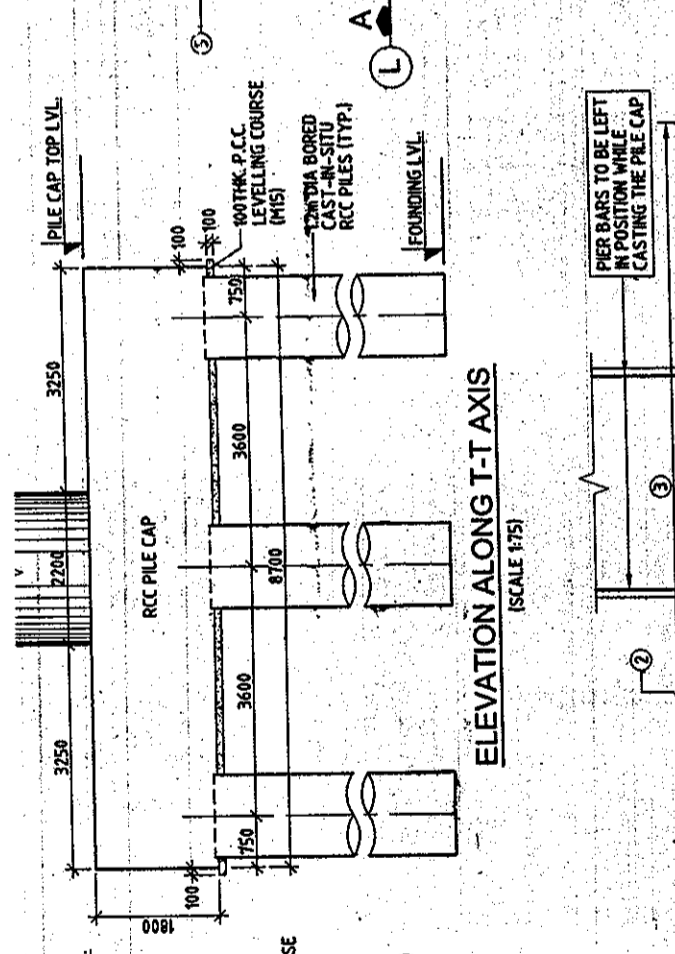
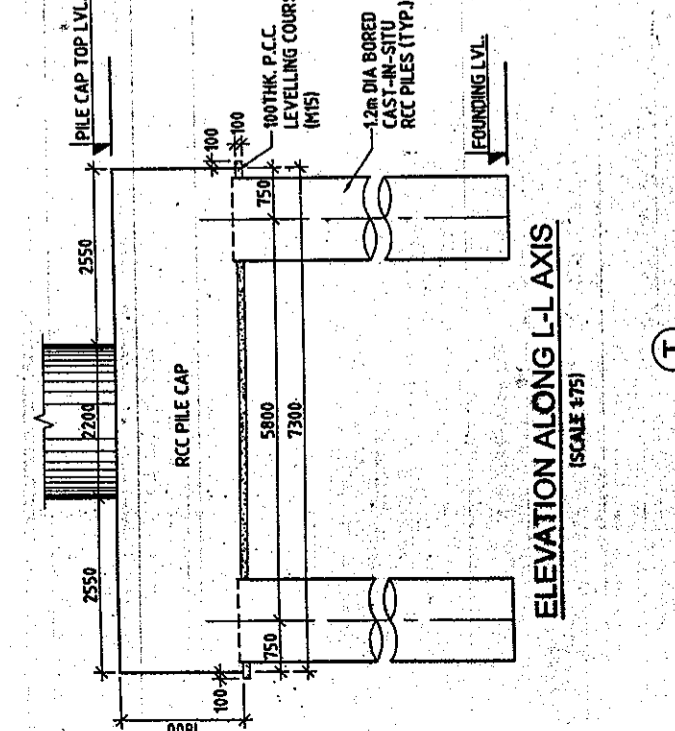


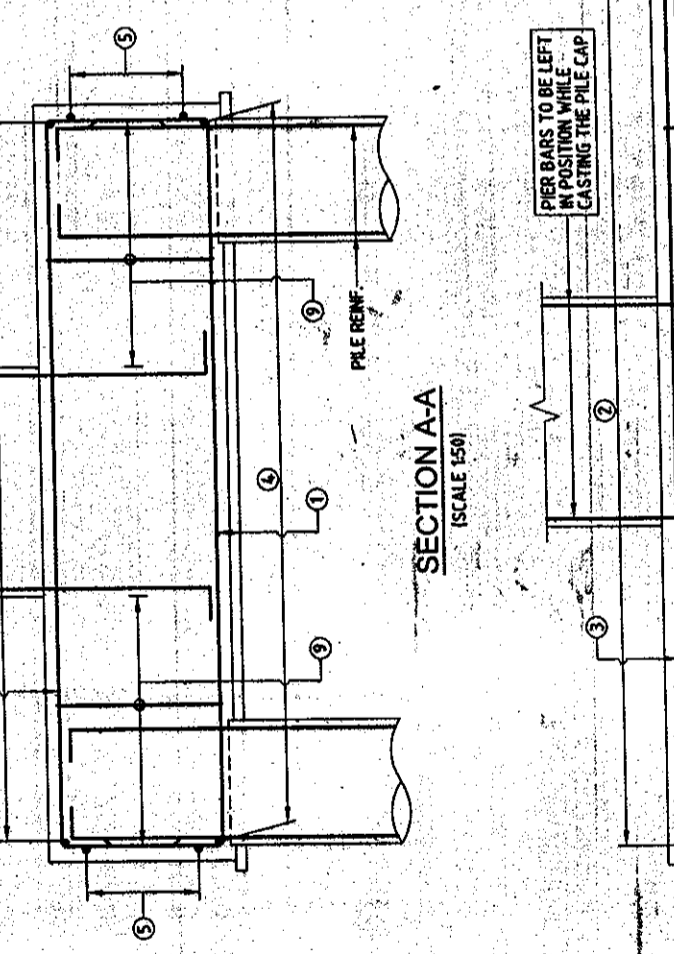
**PLAN**  
(SHOWING PILE CAP REINFORCEMENT)  
(SCALE 1/75)



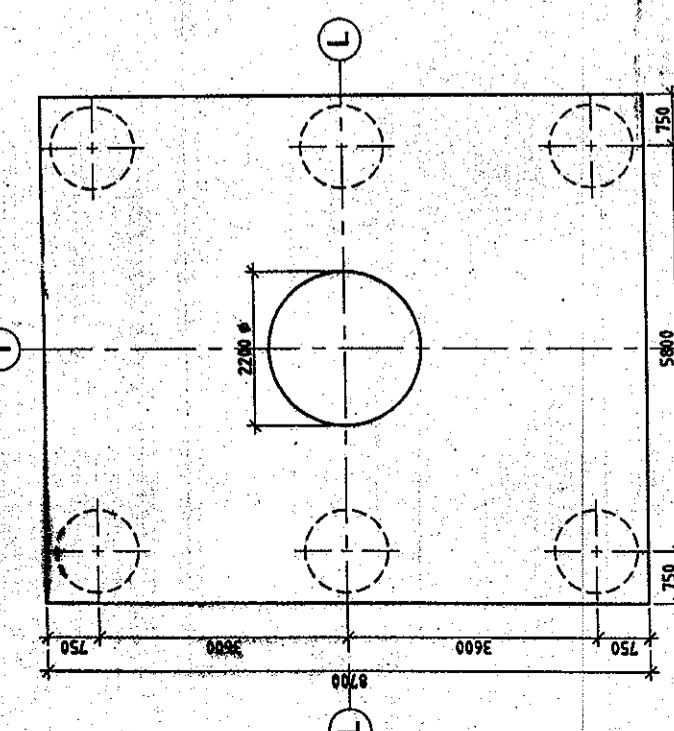
**ELEVATION ALONG T-T AXIS**  
(SCALE 1/75)



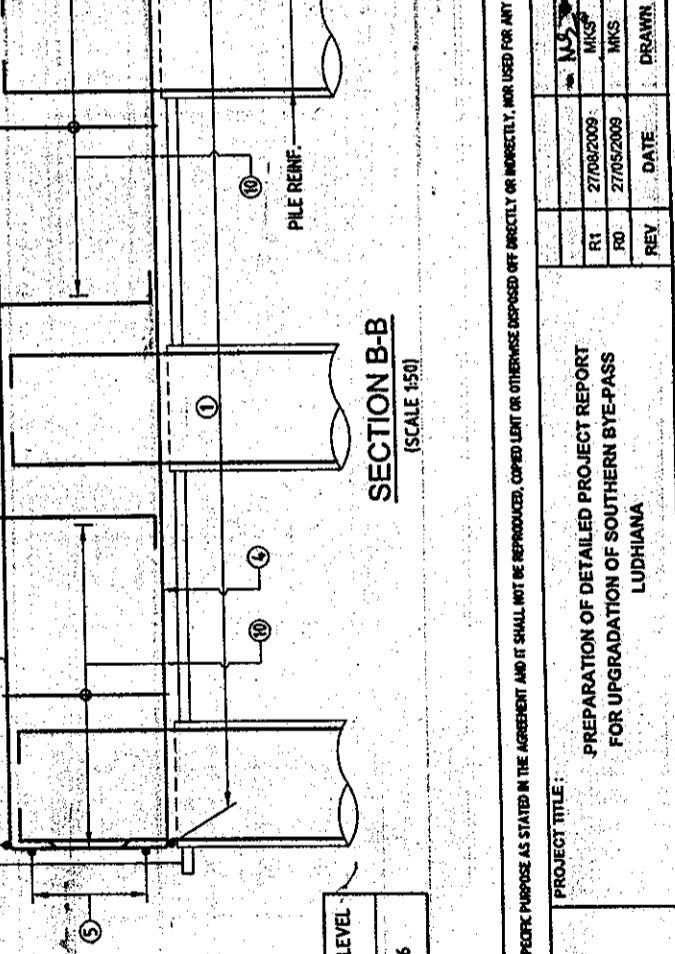
**ELEVATION ALONG L-L AXIS**  
(SCALE 1/75)



**SECTION A-A**  
(SCALE 1/50)



**SECTION B-B**  
(SCALE 1/50)



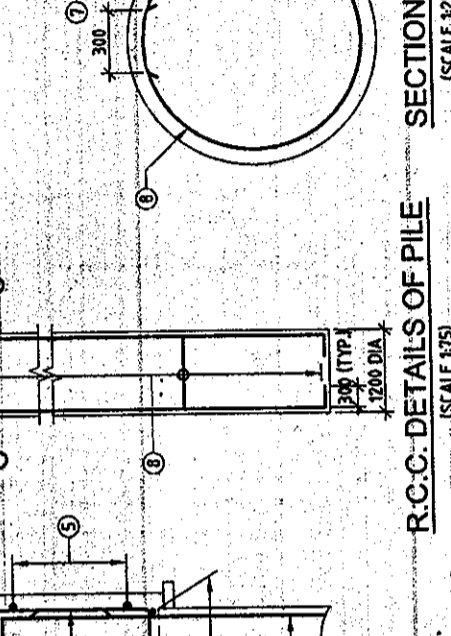
**PLAN AT TOP OF PILE CAP**  
(SHOWING DIMENSIONS)  
(SCALE 1/75)

**LEVEL CHART FOR PILE CAP LAYOUT**

PIER DESIGNATION	BED LEVEL	TOP OF PILE CAP LEVEL	CUT OFF LEVEL	FOUNDING LEVEL
P14	246.566	246.066	244.316	230.616

**REINFORCEMENT DETAIL**

BAR MKD.	DIA (mm)	SPACING/Nos.	SHAPE
1	25	74 Nos.	└
2	16	150	└
3	16	150	└
4	25	68 Nos.	└
5	16	8 Nos.	└
7	25	32 Nos.	└
8	10	200	○
8a	10	100	○
9	16	150	▤ 1 LEGGED
10	16	150	▤ 6 LEGGED



**SECTION C-C**  
(SCALE 1/25)

- ALL DIMENSIONS ARE IN mm AND LEVELS IN METRES, UNLESS OTHERWISE MENTIONED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED. NO DIMENSION IS TO BE SCALED.
- CONCRETE SHALL BE DESIGN MIX WITH A MINIMUM 28 DAYS CHARACTERISTIC STRENGTH OF 35mpa FOR BORED CAST-IN-SITU PILE AND PILE CAP.
- CLEAR COVER TO SHALL BE AS FOLLOWS.  
(i) FOR PILE --- 75mm  
(ii) FOR PILE CAP --- 75mm
- TMT HIGH YIELD STRENGTH DEFORMED BARS SHALL BE OF GRADE DESIGNATION Fe-415 CONFORMING TO IS:1786 SHALL ONLY BE USED.
- MINIMUM BOND LENGTH SHALL BE 42 x DIA OF BAR.
- MINIMUM LAP LENGTH FOR REINFORCEMENT BAR SHALL BE 72 x DIA OF BAR. LAPS SHALL BE STAGGERED AND NOT MORE THAN 50% OF BARS SHALL BE LAPPED AT ANY ONE SECTION.
- L-L REPRESENTS LONGITUDINAL AXIS OF BRIDGE AND T-T REPRESENTS TRANSVERSE AXIS OF BRIDGE.
- ACTUAL LOAD TEST SHALL BE CARRIED OUT ON A TEST PILE AS PER STANDARD SPECIFICATIONS TO DETERMINE VERTICAL AND LATERAL CAPACITY OF PILE. IT SHALL HOWEVER BE ENSURED THAT IT IS NOT LESS THAN DESIGN VALUES.

**REFERENCE DRAWINGS:-**  
 i) 1213/SMEC/LUDHIANA/21-100/G-01 (SHEET 1 OF 7 TO 7 OF 7)  
 ii) 1213/SMEC/LUDHIANA/21-100/E-08 (SHEET 2 OF 2)

**LEGENDS:**  
 --- APPROVED FOR EXECUTION  
 PART OF THE WORK ISSUED

Assistant Engineer Design (IP)  
 Executive Engineer Design (IP)  
 Chief Engineer (IP)

PUNJAB P.W.D. (B & R)

**DETAILED PROJECT REPORT**  
 DIMENSIONAL & REINFT. DETAILS OF PILE, PILE CAP, PIER & PIER CAP

(SHEET 1 OF 2)  
 1213/SMEC/LUDHIANA/21-100/E-08 R1

**PREPARATION OF DETAILED PROJECT REPORT FOR UPGRADEATION OF SOUTHERN BYPASS LUDHIANA**

CONSULTANT: **SMEC**  
 SMC INDIA PVT. LTD.  
 DAF BUILDING, 5TH FLOOR,  
 CHANDIYA, PHASE-1, GURGAON,  
 HARYANA, INDIA-122002  
 TEL: 0124-430042, 430100

PROJECT TITLE: PREPARATION OF DETAILED PROJECT REPORT FOR UPGRADEATION OF SOUTHERN BYPASS LUDHIANA

REV	DATE	DRAWN	DESIGN	CHECKED	APPROVED	REVISIONS
R1	27/08/2009	MKS	VNM	VNM	SAHRI	REVISED AS PER PREPARED COMMENTS
R0	27/08/2009	MKS	VNM	VNM	SAHRI	FIRST ISSUE

DETAILS OF REVISION

SCALE: AS SHOWN  
 SHEET SIZE: A2  
 DPR: DRW: R1

**PIDB**  
 PUNJAB INFRASTRUCTURE DEVELOPMENT BOARD

CAO File Ref: H-1/Structure/VED/PMAL DPR/Revised Drawings R2 Feb. 01/10/08 04211-00 E-08.dwg