



City of Nedlands

Technical Services Reports

Committee Consideration – 3 December 2019
Council Resolution – 17 December 2019

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Montgomery Avenue – Leaning Wall2

TS24.19		Montgomery Avenue – Leaning Wall	
Committee	3 December 2019		
Council	17 December 2019		
Applicant	City of Nedlands		
Employee Disclosure under section 5.70 Local Government Act 1995	Nil		
Director	Jim Duff		
Attachments	1. Mount Claremont Subdivision Drawings – Stage 7 2. Temporary Footpath Drawing 3. Legal Advice from McLeods (CONFIDENTIAL)		

Executive Summary

The purpose of this report is to advise Council of progress to date concerning reconstruction of the failing section of boundary wall on the east side of Montgomery Avenue, between St Johns Wood Avenue South and Regents Boulevard, Mt Claremont, and seek approval to expend operational funds to construct a temporary alternative footpath.

Recommendation to Committee

Council:

1. **Approves construction of a temporary alternative footpath to address safety issues for pedestrians and school children on bikes;**
2. **Approves funding of the \$10,000 cost for the temporary footpath construction from Technical Services Operational budget;**
3. **Requests the CEO to seek appropriate recovery of costs for the temporary footpath required due to the ongoing unsafe boundary wall at Montgomery Avenue, Mt Claremont; and**
4. **Approve Administration waiving the city component of the Development Application and Building Application fees associated with the demolition and reconstruction of the section of boundary wall.**

Discussion/Overview

Background

On 31 October 2017 it came to the City's attention that a section of boundary wall on the east side of Montgomery Avenue between St Johns Wood Avenue South and Regents Boulevard was leaning and potentially presenting a hazard to the public. To address this concern the City engaged Wood and Grieve Engineers (WGE) to investigate the

condition of the wall along its entire length on the road reserve side, and one typical property on the private property side.

The WGE report provided a condition assessment of the wall and recommendations on repair. The recommendations included undertaking a more detailed survey of the wall to determine the extent of the out of plumb sections. Piers out of plumb by more than 70mm and walls out of plumb by more than 20mm were recommended to be taken down and rebuilt. The survey revealed that all 15 properties are in breach of the maximum wall lean criteria.

Letters were sent to all 15 property owners on 19 November 2018 advising of the WGE recommendations and the requirement for them to repair their walls at their expense. The Manager Infrastructure Services met with several residents at the City of Nedlands office on 29 November 2018 to present the structural engineer's recommendations and attempt to facilitate an agreement between the residents to reconstruct the wall. Due to the potential safety issues the Montgomery Avenue footpath from St Johns Wood Boulevard (south) to Regents Boulevard was closed to the public with signs and bunting on 10 December 2018.

The residents were issued with a Notice under Section 3.25 of the Local Government Act on 15 May 2019 requiring them to repair the limestone and masonry wall within 60 days. The Notice was subsequently extended until 30 June 2019 to allow the owners more time to arrange quotes from building contractors. The residents engaged WGE to complete a more detailed inspection of the wall and provide a design and specification to reconstruct the wall. The residents have provided design drawings and a specification to reconstruct the boundary wall prepared by Wood and Grieve Engineers. The residents have provided three quotes for reconstruction of the wall from building contractors and are seeking financial assistance from Landcorp/DevelopmentWA who undertook the development of the land.

Given the complexity associated with rectifying the wall, the City has been liaising with residents for approximately 12 months to arrange the necessary repairs.

Boundary Wall Reconstruction

WGE have provided engineering design drawings for the reconstruction of the screen wall. WGE identified in their investigation that the underlying limestone retaining wall was not constructed in accordance with Landcorp's 1993 subdivision drawings. Reconstruction of the wall will require grout injection into the soil behind the retaining wall. The subdivision drawings for Stage 7 of the Mount Claremont Subdivision are provided in Attachment 1.

The residents sought quotes from three building contractors ranging from \$532,430 to \$833,292, including GST. Copies of the quotes have been provided to the City. The residents have requested the City contribute towards the reconstruction of the wall and as advised during the public meeting this remains a matter for the owner, their insurer and the developer to resolve. It is not the responsibility of the ratepayers to fund private owners' repairs and any agreement fund the work could set an undesirable precedent for similar claims where boundary walls abut the road reserve. It could also expose the City to future liability for any quality issues associated with the proposed design and/or construction.

Landcorp

The City understands the limestone retaining component of the wall was constructed as part of the original subdivision works in approximately 1993, based on the subdivision drawings. It also understood that Landcorp constructed the decorative brick fence on top of the limestone wall as part of subsequent estate development works, with the date of these works unknown as the works did not require an approval from the City.

The City sent a letter to Landcorp on 12 December 2018 requesting a funding contribution to reconstruct the wall. A letter was received from Landcorp on 31 January 2019 advising that Landcorp does not accept any responsibility for the condition of the wall and is not willing to contribute funding. A letter was subsequently sent to the residents on 14 February 2019 advising them of Landcorp's response.

Meeting with Residents, Councillors and Landcorp on 7 November 2019

The City met with the residents, ward Councillors, the Mayor and DevelopmentWA on 7 November 2019 to facilitate a resolution. DevelopmentWA is a recent merger of Landcorp and the Metropolitan Redevelopment Authority. Mr Ardron from DevelopmentWA advised the residents to prepare details of their claim against DevelopmentWA for the cost of the works. The insurance claim could be made either individually or as a group. Mr Ardron also advised that upon receiving the claim, DevelopmentWA will expedite the insurance claim process but did not provide any guarantee that the claim will be accepted.

During the meeting several residents questioned the City's involvement in approving the subdivision plans and responsibility for repairing the wall. The residents were advised that as walls are contained within the lot and retain their land, it is the landowner's responsibility to make good any repairs, and that they might provide the necessary evidence to support a successful claim against Landcorp/DevelopmentWA.

Legal Advice

The City sought legal advice (refer to Confidential Attachment 1 under separate cover) on the process followed to date and it was recommended that Administration should issue residents with a second notice requiring the works to be carried out within 28 days. However, given the potential demolition and construction timeframes particularly during the Christmas period, this was considered impractical and unreasonable to residents. Therefore, Administration will issue a second notice under Section 3.25 of the Local Government Act, for reconstruction of the boundary wall with a practical completion date on or before 30 April 2020. This will allow sufficient time for any claims to be assessed and subsequent works to be arranged.

Temporary Footpath

The City has received several complaints from residents regarding the length of time the footpath has been closed and the risk to pedestrians and primary school children riding their bikes on the road pavement of Montgomery Avenue. The complaint was also received from one of the residents at the 7 November 2019 meeting.

In anticipation that reconstruction of the wall and/or insurance claims will take some time to resolve, a temporary footpath should be constructed on the west side of Montgomery Avenue to replace the closed section of footpath. The temporary footpath alignment is shown in Attachment 2.

Construction of the temporary path would comprise of levelling and compaction of the existing turf/sand base over a width of 1.0m to create a smooth level surface suitable for children's bicycles and pedestrians. A 1.0m length of barrier kerb will be replaced with mountable kerb at the Regents Boulevard end. Suitable signage and/or bunting will be installed to make the temporary path alignment clear to the public.

The cost estimate to provide the temporary footpath is \$10,000 which includes removal of the temporary path upon completion of the boundary wall construction. The bunting and signage closing the existing permanent footpath will need to be maintained until the boundary wall has been reconstructed.

These costs are recoverable under the Local Government Act 1995 Section 3.26 where appropriate notice has been provided by the City to make safe the wall.

Key Relevant Previous Council Decisions:

Nil

Budget/Financial Implications

The \$10,000 cost associated with Item 3 to construct a temporary path is unbudgeted and will be funded from the technical services operational budget.

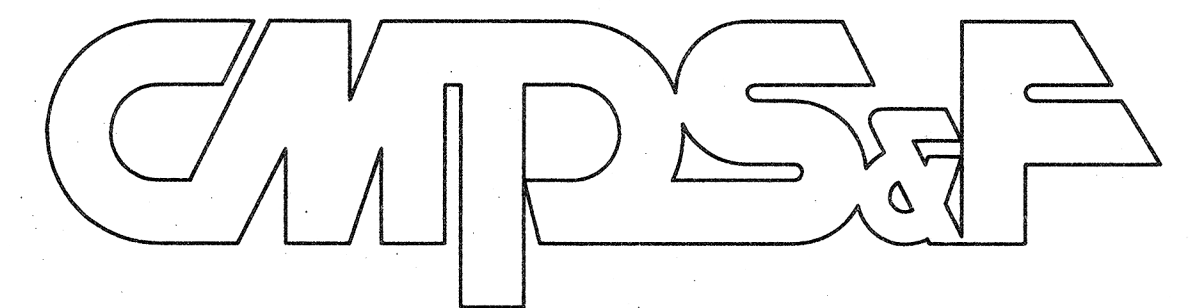
LANDCORP

MT CLAREMONT SUBDIVISION

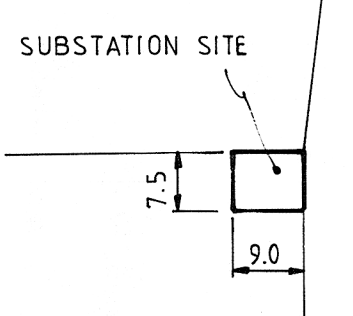
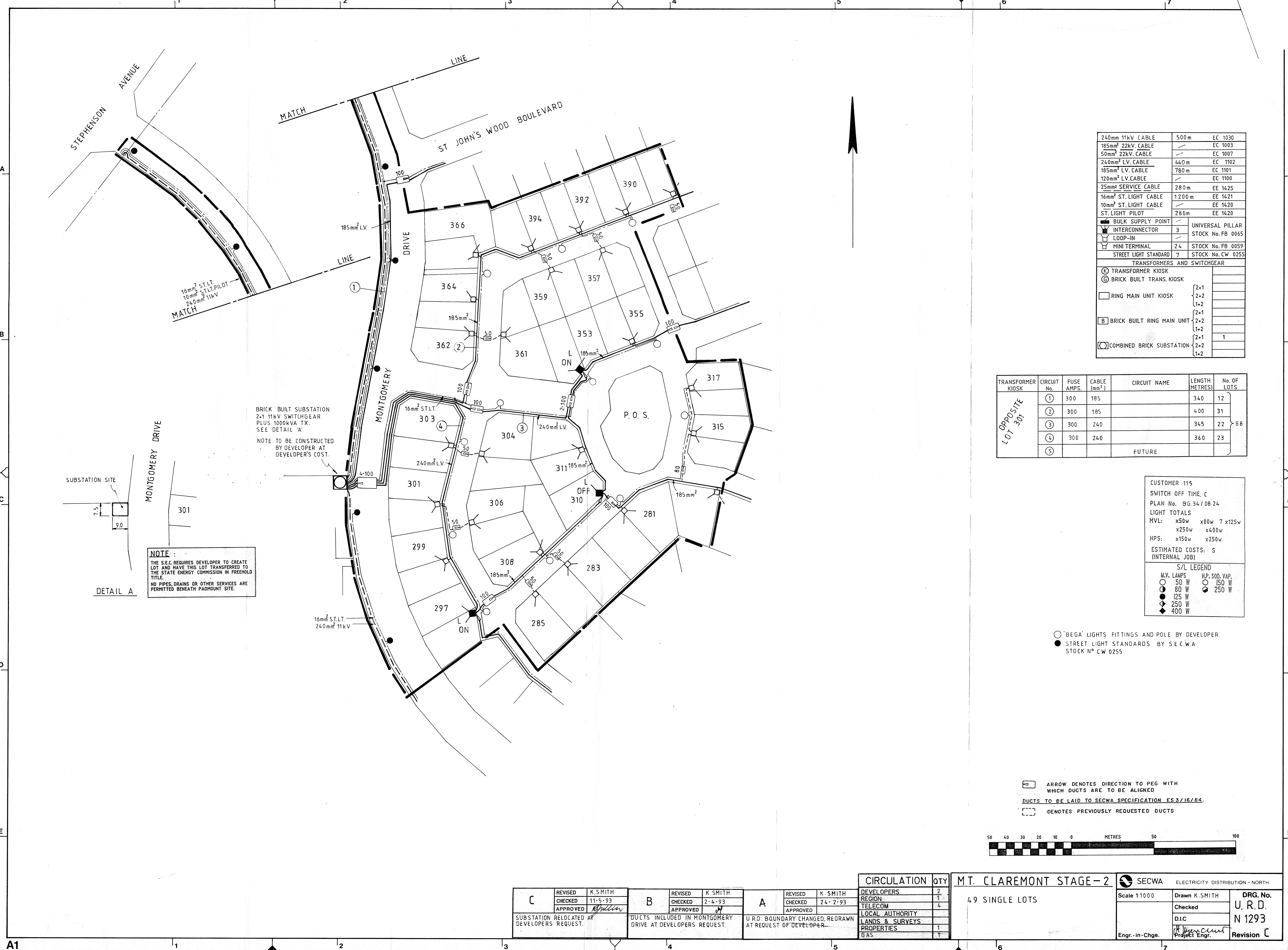
- ASHBRIDGE RETREAT
- TOWERHILL PLACE
- REGENTS BOULEVARD
- FINSBURY GROVE
- NEWARK SPUR COURT
- GAINSFORD LANE

STAGE 7

PLANS RECEIVED
16/2/93
REFERRED TO McDONALD AFFLECK
FOR JETTING 17/2/93



SCOTT & FURPHY
ENGINEERS & PLANNERS
200 Adelaide Terrace, Perth WA 6000
Tel. (09) 325 9366 , Fax (09) 325 9897



NOTE:
THE S.E.C. REQUIRES DEVELOPER TO CREATE LOT AND HAVE THIS LOT TRANSFERRED TO THE STATE ENERGY COMMISSION IN FREEHOLD TITLE.
NO PIPES, DRAINS OR OTHER SERVICES ARE PERMITTED BENEATH PADMOUNT SITE.

BRICK BUILT SUBSTATION
2-1 11kV SWITCHGEAR
PLUS 1000kVA TX.
SEE DETAIL 'A'

NOTE: TO BE CONSTRUCTED BY DEVELOPER AT DEVELOPER'S COST.

240mm 11kV CABLE	500m	EC 1030
185mm ² 22kV. CABLE		EC 1003
50mm ² 22kV. CABLE		EC 1007
240mm ² LV. CABLE	440m	EC 1102
185mm ² LV. CABLE	780m	EC 1101
120mm ² LV. CABLE		EC 1100
25mm ² SERVICE CABLE	280m	EE 1425
16mm ² ST. LIGHT CABLE	1200m	EE 1421
10mm ² ST. LIGHT CABLE		EE 1420
ST. LIGHT PILOT	280m	EE 1420
BULK SUPPLY POINT		UNIVERSAL PILLAR
INTERCONNECTOR	3	STOCK No. FB 0065
LOOP-IN		
MINI TERMINAL	24	STOCK No. FB 0059
STREET LIGHT STANDARD	7	STOCK No. CW 0255
TRANSFORMERS AND SWITCHGEAR		
⊗ TRANSFORMER KIOSK		
⊙ BRICK BUILT TRANS. KIOSK		
□ RING MAIN UNIT KIOSK	2-1	
	2-2	
	1-2	
	2-1	
⊠ BRICK BUILT RING MAIN UNIT	2-2	
	1-2	
	2-1	1
⊡ COMBINED BRICK SUBSTATION	2-2	
	1-2	

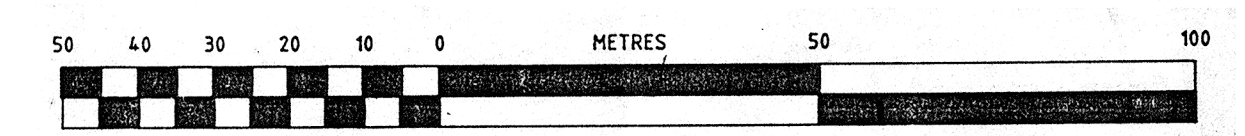
TRANSFORMER KIOSK	CIRCUIT No.	FUSE AMPS.	CABLE (mm ²)	CIRCUIT NAME	LENGTH (METRES)	No. OF LOTS
OPPOSITE LOT 301	①	300	185		340	12
	②	300	185		400	31
	③	300	240		345	22
	④	300	240		360	23
	⑤			FUTURE		

CUSTOMER 115
SWITCH OFF TIME, C
PLAN No. BG 34 / 08.24
LIGHT TOTALS
MVL: x50w x80w 7 x125w
 x250w x400w
HPS: x150w x250w
ESTIMATED COSTS: S
(INTERNAL JOB)

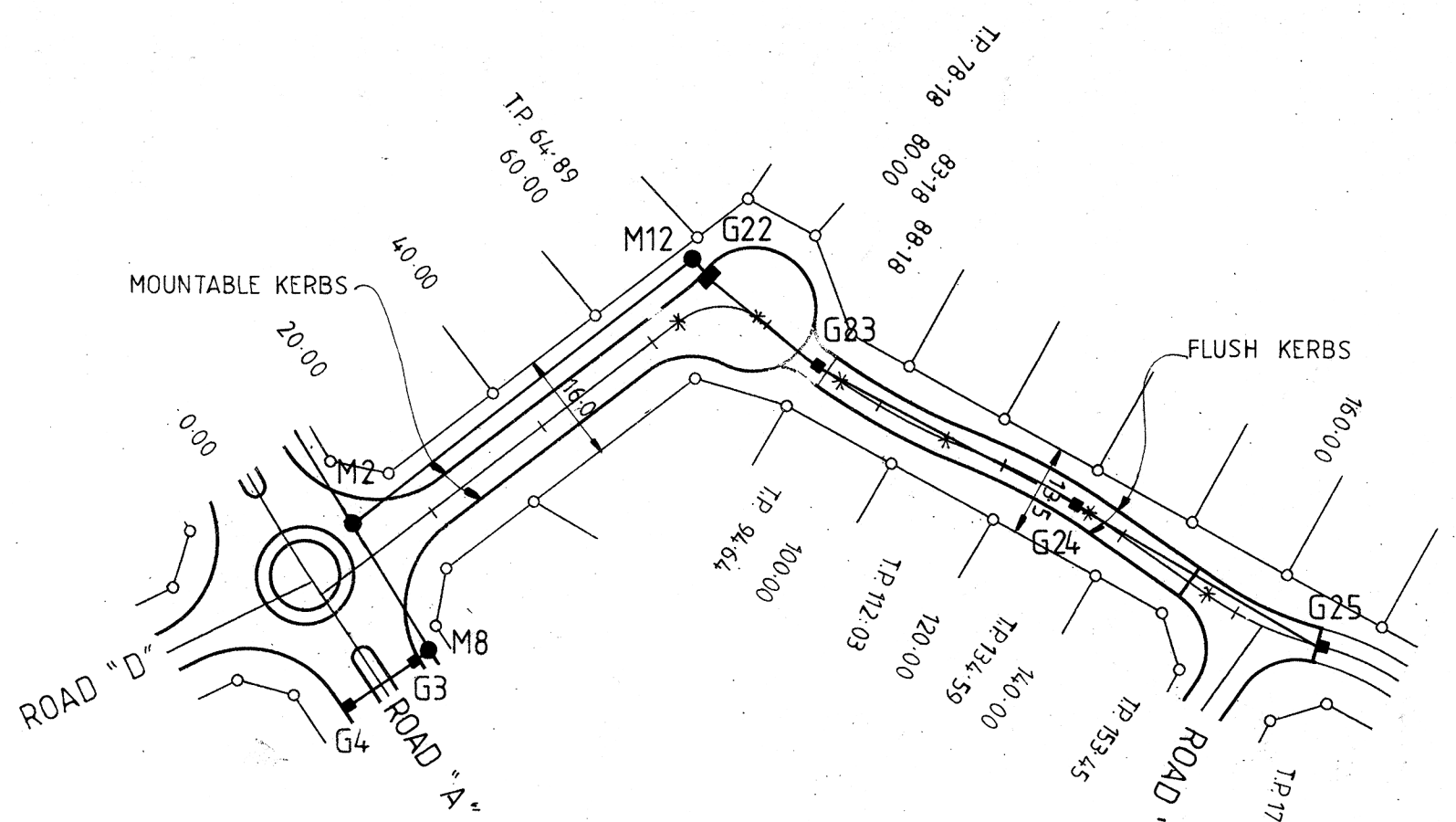
S/L LEGEND
M.V. LAMPS HP. SOD. VAP.
○ 50 W ○ 150 W
● 80 W ○ 250 W
● 125 W
● 250 W
● 400 W

○ 'BEGA' LIGHTS FITTINGS AND POLE BY DEVELOPER.
● STREET LIGHT STANDARDS BY S.E.C.W.A. STOCK N° CW 0255

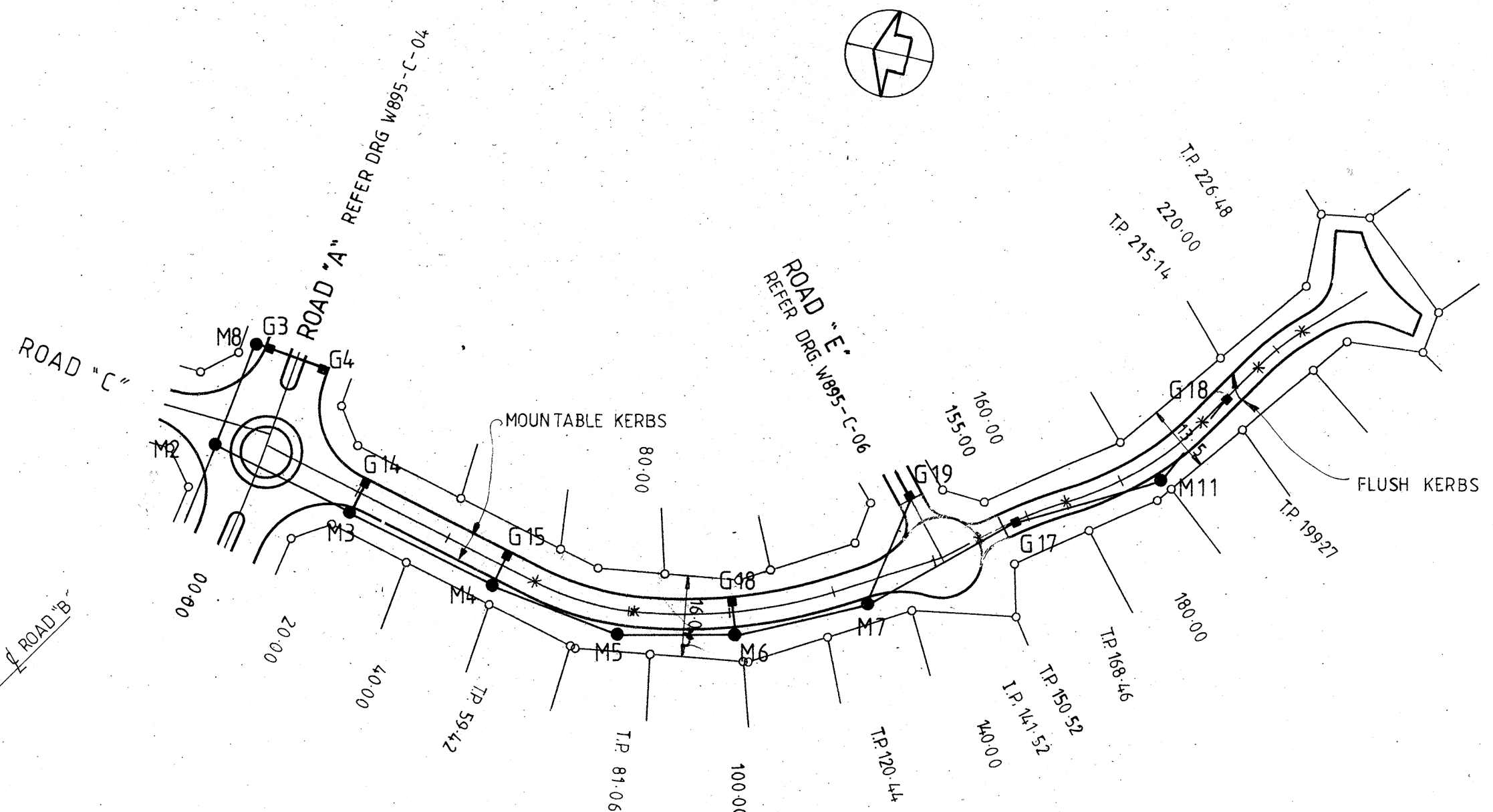
→ ARROW DENOTES DIRECTION TO PEG WITH WHICH DUCTS ARE TO BE ALIGNED
DUCTS TO BE LAID TO SECWA SPECIFICATION ES 3/16/84.
--- DENOTES PREVIOUSLY REQUESTED DUCTS



C	REVISD	K. SMITH	B	REVISD	K. SMITH	A	REVISD	K. SMITH	CIRCULATION	QTY	MT. CLAREMONT STAGE-2	SECWA ELECTRICITY DISTRIBUTION-NORTH				
	CHECKED	11-5-93		CHECKED	2-4-93		CHECKED	24-2-93		DEVELOPERS			2	Scale 1:1000	Drawn K. SMITH	DRG. No.
	APPROVED	<i>[Signature]</i>		APPROVED	<i>[Signature]</i>		APPROVED			REGION			1			U. R. D.
SUBSTATION RELOCATED AT DEVELOPERS REQUEST.			DUCTS INCLUDED IN MONTGOMERY DRIVE AT DEVELOPERS REQUEST.			U.R.D. BOUNDARY CHANGED, REDRAWN AT REQUEST OF DEVELOPER.			TELECOM	4	49 SINGLE LOTS	Revision C				
						LOCAL AUTHORITY										
						LANDS & SURVEYS			1							
						PROPERTIES			1		Engr. -in-Chg. <i>[Signature]</i> Project Eng.					
						GAS			1							

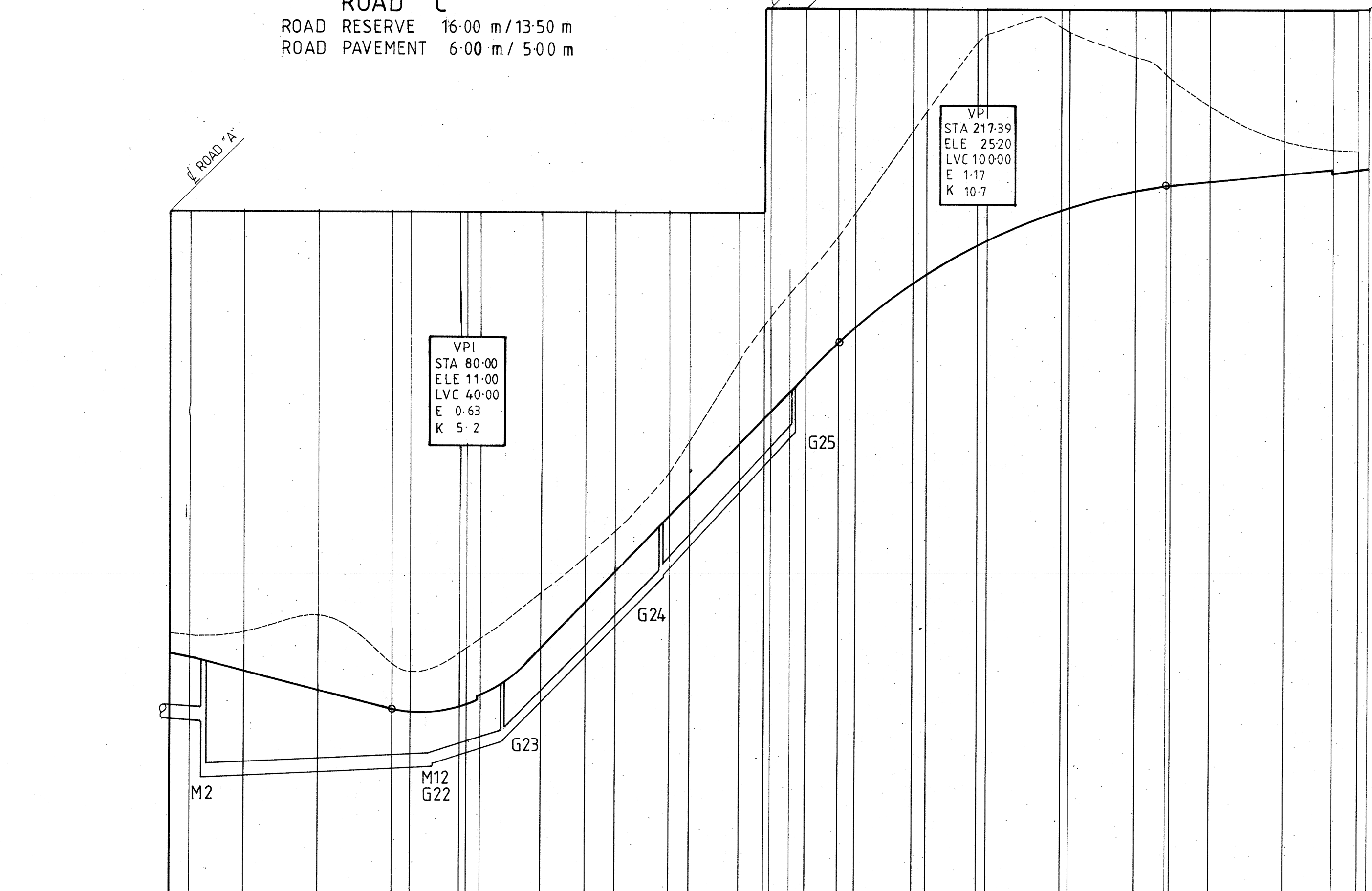


ROAD "C"
 ROAD RESERVE 16.00 m / 13.50 m
 ROAD PAVEMENT 6.00 m / 5.00 m

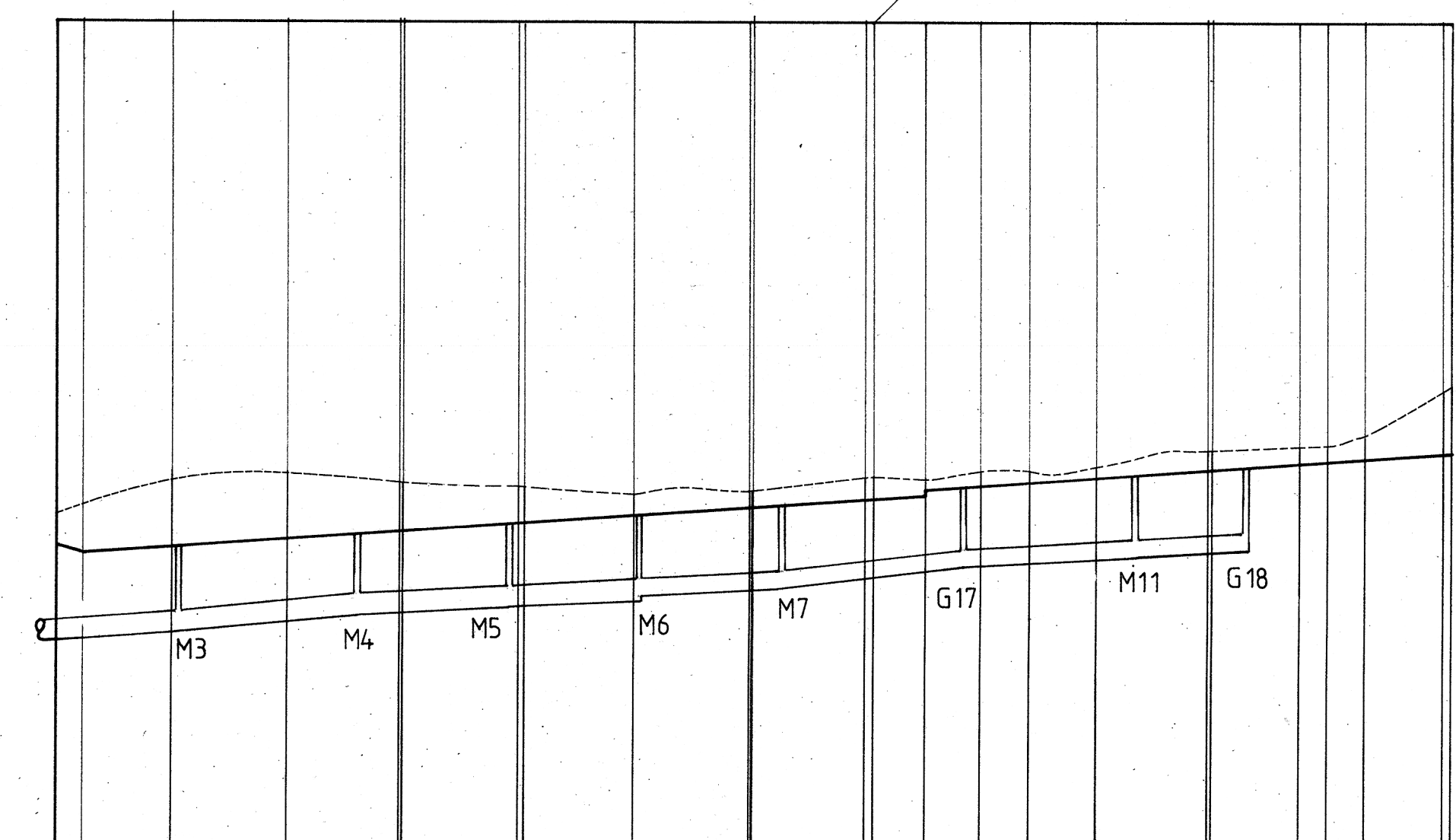
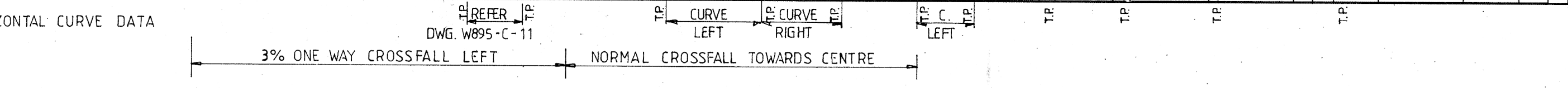


ROAD "D"
 ROAD RESERVE 16.00 m / 13.50 m
 ROAD PAVEMENT 6.00 m / 5.00 m

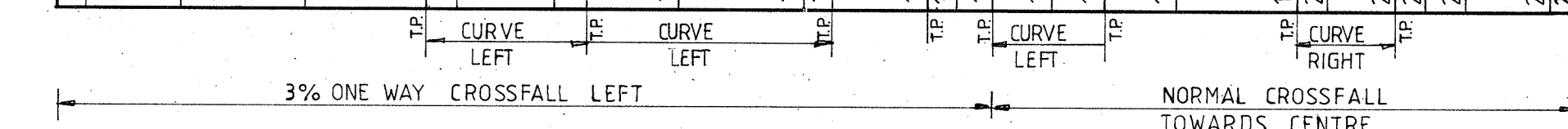
NOTE
 FOR ALL HORIZONTAL KERB DATA
 REFER TO DRG. W895 - C - 07



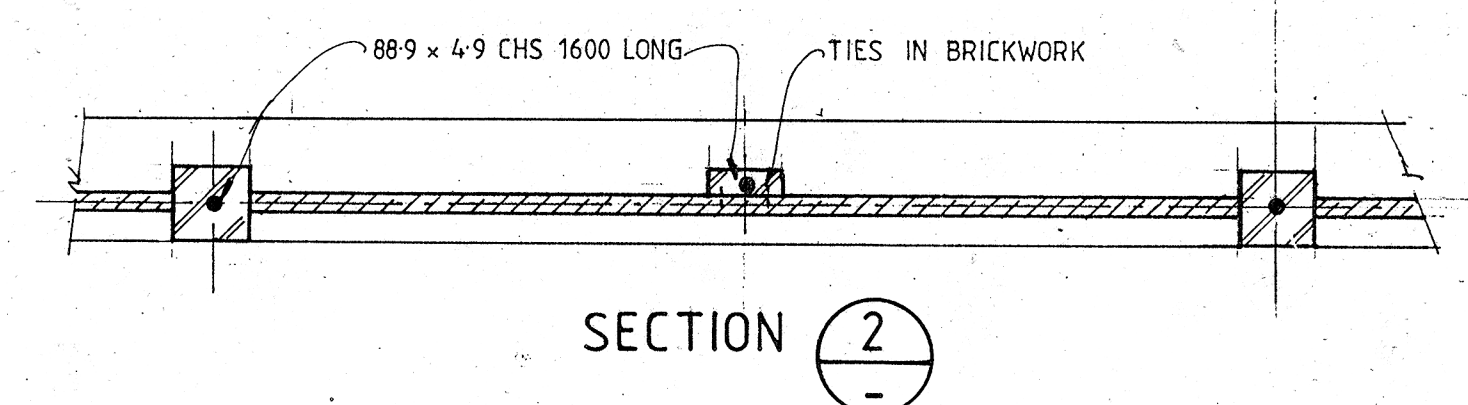
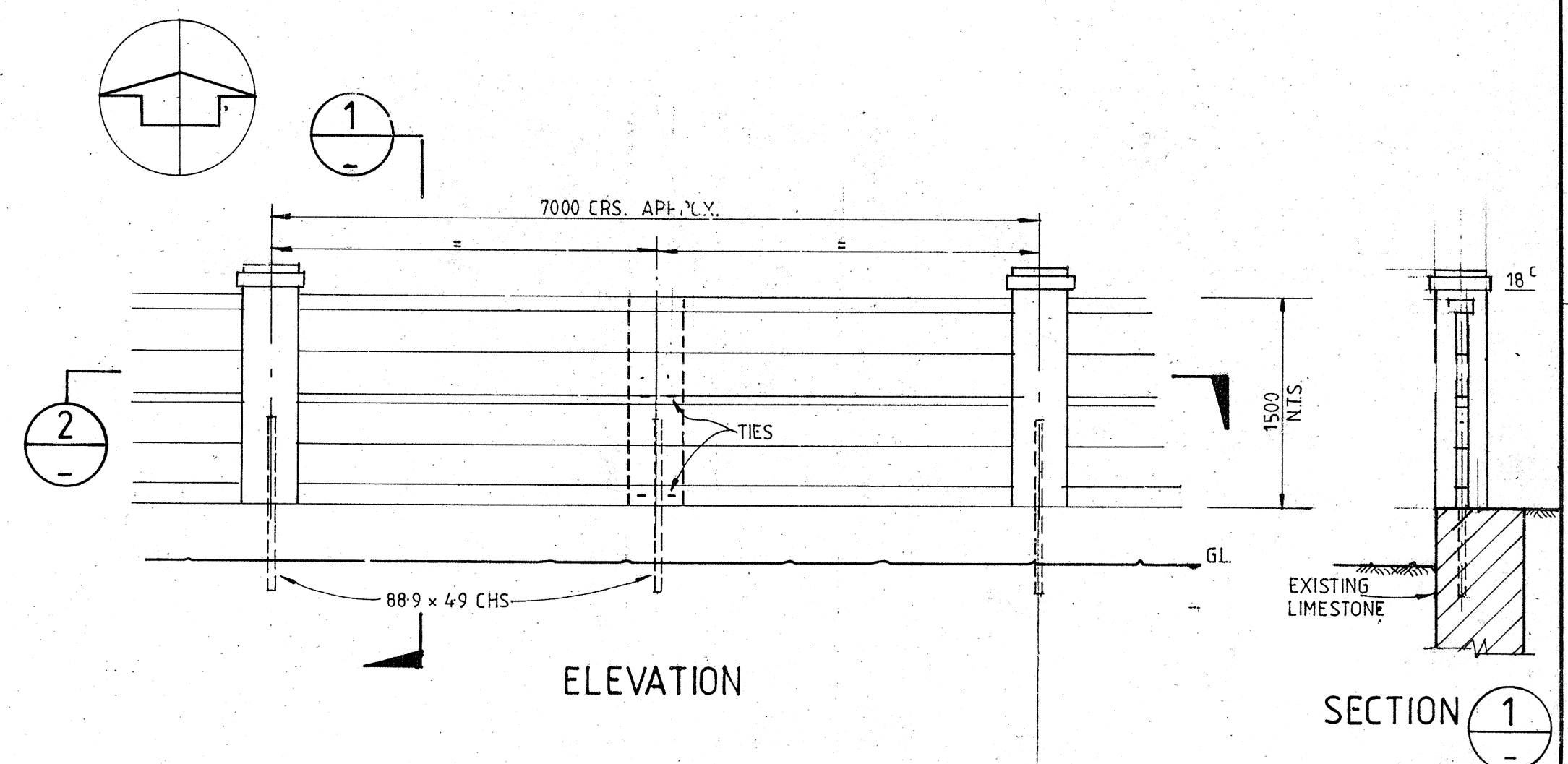
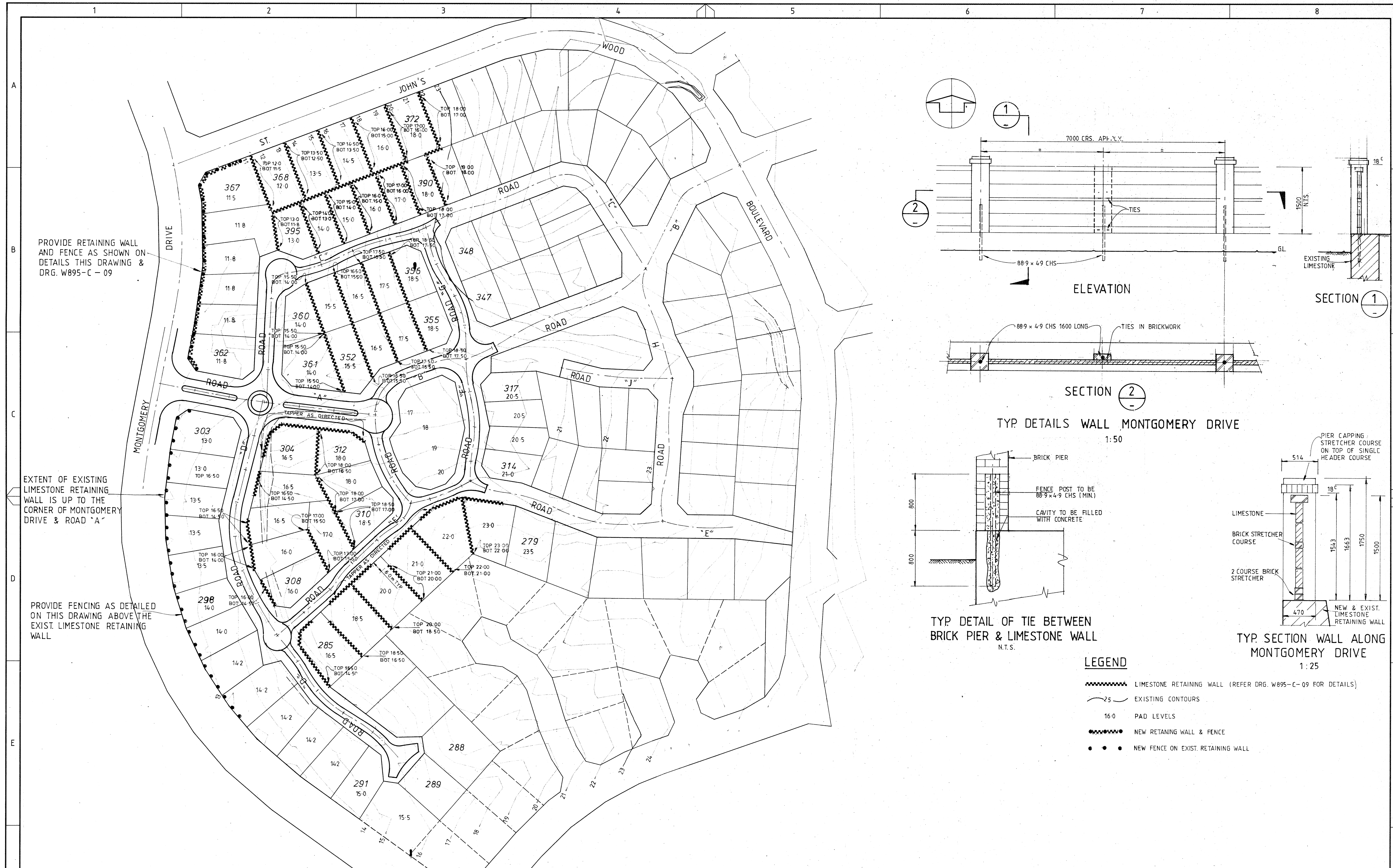
Datum R.L.6.0	
GRADIENT (%)	-3% -2.53% +10.26% +0.917% +2%
DESIGN LEVEL	13.05 13.95 12.90 12.52 12.01 11.59 11.63 11.71 13.17
EXISTING LEVEL	13.59 13.55 13.26 12.57 14.88 12.63 12.57 14.71 15.68
DISTANCE	0.00 5.00 20.00 40.00 60.00 64.89 78.18 80.00 89.18 100.00 112.02 120.00 134.59 140.00 153.45 160.00 161.45 161.25 171.25 180.00 184.61 200.00 203.74 217.39 220.00 240.00 242.18 260.00 267.39 269.47 280.00 300.00 313.32 320.00 327.32



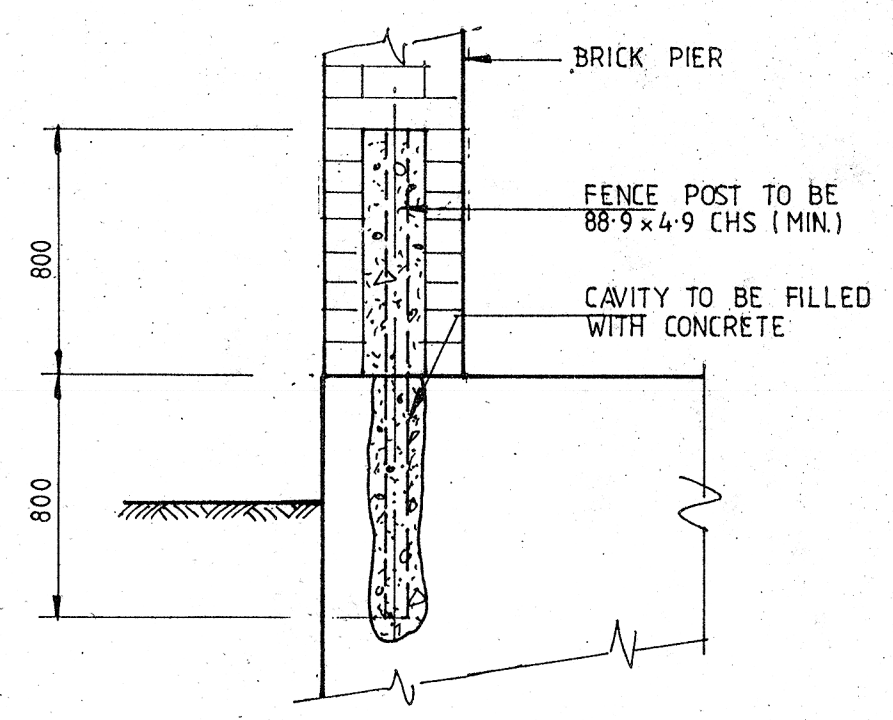
Datum R.L.7.0	
GRADIENT (%)	-3% +0.745% +0.7%
DESIGN LEVEL	12.86 12.71 12.82 12.97 13.11 13.12 13.27 13.27 13.42 13.57 13.57 13.72 13.73 13.80 13.92 13.99 14.05 14.12 14.26 14.26 14.61 14.67 14.70 14.41 14.45 14.55 14.56
EXISTING LEVEL	13.45 13.45 14.21 14.20 14.02 14.02 13.96 13.94 13.82 13.88 13.88 14.12 14.14 14.08 14.23 14.25 14.25 14.319 14.60 14.61 14.67 14.70 14.83 14.83 15.64 15.73
DISTANCE	0.00 5.00 20.00 40.00 59.42 60.00 80.00 81.06 100.00 120.00 120.44 140.00 141.52 150.52 160.00 168.46 180.00 199.27 200.00 215.14 220.00 226.47 240.00 241.43



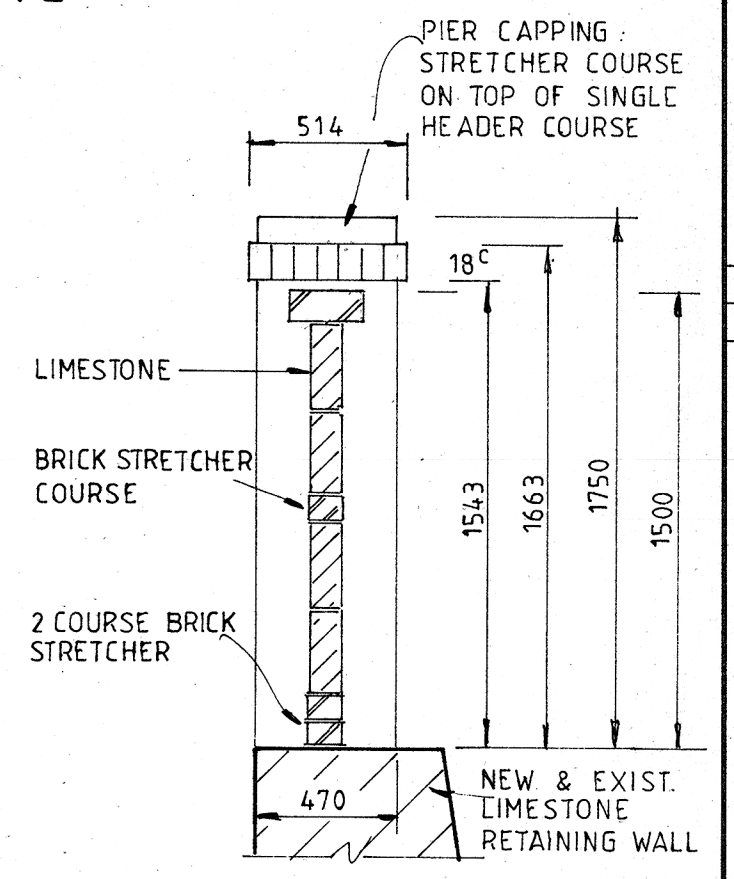
		Scott & Furphy Engineers & Planners A.C.N. 000 912 630 200 Adelaide Terrace, Perth WA 6000 (09) 325 9366 Fax (09) 325 9897		DESIGNED DRAWN ENG. CHECKED D.O. CHECKED APPROVED CLIENT APPROVAL		LANDCORP MT CLAREMONT - STAGE ROAD DESIGN: PROFILES : ROAD "C" & "D"	
REFERENCE DRAWINGS 1 REFERENCE DRAWINGS 2		REV. DATE B 11/2/93 ISSUED FOR APPROVAL A 5/2/93 ISSUED FOR TENDER		REVISIONS BY CHK EXD APP		DRG No. W895 - C - 05 REV. B	



TYP. DETAILS WALL MONTGOMERY DRIVE
1:50



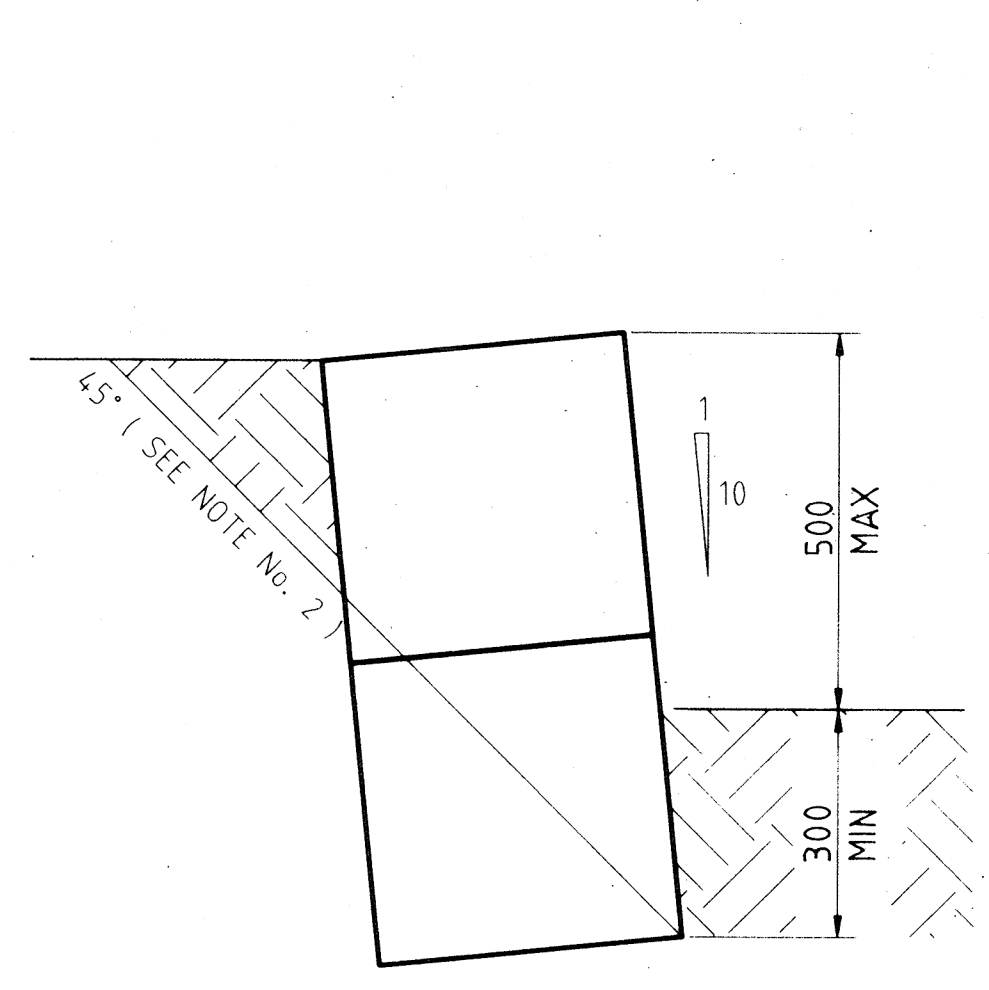
TYP. DETAIL OF TIE BETWEEN BRICK PIER & LIMESTONE WALL
N.T.S.



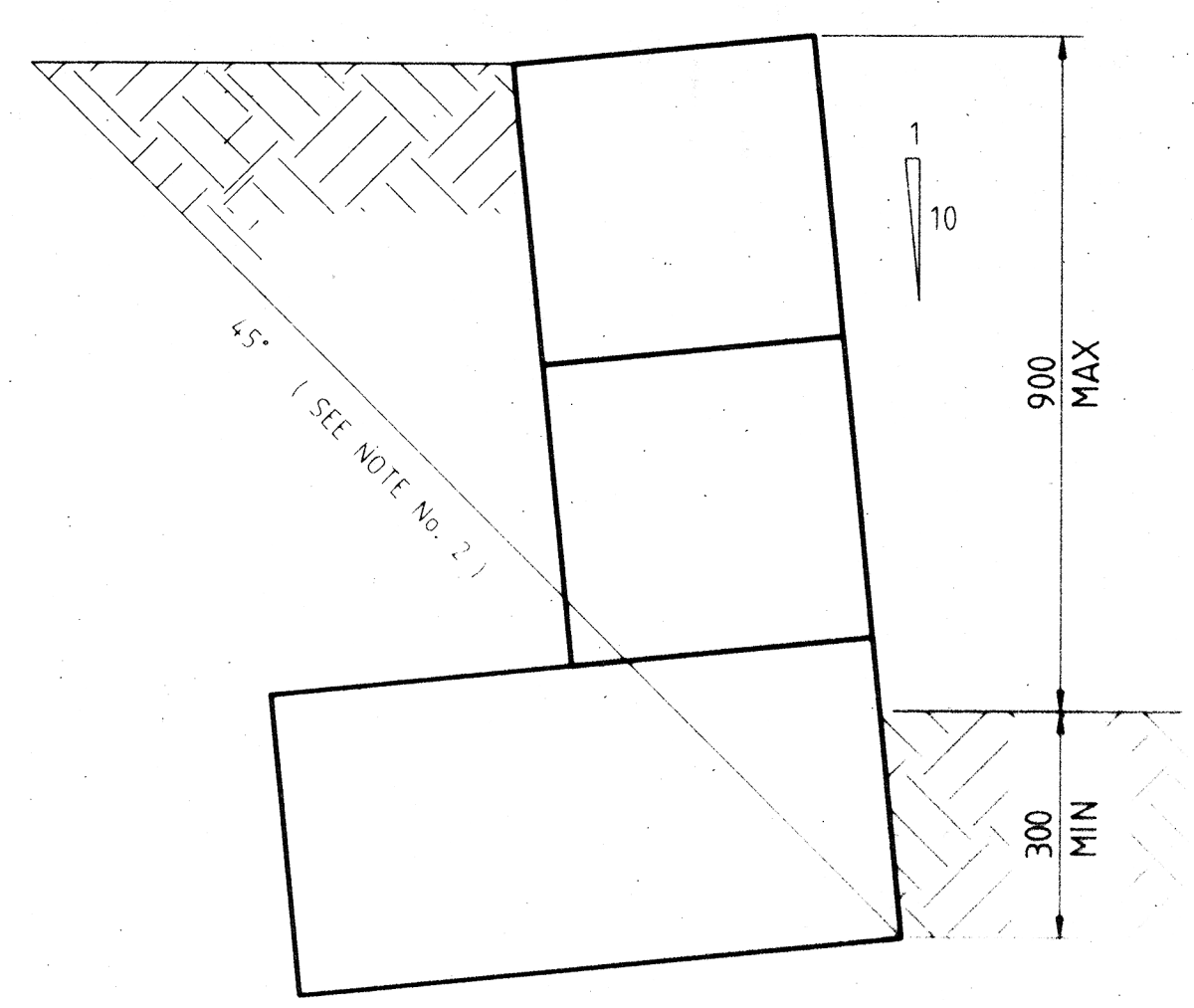
TYP. SECTION WALL ALONG MONTGOMERY DRIVE
1:25

- LEGEND**
- LIMESTONE RETAINING WALL (REFER DRG. W895-C-09 FOR DETAILS)
 - EXISTING CONTOURS
 - PAD LEVELS
 - NEW RETAINING WALL & FENCE
 - NEW FENCE ON EXIST. RETAINING WALL

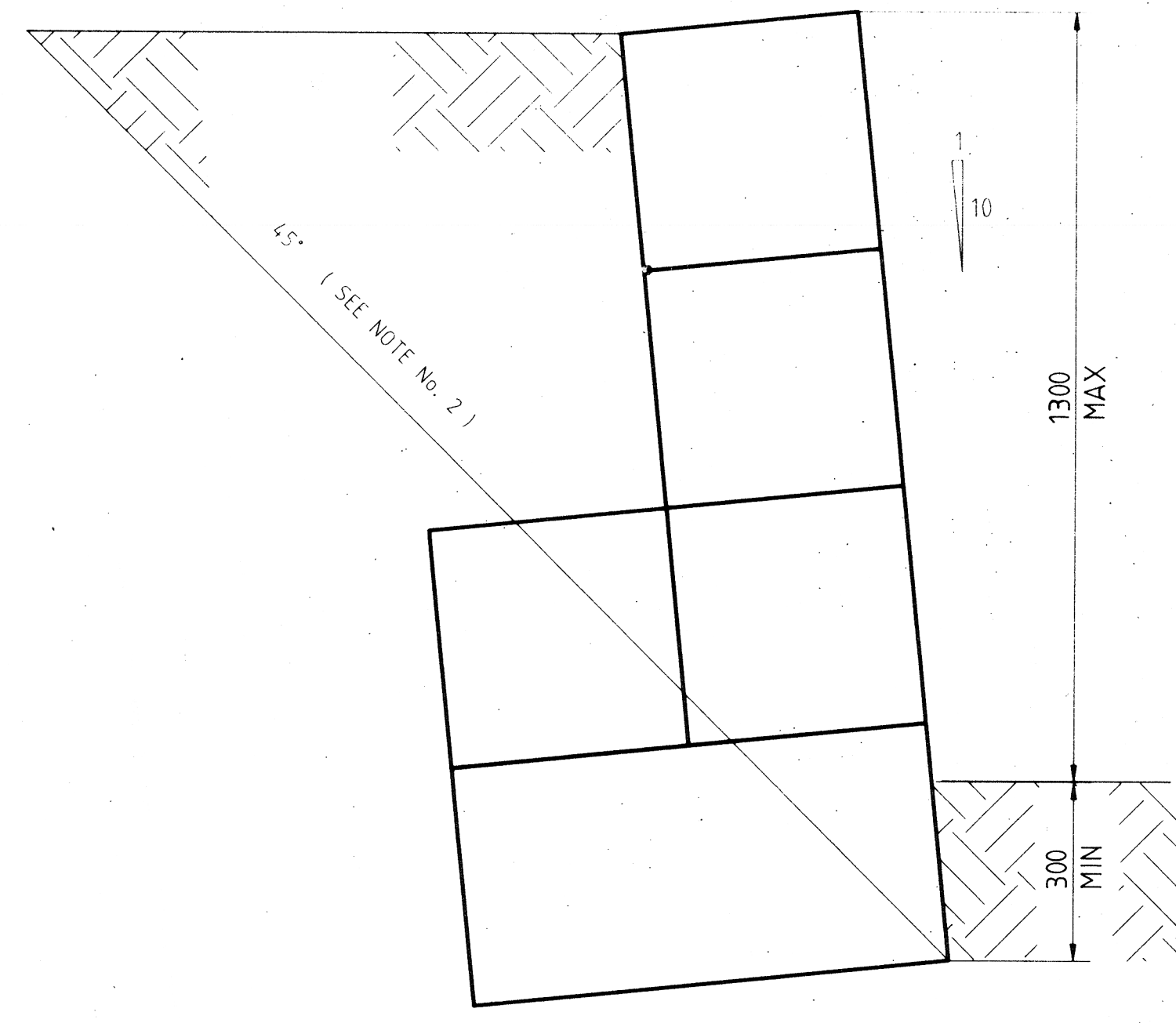
REFERENCE DRAWINGS		REFERENCE DRAWINGS		REV.	DATE	REVISIONS	BY	CHK	EXD	APP	SCALE 1:1000 & AS SHOWN	DESIGNED	DK	4.2.93	<p>LANDCORP</p> <p>MT CLAREMONT - STAGE 7 EARTHWORKS DESIGN LAYOUT PLAN EARTHWORK AND RETAINING WALLS</p> <p>DRG. No. W895 - C - 08</p>
				A	11/2/93	ISSUED FOR APPROVAL						DRAWN	MVL		
				A	5/2/93	ISSUED FOR TENDER						ENG. CHECKED			
												D.D. CHECKED			
												APPROVED	<i>[Signature]</i>	4/2/93	
												CLIENT APPROVAL			



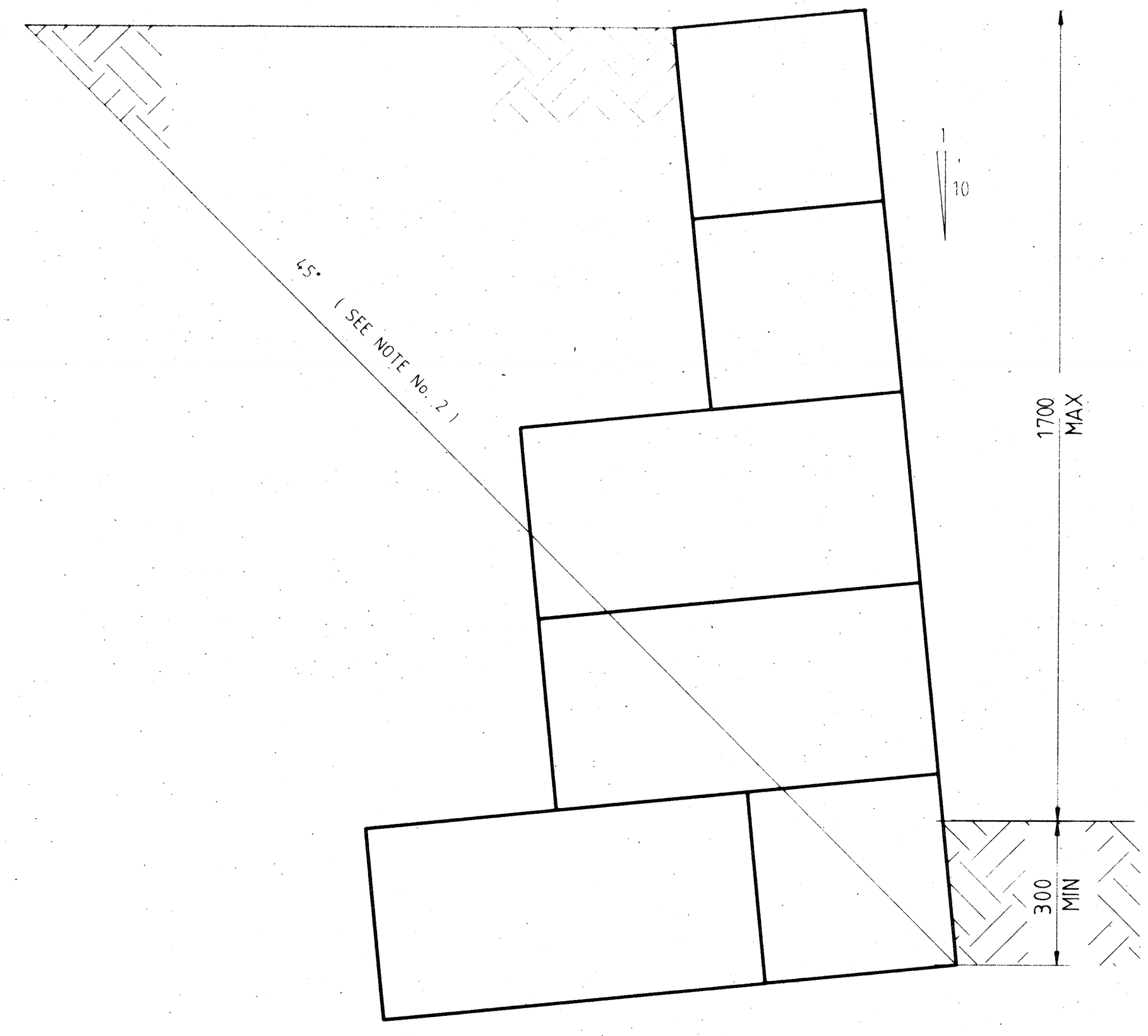
0.5 m RETAINING WALL



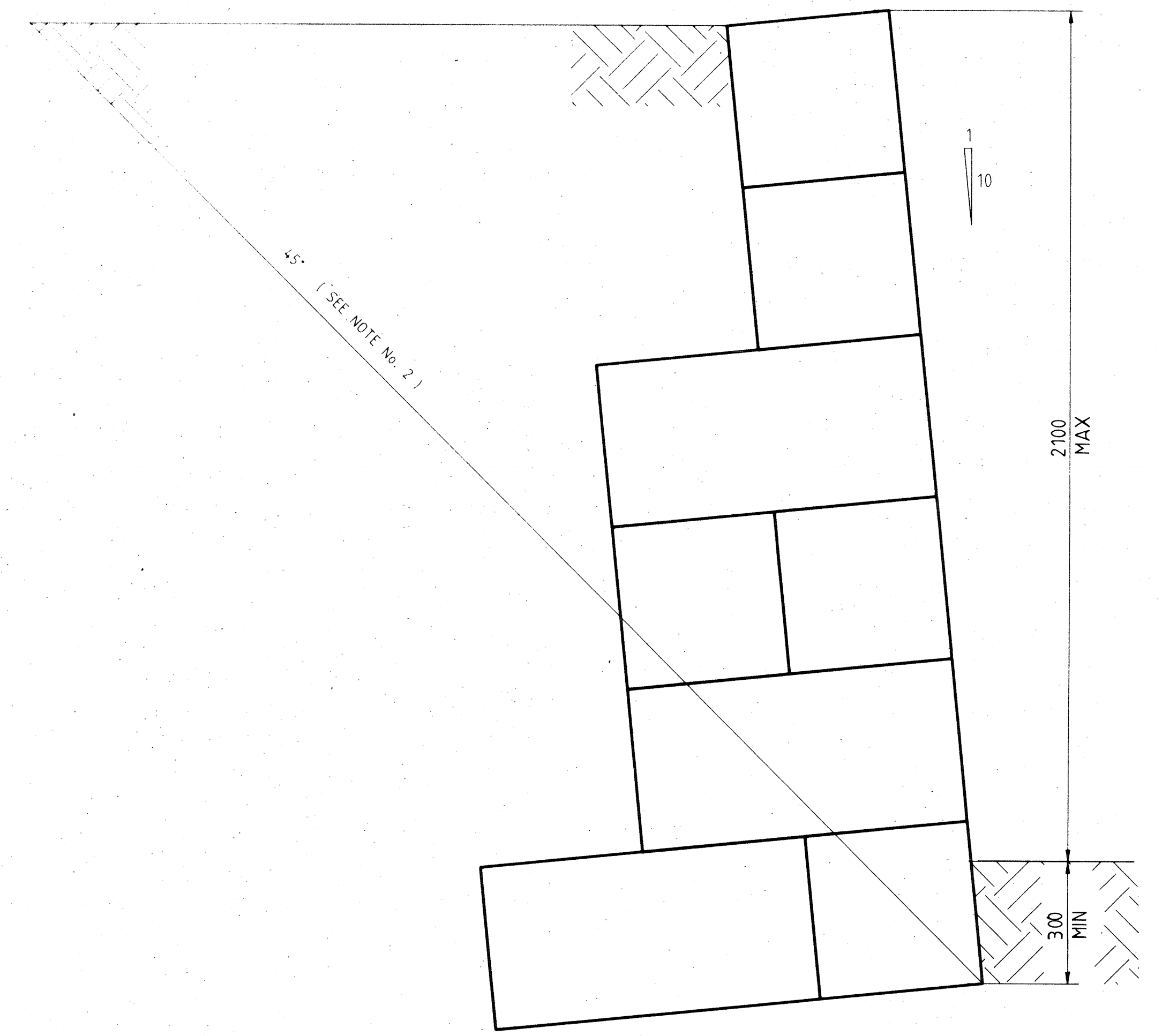
0.9 m RETAINING WALL



1.3 m RETAINING WALL



1.7 m RETAINING WALL



2.1 m RETAINING WALL

CALCULATIONS:
 γ WALL = 20 Kn/m³
 γ SOIL = 17 Kn/m³
 ϕ SOIL = 35°
 δ WALL / SOIL = 20°

- NOTES:**
- ALL LIMESTONE BLOCKS TO BE 400 x 400 x 800.
 - NO FOOTINGS TO BE ABOVE LINE AT 45° THROUGH TOE OF WALL.
 - FENCE HEIGHT NOT TO EXCEED 1.8 m HIGH.
 - FENCE POST TO PENETRATE 0.8 m (MIN.) @ 2.7 CENTERS MAX.
 - FENCE POST TO BE 88.9 mm x 4.9 mm (CHS (MIN.))
 - WHERE HEADERS SHOWN, ONE THIRD OF THE FACE AREA TO BE HEADERS.

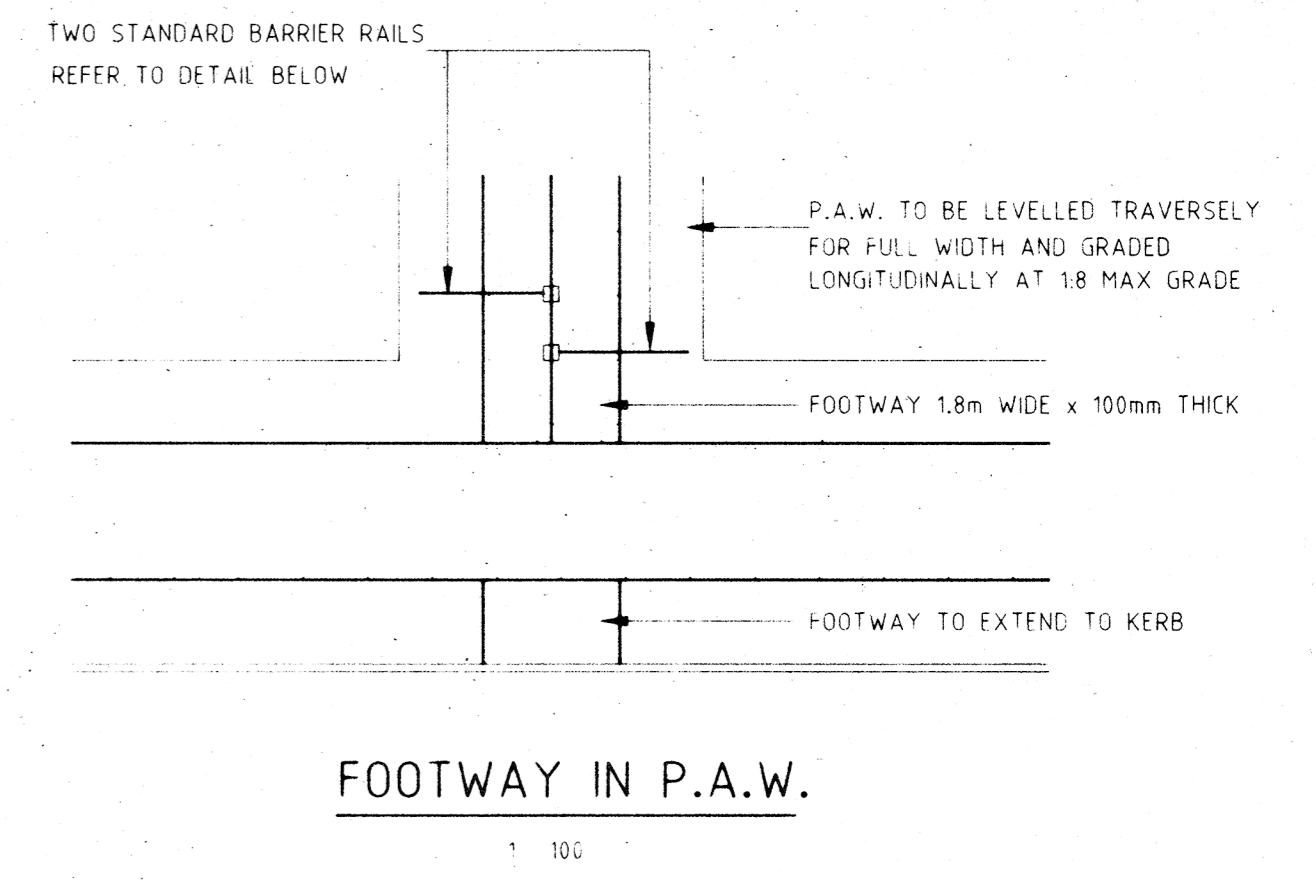
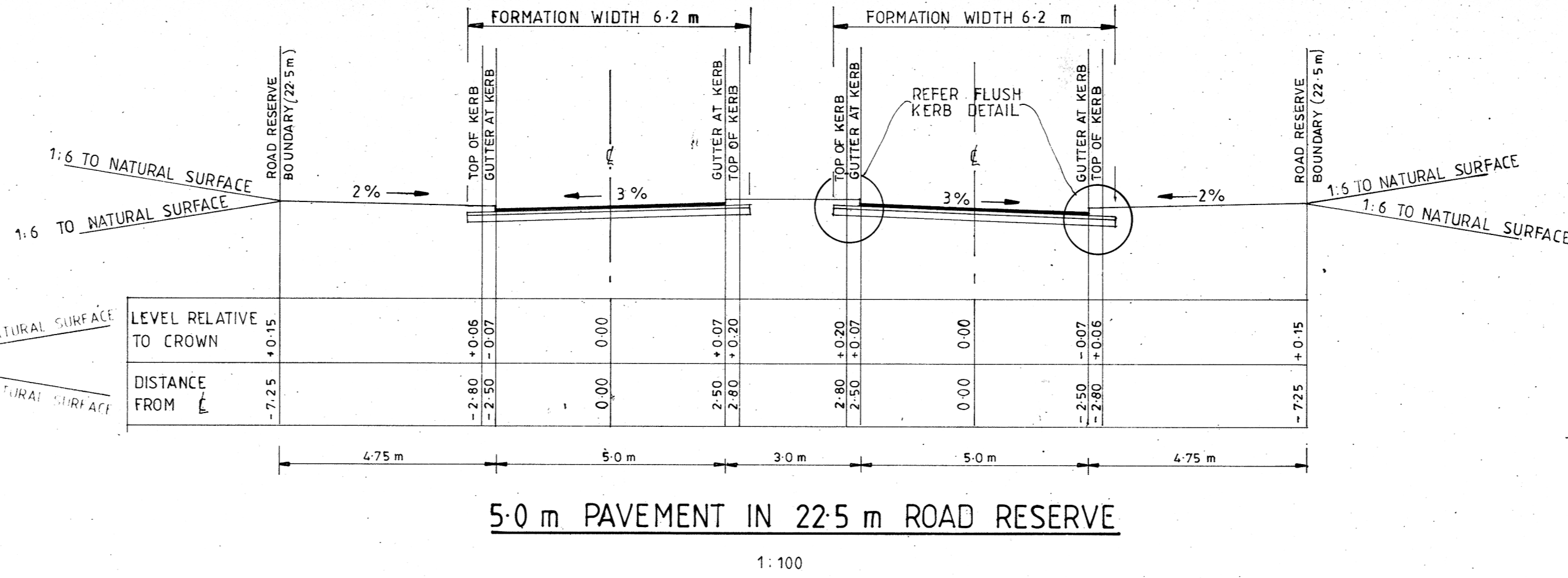
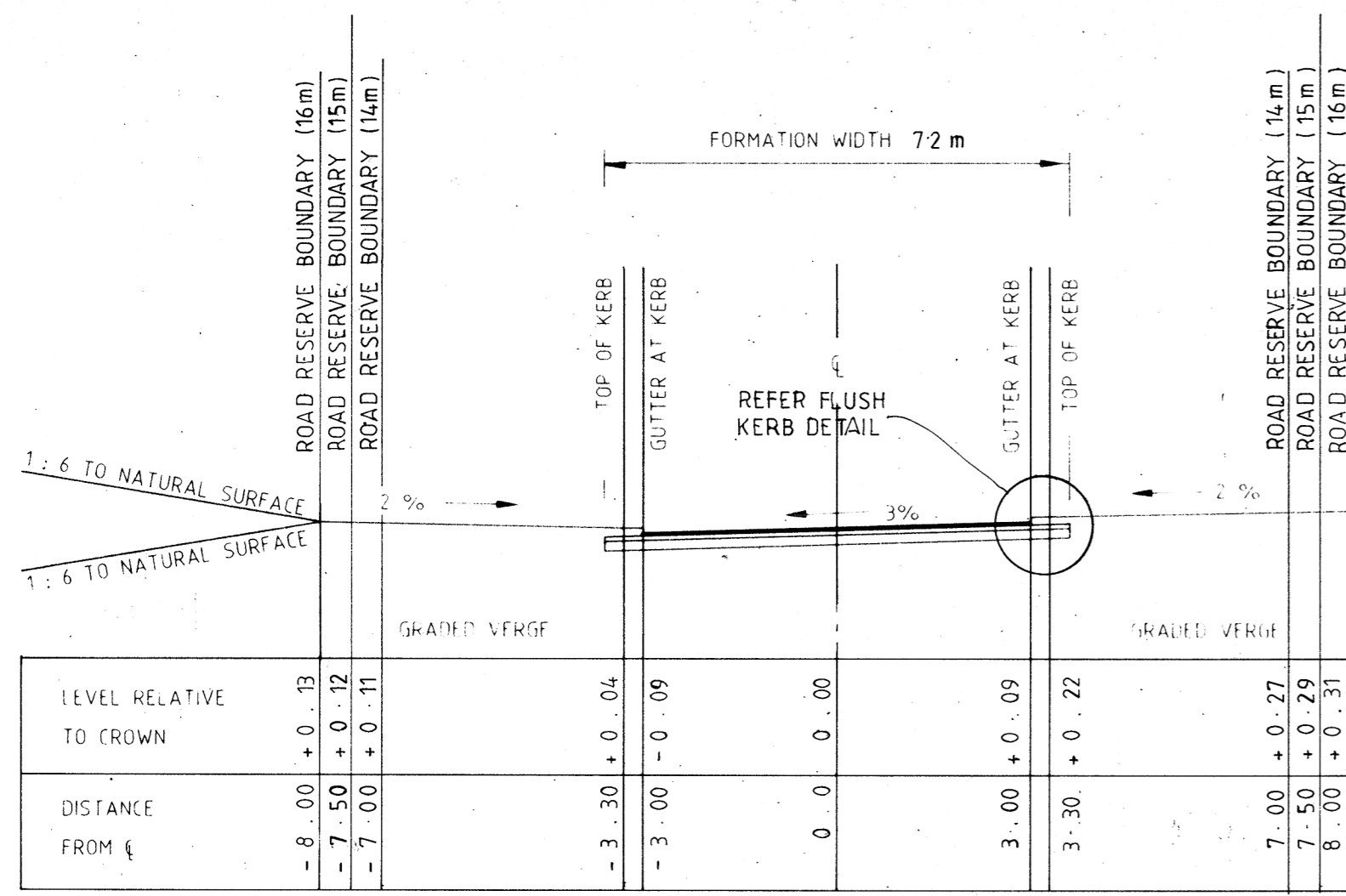
REV.	DATE	REVISIONS	BY	CHK	EXD	APP
B	11/2/93	ISSUED FOR APPROVAL				
A	5/2/93	ISSUED FOR TENDER				

CMPSP
 Group of Companies
 Scott & Furphy Pty Ltd
 Engineers & Planners
 A.C.N. 004 938 087
 200 Adelaide Terrace, Perth WA 6000
 Tel. (09)325 9366, Fax (09) 325 9897

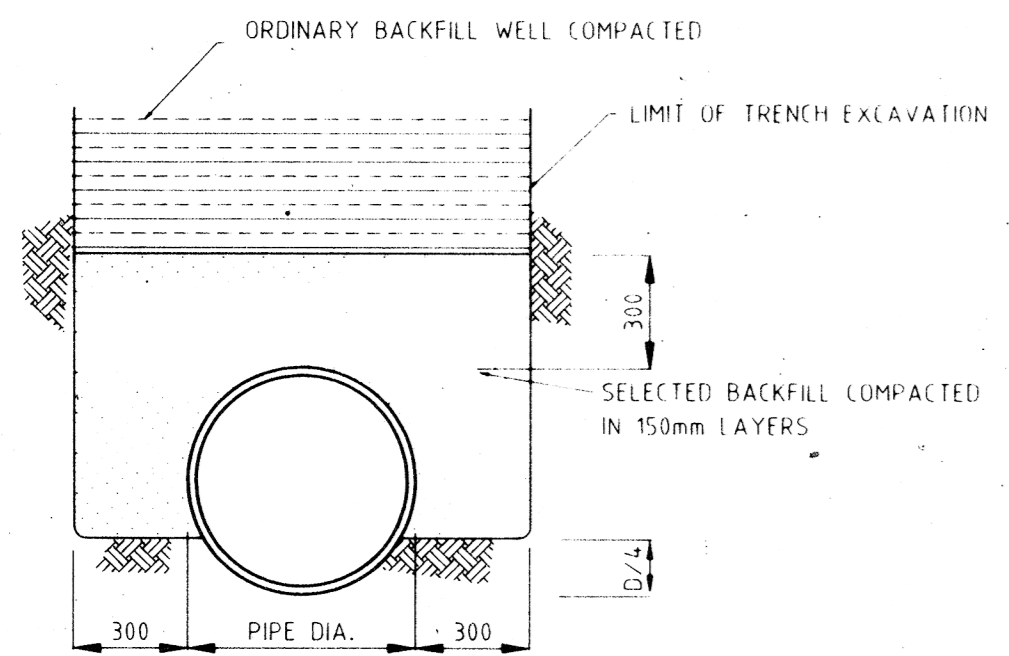
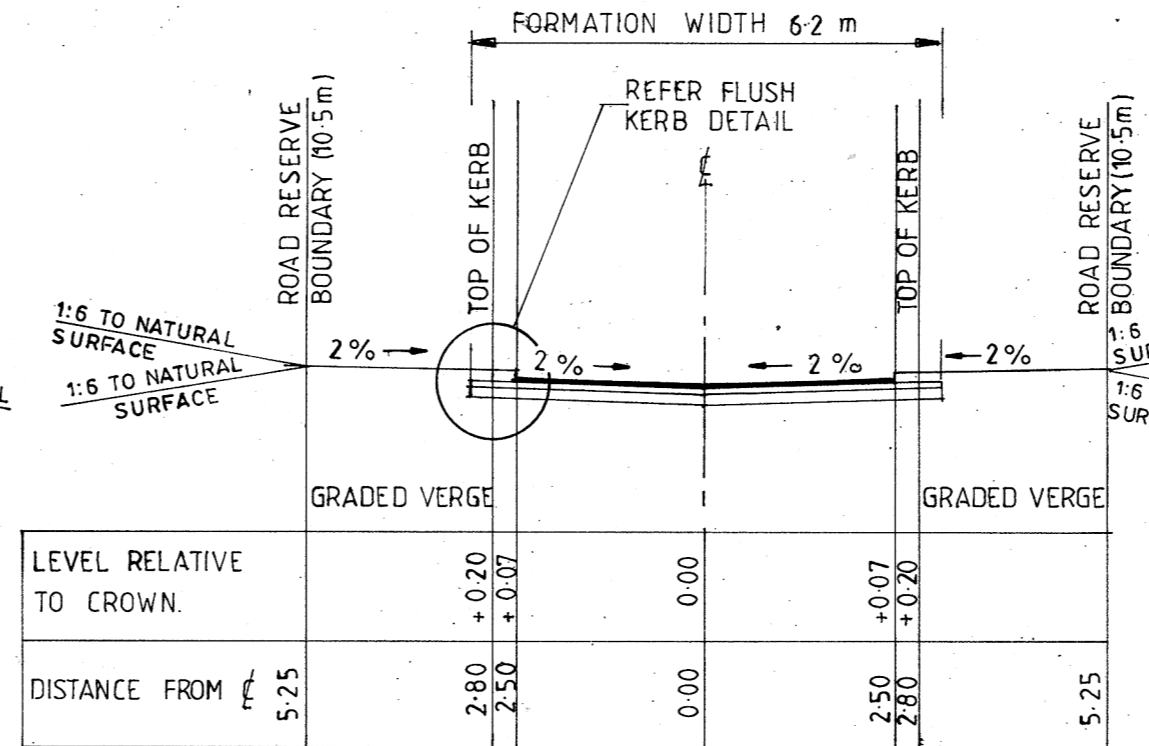
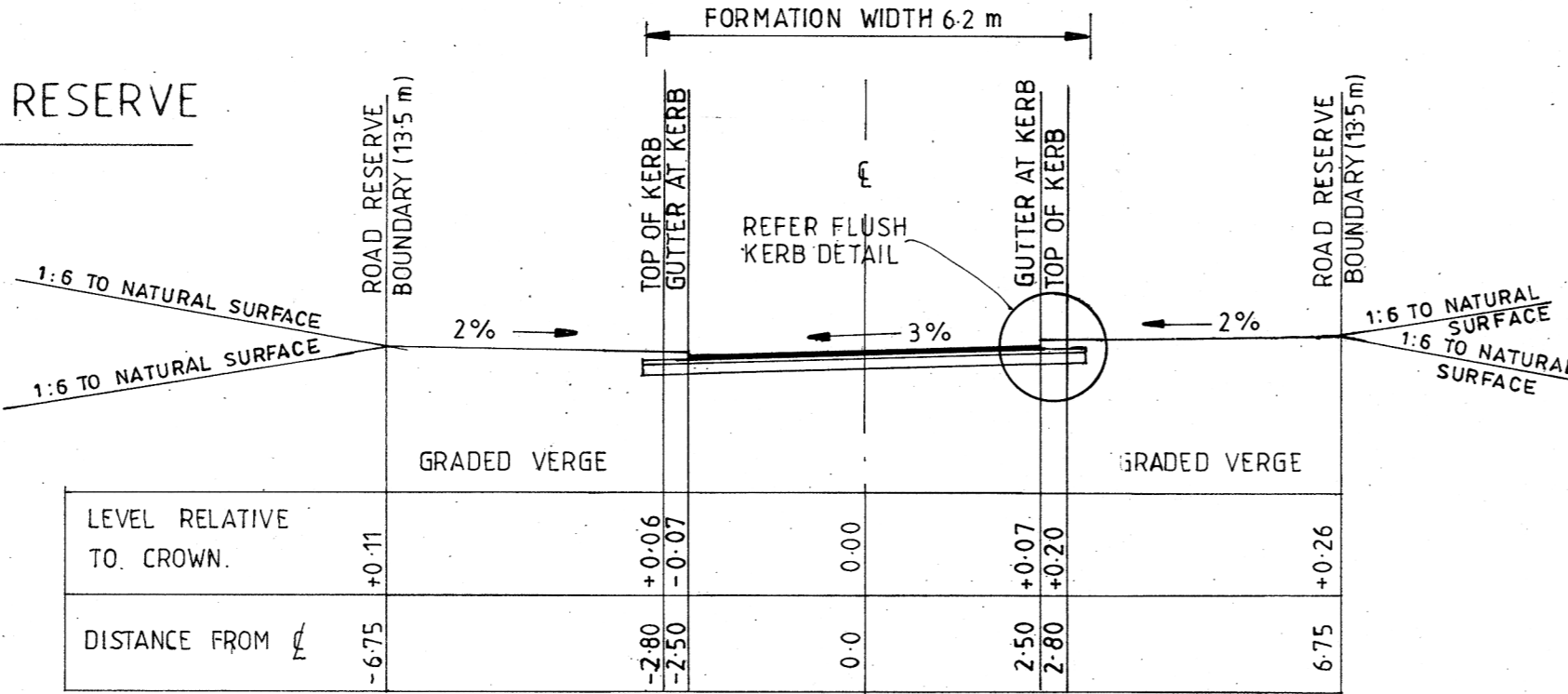
DESIGNED	RT	
DRAWN	RT	4/2/93
ENG. CHECKED		
D.O. CHECKED		
APPROVED	<i>Wall</i>	4/2/93
CLIENT APPROVAL		

LANDCORP
 MT. CLAREMONT - STAGE 7
 LIMESTONE RETAINING WALLS
 DETAILS

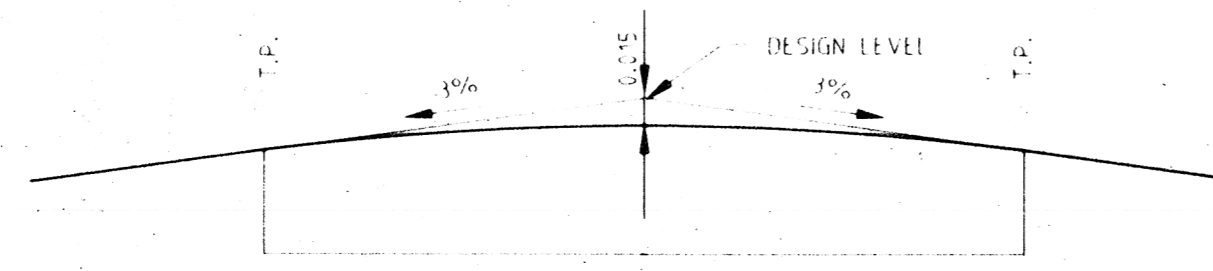
ORG No. W895 - C - 09
 REV. B



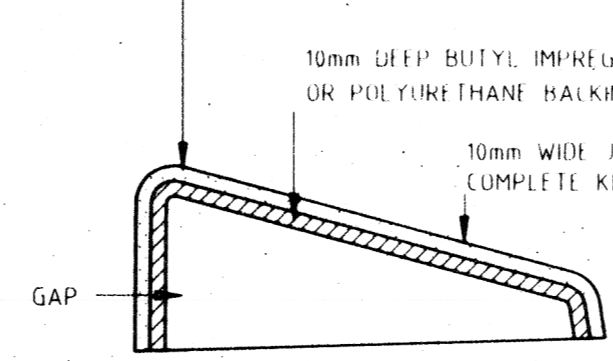
6.0m PAVEMENT IN 14,15 & 16m ROAD RESERVE



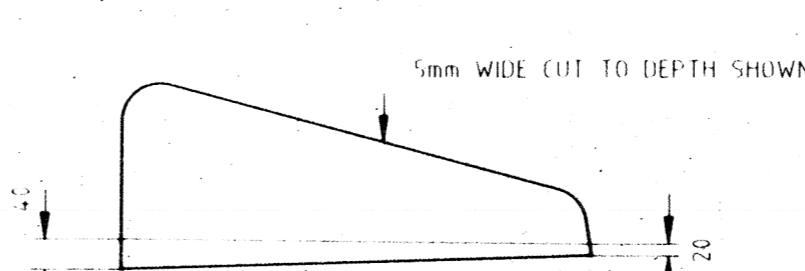
DRY SAND FOUNDATION



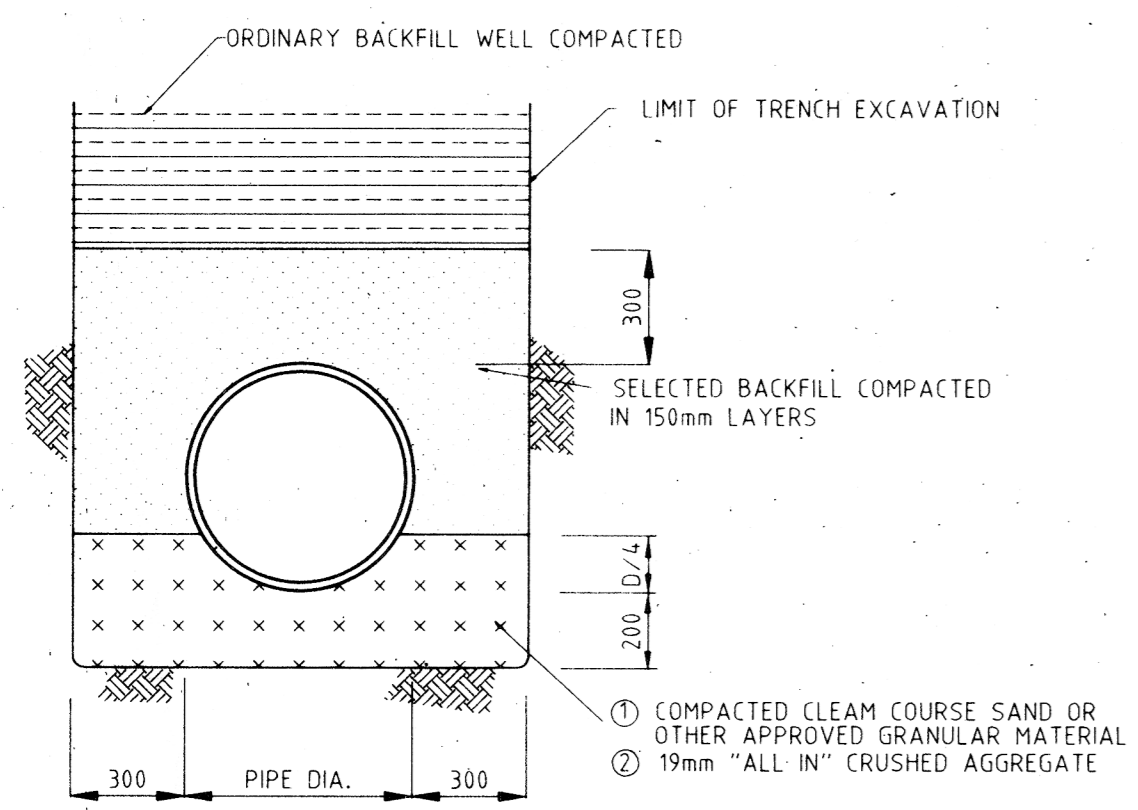
TYPICAL ROAD CROWN SECTION



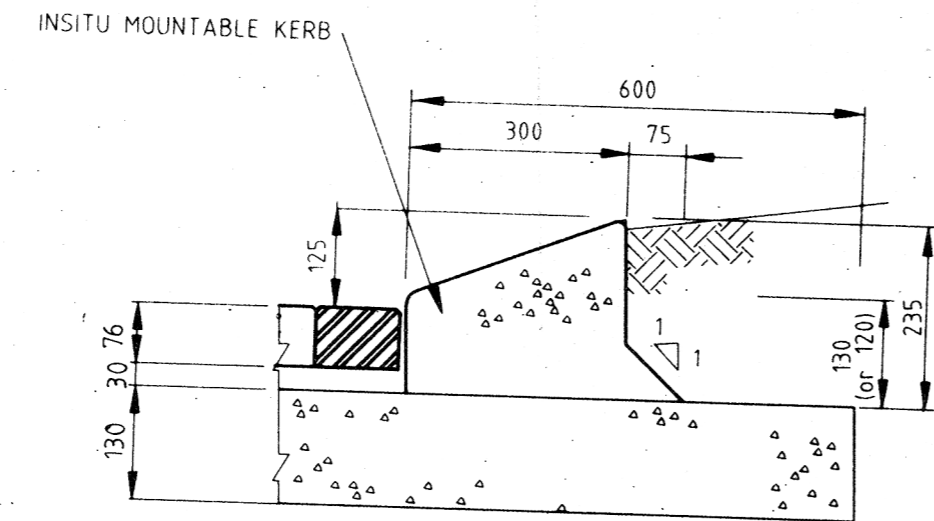
EXPANSION JOINT



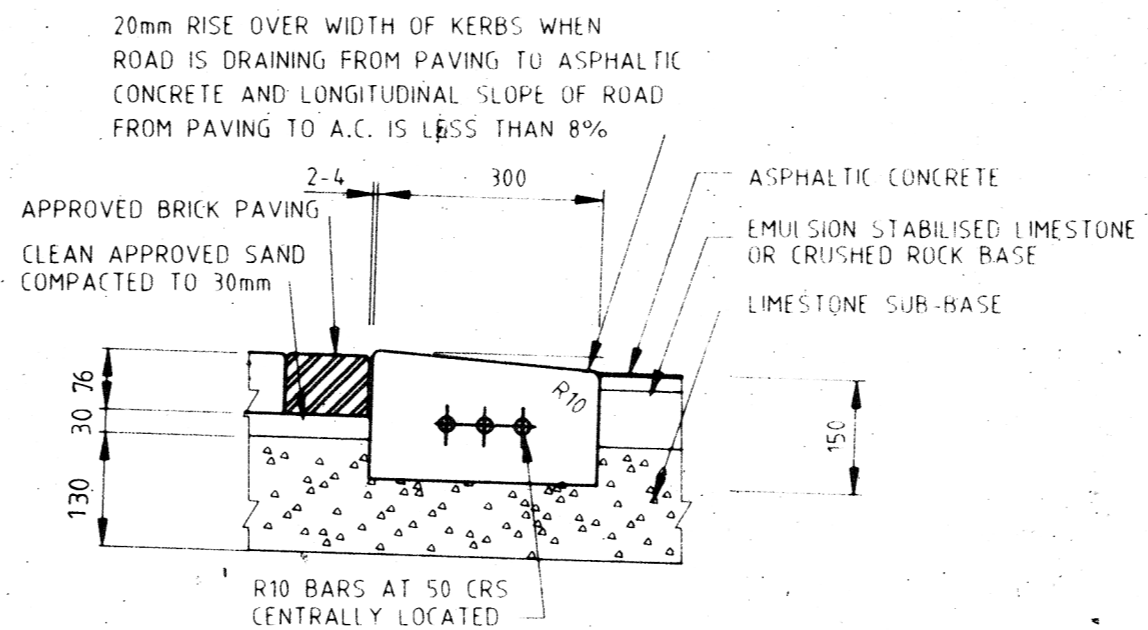
CONTRACTION JOINT



SOLID PIPE BEDDING DETAILS

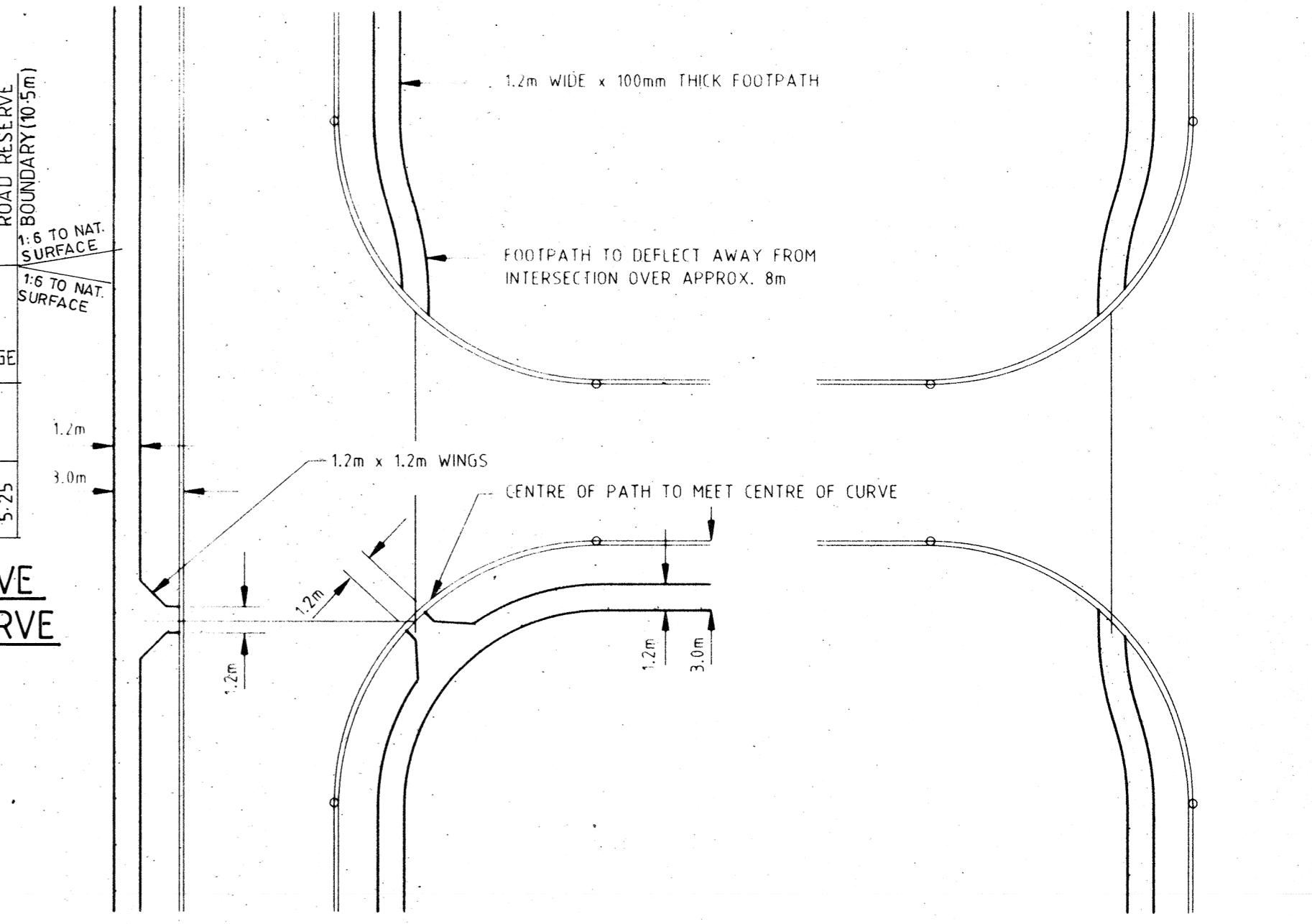


STANDARD MOUNTABLE KERBING FOR BRICK PAVING

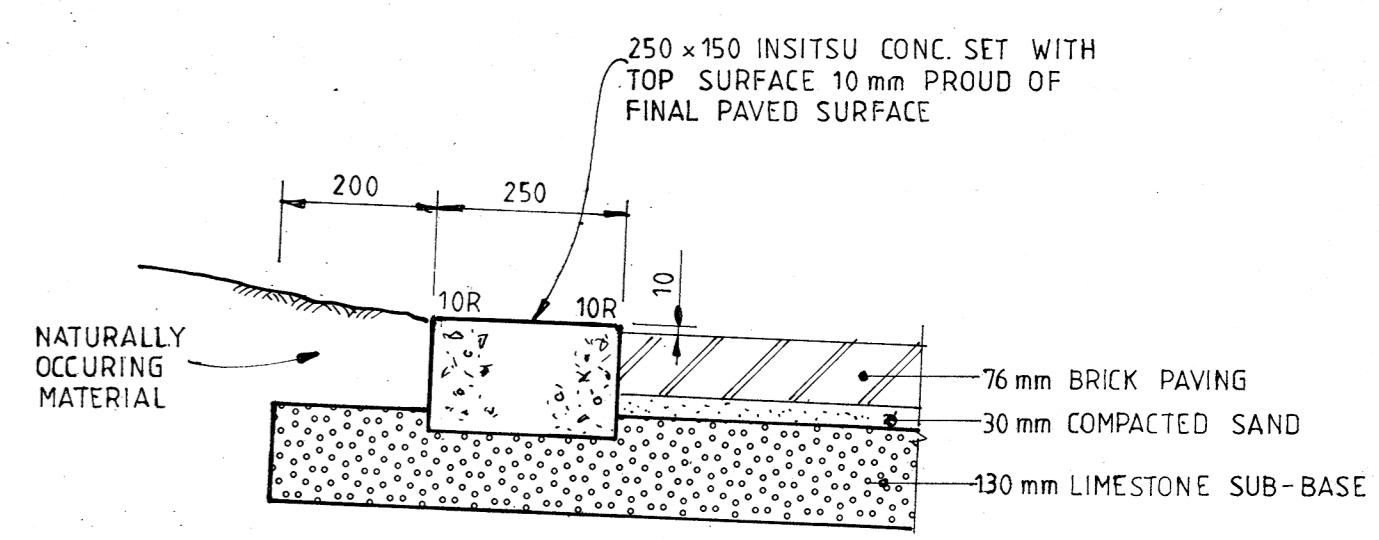


REINFORCED FLUSH EDGE BEAM FOR BRICK PAVING

NOTE:
ALL ROAD PAVEMENT TO BE BRICK PAVED TYPE: "METRO COURTSTONE"

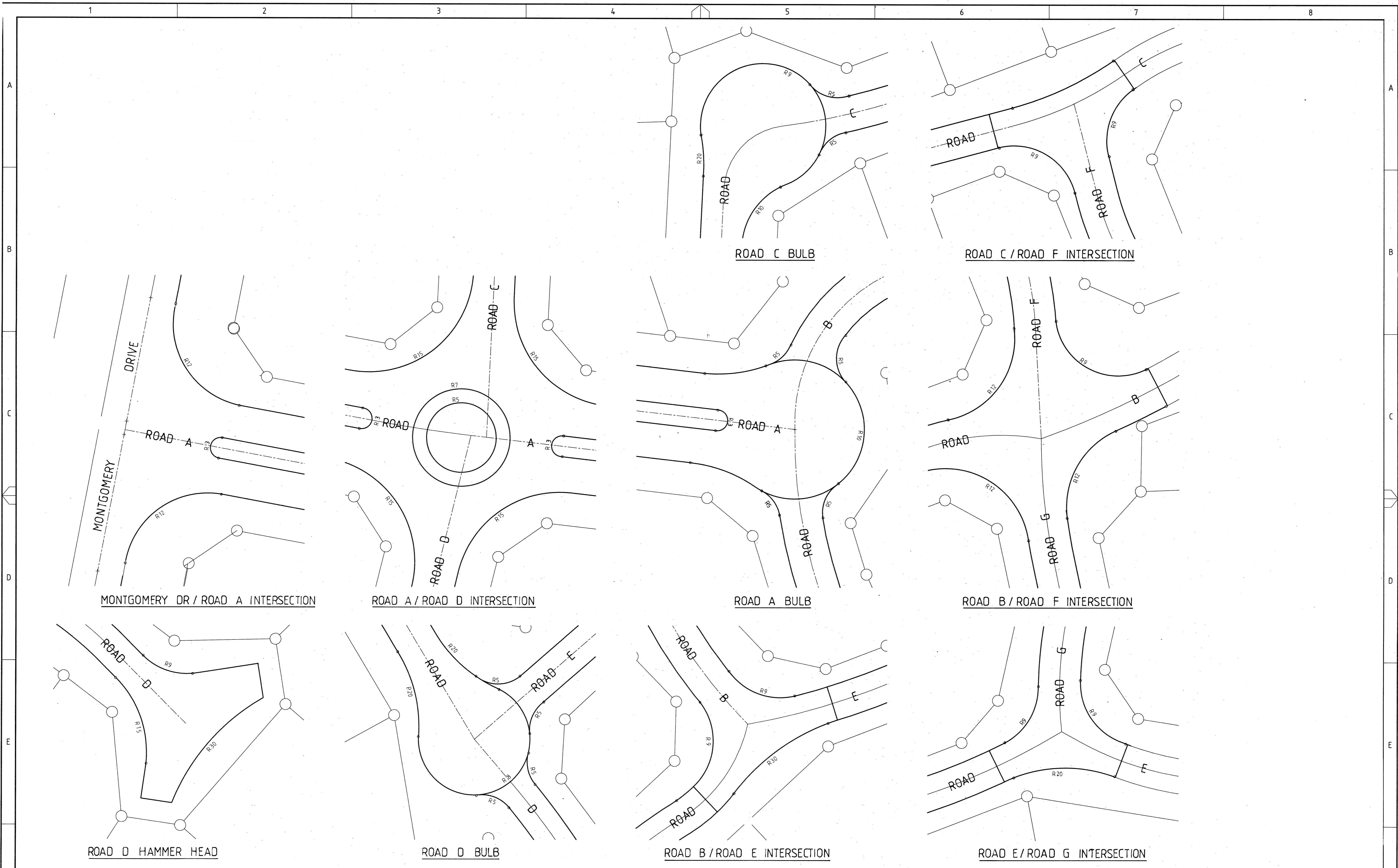


FOOTPATH DETAILS



FLUSH KERB DETAIL

<p>DESIGNED RT</p> <p>DRAWN RT/MVL 4/2/93</p> <p>ENG. CHECKED</p> <p>D.O. CHECKED</p> <p>APPROVED <i>[Signature]</i> 4/2/93</p> <p>CLIENT APPROVAL</p>				<p>SCALE AS SHOWN</p>				<p>LANDCORP</p> <p>MT. CLAREMONT - STAGE 7</p> <p>ROADWORKS & STORMWATER DRAINAGE</p> <p>STANDARD DETAILS</p>			
<p>REV. DATE REVISIONS</p> <p>B 11/2/93 ISSUED FOR APPROVAL</p> <p>A 5/2/93 ISSUED FOR TENDER</p>				<p>BY CHK EXD APP</p>				<p>DRG No. W 895 - C - 10</p> <p>REV. B</p>			

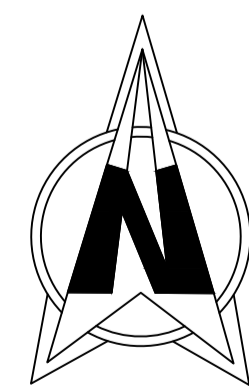


REFERENCE DRAWINGS		REFERENCE DRAWINGS		REV.	DATE	REVISIONS	BY	CHK	EXD	APP	Scott & Furphy Engineers & Planners A.C.N. 000 912 630 200 Adelaide Terrace, Perth WA 6000 (09) 325 9366 Fax (09) 325 9897		DESIGNED	JBA	LANDCORP MT CLAREMONT - STAGE 7 ROAD DESIGN INTERSECTIONS, BULBS & HAMMER HEAD		DRG No.	W895 - C - 11	REV.	B
				A	5/2/93	ISSUED FOR TENDER						DRAWN	RT	4/2/93						
				B	11/2/93	ISSUED FOR APPROVAL						ENG. CHECKED								
												D.O. CHECKED								
												APPROVED	<i>[Signature]</i>	4/2/93						
												CLIENT APPROVAL								

SCALE 1:250



ISSUE FOR CONSTRUCTION

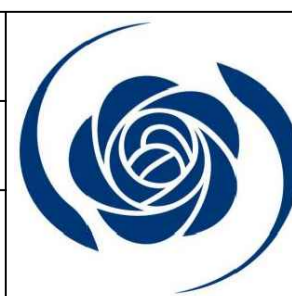


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REV. No.	NOTES	CHECKED	DATE
REV 0	FOR REVIEW	J.C	13/11/19

SCALE:	DESIGNED:	CHECKED / DATE:
1:250	E.LAI	J.CRESSWELL 13/11/2019
COUNCIL MINUTES:	DRAWN:	APPROVED / DATE:
	E.LAI	J.CRESSWELL 13/11/2019

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TITLE:	DWG NO:	SHEET
MONTGOMERY AVE FOOTPATH PLAN VIEW FORWARD WORKS PROGRAMME 2019/2020	R19-53-01-00	01 OF 01