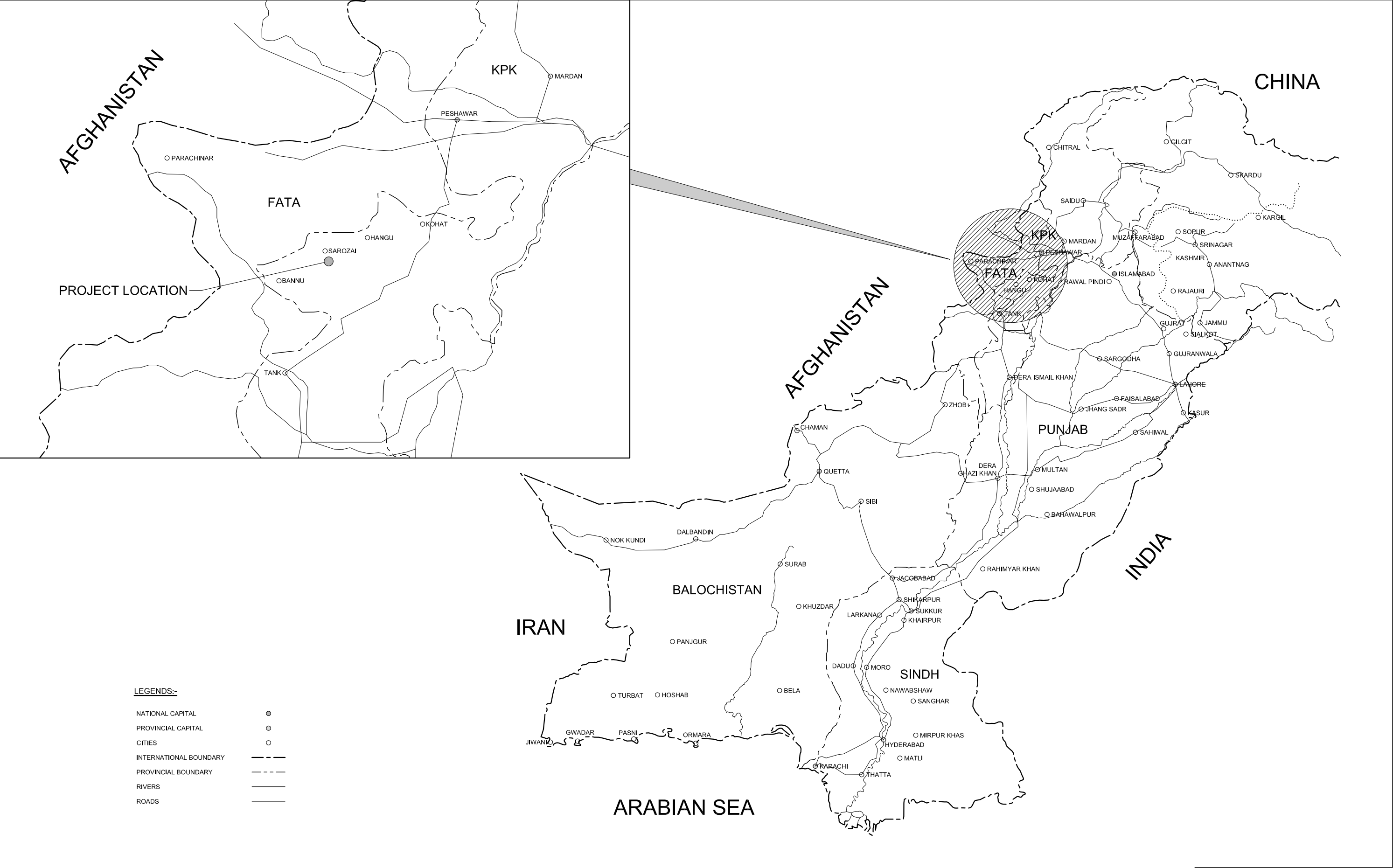
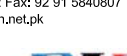
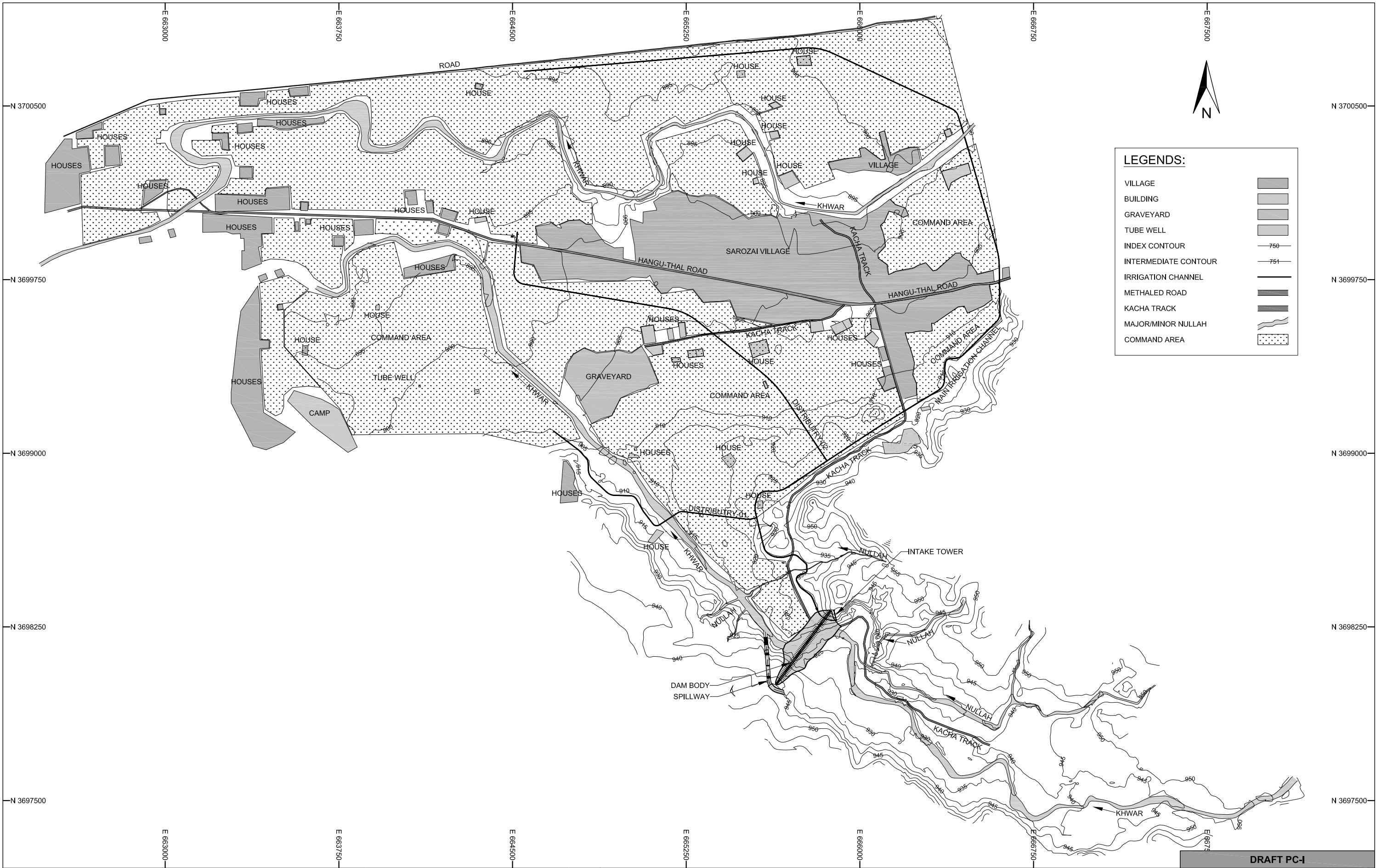




|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             |      | DRAFT PC-I                                                                                            |                                                                                                                       |                |                                 |           |                 |  |     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------|------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------|-----------|-----------------|--|-----|
| <div>CLIENT:</div> <div></div> <div>GOVERNMENT OF KHYBER<br/>PUKHTOONKHWA<br/>IRRIGATION DEPARTMENT</div> | <div>CONSULTANT:</div> <div>BAK CONSULTING ENGINEERS</div> <div>HOUSE # 2, STREET # 1, BEHIND POLICE PUBLIC SCHOOL,<br/>BOARD BAZAR, TAJABAD, PESHAWAR, PAKISTAN<br/>PH: +92 91 5703862 Fax: 92 91 5840807<br/>EMAIL: bakpk@brain.net.pk</div> <div></div> | REV | DESCRIPTION | DATE | <div>NOTES:</div> <div>1. ALL DIMENSIONS &amp; LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.</div> | <div>PROJECT:</div> <div>FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"<br/>SAROZAI DAM (DISTRICT HANGU).</div> |                | DRAWN BY:                       | AZMAT ALI | SCALE<br>N.T.S  |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             |      |                                                                                                       | DESIGNED BY:                                                                                                          | A. A. HUMZA    |                                 |           |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             |      |                                                                                                       | CHECKED BY:                                                                                                           | ARSALAN HAIDER | DATE<br>JUNE, 2016              |           |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             |      |                                                                                                       | APPROVED BY:                                                                                                          | RIZWAN ULLAH   |                                 |           |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             |      |                                                                                                       | DRAWING NO.                                                                                                           |                | REV                             |           |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             | P01  |                                                                                                       | DRAFT FEASIBILITY STUDY                                                                                               | 01.06.16       | GENERAL<br>PROJECT LOCATION MAP |           | P1011-1-A-03-01 |  | P01 |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |     |             | P02  |                                                                                                       | DRAFT PC-I                                                                                                            | 01.06.16       |                                 |           |                 |  |     |



CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHTWA  
IRRIGATION DEPARTMENT

CONSULTANT:

**BAK CONSULTING ENGINEERS**  
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EMAIL: bakpk@brain.net.pk



| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
|     |                         |          |
|     |                         |          |
|     |                         |          |
|     |                         |          |
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:

FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

TITLE:

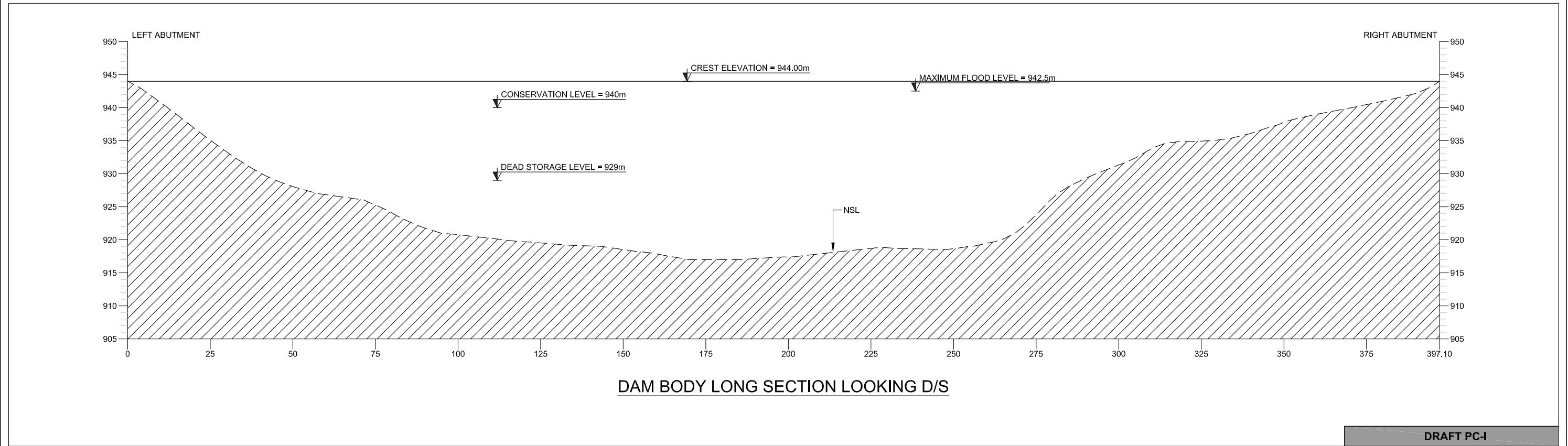
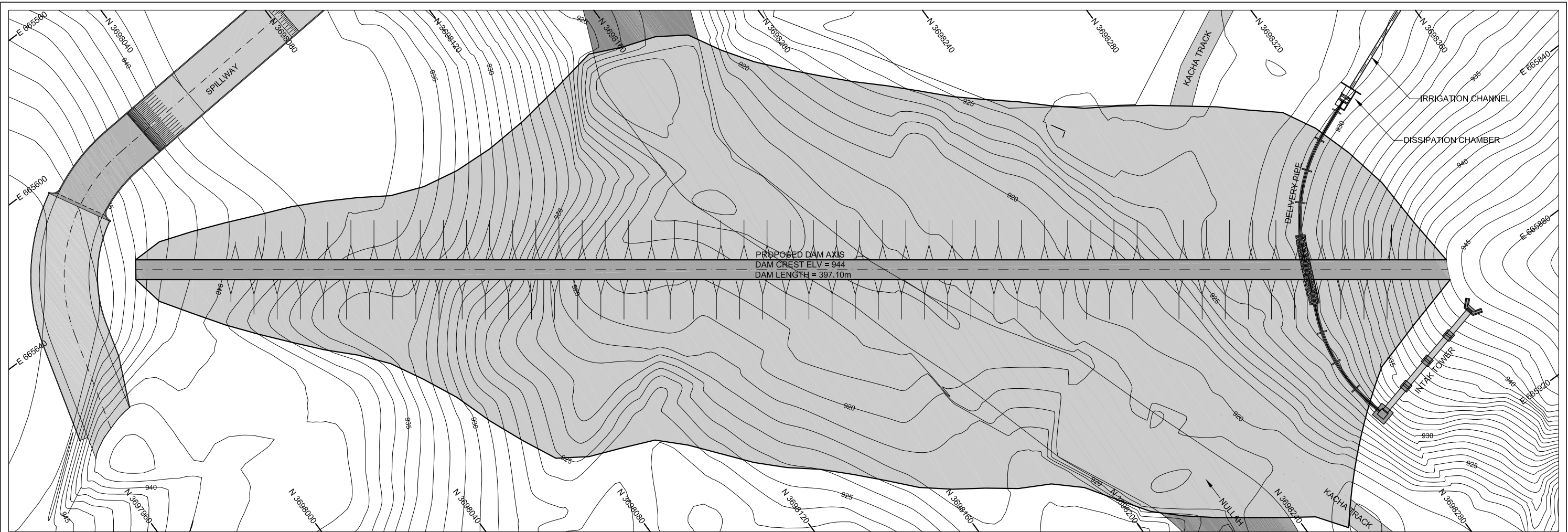
GENERAL  
PROJECT LAYOUT PLAN

| DRAFT PC-I   |                        |                    |
|--------------|------------------------|--------------------|
| DRAWN BY:    | AZMAT ALI              | SCALE<br>1:15,000  |
| DESIGNED BY: | A. A. HUMZA            |                    |
| CHECKED BY:  | ARSALAN HAIDER         | DATE<br>JUNE, 2016 |
| APPROVED BY: | RIWAN ULLAH            | REV                |
| DRAWING NO.  | <b>P1011-1-A-05-01</b> |                    |
|              | P01                    |                    |

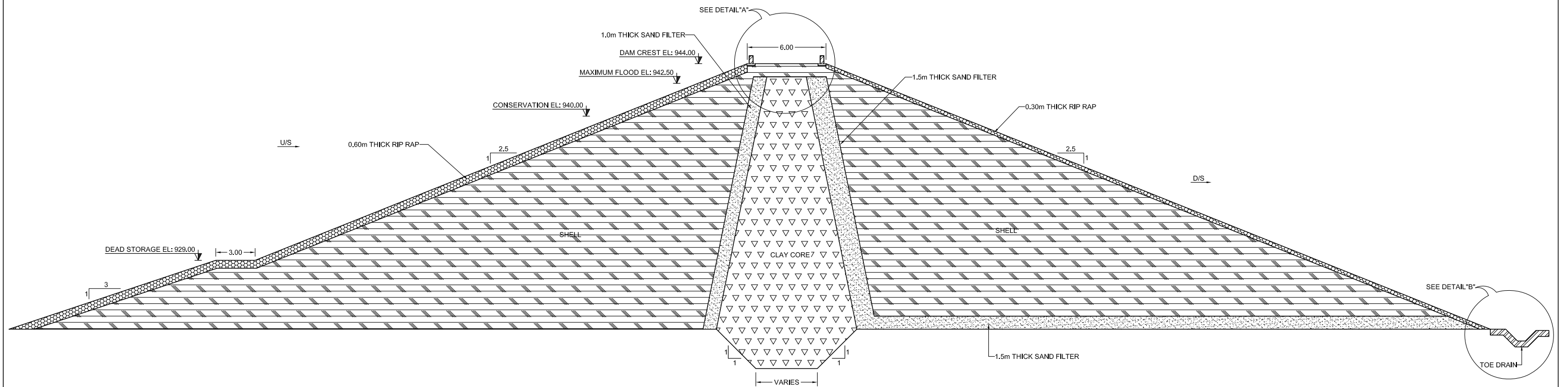




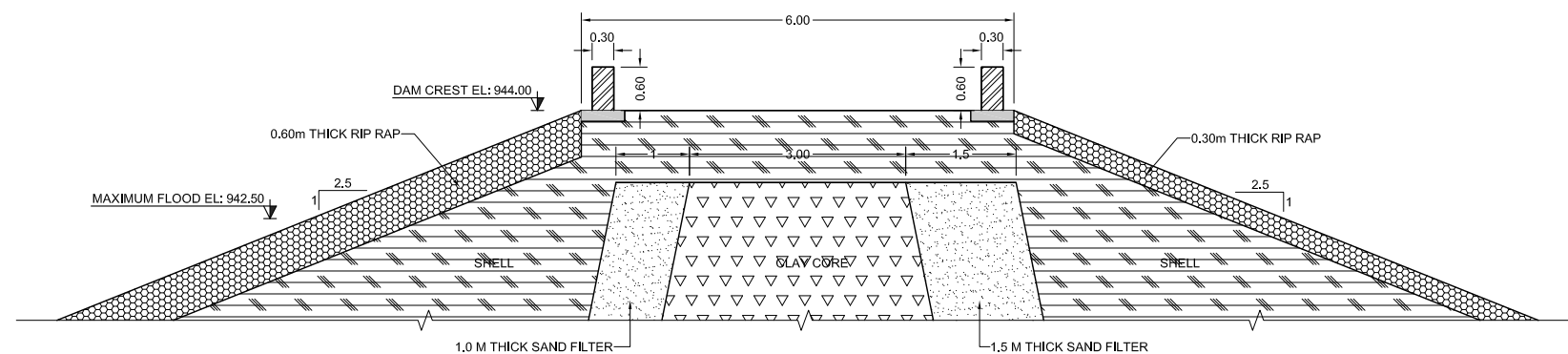




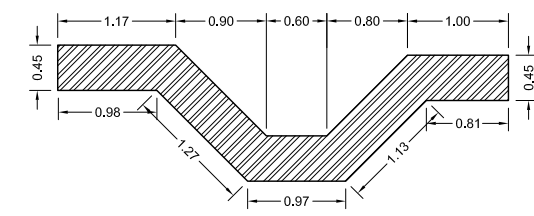
| <div><div>GOVERNMENT OF KHYBER<br/>PUKHTOONKHWA<br/>IRRIGATION DEPARTMENT</div></div> |                         | <div>CONSULTANT:</div> <div>BAK CONSULTING ENGINEERS<br/>HOUSE # 2, STREET # 1, BEHIND POLICE PUBLIC SCHOOL,<br/>BOARD BAZAR, TAJABAD, PESHAWAR, PAKISTAN<br/>PH: +92 91 5703862 Fax: 92 91 5840807<br/>EMAIL: bakpk@brain.net.pk</div> <div></div> |            | <table><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><tr><td>P01</td><td>DRAFT FEASIBILITY STUDY</td><td>01.06.16</td></tr><tr><td>P02</td><td>DRAFT PC-I</td><td>01.06.16</td></tr></tbody></table> |  | REV | DESCRIPTION | DATE |  |  |  |  |  |  |  |  |  |  |  |  | P01 | DRAFT FEASIBILITY STUDY | 01.06.16 | P02 | DRAFT PC-I | 01.06.16 | <div>NOTES:</div> <div>1. ALL DIMENSIONS &amp; LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.</div> |  | <div>PROJECT:</div> <div>FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"<br/>SAROZAI DAM (DISTRICT HANGU).</div> <div><div>TITLE:</div><div>DAM EMBANKMENT<br/>DAM BODY LAYOUT PLAN AND PROFILE</div></div> |  | <table><tr><td>DRAWN BY:</td><td>AZMAT ALI</td><td>SCALE</td><td>1:1200</td></tr><tr><td>DESIGNED BY:</td><td>A. A. HUMZA</td><td></td><td></td></tr><tr><td>CHECKED BY:</td><td>ARSALAN HAIDER</td><td>DATE</td><td>JUNE, 2016</td></tr><tr><td>APPROVED BY:</td><td>RIWAN ULLAH</td><td></td><td></td></tr><tr><td colspan="2">DRAWING NO.</td><td colspan="2">REV</td></tr><tr><td colspan="2">P1011-1-C-01-01</td><td colspan="2">P01</td></tr></table> |  | DRAWN BY: | AZMAT ALI | SCALE | 1:1200 | DESIGNED BY: | A. A. HUMZA |  |  | CHECKED BY: | ARSALAN HAIDER | DATE | JUNE, 2016 | APPROVED BY: | RIWAN ULLAH |  |  | DRAWING NO. |  | REV |  | P1011-1-C-01-01 |  | P01 |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|-------------|------|--|--|--|--|--|--|--|--|--|--|--|--|-----|-------------------------|----------|-----|------------|----------|-------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|-----------|-------|--------|--------------|-------------|--|--|-------------|----------------|------|------------|--------------|-------------|--|--|-------------|--|-----|--|-----------------|--|-----|--|
| REV                                                                                                                                                                      | DESCRIPTION             | DATE                                                                                                                                                                                                                                                                                                                                   |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
|                                                                                                                                                                          |                         |                                                                                                                                                                                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
|                                                                                                                                                                          |                         |                                                                                                                                                                                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
|                                                                                                                                                                          |                         |                                                                                                                                                                                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
|                                                                                                                                                                          |                         |                                                                                                                                                                                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| P01                                                                                                                                                                      | DRAFT FEASIBILITY STUDY | 01.06.16                                                                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| P02                                                                                                                                                                      | DRAFT PC-I              | 01.06.16                                                                                                                                                                                                                                                                                                                               |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| DRAWN BY:                                                                                                                                                                | AZMAT ALI               | SCALE                                                                                                                                                                                                                                                                                                                                  | 1:1200     |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| DESIGNED BY:                                                                                                                                                             | A. A. HUMZA             |                                                                                                                                                                                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| CHECKED BY:                                                                                                                                                              | ARSALAN HAIDER          | DATE                                                                                                                                                                                                                                                                                                                                   | JUNE, 2016 |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| APPROVED BY:                                                                                                                                                             | RIWAN ULLAH             |                                                                                                                                                                                                                                                                                                                                        |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| DRAWING NO.                                                                                                                                                              |                         | REV                                                                                                                                                                                                                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |
| P1011-1-C-01-01                                                                                                                                                          |                         | P01                                                                                                                                                                                                                                                                                                                                    |            |                                                                                                                                                                                                                                                                                                                                                                                    |  |     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                       |  |                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |           |           |       |        |              |             |  |  |             |                |      |            |              |             |  |  |             |  |     |  |                 |  |     |  |



**TYPICAL SECTION**  
SCALE 1:300



**DETAIL 'A'**  
SCALE = 1:100



**DETAIL 'B'**  
SCALE = 1:75

CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

CONSULTANT:

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| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

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PROJECT:

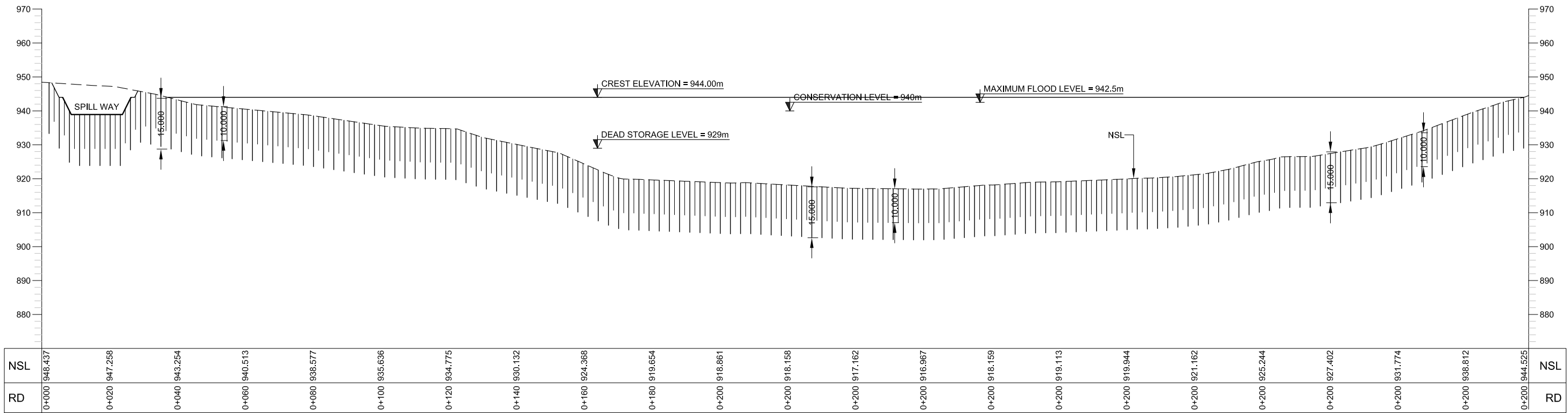
FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

TITLE:

DAM EMBANKMENT  
DAM EMBANKMENT TYPICAL X-SECTION

**DRAFT PC-I**

|              |                        |                    |
|--------------|------------------------|--------------------|
| DRAWN BY:    | AZMAT ALI              | SCALE<br>1:1200    |
| DESIGNED BY: | A. A. HUMZA            |                    |
| CHECKED BY:  | ARSALAN HAIDER         | DATE<br>JUNE, 2016 |
| APPROVED BY: | RIWAN ULLAH            | REV                |
| DRAWING NO.  | <b>P1011-1-C-02-01</b> | P01                |



PROPOSED GROUTING PROFILE ALONG THE CENTERLINE OF DAM AXIS AND SPILLWAY

CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHW  
IRRIGATION DEPARTMENT

CONSULTANT:

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| REV | DESCRIPTION             | DATE     |
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|     |                         |          |
|     |                         |          |
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

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PROJECT:

FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

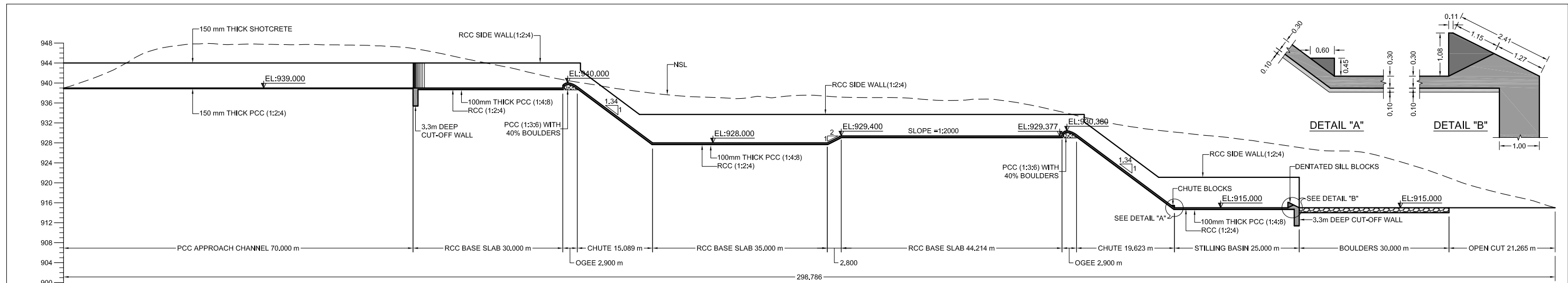
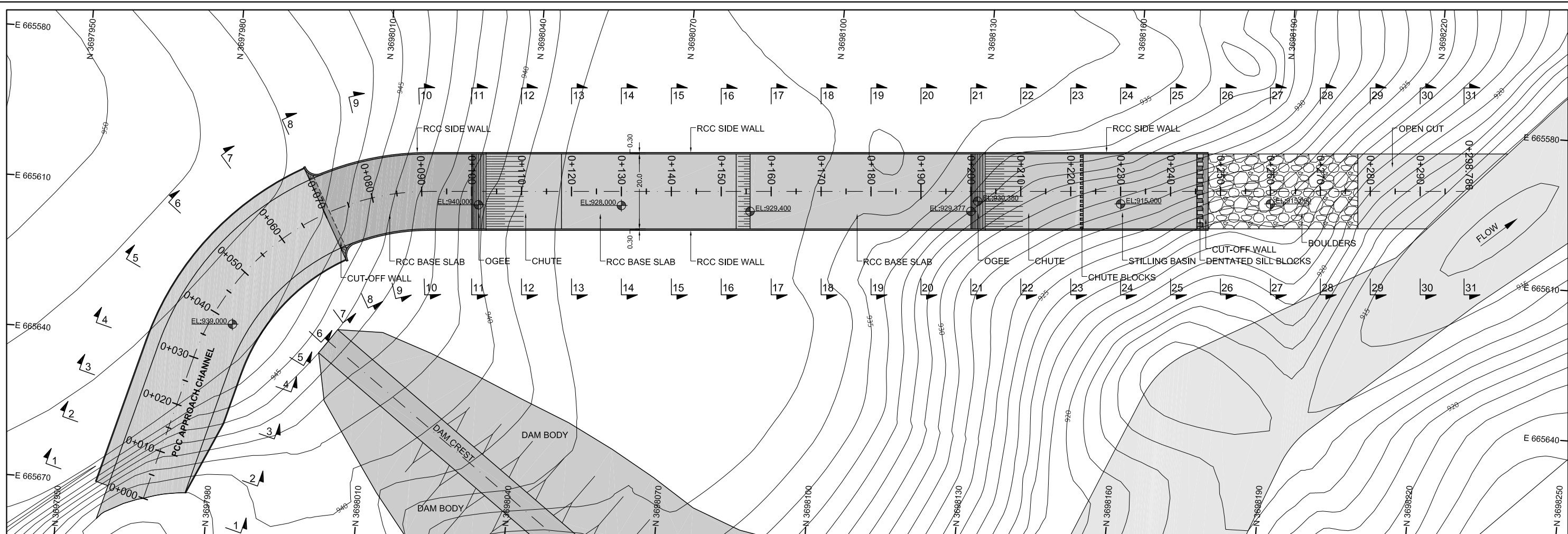
TITLE:

GROUTING  
PROPOSED GROUTING PROFILE ALONG THE CENTERLINE OF  
DAM AXIS AND SPILLWAY

DRAFT PC-I

|              |                        |                    |
|--------------|------------------------|--------------------|
| DRAWN BY:    | AZMAT ALI              | SCALE<br>1:1200    |
| DESIGNED BY: | UMAIR KHAN             |                    |
| CHECKED BY:  | ARSALAN HAIDER         | DATE<br>JUNE, 2016 |
| APPROVED BY: | RIZWAN ULLAH           | REV<br>P01         |
| DRAWING NO.  | <b>P1011-1-C-04-01</b> |                    |





| DATUM EL          |         |                                                         |         |         |         |         |         |         |         |         |         |                                                                                               |         |         |         |         |                                         |         |         |         |         |                                                                                               |         |         |         |         |         |         |         |         |           |         |         |         |
|-------------------|---------|---------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------------------------------------------------------------------------------------|---------|---------|---------|---------|-----------------------------------------|---------|---------|---------|---------|-----------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|---------|---------|---------|
| DESIGN PARAMETERS |         | Q=125.1m³/sec, W=15m, V <sub>a</sub> =2.38m/sec, D=2.5m |         |         |         |         |         |         |         |         |         | Q=125.1m³/sec, W=15m, V <sub>1</sub> =16.57m/sec, Y <sub>1</sub> =0.5m, Y <sub>2</sub> =5.06m |         |         |         |         | Q=125.1m³/sec, W=15m, S=0.0005, D=3.53m |         |         |         |         | Q=125.1m³/sec, W=15m, V <sub>1</sub> =18.5m/sec, Y <sub>1</sub> =0.45m, Y <sub>2</sub> =5.39m |         |         |         |         |         |         |         |         |           |         |         |         |
| NSL               | 939.000 |                                                         |         |         |         |         |         |         |         |         |         |                                                                                               |         |         |         |         |                                         |         |         |         |         |                                                                                               |         |         |         |         |         |         |         |         |           |         |         |         |
|                   | 939.000 | 939.000                                                 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000                                                                                       | 939.000 | 939.000 | 939.000 | 939.000 | 939.000                                 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000                                                                                       | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000   | 939.000 | 939.000 | 939.000 |
| BL                | 939.000 | 939.000                                                 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000                                                                                       | 939.000 | 939.000 | 939.000 | 939.000 | 939.000                                 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000                                                                                       | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000 | 939.000   | 939.000 | 939.000 | 939.000 |
| RD                | 0+000   | 0+010                                                   | 0+020   | 0+030   | 0+040   | 0+050   | 0+060   | 0+070   | 0+080   | 0+090   | 0+100   | 0+110                                                                                         | 0+120   | 0+130   | 0+140   | 0+150   | 0+160                                   | 0+170   | 0+180   | 0+190   | 0+200   | 0+210                                                                                         | 0+220   | 0+230   | 0+240   | 0+250   | 0+260   | 0+270   | 0+280   | 0+290   | 0+298.786 |         |         |         |

**DRAFT PC-I**



GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

CLIENT:

CONSULTANT:

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| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:

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SAROZAI DAM (DISTRICT HANGU).

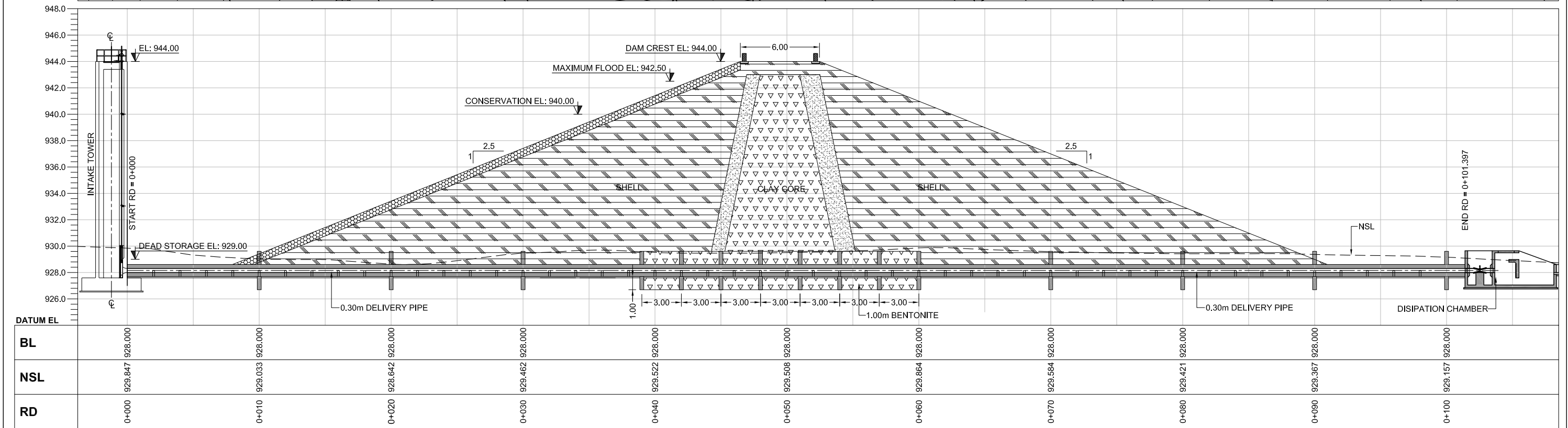
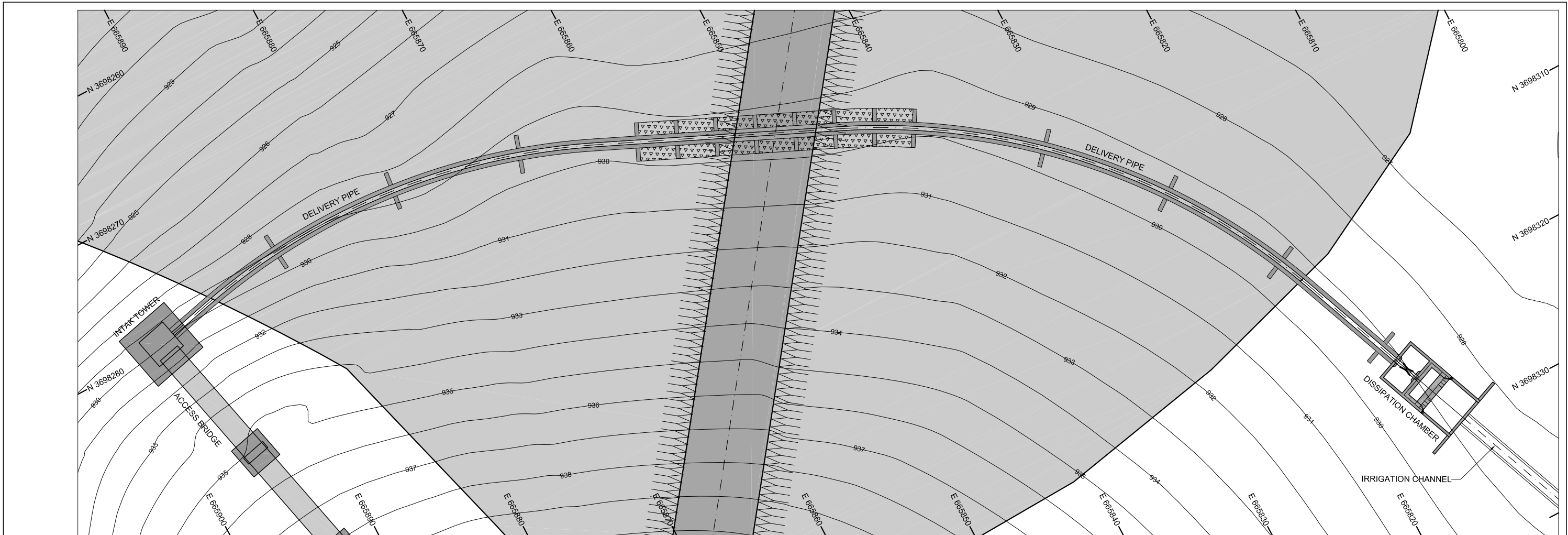
TITLE:

SPILLWAY  
SPILLWAY PLAN AND PROFILE

|              |                        |       |            |
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| DESIGNED BY: | A. A. HUMZA            | DATE  | JUNE, 2016 |
| CHECKED BY:  | ARSALAN HAIDER         | REV   |            |
| APPROVED BY: | RIWAN ULLAH            |       |            |
| DRAWING NO.  | <b>P1011-1-D-01-01</b> |       | <b>P01</b> |







CLIENT:  
  
GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

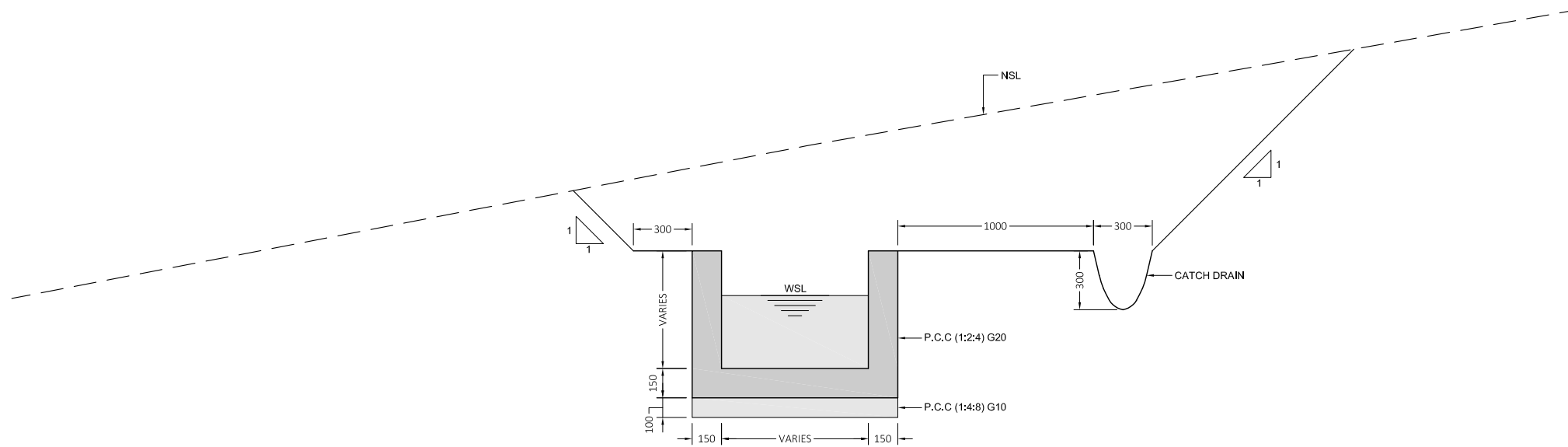
CONSULTANT:  
**BAK CONSULTING ENGINEERS**  
HOUSE # 2, STREET # 1, BEHIND POLICE PUBLIC SCHOOL,  
BOARD BAZAR, TAJABAD, PESHAWAR, PAKISTAN  
PH: +92 91 5703862 Fax: 92 91 5840807  
EMAIL: bakpk@brain.net.pk  


| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

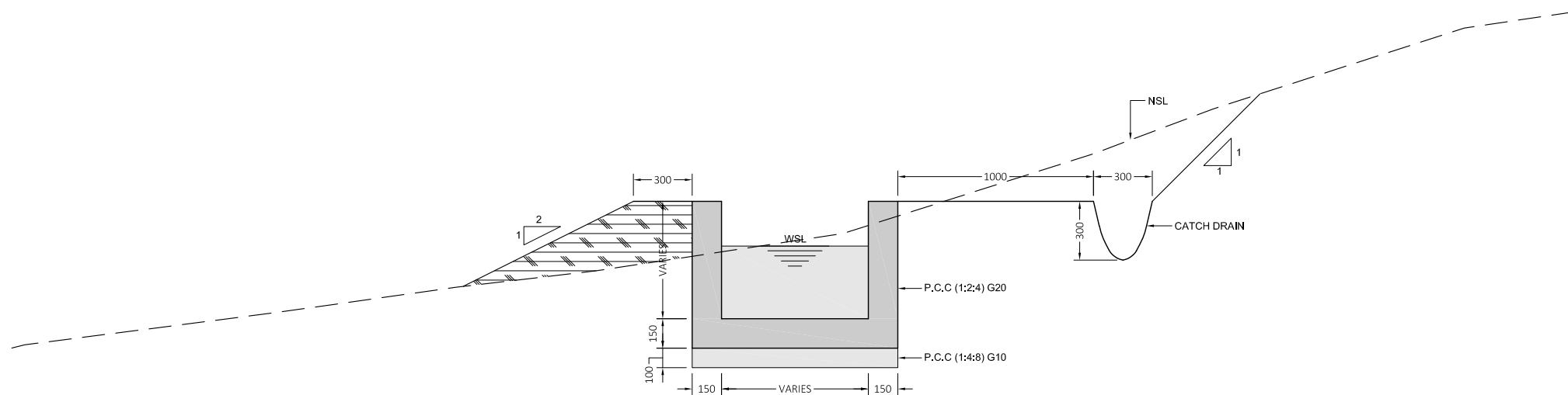
NOTES:  
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:  
FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).  
  
TITLE:  
DELIVERY PIPE  
DELIVERY PIPE PLAN AND PROFILE

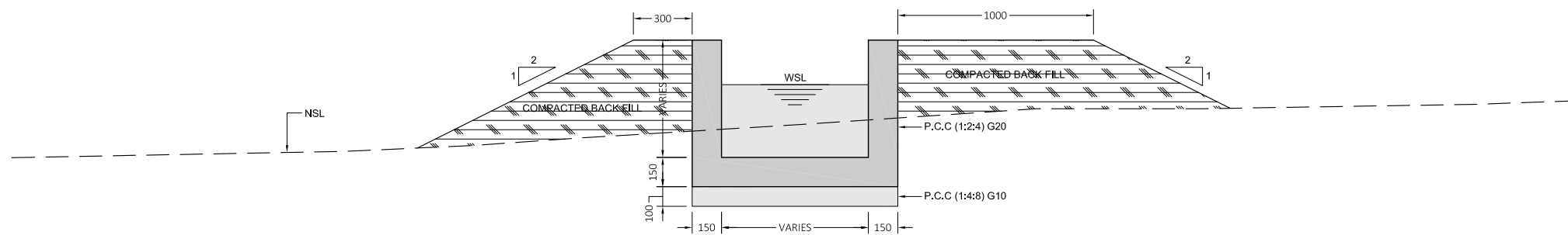
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| DESIGNED BY:    | A. A. HUMZA    |                    |
| CHECKED BY:     | ARSALAN HAIDER | DATE<br>JUNE, 2016 |
| APPROVED BY:    | RIWAN ULLAH    |                    |
| DRAWING NO.     |                | REV                |
| P1011-1-E-02-01 |                | P01                |



TYPICAL X-SECTION IN CUT



TYPICAL X-SECTION IN CUT & FILL



TYPICAL X-SECTION IN CUT & FILL

CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

CONSULTANT:

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EMAIL: bakpk@brain.net.pk



| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

- ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:

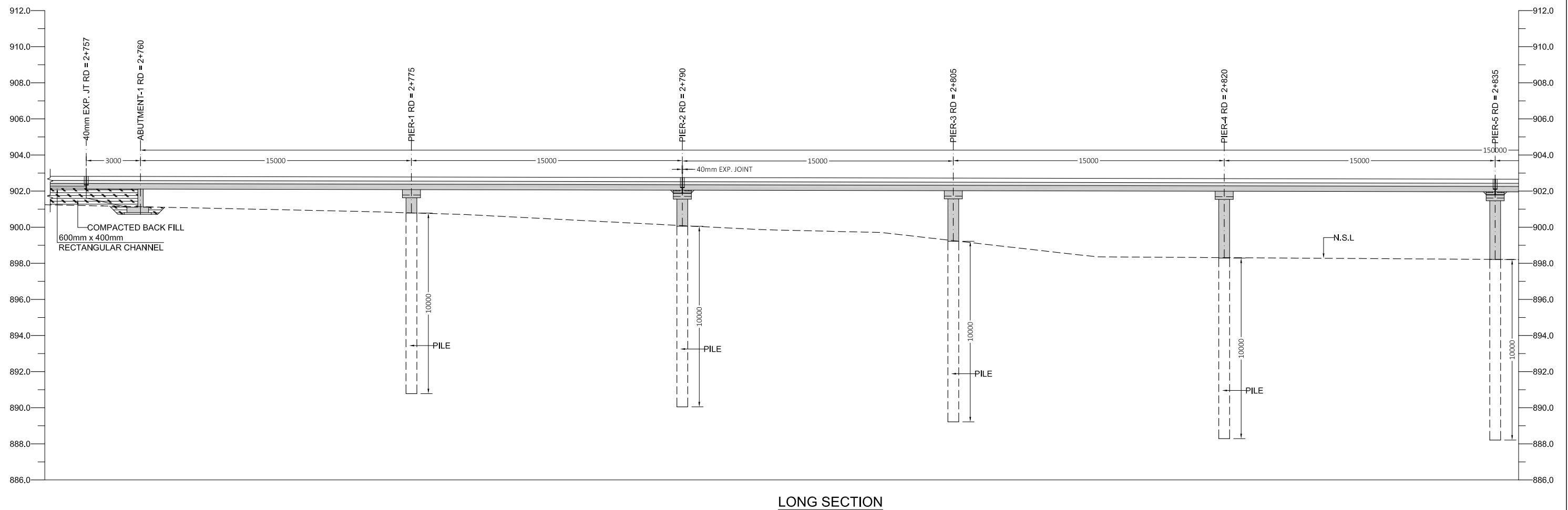
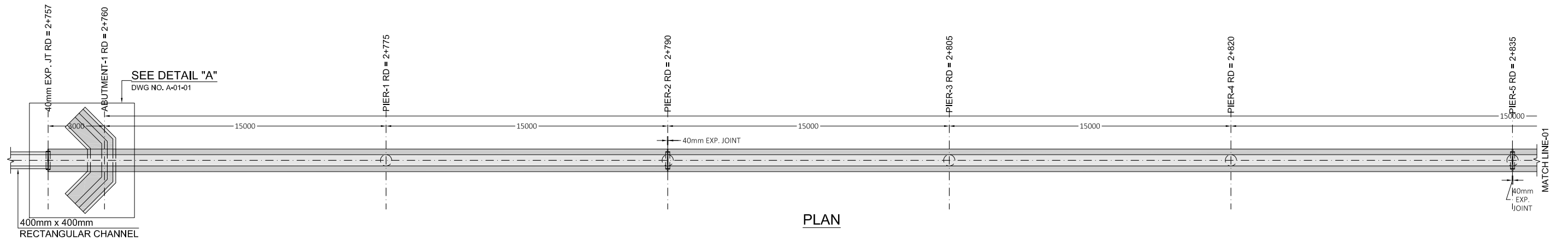
FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

TITLE:

IRRIGATION CHANNEL  
TYPICAL X-SECTIONS

DRAFT PC-I

|              |                 |            |
|--------------|-----------------|------------|
| DRAWN BY:    | AZMAT ALI       | SCALE      |
| DESIGNED BY: | A. A. HUMZA     | 1:30       |
| CHECKED BY:  | ARSALAN HAIDER  | DATE       |
| APPROVED BY: | RIWAN ULLAH     | JUNE, 2016 |
| DRAWING NO.  | P1011-1-F-02-01 | REV        |
|              |                 | P01        |



CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

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| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
|     |                         |          |
|     |                         |          |
|     |                         |          |
|     |                         |          |
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METETRS  
UNLESS OTHERWISE SPECIFIED.

PROJECT:

FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

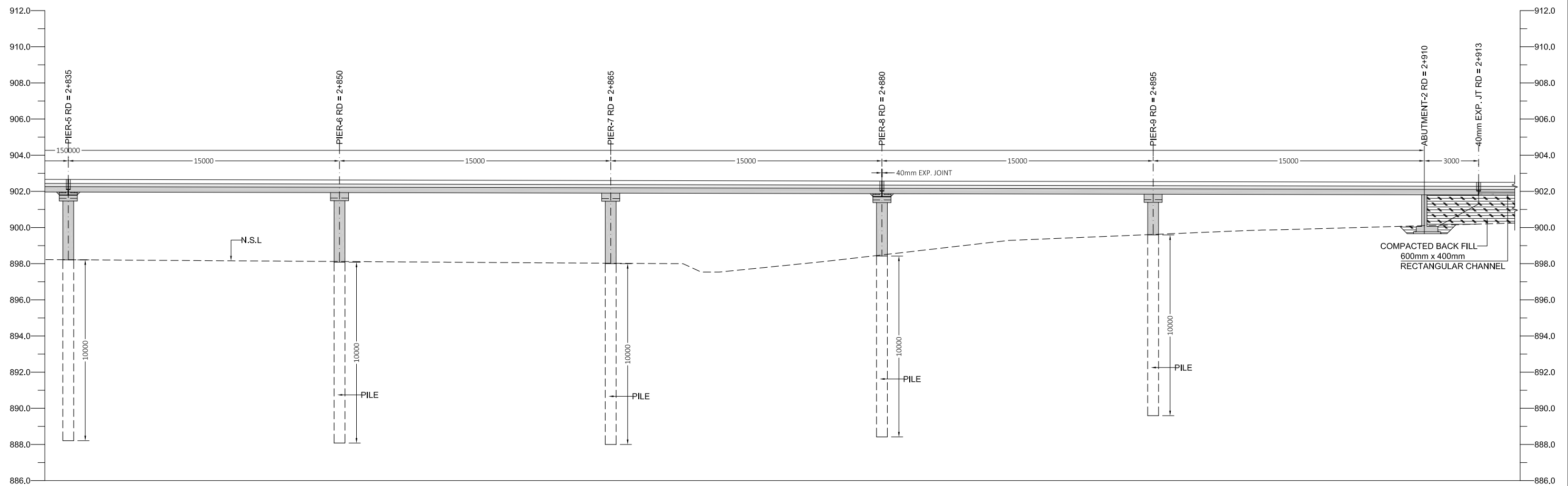
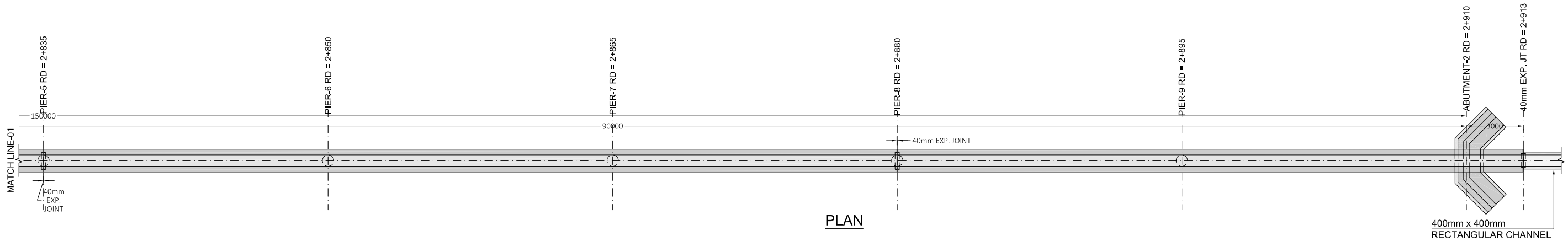
TITLE:  
STRUCTURES

AQUEDUCT-01 PLAN AND LONG SECTION

DRAFT PC-I

|              |                        |                      |
|--------------|------------------------|----------------------|
| DRAWN BY:    | ZEESHAN KHATTAK        | SCALE                |
| DESIGNED BY: | ARBAB AMIR HUMZA       | H: 1:220<br>V: 1:220 |
| CHECKED BY:  | ARSALAN HAIDER         | DATE                 |
| APPROVED BY: | RIZWAN ULLAH           | JUNE, 2016           |
| DRAWING NO.  |                        | REV                  |
|              | <b>P1011-1-H-05-01</b> | P01                  |





CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

CONSULTANT:

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BOARD BAZAR, TAJABAD, PESHAWAR, PAKISTAN  
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EMAIL: bakpk@brain.net.pk



| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METETRS  
UNLESS OTHERWISE SPECIFIED.

PROJECT:

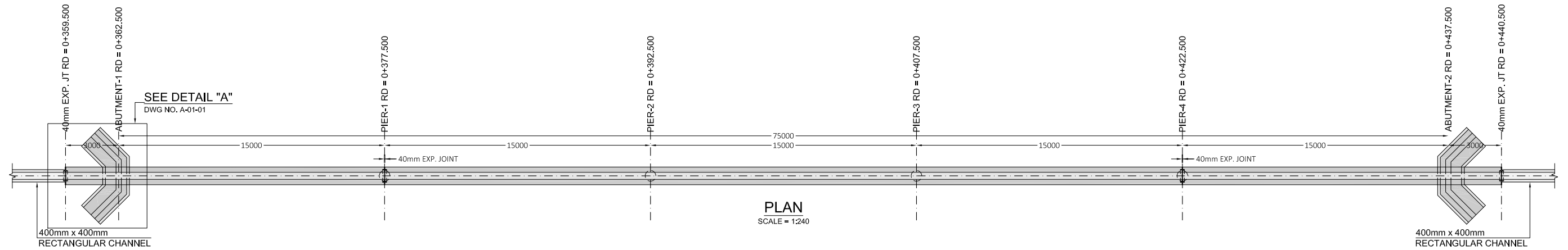
FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

TITLE:

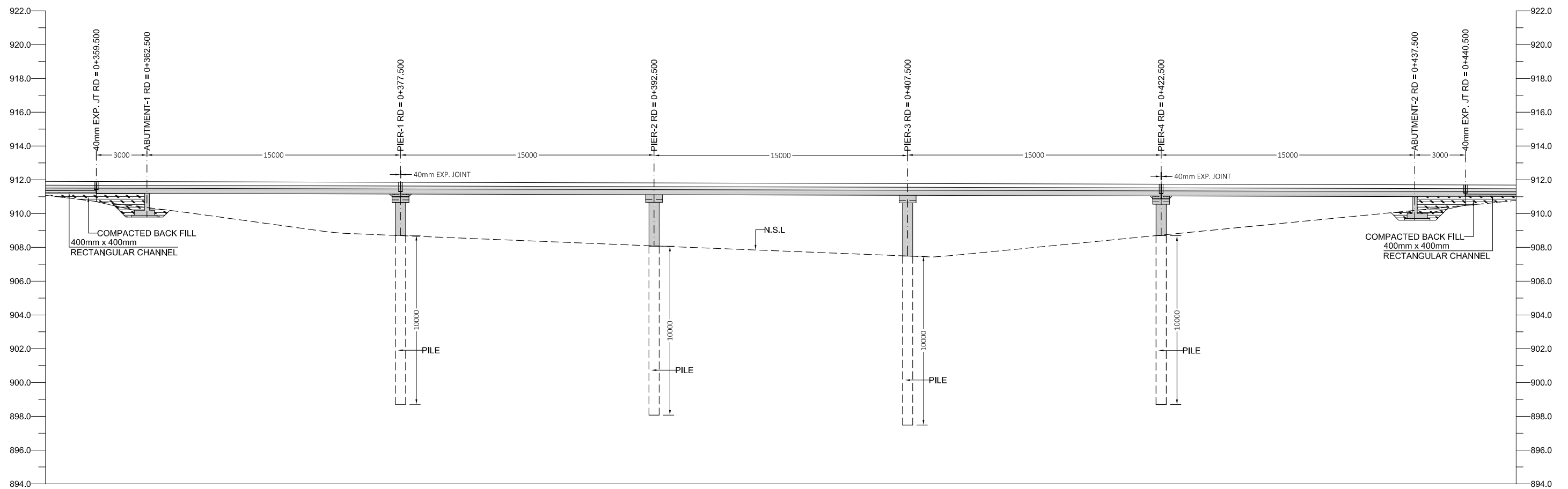
STRUCTURES

AQUEDUCT-01 PLAN AND LONG SECTION

| DRAFT PC-I   |                        |                               |
|--------------|------------------------|-------------------------------|
| DRAWN BY:    | ZEESHAN KHATTAK        | SCALE<br>H: 1:220<br>V: 1:220 |
| DESIGNED BY: | ARBAB AMIR HUMZA       | DATE<br>JUNE, 2016            |
| CHECKED BY:  | ARSALAN HAIDER         | REV<br>P01                    |
| APPROVED BY: | RIZWAN ULLAH           |                               |
| DRAWING NO.  | <b>P1011-1-H-05-02</b> |                               |

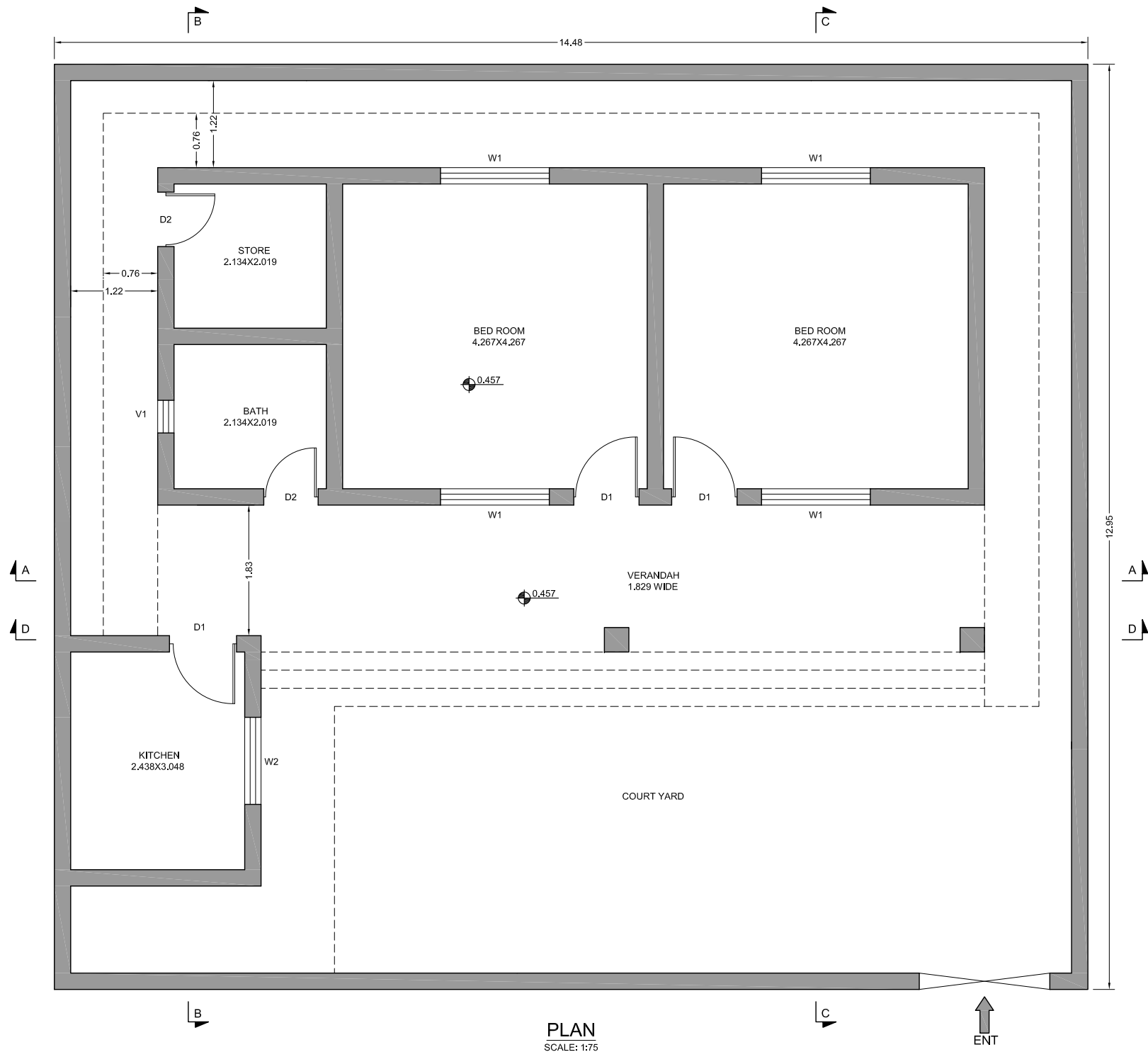


PLAN  
SCALE = 1:240

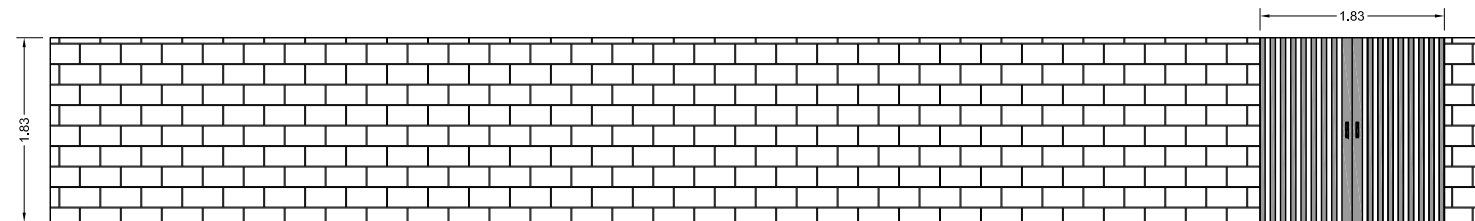


LONG SECTION  
SCALE = 1:240

| <div>CLIENT:</div> <div></div> <div>GOVERNMENT OF KHYBER<br/>PUKHTOONKHWA<br/>IRRIGATION DEPARTMENT</div> | <div>CONSULTANT:</div> <div>BAK CONSULTING ENGINEERS</div> <div>HOUSE # 2, STREET # 1, BEHIND POLICE PUBLIC SCHOOL,<br/>BOARD BAZAR, TAJABAD, PESHAWAR, PAKISTAN<br/>PH: +92 91 5703862 Fax: 92 91 5840807<br/>EMAIL: bakpk@brain.net.pk</div> <div></div> | <table><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><tr><td></td><td></td><td></td></tr><tr><td>P01</td><td>DRAFT FEASIBILITY STUDY</td><td>01.06.16</td></tr><tr><td>P02</td><td>DRAFT PC-I</td><td>01.06.16</td></tr></table> | REV      | DESCRIPTION | DATE |  |  |  |  |  |  |  |  |  |  |  |  | P01 | DRAFT FEASIBILITY STUDY | 01.06.16 | P02 | DRAFT PC-I | 01.06.16 | <div>NOTES:</div> <div>1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS IN METETRS<br/>UNLESS OTHERWISE SPECIFIED.</div> | <div>PROJECT:</div> <div>FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"<br/>SAROZAI DAM (DISTRICT HANGU).</div> <div><div>TITLE:</div><div>STRUCTURES</div><div>AQUEDUCT-02 PLAN AND LONG SECTION</div></div> | <table><tr><td>DRAWN BY:</td><td>ZEESHAN KHATTAK</td><td>SCALE<br/>H: 1:240<br/>V: 1:240</td></tr><tr><td>DESIGNED BY:</td><td>ARBAB AMIR HUMZA</td><td></td></tr><tr><td>CHECKED BY:</td><td>ARSALAN HAIDER</td><td>DATE<br/>JUNE, 2016</td></tr><tr><td>APPROVED BY:</td><td>RIZWAN ULLAH</td><td>REV</td></tr><tr><td colspan="2">DRAWING NO.</td><td></td></tr><tr><td colspan="2">P1011-1-H-06-01</td><td>P01</td></tr></table> | DRAWN BY: | ZEESHAN KHATTAK | SCALE<br>H: 1:240<br>V: 1:240 | DESIGNED BY: | ARBAB AMIR HUMZA |  | CHECKED BY: | ARSALAN HAIDER | DATE<br>JUNE, 2016 | APPROVED BY: | RIZWAN ULLAH | REV | DRAWING NO. |  |  | P1011-1-H-06-01 |  | P01 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------|------|--|--|--|--|--|--|--|--|--|--|--|--|-----|-------------------------|----------|-----|------------|----------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|-------------------------------|--------------|------------------|--|-------------|----------------|--------------------|--------------|--------------|-----|-------------|--|--|-----------------|--|-----|
|                                                                                                                                                                                              | REV                                                                                                                                                                                                                                                                                                                                           | DESCRIPTION                                                                                                                                                                                                                                                                                                                                          | DATE     |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                      |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                      |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                      |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                      |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
|                                                                                                                                                                                              | P01                                                                                                                                                                                                                                                                                                                                           | DRAFT FEASIBILITY STUDY                                                                                                                                                                                                                                                                                                                              | 01.06.16 |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| P02                                                                                                                                                                                          | DRAFT PC-I                                                                                                                                                                                                                                                                                                                                    | 01.06.16                                                                                                                                                                                                                                                                                                                                             |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| DRAWN BY:                                                                                                                                                                                    | ZEESHAN KHATTAK                                                                                                                                                                                                                                                                                                                               | SCALE<br>H: 1:240<br>V: 1:240                                                                                                                                                                                                                                                                                                                        |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| DESIGNED BY:                                                                                                                                                                                 | ARBAB AMIR HUMZA                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                      |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| CHECKED BY:                                                                                                                                                                                  | ARSALAN HAIDER                                                                                                                                                                                                                                                                                                                                | DATE<br>JUNE, 2016                                                                                                                                                                                                                                                                                                                                   |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| APPROVED BY:                                                                                                                                                                                 | RIZWAN ULLAH                                                                                                                                                                                                                                                                                                                                  | REV                                                                                                                                                                                                                                                                                                                                                  |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| DRAWING NO.                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                      |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |
| P1011-1-H-06-01                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                               | P01                                                                                                                                                                                                                                                                                                                                                  |          |             |      |  |  |  |  |  |  |  |  |  |  |  |  |     |                         |          |     |            |          |                                                                                                                         |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                 |                               |              |                  |  |             |                |                    |              |              |     |             |  |  |                 |  |     |



| SCHEDULE OF DOORS AND WINDOWS |             |                                    |      |                  |
|-------------------------------|-------------|------------------------------------|------|------------------|
| TYPE                          | SIZE        | SILL                               | NO'S | DESCRIPTIONS     |
| MD-1                          | 1.829X1.829 | 0.00                               |      | STEEL DOOR       |
| D-1                           | 0.914X2.134 | 0.00                               |      | -                |
| D-2                           | 0.762X2.134 | 0.00                               |      | -                |
| W-1                           | 1.524X1.676 | 0.914                              |      | STEEL WINDOW     |
| W-2                           | 1.219X1.219 | 0.914                              |      | -                |
| V-1                           | 0.457X0.304 | 2.743                              |      | STEEL VENTILATOR |
| SCHEDULE OF AREA              |             |                                    |      |                  |
| TOTAL PLOT AREA               |             | = 187.548 M <sup>2</sup> (7,415 M) |      |                  |
| TOTAL COVERED AREA            |             | = 125.088 M <sup>2</sup>           |      |                  |



BOUNDARY WALL FRONT ELEVATION  
SCALE: 1:75

CLIENT:  
  
GOVERNMENT OF KHYBER  
PUKHTOONKHWA  
IRRIGATION DEPARTMENT

CONSULTANT:  
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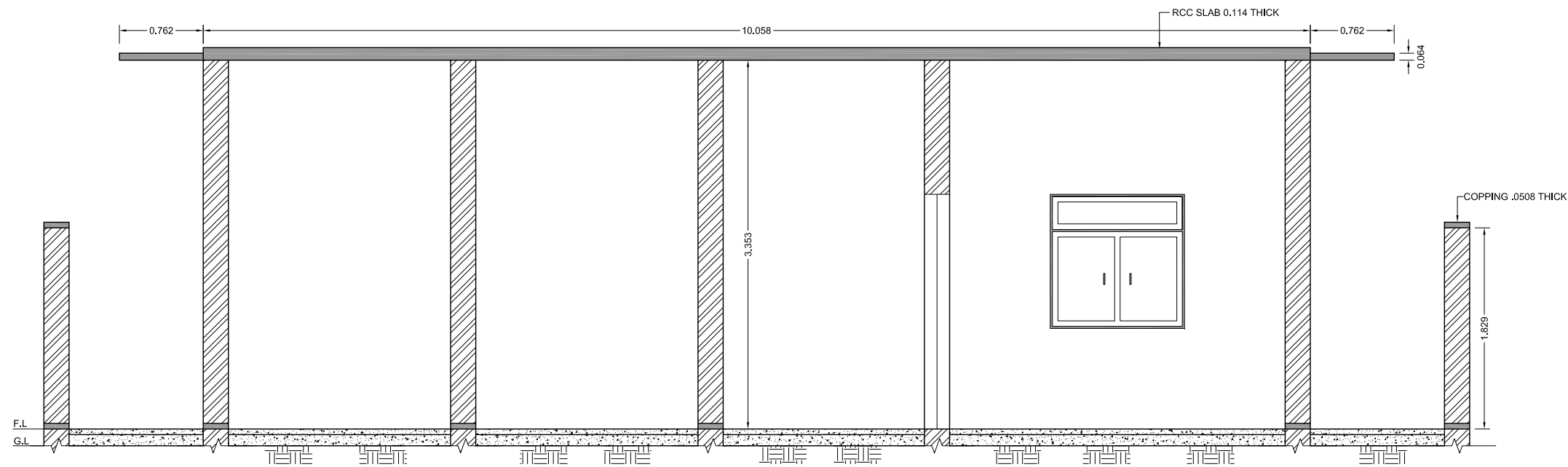
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|     |                         |          |
|     |                         |          |
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |
| P02 | DRAFT PC-I              | 01.06.16 |

NOTES:  
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

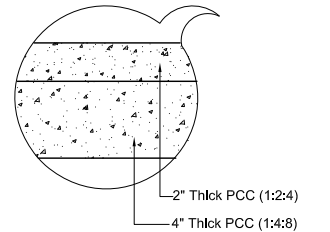
PROJECT:  
FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).  
TITLE:  
INSPECTION HUT & SITE OFFICE  
INSPECTION HUT & SITE OFFICE PLAN & ELEVATION

| DRAFT PC-I   |                        |                    |
|--------------|------------------------|--------------------|
| DRAWN BY:    | AZMAT ALI              | SCALE<br>1:75      |
| DESIGNED BY: | A. A. HUMZA            |                    |
| CHECKED BY:  | ARSALAN HAIDER         | DATE<br>JUNE, 2016 |
| APPROVED BY: | RIZWAN ULLAH           |                    |
| DRAWING NO.  | <b>P1011-1-I-01-01</b> | REV<br>P01         |

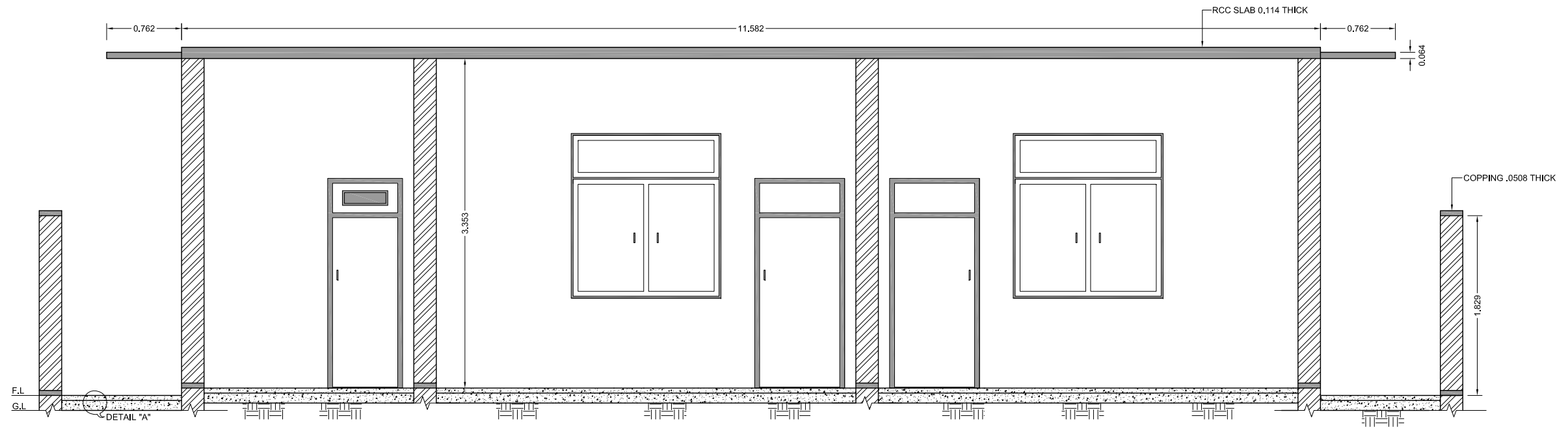




SECTIONAL ELEVATION B-B  
SCALE: 1:50



FLOOR DETAIL "A"  
SCALE: 1:10



SECTIONAL ELEVATION A-A  
SCALE: 1:50

CLIENT:  
  
GOVERNMENT OF KHYBER  
PUKHTOONKHW  
IRRIGATION DEPARTMENT

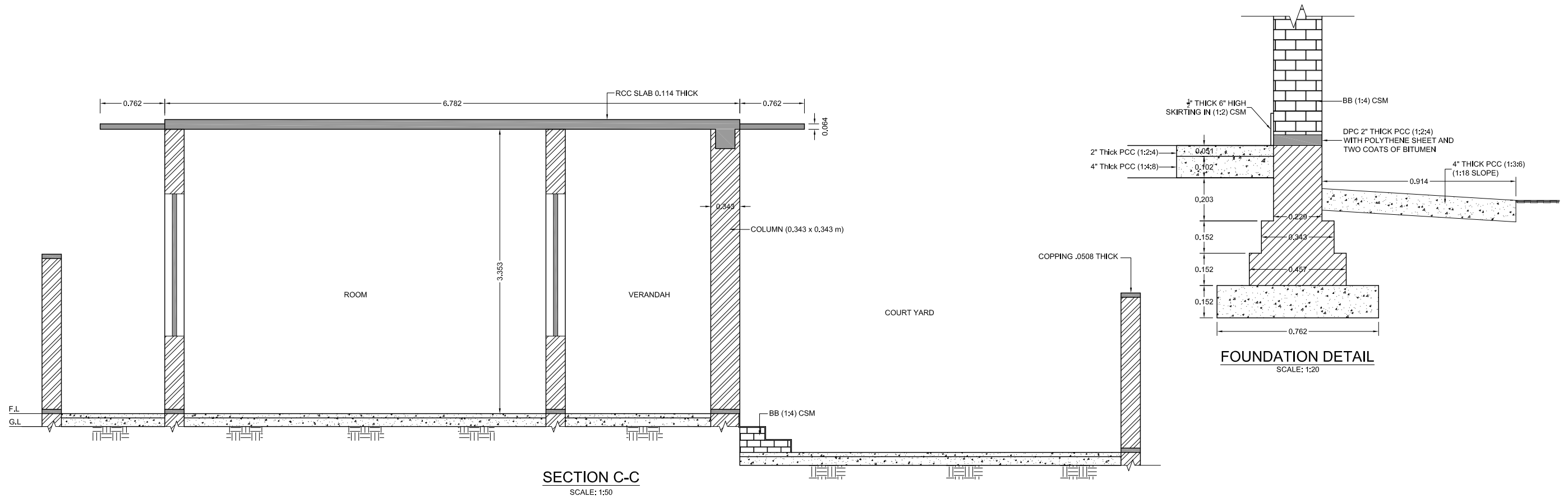
CONSULTANT:  
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| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |

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PROJECT:  
FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).  
TITLE:  
INSPECTION HUT & SITE OFFICE  
INSPECTION HUT & SITE OFFICE PLAN & ELEVATION

| DRAFT FEASIBILITY STUDY |                        |                    |
|-------------------------|------------------------|--------------------|
| DRAWN BY:               | AZMAT ALI              | SCALE<br>1:50      |
| DESIGNED BY:            | A. A. HUMZA            |                    |
| CHECKED BY:             | ARSALAN HAIDER         | DATE<br>JUNE, 2016 |
| APPROVED BY:            | RIZWAN ULLAH           |                    |
| DRAWING NO.             | <b>P1011-1-I-01-02</b> | REV<br>P01         |



CLIENT:



GOVERNMENT OF KHYBER  
PUKHTOONKHW  
IRRIGATION DEPARTMENT

CONSULTANT:

**BAK CONSULTING ENGINEERS**  
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| REV | DESCRIPTION             | DATE     |
|-----|-------------------------|----------|
|     |                         |          |
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|     |                         |          |
| P01 | DRAFT FEASIBILITY STUDY | 01.06.16 |

NOTES:

- ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:

FEASIBILITY STUDY OF TWO (02) SMALL DAMS "PACKAGE-U"  
SAROZAI DAM (DISTRICT HANGU).

TITLE:

INSPECTION HUT & SITE OFFICE  
INSPECTION HUT & SITE OFFICE PLAN & ELEVATION

| DRAFT FEASIBILITY STUDY |                        |                    |
|-------------------------|------------------------|--------------------|
| DRAWN BY:               | AZMAT ALI              | SCALE<br>AS SHOWN  |
| DESIGNED BY:            | A. A. HUMZA            | DATE<br>JUNE, 2016 |
| CHECKED BY:             | ARSALAN HAIDER         | REV                |
| APPROVED BY:            | RIZWAN ULLAH           | P01                |
| DRAWING NO.             | <b>P1011-1-I-01-03</b> |                    |