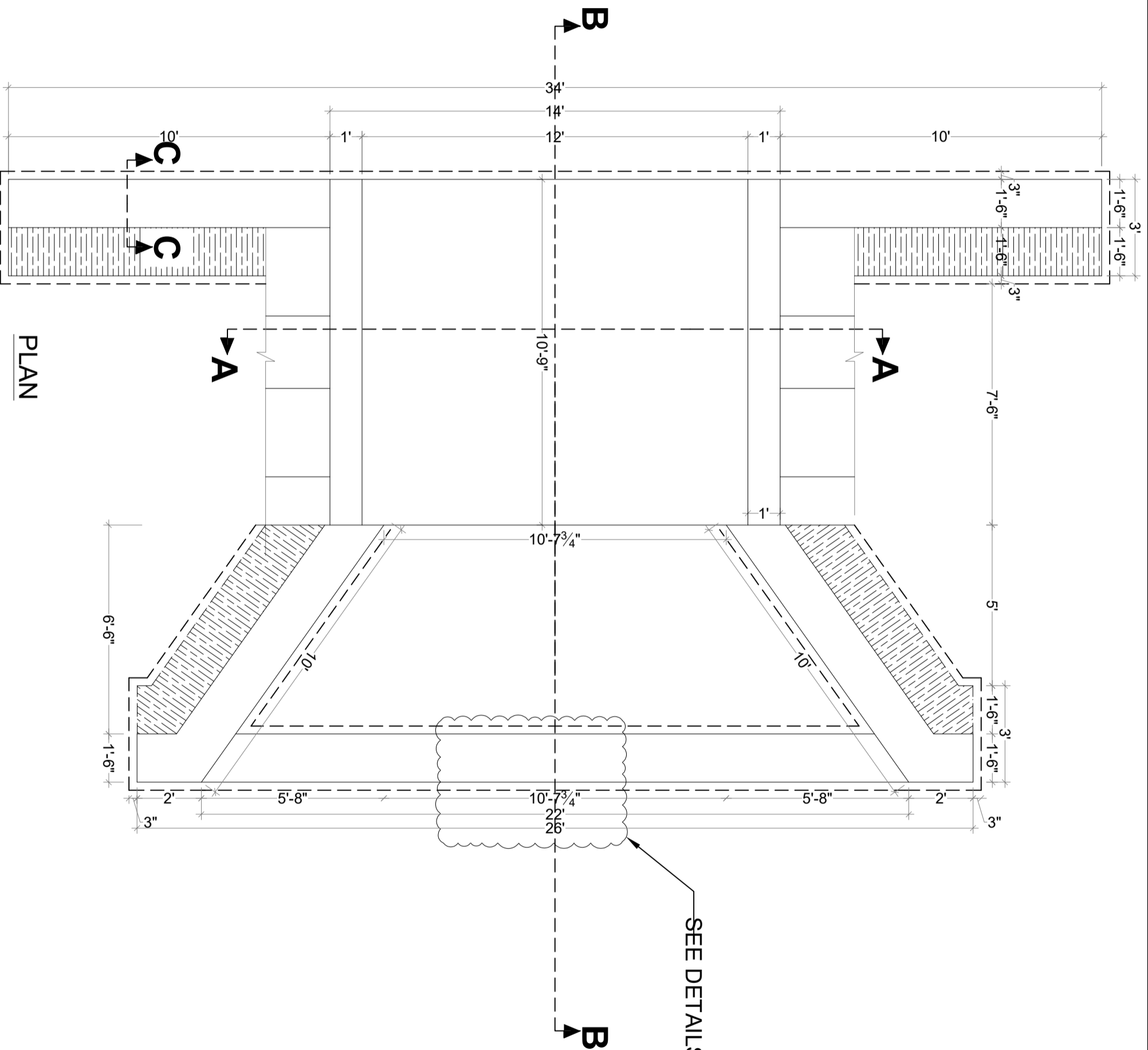
CONSULTING ASSOCIATES  
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 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

TITLE:-  
 ZAMIR GUL DAM PROJECT  
 KOHAT

DRAWING TITLE:-  
 HYDRAULIC STRUCTURES  
 PIPE OUTLET

DRAWING:-  
 PLAN, SECTION A-A, SECTION B-B

DRAWN BY	MUNEER KHAN
DESIGN BY	DAWOOD KHAN
CHECKED & SUBMITTED BY	SHAKIL AHMAD
SHEET NO.	



PLAN

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



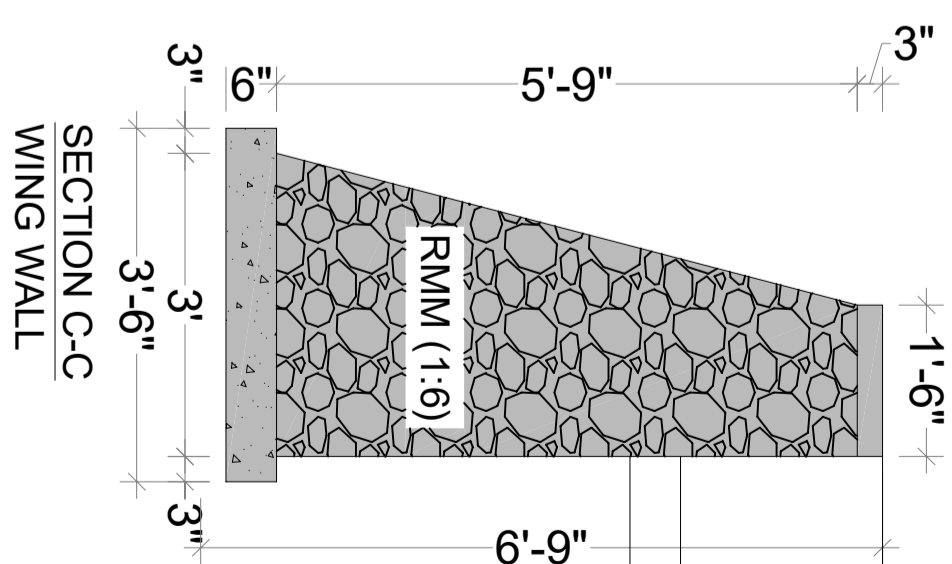
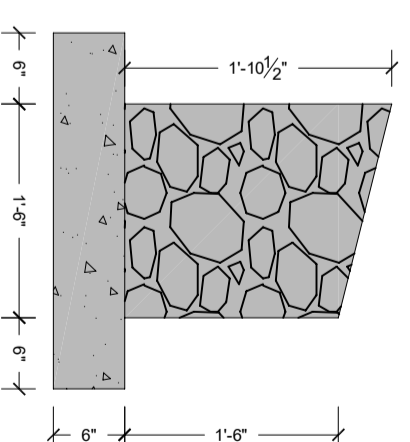
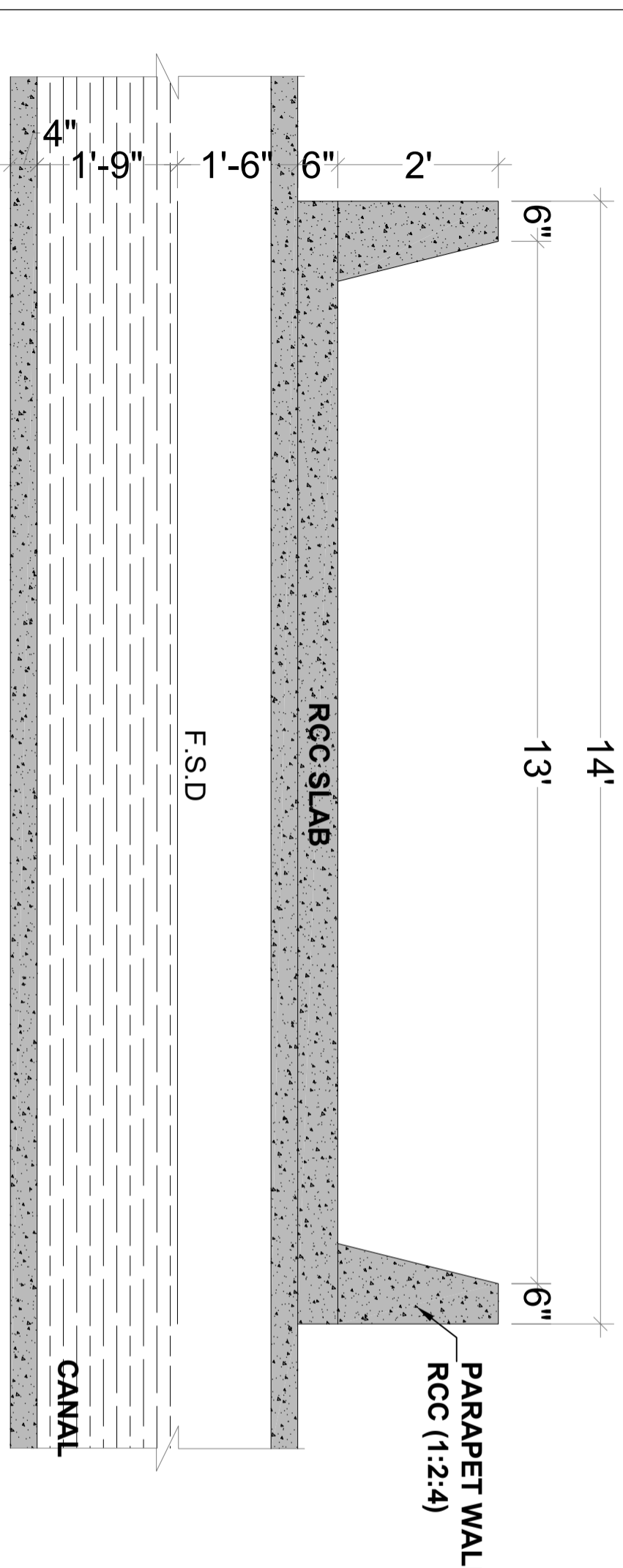
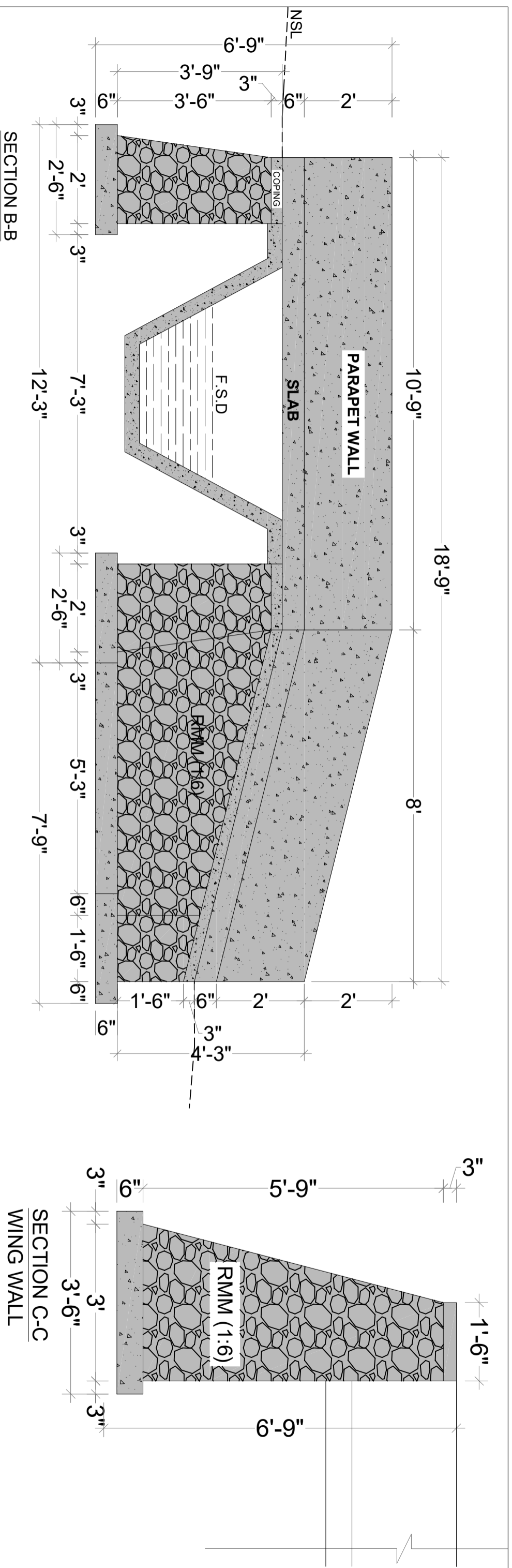
**CONSULTING ASSOCIATES**  
 HOUSE #99A, STEED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

TITLE:-  
**ZAMIR GUL DAM PROJECT**  
**KOHAT**

DRAWING TITLE:-  
**HYDRAULIC STRUCTURES**  
**SUPER PASSAGE**

DRAWING:-  
**PLAN**  
**RD = 6+200 9+875**

DRAWN BY	MUNEER KHAN
DESIGN BY	DAWOOD KHAN
CHECKED & SUBMITTED BY	SHAKIL AHMAD
SHEET NO.	



SECTION A-A  
MAIN CANAL

TOE WALL  
DETAILS "X"

GOVERNMENT OF KHYBER PAKHTUNKHWA  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR



CONSULTING ASSOCIATES  
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PESHAWAR, PAKISTAN  
PH: +92 91 5701774  
EMAIL: Consultingassociates127@gmail.com

TITLE:-

ZAMIR GUL DAM PROJECT  
KOHAT

DRAWING TITLE:-

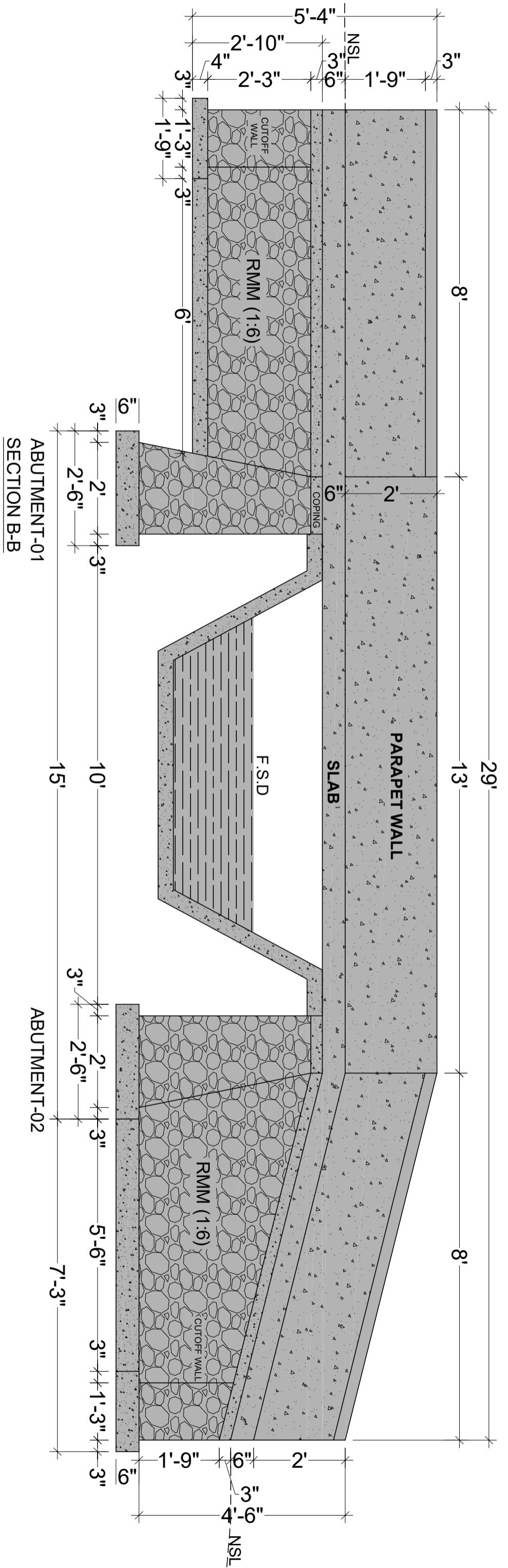
HYDRAULIC STRUCTURES  
SUPER PASSAGE

DRAWING:-

TYPICAL SECTION, LONG SECTION,  
RD = 6+200 9+875

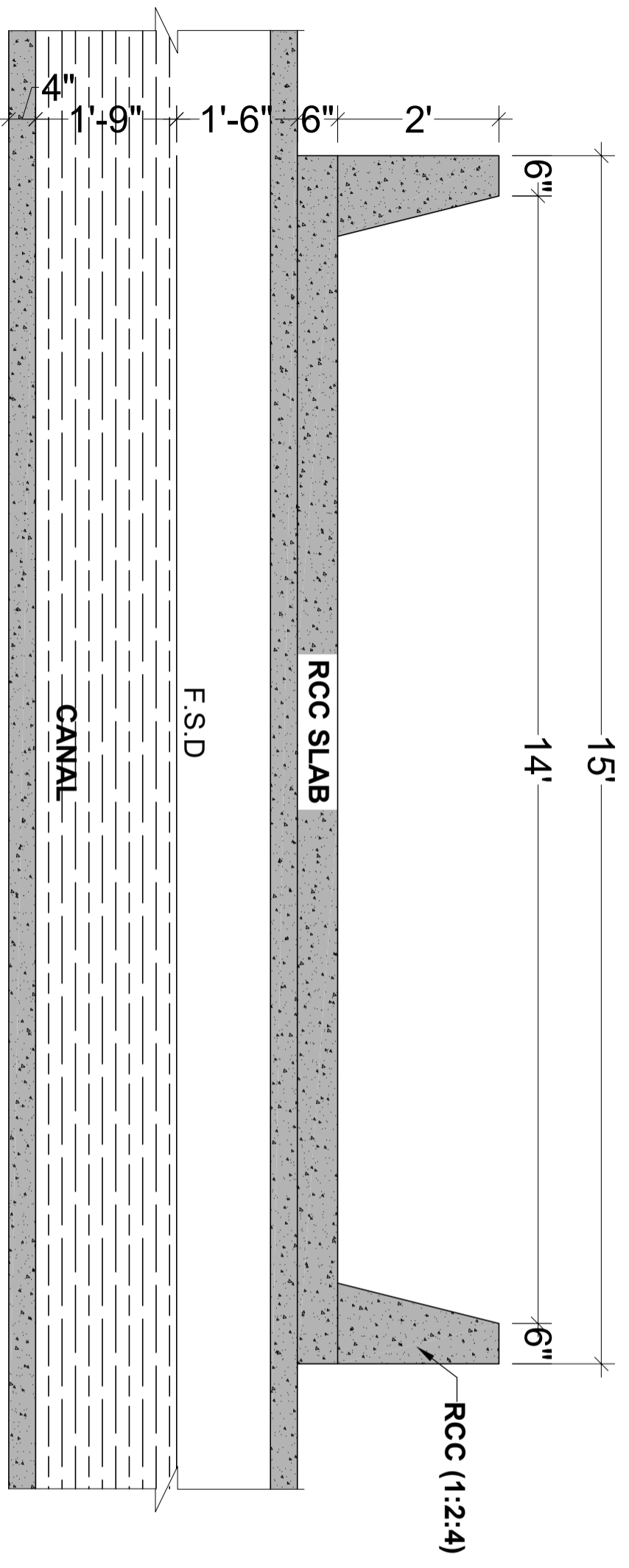
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DESIGN BY	DAWOOD KHAN
CHECKED & SUBMITTED BY	SHAKIL AHMAD
SHEET NO.	





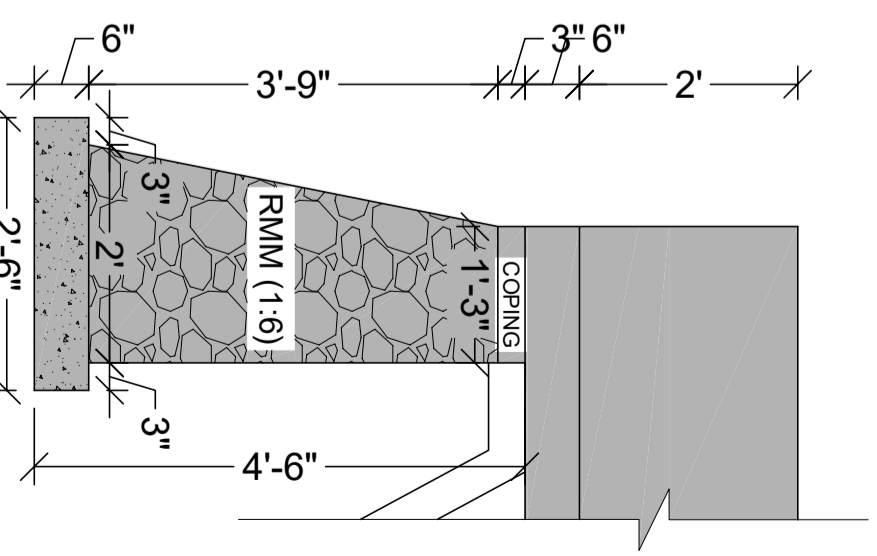
ABUTMENT-01  
SECTION B-B

ABUTMENT-02



SECTION A-A  
MAIN CANAL

ABUTMENT  
TYPICAL SECTION



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



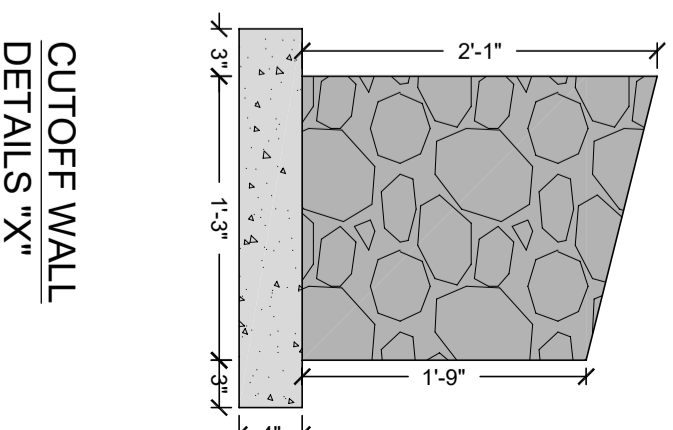
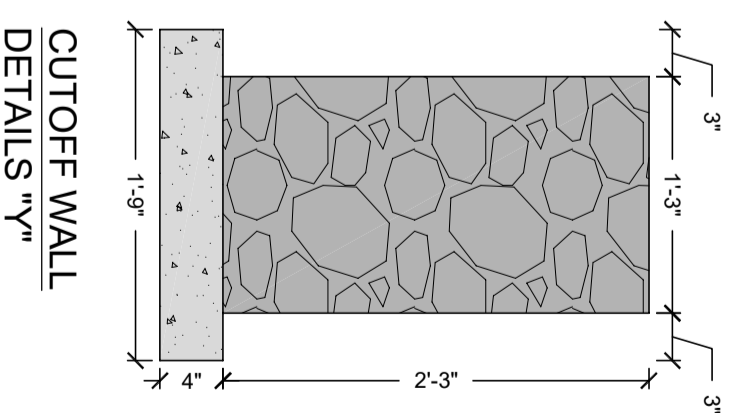
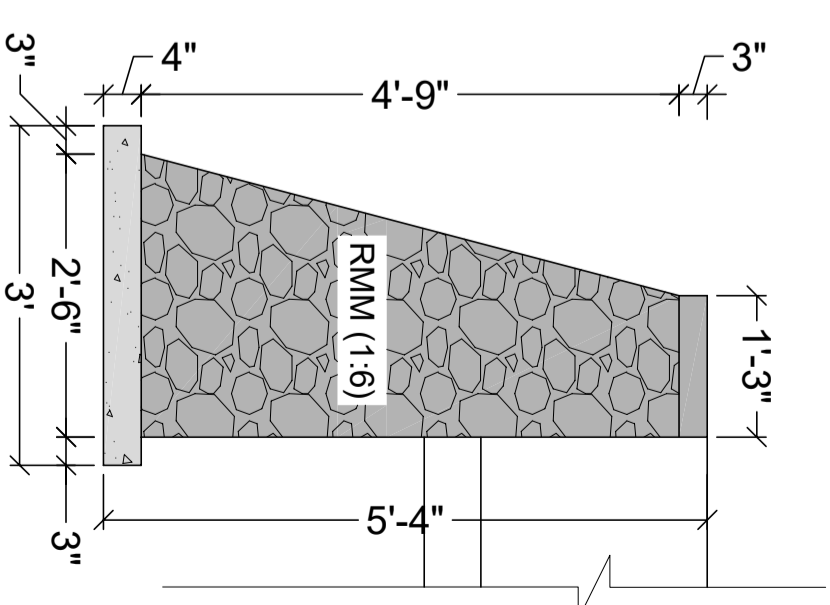
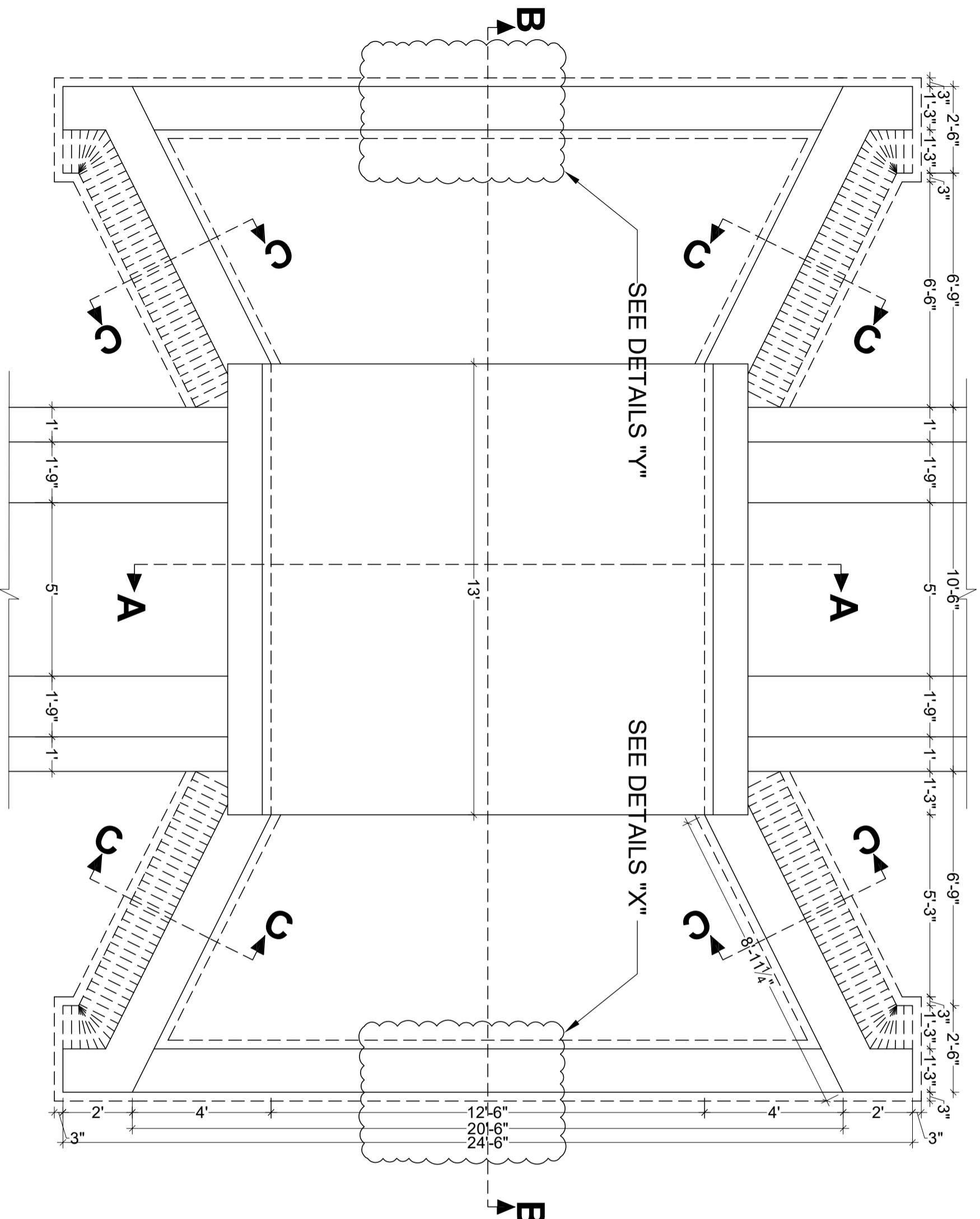
**CONSULTING ASSOCIATES**  
 HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

**TITLE:-**  
 ZAMIR GUL DAM PROJECT  
 KOHAT

**DRAWING TITLE:-**  
 HYDRAULIC STRUCTURES  
 SUPER PASSAGE

**DRAWING:-**  
 SECTIONS B-B, SECTION A-A AND  
 TYPICAL SECTION ABUTMENT

<b>DRAWN BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	



GOVERNMENT OF KHYBER PAKHTUNKHWA  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR



CONSULTING ASSOCIATES  
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PESHAWAR, PAKISTAN  
PH: +92 91 5701774  
EMAIL: Consultingassociates127@gmail.com

TITLE:-

ZAMIR GUL DAM PROJECT  
KOHAT

DRAWING TITLE:-

HYDRAULIC STRUCTURES  
SUPER PASSAGE

DRAWING:-

PLAN, WING WALLS SECTION  
AND CUTOFF WALL SECTIONS

DRAWN BY

MUNEER KHAN

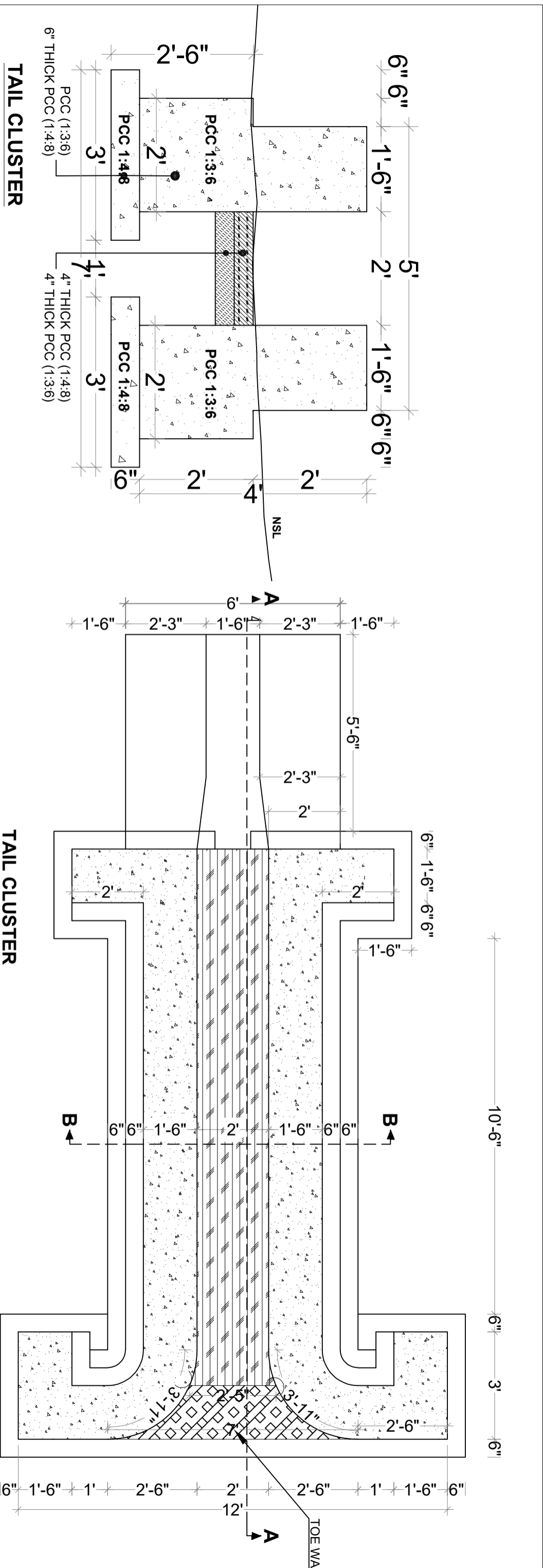
DESIGN BY

DAWOOD KHAN

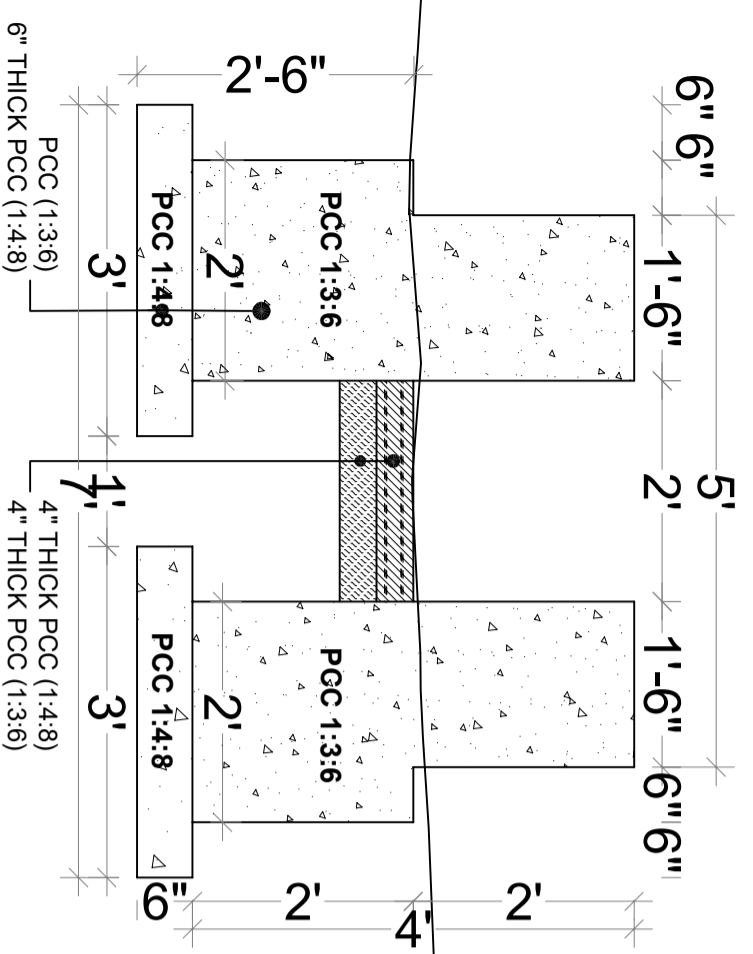
CHECKED &  
SUBMITTED BY

SHAKIL AHMAD

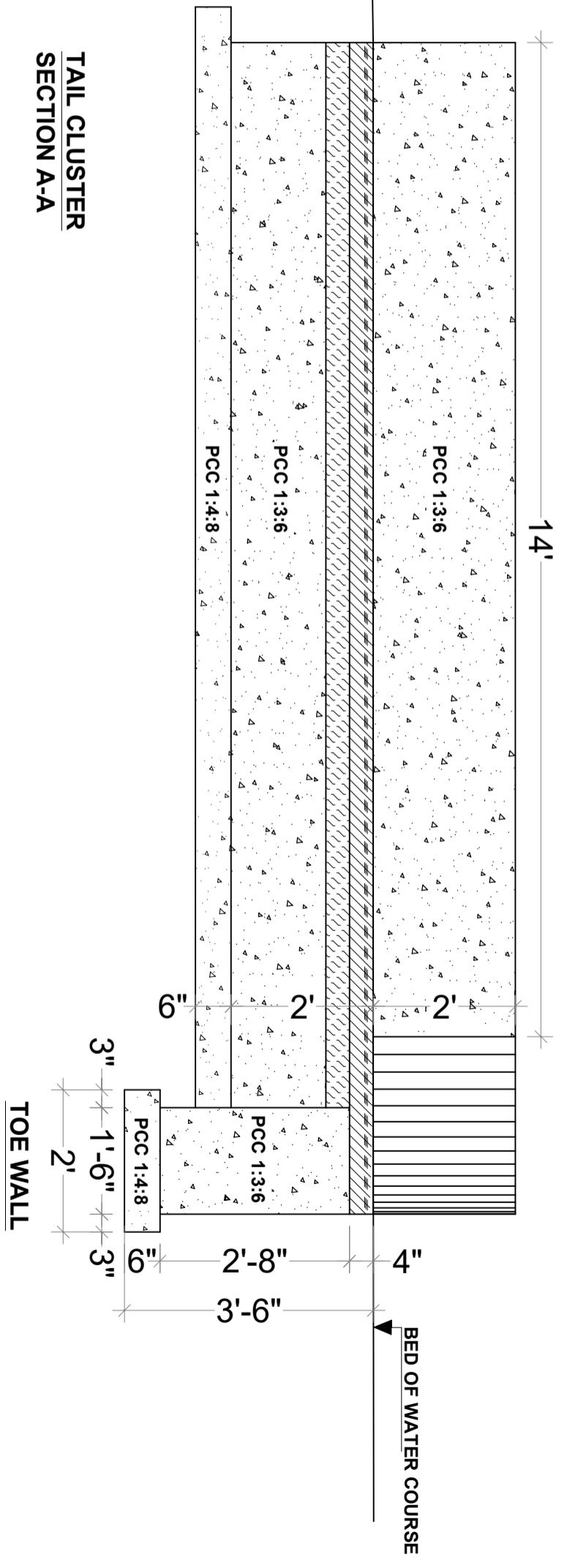
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**TAIL CLUSTER SECTION B-B**



**TAIL CLUSTER SECTION A-A**



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR



**CONSULTING ASSOCIATES**  
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 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

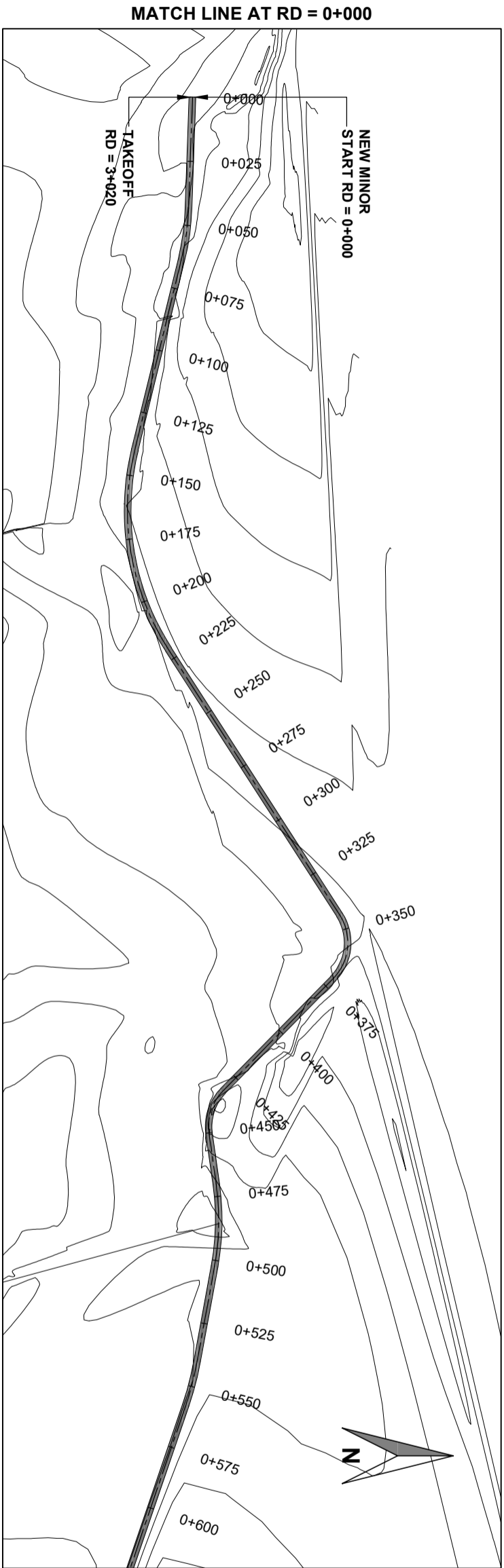
**TITLE:-**  
 ZAMIR GUL DAM PROJECT  
 KOHAT

**DRAWING TITLE:-**  
 HYDRAULIC STRUCTURES  
 TAIL CLUSTER

**DRAWING:-**  
 PLAN, SECTION A-A, SECTION B-B

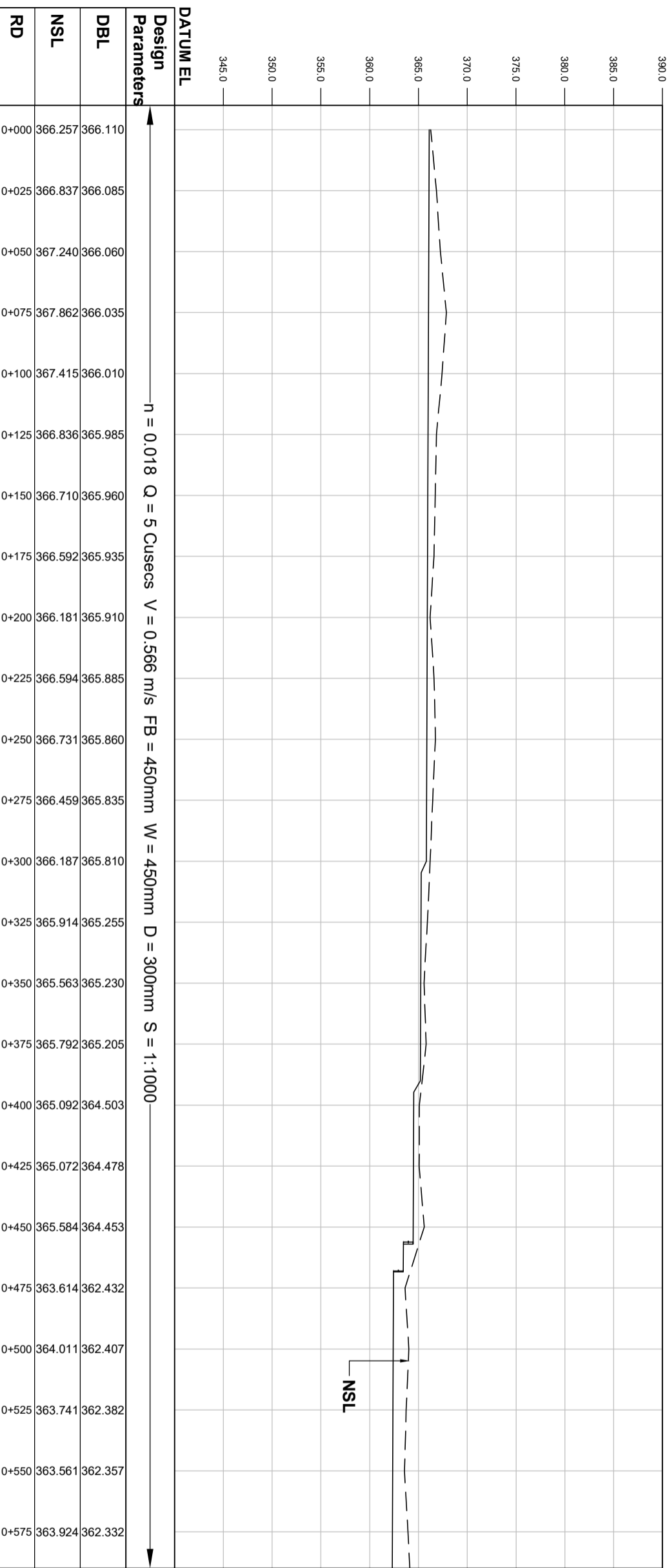
**DRAWN BY:** MUNEEB KHAN  
**DESIGN BY:** DAWOOD KHAN  
**CHECKED & SUBMITTED BY:** SHAKIL AHMAD  
**SHEET NO.:**

RAJA RAM MINOR CHANNEL  
PLAN AND PROFILE  
FROM RD 0+000 TO 4+4258.43



MATCH LINE AT RD = 0+000

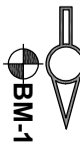
MATCH LINE AT RD = 0+575



Design Parameters  
 $n = 0.018$   $Q = 5$  Cusecs  $V = 0.566$  m/s  $FB = 450$ mm  $W = 450$ mm  $D = 300$ mm  $S = 1:1000$

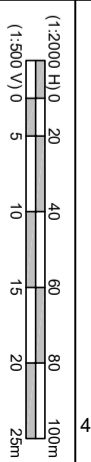
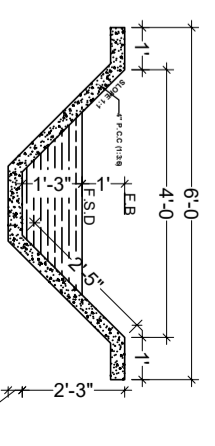
RD	NSL	DBL	Design Parameters
0+000	366.257	366.110	$n = 0.018$ $Q = 5$ Cusecs $V = 0.566$ m/s $FB = 450$ mm $W = 450$ mm $D = 300$ mm $S = 1:1000$
0+025	366.837	366.085	
0+050	367.240	366.060	
0+075	367.862	366.035	
0+100	367.415	366.010	
0+125	366.836	365.985	
0+150	366.710	365.960	
0+175	366.592	365.935	
0+200	366.181	365.910	
0+225	366.594	365.885	
0+250	366.731	365.860	
0+275	366.459	365.835	
0+300	366.187	365.810	
0+325	365.914	365.255	
0+350	365.563	365.230	
0+375	365.792	365.205	
0+400	365.092	364.503	
0+425	365.072	364.478	
0+450	365.584	364.453	
0+475	363.614	362.432	
0+500	364.011	362.407	
0+525	363.741	362.382	
0+550	363.561	362.357	
0+575	363.924	362.332	

- LEGENDS:**
- DESIGN BED LEVEL
  - NATURAL SURFACE LEVEL
  - INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - PROPOSED MAIN CHANNEL
  - ROAD OR KACHA TRACK
  - RIVER OR KHWAR
  - NULLAH
  - HOUSE
  - VILLAGE
  - GRAVE YARD
  - CULTIVATED LAND
  - BRIDGE OR CULVERT
  - ELECTRIC POLE
  - OUTLET
  - BENCH MARK



**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



**CLIENT:** GOVERNMENT OF KHIBER PAKHTUNKHWA  
 DIRECTORATE GENERAL SMALL DAMS  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANT:** **B CONSULTING ASSOCIATES**  
 NEAR DEANS COMPLEX APARTMENTS BEHIND GUL  
 ONG BOARD BAZAAR, JAMRUD ROAD PESHAWAR  
 PH # 091-9701774-45 Fax - 091-9701775  
 E-MAIL: consultingassociates127@gmail.com

**PROJECT:** ZAMIR GUL DAM PROJECT  
 DISTRICT KOHAT

**SUB WORK:** RAJA RAM MINOR CANAL  
 FROM RD 0+000 TO 4+258.43 KM

**TITLE:** MAIN CANAL  
 PLAN & PROFILE RD = 0+000 TO 0+575 (SHEET 01 OF 08)

**REV** | **DESCRIPTION** | **DATE**

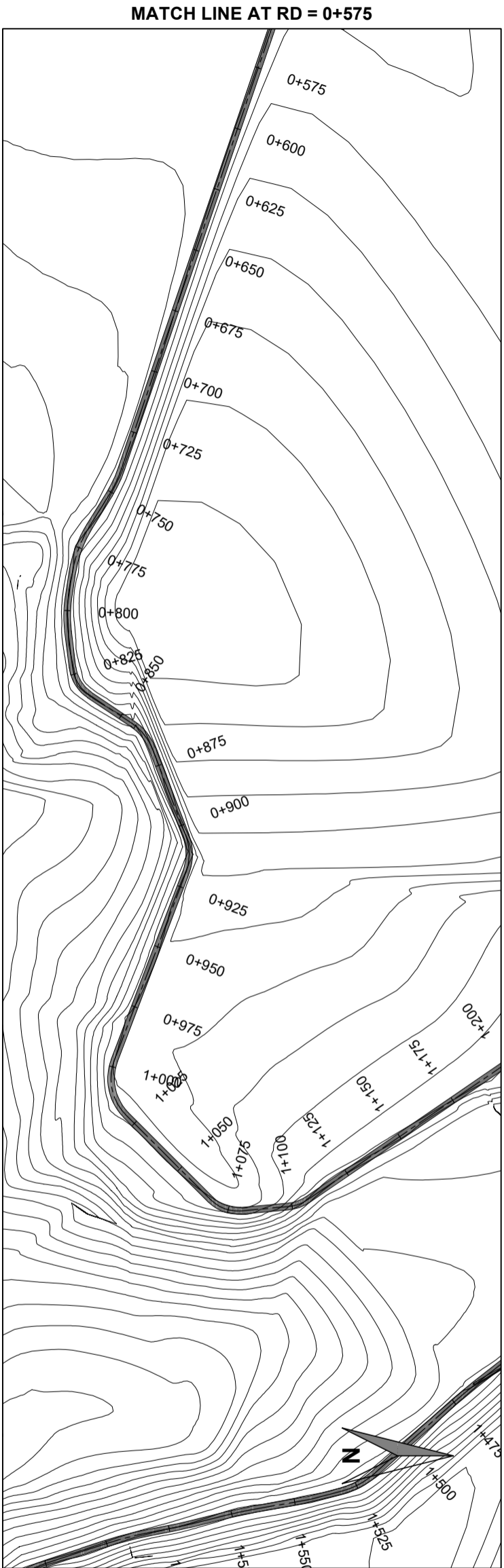
**DRAWN BY:** NAWAB ZUDA | **SCALE:** H = | V =

**DESIGNED BY:** ENGR FARID KHAN

**CHECKED BY:** ENGR SHAKIL KHAN

**APPROVED BY:** | **DATE:** JUNE, 2022

**DRAWING NO:** ZGD-01 | **REV:** 0



MATCH LINE AT RD = 0+575

MATCH LINE AT RD = 1+150

DATUM EL	RD	NSL	DBL
390.0	0+575	363.924	362.332
385.0	0+600	364.223	362.307
390.0	0+625	364.523	362.282
375.0	0+650	364.823	362.257
370.0	0+675	365.123	362.232
365.0	0+700	365.422	362.207
360.0	0+725	365.722	362.182
355.0	0+750	365.757	362.157
350.0	0+775	364.803	362.132
345.0	0+800	363.587	362.107
	0+825	363.833	362.082
	0+850	363.601	362.057
	0+875	364.237	362.032
	0+900	363.778	362.007
	0+925	363.760	361.982
	0+950	363.824	361.957
	0+975	363.937	361.932
	1+000	363.203	361.907
	1+025	362.673	361.882
	1+050	362.548	361.857
	1+075	361.952	360.834
	1+100	359.186	358.934
	1+125	358.488	358.909
	1+150	359.240	358.884

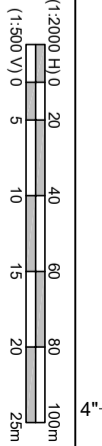
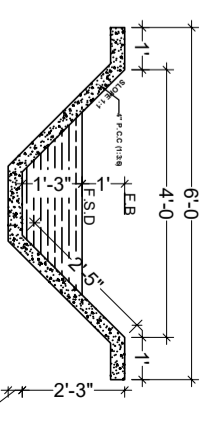
Design Parameters:  $n = 0.018$   $Q = 5$  Cusecs  $V = 0.566$  m/s  $FB = 450$ mm  $W = 450$ mm  $D = 300$ mm  $S = 1:1000$

**LEGENDS:**

DESIGN BED LEVEL	—————
NATURAL SURFACE LEVEL	—————
INDEX CONTOUR	—————
INTERMEDIATE CONTOUR	—————
PROPOSED MAIN CHANNEL	—————
ROAD OR KACHA TRACK	—————
RIVER OR KHWAR	—————
NULLAH	—————
HOUSE	—————
VILLAGE	—————
GRAVE YARD	—————
CULTIVATED LAND	—————
BRIDGE OR CULVERT	—————
ELECTRIC POLE	—————
OUTLET	—————
BENCH MARK	—————

**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



**CLIENT:** GOVERNMENT OF KHIBER PAKHTUNKHWA  
DIRECTIONATE GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANT:** **B** CONSULTING ASSOCIATES  
NEAR DEANS COMPLEX APARTMENTS BEHIND GUL  
CNG BOARD BAZAAR, JAMRUD ROAD PESHAWAR  
PH # 091-9701774-45 Fax - 091-9701775  
E-MAIL: consultingassociates127@gmail.com

**PROJECT:** ZAMIR GUL DAM PROJECT  
DISTRICT KOHAT

**SUB WORK:** RAJA RAM MINOR CANAL  
FROM RD 0+000 TO 4+258.43 KM

**TITLE:** MAIN CANAL  
PLAN & PROFILE RD = 0+575 TO 1+150 (SHEET 02 OF 08)

REV	DESCRIPTION	DATE

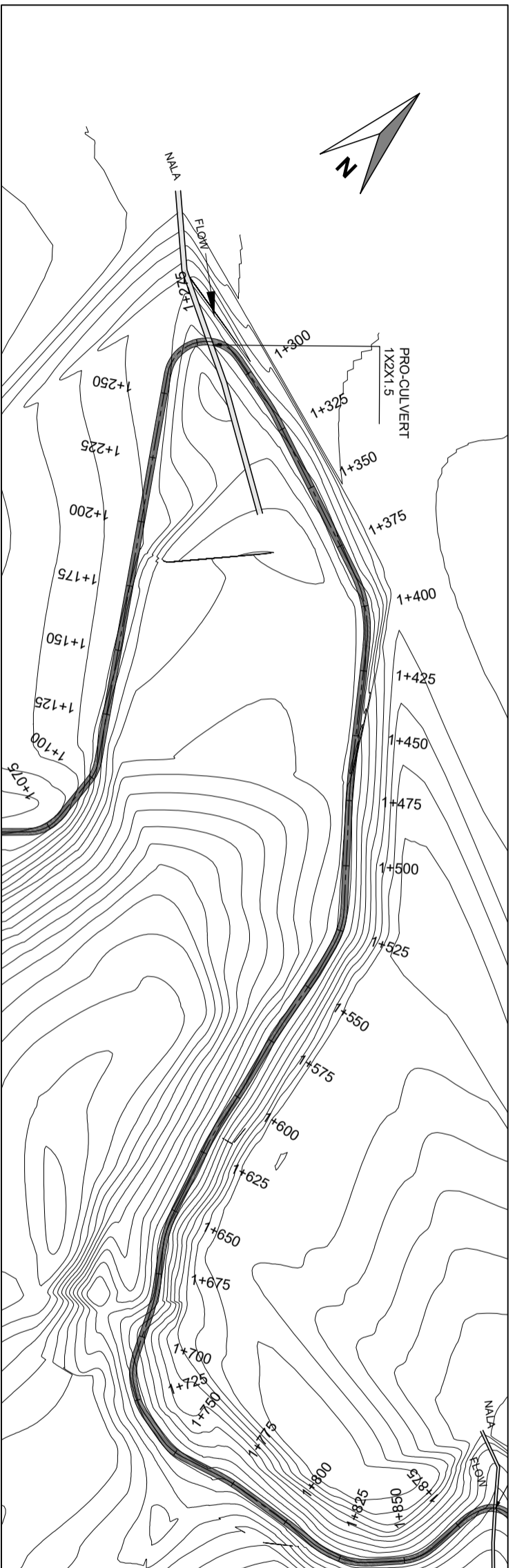
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**DESIGNED BY:** ENGR FARID KHAN  
**CHECKED BY:** ENGR SHAKIL KHAN  
**APPROVED BY:** \_\_\_\_\_  
**DRAWING NO:** ZGD-02

**SCALE:** H = \_\_\_\_\_  
V = \_\_\_\_\_

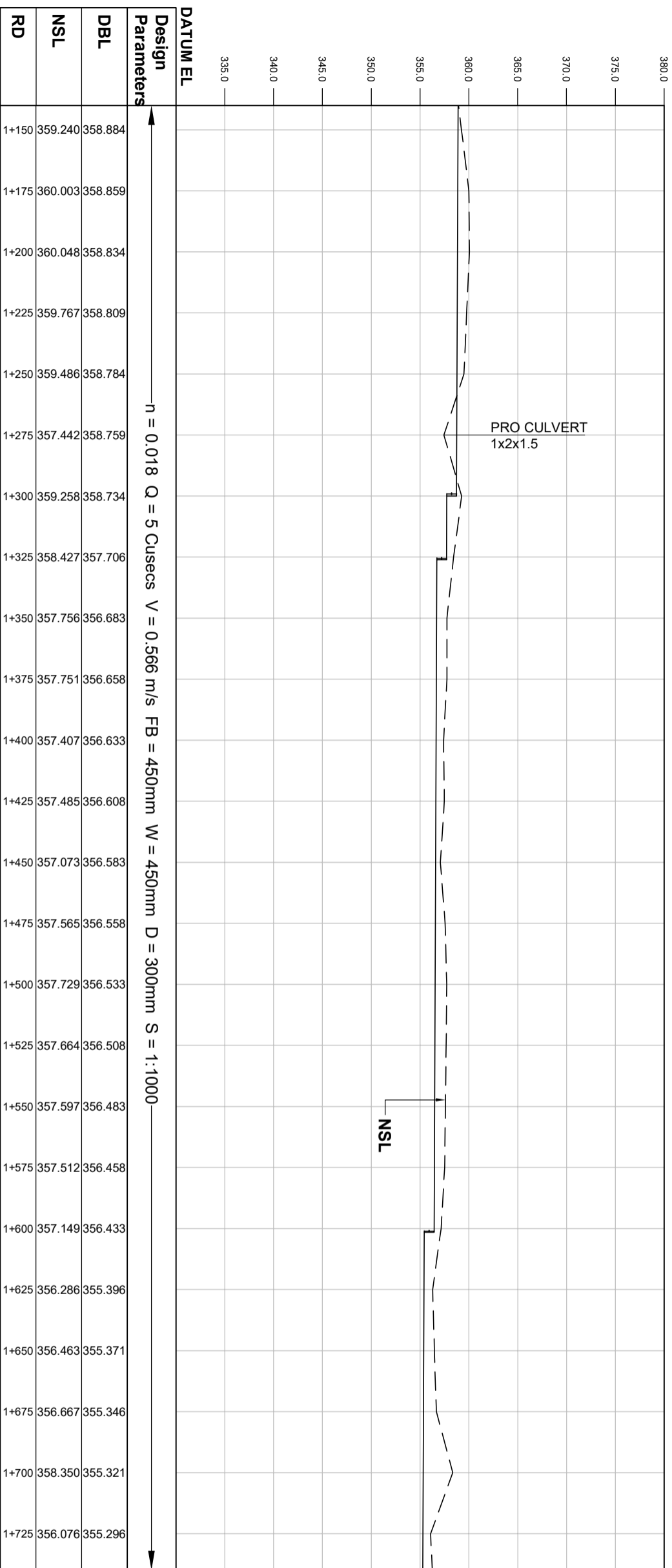
**DATE:** JUNE, 2022  
**REV:** \_\_\_\_\_

**0**

MATCH LINE AT RD = 1+150



MATCH LINE AT RD = 1+725



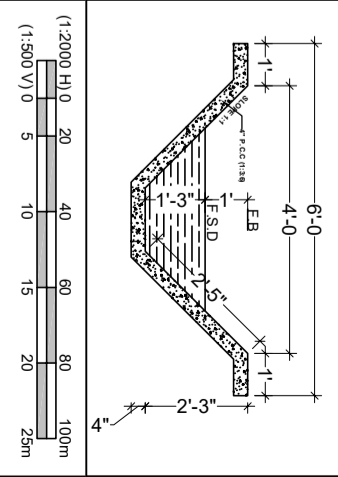
RD	NSL	DBL	Design Parameters
1+150	359.240	358.884	
1+175	360.003	358.859	
1+200	360.048	358.834	
1+225	359.767	358.809	
1+250	359.486	358.784	
1+275	357.442	358.759	
1+300	359.258	358.734	
1+325	358.427	357.706	
1+350	357.756	356.683	
1+375	357.751	356.658	
1+400	357.407	356.633	
1+425	357.485	356.608	
1+450	357.073	356.583	
1+475	357.565	356.558	
1+500	357.729	356.533	
1+525	357.664	356.508	
1+550	357.597	356.483	
1+575	357.512	356.458	
1+600	357.149	356.433	
1+625	356.286	355.396	
1+650	356.463	355.371	
1+675	356.667	355.346	
1+700	358.350	355.321	
1+725	356.076	355.296	

**LEGENDS:**

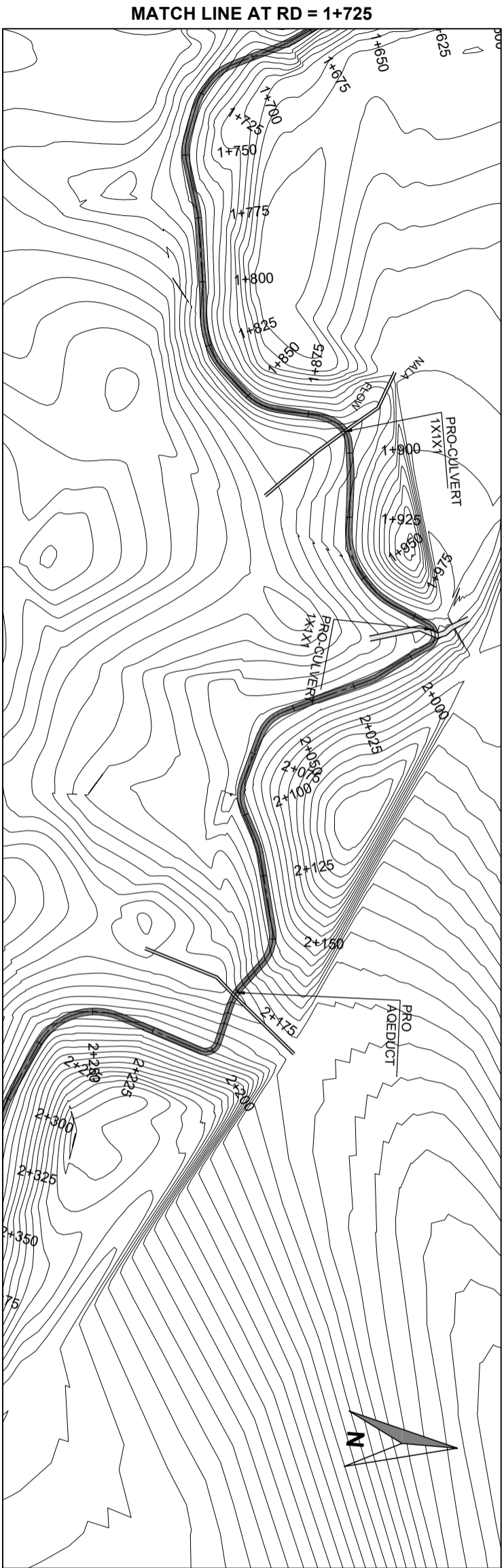
- DESIGN BED LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED MAIN CHANNEL
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK

**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



<p>CLIENT:</p> <p>GOVERNMENT OF KHIBER PAKHTUNKHWA DIRECTORATE GENERAL SMALL DAMS, IRRIGATION DEPARTMENT, PESHAWAR</p>	<p>CONSULTANT:</p> <p><b>CONSULTING ASSOCIATES</b> NEAR DEANS COMPLEX APARTMENTS BEHIND GUL ONG BOARD BAZAAR, JAMRUD ROAD PESHAWAR PH # 091-5701774-45 Fax - 091-5701775 E-MAIL: consultingassociates127@gmail.com</p>															
<p>PROJECT:</p> <p><b>ZAMIR GUL DAM PROJECT</b> <b>DISTRICT KOHAT</b></p>	<p>REVISIONS:</p> <table border="1"> <thead> <tr> <th>REV</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	REV	DESCRIPTION	DATE												
REV	DESCRIPTION	DATE														
<p>SUB WORK:</p> <p><b>RAJA RAM MINOR CANAL</b> <b>FROM RD 0+000 TO 4+258.43 KM</b></p>	<p>DATE: JUNE, 2022</p>															
<p>TITLE:</p> <p><b>MAIN CANAL</b> <b>PLAN &amp; PROFILE RD = 1+150 TO 1+725 (SHEET 03 OF 08)</b></p>	<p>SCALE</p> <p>H =</p> <p>V =</p>															
<p>DRAWN BY: NAVAB ZUDA</p> <p>DESIGNED BY: ENGR FARID KHAN</p> <p>CHECKED BY: ENGR SHAKIL KHAN</p> <p>APPROVED BY:</p> <p>DRAWING NO: <b>ZGD-03</b></p>	<p>DATE: JUNE, 2022</p> <p>REV</p> <p><b>0</b></p>															

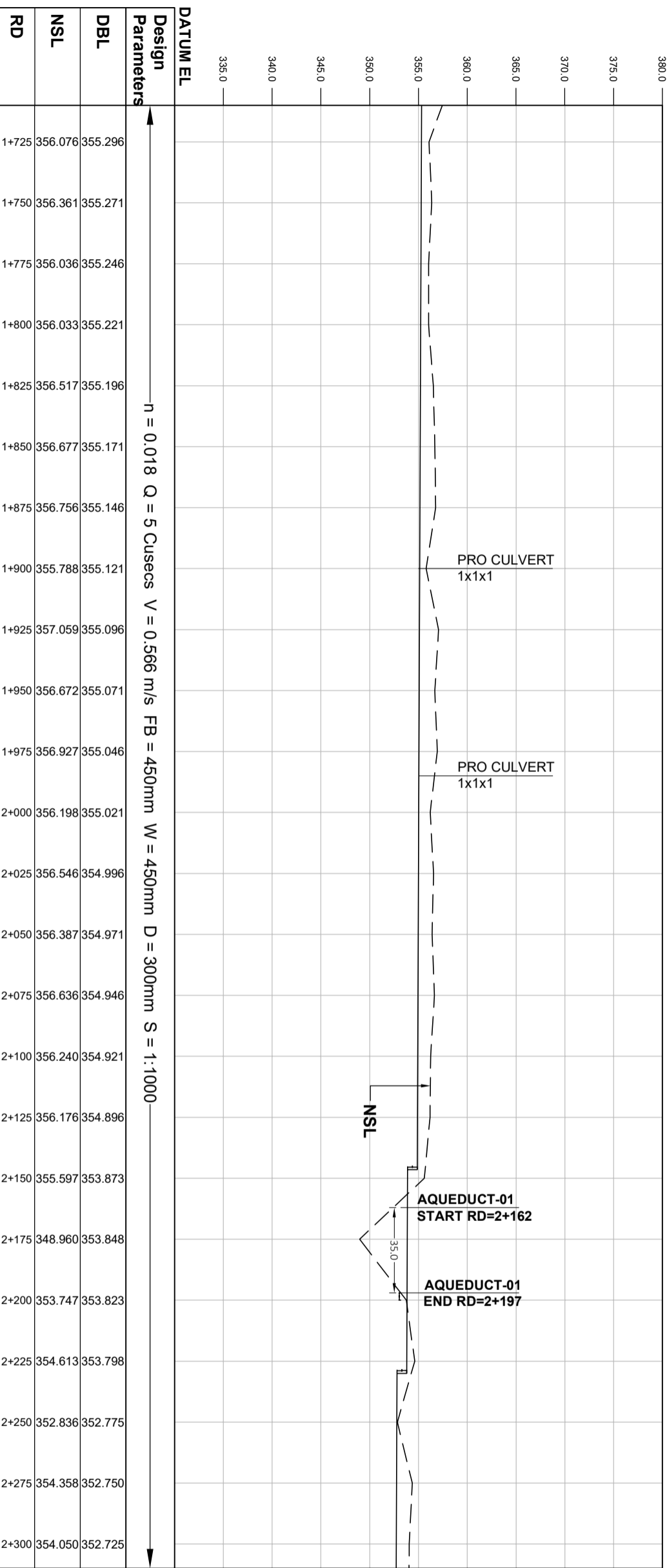


- LEGENDS:**
- DESIGN BED LEVEL
  - NATURAL SURFACE LEVEL
  - INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - PROPOSED MAIN CHANNEL
  - ROAD OR KACHA TRACK
  - RIVER OR KHWAR
  - NULLAH
  - HOUSE
  - VILLAGE
  - GRAVE YARD
  - CULTIVATED LAND
  - BRIDGE OR CULVERT
  - ELECTRIC POLE
  - OUTLET
  - BENCH MARK



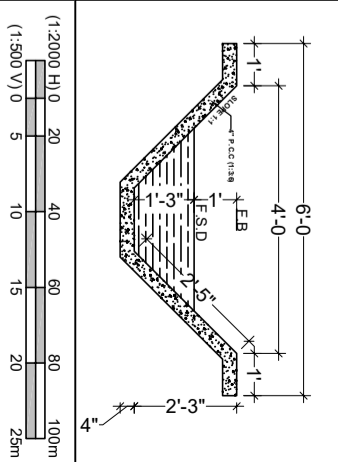
**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



n = 0.018 Q = 5 Cusecs V = 0.566 m/s FB = 450mm W = 450mm D = 300mm S = 1:1000

DATUM EL	Design Parameters	DBL	NSL	RD
380.0				
375.0				
370.0				
365.0				
360.0				
355.0				
350.0				
345.0				
340.0				
335.0				
				1+725
				1+750
				1+775
				1+800
				1+825
				1+850
				1+875
				1+900
				1+925
				1+950
				1+975
				2+000
				2+025
				2+050
				2+075
				2+100
				2+125
				2+150
				2+175
				2+200
				2+225
				2+250
				2+275
				2+300



**CLIENT:** GOVERNMENT OF KHIBER PAKHTUNKHWA  
DIRECTIONATE GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANT:** **B** CONSULTING ASSOCIATES  
NEAR DEANS COMPLEX APARTMENTS, BEHIND GUL  
CNG BOARD BAZAAR, JAMRUD ROAD, PESHAWAR  
PH # 091-9701774-45 Fax - 091-9701775  
E-MAIL: consultingassociate171@gmail.com

**PROJECT:** ZAMIR GUL DAM PROJECT  
DISTRICT KOHAT

**SUB WORK:** RAJA RAM MINOR CANAL  
FROM RD 0+000 TO 4+258.43 KM

**TITLE:** MAIN CANAL  
PLAN & PROFILE RD = 1+725 TO 2+300 (SHEET 04 OF 08)

REV	DESCRIPTION	DATE

**DRAWN BY:** NAVAB ZUDA

**DESIGNED BY:** ENGR FARID KHAN

**CHECKED BY:** ENGR SHAKIL KHAN

**APPROVED BY:** \_\_\_\_\_

**DRAWING NO:** ZGD-04

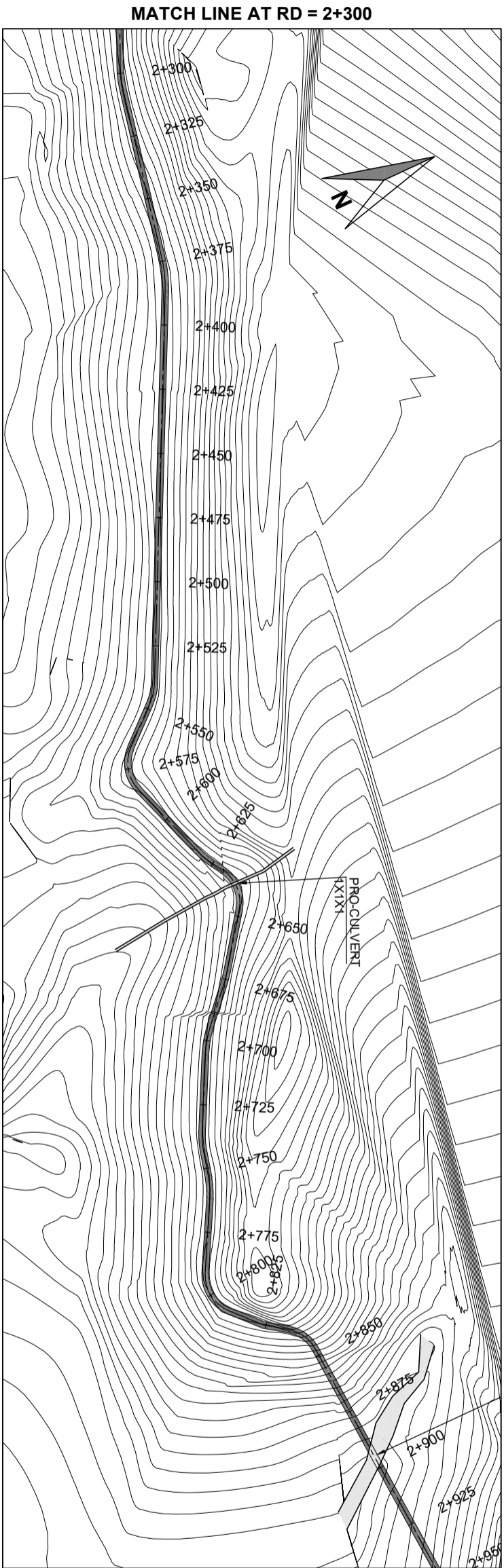
**DATE:** JUNE, 2022

**SCALE:** H = 1/2000, V = 1/500

**REV:** 0

**FILE REFERENCE:** H:\T\S & VERATION\20-2-2016\FINAL.DWG - MODIFI NEW DESIGN\ZAMIR GUL DAM CHANNEL\WY WORKING\DRAWING1.DWG

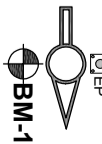




MATCH LINE AT RD = 2+300

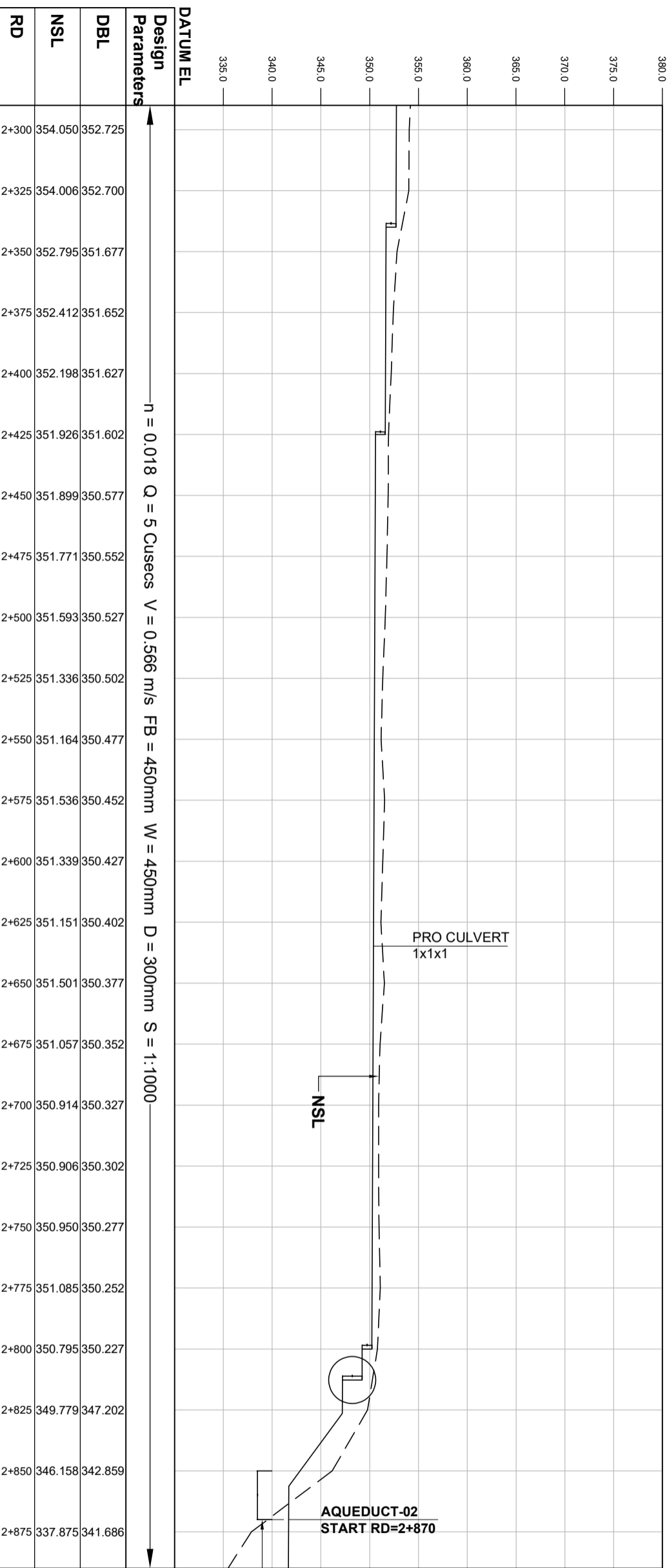
MATCH LINE AT RD = 2+875

- LEGENDS:**
- DESIGN BED LEVEL
  - NATURAL SURFACE LEVEL
  - INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - PROPOSED MAIN CHANNEL
  - ROAD OR KACHA TRACK
  - RIVER OR KHWAR
  - NULLAH
  - HOUSE
  - VILLAGE
  - GRAVE YARD
  - CULTIVATED LAND
  - BRIDGE OR CULVERT
  - ELECTRIC POLE
  - OUTLET
  - BENCH MARK

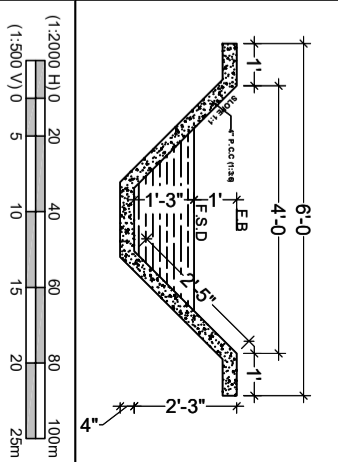


**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



RD	NSL	DBL
2+300	354.050	352.725
2+325	354.006	352.700
2+350	352.795	351.677
2+375	352.412	351.652
2+400	352.198	351.627
2+425	351.926	351.602
2+450	351.899	350.577
2+475	351.771	350.552
2+500	351.593	350.527
2+525	351.336	350.502
2+550	351.164	350.477
2+575	351.536	350.452
2+600	351.339	350.427
2+625	351.151	350.402
2+650	351.501	350.377
2+675	351.057	350.352
2+700	350.914	350.327
2+725	350.906	350.302
2+750	350.950	350.277
2+775	351.085	350.252
2+800	350.795	350.227
2+825	349.779	347.202
2+850	346.158	342.859
2+875	337.875	341.686



DRAWN BY: NAVAB ZUDA

DESIGNED BY: ENGR FARID KHAN

CHECKED BY: ENGR SHAKIL KHAN

APPROVED BY: [Signature]

DRAWING NO: ZGD-05

DATE: JUNE, 2022

REV: 0

REV	DESCRIPTION	DATE

**PROJECT:**  
ZAMIR GUL DAM PROJECT  
DISTRICT KOHAT

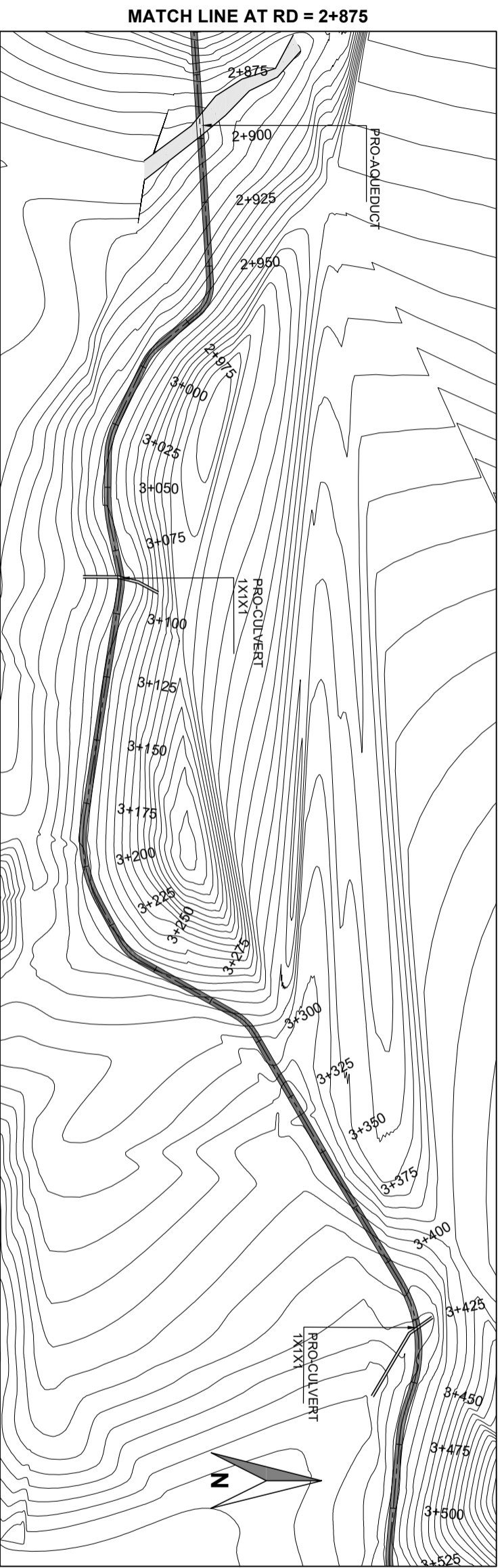
**SUB WORK:**  
RAJA RAM MINOR CANAL  
FROM RD 0+000 TO 4+258.43 KM

**TITLE:**  
MAIN CANAL  
PLAN & PROFILE RD = 2+300 TO 2+875 (SHEET 05 OF 08)

**CONSULTANT:**  
CONSULTING ASSOCIATES  
NEAR DEANS COMPLEX APARTMENTS BEHIND GUL  
CNG BOARD BAZAAR, JAMRUD ROAD PESHAWAR  
PH # 091-9701774-45 Fax - 091-9701775  
E-MAIL: consultingassociates127@gmail.com

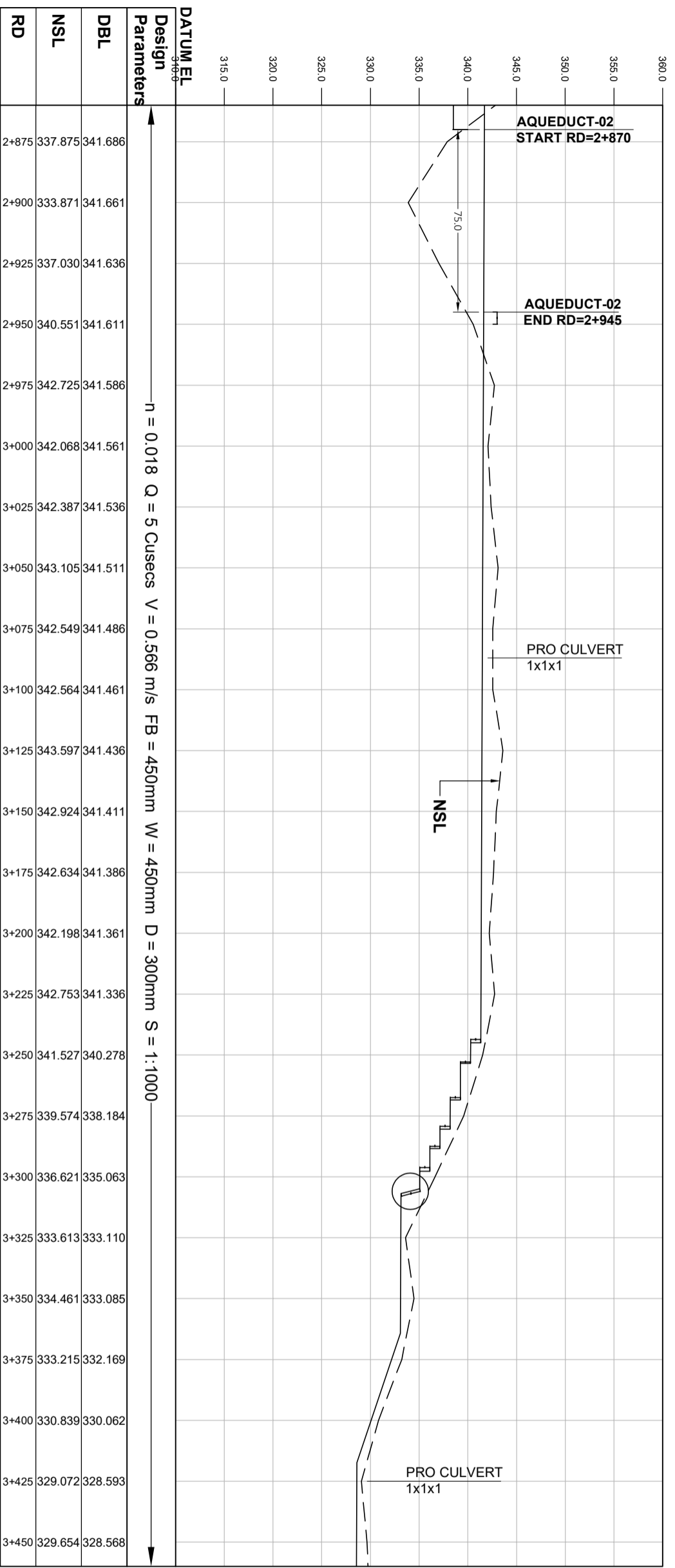
**CLIENT:**  
GOVERNMENT OF KHIBER PAKHTUNKHWA  
DIRECTION GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR

FILE REFERENCE: HTS & VERATION (20-2-2016) FINAL OC - MODIFI NEW DESIGNZAMIR GUL DAM CHANNEL.WORKINGDRAWING1.DWG



MATCH LINE AT RD = 2+875

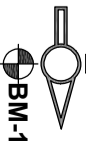
MATCH LINE AT RD = 3+450



$n = 0.018$   $Q = 5$  Cusecs  $V = 0.566$  m/s  $FB = 450$ mm  $W = 450$ mm  $D = 300$ mm  $S = 1:1000$

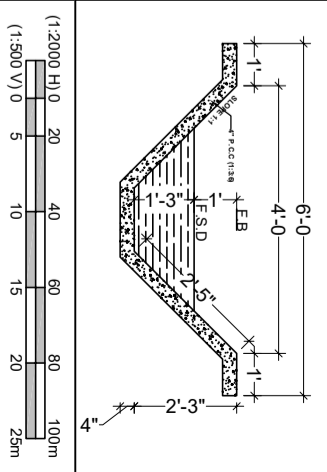
RD	NSL	DBL
2+875	337.875	341.686
2+900	333.871	341.661
2+925	337.030	341.636
2+950	340.551	341.611
2+975	342.725	341.586
3+000	342.068	341.561
3+025	342.387	341.536
3+050	343.105	341.511
3+075	342.549	341.486
3+100	342.564	341.461
3+125	343.597	341.436
3+150	342.924	341.411
3+175	342.634	341.386
3+200	342.198	341.361
3+225	342.753	341.336
3+250	341.527	340.278
3+275	339.574	338.184
3+300	336.621	335.063
3+325	333.613	333.110
3+350	334.461	333.085
3+375	333.215	332.169
3+400	330.839	330.062
3+425	329.072	328.593
3+450	329.654	328.568

- LEGENDS:**
- DESIGN BED LEVEL
  - NATURAL SURFACE LEVEL
  - INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - PROPOSED MAIN CHANNEL
  - ROAD OR KACHA TRACK
  - RIVER OR KHWAR
  - NULLAH
  - HOUSE
  - VILLAGE
  - GRAVE YARD
  - CULTIVATED LAND
  - BRIDGE OR CULVERT
  - ELECTRIC POLE
  - OUTLET
  - BENCH MARK



**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



REV	DESCRIPTION	DATE

**PROJECT:**

ZAMIR GUL DAM PROJECT  
DISTRICT KOHAT

**SUB WORK:**

RAJA RAM MINOR CANAL  
FROM RD 0+000 TO 4+258.43 KM

**TITLE:**

MAIN CANAL  
PLAN & PROFILE RD = 2+875 TO 3+450 (SHEET 06 OF 08)

DRAWN BY: NAVAB ZADA

DESIGNED BY: ENGR FARID KHAN

CHECKED BY: ENGR SHAKIL KHAN

APPROVED BY: DATE: JUNE, 2022

DRAWING NO: ZGD-06

SCALE: H = V = 0



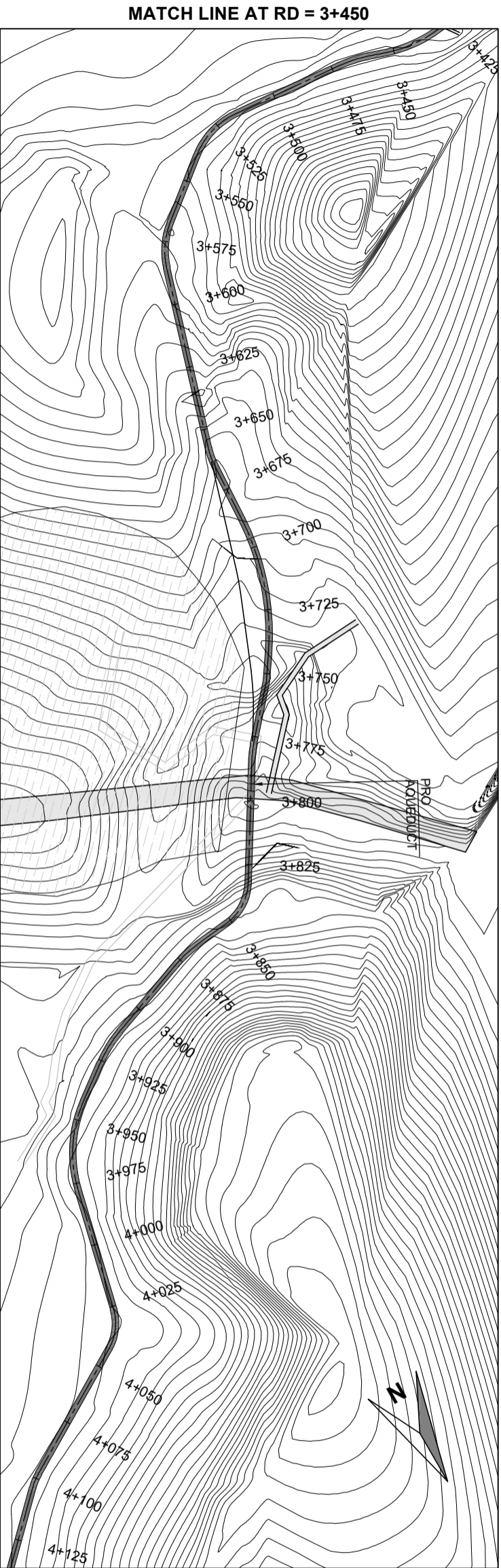
GOVERNMENT OF KHYBER PAKHTUNKHWA  
DIRECTIONATE GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR



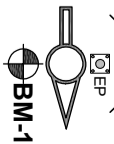
CONSULTANT:

NEAR DEANS COMPLEX APARTMENTS BEHIND GUL  
CNG BOARD BAZAAR, JAMRUD ROAD PESHAWAR  
PH # 091-9701774-45 Fax - 091-9701775  
E-MAIL: consultingassociates127@gmail.com

FILE REFERENCE: HTS & VERATION (20-2-2016) FINAL.DWG - MODIFI NEW DESIGNZAMIR GUL DAM CHANNEL.WORKING.DRAWING1.DWG

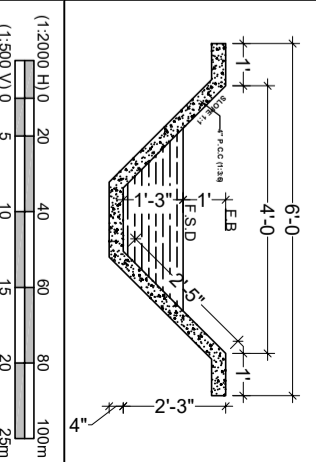
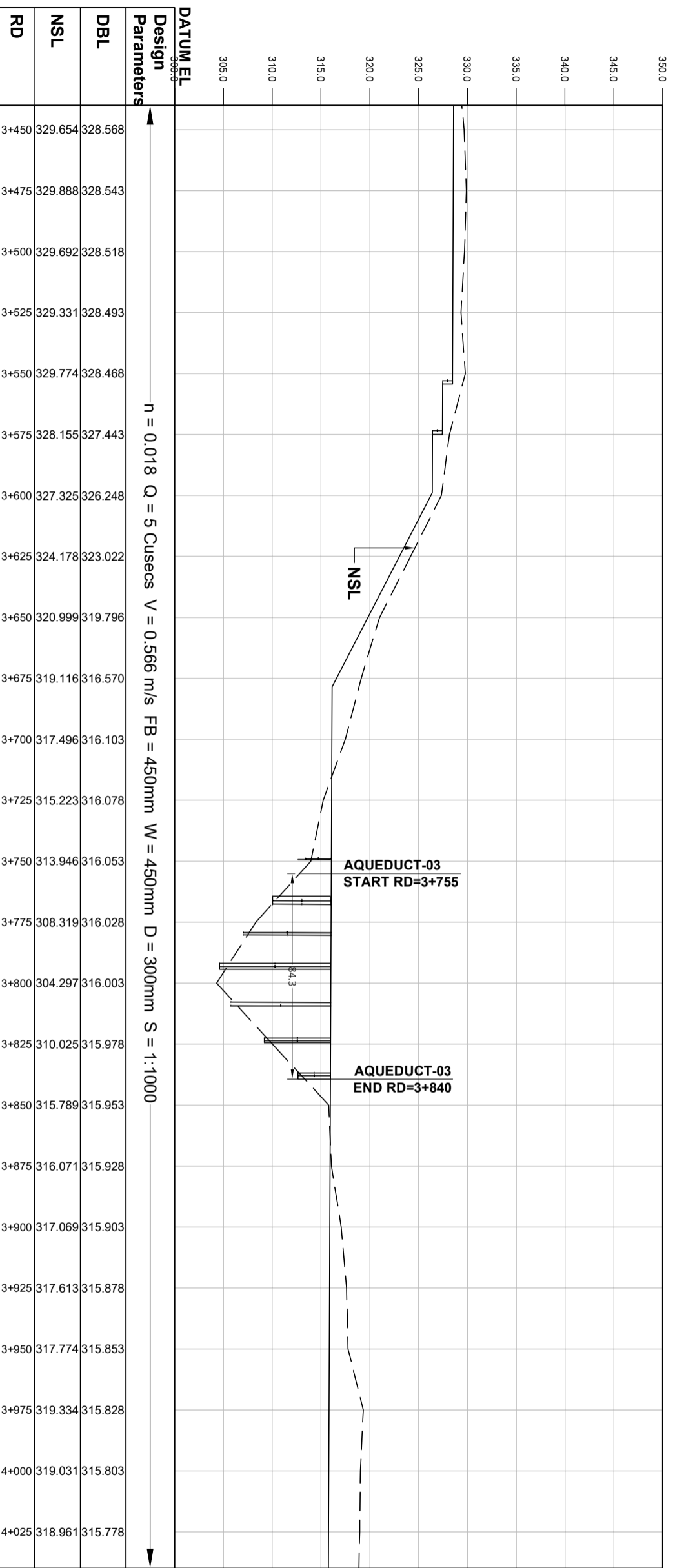


- LEGENDS:**
- DESIGN BED LEVEL
  - NATURAL SURFACE LEVEL
  - INDEX CONTOUR
  - INTERMEDIATE CONTOUR
  - PROPOSED MAIN CHANNEL
  - ROAD OR KACHA TRACK
  - RIVER OR KHWAR
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  - HOUSE
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  - CULTIVATED LAND
  - BRIDGE OR CULVERT
  - ELECTRIC POLE
  - OUTLET
  - BENCH MARK



**ABBREVIATIONS OF DRAWING**

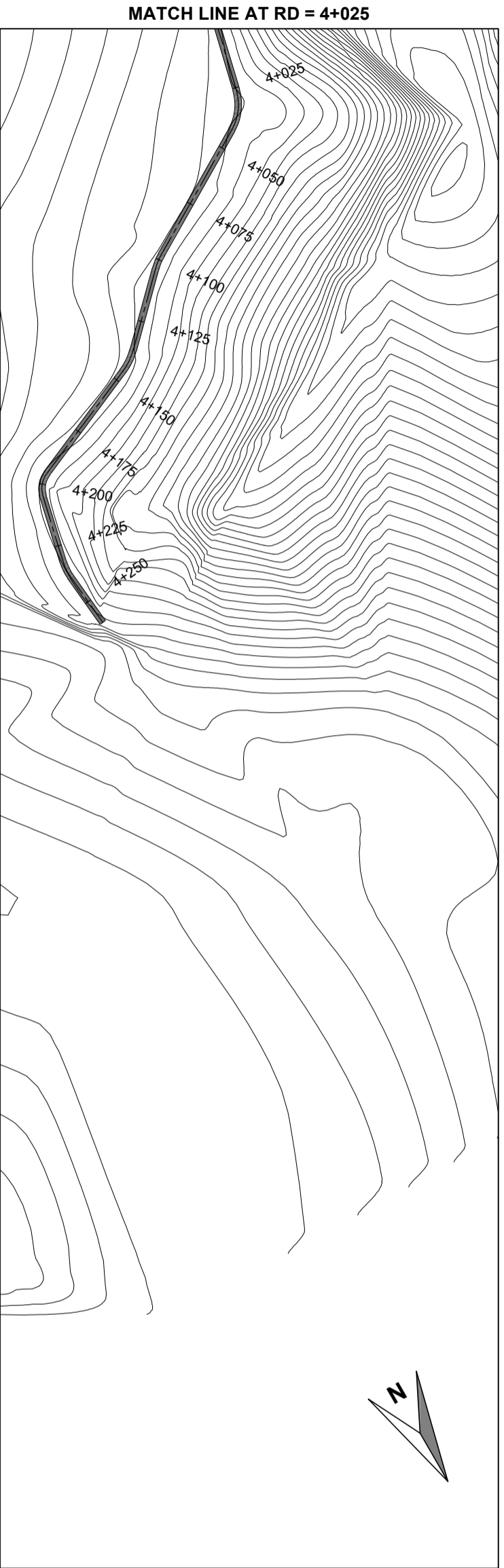
COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



(1:2000 H) 0 20 40 60 80 100m  
(1:500 V) 0 5 10 15 20 25m

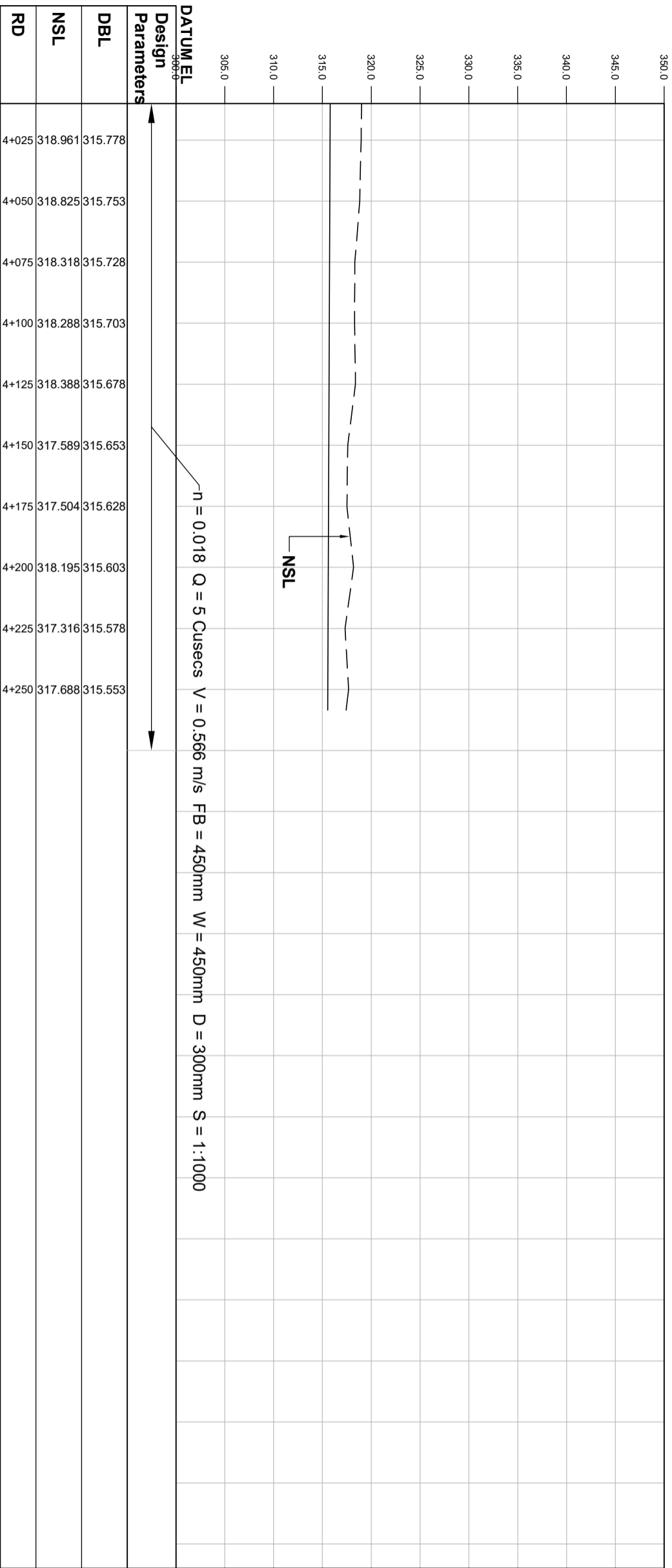
<p>CLIENT:</p> <p>GOVERNMENT OF KHBER PAKHTUNKHWA DIRECTORATE GENERAL SMALL DAMS, IRRIGATION DEPARTMENT, PESHAWAR</p>	<p>CONSULTANT:</p> <p><b>CONSULTING ASSOCIATES</b> NEAR DEANS COMPLEX APARTMENTS BEHIND GUL ONG BOARD BAZAAR, JAMRUD ROAD PESHAWAR PH # 091-9701774-45 Fax - 091-9701775 E-MAIL: consultingassociates127@gmail.com</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>REV</th><th>DESCRIPTION</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	REV	DESCRIPTION	DATE										<p>PROJECT:</p> <p style="text-align: center;"><b>ZAMIR GUL DAM PROJECT</b> DISTRICT KOHAT</p>	<p>SUB WORK:</p> <p style="text-align: center;"><b>RAJA RAM MINOR CANAL</b> FROM RD 0+000 TO 4+258.43 KM</p> <p>TITLE: MAIN CANAL PLAN &amp; PROFILE RD = 3+450 TO 4+025 (SHEET 07 OF 08)</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>DRAWN BY:</td><td>NAWAB ZUDA</td><td>SCALE</td></tr> <tr><td>DESIGNED BY:</td><td>ENGR FARID KHAN</td><td>H =</td></tr> <tr><td>CHECKED BY:</td><td>ENGR SHAKIL KHAN</td><td>V =</td></tr> <tr><td>APPROVED BY:</td><td> </td><td>DATE</td></tr> <tr><td>DRAWING NO.</td><td style="text-align: center;"><b>ZGD-07</b></td><td>REV</td></tr> <tr><td> </td><td> </td><td style="text-align: center;"><b>0</b></td></tr> </table>	DRAWN BY:	NAWAB ZUDA	SCALE	DESIGNED BY:	ENGR FARID KHAN	H =	CHECKED BY:	ENGR SHAKIL KHAN	V =	APPROVED BY:		DATE	DRAWING NO.	<b>ZGD-07</b>	REV			<b>0</b>
REV	DESCRIPTION	DATE																																	
DRAWN BY:	NAWAB ZUDA	SCALE																																	
DESIGNED BY:	ENGR FARID KHAN	H =																																	
CHECKED BY:	ENGR SHAKIL KHAN	V =																																	
APPROVED BY:		DATE																																	
DRAWING NO.	<b>ZGD-07</b>	REV																																	
		<b>0</b>																																	

FILE REFERENCE: HTS & VERATION (20-2-2015) FINAL OC - MODIFI NEW DESIGNZAMIR GUL DAM CHANNEL.WORKINGDRAWING1.DWG



MATCH LINE AT RD = 4+025

MATCH LINE AT RD = 4+258



**DATUM EL**  
3000.0

**Design Parameters**

$n = 0.018$   $Q = 5$  Cusecs  $V = 0.566$  m/s  $FB = 450$ mm  $W = 450$ mm  $D = 300$ mm  $S = 1:1000$

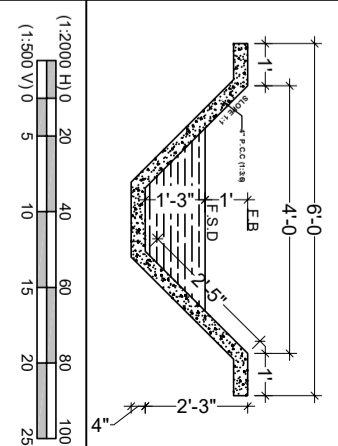
RD	NSL	DBL
4+025	318.961	315.778
4+050	318.825	315.753
4+075	318.318	315.728
4+100	318.288	315.703
4+125	318.388	315.678
4+150	317.589	315.653
4+175	317.504	315.628
4+200	318.195	315.603
4+225	317.316	315.578
4+250	317.688	315.553

**LEGENDS:**

- DESIGN BED LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED MAIN CHANNEL
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK

**ABBREVIATIONS OF DRAWING**

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD EL
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC



**CLIENT:** GOVERNMENT OF KHIBER PAKHTUNKHWA  
DIRECTION GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTANT:** **B** CONSULTING ASSOCIATES  
NEAR DEANS COMPLEX APARTMENTS, BEHIND GUL  
CNG BOARD BAZAAR, JAMRUD ROAD, PESHAWAR  
PH # 091-9701774-49 Fax - 091-9701775  
E-MAIL: consultingassociates127@gmail.com

**PROJECT:** ZAMIR GUL DAM PROJECT  
DISTRICT KOHAT

**SUB WORK:** RAJA RAM MINOR CANAL  
FROM RD 0+000 TO 4+258.43 KM

**TITLE:** MAIN CANAL  
PLAN & PROFILE RD = 4+025 TO 4+258 (SHEET 08 OF 08)

**REV** | **DESCRIPTION** | **DATE**

**DRAWN BY:** NAWAB ZUDA | **SCALE** H = V =

**DESIGNED BY:** ENGR FARID KHAN

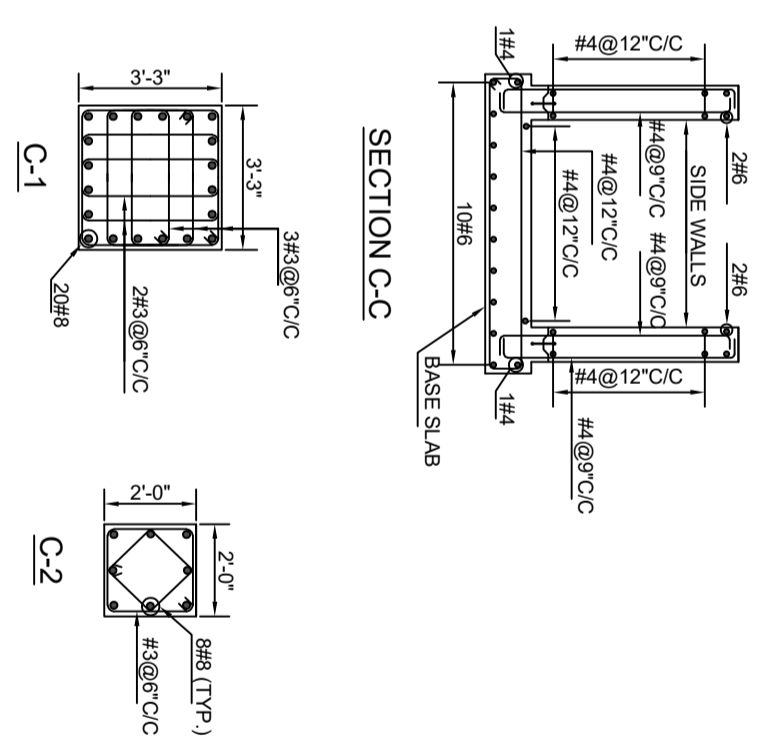
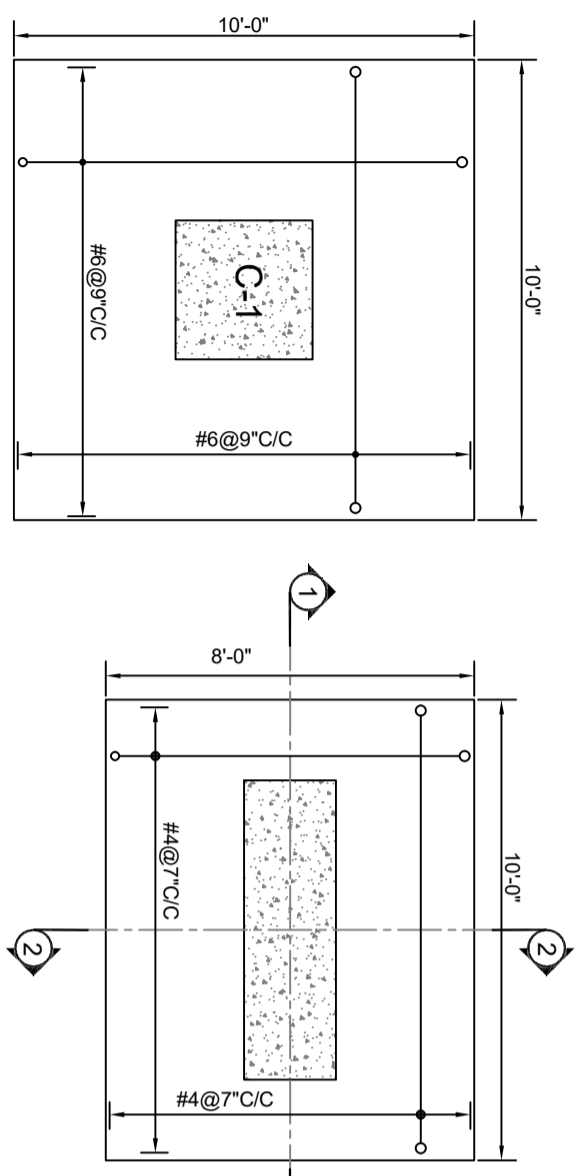
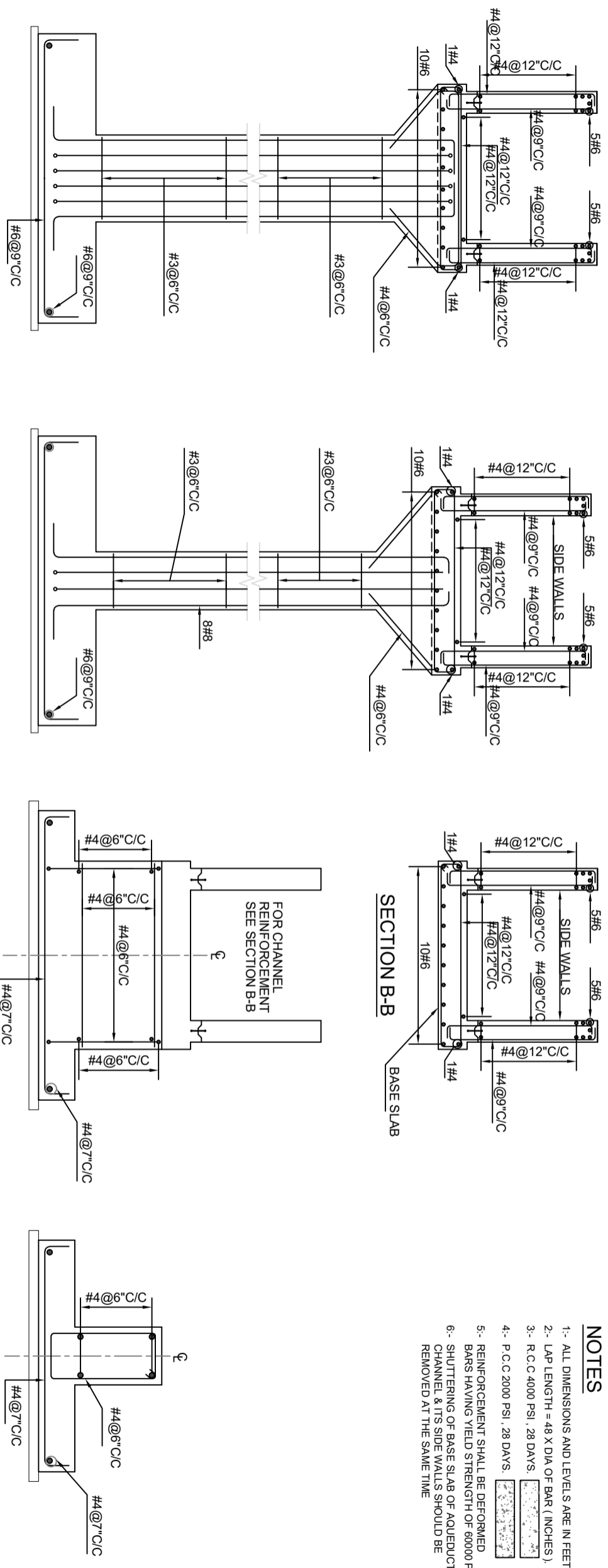
**CHECKED BY:** ENGR SHAKIL KHAN

**APPROVED BY:** | **DATE** JUNE, 2022

**DRAWING NO:** ZGD-08 | **REV** 0

**FILE REFERENCE:** H:\T5 & VERATION\20-2-2016\FINAL.DWG - MODIFI NEW DESIGN\ZAMIR GUL DAM CHANNEL\WY WORKING\DRAWING1.DWG

- NOTES**
- 1.- ALL DIMENSIONS AND LEVELS ARE IN FEET.
  - 2.- LAP LENGTH = 48 X DIA OF BAR (INCHES).
  - 3.- R.C.C 4000 PSI, 28 DAYS.
  - 4.- P.C.C 2000 PSI, 28 DAYS.
  - 5.- REINFORCEMENT SHALL BE DEFORMED BARS HAVING YIELD STRENGTH OF 60000 PSI.
  - 6.- SHUTTERING OF BASE SLAB OF AQUEDUCT CHANNEL & ITS SIDE WALLS SHOULD BE REMOVED AT THE SAME TIME

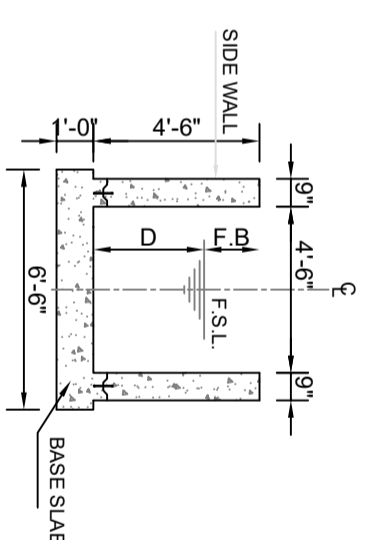


**ISSUED FOR CONSTRUCTION**

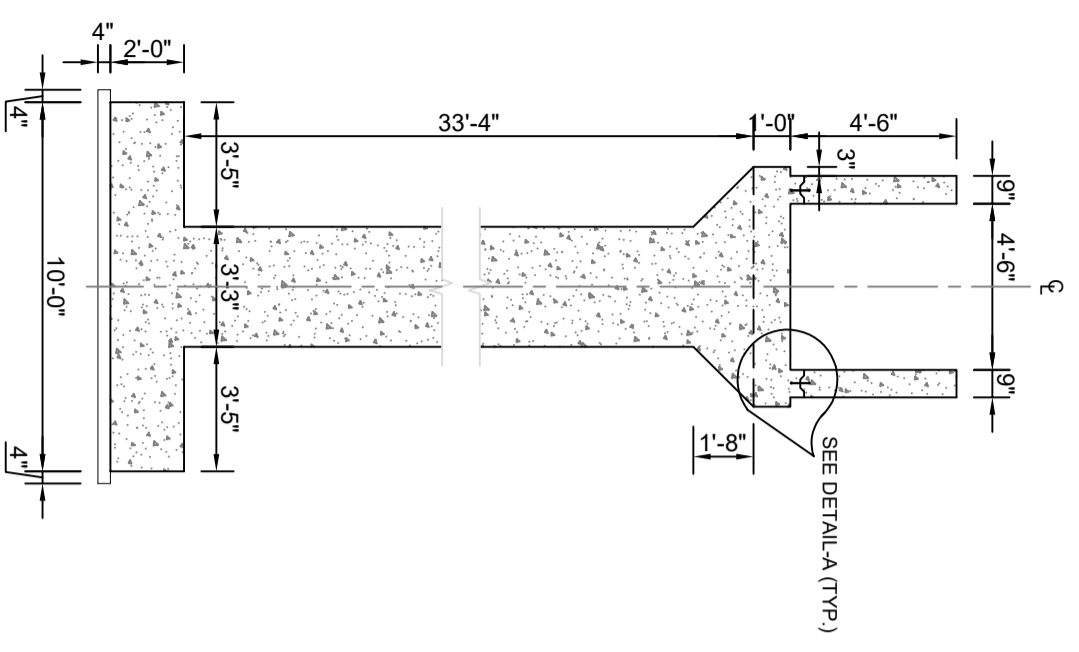
 <p>CLIENT: GOVERNMENT OF PUNJAB PAKISTAN DIRECTORATE GENERAL SMALL DAMS, IRRIGATION DEPARTMENT, PESHAWAR</p>	 <p>CONSULTANTS: CONSULTING ASSOCIATES NS TOWER HAYATABAD COMMERCIAL COMPLEX NEAR WFP WAREHOUSE, MAIN AQHINI BALA ROAD PESHAWAR PH #: 091-5701774-45 Fax - 091-5701775 E-MAIL: consultingassociates127@gmail.com</p>	<p>PROJECT: ZAMIR GUL DAM DISTRICT, KOHAT</p>	TITLE:		DRAWN BY	MUNEEB KHAN	DRAWING NO.	ZGD-IS-HYD-AQ-2
			SUB TITLE:					
			FOOTING REINF. DETAILS		CHECKED & SUBMITTED BY	SHAKIL AHMAD	SHEET NO.	DATE:
								August 24

**NOTES**

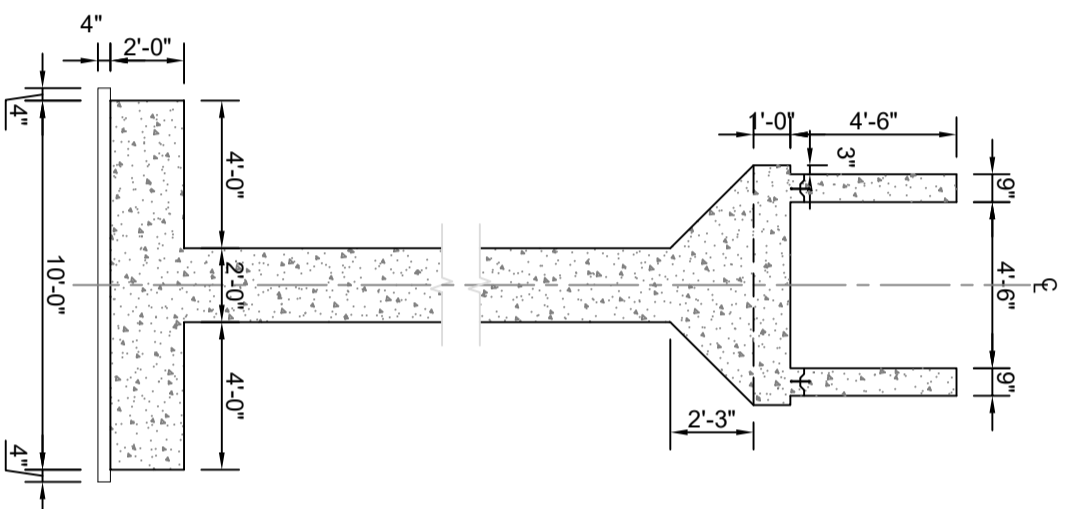
- 1.- ALL DIMENSIONS AND LEVELS ARE IN FEET.
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- 6.- SHUTTERING OF BASE SLAB OF AQUEDUCT CHANNEL & ITS SIDE WALLS SHOULD BE REMOVED AT THE SAME TIME
- 7.- FOR STEEL REINFORCEMENT DETAIL REFER TO DRAWING NO. 3



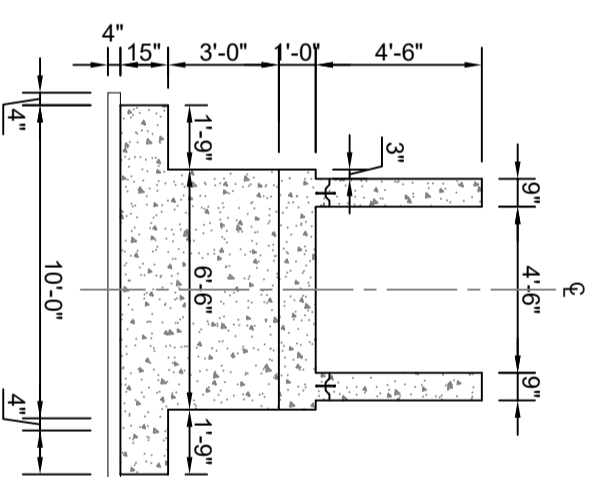
SECTION B-B



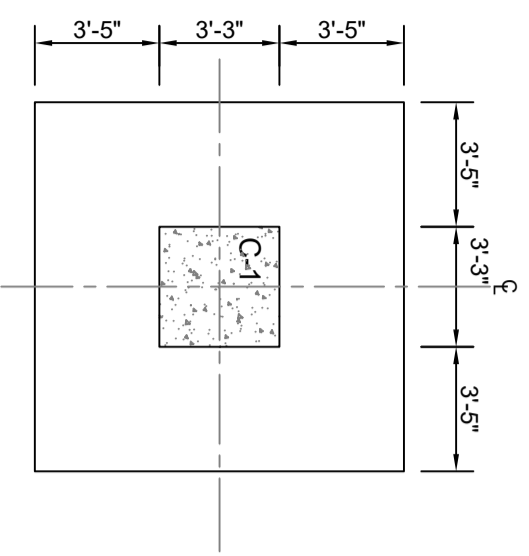
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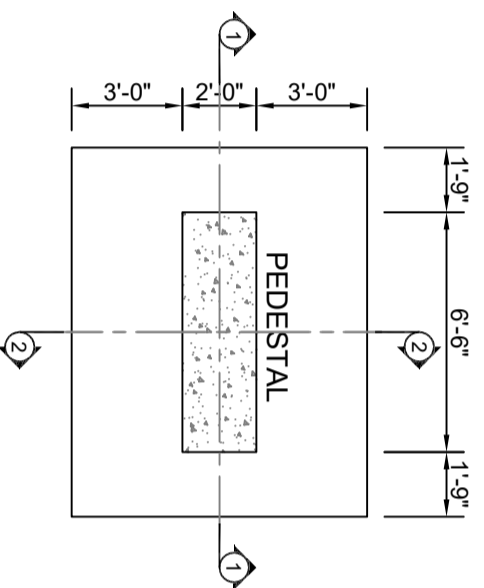
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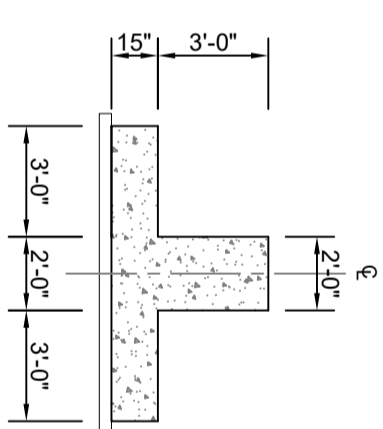
SECTION 1-1



FOOTING F-1



PEDESTAL FOOTING

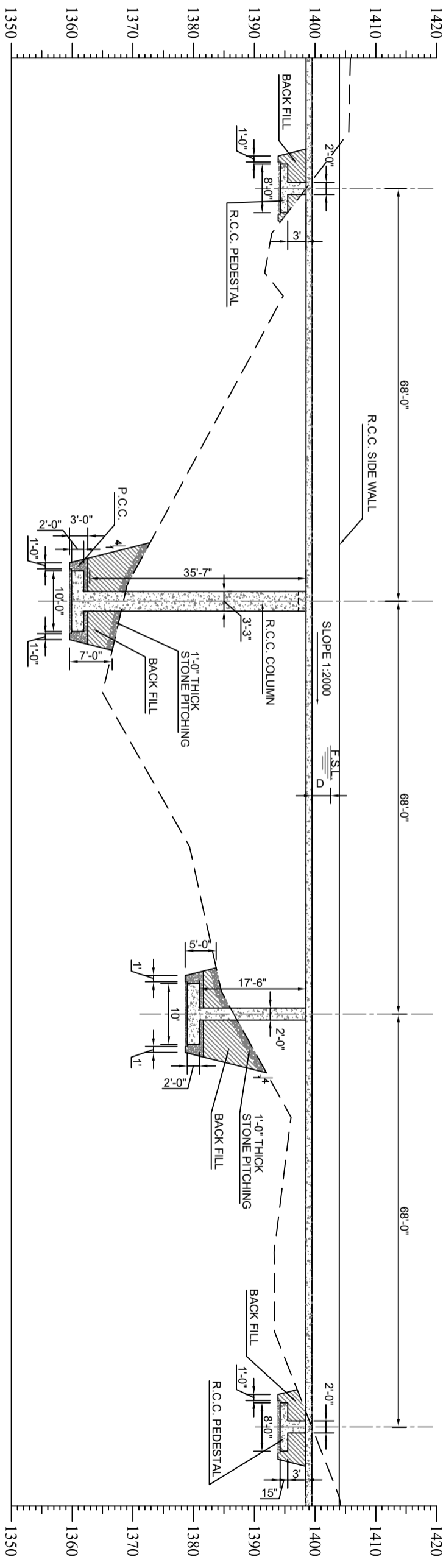


SECTION 2-2

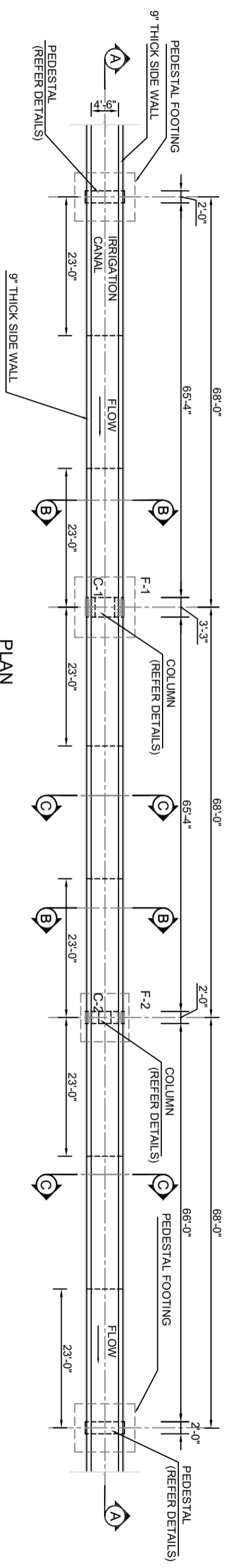
**ISSUED FOR CONSTRUCTION**



<p><b>CLIENT:</b>                    GOVERNMENT OF PUNJAB PAKISTAN                  DIRECTORATE GENERAL SMALL DAMS                  IRRIGATION DEPARTMENT, PESHAWAR</p>	<p><b>CONSULTANTS:</b>                    CONSULTING ASSOCIATES                  NS TOWER HAYATABAD COMMERCIAL COMPLEX                  NEAR W.P. WAREHOUSE, MAIN ACHINI BALA ROAD PESHAWAR                  PH.#: 091-5701774-45 Fax - 091-5701775                  E-MAIL: consultingassociates127@gmail.com</p>	<p><b>PROJECT:</b>                  ZAMIR GUL DAM                  DISTRICT, KOHAT</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>TITLE:</b></td> <td>HYDRAULIC STRUCTURE</td> </tr> <tr> <td><b>SUB TITLE:</b></td> <td>AQUEDUCT No. 3 COLUMN &amp; FOOTING DETAIL</td> </tr> <tr> <td><b>DRAWN BY</b></td> <td>MUNEEB KHAN</td> </tr> <tr> <td><b>CHECKED &amp; SUBMITTED BY</b></td> <td>SALAH UD DIN SHAKIL AHMAD</td> </tr> <tr> <td><b>DRAWING NO.</b></td> <td>ZGD-IS-HYD-AQ-3</td> </tr> <tr> <td><b>REVISION NO.</b></td> <td>03</td> </tr> <tr> <td><b>SHEET NO.</b></td> <td></td> </tr> <tr> <td><b>DATE:</b></td> <td>August 24</td> </tr> </table>	<b>TITLE:</b>	HYDRAULIC STRUCTURE	<b>SUB TITLE:</b>	AQUEDUCT No. 3 COLUMN & FOOTING DETAIL	<b>DRAWN BY</b>	MUNEEB KHAN	<b>CHECKED &amp; SUBMITTED BY</b>	SALAH UD DIN SHAKIL AHMAD	<b>DRAWING NO.</b>	ZGD-IS-HYD-AQ-3	<b>REVISION NO.</b>	03	<b>SHEET NO.</b>		<b>DATE:</b>	August 24
<b>TITLE:</b>	HYDRAULIC STRUCTURE																		
<b>SUB TITLE:</b>	AQUEDUCT No. 3 COLUMN & FOOTING DETAIL																		
<b>DRAWN BY</b>	MUNEEB KHAN																		
<b>CHECKED &amp; SUBMITTED BY</b>	SALAH UD DIN SHAKIL AHMAD																		
<b>DRAWING NO.</b>	ZGD-IS-HYD-AQ-3																		
<b>REVISION NO.</b>	03																		
<b>SHEET NO.</b>																			
<b>DATE:</b>	August 24																		



SECTION A-A



PLAN

ISSUED FOR CONSTRUCTION



NOTES

- 1:- ALL DIMENSIONS AND LEVELS ARE IN FEET.
- 2:- LAP LENGTH = 48 X DIA OF BAR (INCHES).
- 3:- R.C.C. 4000 PSI, 28 DAYS.
- 4:- P.C.C 2000 PSI, 28 DAYS.
- 5:- REINFORCEMENT SHALL BE DEFORMED BARS HAVING YIELD STRENGTH OF 60000 PSI.
- 6:- SHUTTERING OF BASE SLAB OF AQUEDUCT CHANNEL & ITS SIDE WALLS SHOULD BE REMOVED AT THE SAME TIME
- 7:- FOR SECTION B-B & C-C REFER TO DRAWING NO. 2
- 8:- FOR STEEL REINFORCEMENT DETAIL REFER TO DRAWING NO. 3



CLIENT:  
GOVERNMENT OF KHYBER PAKHTUNKHWA  
DIRECTORATE GENERAL SMALL DAMS  
IRRIGATION DEPARTMENT, PESHAWAR



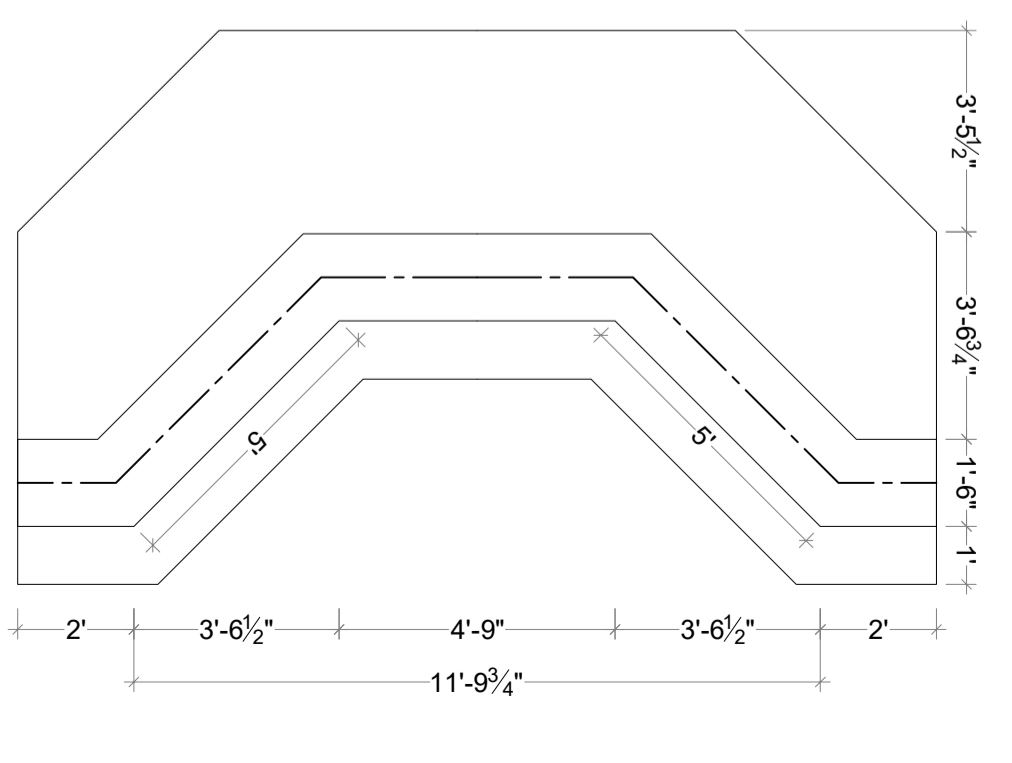
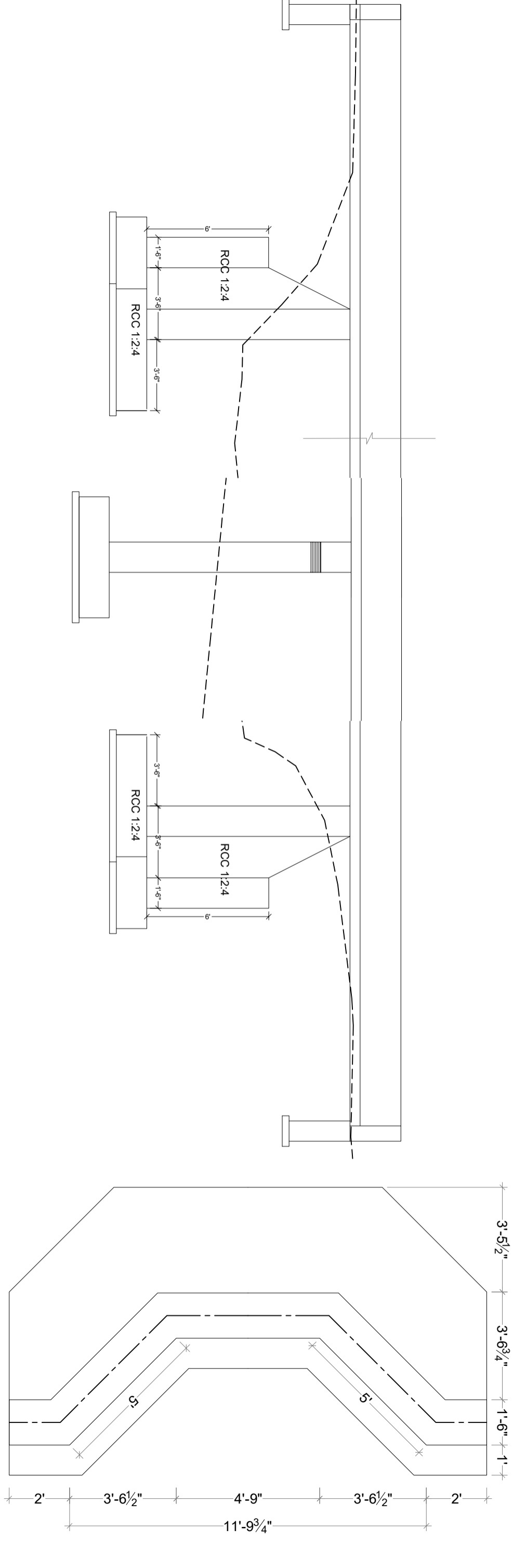
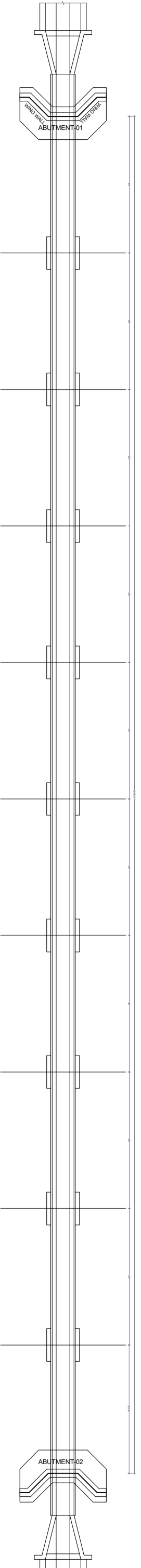
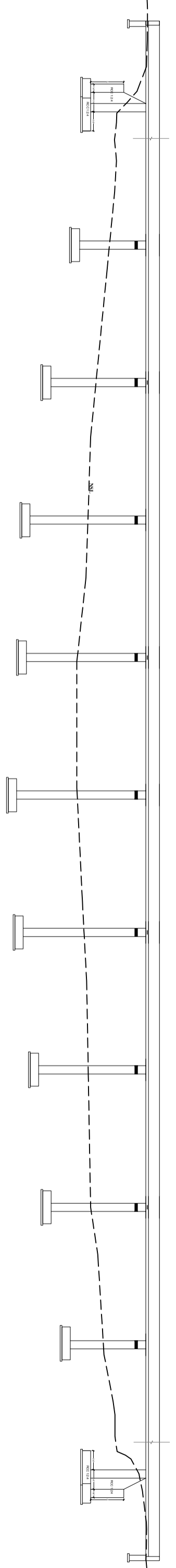
CONSULTANTS:  
CONSULTING ASSOCIATES  
NS TOWER HAYATABAD COMMERCIAL COMPLEX  
NEAR WAZIR PESHAWAR  
PH# 091-5707774-5707775  
E-MAIL: consultingassociates127@gmail.com

PROJECT:  
ZAMIR GUL DAM  
DISTRICT, KOHAT

TITLE:  
HYDRAULIC STRUCTURE  
SUB TITLE:  
AQUEDUCT NO.3  
PLAN & SECTIONS

DRAWN BY: MUNEEB KHAN  
DESIGN BY: SALAH UDDIN  
CHECKED & SUBMITTED BY: SHAKIL AHMAD

DRAWING NO. ZGD-IS-HYD-AQ-1  
REVISION NO. 03  
DATE: August 24



**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
 DIRECTORATE GENERAL SMALL DAMS,  
 IRRIGATION DEPARTMENT, PESHAWAR

**CONSULTING ASSOCIATES**  
 HOUSE #99A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
 PESHAWAR, PAKISTAN  
 PH: +92 91 5701774  
 EMAIL: Consultingassociates127@gmail.com

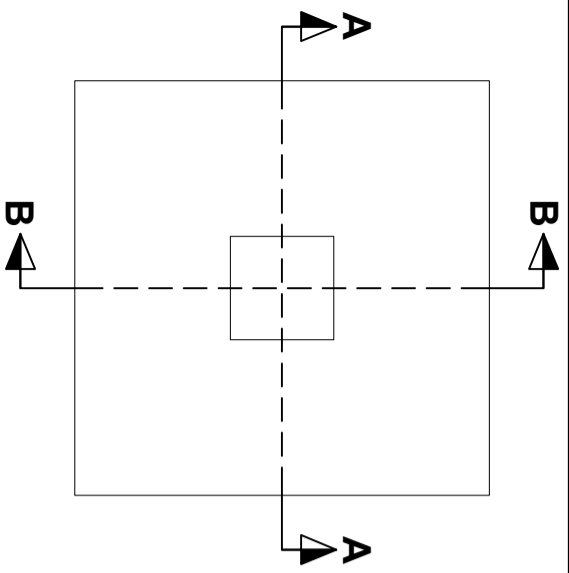
**TITLE:-**  
 ZAMIR GUL DAM PROJECT  
 KOHAT

**DRAWING TITLE:-**  
 HYDRAULIC STRUCTURES  
 AQUEDUCT

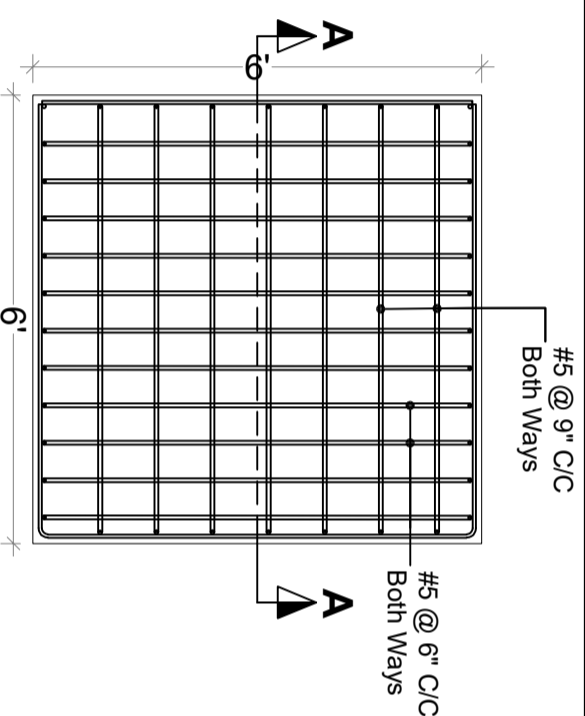
**DRAWING:-**  
 PLAN  
 ABUTMENT, WING WALLS AND  
 CUTOFF WALL

<b>DRAWN BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	

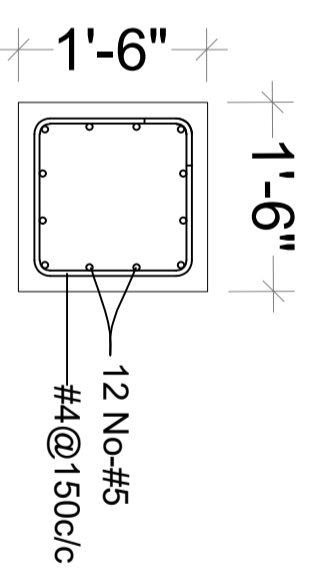




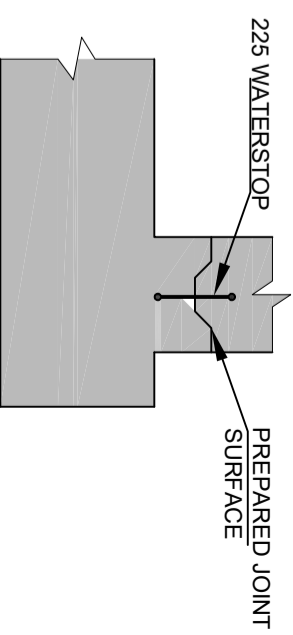
**PIER PLAN**



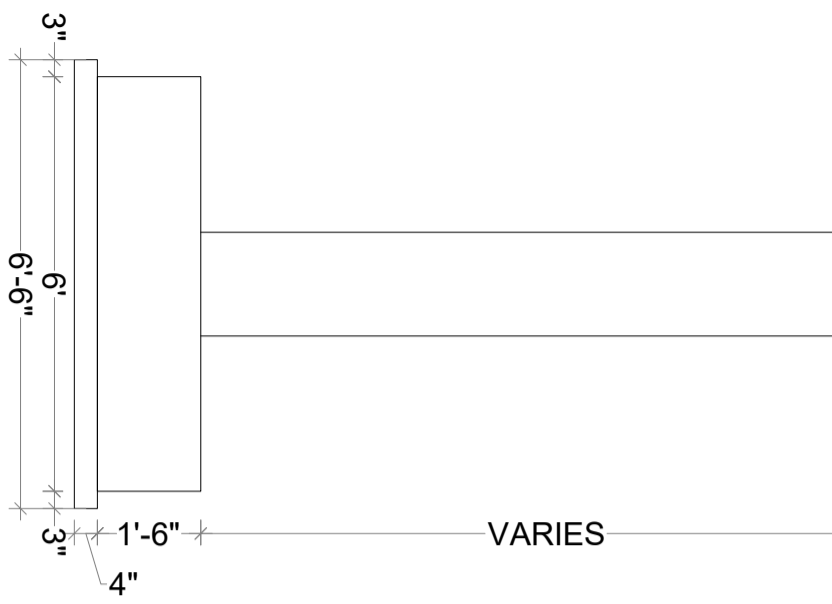
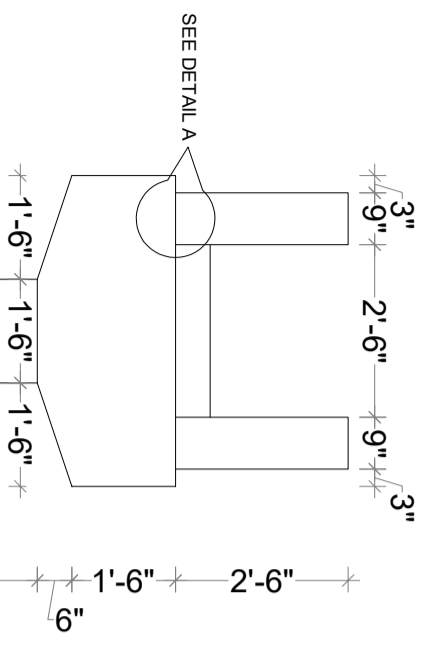
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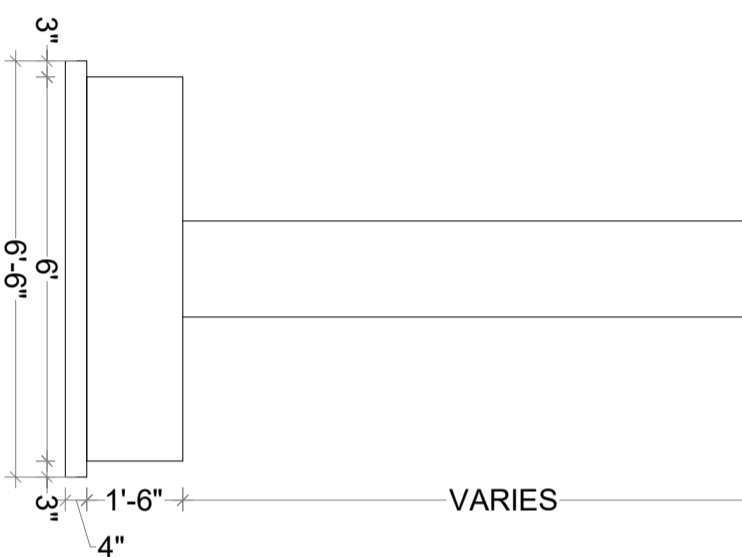
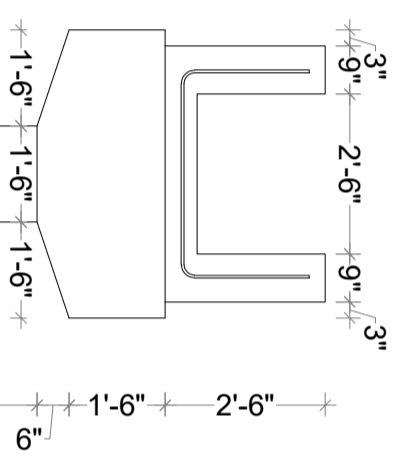
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**SEE DETAIL-A**



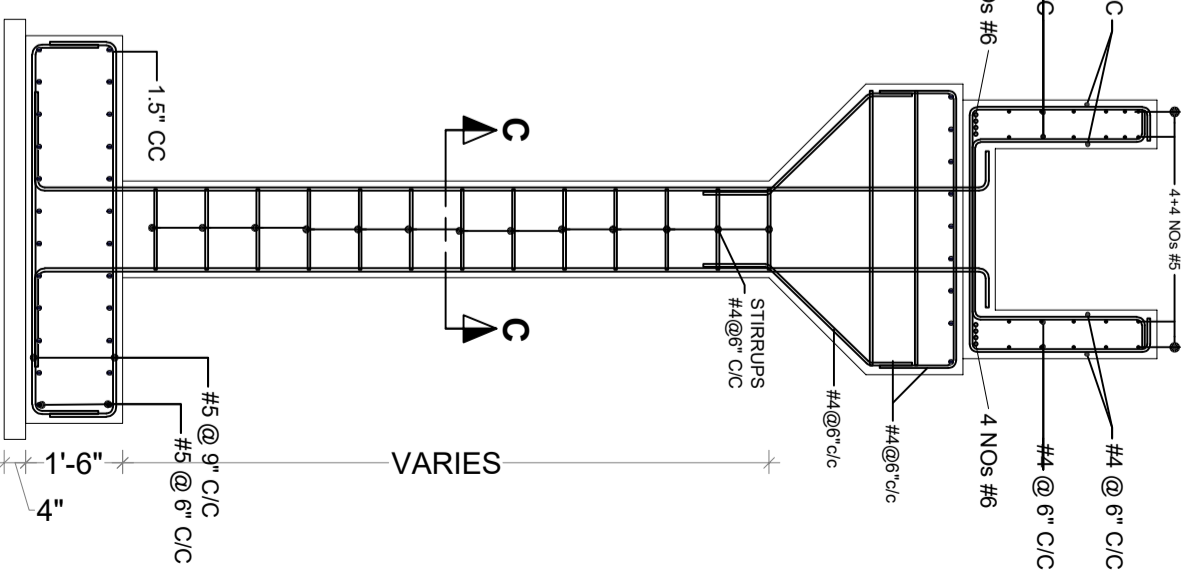
**SECTION A-A**



**SECTION A-A  
AT 50' INTERVALS**



**SECTION B-B  
AT 50' INTERVALS**



**SECTION A-A  
REINFORCEMENT DETAILS**

**GOVERNMENT OF KHYBER PAKHTUNKHWA**  
DIRECTORATE GENERAL SMALL DAMS,  
IRRIGATION DEPARTMENT, PESHAWAR



**CONSULTING ASSOCIATES**  
HOUSE #9A, STED JAMAL UDDIN ROAD, UNIVERSITY TOWN  
PESHAWAR, PAKISTAN  
PH: +92 91 5701774  
EMAIL: Consultingassociates127@gmail.com

**TITLE:-**  
ZAMIR GUL DAM PROJECT  
KOHAT

**DRAWING TITLE:-**  
HYDRAULIC STRUCTURES  
AQUEDUCT

**DRAWING:-**  
PLAN, WING WALLS SECTION  
AND CUTOFF WALL SECTIONS

<b>DRAWN BY</b>	MUNEER KHAN
<b>DESIGN BY</b>	DAWOOD KHAN
<b>CHECKED &amp; SUBMITTED BY</b>	SHAKIL AHMAD
<b>SHEET NO.</b>	