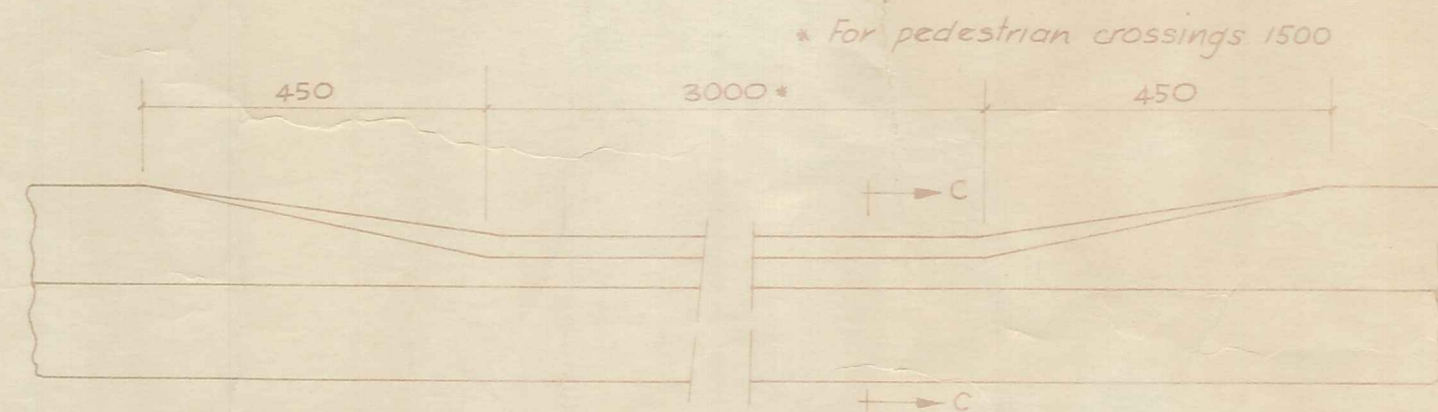
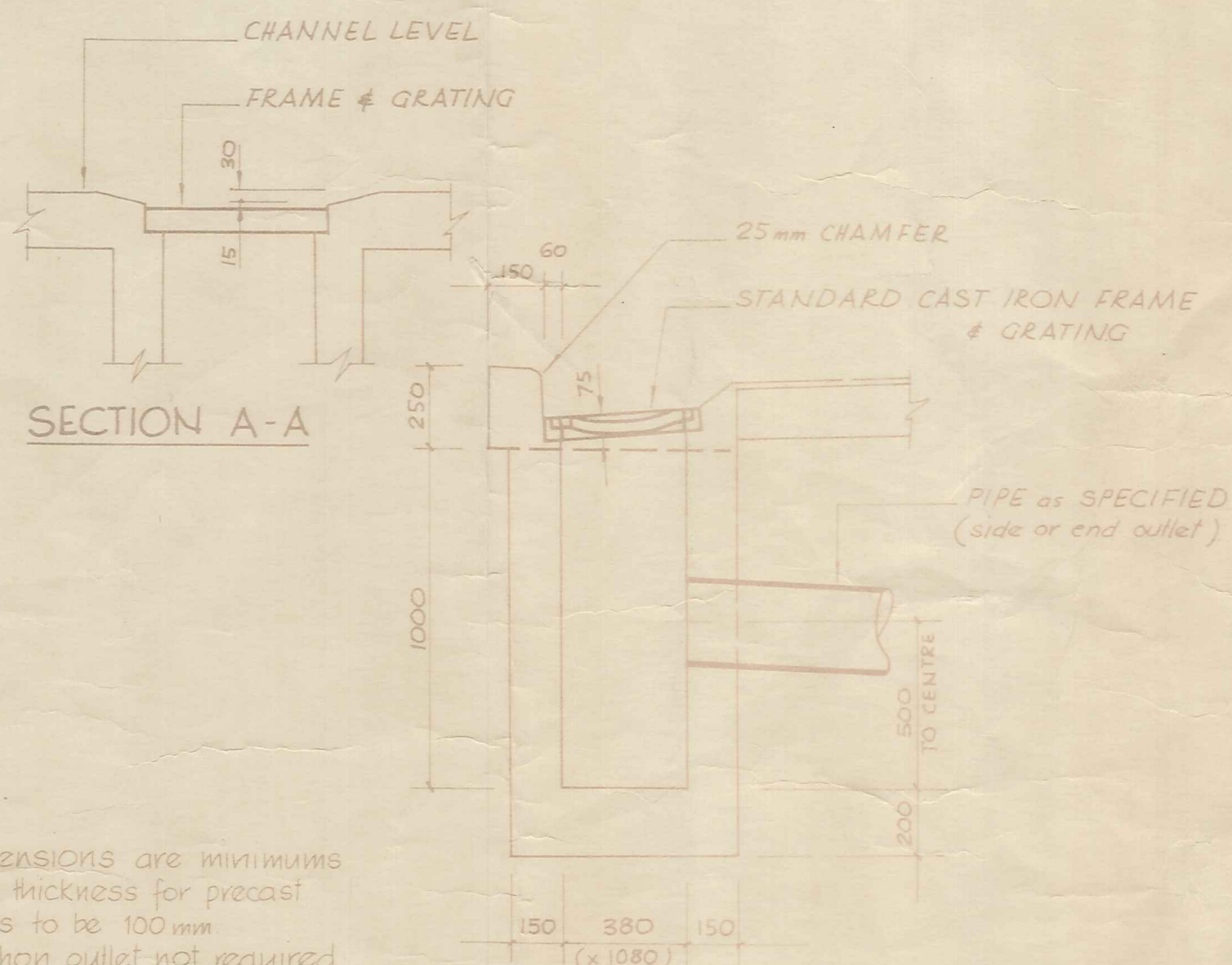


PLAN of CHANNEL at MUDTANKS



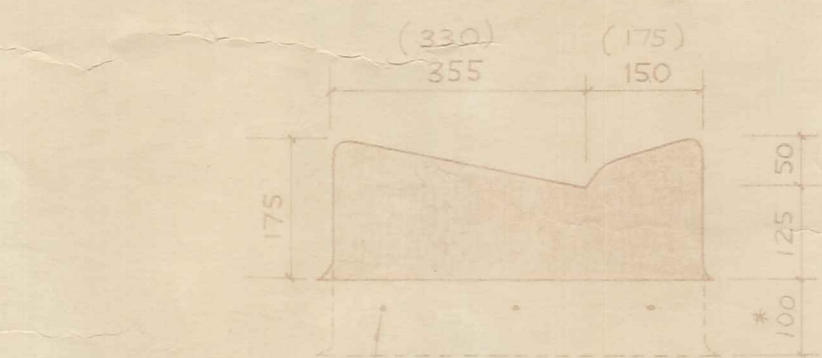
DROP KERB CROSSING



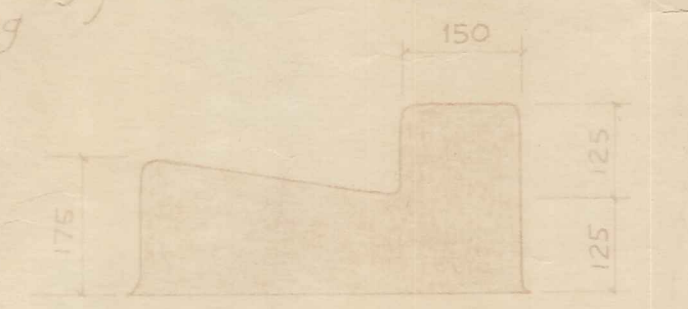
SECTION B-B

STANDARD MUDTANKS

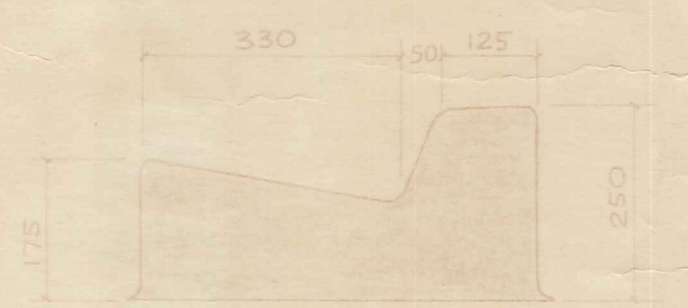
NOTES ...
Dimensions are minimums
Wall thickness for precast
units to be 100mm
Syphon outlet not required



SECTION C-C



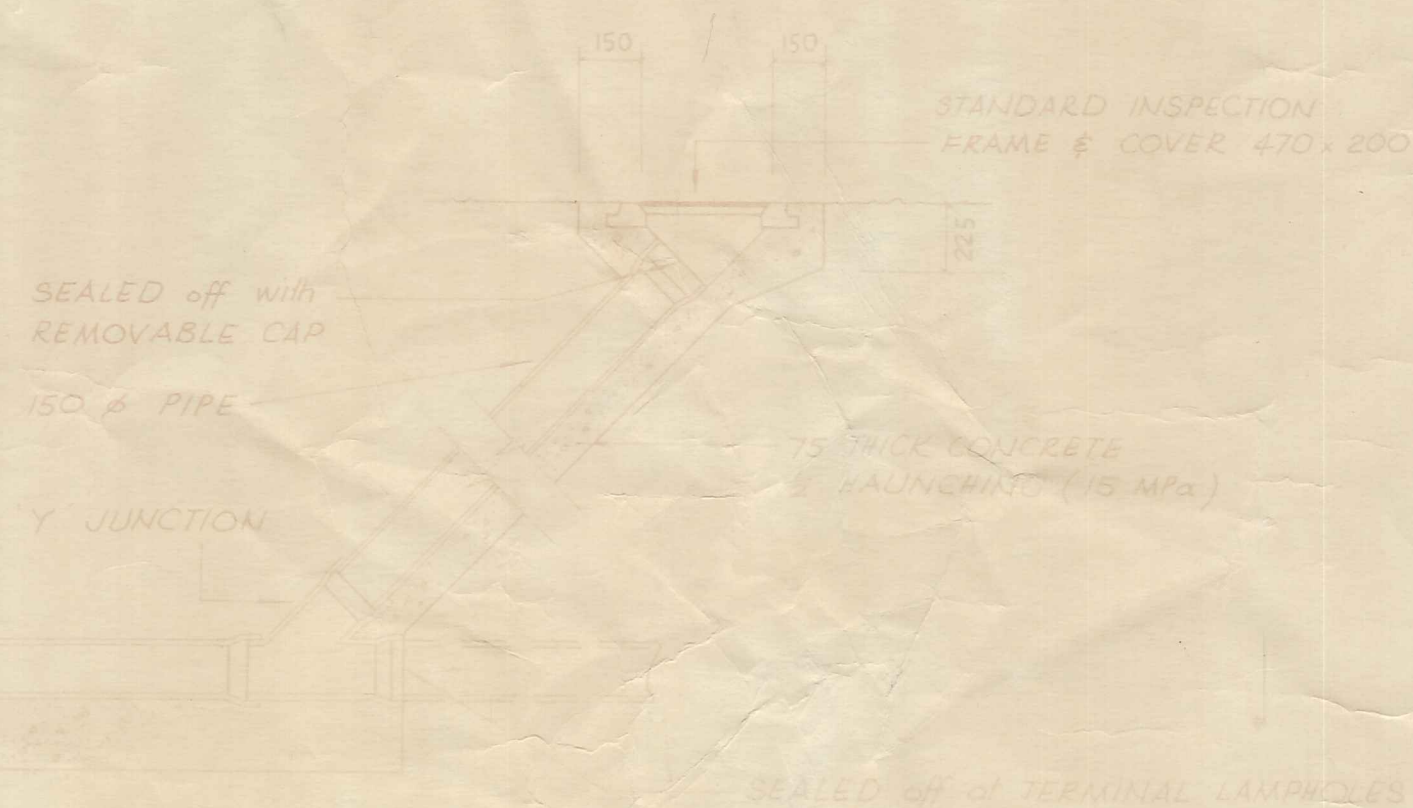
TYPE 1



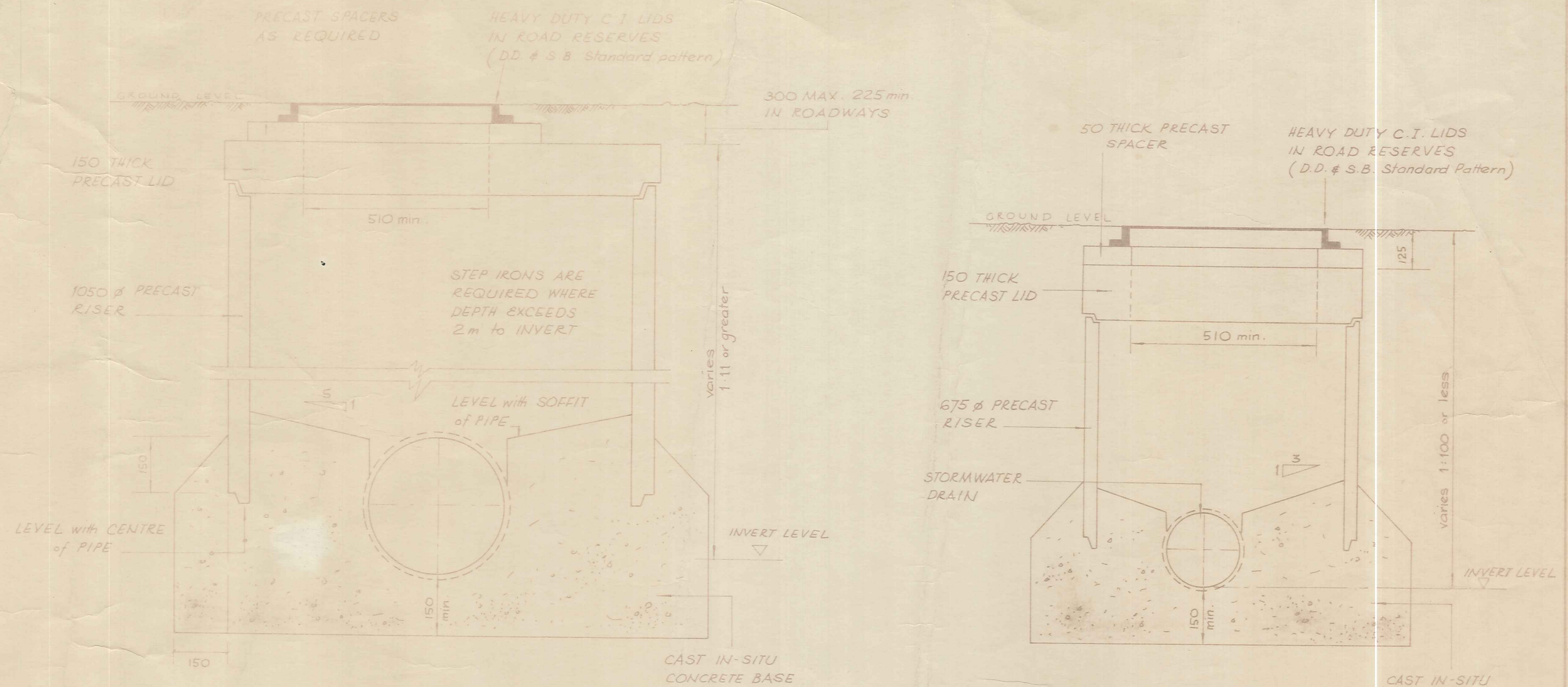
TYPE 2

KERB & CHANNEL DETAILS

(Concrete strength 20 MPa at 28 days)



STANDARD LAMPPIHOLE DETAILS

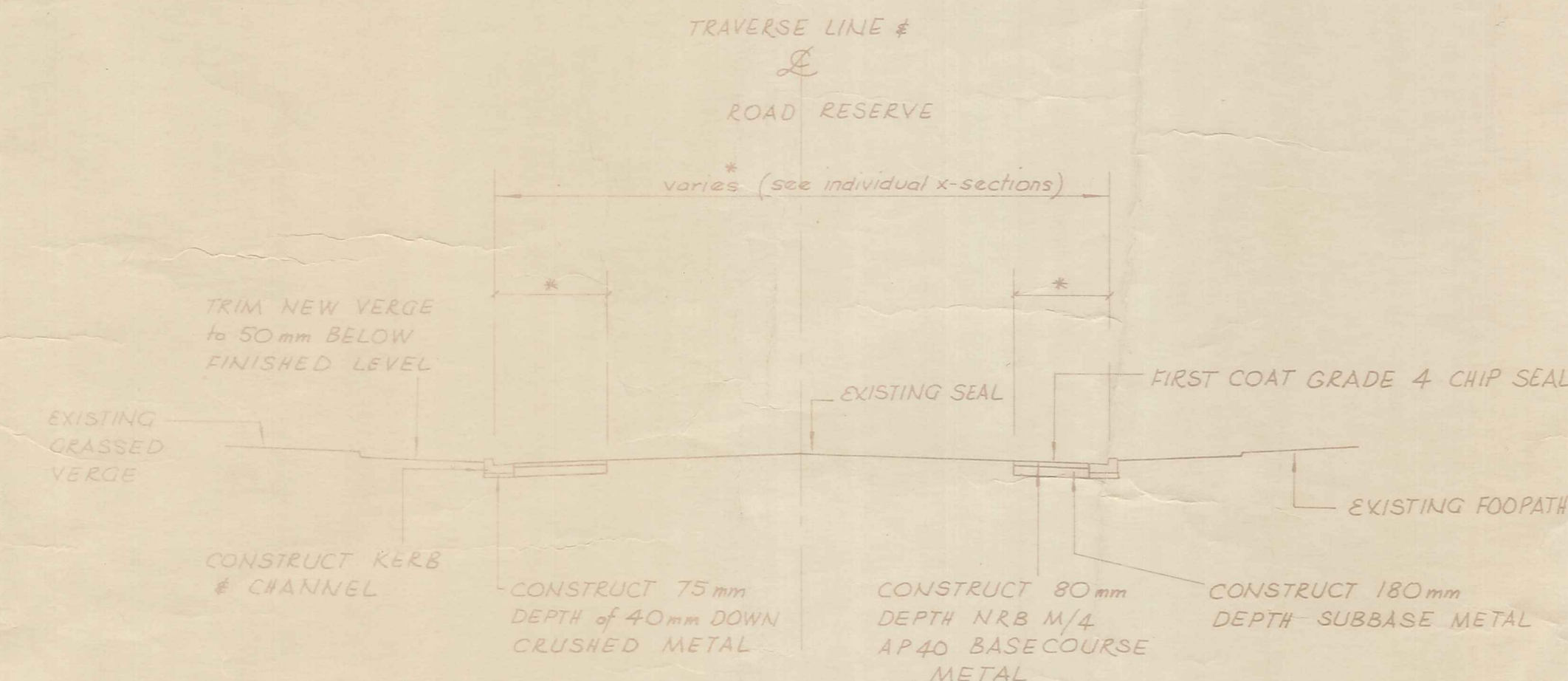


1050 ø MANHOLE

SCALE 1:10

675 ø MANHOLE

SCALE 1:10

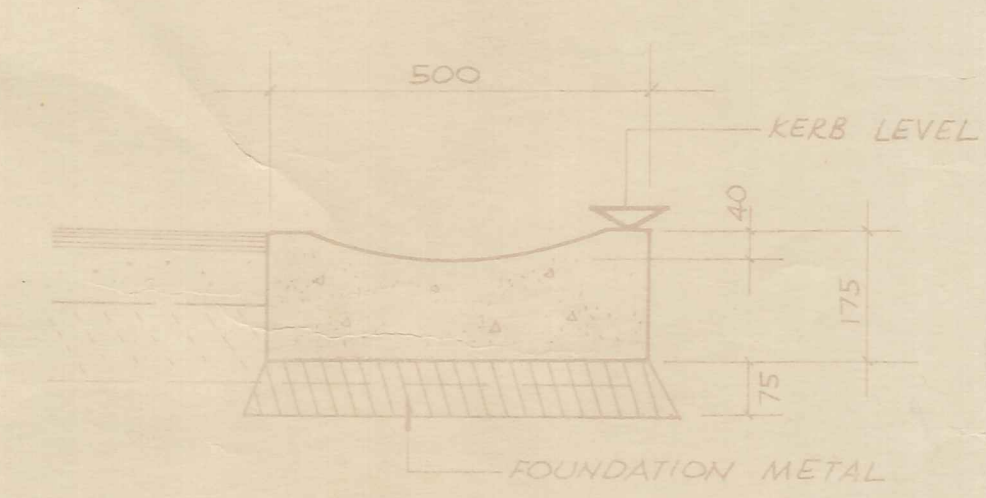


TYPICAL CROSS SECTION (For all streets excepting DUNSTAN ROAD)

SCALE 1:100

MANHOLE NOTES ...

- 2 flexible joints within 1m of walls required on all pipelines entering or leaving manholes
- Concrete strength shall be 20 MPa at 28 days
- All frames & spacers exposed to view shall have plaster surround of 500 radius
- Locate manhole opening over stormwater pipe
- No step irons are required where depth to invert is less than 2m
- 1050 ø precast manholes shall be used where pipe diameters range between 375mm & 600mm
675 ø precast manholes shall be used where pipe diameters are 225mm or 300mm & where depth to invert is less than 1.1m
- Channels from branch lines shall be curved into main line through the manhole to ensure streamlined flow



NO 10 CHANNEL (Modified)
(M-stays Frontage)

No.	Revisions	Date	App'd
1	Designed N. JELLEY Traced M. J. CASIDY Drawn N. JELLEY	Date JULY 88 JULY 88	Print Date
2	Checked	7/88	
3	Approved (Signature)		
4	File 4021/13/3	L.B.	F.B.

DUFFILL WATTS & KING LTD
Consulting Civil & Structural Engineers
Dunedin Invercargill Alexandra Queenstown

Client
ALEXANDRA BOROUGH COUNCIL

Project
ALEXANDRA STORMWATER UPGRADING
1989 - 90

Sheet Title
STANDARD ENGINEERING DETAILS

Job No. **13669**
Sheet No. **17**