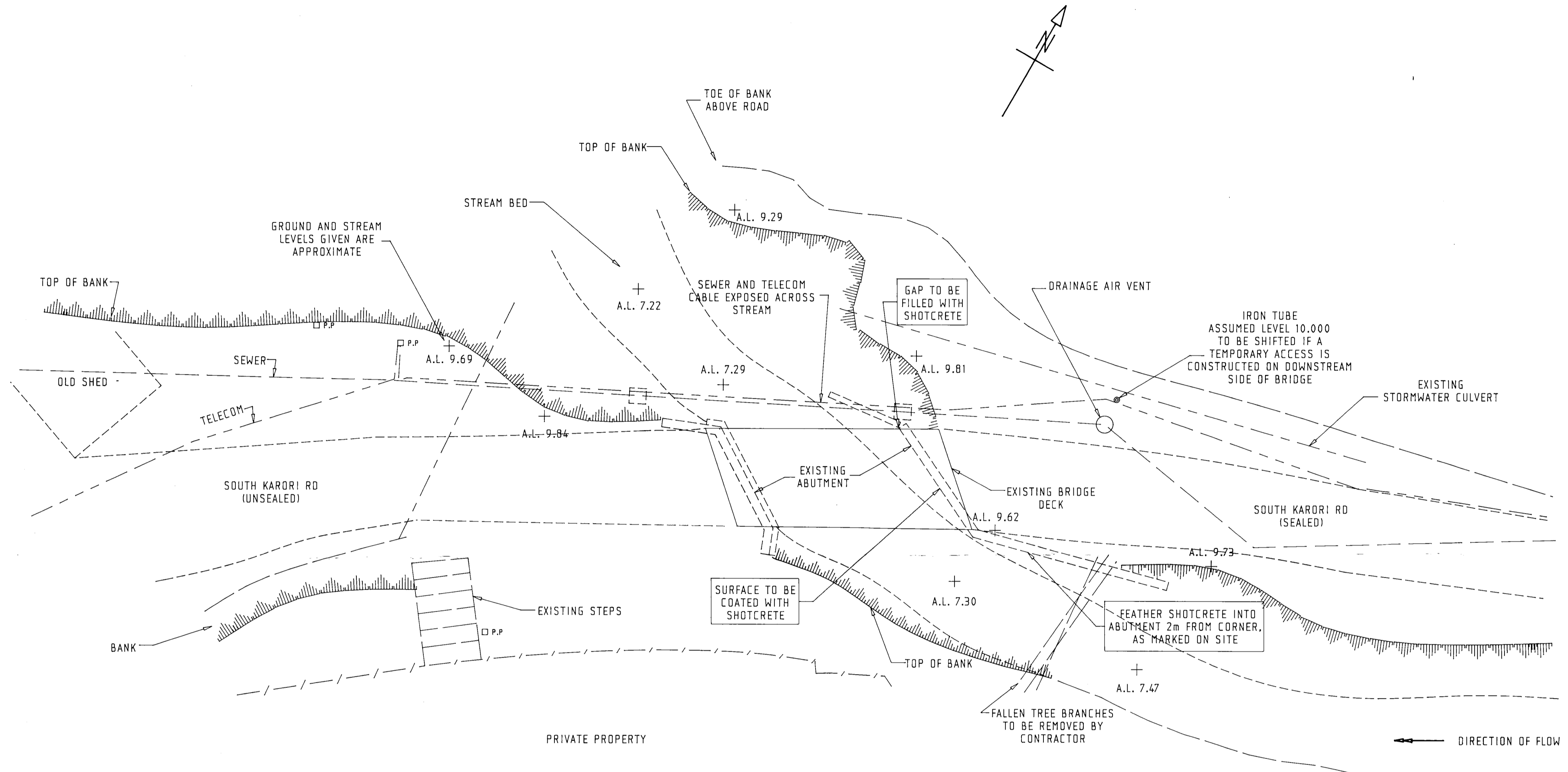
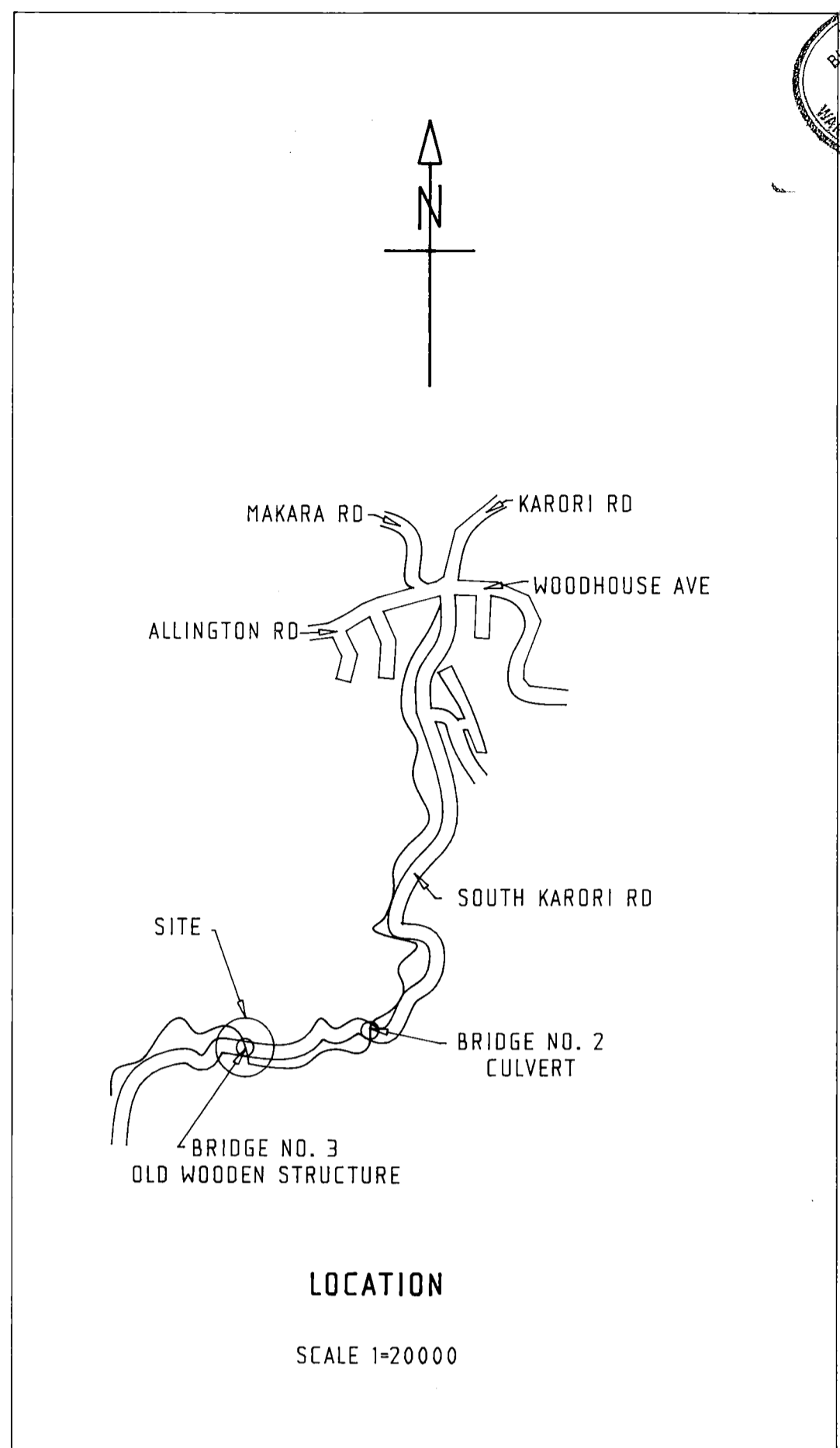


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WELLINGTON CITY COUNCIL
1- NOV 1990
WAKEFIELD STREET, WELLINGTON



EXISTING SITE PLAN
SCALE 1:100



LOCATION
SCALE 1:20000

- NOTES FOR SHOTCRETING EXISTING NORTH ABUTMENT**
- 1 AREA TO BE SHOTCRETED IS TO BE WATERBLASTED OR SIMILARLY CLEANED BEFORE BEING COATED.
 - 2 ALL LOOSE MATERIAL ON FACE OF ABUTMENT IS TO BE REMOVED BEFORE ABUTMENT IS COATED WITH SHOTCRETE.
 - 3 MINIMUM COAT THICKNESS TO BE APPLIED IS 25mm.
 - 4 SHOTCRETE IS TO BE FEATHERED INTO EXISTING ABUTMENT 2m UPSTREAM FROM FACE OF ABUTMENT TO BE COATED.
 - 5 THE GAP AT THE DOWNSTREAM END OF THE ABUTMENT FACE TO BE COATED IS TO BE FILLED WITH SHOTCRETE.
 - 6 THE DEPRESSIONS ON THE ABUTMENT FACE ARE ALSO TO BE FILLED WITH SHOTCRETE.
 - 7 SHOTCRETING IS TO BE DONE WHEN STREAM IS AT ITS NORMAL LOW LEVEL, AND SHINGLE AT BASE OF ABUTMENT IS NOT UNDER WATER.
 - 8 THE AREA TO BE COATED WITH SHOTCRETE IS MARKED ON THE EXISTING ABUTMENT WITH PAINT.

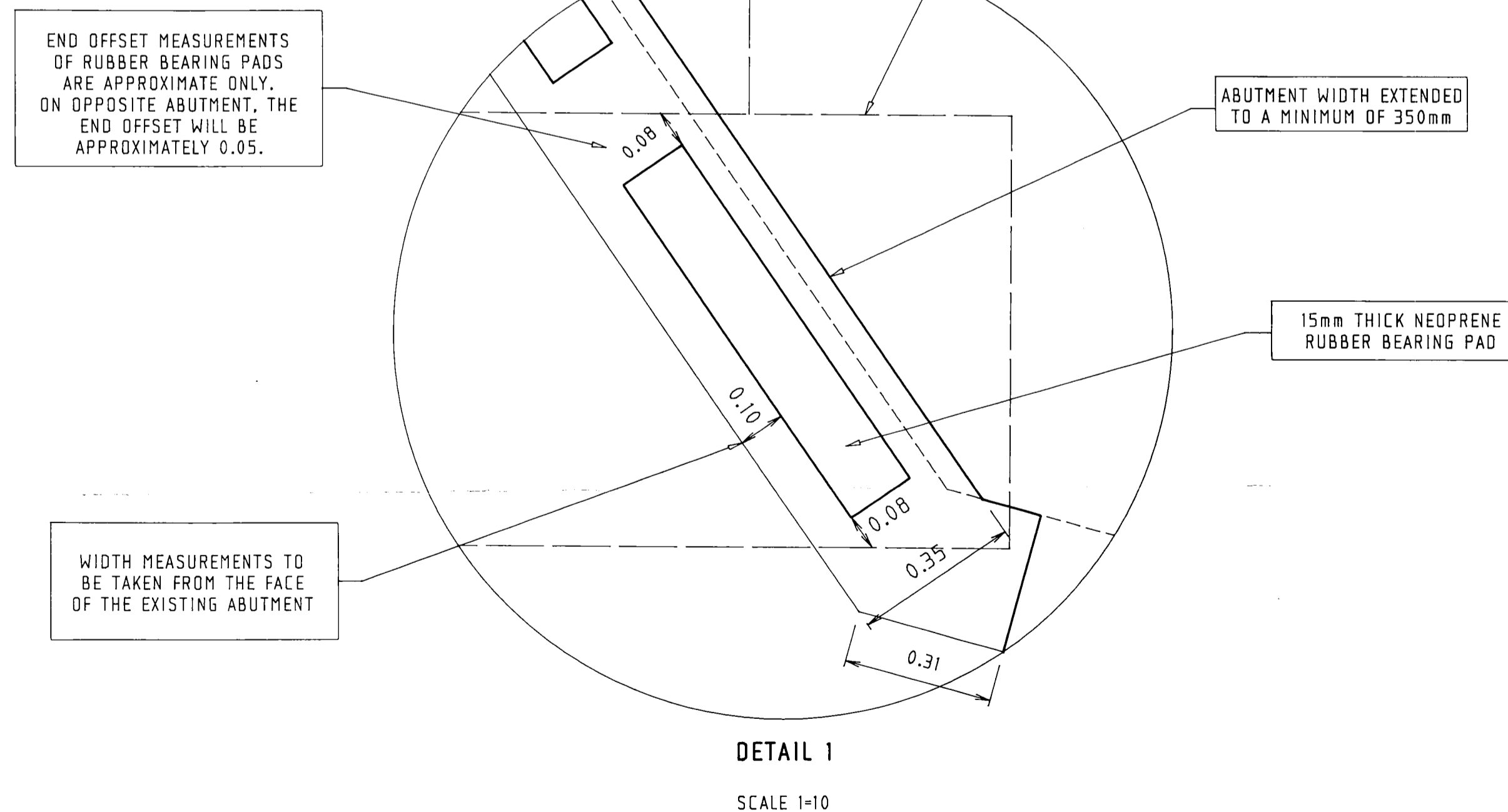
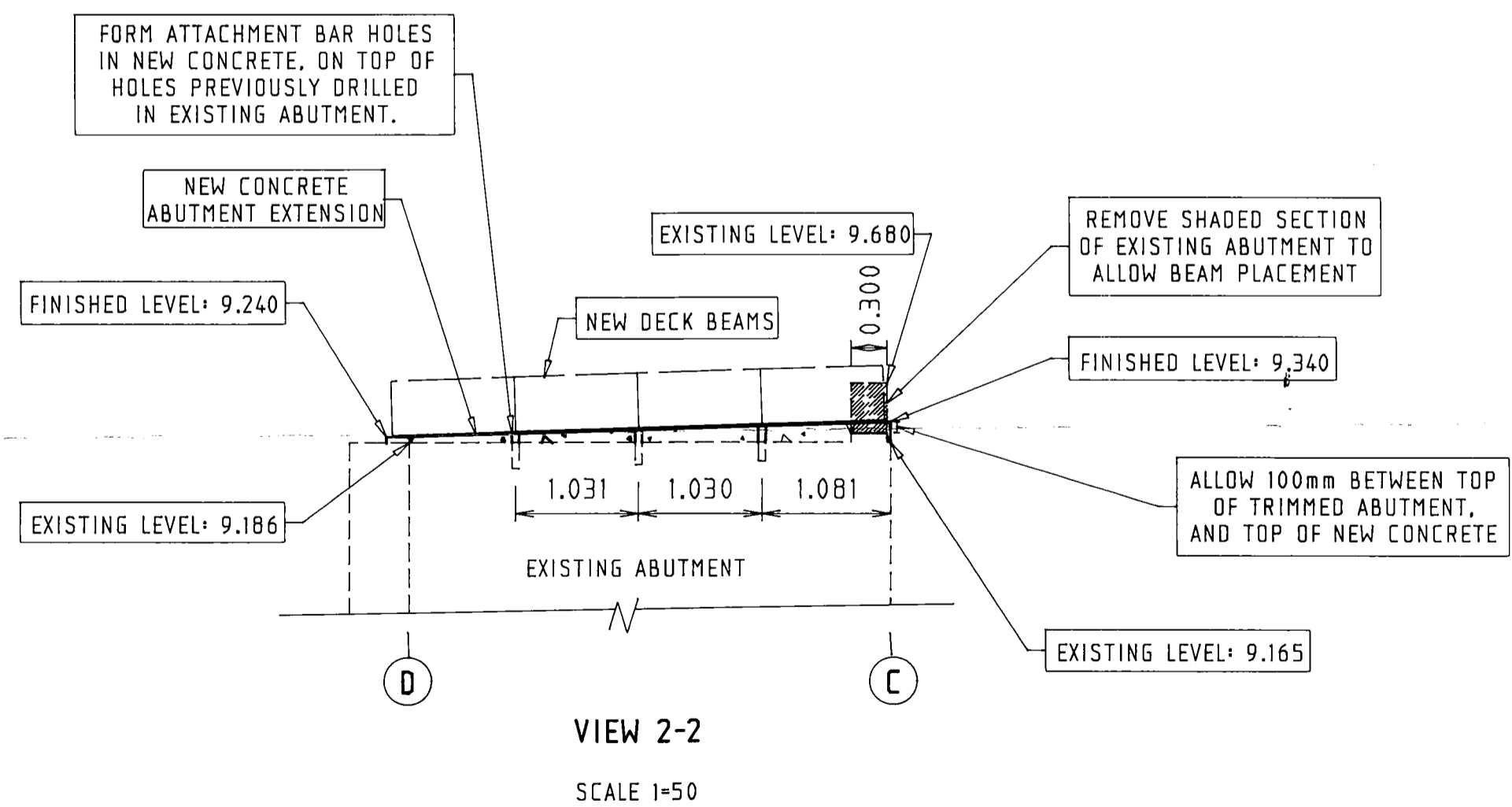
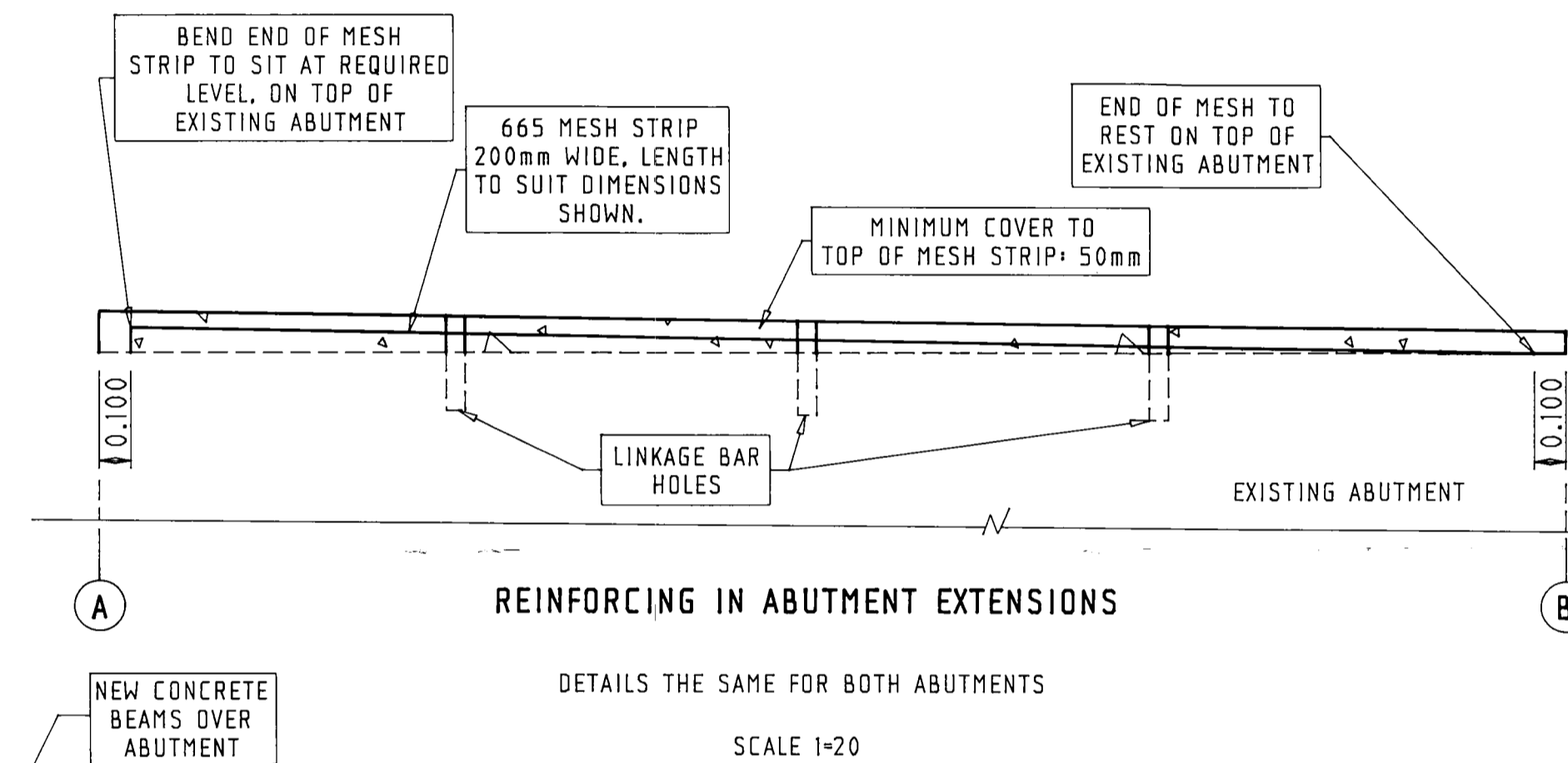
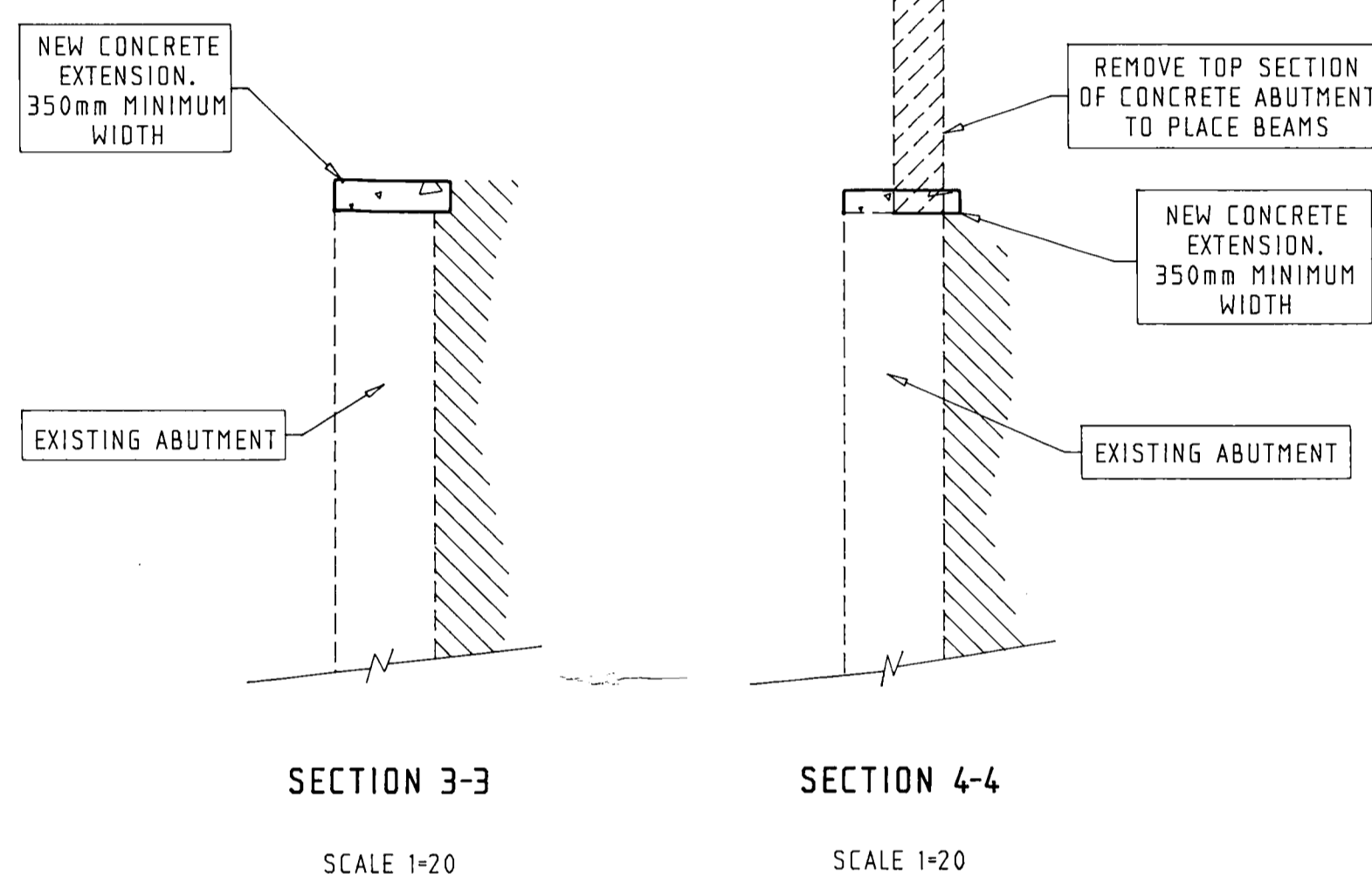
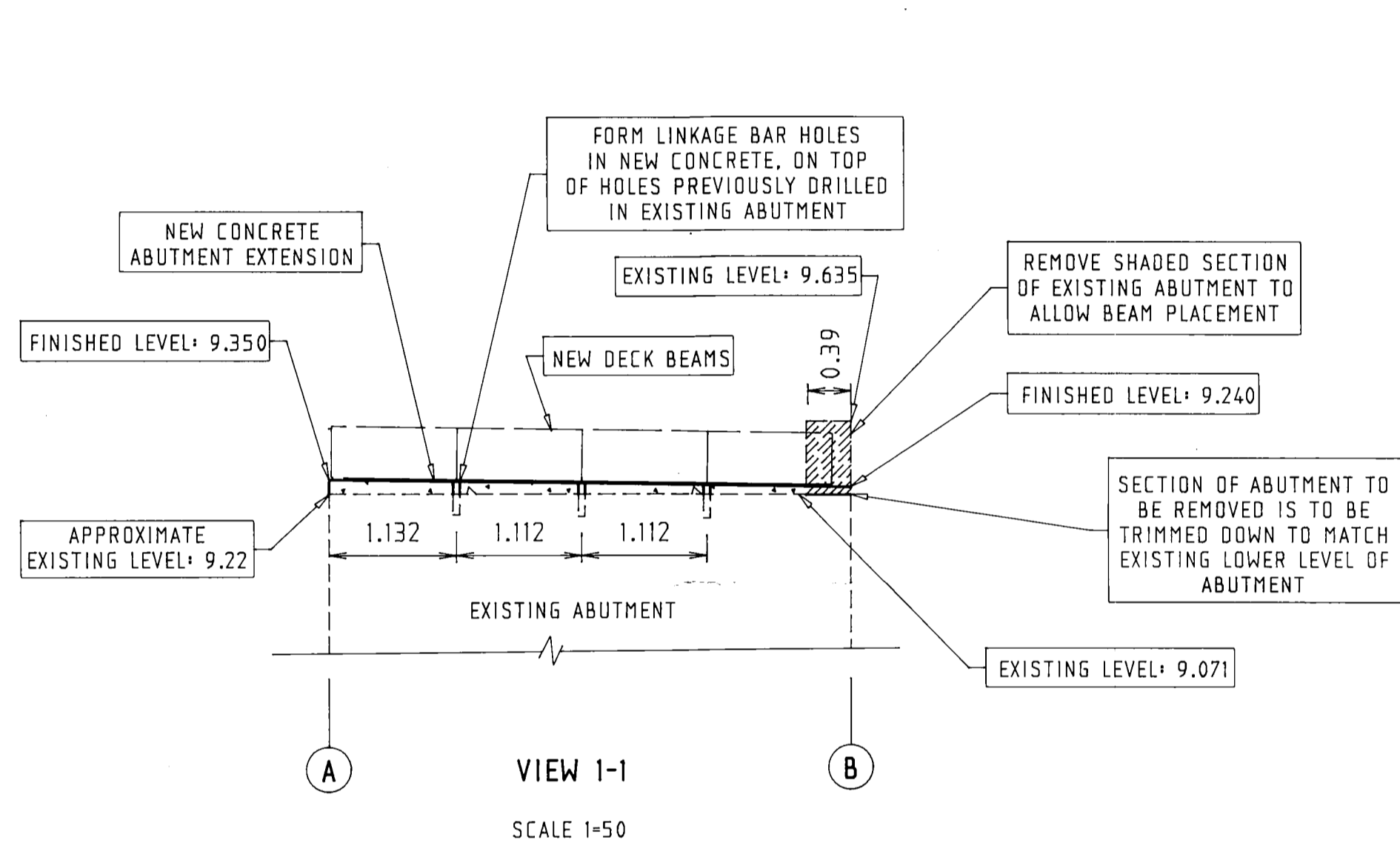
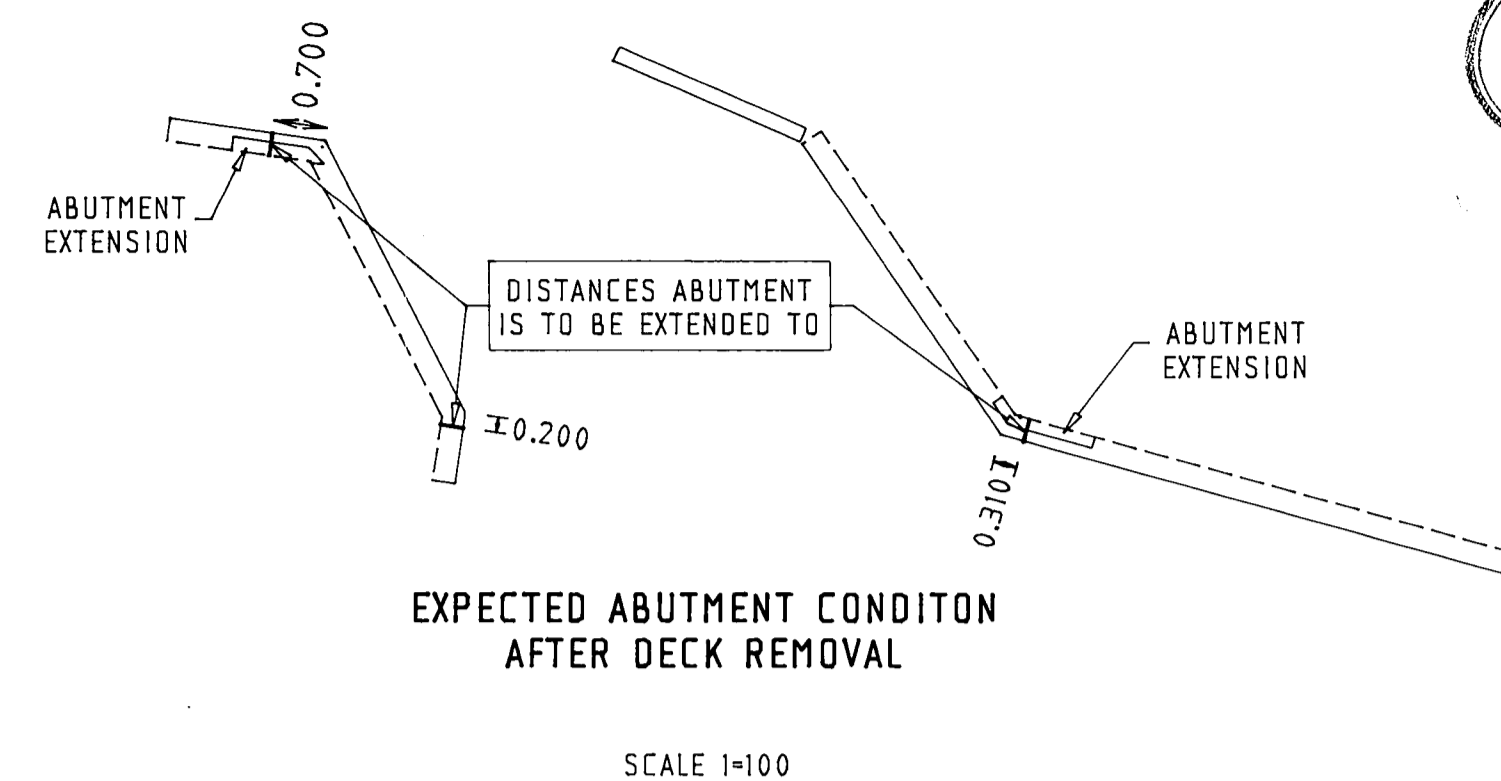
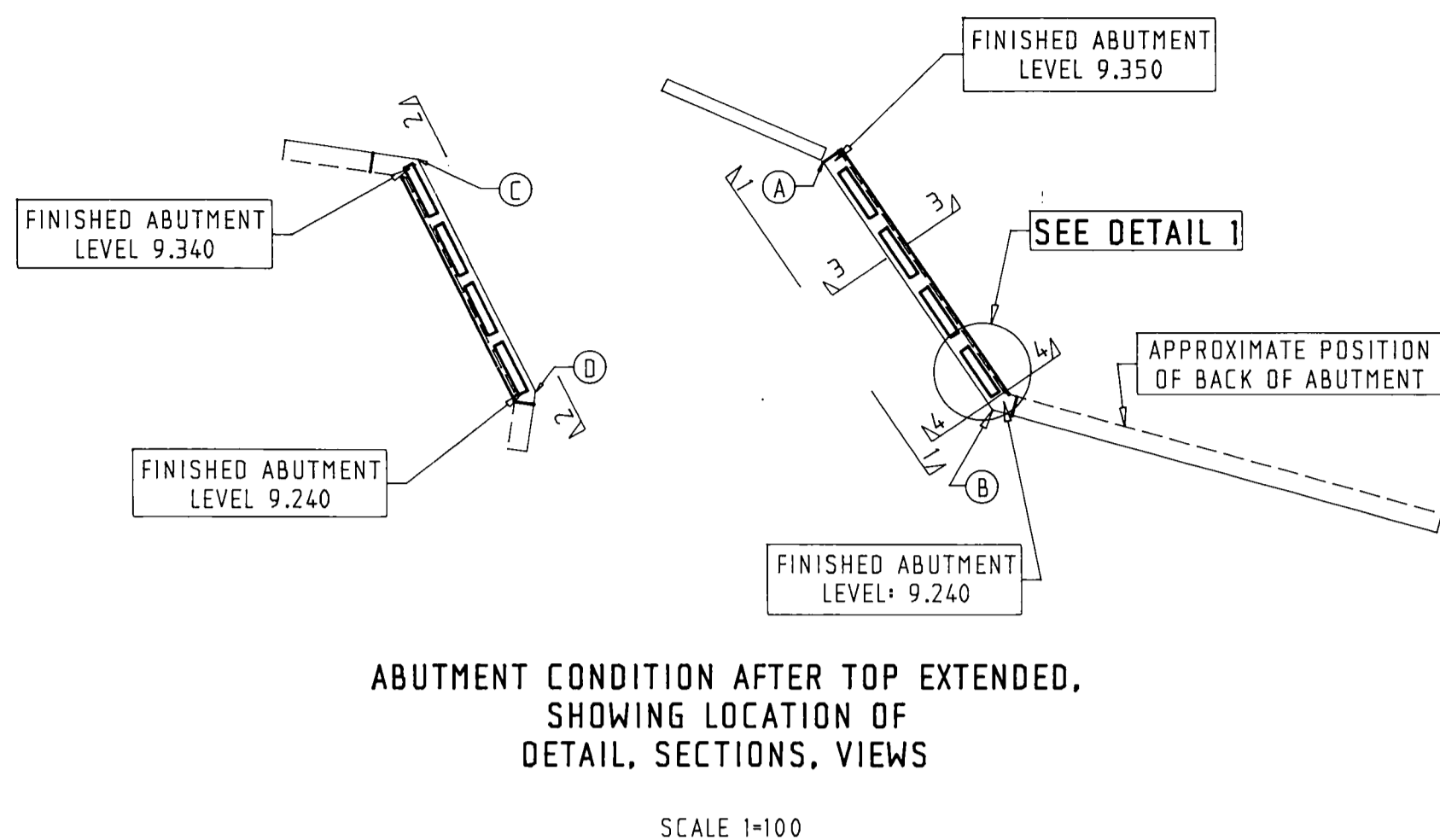
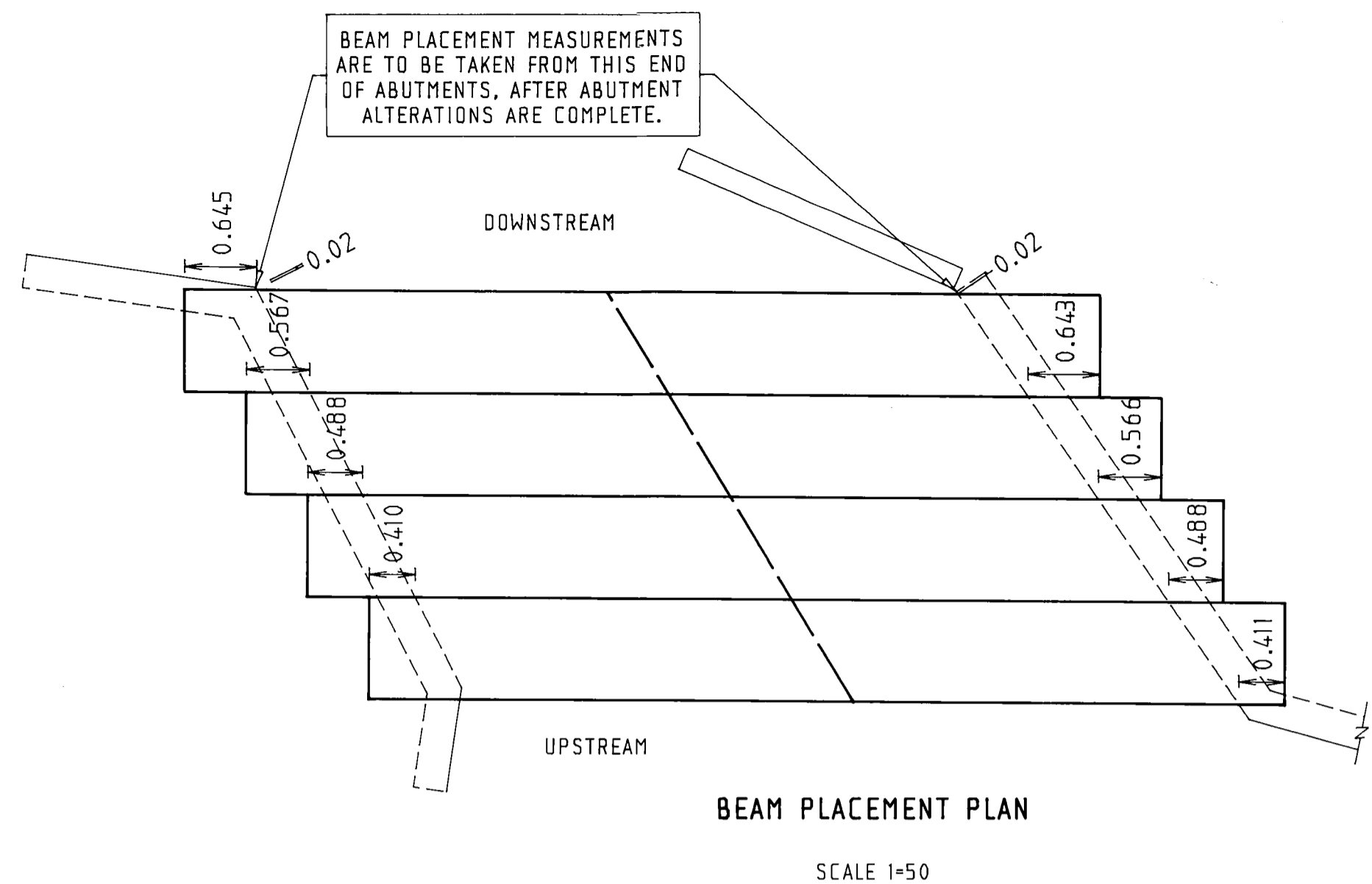
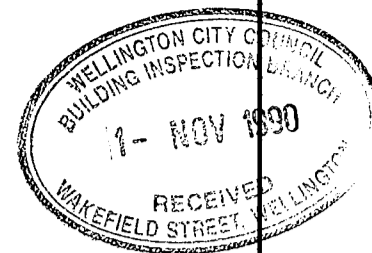
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STADIA BOOK NO	-	DESIGN	A RICHARDSON	5/90	A		
LEVEL BOOK NO	L333	DRAWN	A RICHARDSON	6/90	B		
CALC BOOK NO	C157	DRAWING CHECKED			C		
ORIGIN OF LEVELS	ASSUMED	DESIGN CHECKED			D		
FILE REF	35/1077/4		BRIDGE.PAL		E		
REFERENCE PLANS	-	WORK COMPLETED			F		

**SOUTH KARORI RD
BRIDGE No. 3, REPLACEMENT OF DECK**
PLAN, SHOTCRETE DETAILS
SCALES AS SHOWN

WELLINGTON CITY COUNCIL
WORKS DEPARTMENT
CIVIL ENGINEERING DIVISION
N.FYFE
CITY ENGINEER



DESIGN BRANCH
PLAN NO 40/2167
SHEET 1 OF 5 SHEETS
APPROVED
21/8/90
B.W.HODGE
CIVIL DESIGN ENGINEER



- NOTES**
- 1 FINAL ABUTMENT WIDTH AND FINISHED LEVEL ARE TO BE AS SHOWN ON THE DRAWINGS.
 - 2 THE POSITION OF THE BACK OF ABUTMENT MAY NOT BE AS SHOWN ON THE DRAWINGS. THIS WILL BE ESTABLISHED AFTER THE EXISTING BRIDGE IS REMOVED.
 - 3 FINAL ABUTMENT WIDTH MEASUREMENTS ARE TO BE TAKEN FROM THE EXISTING FACE OF THE ABUTMENTS.
 - 4 FINAL BEAM PLACEMENT DIMENSIONS ARE TO BE TAKEN FROM THE FACE OF THE ABUTMENTS, AND FROM THE DOWNSTREAM END OF THE ABUTMENTS.
 - 5 TOLERANCE IN TRANSVERSE DUCT 16mm. BEAM PLACEMENT TO BE WITHIN 5mm OF MEASUREMENTS GIVEN.

FIELD BOOK NO	F292	PAGES	32-39	FIELDWORK	A RICHARDSON	5/90	NO	AMENDMENTS	DATE
STADIA BOOK NO	-	PAGES	-	DESIGN	A RICHARDSON	5/90	A		
LEVEL BOOK NO	L333	PAGES	21	DRAWN	A RICHARDSON	6/90	B		
CALC BOOK NO	C157	PAGES	25-40	DRAWING CHECKED			C		
ORIGIN OF LEVELS	ASSUMED			DESIGN CHECKED			D		
FILE REF	35/1077/4				BEAMDETAIL.PAL		E		
REFERENCE PLANS	-			WORK COMPLETED			F		

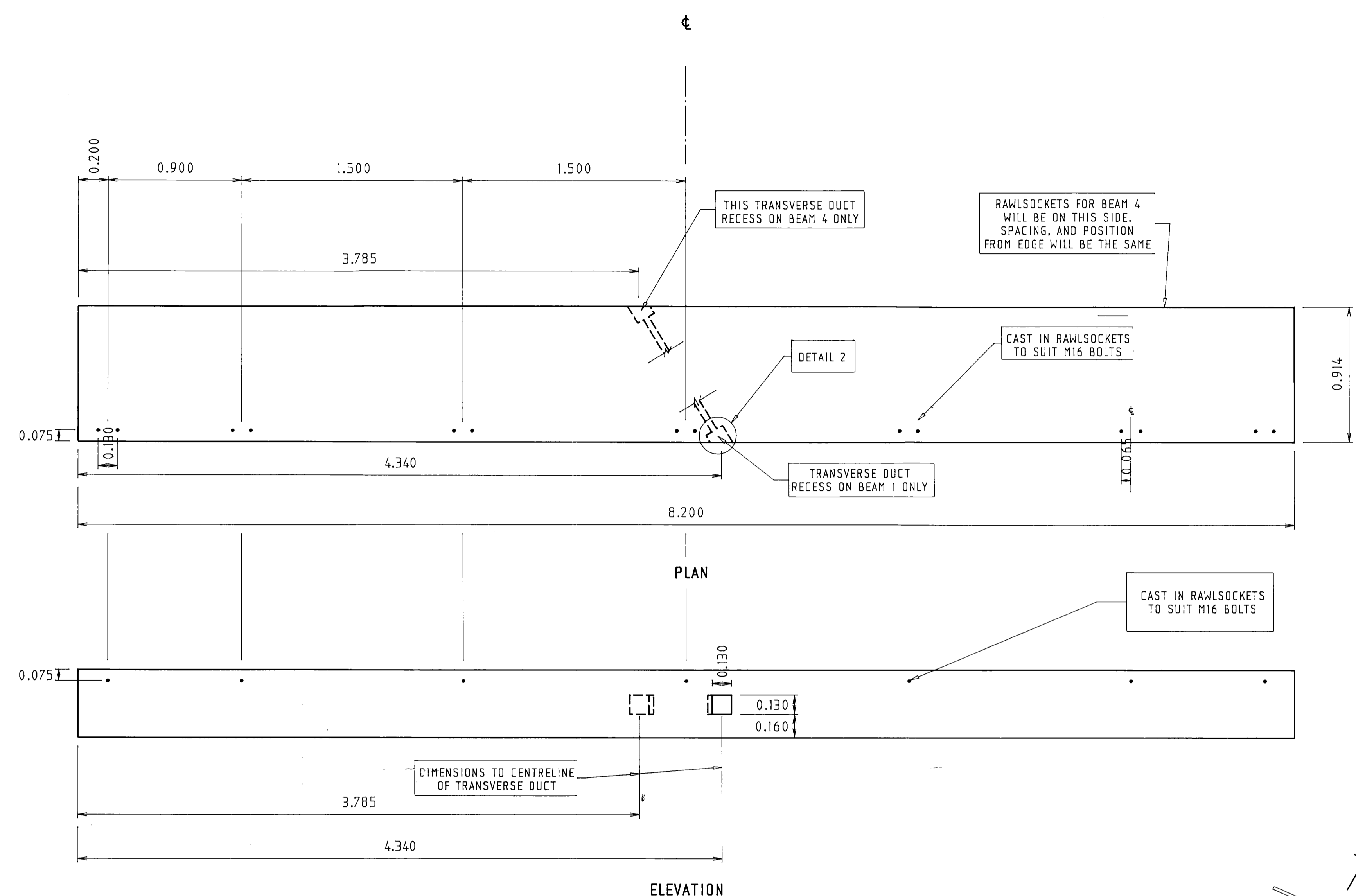
**SOUTH KARORI RD
BRIDGE No.3, REPLACEMENT OF DECK**
BEAM LOCATION DETAILS
SCALES AS SHOWN

WELLINGTON CITY COUNCIL
WORKS DEPARTMENT
CIVIL ENGINEERING DIVISION

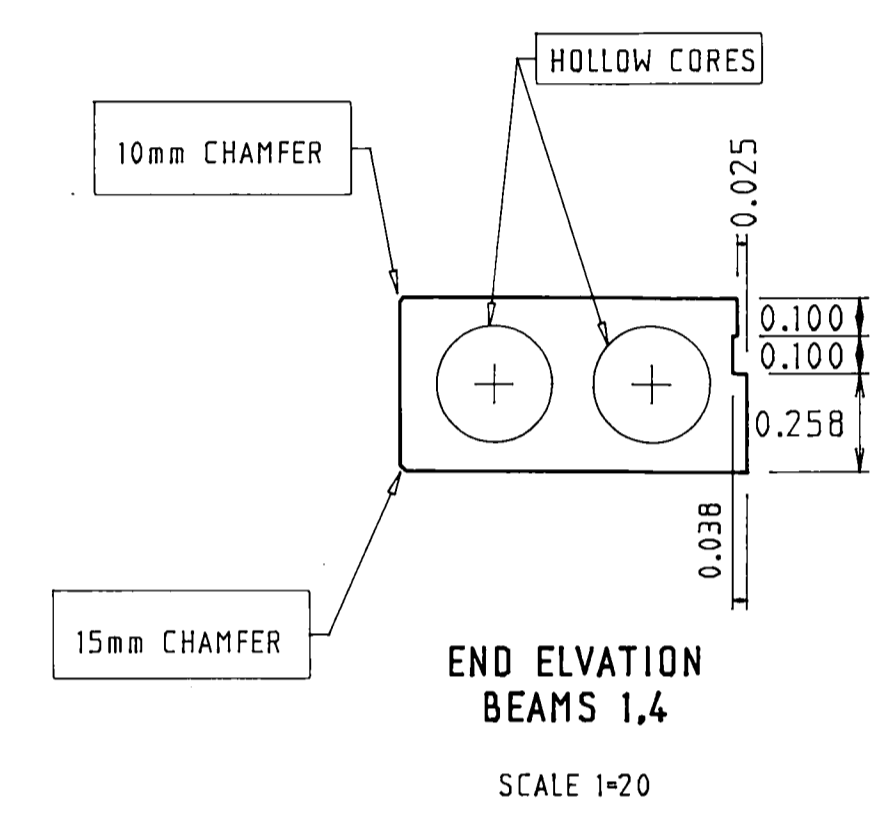
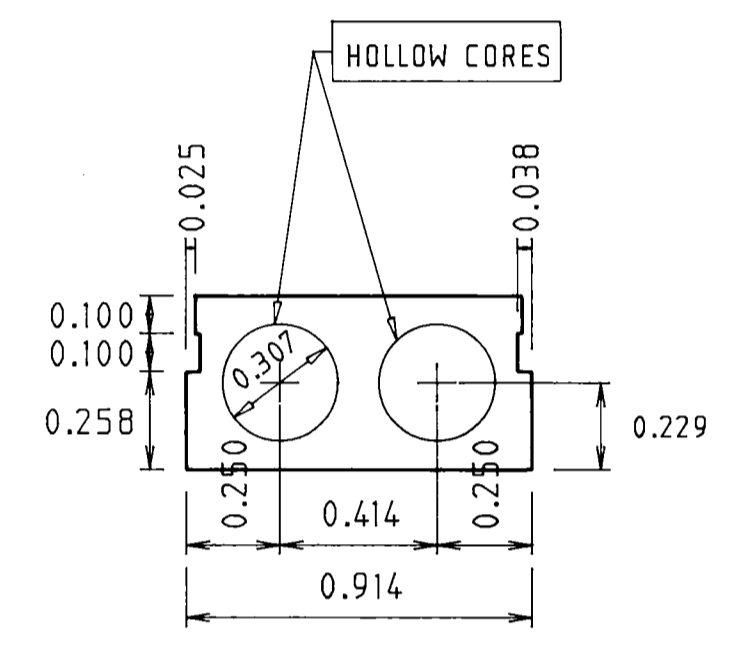
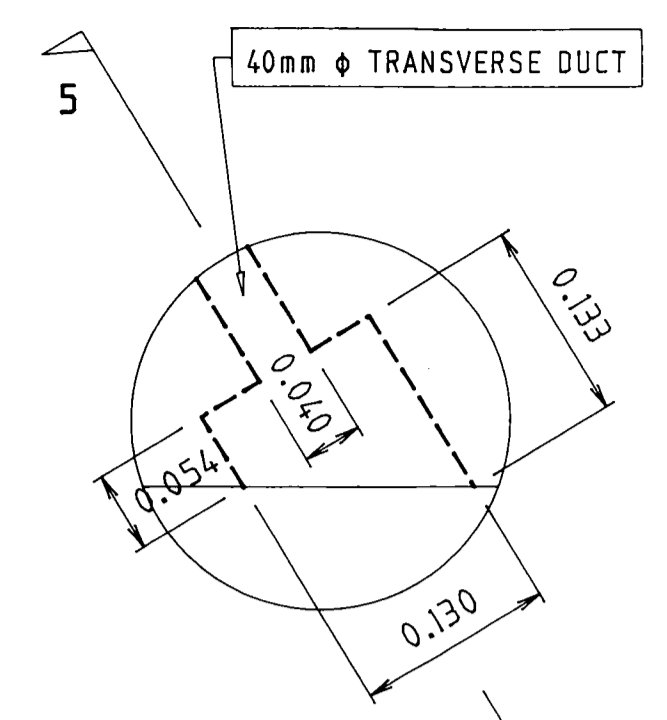
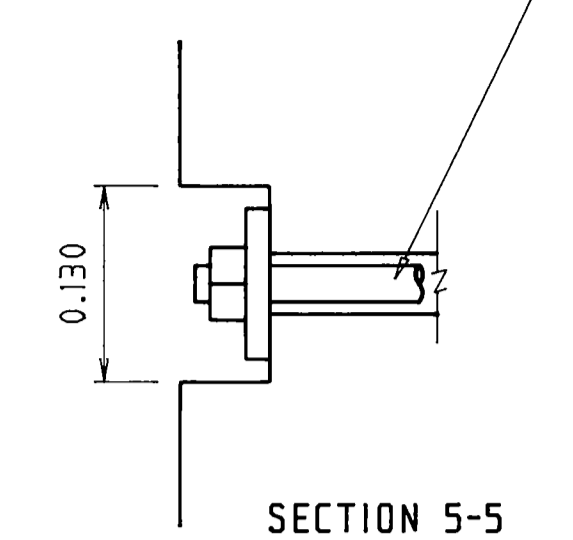
N.FYFE
CITY ENGINEER



DESIGN BRANCH
PLAN NO 40/2167
SHEET 2 OF 5 SHEETS
APPROVED
B.W.HODGE
CIVIL DESIGN ENGINEER

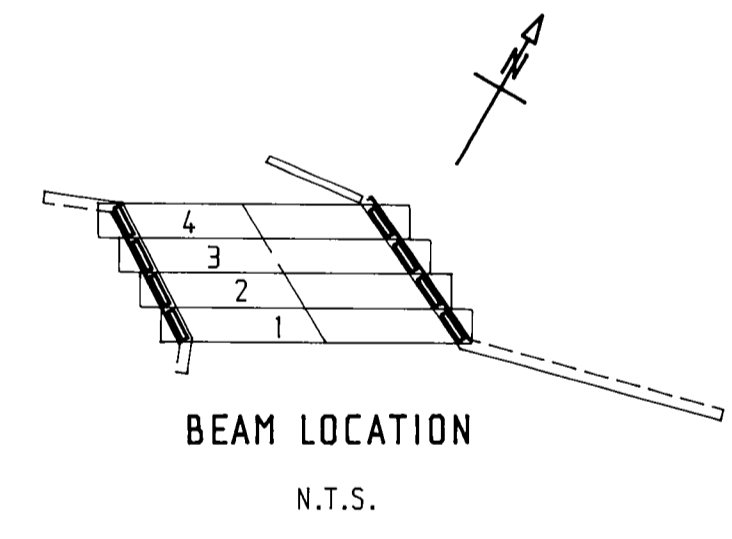


D24 GRADE 380 BAR, 4.280m LONG. THREADED 80mm EACH END, AND SUPPLIED WITH TWO 100x100x16 PLATES, AND TWO NUTS. ENTIRE SET TO BE HOT DIP GALVANISED.

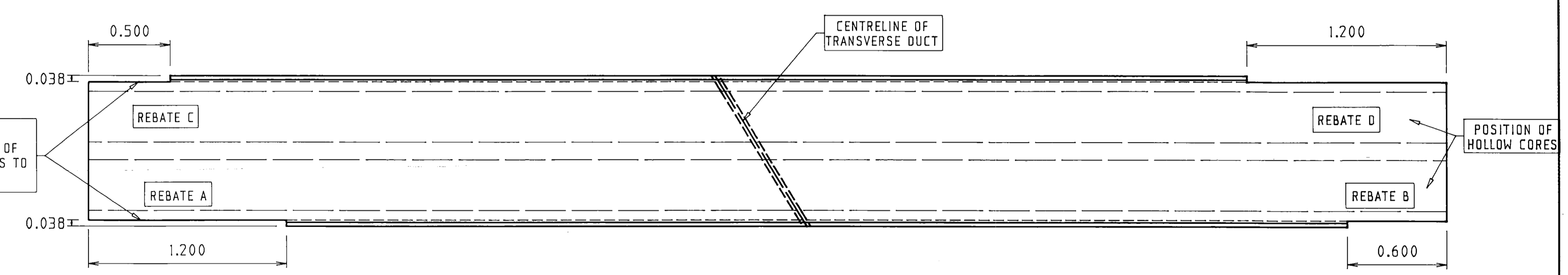


LOCATION OF RAW SOCKETS, AND TRANSVERSE DUCT RECESSES (BEAMS 1 AND 4 ONLY)

SCALE 1=20
RAW SOCKET PLACEMENT SYMMETRICAL ABOUT ϵ



BEAM NO.	REBATES REQUIRED	TRANSVERSE DUCT RECESS POSITION	TRANSVERSE DUCT POSITION
1	C, D	3.785 FROM SOUTH END	AS SHOWN ON DIAGRAM
2, 3	A, B, C, D	NOT REQUIRED FOR INTERIOR BEAM	AS SHOWN ON DIAGRAM
4	A, B	4.340 FROM SOUTH END	AS SHOWN ON DIAGRAM



CENTRE BEAM PLAN

SCALE 1=20

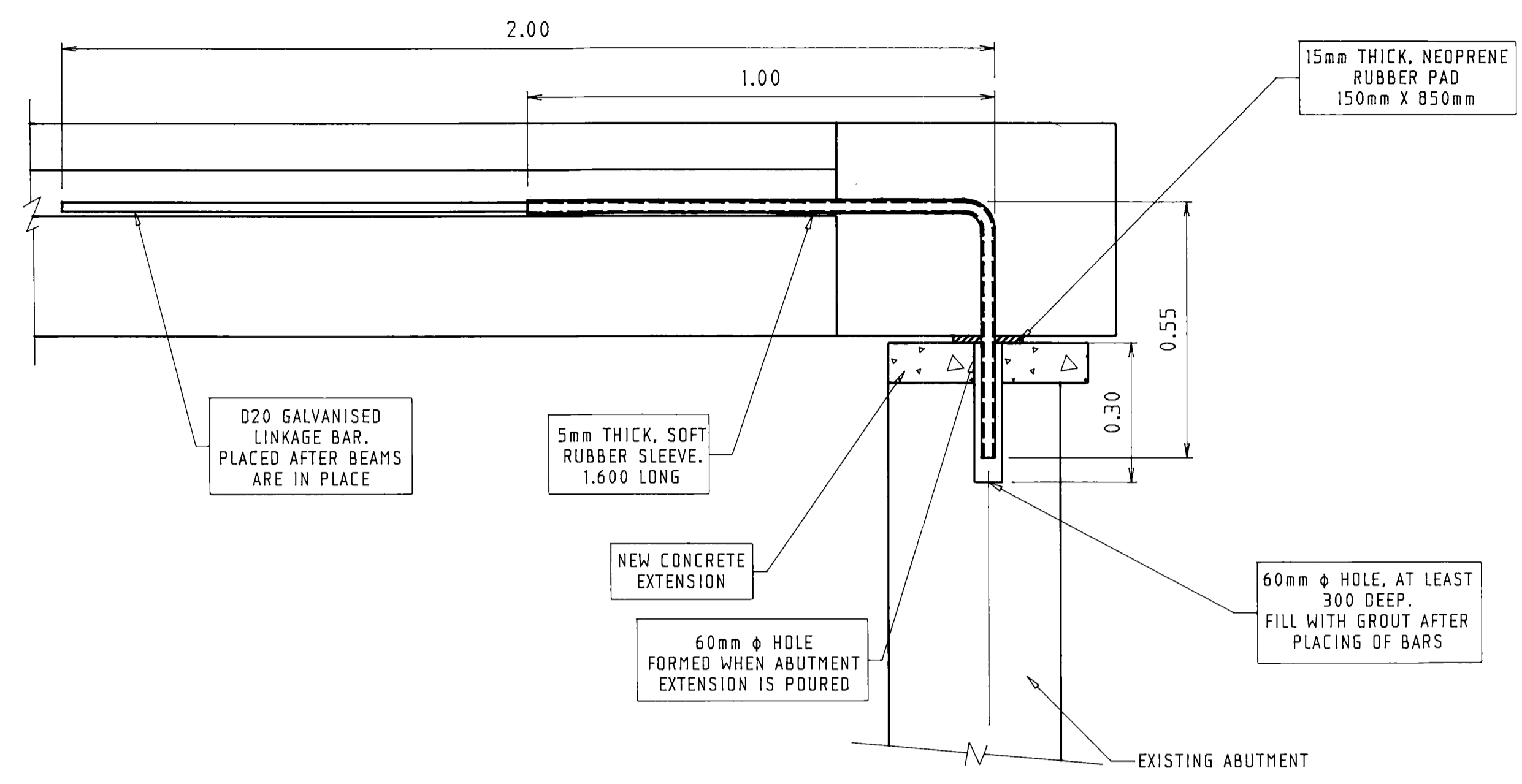
- NOTES**
- BEAMS OF SIMILAR OVERALL CROSSSECTION DIMENSIONS MAY BE ACCEPTABLE IF THEY CONFORM TO MANUFACTURERS STANDARD MOULDS
 - CONCRETE COVER: COVER TO ALL PRESTRESSING COMPONENTS 40mm MIN. COVER TO ALL REINFORCING STEEL 30mm MIN.
 - DESIGN LOADING: TO MWD HN-H0-72
 - HANDLING: BEAMS ARE TO BE HANDLED CAREFULLY, STRICTLY TO MANUFACTURERS INSTRUCTIONS.
 - PRESTRESS CABLES: STRANDS SHALL BE RELEASED SLOWLY, AND AFTER RELEASE SHALL BE CUT AND GROUND OFF FLUSH WITH THE CONCRETE AT THE END OF THE UNIT. A PROTECTIVE COATING OF COAL TAR EPOXY SHALL BE APPLIED AS SPECIFIED BEFORE THE UNIT LEAVES THE CASTING YARD.
 - CONCRETE STRENGTH: MINIMUM COMPRESSIVE STRENGTH AT TRANSFER = 30MPa. SPECIFIED COMPRESSIVE STRENGTH AT 28 DAYS = 40MPa
 - SURFACE FINISHES: TOP SURFACE TO BE BROOM FINISH. SIDES AND UNDERSIDE TO BE SMOOTH FINISH. SIDES OF REBATES TO BE ROUGH FINISH
 - THE RECESS FOR TRANSVERSE STRESSING IN THE OUTER BEAMS MAY BE ALTERED TO SUIT THE PRESTRESSING SUPPLIERS RECOMMENDATION. HOWEVER, THE RECESS MUST BE CAPABLE OF HOLDING A 100x100x16 PLATE, PERPENDICULAR TO THE DIRECTION OF THE DUCT.
 - REBATES ARE NOT REQUIRED ON THE OUTSIDE EDGE OF THE TWO OUTER BEAMS, BUT THE APPROPRIATE SIZED REBATES ARE TO BE FORMED ON THE INSIDE EDGE OF THESE BEAMS.
 - ALL BOLTS, NUTS, PLATES AND WASHERS ARE TO BE HOT DIP GALVANISED
 - THE CONTRACTOR SHALL SUBMIT DETAILS OF THE STEEL LAYOUT AND DESIGN CALCULATIONS OF THE PRECAST BEAMS TO THE ENGINEER WITHIN TWO (2) WEEKS OF ACCEPTANCE OF TENDER.

FIELD BOOK NO	PAGES	FIELDWORK	A RICHARDSON	5/90	NO	AMENDMENTS	DATE
STADIA BOOK NO	-	DESIGN	A RICHARDSON	5/90	A		
LEVEL BOOK NO	L333	DRAWN	A RICHARDSON	6/90	B		
CALC BOOK NO	C157	DRAWING CHECKED			C		
ORIGIN OF LEVELS	ASSUMED	DESIGN CHECKED			D		
FILE REF	35/1077/4		CONCDETAILS.PAL		E		
REFERENCE PLANS	-	WORK COMPLETED			F		

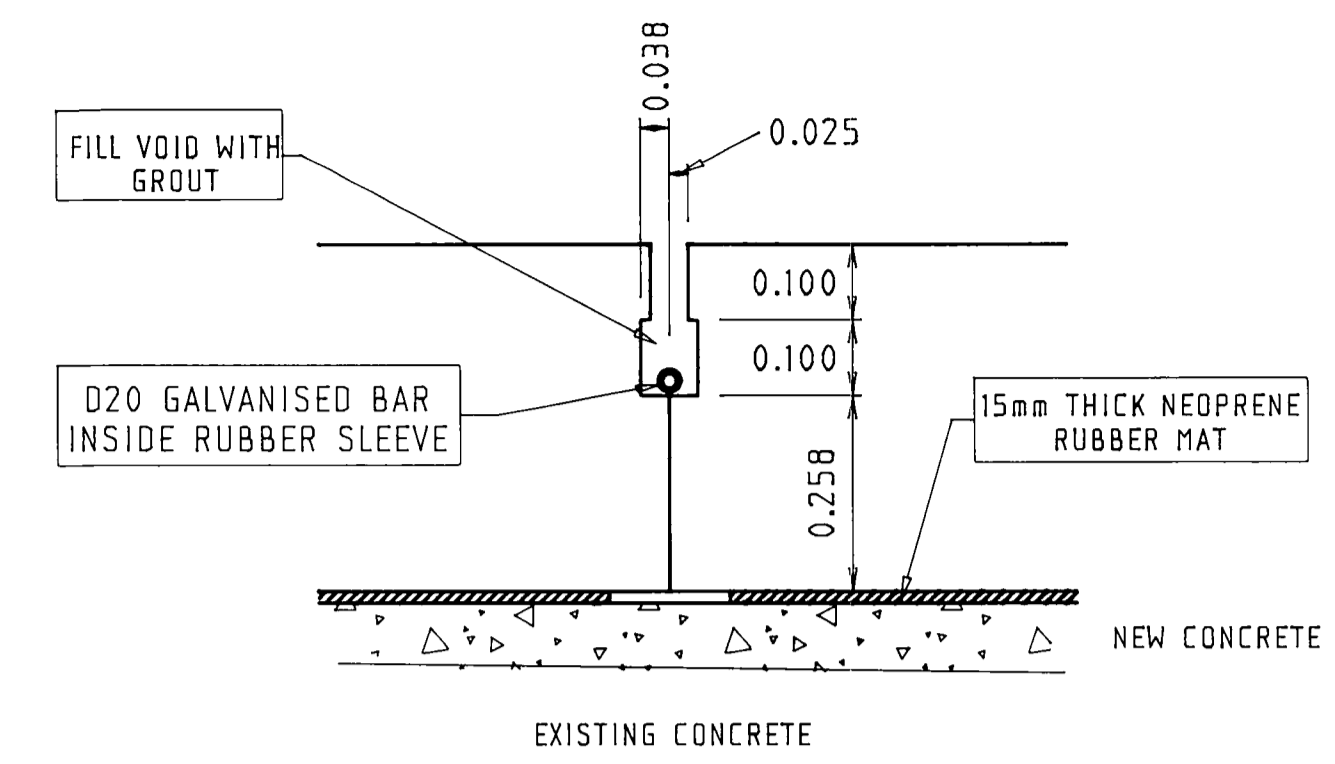
SOUTH KARORI RD
BRIDGE No.3, REPLACEMENT OF DECK
PRESTRESSED CONCRETE BEAM DETAILS
SCALES AS SHOWN

WELLINGTON CITY COUNCIL
WORKS DEPARTMENT
CIVIL ENGINEERING DIVISION
N.FYFE
CITY ENGINEER

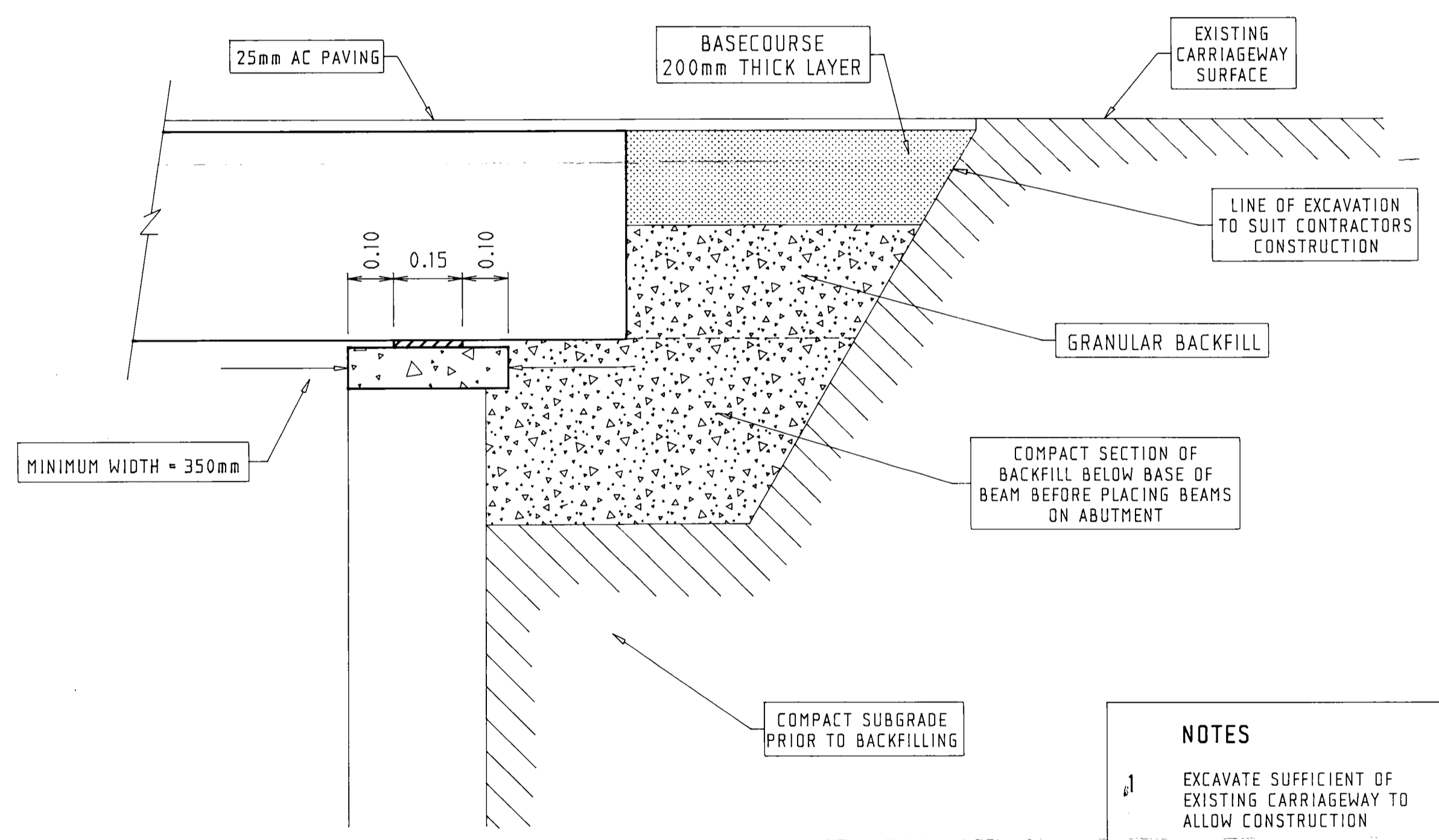
DESIGN BRANCH
PLAN NO 40/2167
SHEET 3 OF 5 SHEETS
APPROVED
B.W.Hodge
23/11/90
B.W.HODGE
CIVIL DESIGN ENGINEER



SECTION 7-7
SCALE 1=10

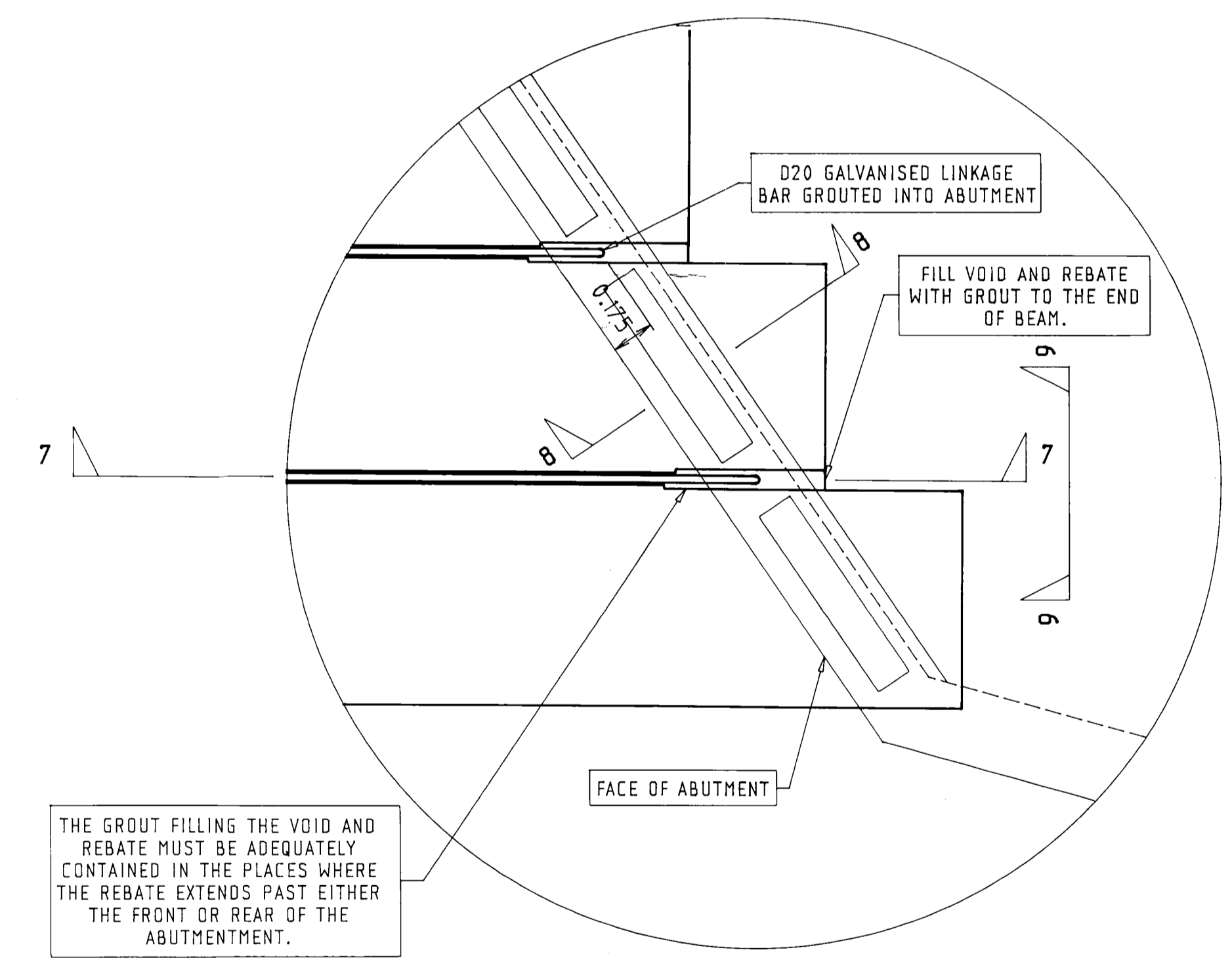


VIEW 9-9
SCALE 1=10



SECTION 8-8
SCALE 1=10

- NOTES**
- 1 EXCAVATE SUFFICIENT OF EXISTING CARRIAGEWAY TO ALLOW CONSTRUCTION
 - 2 BACKFILLING MUST BE CARRIED OUT IN STAGES AS SPECIFIED TO ENSURE SPECIFIED COMPACTION IS ACHIEVED
 - 3 BASECOURSE TO BE USED: N.R.B. M/4-1985, A.P.40; OR N.R.B. M/5-1984, (WELLINGTON 1), A.P.40
 - 4 BACKFILL TO BE CLEAN, GRANULAR MATERIAL; A.P.100



BEAM END PLAN
SCALE 1=20

FIELD BOOK NO	PAGES	FIELDWORK	A RICHARDSON	5/90	NO	AMENDMENTS	DATE
F292	32-39	DESIGN	A RICHARDSON	5/90	A		
L333	21	DRAWN	A RICHARDSON	6/90	B		
C157	25-40	DRAWING CHECKED			C		
		DESIGN CHECKED			D		
		WORK COMPLETED	ATTACH.PAL		E		
					F		

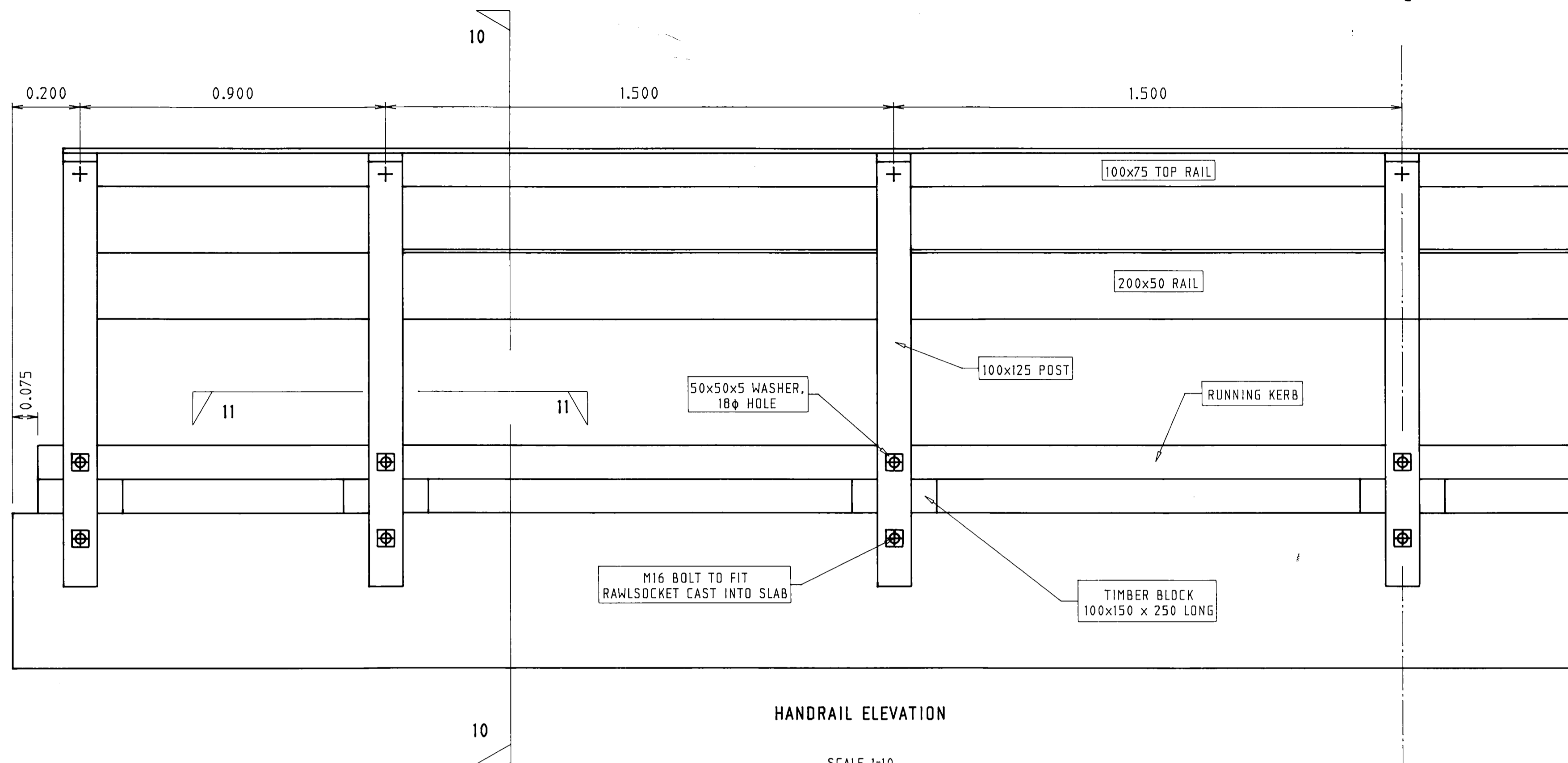
SOUTH KARORI RD
BRIDGE No. 3, REPLACEMENT OF DECK
ATTACHMENT DETAILS
SCALES AS SHOWN

WELLINGTON CITY COUNCIL
WORKS DEPARTMENT
CIVIL ENGINEERING DIVISION
N.FYFE
CITY ENGINEER



DESIGN BRANCH
PLAN NO 40/2167
SHEET 4 OF 5 SHEETS
APPROVED
B.W. Hodge
29/12/90
B.W.HODGE
CIVIL DESIGN ENGINEER

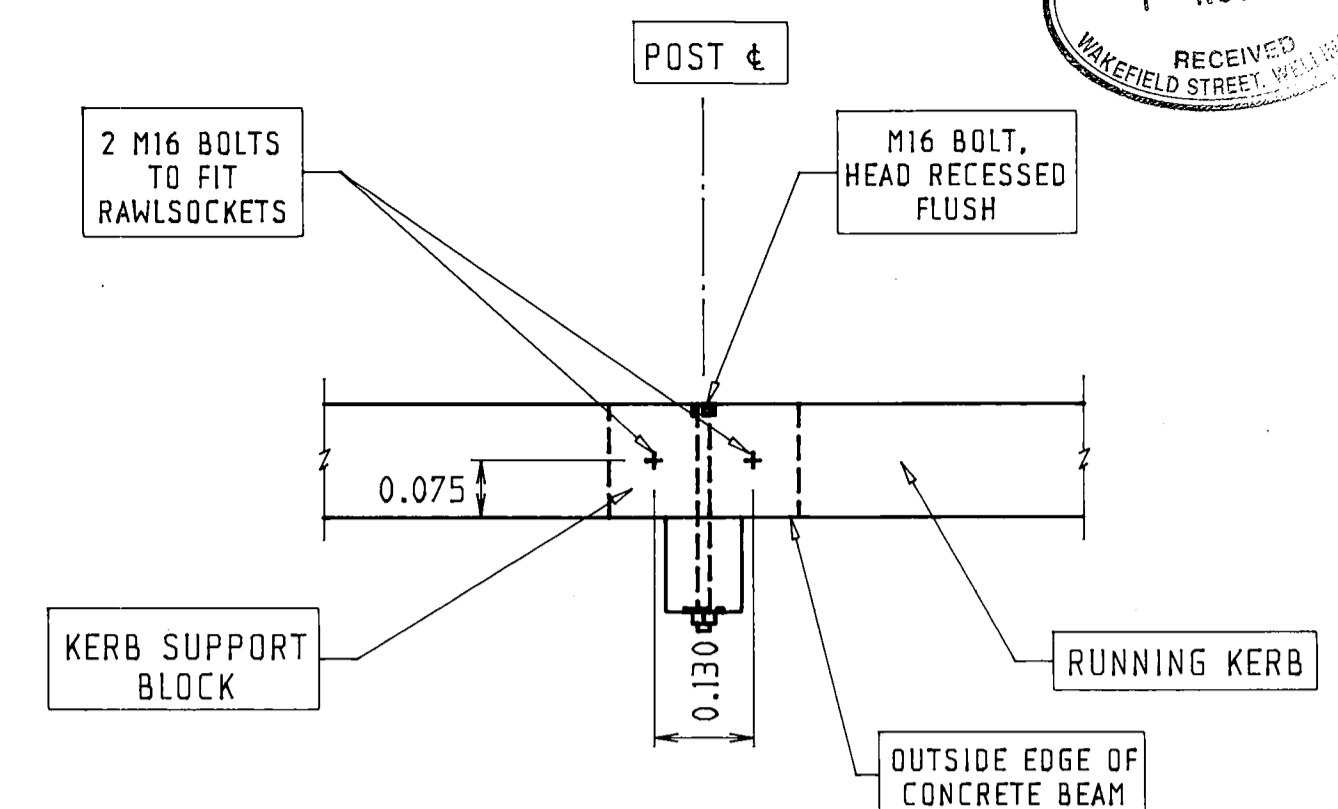
WELLINGTON CITY COUNCIL
BUILDING INSPECTION
1- NOV 1990
RECEIVED
MANFIELD STREET, WELLINGTON



HANDRAIL ELEVATION

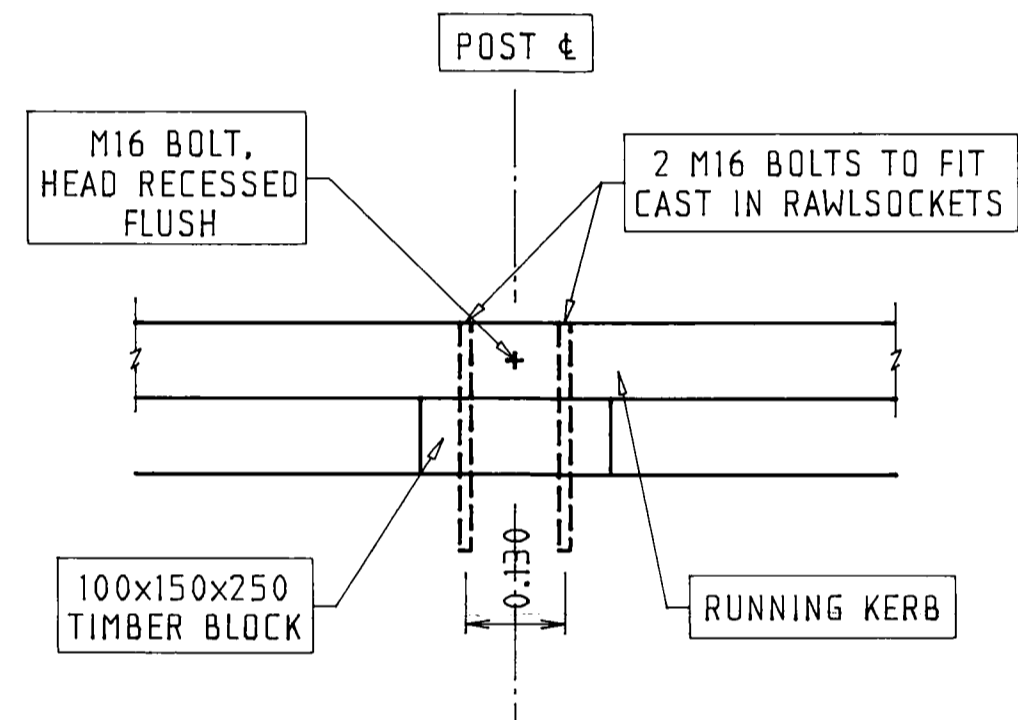
SCALE 1-10

HANDRAIL SYMMETRIC ABOUT CENTRELINE



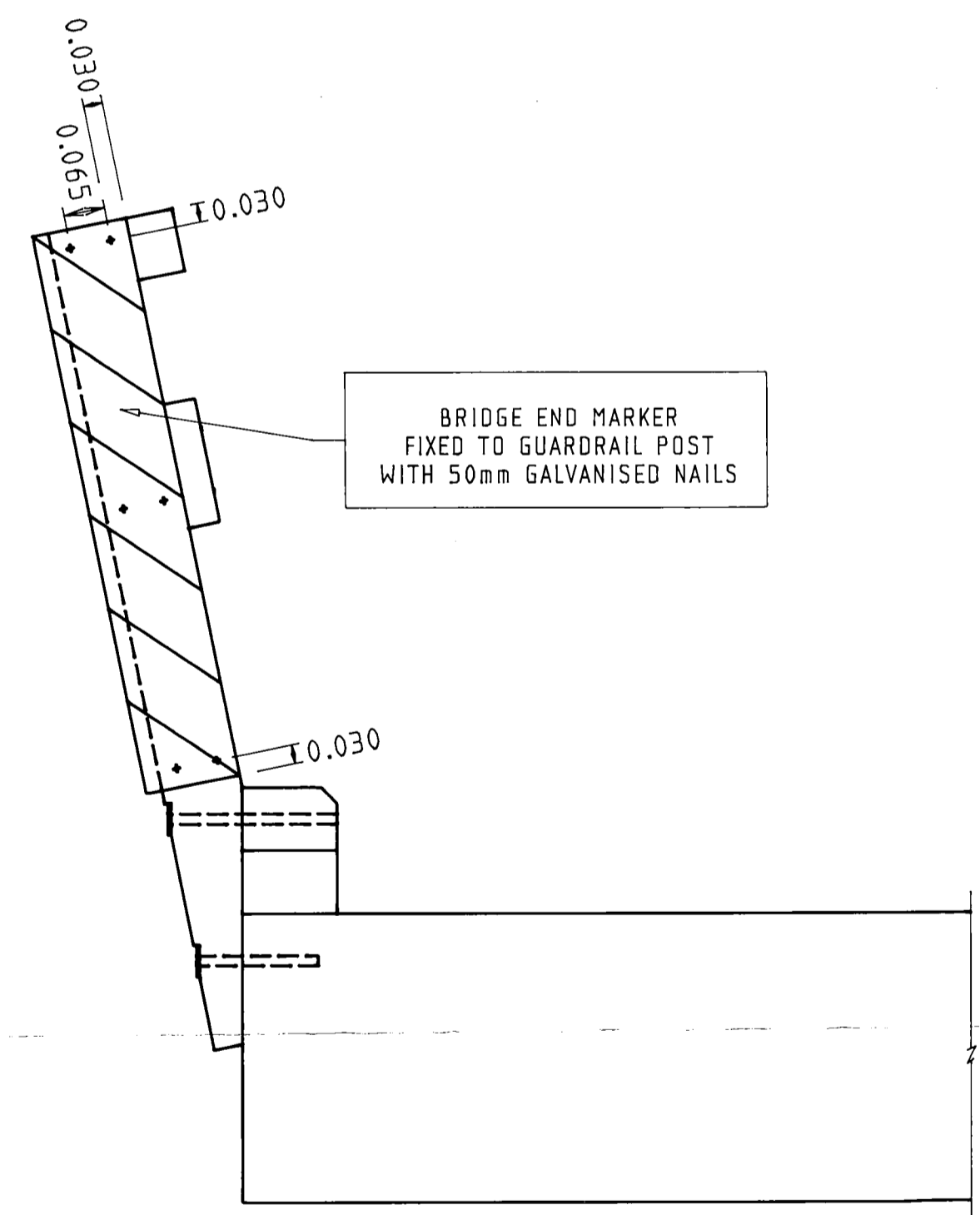
VIEW 11-11

SCALE 1-10



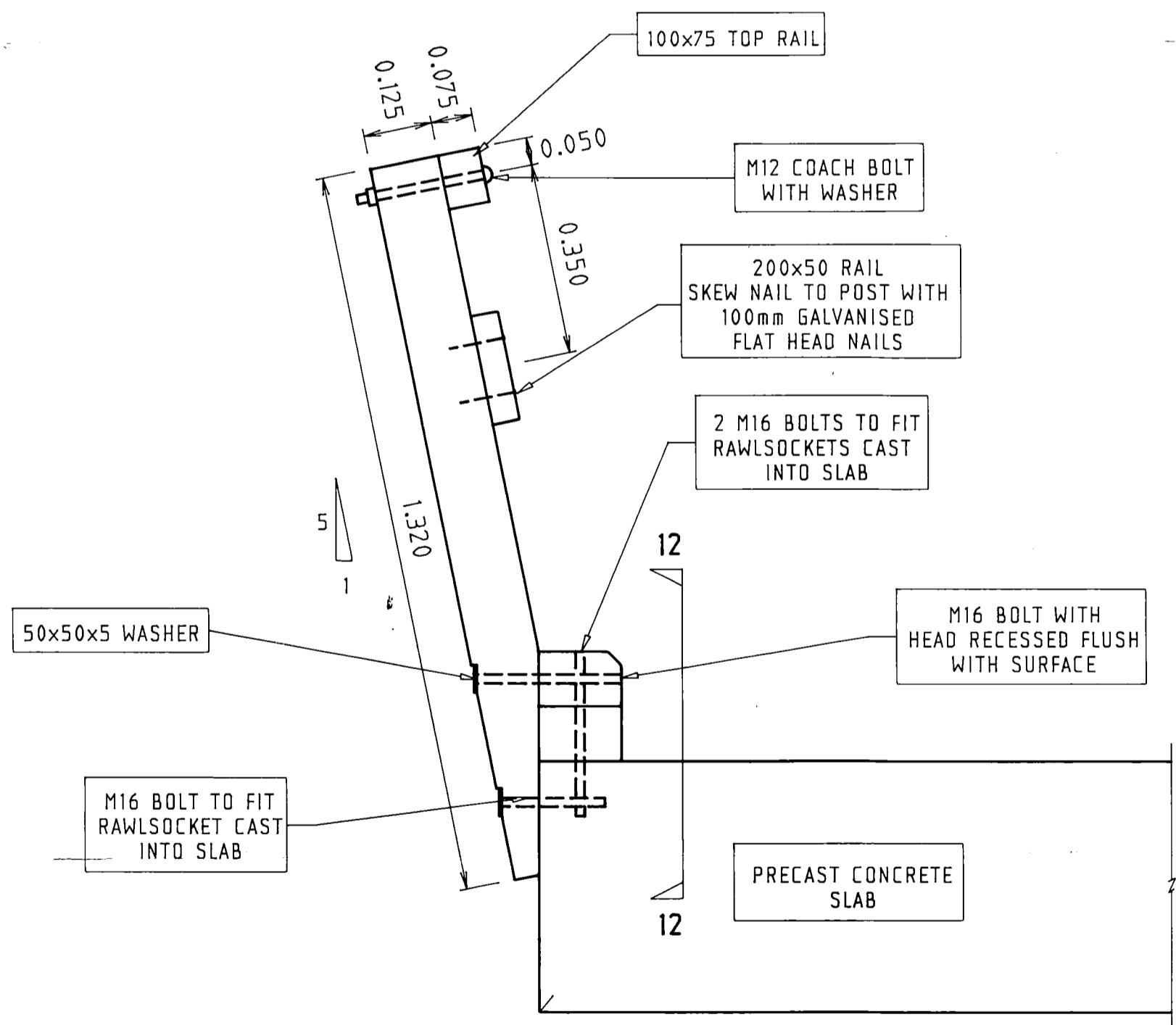
VIEW 12-12

SCALE 1-10



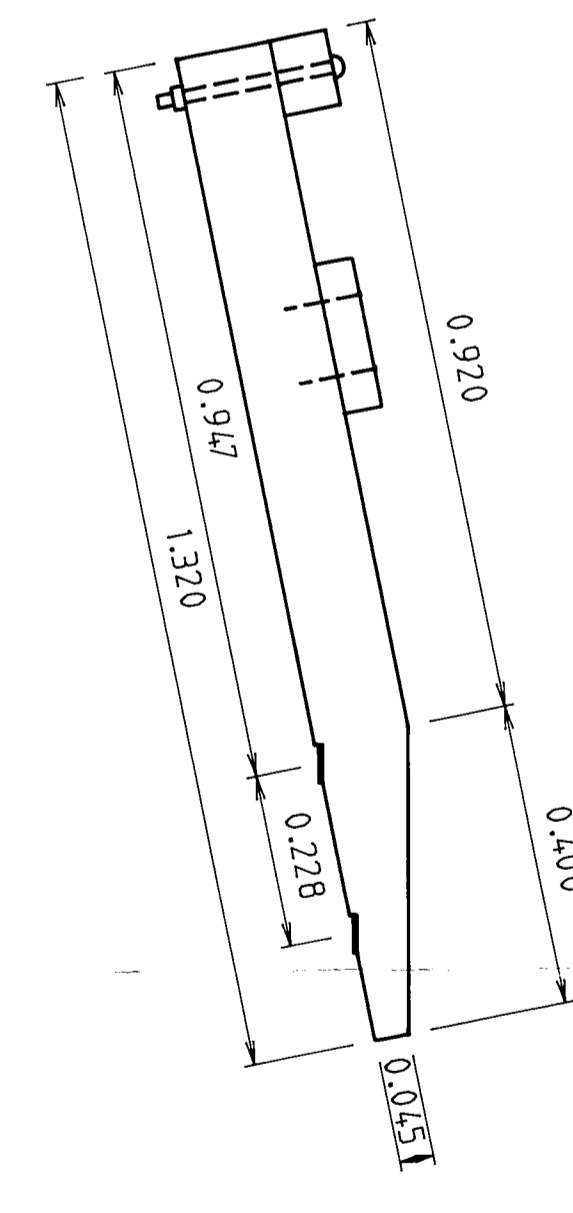
BRIDGE END MARKER DETAIL

SCALE 1-10



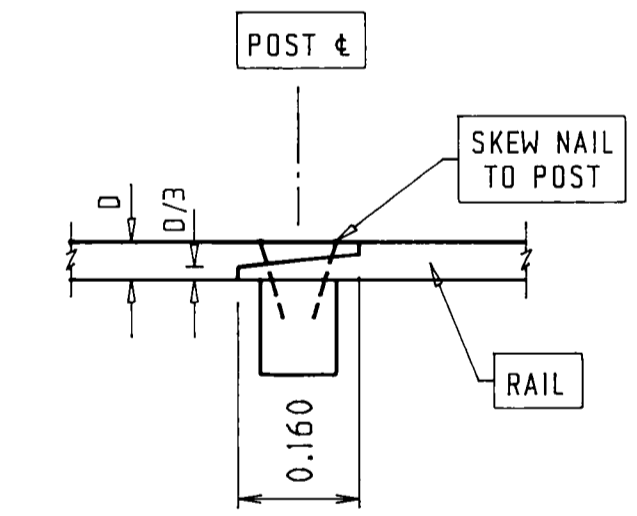
SECTION 10-10

SCALE 1-10



POST DIMENSIONS

SCALE 1-10



RAIL JOINT DETAIL

SCALE 1-10

- NOTES**
- ALL BOLTS, NUTS AND WASHERS ARE TO BE HOT DIP GALVANISED. ALL BOLTS SHALL BE GREASED BEFORE INSERTION.
 - ALL TIMBER SHALL BE H3 TREATED, ROUGH SAWN N.Z. RADIATA PINE.
 - ALL NAILS USED ARE TO BE GALVANISED FLAT HEAD.
 - THE HANDRAIL AND KERB SHALL BE PAINTED WITH ONE COAT OF PRIMER, AND TWO COATS OF WHITE ACRYLIC PAINT.

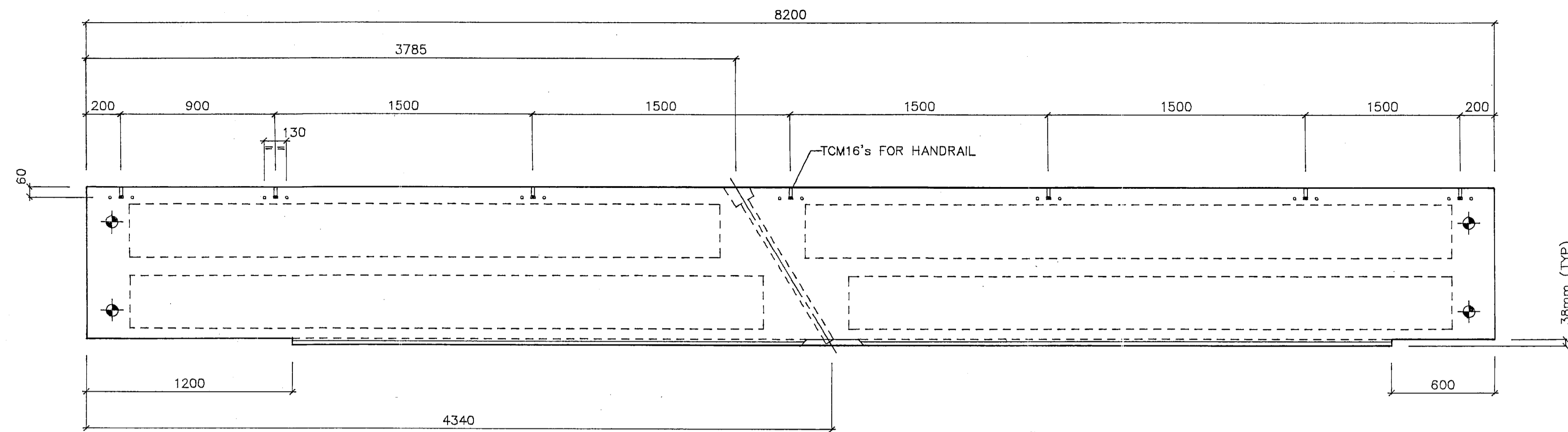
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F292	32-39	DESIGN	A RICHARDSON	5/90	A		
LEVEL BOOK NO	PAGES	DRAWN	A RICHARDSON	6/90	B		
L333	21	DRAWING CHECKED			C		
CALC BOOK NO	PAGES	DESIGN CHECKED			D		
C157	25-40				E		
ORIGIN OF LEVELS	ASSUMED				F		
FILE REF	35/1077/4	WORK COMPLETED	HANDRAIL.PAL				
REFERENCE PLANS							

SOUTH KARORI RD
BRIDGE No.3, REPLACEMENT OF DECK
HANDRAIL DETAILS
SCALES AS SHOWN

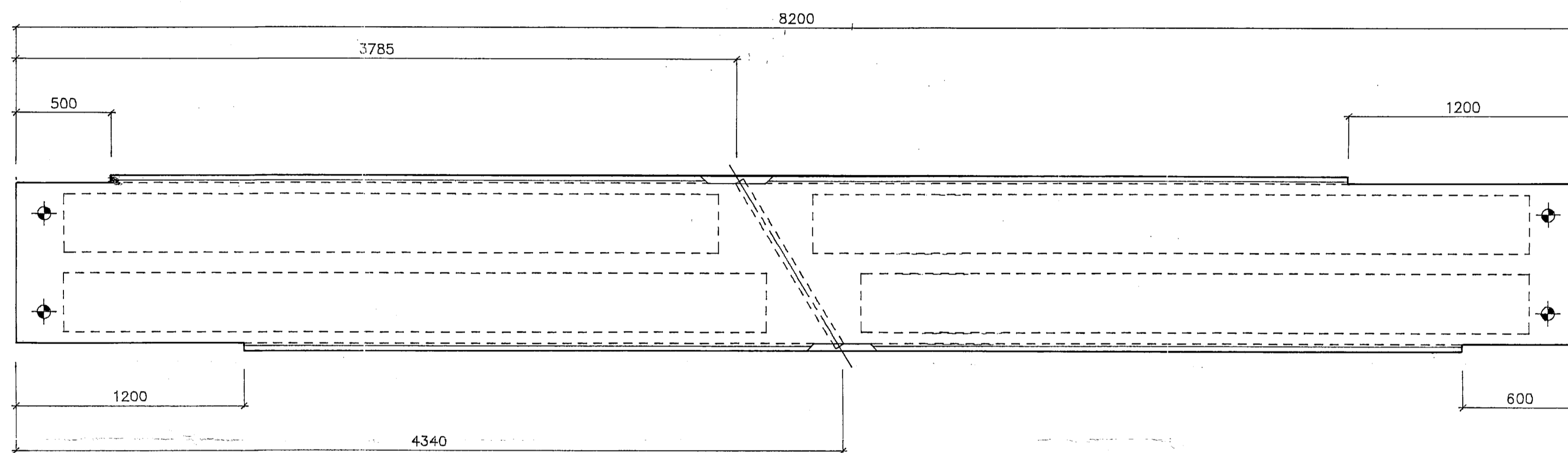
WELLINGTON CITY COUNCIL
WORKS DEPARTMENT
CIVIL ENGINEERING DIVISION

DESIGN BRANCH
PLAN NO 40/2167
SHEET 5 OF 5 SHEETS
APPROVED
N.F.YE
CITY ENGINEER
B.W.HODGE
CIVIL DESIGN ENGINEER

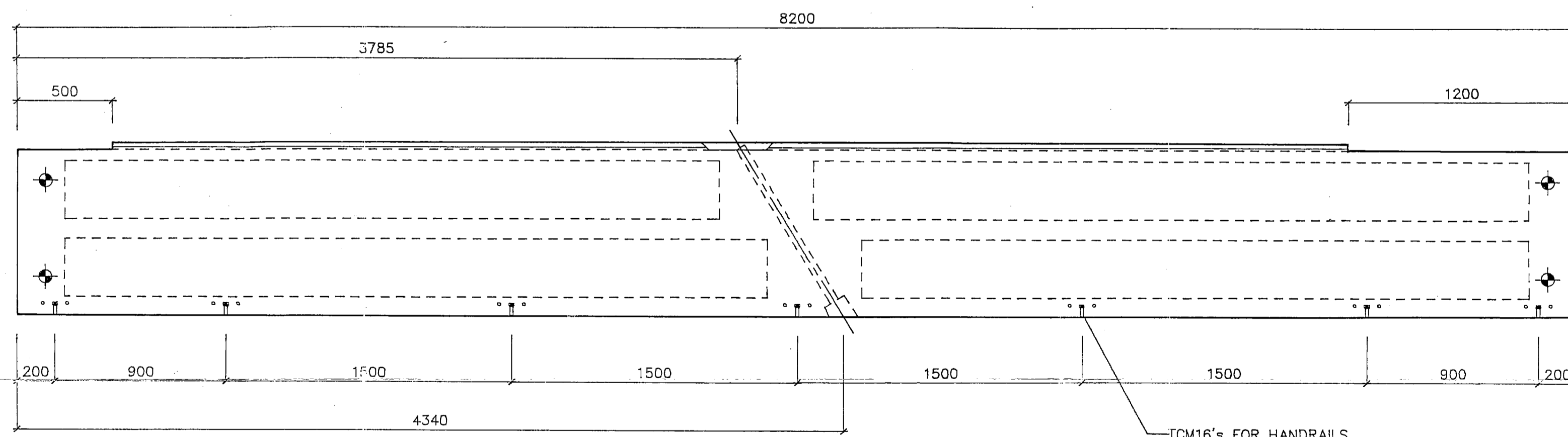




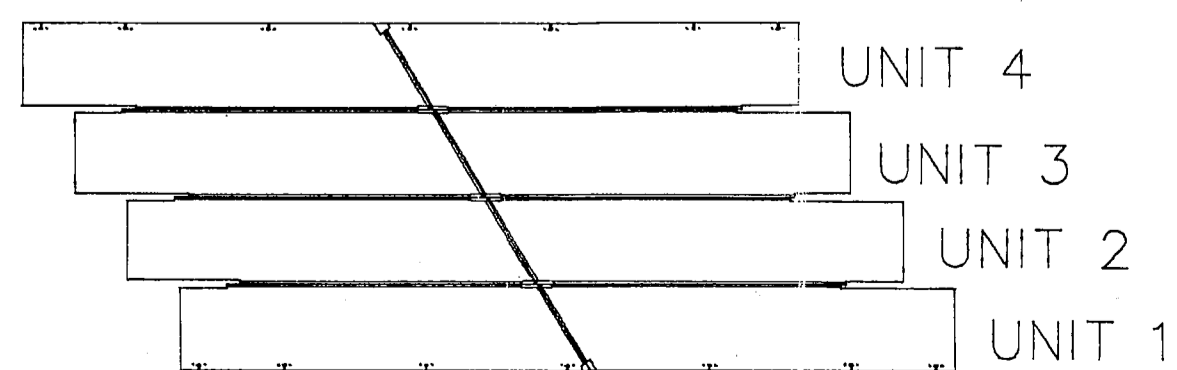
UNIT 4



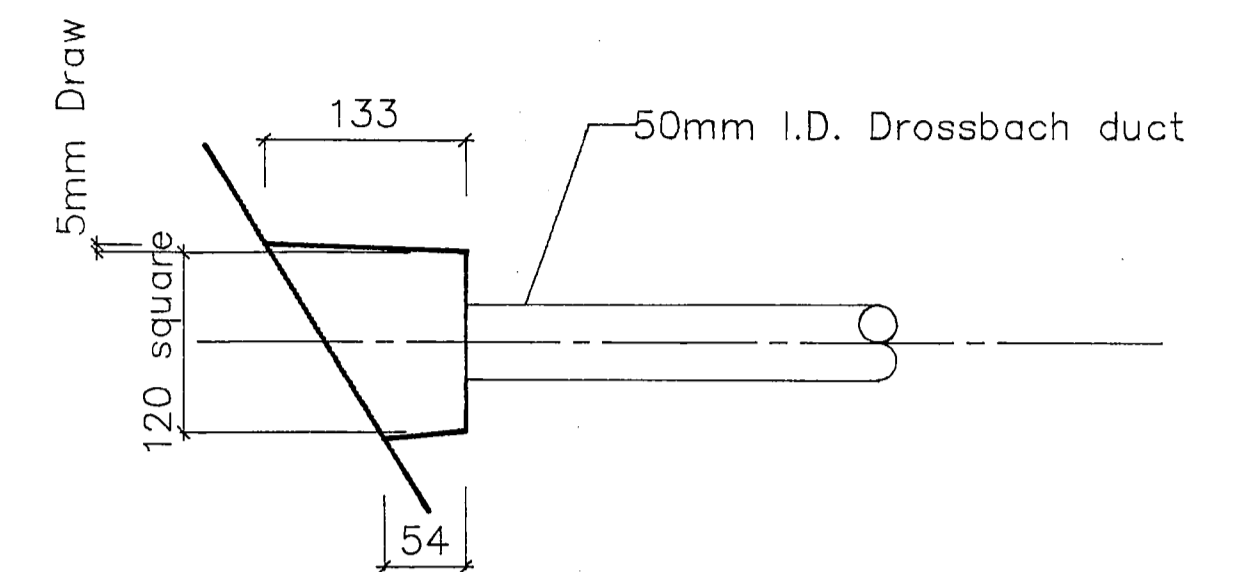
UNITS 2 AND 3



UNIT 1

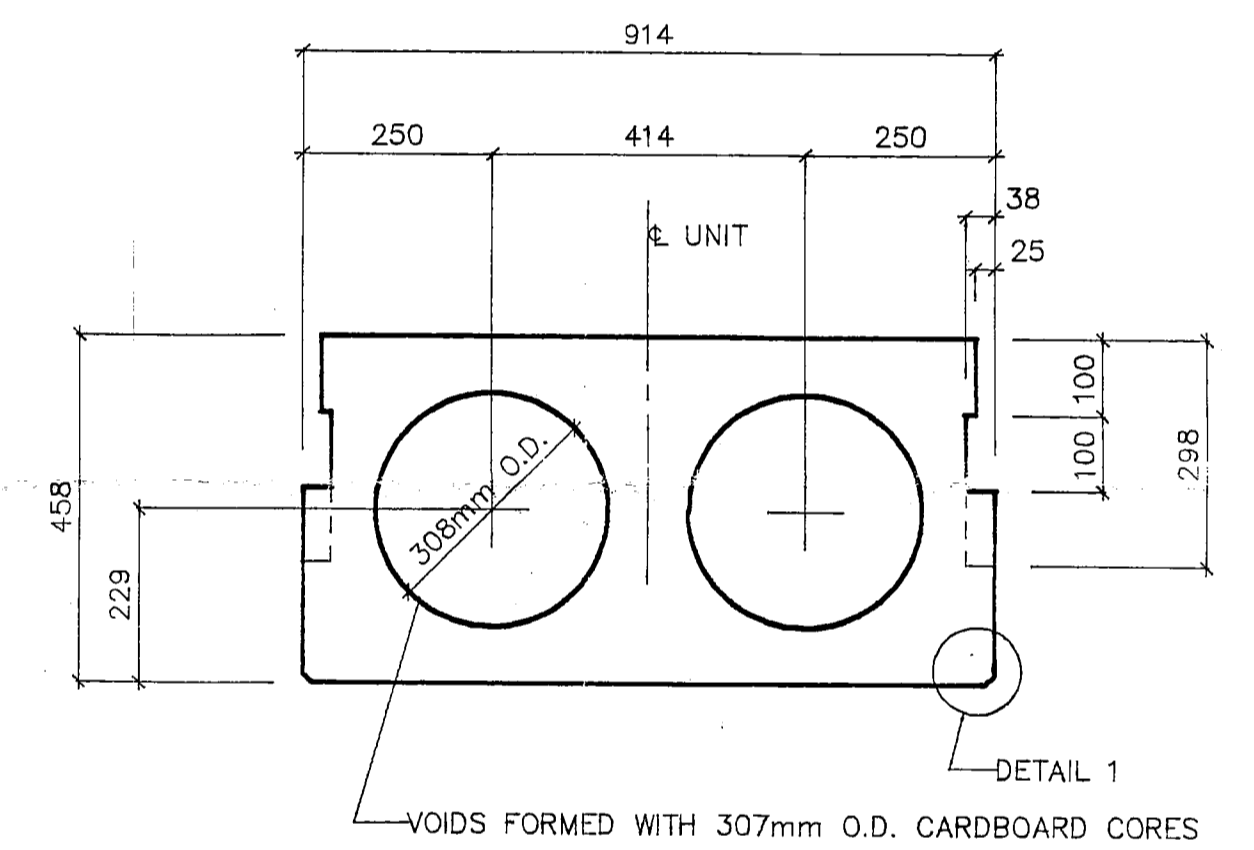


KEY PLAN



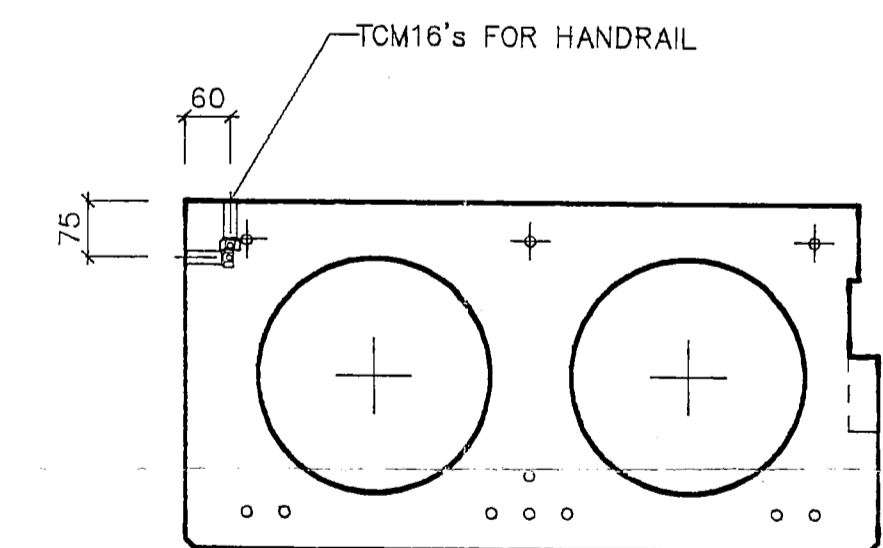
TRANSVERSE DUCT

Scale 1:5



INNER UNIT TYPICAL SECTION

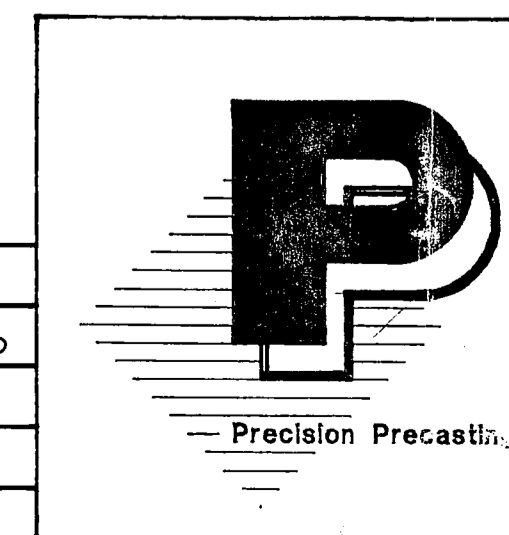
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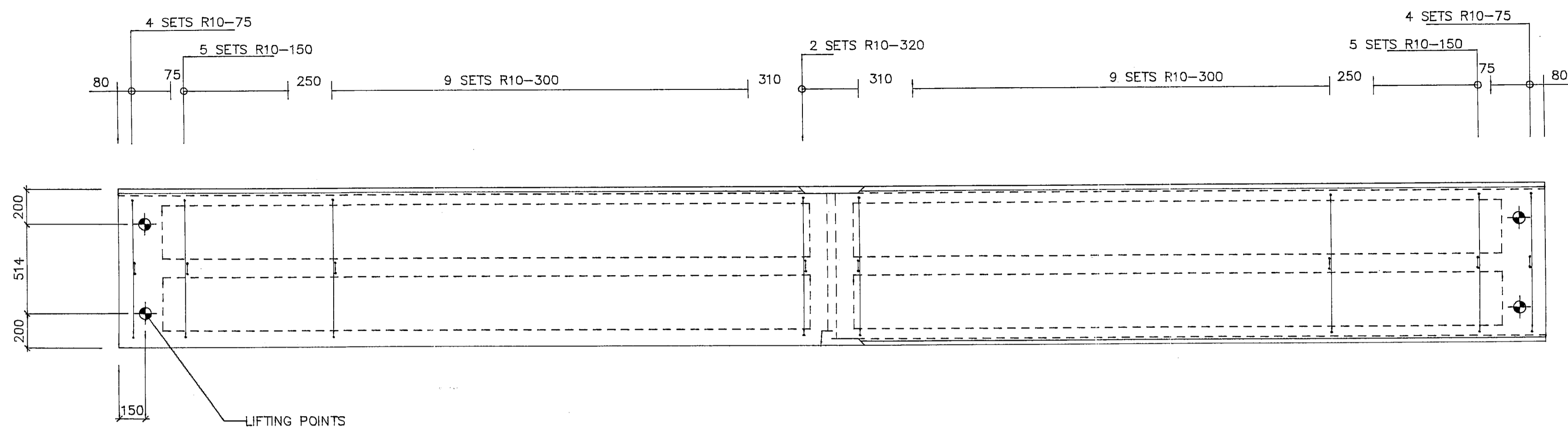
OUTER UNIT TYPICAL SECTION

Scale 1:10

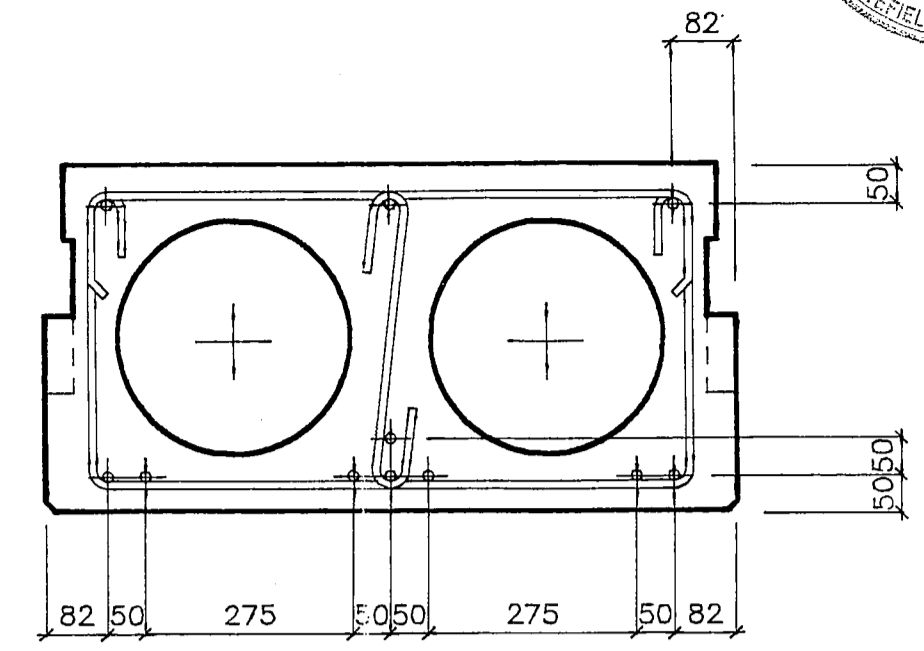
Issue	Revision	Initials	Date	Issue	Distribution	Date
				Prelim	31 st to June Const.	29.10.90



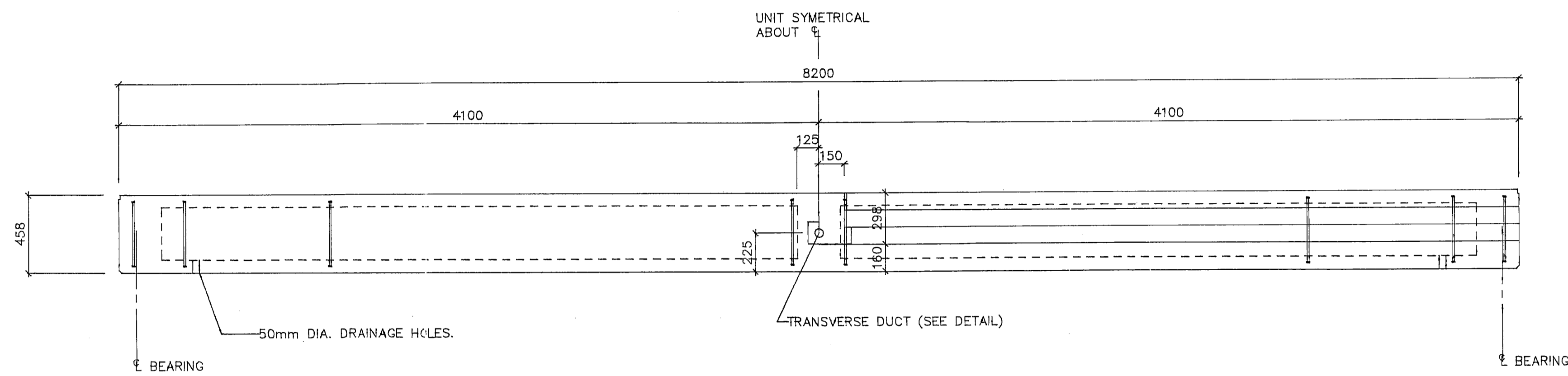
Scales: AS SHOWN Drawn: M.D. Williams Date: 24/10/90	Precision Precasting (WGTN) Ltd Private Bag, Otaki. Phone (069) 48126, Fax (069) 48344
No.3 BRIDGE KARORI STH. RD. WELLINGTON PRESTRESSED D.H.C. BEAMS 914 x 458 x 8.200	Dwg No. PP664 Sh. 1 Rev.



PLAN



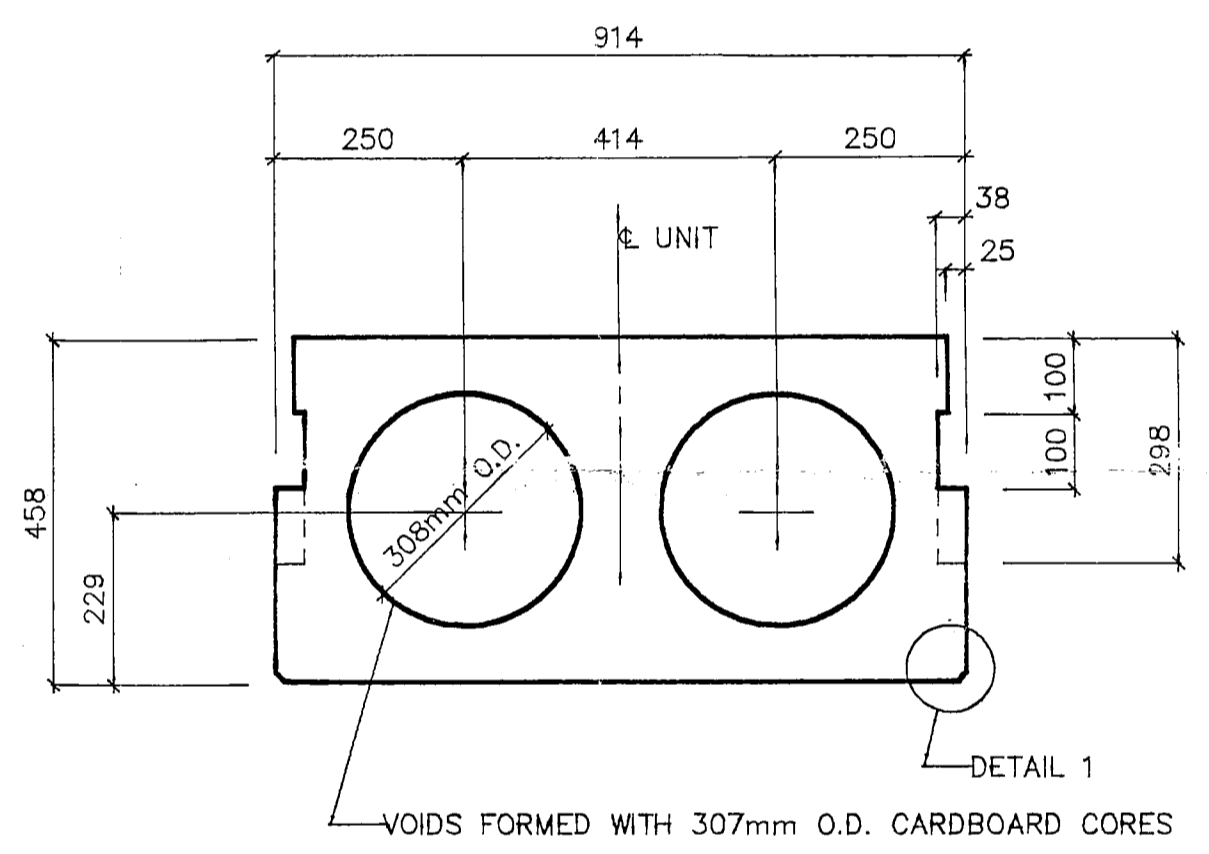
TYPICAL STRAND LAYOUT
TYPICAL REINFORCEMENT
Scale 1:10



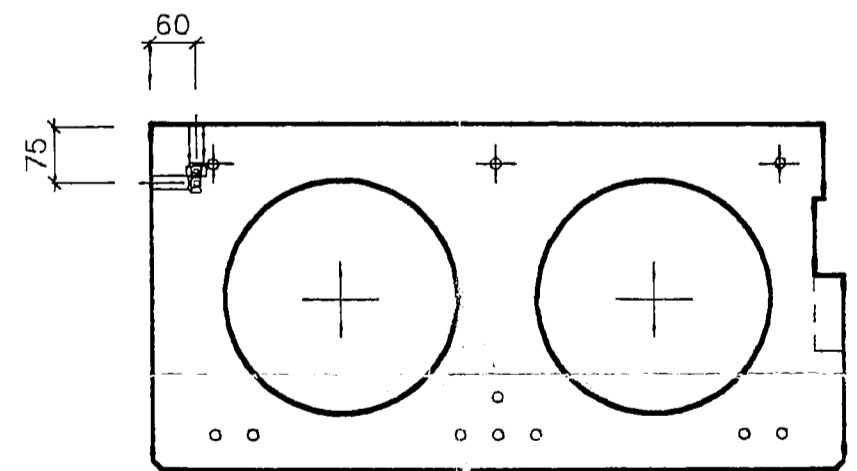
OUTER UNIT
PART ELEVATION OUTER FACE

INNER UNIT
PART ELEVATION TYPICAL

ELEVATION
Scale 1:20



INNER UNIT
TYPICAL SECTION
Scale 1:10

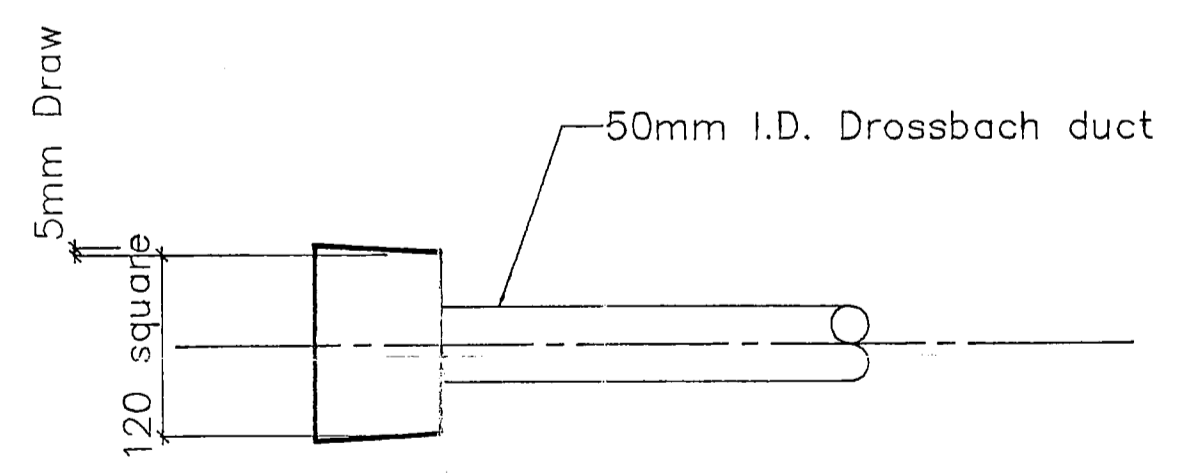


OUTER UNIT
TYPICAL SECTION
Scale 1:10

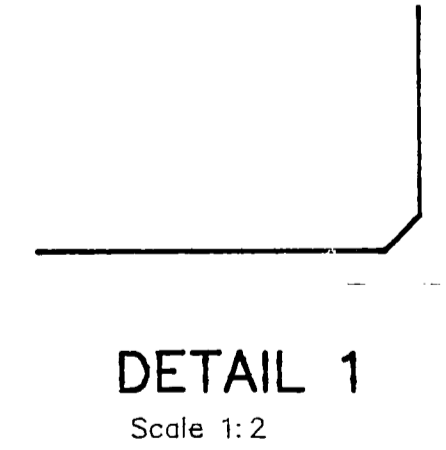
REINFORCEMENT (Per beam)			
BAR	No. OFF	CUT LENGTH	DESCRIPTION
R10	38	1035	
R10	38	1730	
R10	38	575	

NOTES

- Strand = 12.9 mm dia 7 wire strand with an U.T.S. of 186kN.
- PRESTRESSING: Average initial prestressing force per strand = 0.74 x 186kN (Force prior to release).
- TOLERANCES
Length = +/- 15mm
Cross section = + 6mm
Strand = +/- 3mm
Hogging = +/- 12mm
- HANDLING: Units are only to be lifted and or dunnaged within the first 500mm in from each end of the beams.
- FINISHES:
Top surface broom finished
Shear key chequered plate finish
Elsewhere off the form finish
- CONCRETE STRENGTH:
28.5 MPa compressive strength at release
40 MPa compressive strength at 28 days
- After release strands are to be cut flush with the concrete at each end of the unit. The ends of the unit are then to be coated up to 50mm below the top of the unit with a coating of mulseal.

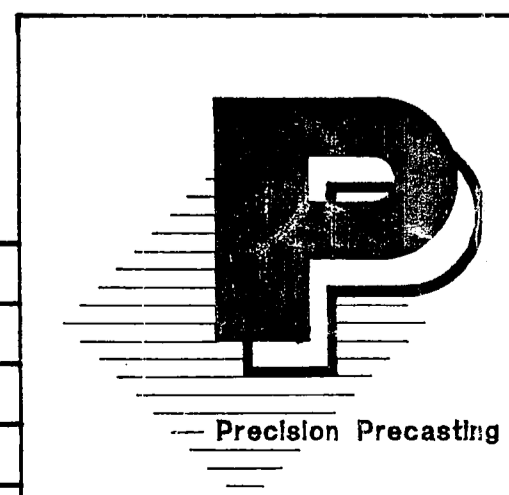


TRANSVERSE DUCT
Scale 1:5



DETAIL 1
Scale 1:2

Issue	Revision	Initials	Date	Issue	Distribution	Date
				Prelim	2nd to June Garret	23-10-90



Scales: AS SHOWN Drawn: M.D. Williams Date: 10/10/90	Precision Precasting (WGTN) Ltd Private Bag, Otaki. Phone (069) 48126, Fax (069) 48344
No.3 BRIDGE KARORI STH. RD. WELLINGTON PRESTRESSED D.H.C. BEAMS 914 x 458 x 8.200	Dwg PP664 No. Sh. 2 Rev.