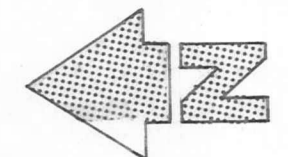


ALEXANDRA BOROUGH COUNCIL

PROPOSED ENNIS ST./
LIMERICK INVESTMENTS LTD.
CARPARK PRECINCT

DUFFILL WATTS & KING LTD.
CONSULTING CIVIL & STRUCTURAL ENGINEERS
DUNEDIN INVERCARGILL ALEXANDRA QUEENSTOWN

PRELIMINARY ONLY
NOT APPROVED



ex VINCENT MOTORBODY'S BUILDING.

BREAKOUT EXISTING CHANNEL & PAVEMENT & REGRADE

REMOVE EXISTING CONCRETE WALLS REGRADE as SHOWN & CONSTRUCT 600x50 DISHED CHANNEL ON COMMON BOUNDARY.

INSTALL LIGHTING STANDARD to ILLUMINATE in EACH DIRECTION as SHOWN.

RETAIN EXISTING CONCRETE

RELOCATE POWER POLE to this LOCATION & ATTACH LAMP to ILLUMINATE CAR PARK

CONSTRUCT REINFORCED CONCRETE ENTRANCEWAYS as SPECIFIED

ARTHUR BARNETTS

WRIGHTSON DALGETYS

CAR PARK

Existing Offstreet Parking

CONSTRUCT LAMPHOLE & MUDTANK.

LIMERICK INVESTMENTS (ex. COOKE HOWISON)

LIMERICK STREET

EXISTING 300 Ø STORMWATER DRAIN

EXISTING MUDTANK 'C'

PRELIMINARY ONLY NOT APPROVED

INTERCEPT EXIST. PIPE & CONNECT INTO PROPOSED DRAIN

CONSTRUCT MUDTANK

PAINTED CHEVRONS & LINE WORK.

CONSTRUCT 450 Ø STORMWATER DRAIN

BREAK OUT EXISTING K&C & TIE NEW FOOTPATH INTO EXISTING.

BREAK OUT EXISTING KERB & CHANNEL

CONSTRUCT MUDTANK

CONSTRUCT 600 Ø STORMWATER DRAIN

CONSTRUCT ASPHALTIC CONCRETE FOOTPATH

CONSTRUCT NEW 300 Ø CONNECTION TO NEW MANHOLE

CONSTRUCT PARKING BARRIER as per DETAIL SHEET 12211/4

CONSTRUCT MUDTANKS & 150 Ø CONNECTIONS.

CONSTRUCT DISHED CROSSING

47m to manhole A1 92m (total) to outfall structure A0

ENNIS STREET

BREAK OUT EXISTING K&C & REPLACE AS SHOWN.

ATTACH LAMP to ILLUMINATE ENTRANCE TO CARPARK.

Existing 450 Ø Watermain (Asbestos Cement)

NOTES ---

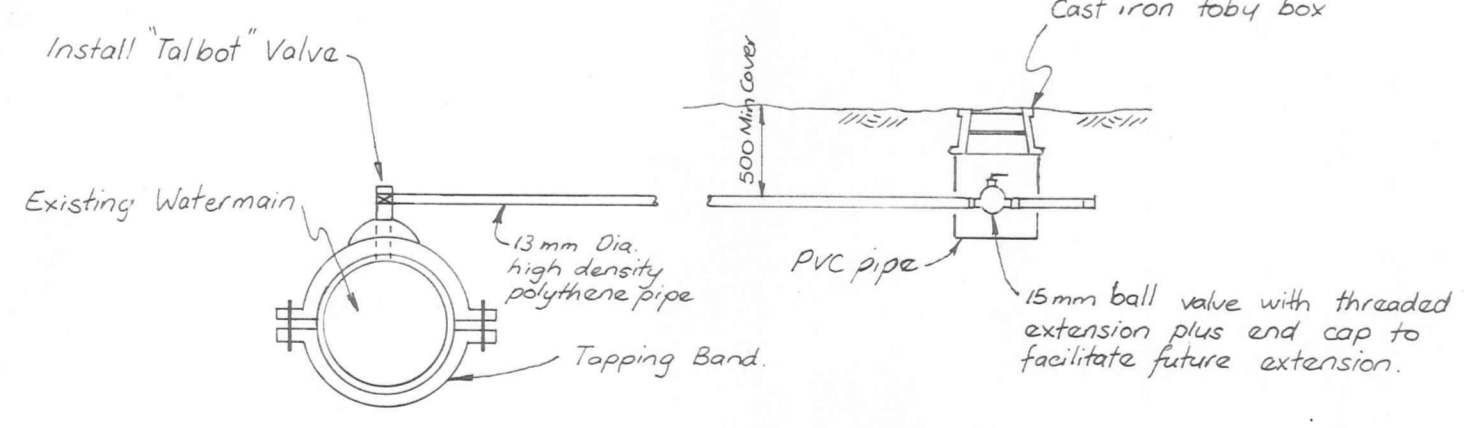
- Locations of existing watermains are not accurate & only indicate the presence of the service. When laying new services, carefully prospect ahead to locate existing services.
- See Telecom. for location of underground telephone cables.
- Timber Barrier to be installed as required to separate car parks from pedestrians (i.e. where footpaths front car parks)

LEGEND

- LIMERICK PROPERTIES CARPARK REPAIR SURFACE & TWO COAT CHIP SEAL / ASPHALTIC CONCRETE
- ENNIS STREET - CONVERT KERB & CHANNEL to MOUNTABLE CHANNEL & CONSTRUCT PAVEMENT WITHIN SHADED AREA
- LANDSCAPED PLOTS WITH KERBED SURROUND
- EXISTING FOOTPATHS (to remain in service)
- NEW PAVEMENT & TWO COAT CHIP SEAL / ASPHALTIC CONCRETE
- TOBY BOX, BALL VALVE & CONNECTION as per DETAIL.

PLAN

Scale 1:200



WATER SUPPLY DETAIL for LANDSCAPED PLOTS Nts.

No.	Revisions	Date	Appd

Checked	Approved	11 JUL 1988
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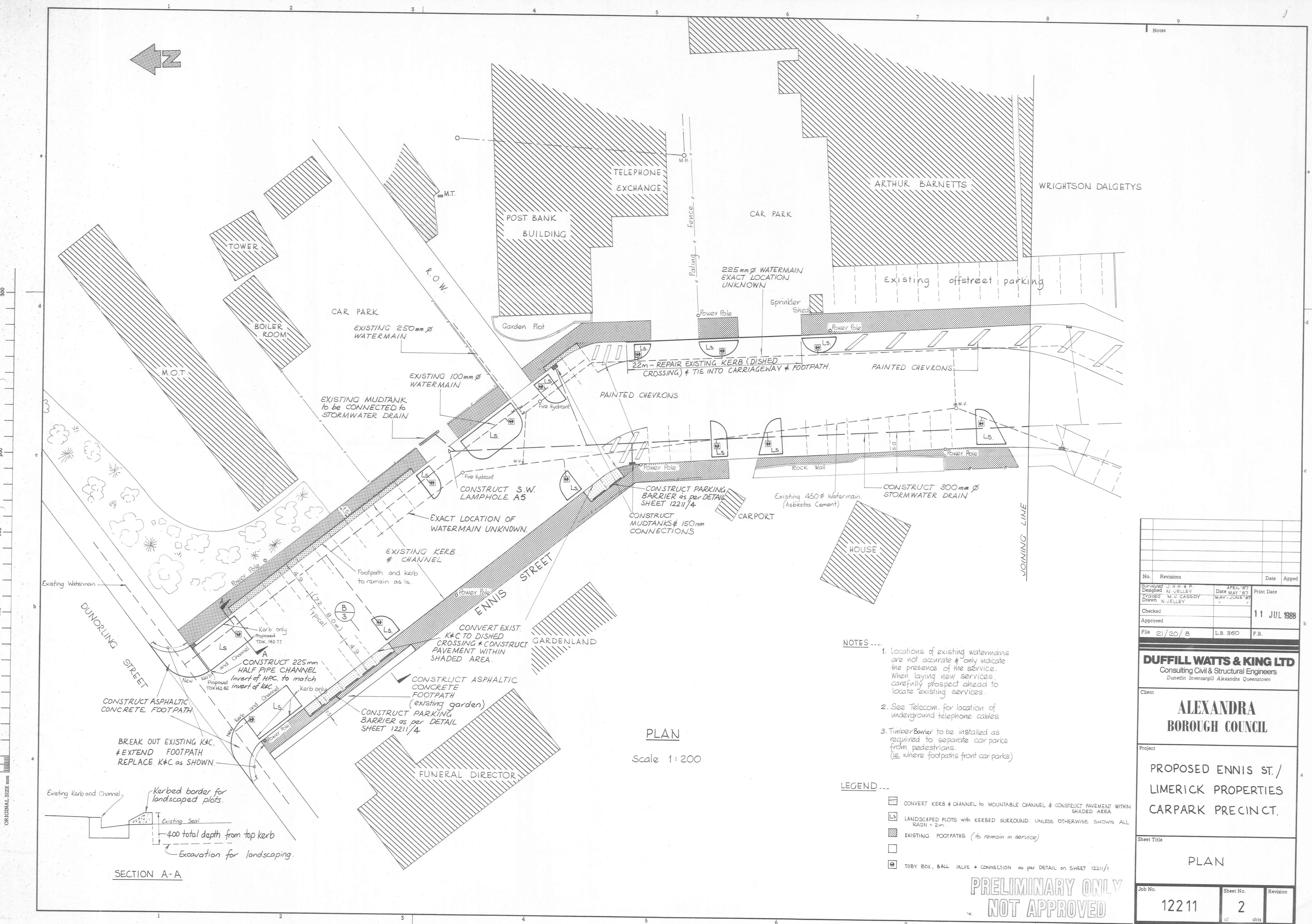
Client
ALEXANDRA BOROUGH COUNCIL

Project
 PROPOSED ENNIS ST. / LIMERICK PROPERTIES CARPARK PRECINCT.

Sheet Title
 PLAN

Job No. 12211	Sheet No. 1	Revision
	of 	shts

ORIGINAL SIZE mm



Notes

No.	Revisions	Date	Appr'd
1	Surveyed J.H.H. & P. JELLEY	APRIL '87	
2	Designed N. JELLEY	DATE MAY '87	
3	Traced M. J. CASSIDY	MAY - JUNE '87	
4	Drawn N. JELLEY		
Checked			11 JUL 1988
Approved			
File	21/20/8	L.B. 360	F.B.

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Project
PROPOSED ENNIS ST. / LIMERICK PROPERTIES CARPARK PRECINCT.

Sheet Title
PLAN

Job No.	Sheet No.	Revision
12211	2	
	of	shts

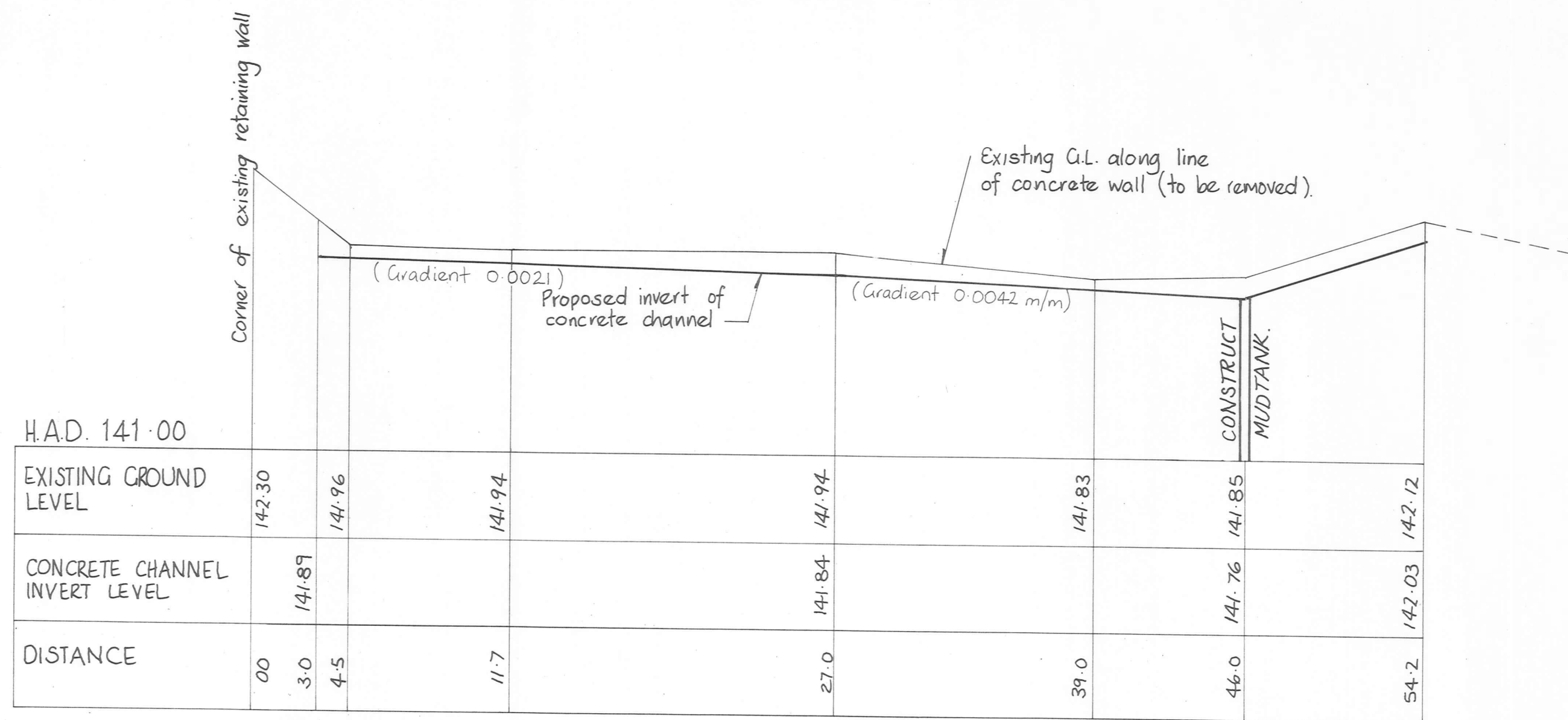
- NOTES** ...
- Locations of existing watermains are not accurate & only indicate the presence of the service. When laying new services, carefully prospect ahead to locate existing services.
 - See Telecom. for location of underground telephone cables
 - Timber Barrier to be installed as required to separate car parks from pedestrians. (ie. where footpaths front car parks)

- LEGEND** ...
- CONVERT KERB & CHANNEL TO MOUNTABLE CHANNEL & CONSTRUCT PAVEMENT WITHIN SHADED AREA
 - LANDSCAPED PLOTS WITH KERBED SURROUND UNLESS OTHERWISE SHOWN ALL RADII = 2m.
 - EXISTING FOOTPATHS (to remain in service)
 - TOBY BOX, BALL VALVE & CONNECTION as per DETAIL on SHEET 12211/1

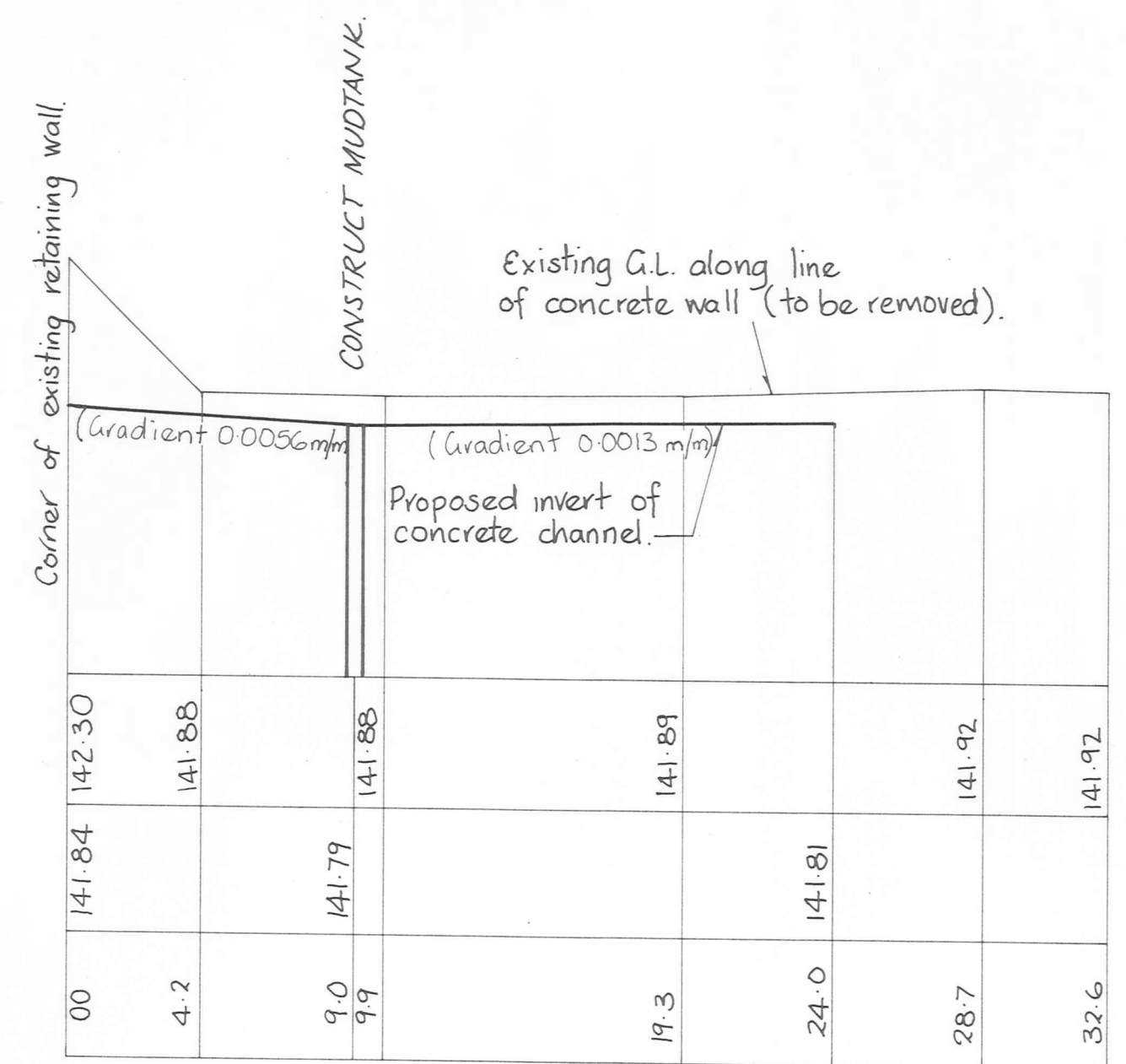
PLAN
 Scale 1:200

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ORIGINAL SIZE mm



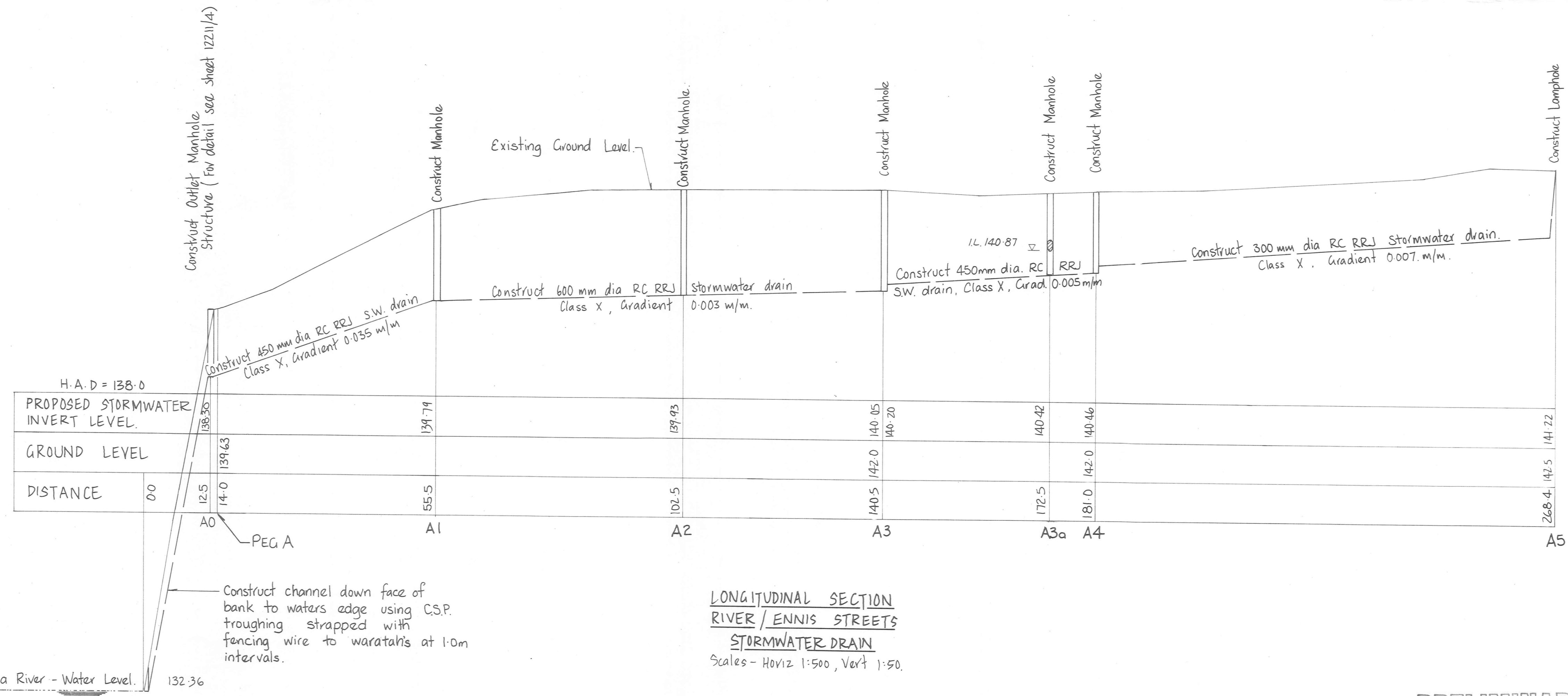
DETAIL of NORTH - SOUTH DROPPED CHANNEL.



DETAIL of EAST - WEST DROPPED CHANNEL.

LIMERICK STREET CAR PARK
LONGITUDINAL SECTIONS.

Scale - Horiz. 1:200
Vert. 1:20



LONGITUDINAL SECTION
RIVER / ENNIS STREETS
STORMWATER DRAIN
Scales - Horiz 1:500, Vert 1:50

ORIGINAL SIZE mm

No.	Revisions	Date	Appvd

Designed	N. JELLEY	Date	JUNE '87	Print Date	
Drawn	J. MURIE	Date	JUNE '88		
Checked					11 JUL 1988
Approved					
File	21/20/8	L.B.	360	F.B.	

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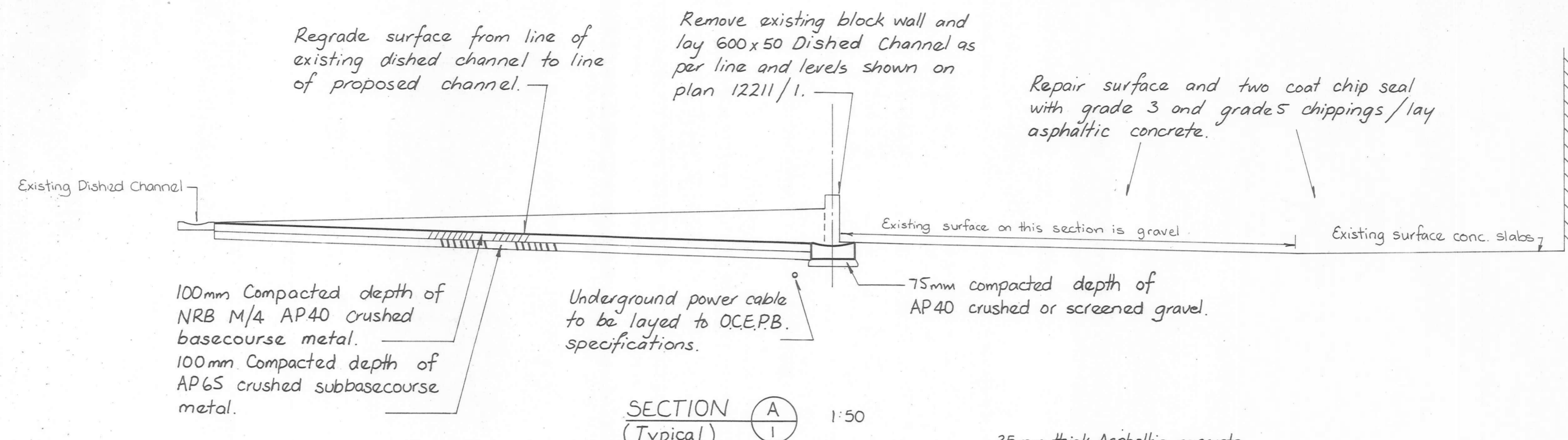
Client
ALEXANDRA BOROUGH COUNCIL

Project
PROPOSED ENNIS ST. / LIMERICK PROPERTIES CARPARK PRECINCT.

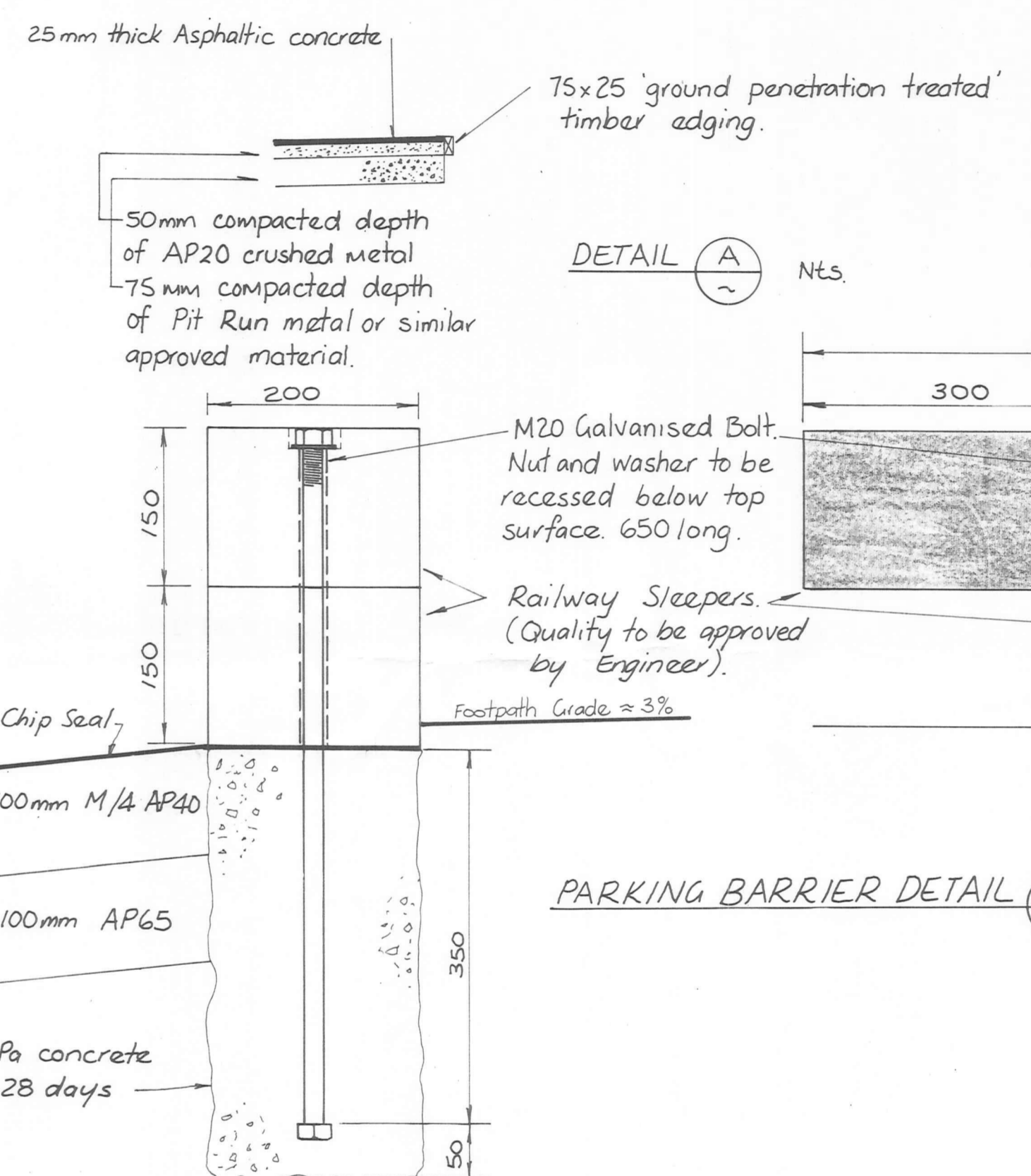
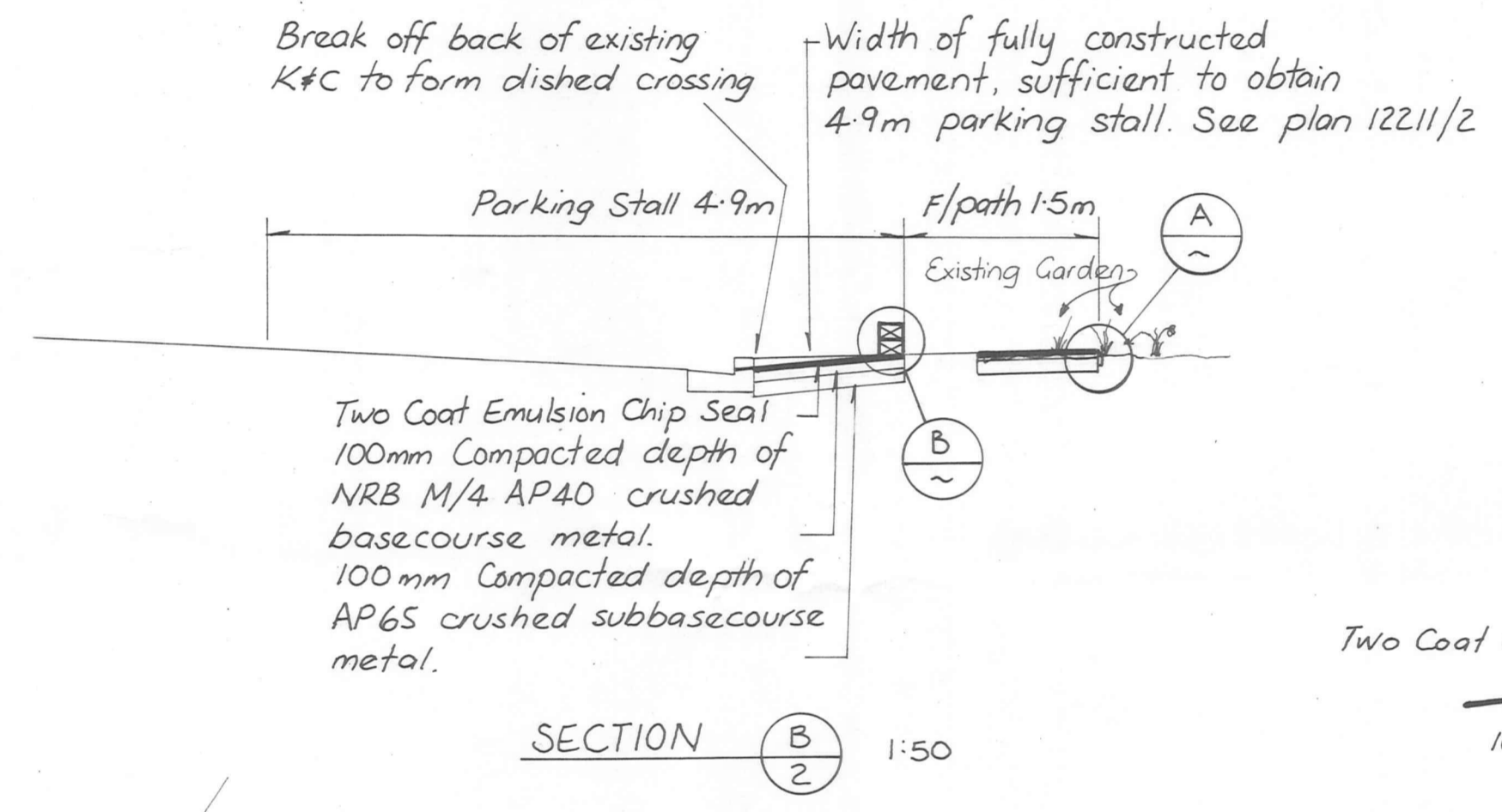
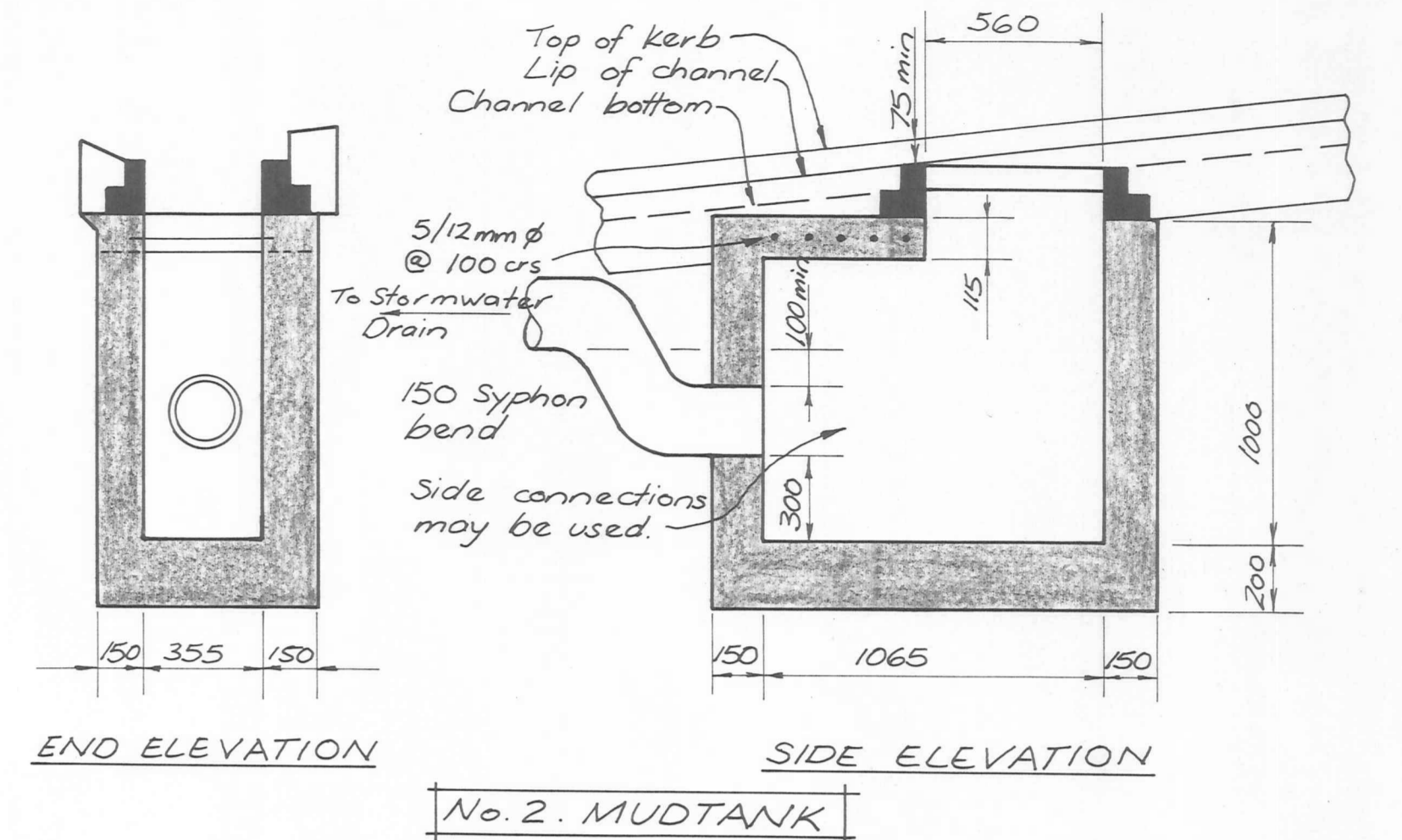
Sheet Title
LONGITUDINAL SECTIONS.

PRELIMINARY ONLY
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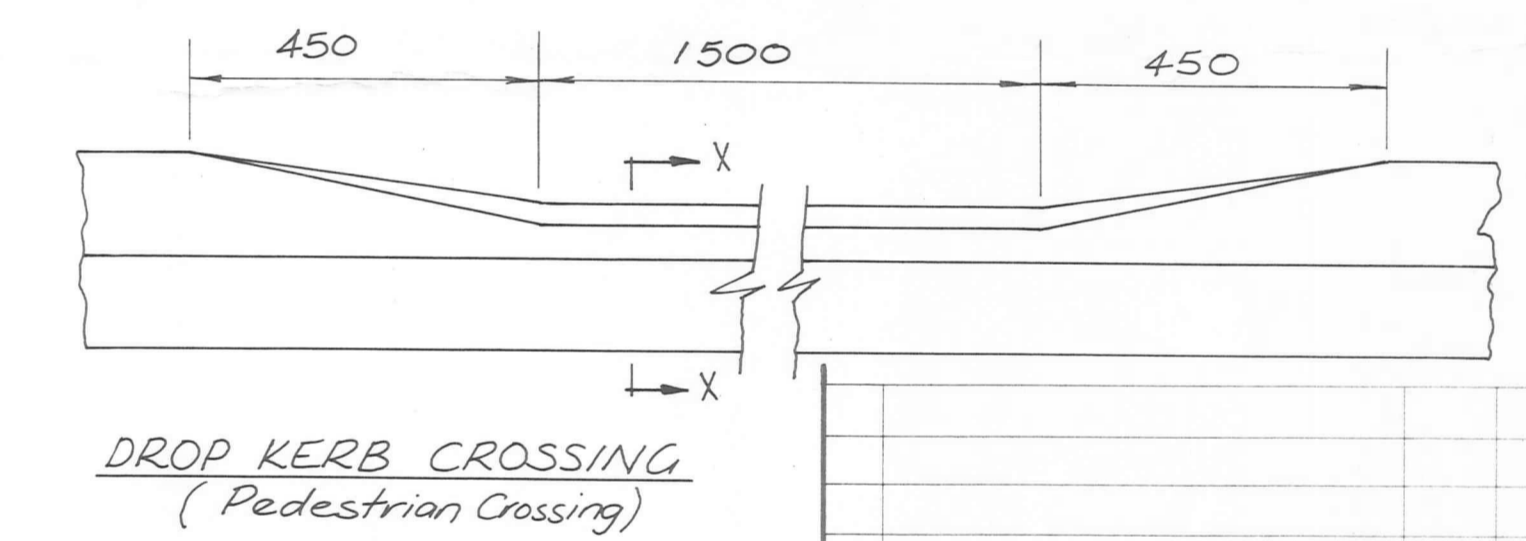
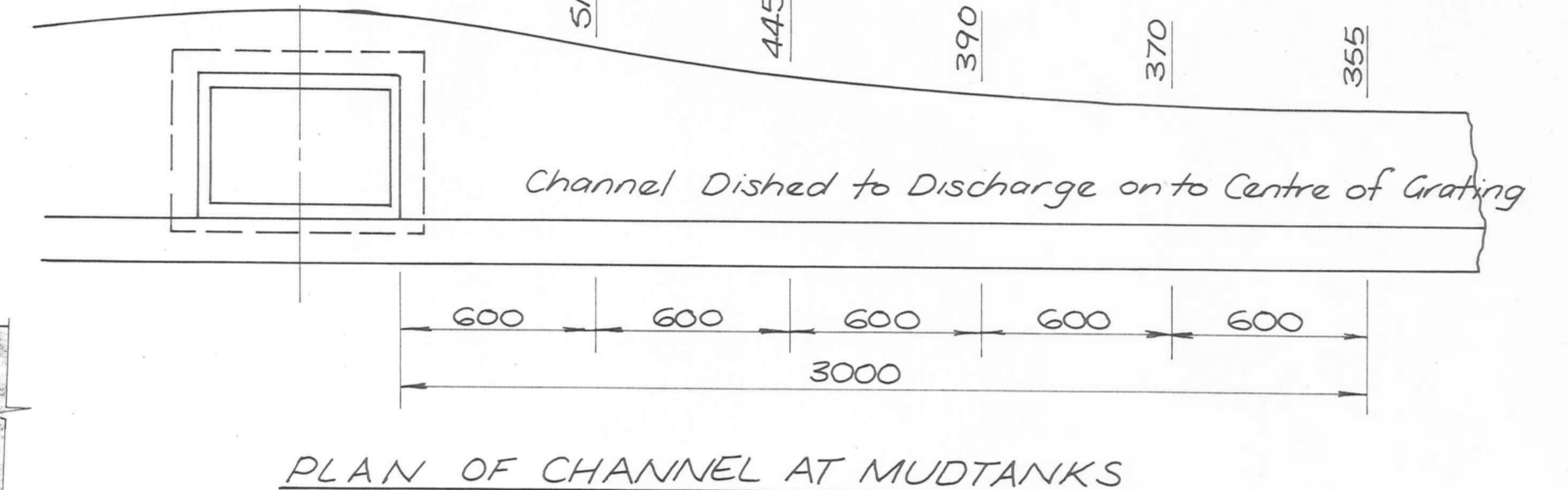
Job No.	Sheet No.	Revision
12211	3	of shts



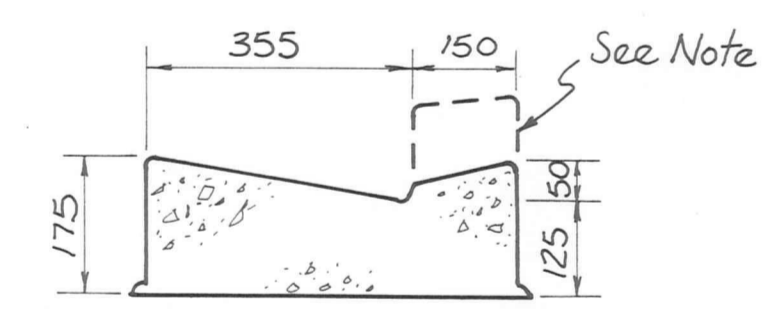
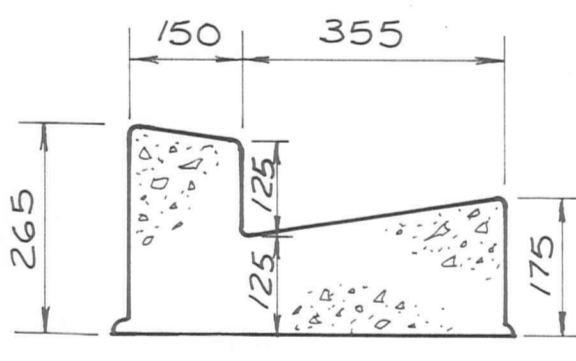
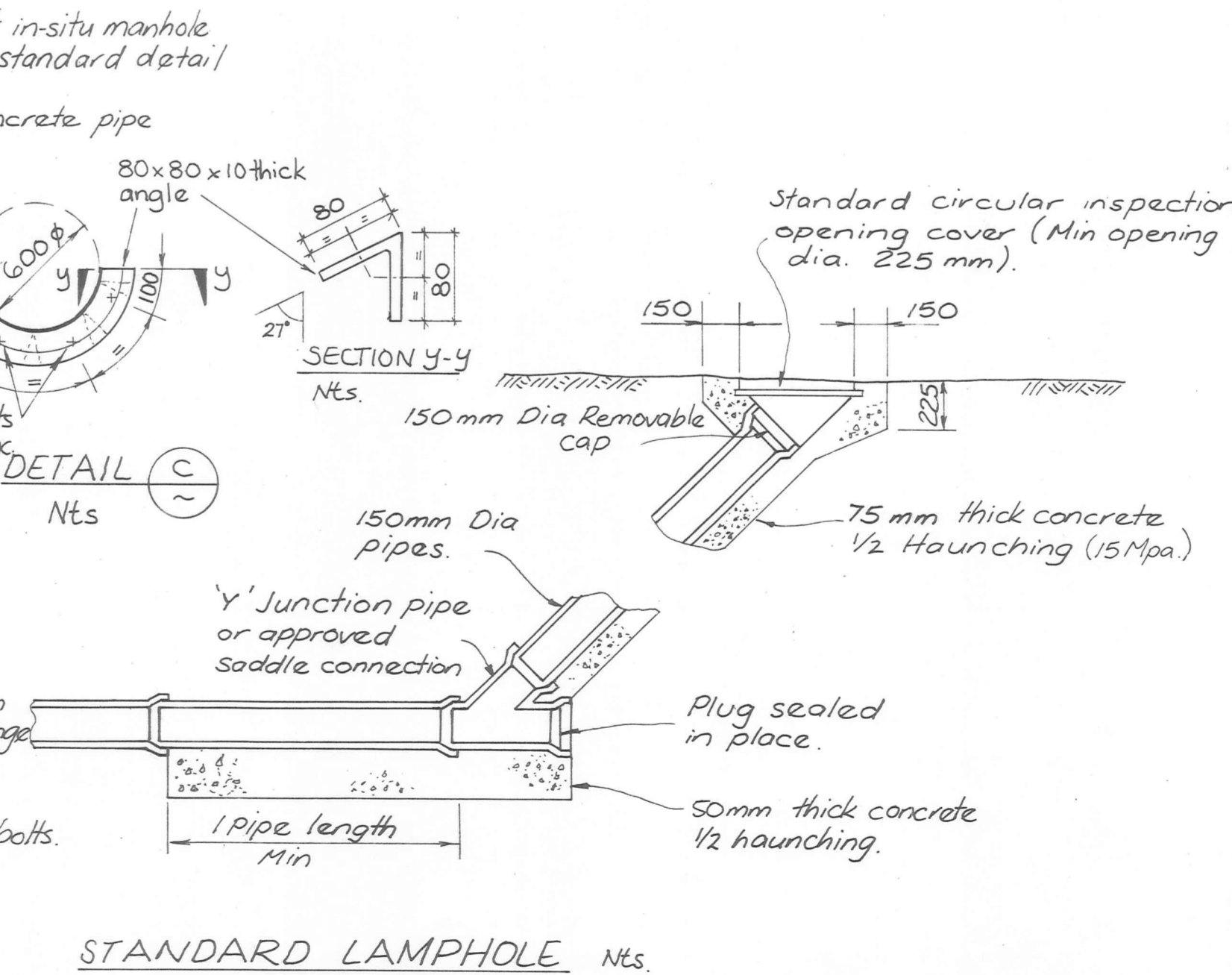
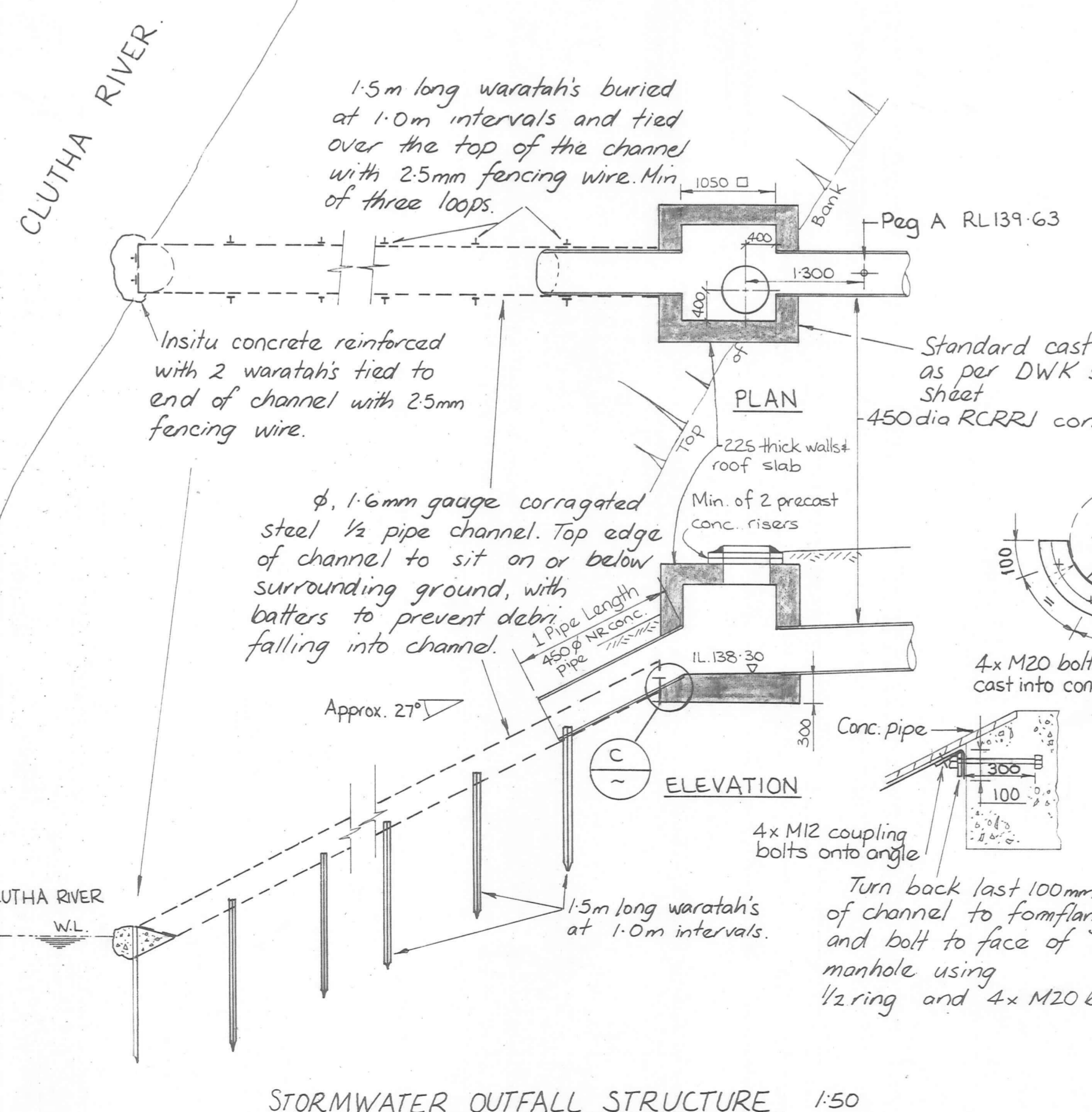
LIMERICK PROPERTIES BUILDING



Widening of channel symmetrical about center of mudtank.



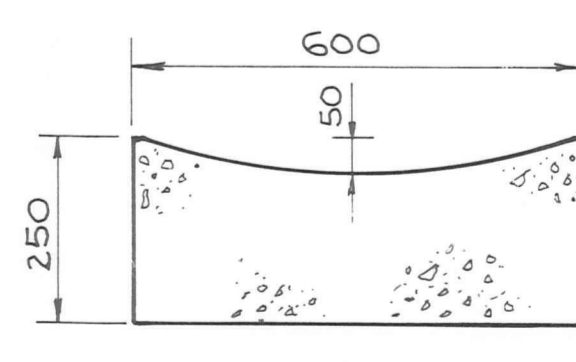
GENERAL: All concrete work to have a 28 day strength of 20 MPa.



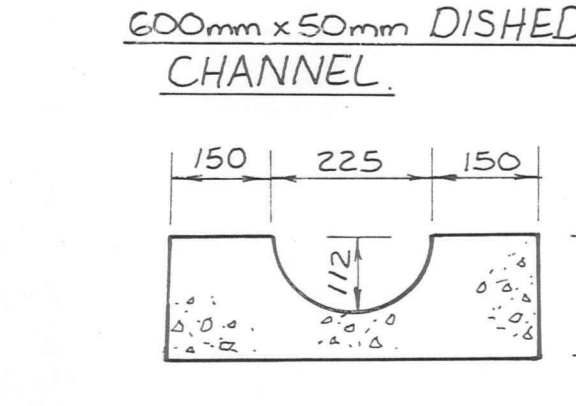
STANDARD KERB & CHANNEL

DISHED CROSSING X-X

Note: Parking Bays along North West side of Ennis Street are to have kerb and channel profile altered to form dished channel.



MOUNTABLE KERB (Laid on seal as border for landscaped plots.)



225mm HALF-PIPE CHANNEL

PRELIMINARY ONLY NOT APPROVED

No.	Revisions	Date	Appvd
1			

Designed N.JELLEY, J.MURIE Date JULY '88 Print Date
 Drawn J.MURIE
 Checked
 Approved 11 JUL 1988
 File 21/20/B L.B. 360 F.B. ~

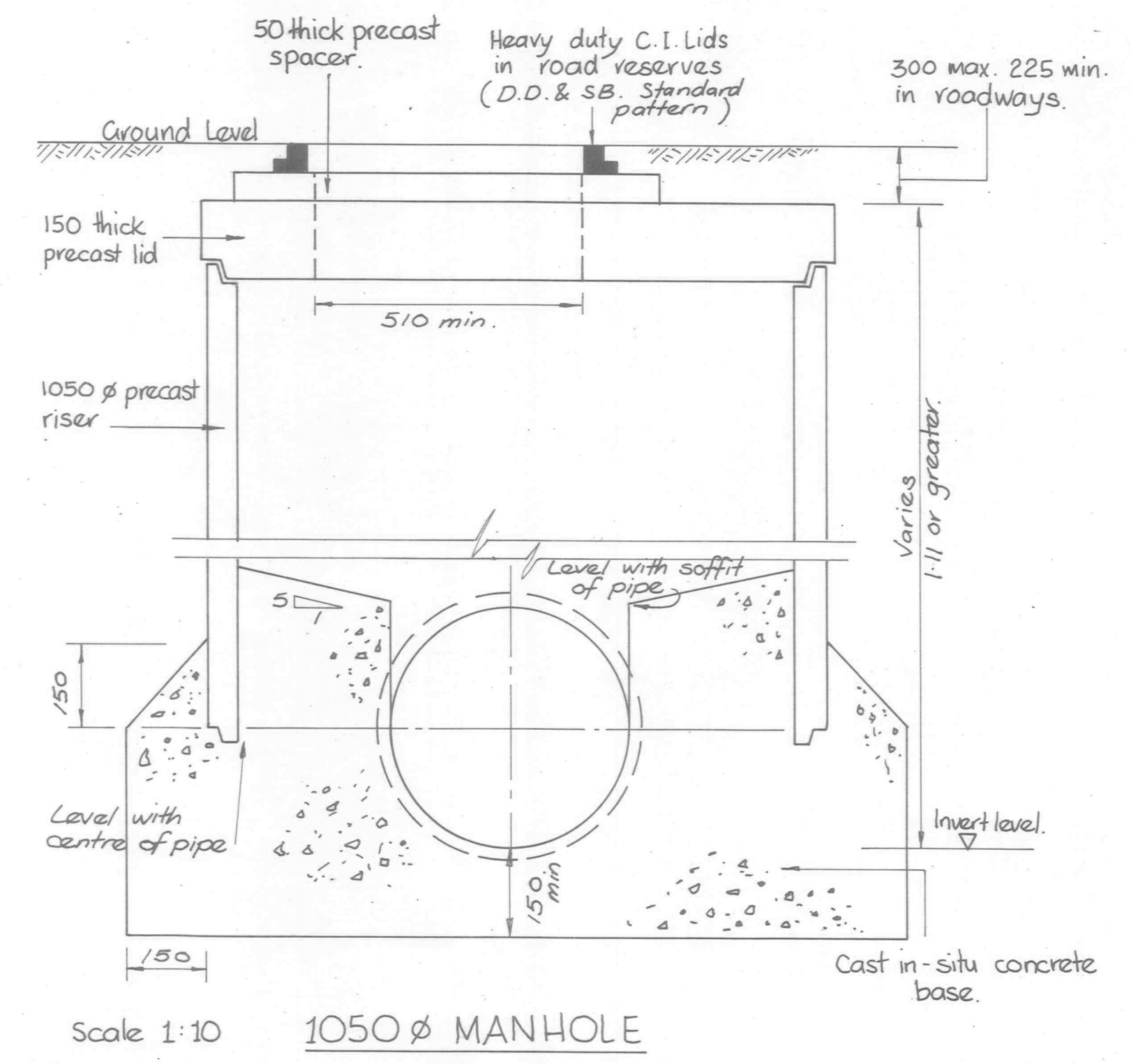
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ALEXANDRA BOROUGH COUNCIL
 Project
 PROPOSED ENNIS ST. / LIMERICK PROPERTIES CARPARK PRECINCT.

Sheet Title
DETAIL SHEET
 Job No. 12211 Sheet No. 4 of 4 Revisions

Manhole Notes :

1. 2 flexible joints within 1m of walls required on all pipelines entering or leaving manholes.
2. Concrete strength shall be 20 MPa. at 28 days.
3. All frames & spacers exposed to view shall have plaster surround of 500 radius.
4. Locate manhole opening over stormwater pipe.
5. No step irons are required where depth to invert is less than 2m.
6. 1050 ϕ precast manholes shall be used where pipe diameters range between 375 mm & 600 mm. 675 ϕ precast manholes shall be used where pipe diameters are 225 mm or 300 mm & where depth to invert is less than 1.10m.
7. Channels from branch lines shall be curved into main line through the manhole to ensure streamlined flow.



No.	Revisions	Date	Appvd

Designed	N.JELLEY, J.MURIE	Date	JULY '88	Print Date	11 JUL 1988
Drawn	J.MURIE				
Checked					
Approved					
File	21/20/8	L.B. 360	F.B. ~		

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 PROPOSED ENNIS ST. /
 LIMERICK PROPERTIES
 CARPARK PRECINCT.

Sheet Title
STORMWATER MANHOLE

Job No.	12211	Sheet No.	5	Revision	
		of	shts		

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ORIGINAL SIZE mm