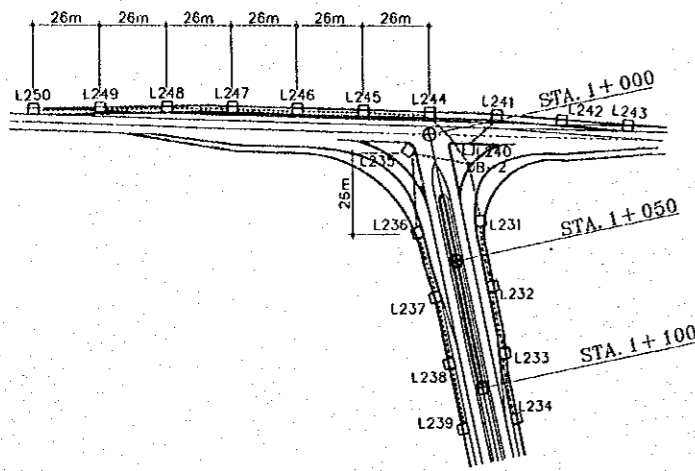


P. LAYOUT OF ROAD LIGHTING, AND ROAD DRAINAGE

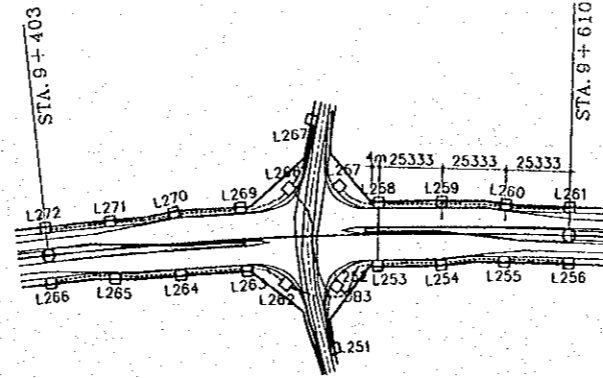
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LIGHTING LAYOUT
KRISHNAGAR & JABUSA

SCALE SHEET NO.
AS SHOWN P-01



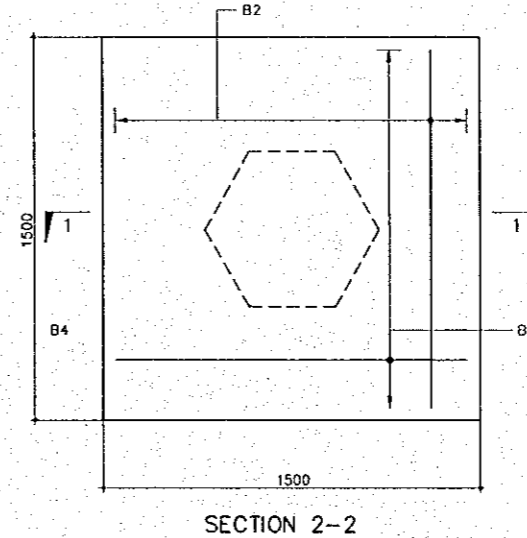
1 LAYOUT PLAN OF SATKHIRA ROAD INTERSECTION
SCALE NOT TO SCALE



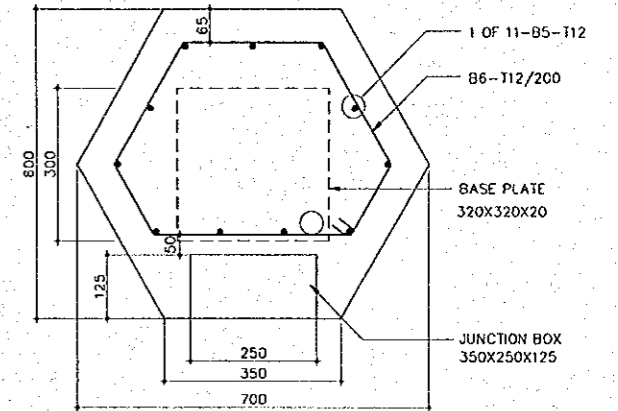
3 LAYOUT PLAN OF JABUSHA ROAD INTERSECTION
SCALE NOT TO SCALE

NOTES:

- ALL LIGHT SHALL BE HIGH PRESSURE SODIUM 150 WATT TUBULAR PHILLIPS MODEL NO. 102/150T OR SIEMENS MODEL NO. SNA395-2-IPT.
- L235 AND L240 ARE TWO ARMS WITH TWO LUMINAIRES RATED TO 150 WATT
- MOUNTING BRACKETS MUST BE FABRICATED AS PER DRAWING & STANDERD SPECIFICATION ACCORDING TO BS 5649 PART-2 1978.
- FOR DETAIL OF LIGHT POLE TYPE-2 REFER TO DRG. NO. P-03
- FOR LEGEND REFER TO DRG. NO. P-02
- FOR DETAILS OF DB REFER TO DRG. NO. P-02
- ALL STEEL WORK TO BE HOT DIP GALVANIZED IN ACCORDING WITH THE SPECIFICATION.
- LIGHT POLE TYPE-2 IS APPLICABLE FOR ROAD.

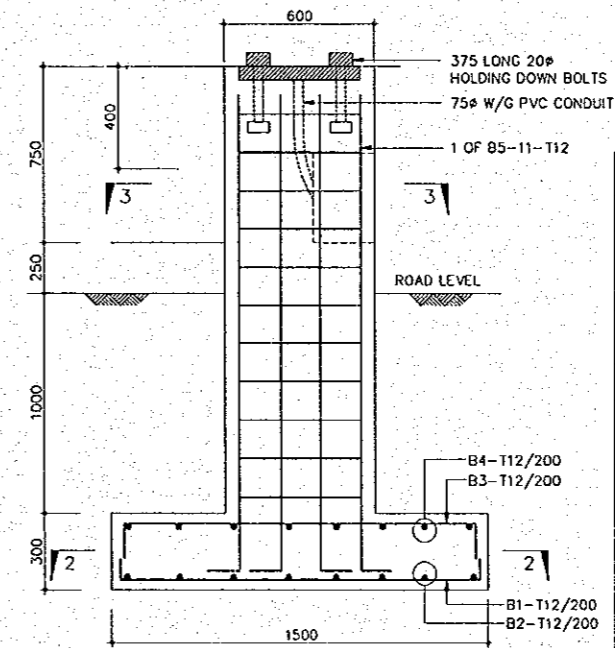


SECTION 2-2

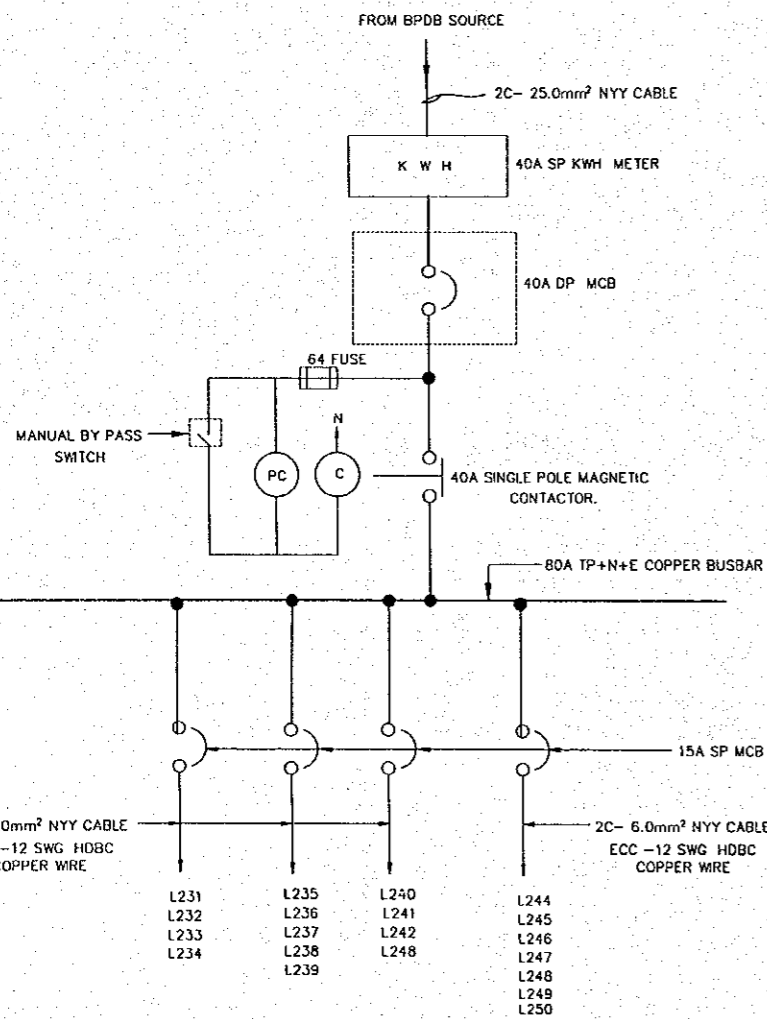


7 SECTION 3-3
SCALE NOT TO SCALE

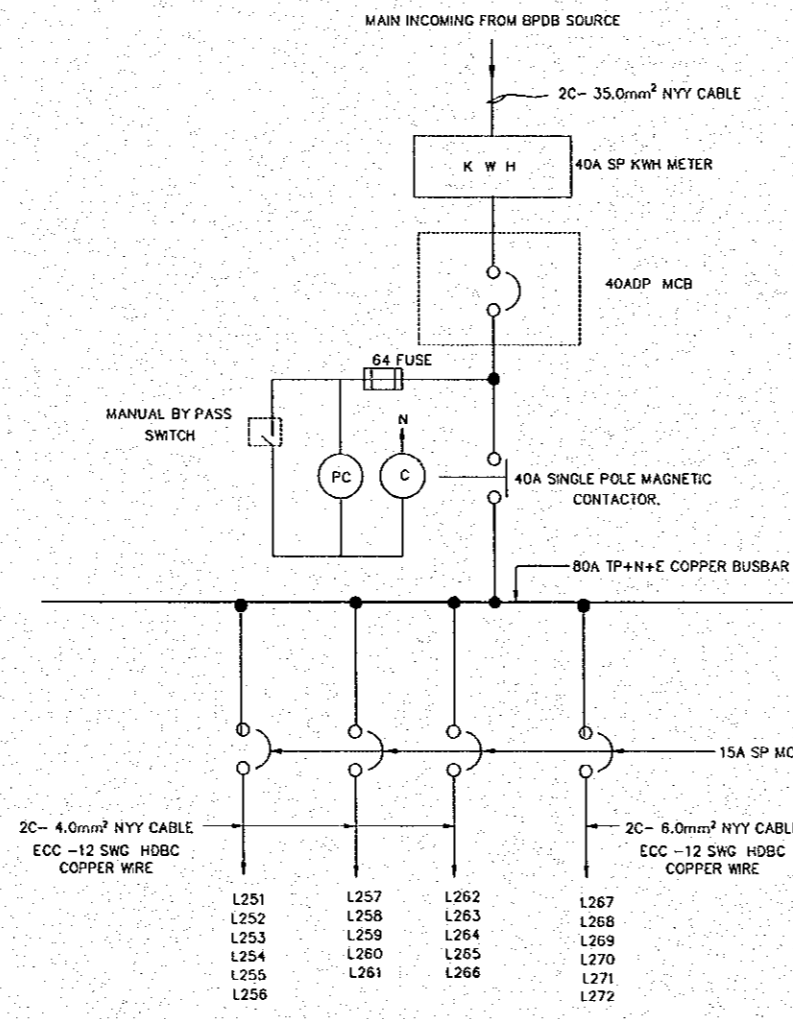
6 FOUNDATION PLAN OF LIGHT POLE (TYPE-2)
SCALE NOT TO SCALE



5 SECTION 1-1
SCALE NOT TO SCALE



2 DB-2 DETAIL (SATKHIRA ROAD INTERSECTION)
SCALE NOT TO SCALE



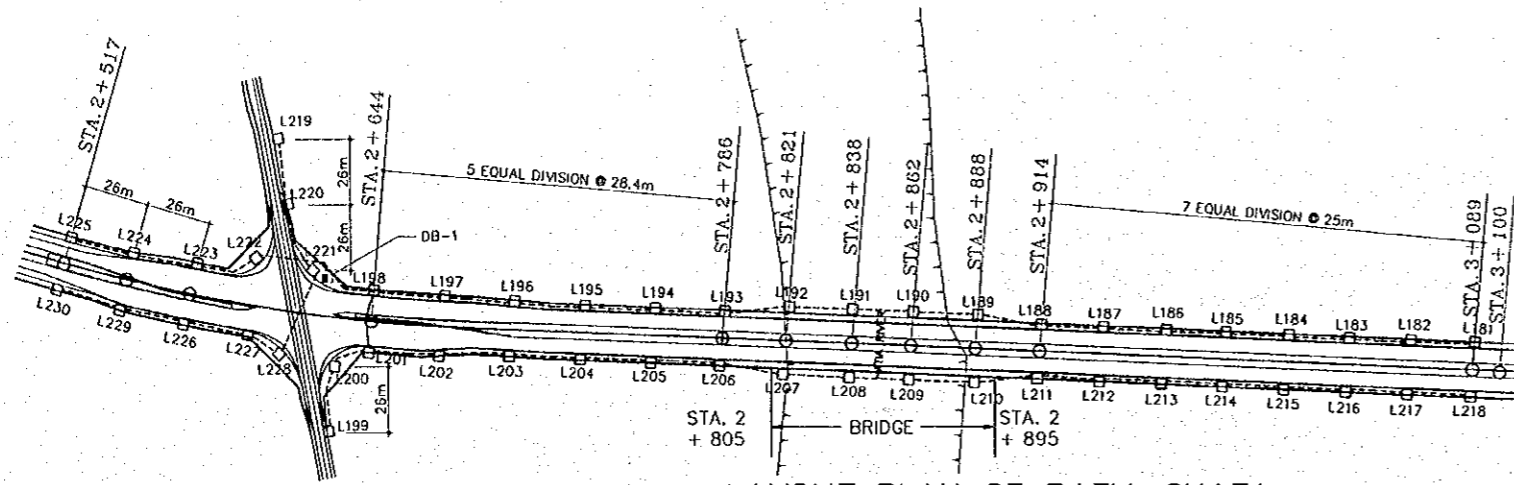
4 DB-3 DETAIL (JABUSHA ROAD INTERSECTION)
SCALE NOT TO SCALE

| CABLE SPECIFICATION AND QUANTITY | | | |
|----------------------------------|---|------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QANT. |
| 1. | 2C-2.5mm ² NYY EQUIVALENT TO EASTERN/PARADISE CABLE FOR LUMINAIRES TO JUNCTION BOX | km | - |
| 2. | 2C-25mm ² NYY EQUIVALENT TO EASTERN/PARADISE CABLE | km | - |
| 3. | ECC CONDUCTOR NO. 12 SWG HDGC COPPER | km | - |
| 4. | 2C-35mm ² NYY EASTARN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 5. | 2C-4.0mm ² NYY EASTARN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 6. | 2C-6.0mm ² NYY EASTARN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 7. | LT JUNCTION BOX MADE OF GALVANIZED STEEL FOR LIGHT POLE BASE (350X250X125) | NOS. | - |

| LIGHT POST SPECIFICATION AND QUANTITY | | | |
|---------------------------------------|---|------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QUNT. |
| 1. | 9.75 METRE LONG OCTAGONAL HOT DIP GALVANIZED POLE ON TYPE-2 | NOS. | - |

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

| | | |
|--|----------|-----------|
| LIGHTING LAYOUT MOHAMMAD NAGAR & HATIA BRIDGE | SCALE | SHEET NO. |
| | AS SHOWN | P-02 |



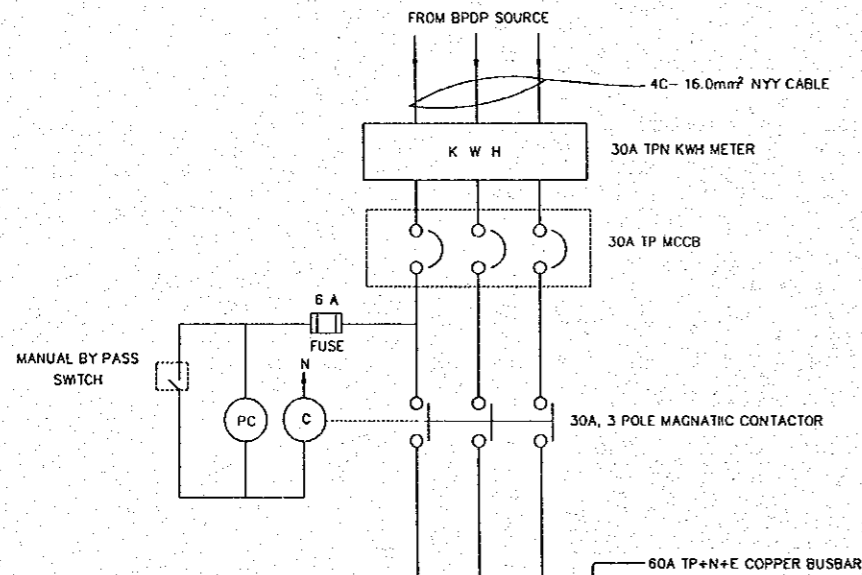
1 LAYOUT PLAN OF BATIA GHATA INTERSECTION & HATIA BRIDGE
SCALE NOT TO SCALE

LEGEND

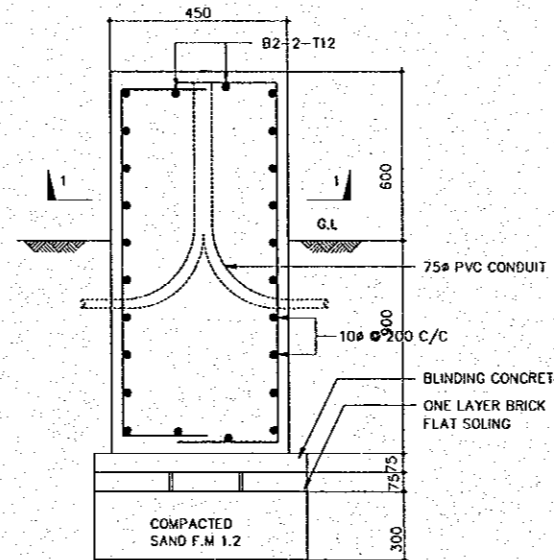
- DB DISTRIBUTION BOARD (OUTDOOR TYPE)
- TXR 11/0.4 KV TRANSFORMER
- MCCB/MCB
- 11 KV OVER HEAD LINE
- LT. CABLE ROUTE
- L LIGHT POLE (TYPE-2)
- PC PHOTO CELL

NOTES:

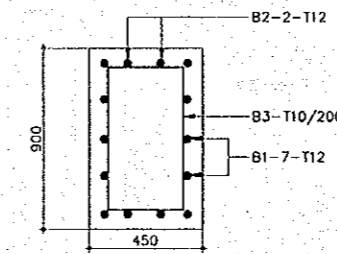
1. ALL LIGHT SHALL BE HIGH PRESSURE SODIUM 150 WATT TUBULAR PHILIPS MODEL NO. SGS 102/150T OR SIEMENS MODEL NO. SNA395-2-IPY OR APPROVED EQUIVALENT.
2. MOUNTING BRACKETS MUST BE FABRICATED AS PER DRAWING & STANDERD SPECIFICATION ACCORDING TO BS 5649 PART-2 1978.
3. FOR DETAIL OF LIGHT POLE (TYPE-2) REFER DRG. NO. P-03
4. FOR DETAILS OF POLE BASE FOUNDATION (TYPE-2) REFERS TO DRG. NO. P-10
5. FOR DETAILS OF LIGHT POLE ON BRIDGE REFER TO DRG. NO. L-10A, L-10A
6. ALL STEEL WORK TO BE HOT DIP GALVANIZED IN ACCORDING WITH THE SPECIFICATION.
7. LIGHT POLE (TYPE-1) AND (TYPE-2) ARE APPLICABLE FOR BRIDGE AND ROAD RESPECTIVELY.
8. FOR DETAILS OF LIGHT POLE (TYPE-1) REFER TO DRG. NO. J-42
9. CABLE FOR ROAD LIGHTING (POLE TO PLOE) WILL PASS THROUGH 75mm PVC DUCT.



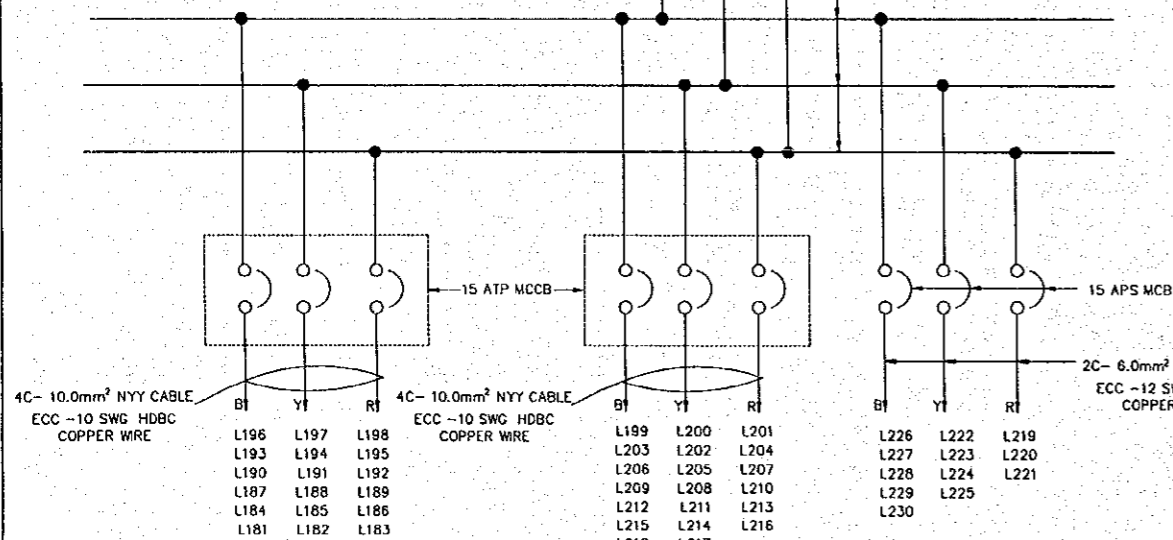
2 DB-1 DETAIL
SCALE NOT TO SCALE



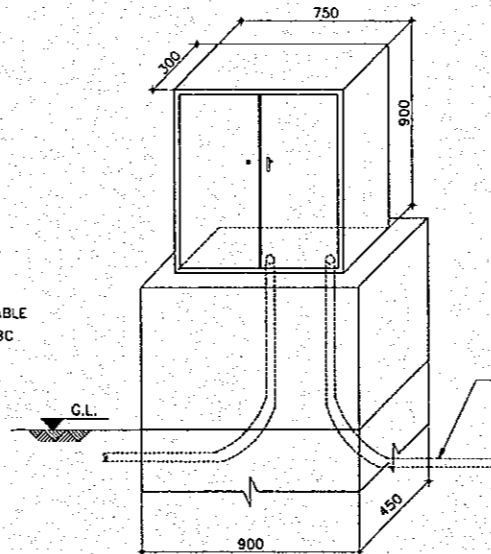
4 REINF. DETAIL OF DB BASE
SCALE NOT TO SCALE



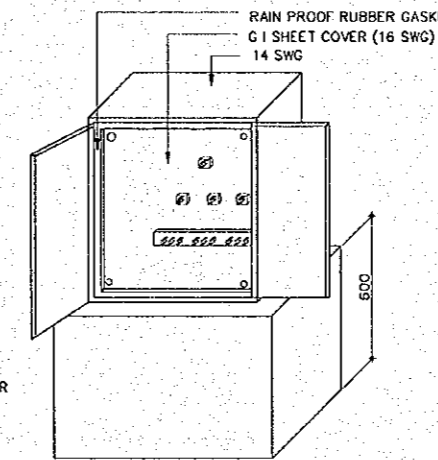
5 SECTION 1-1
SCALE NOT TO SCALE



3 TYPICAL LV DISTRIBUTION BOARD FOR LIGHT CONTROL
SCALE NOT TO SCALE



3 TYPICAL LV DISTRIBUTION BOARD FOR LIGHT CONTROL
SCALE NOT TO SCALE



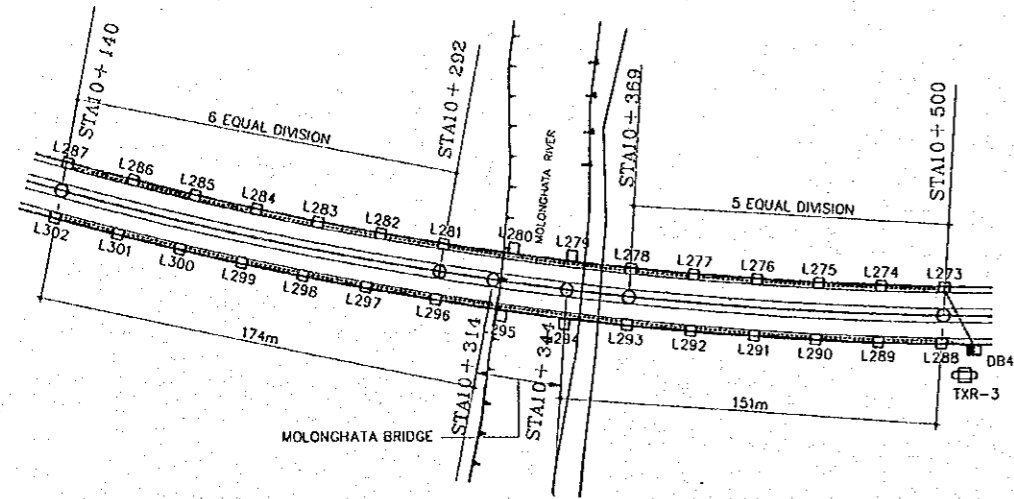
| CABLE SPECIFICATION AND QUANTITY | | | |
|----------------------------------|---|------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QANT. |
| 1. | 2C-2.5mm² NYY EQUIVALENT TO EASTERN/ PARADISE CABLE FOR LUMINAIRE TO JUNCTION BOX | km | - |
| 2. | 4C-16.0mm² NYY EQUIVALENT TO EASTERN/ PARADISE CABLE | km | - |
| 3. | ECC CONDUCTOR NO. 12 SWG HDDB COPPER | km | - |
| 4. | ECC CONDUCTOR NO. 10 SWG HDDB COPPER | km | - |
| 5. | 4C-10.0mm² NYY EASTERN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 6. | 2C-6.0mm² NYY EASTERN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 7. | LT JUNCTION BOX MADE OF GALVANIZED STEEL FOR LIGHT POLE BASE (350X250X125) | NOS. | - |

| LIGHT POST SPECIFICATION AND QUANTITY | | | |
|---------------------------------------|---|------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QUNT. |
| 1. | 9.75 METRE LONG OCTAGONAL HOT DIP GALVANIZED POLE ON TYPE-2 | NOS. | - |

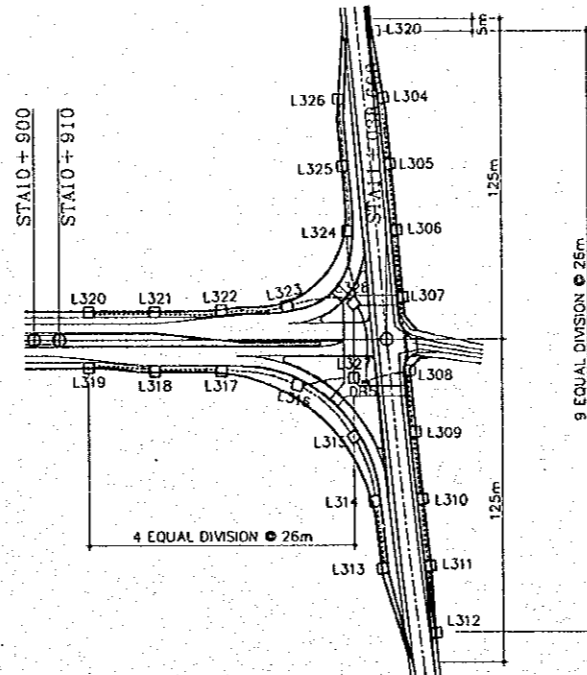
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LIGHTING LAYOUT
MOLONGHATA BRIDGE & TEELOK

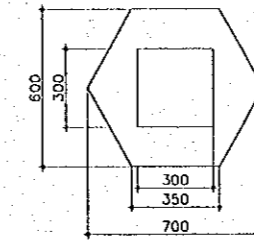
SCALE AS SHOWN
SHEET NO. P-03



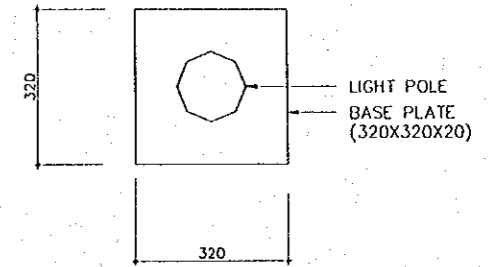
1 LIGHTING LAYOUT PLAN OF
MOLONGHATA BRIDGE & APPROACH ROAD
P-03 SCALE NOT TO SCALE



3 LIGHTING LAYOUT PLAN OF
KHULNA-MONGLA INTERSECTION
P-03 SCALE NOT TO SCALE



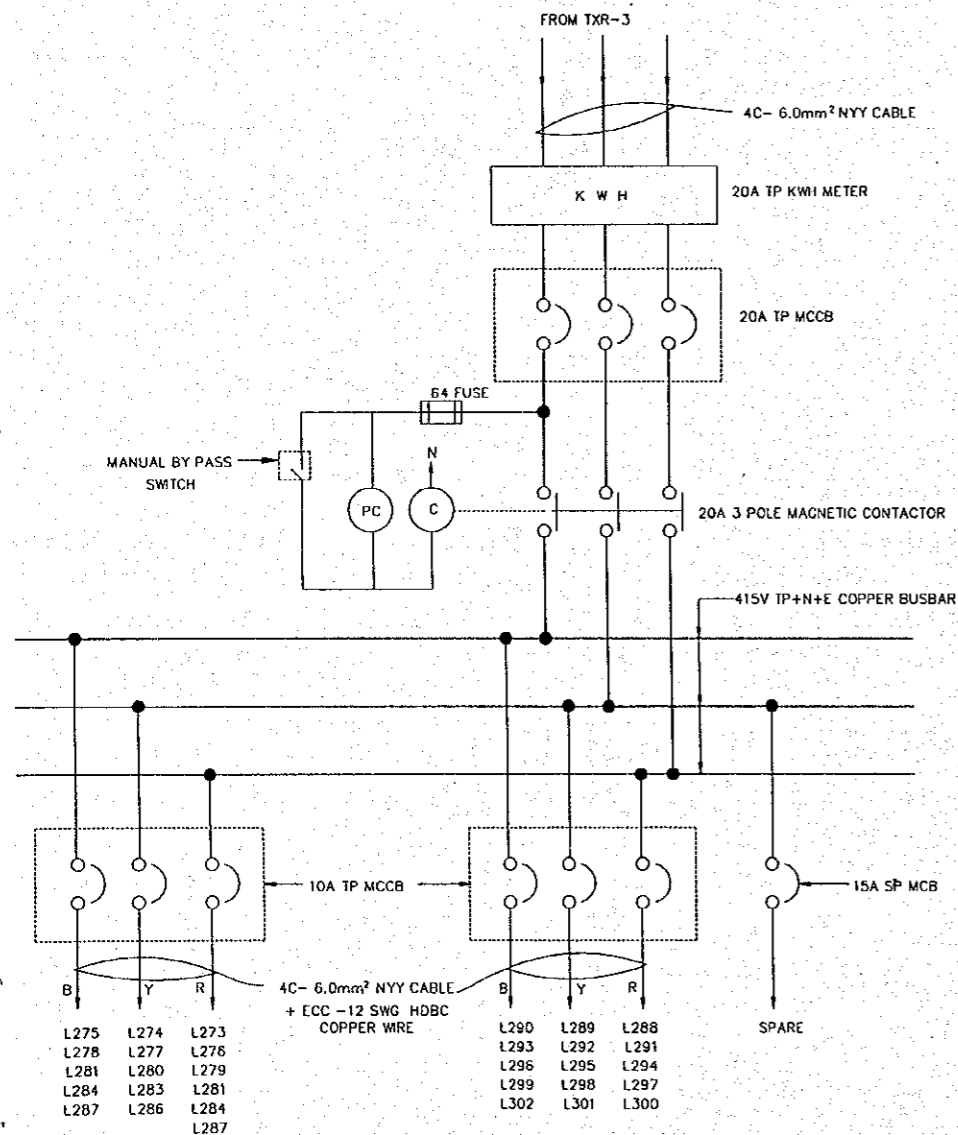
6 PLAN AT LEVEL-B
P-03 SCALE NOT TO SCALE



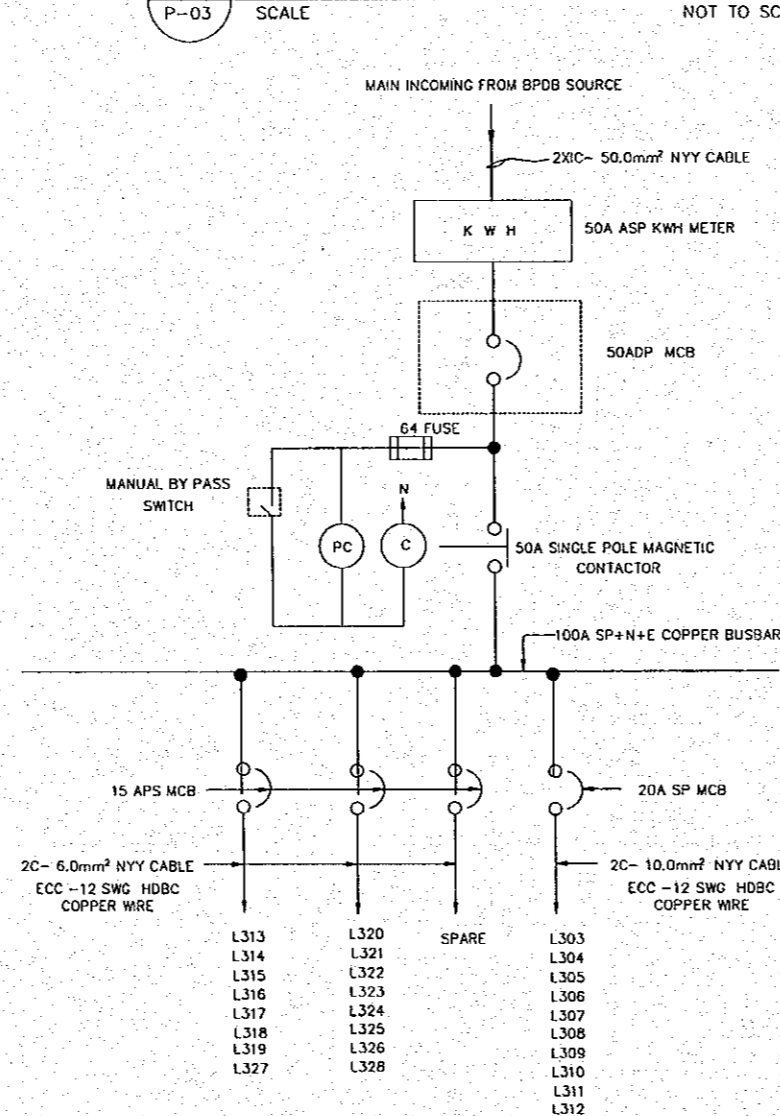
7 PLAN AT LEVEL-C
P-03 SCALE NOT TO SCALE

NOTES:

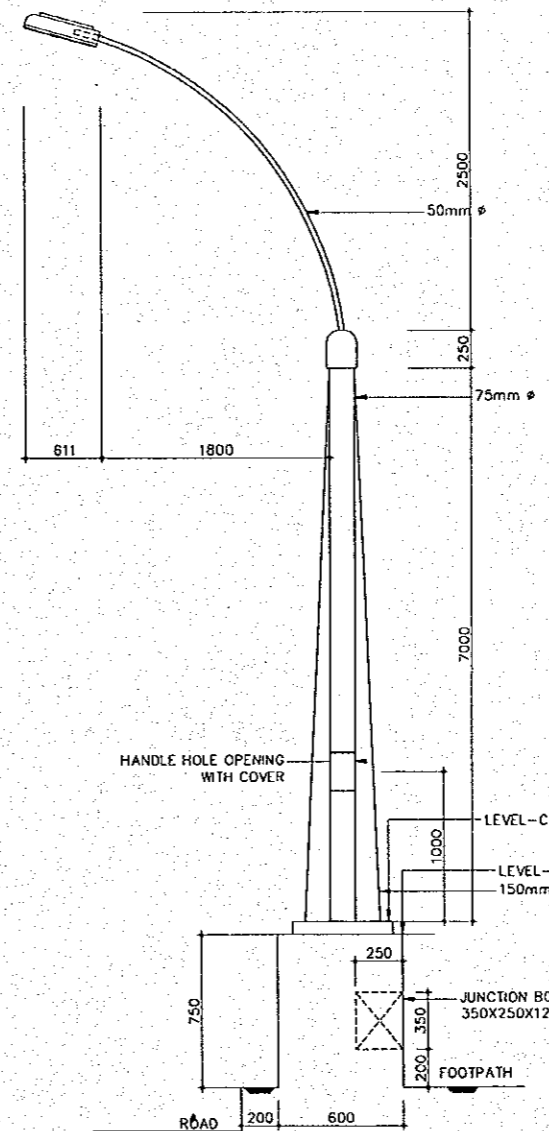
- ALL LIGHT SHALL BE HIGH PRESSURE SODIUM 150 WATT TUBULAR PHILLIPS MODEL NO. SGS 102/150T. OR SIEMENS MODEL NO. SNA395-2-IPT.
- L327 AND L328 ARE 2 ARM WITH TWO LUMINAIRES RATED TO 150 WATT
- MOUNTING BRACKETS MUST BE FABRICATED AS PER DRAWING & STANDERD SPECIFICATION ACCORDING TO BS 5649 PART-2 1978.
- FOR DETAIL OF DB REFER TO DRG. NO. P-02
- FOR LEGEND REFER TO DRG. NO. P-02
- FOR DETAILS OF POLE BASE FOUNDATION (TYPE-2) REFER TO DRG. NO. P-01
- ALL STEEL WORK TO BE HOT DIP GALVANIZED IN ACCORDING WITH THE SPECIFICATION.
- FOR DETAIL OF LIGHT POLE ON BRIDGE DECK REFER TO DRG. NO. L-18, L-19.
- LIGHT POLE TYPE-1 AND TYPE-2 ARE APPLICABLE FOR BRIDGE AND ROAD RESPECTIVELY.
- FOR DETAIL OF LIGHT POLE TYPE-1 REFER TO DRG. NO. J-42



2 DB-4 DETAIL
MOLONGHATA BRIDGE
P-03 SCALE NOT TO SCALE



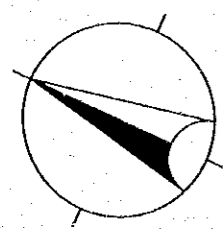
4 DB-5 DETAIL
P-03 SCALE NOT TO SCALE



5 LIGHT COLUMN DETAIL
(TYPE-2)
P-03 SCALE NOT TO SCALE

| CABLE SPECIFICATION AND QUANTITY | | | |
|----------------------------------|--|------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QANT. |
| 1. | 2C-2.5mm ² NYY EQUIVALENT TO EASTERN/ PARADISE CABLE FOR LUMINAIRES TO JUNCTION BOX | km | - |
| 2. | 2X50mm ² NYY EQUIVALENT TO EASTERN/ PARADISE CABLE | km | - |
| 3. | ECC CONDUCTOR NO. 12 SWG HD8C COPPER | km | - |
| 4. | 11 KV OVER HEAD LINE CONSTRUCTION | km | - |
| 5. | HEAT SHRINK CABLE TERMINATION KIT. | SET. | - |
| 6. | 4C-6.0mm ² NYY EASTERN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 7. | 2C-6.0mm ² NYY EASTERN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 8. | 2C-10.0mm ² NYY EASTERN/ PARADISE OR APPROVED EQUIVALENT | m | - |
| 9. | LT JUNCTION BOX MADE OF GALVANIZED STEEL FOR LIGHT POLE BASE (350X250X125) | NOS. | - |

| LIGHT POST SPECIFICATION AND QUANTITY | | | |
|---------------------------------------|--|------|-------|
| ITEM NO. | DESCRIPTION | UNIT | QUNT. |
| 1. | 9.75 METRE LONG OCTAGONAL HOT DIP GALVANIZED POLE ON TYPE-2 | NOS. | - |
| 2. | 8 METRE LONG TWO STEPPED HOT DIP GALVANIZED POLE FOR TRANSFORMER | NOS. | - |



THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
KRISHNAGAR

| | |
|-------|-----------|
| SCALE | SHEET NO. |
| 1:500 | P-04 |

STA. 1 + 000

STA. 1 + 050

STA. 1 + 100

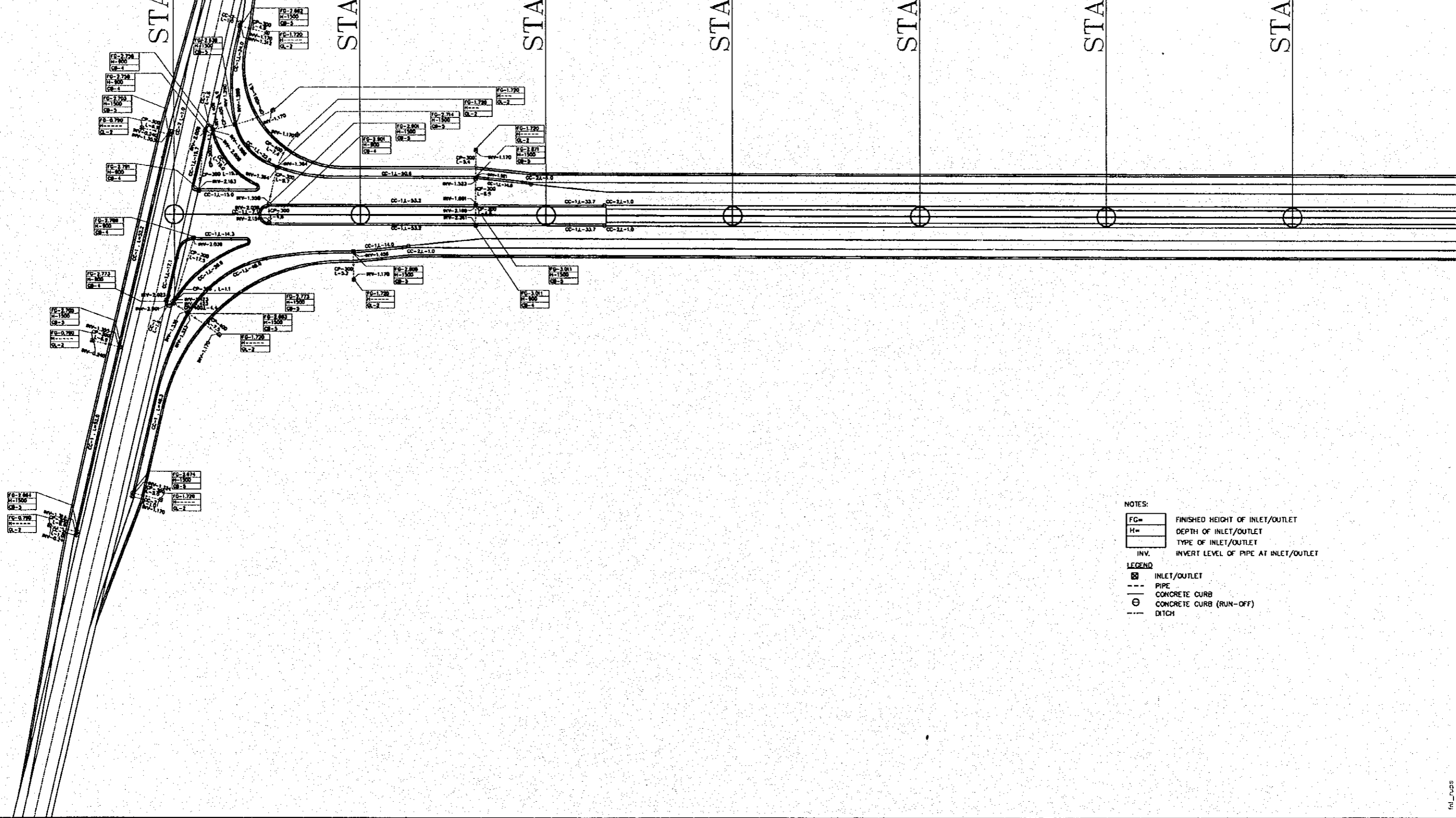
STA. 1 + 150

STA. 1 + 200

STA. 1 + 250

STA. 1 + 300

SATKHIRA ROAD



- NOTES:
- FC= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - TYPE OF INLET/OUTLET
 - INV. INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - CONCRETE CURB (RUN-OFF)
 - DITCH

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
MOHAMMAD NAGAR (1)

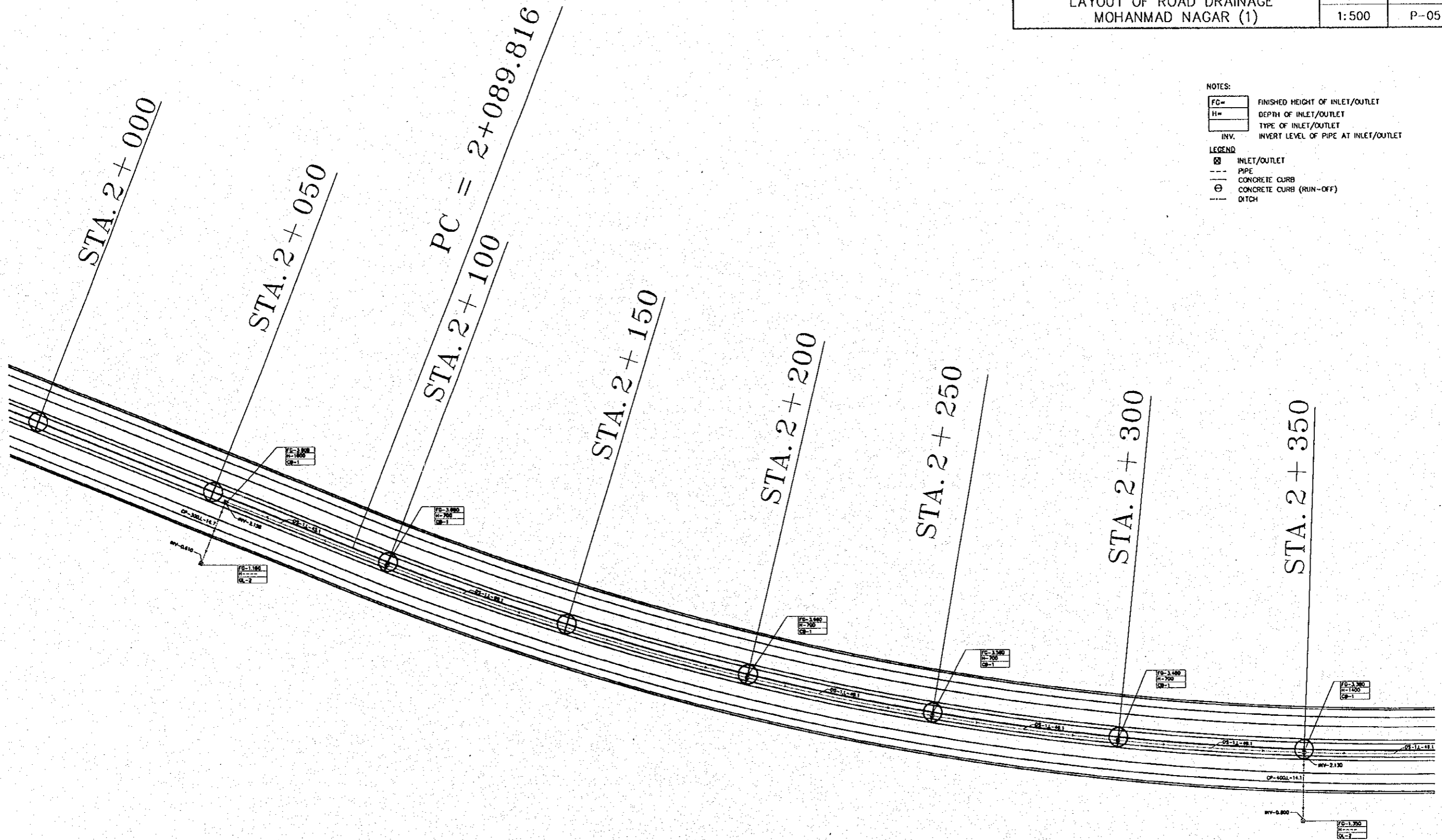
| | |
|-------|-----------|
| SCALE | SHEET NO. |
| 1:500 | P-05 |

NOTES:

| | |
|------|--------------------------------------|
| FC= | FINISHED HEIGHT OF INLET/OUTLET |
| H= | DEPTH OF INLET/OUTLET |
| INVT | INVERT LEVEL OF PIPE AT INLET/OUTLET |

LEGEND

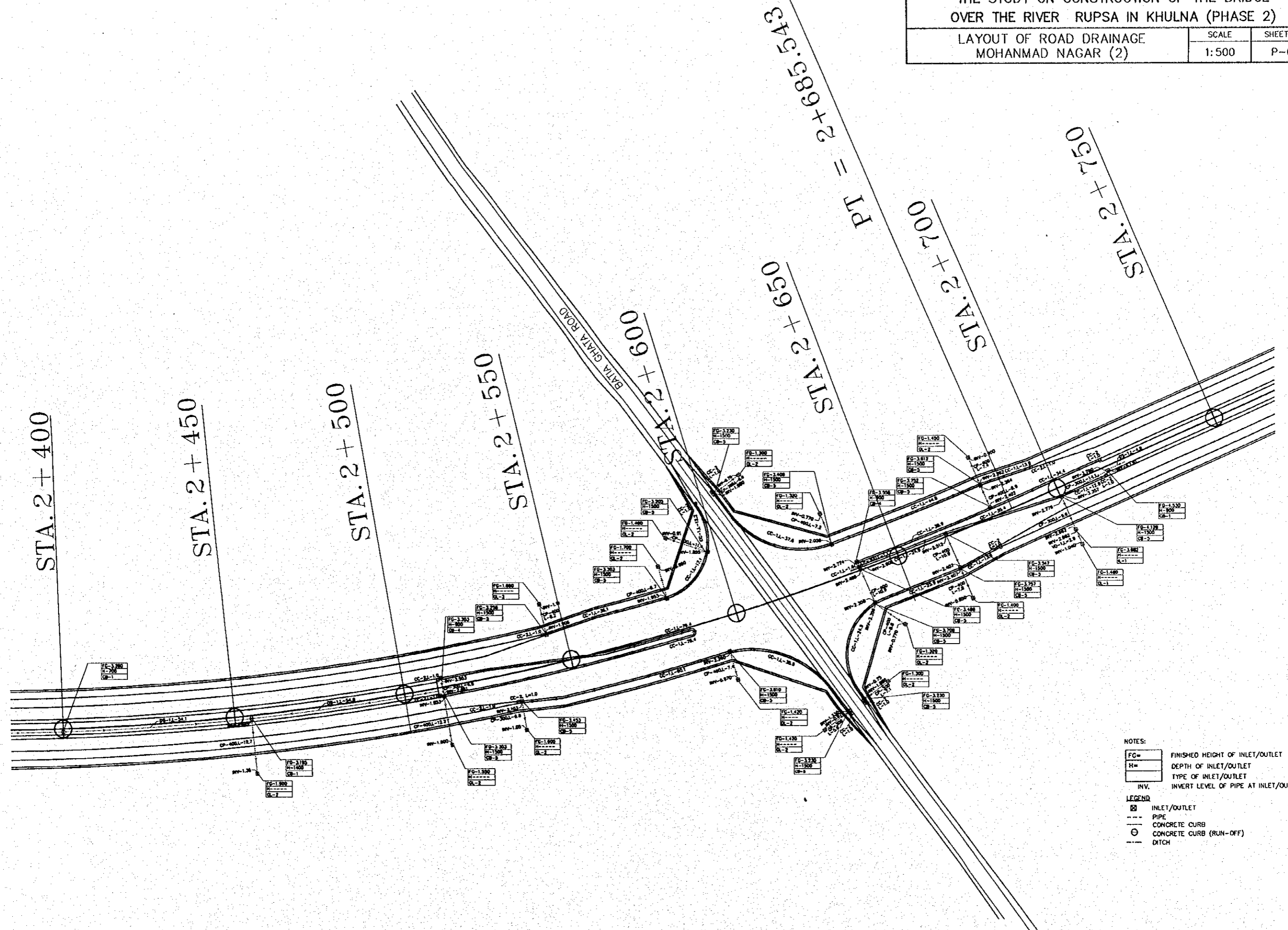
| | |
|-----|-------------------------|
| ⊗ | INLET/OUTLET |
| --- | PIPE |
| ⊖ | CONCRETE CURB |
| ⊖ | CONCRETE CURB (RUN-OFF) |
| --- | DITCH |



THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
MOHAMMAD NAGAR (2)

| | |
|-------|-----------|
| SCALE | SHEET NO. |
| 1:500 | P-06 |

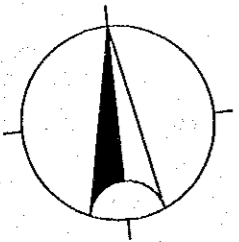


- NOTES:
- FC= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - INVT. TYPE OF INLET/OUTLET
 - INV. INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - CONCRETE CURB (RUN-OFF)
 - DITCH

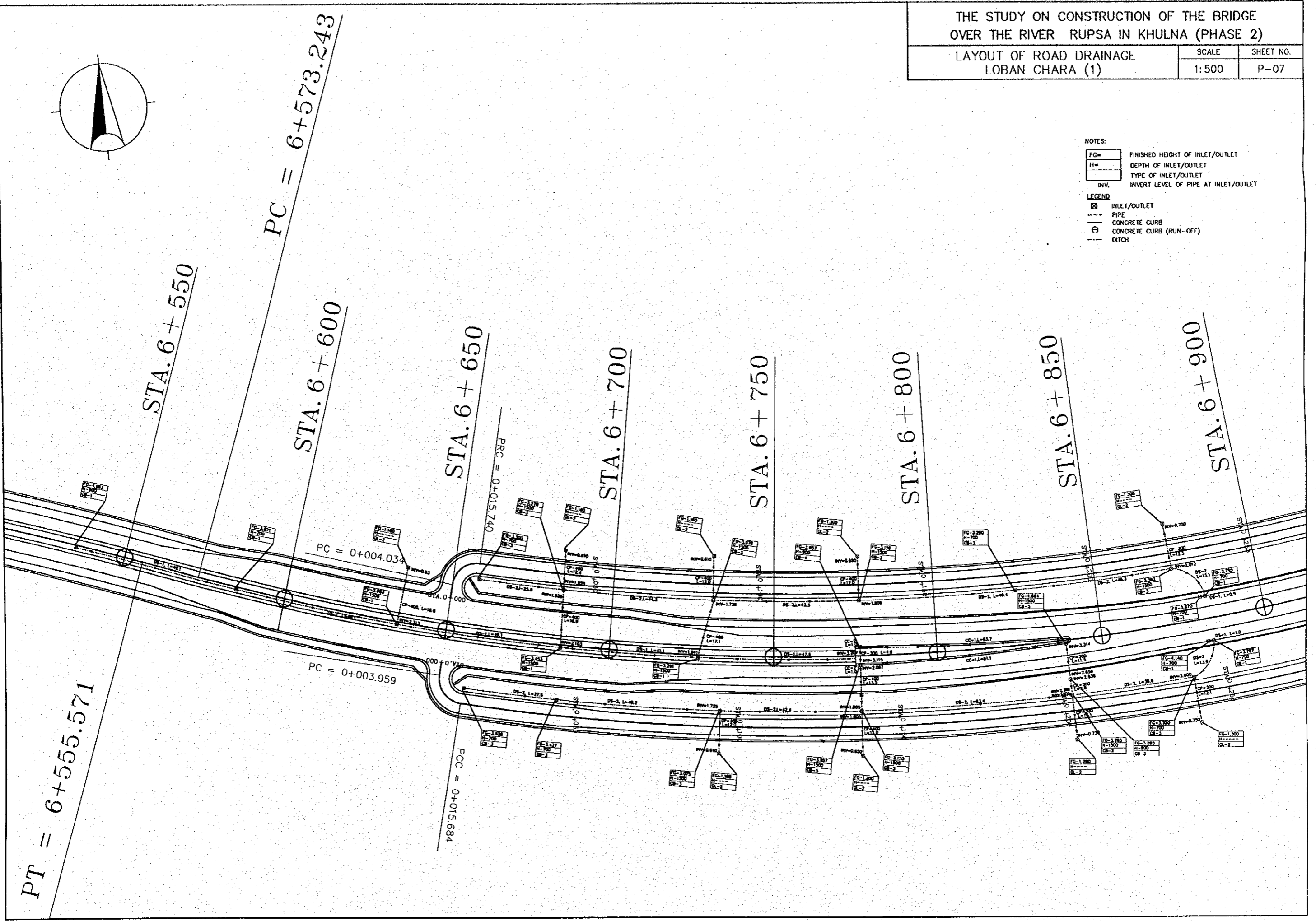
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
LOBAN CHARA (1)

SCALE 1:500
SHEET NO. P-07



- NOTES:
- FC= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - TYPE OF INLET/OUTLET
 - INV. INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- ☐ INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - ⊖ CONCRETE CURB (RUN-OFF)
 - DITCH

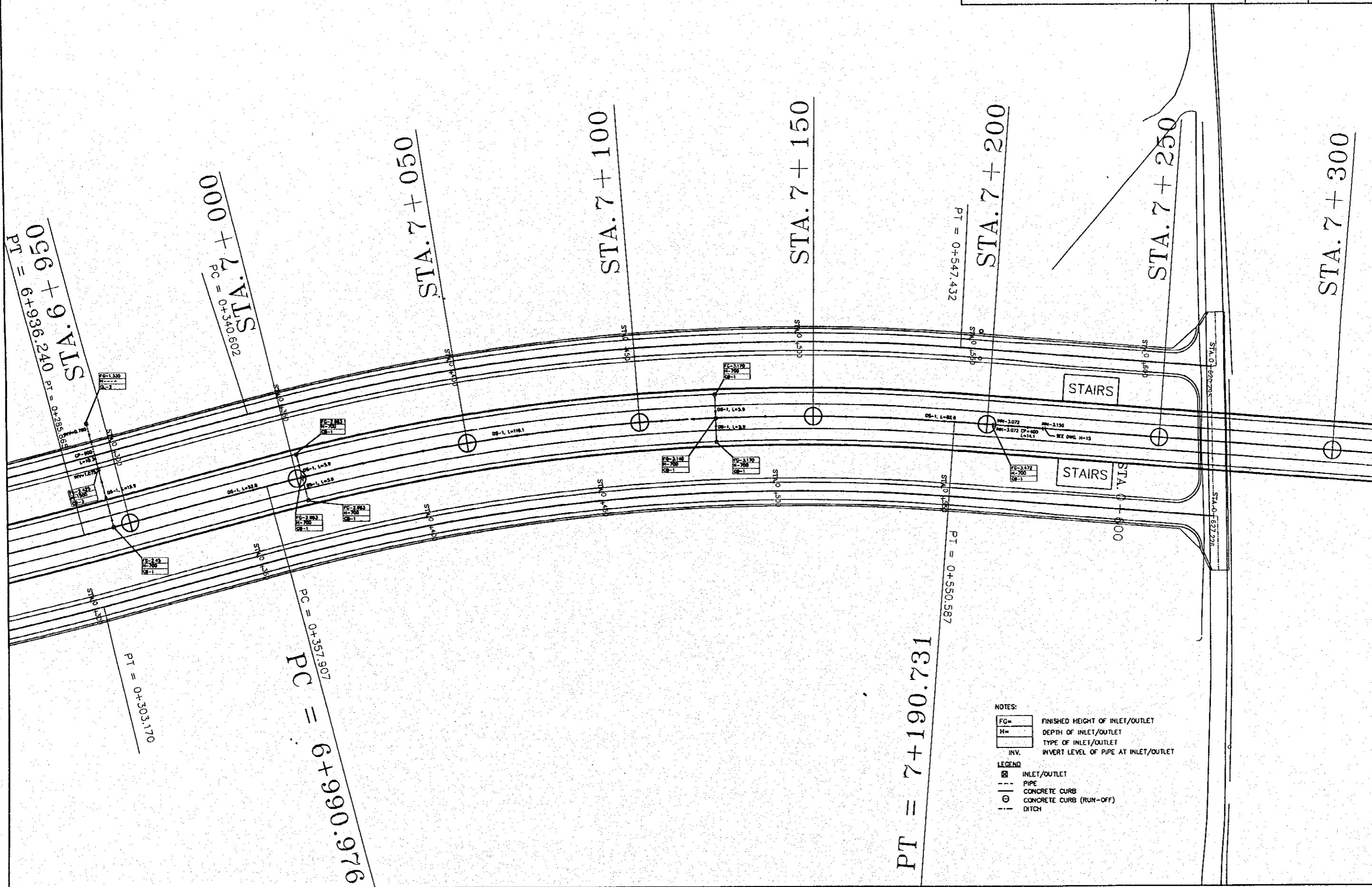


THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
LOBAN CHARA (2)

SCALE
1:500

SHEET NO.
P-08



NOTES:
 FG= FINISHED HEIGHT OF INLET/OUTLET
 H= DEPTH OF INLET/OUTLET
 TYPE OF INLET/OUTLET
 INV. INVERT LEVEL OF PIPE AT INLET/OUTLET

LEGEND
 [Symbol] INLET/OUTLET
 [Symbol] PIPE
 [Symbol] CONCRETE CURB
 [Symbol] CONCRETE CURB (RUN-OFF)
 [Symbol] DITCH

PT = 7+190.731

PC = 6+990.976

PT = 0+303.170

THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
CHAR RUPSA (1)

SCALE
1:500

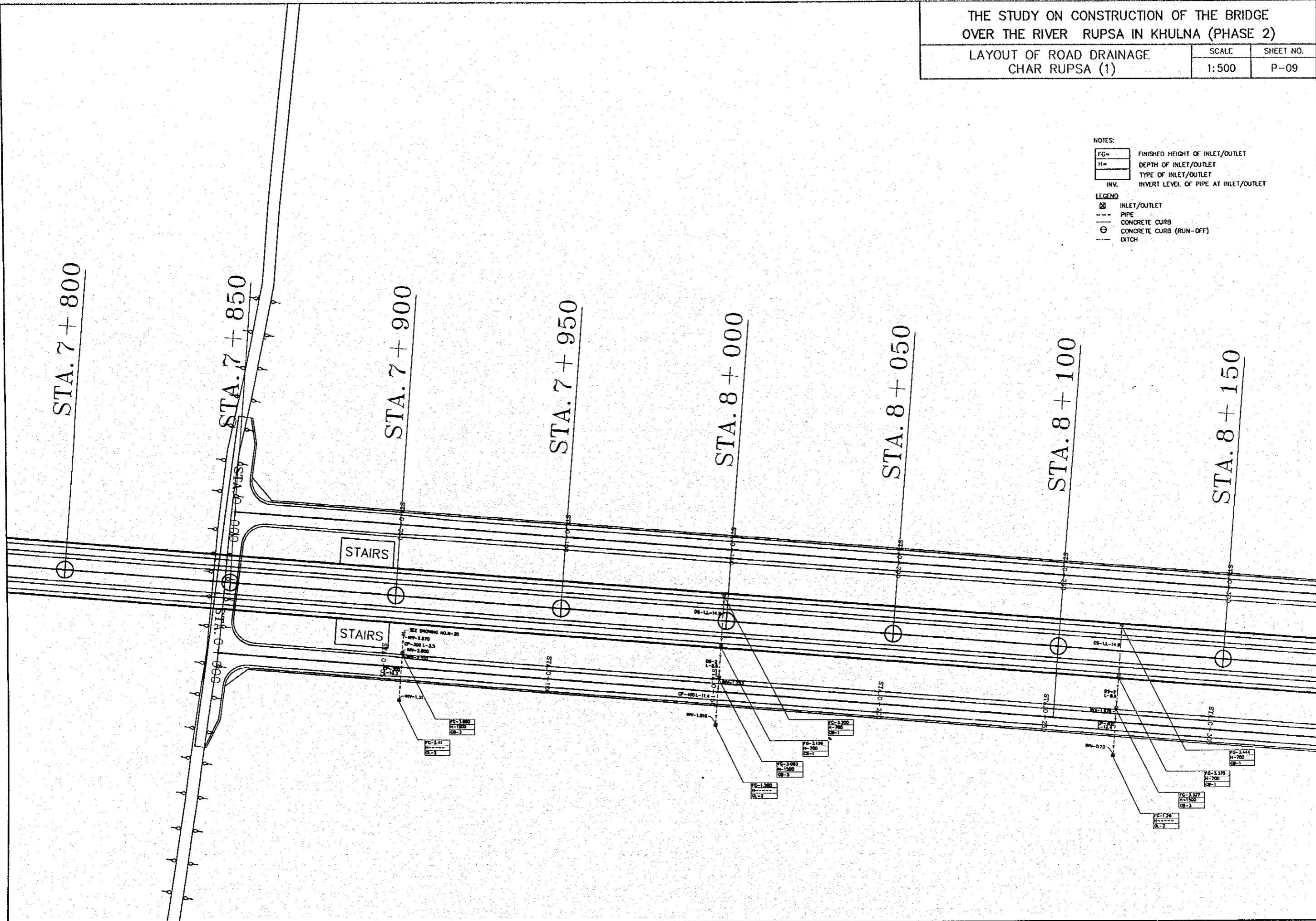
SHEET NO.
P-09

NOTES:

- FG= FINISHED HEIGHT OF INLET/OUTLET
- H= DEPTH OF INLET/OUTLET
- INVT. TYPE OF INLET/OUTLET
- INVT. INVERT LEVEL OF PIPE AT INLET/OUTLET

LEGEND

- INLET/OUTLET
- PIPE
- CONCRETE CURB
- CONCRETE CURB (RUN-OFF)
- DITCH

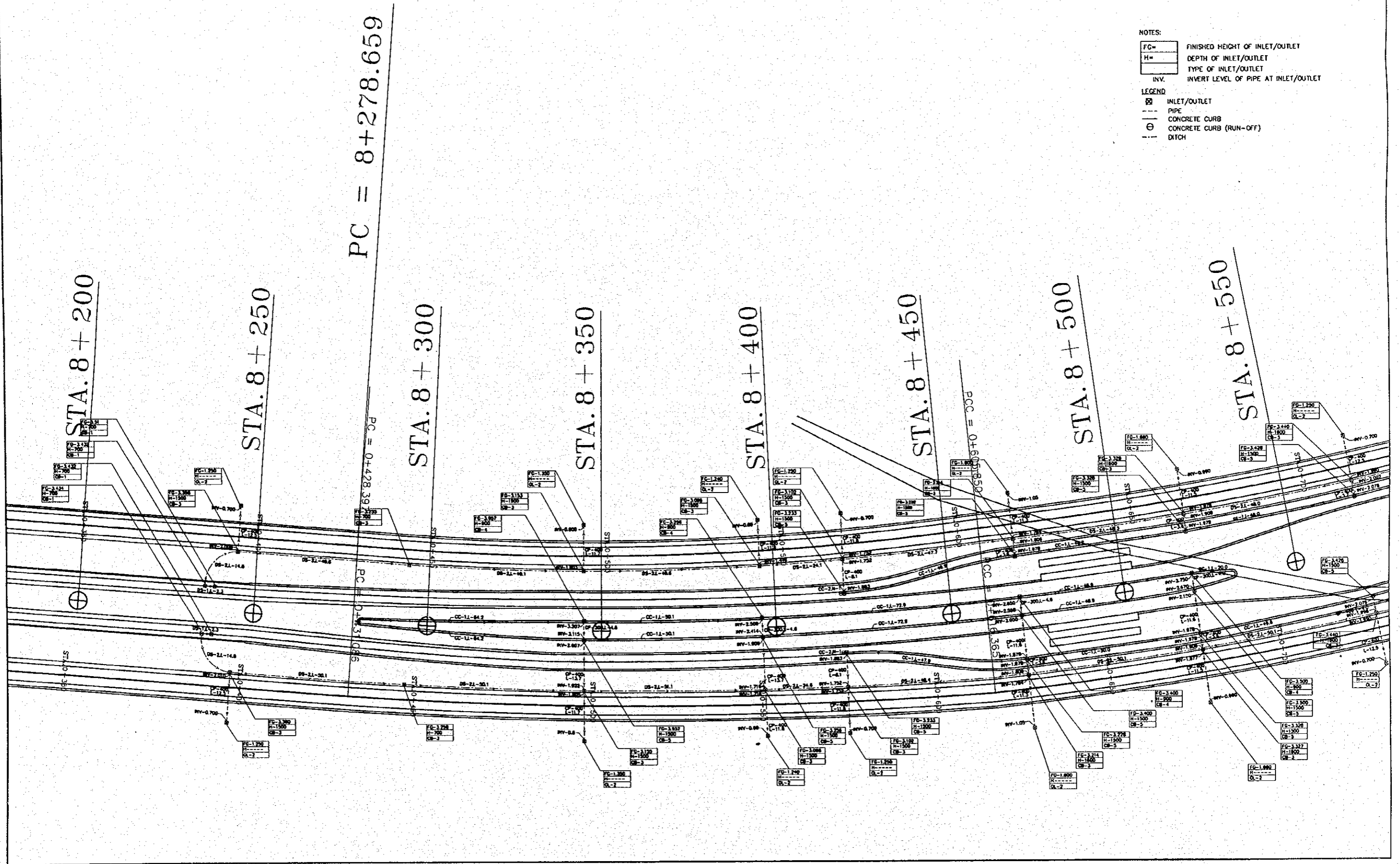


THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
CHAR RUPSA (2)

SCALE 1:500
SHEET NO. P-10

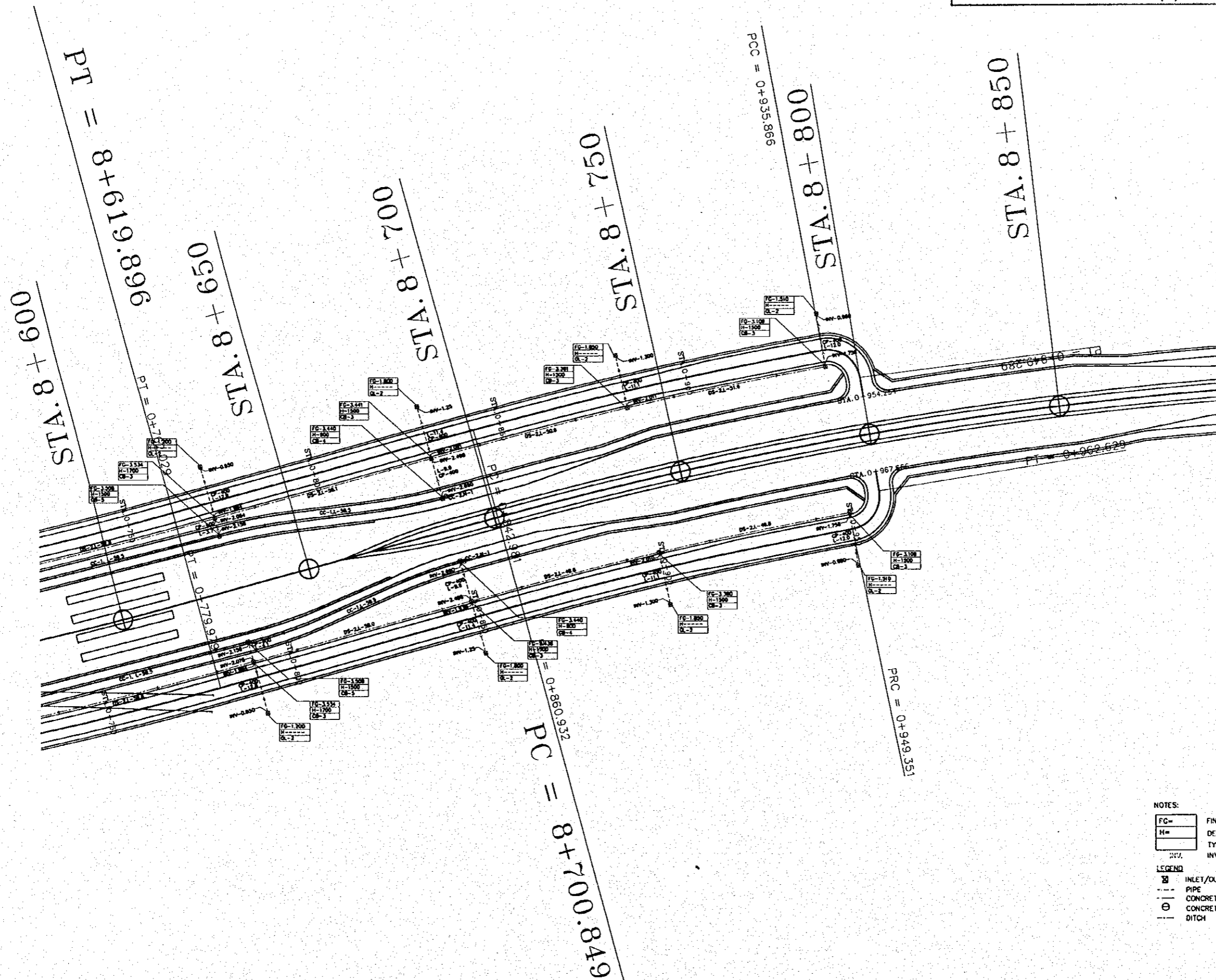
- NOTES:
- FC= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - TYPE OF INLET/OUTLET
 - INV. INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- ⊕ INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - ⊖ CONCRETE CURB (RUN-OFF)
 - DITCH



THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
CHAR RUPSA (3)

| SCALE | SHEET NO. |
|-------|-----------|
| 1:500 | P-11 |

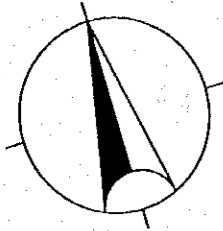


- NOTES:
- FC= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - INLET/OUTLET TYPE OF INLET/OUTLET
 - INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - CONCRETE CURB (RUN-OFF)
 - DITCH

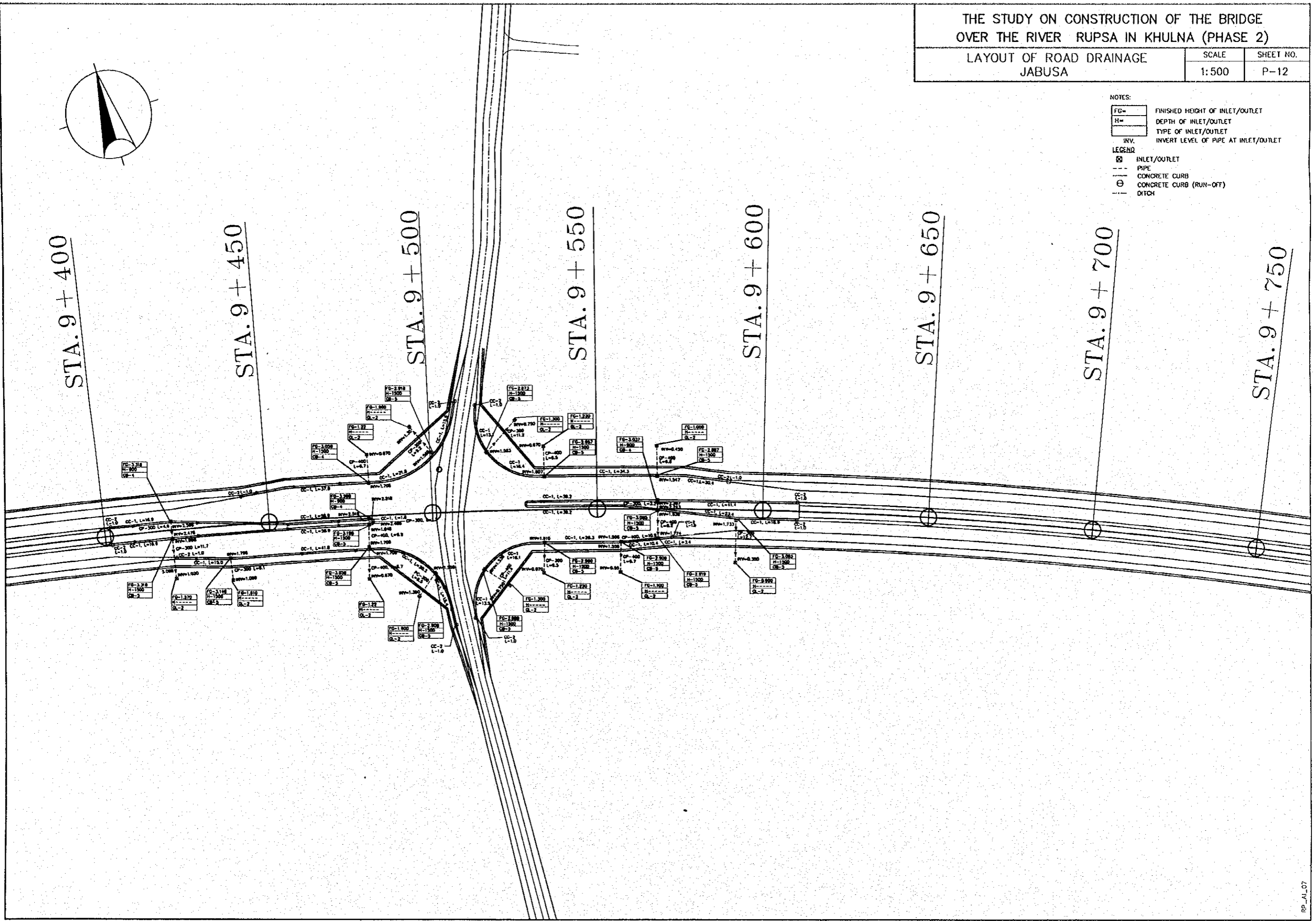
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
JABUSA

| | |
|-------|-----------|
| SCALE | SHEET NO. |
| 1:500 | P-12 |



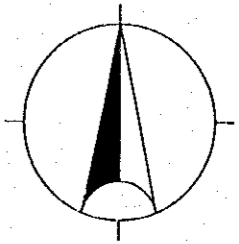
- NOTES:
- FG= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - TYPE OF INLET/OUTLET
 - INV. INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- ⊠ INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - ⊕ CONCRETE CURB (RUN-OFF)
 - DITCH



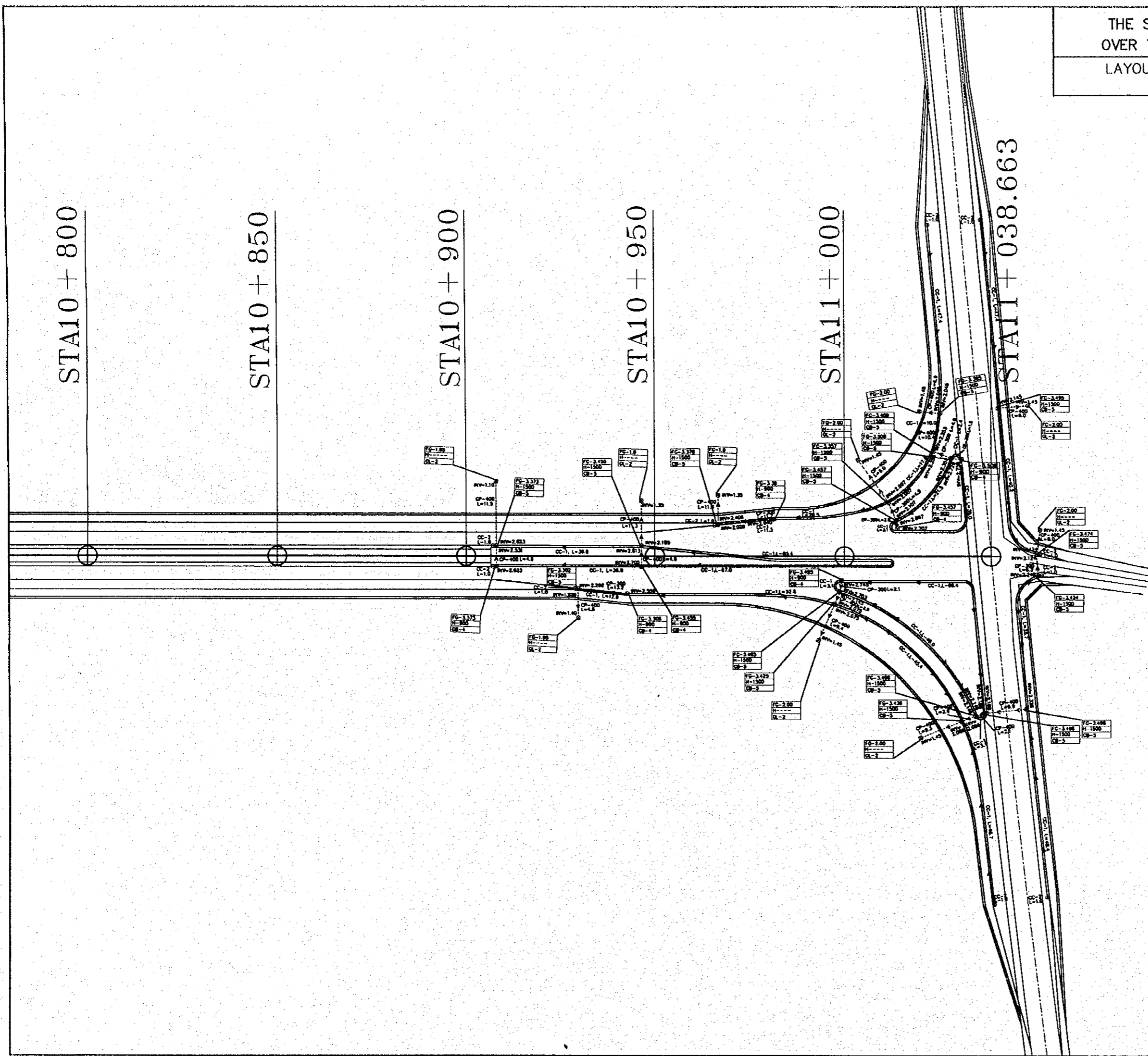
THE STUDY ON CONSTRUCTION OF THE BRIDGE
OVER THE RIVER RUPSA IN KHULNA (PHASE 2)

LAYOUT OF ROAD DRAINAGE
TEELOK

| | |
|-------|-----------|
| SCALE | SHEET NO. |
| 1:500 | P-13 |



- NOTES:
- FC= FINISHED HEIGHT OF INLET/OUTLET
 - H= DEPTH OF INLET/OUTLET
 - TYPE OF INLET/OUTLET
 - INV. INVERT LEVEL OF PIPE AT INLET/OUTLET
- LEGEND
- ⊗ INLET/OUTLET
 - PIPE
 - CONCRETE CURB
 - ⊖ CONCRETE CURB (RUN-OFF)
 - - - DITCH



JICA