

CROMWELL BOROUGH COUNCIL
NEIGHBOURHOOD ONE DEVELOPMENT

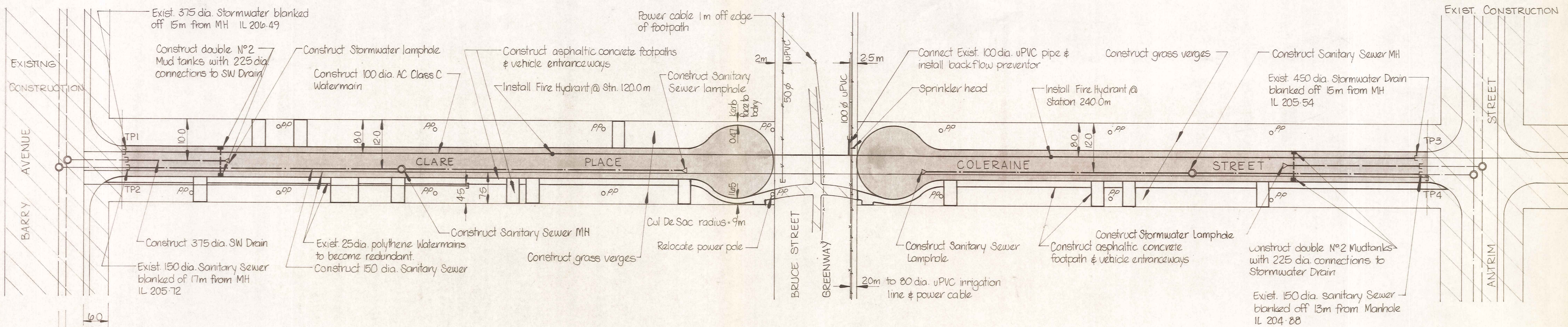


DUFFILL WATTS & KING LTD
Consulting Engineers

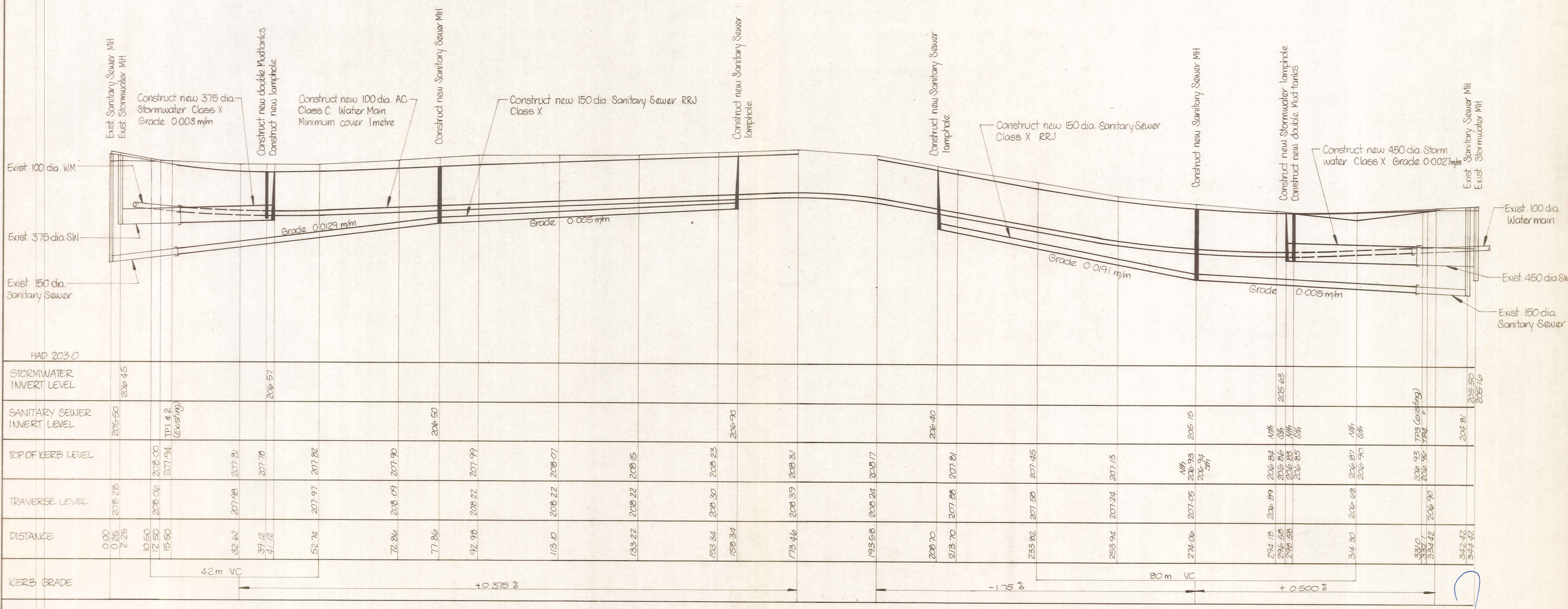
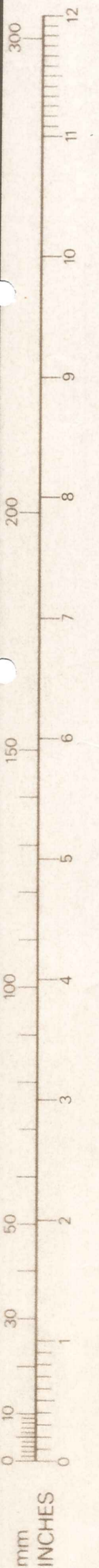
CLARE PLACE
COLERAINE ST.
CONTRACT NO 20

Set No

KEVIN BLAIR CONTRACTORS LTD.
Kevin Blair
[Signature]



PLAN
1:500



LONGITUDINAL SECTION
Horiz 1:500
Vert 1:50

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CONSULTING CIVIL & STRUCTURAL ENGINEERS
Dunedin PO Box 5289 Ph: 777-133 Invercargill PO Box 576 Ph: 83049
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CROMWELL BOROUGH COUNCIL

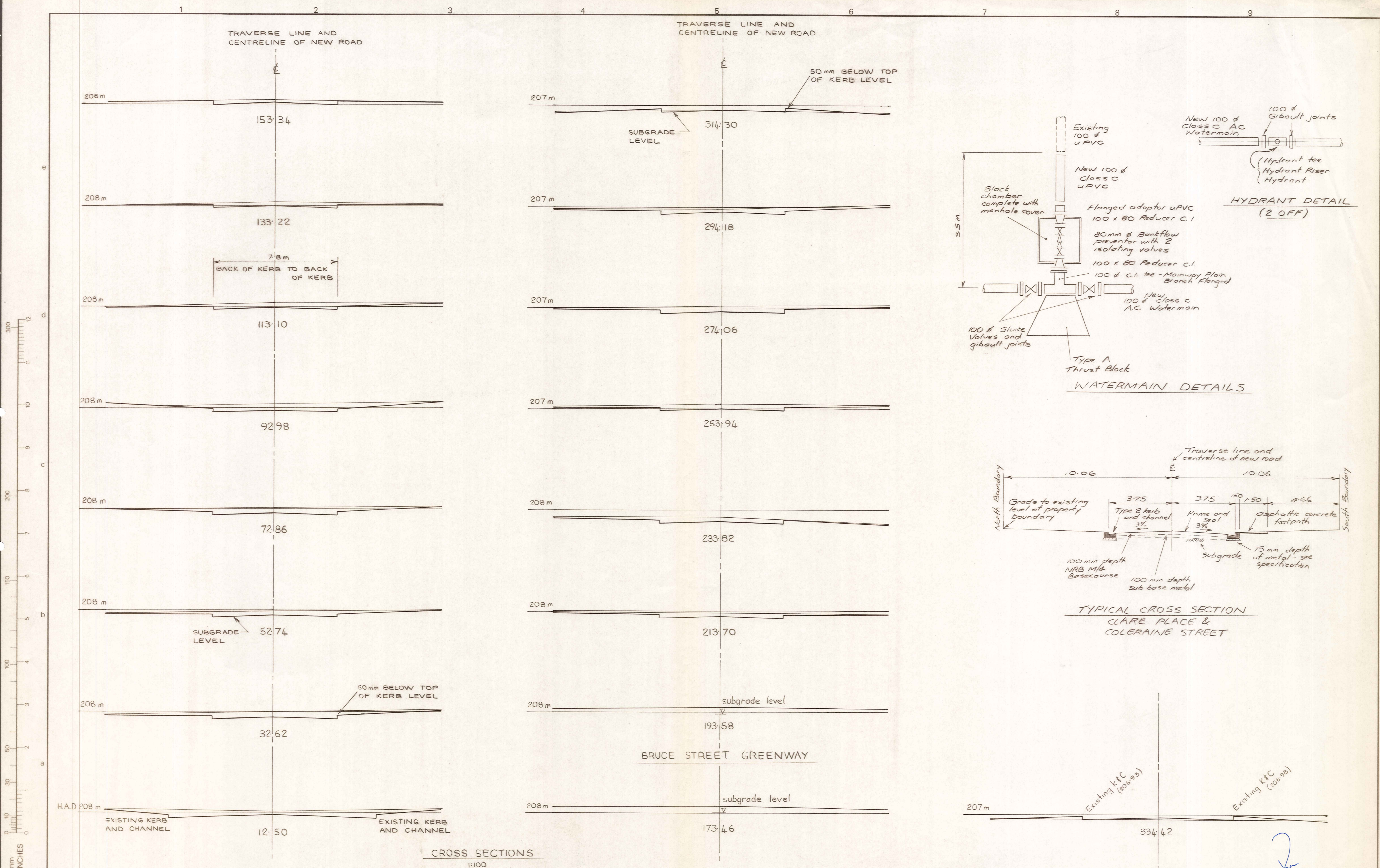
NEIGHBOURHOOD 1 DEVELOPMENT

CONTRACT No 20
CONSTRUCTION OF STREETWORKS & ENGINEERING SERVICES

CLARE PLACE/ COLERAINE STREET WEST
PLAN & LONGITUDINAL SECTION

| AMENDMENTS | | | NAME | | DATE | JOB NO. | Sheet No |
|------------|----|------|--------|--------------|-------------|----------|----------|
| NO. | BY | DATE | Appvd. | Surveyed | N. JELLEY | SEPT. 82 | 10130 |
| | | | | Drawn | " | " | 1 |
| | | | | Calculations | " | " | of 25 |
| | | | | Traced | DJ Tyssen | NOV. 83 | shts |
| | | | | Checked | R.H. | " | |
| | | | | Approved | [Signature] | 5/84 | |

File 9/19/22 L.B. 410 F.B.



ORIGINAL SIZE
mm INCHES

0 10 20 30 40 50 60 70 80 90 100 150 200 300

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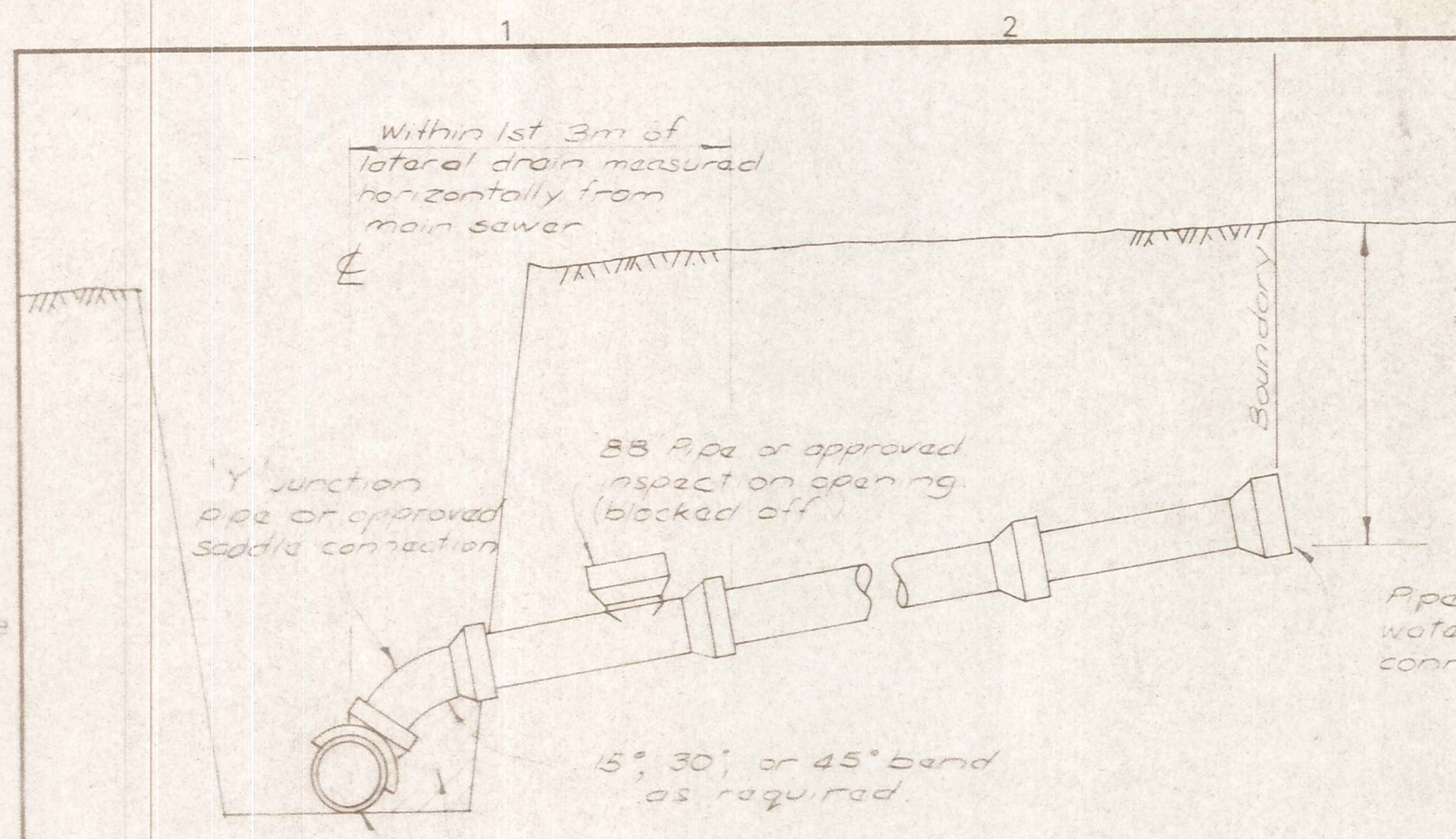
CROMWELL BOROUGH COUNCIL

NEIGHBOURHOOD 1 DEVELOPMENT

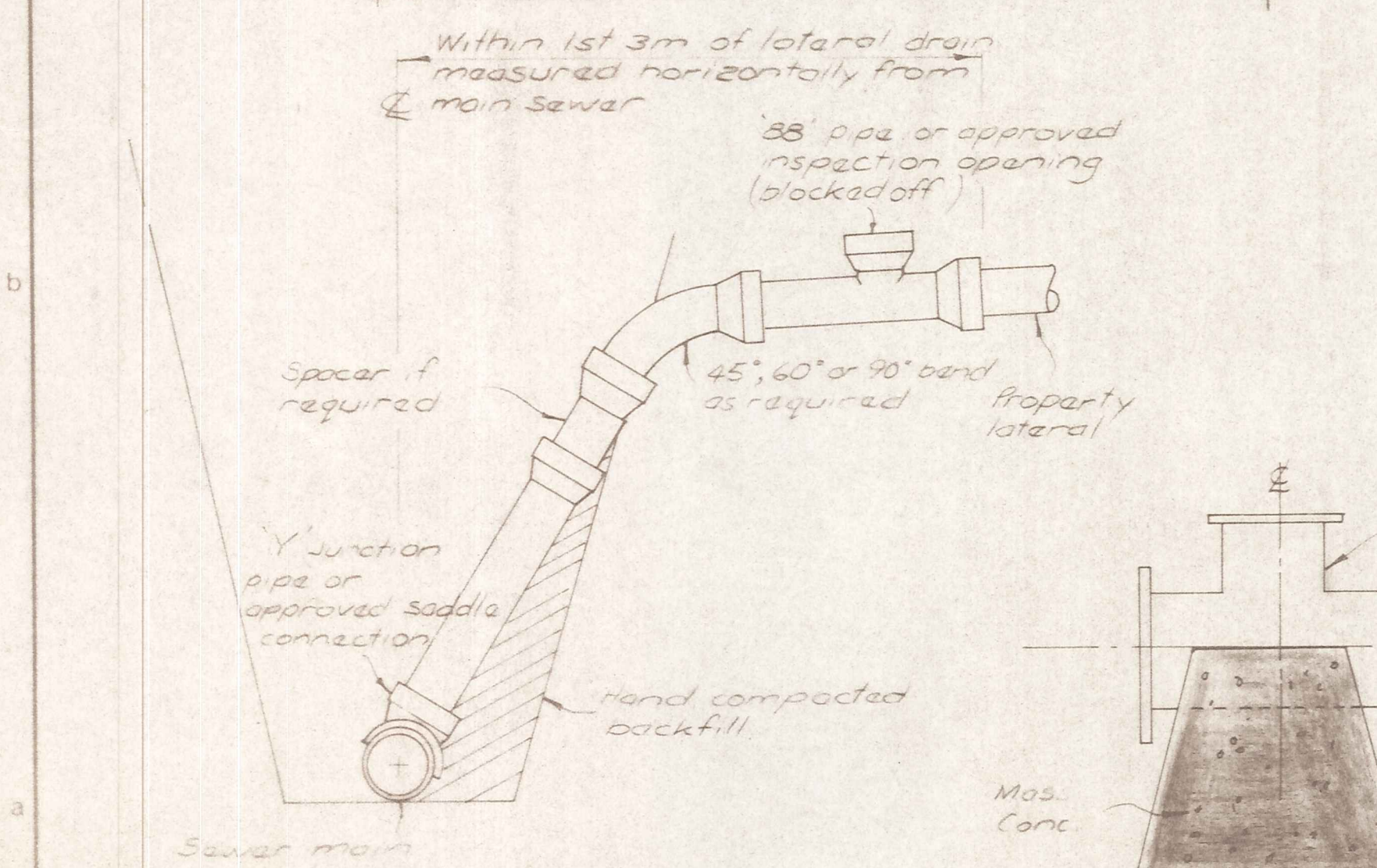
CONTRACT No. 20
CONSTRUCTION OF STREETWORKS AND ENGINEERING SERVICES

CLARE PLACE / COLERAINE STREET (WEST)
CROSS SECTIONS & WATERMAIN DETAILS

| AMENDMENTS | | | NAME | | DATE | JOB NO. | Sheet No |
|------------|----|------|--------|--------------|-------------|----------|----------------------------|
| NO. | BY | DATE | Appvd. | Surveyed | N. JELLEY | SEPT. 82 | 10130 2 of 5 sheets |
| | | | | Drawn | " | " | |
| | | | | Calculations | " | " | |
| | | | | Traced | T. BERBEN | AUG. 83 | |
| | | | | Checked | R. H. | | |
| | | | | Approved | S. J. Watts | 5/84 | File 3/19/22 L.B. 416 F.B. |



SHALLOW SEWER CONNECTIONS



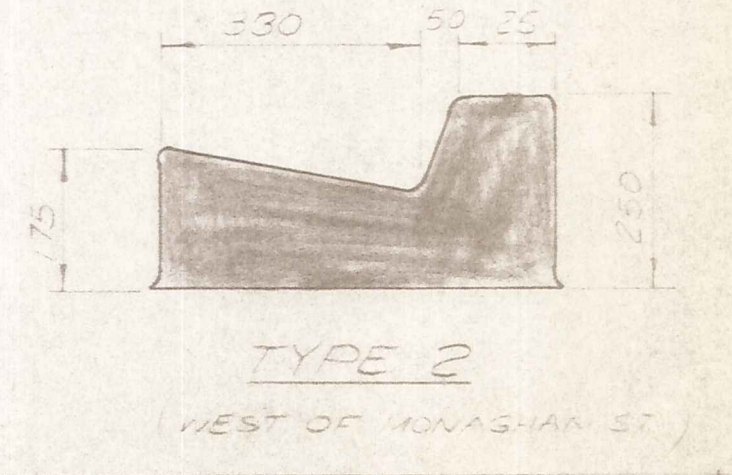
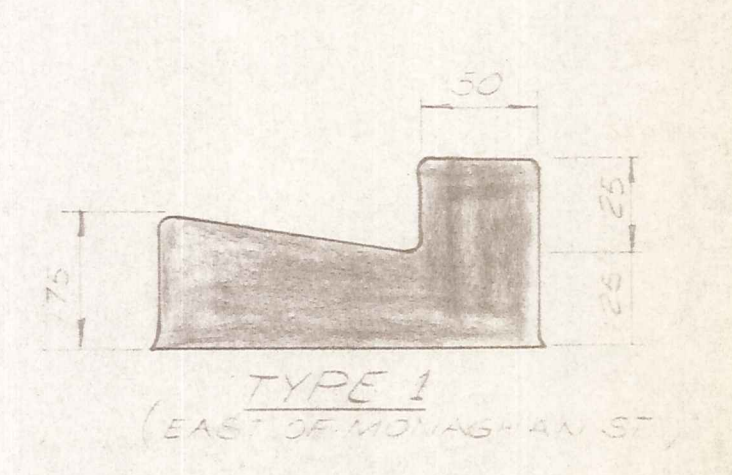
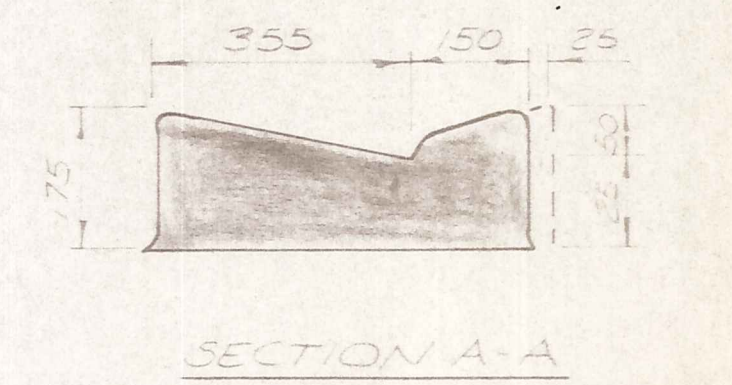
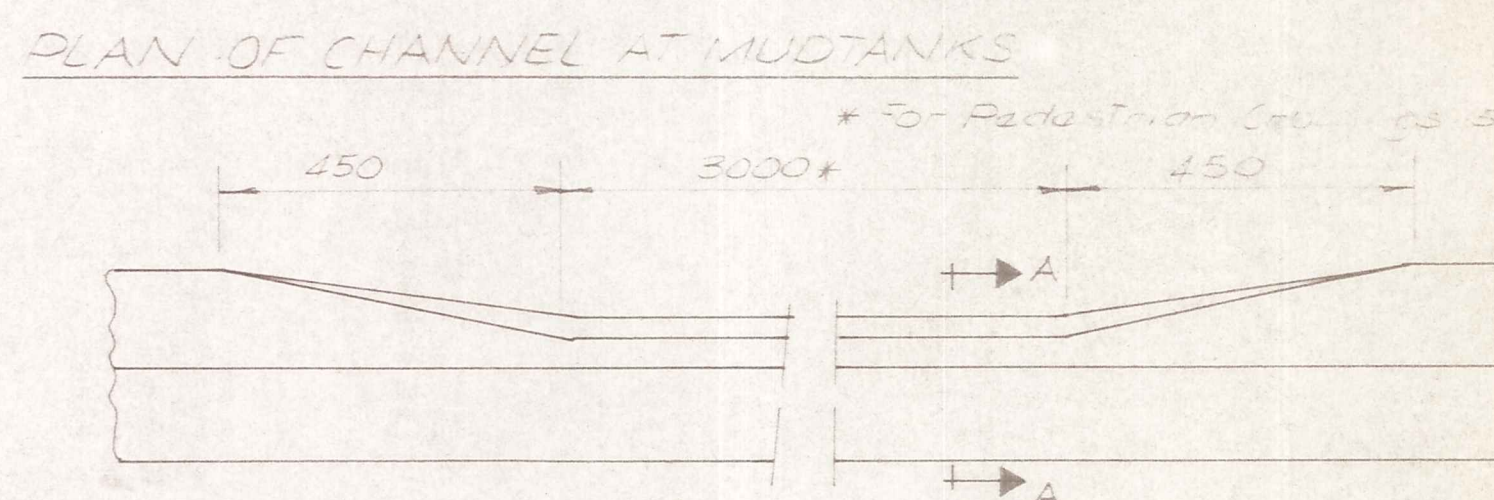
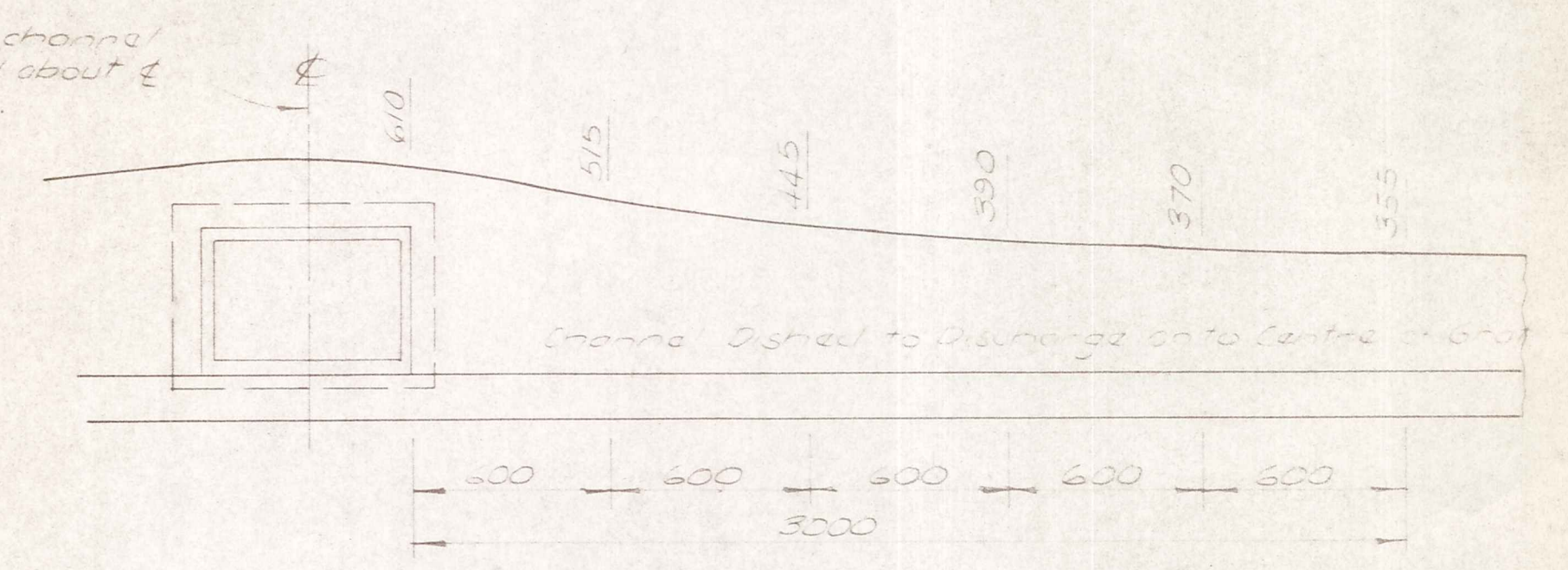
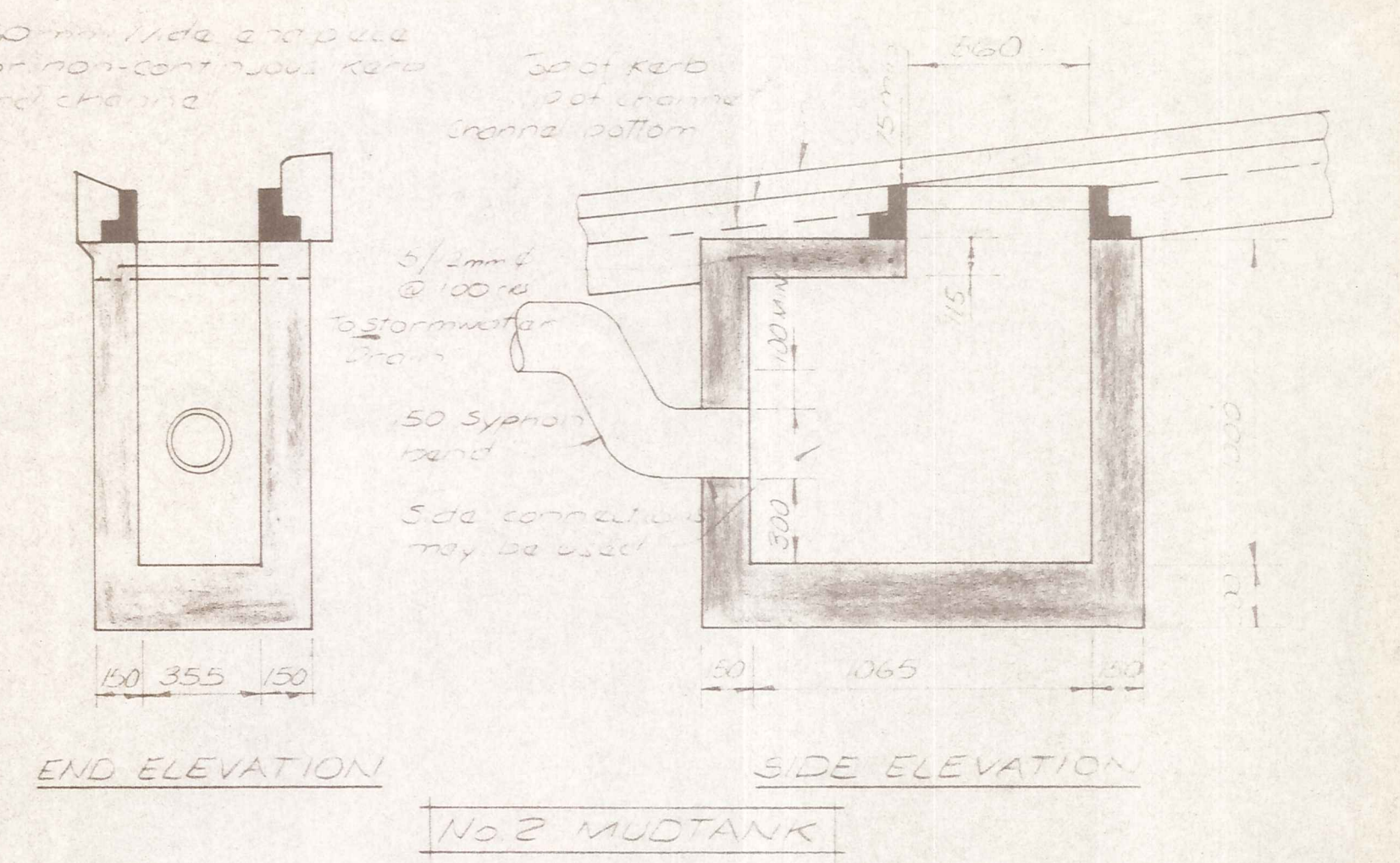
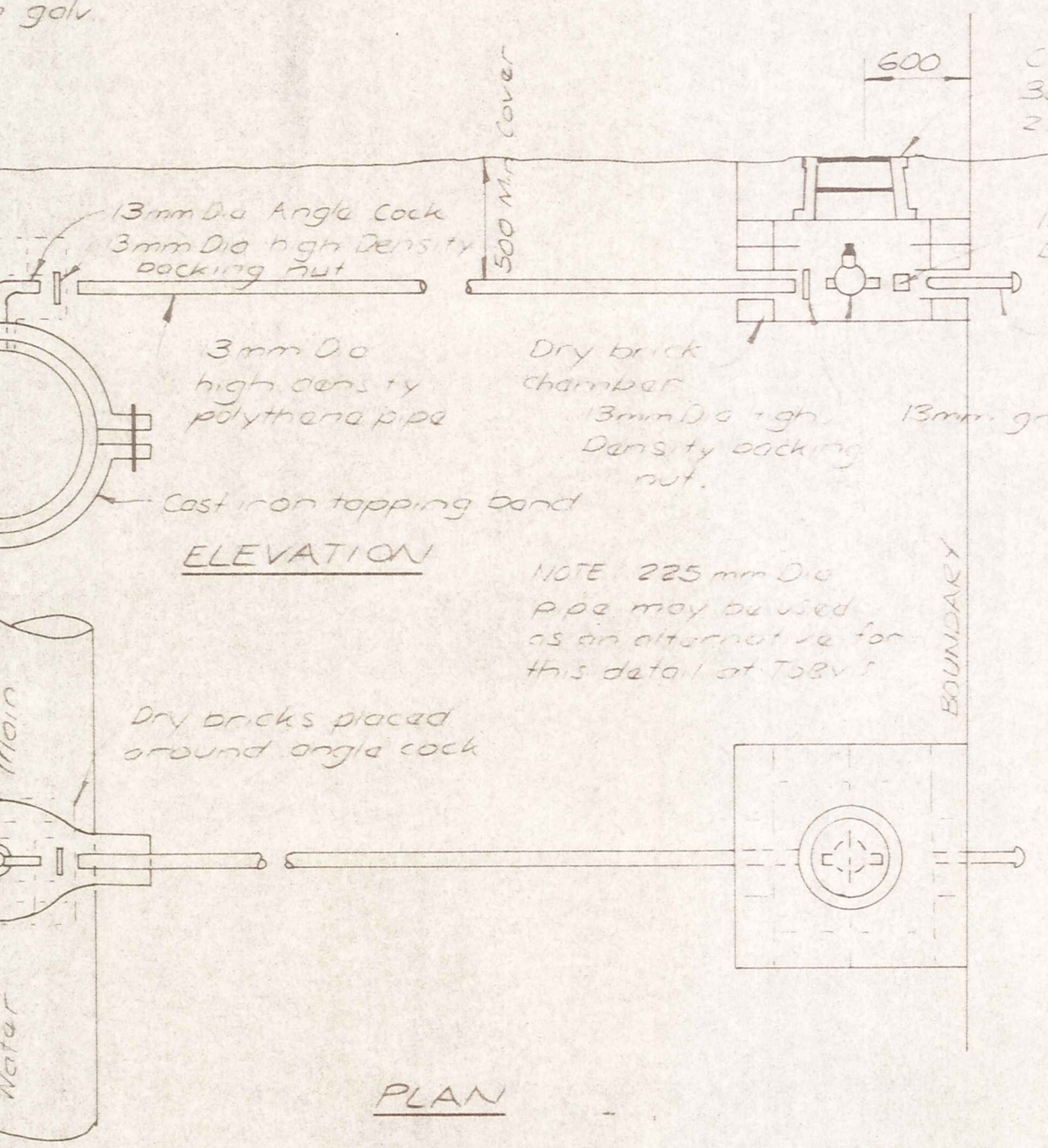
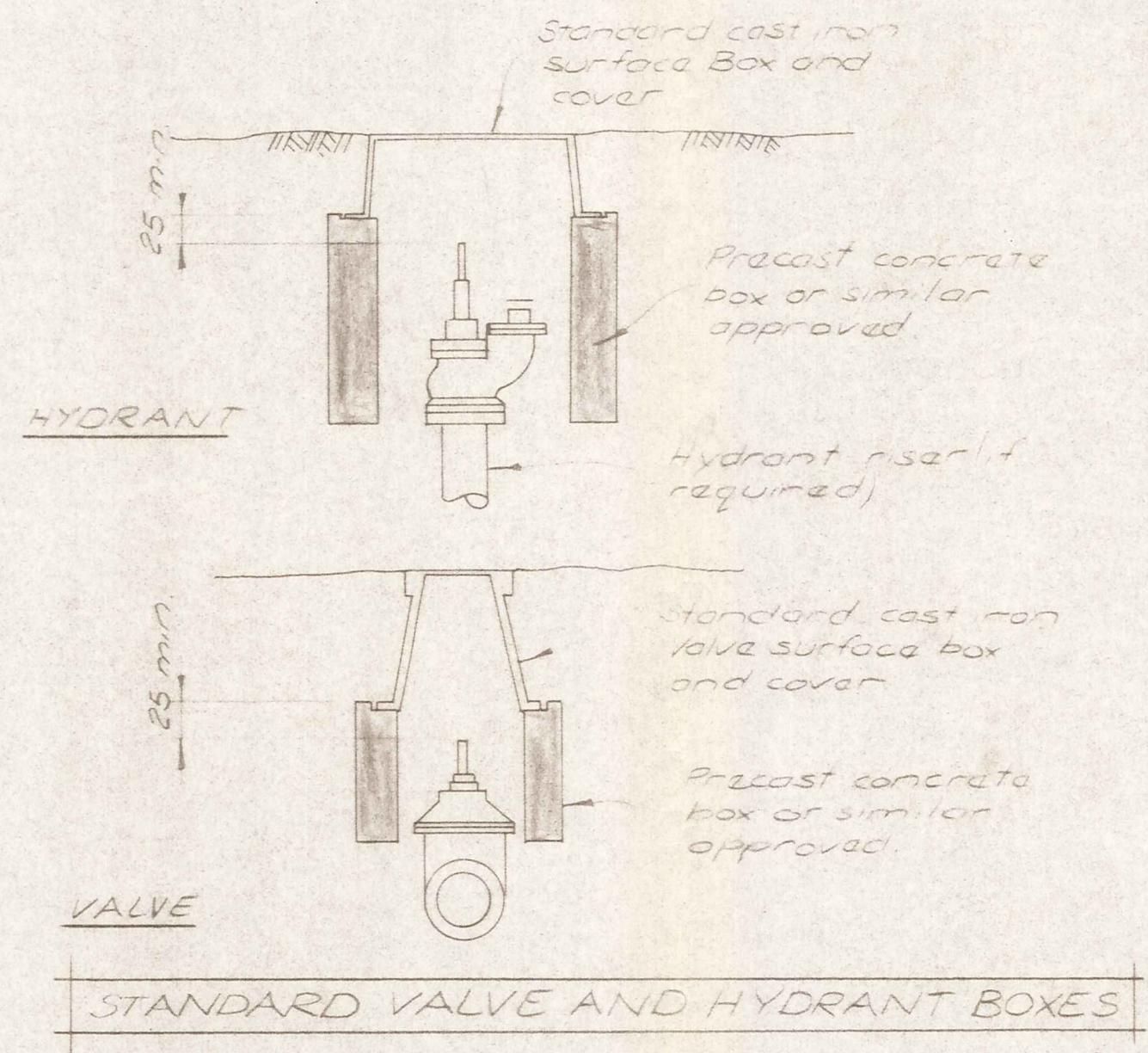
DEEP SEWER CONNECTIONS

NOTE: Deep Sewer Connections shall only be used when the main sewer is deeper than 2500 and then only provided adequate depth remains at the boundary as for the shallow sewer connections

DETAIL OF THRUST BLOCK - TYPE A -

| TYPE | Ø1 | Ø2 | W | L | D | B |
|------|-----|-----|------|------|------|-----|
| A | 100 | 100 | 900 | 300 | 400 | 200 |
| B | 150 | 100 | 1000 | 1000 | 400 | 250 |
| C | 150 | 150 | 800 | 1000 | 400 | 250 |
| D | 375 | 150 | 1400 | 1600 | 1600 | 750 |

CROSS ANCHOR BLOCK DETAIL NTS



KERB AND CHANNEL DETAILS

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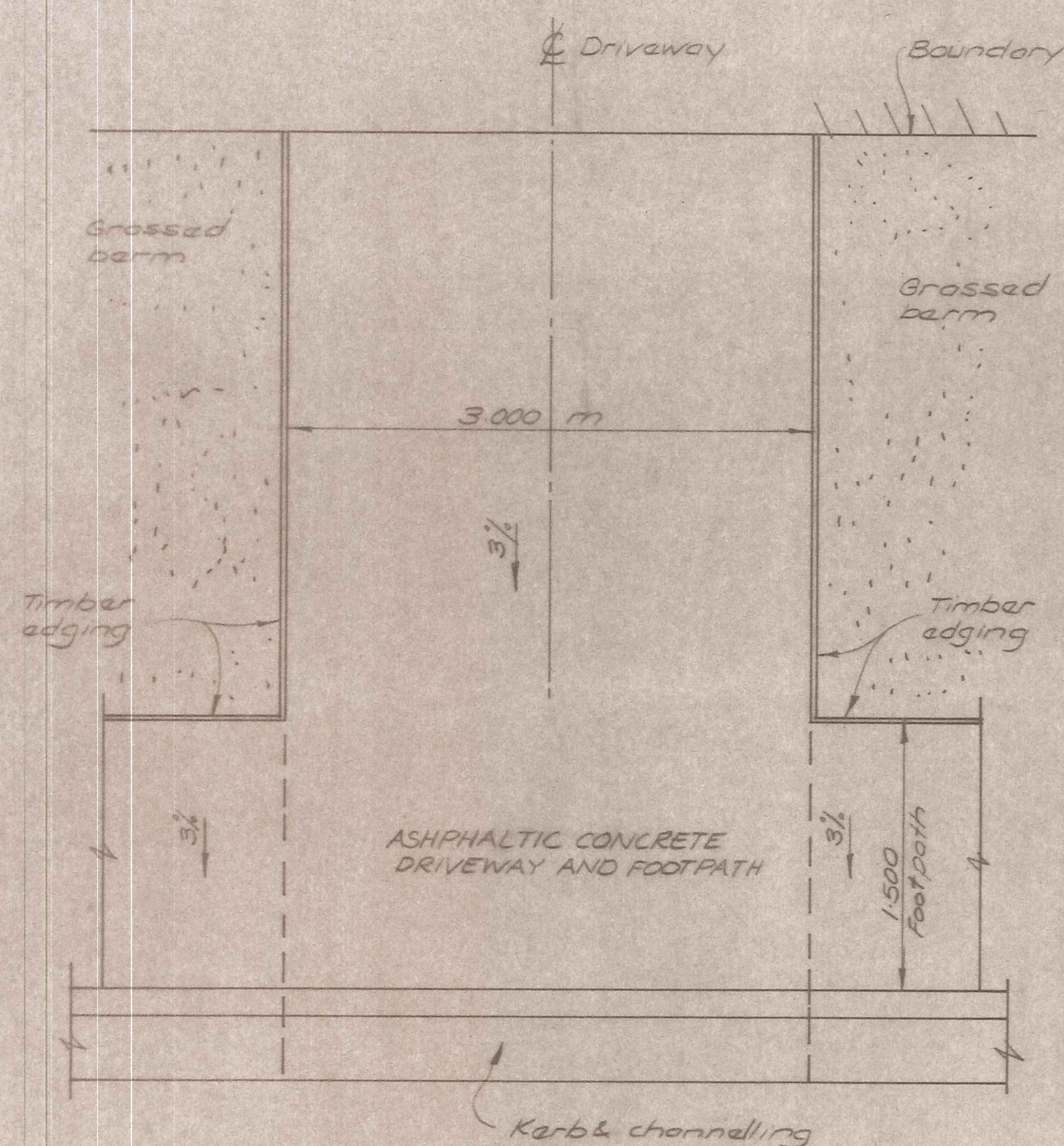
CROMWELL BOROUGH COUNCIL

NEIGHBOURHOOD 1 DEVELOPMENT

CONTRACT No 20
CONSTRUCTION OF STREETWORKS AND ENGINEERING SERVICES

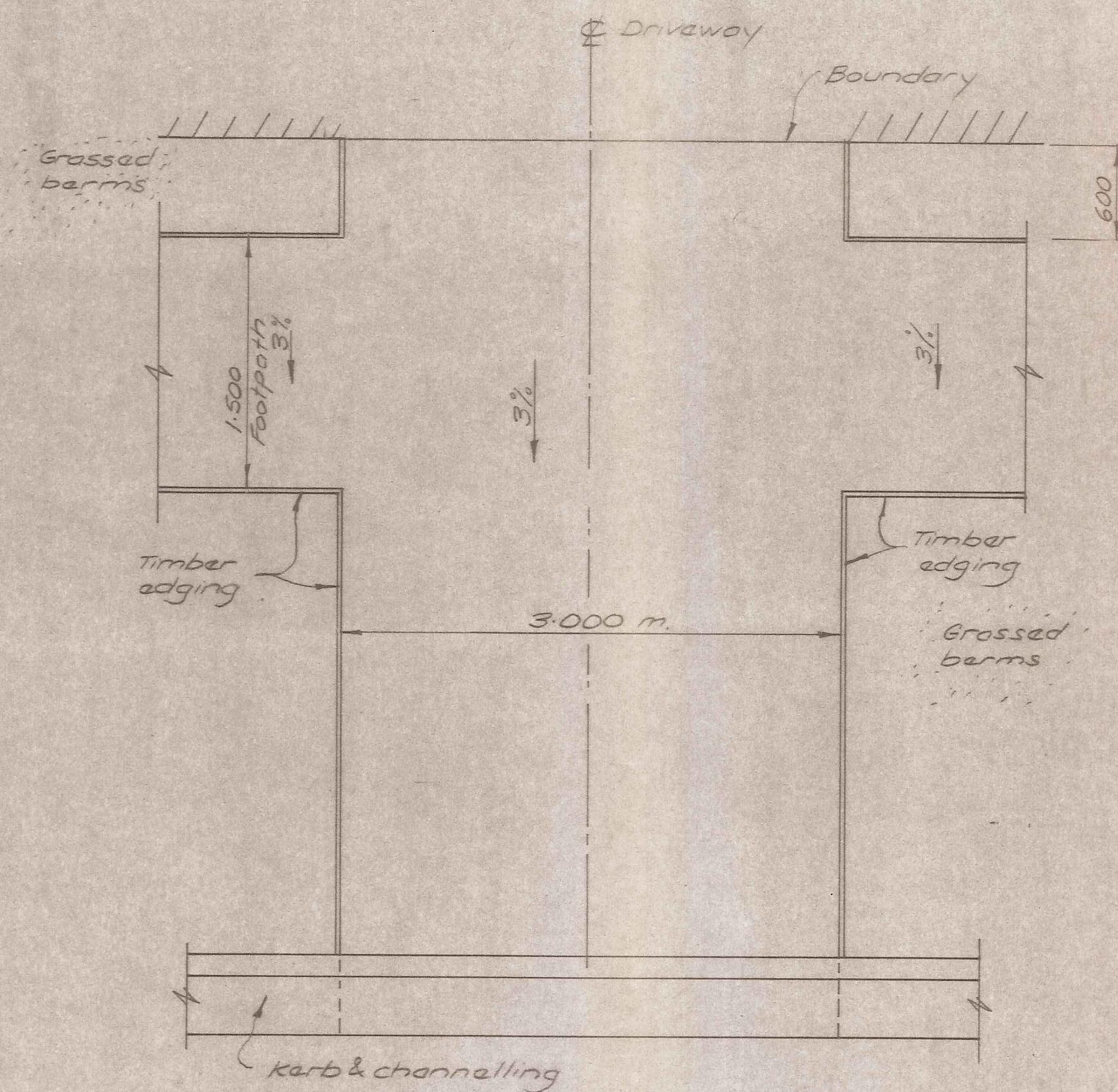
STANDARD DETAILS

| AMENDMENTS | | | NAME | DATE | JOB NO | Sheet No |
|------------|----|------|-------|--------------|--------------|----------|
| NO. | BY | DATE | Appvd | Surveyed | 10130 | 3 |
| | | | | Drawn | | |
| | | | | Calculations | | |
| | | | | Traced | | |
| | | | | Checked | | |
| | | | | Approved | File 9/19/22 | FB |



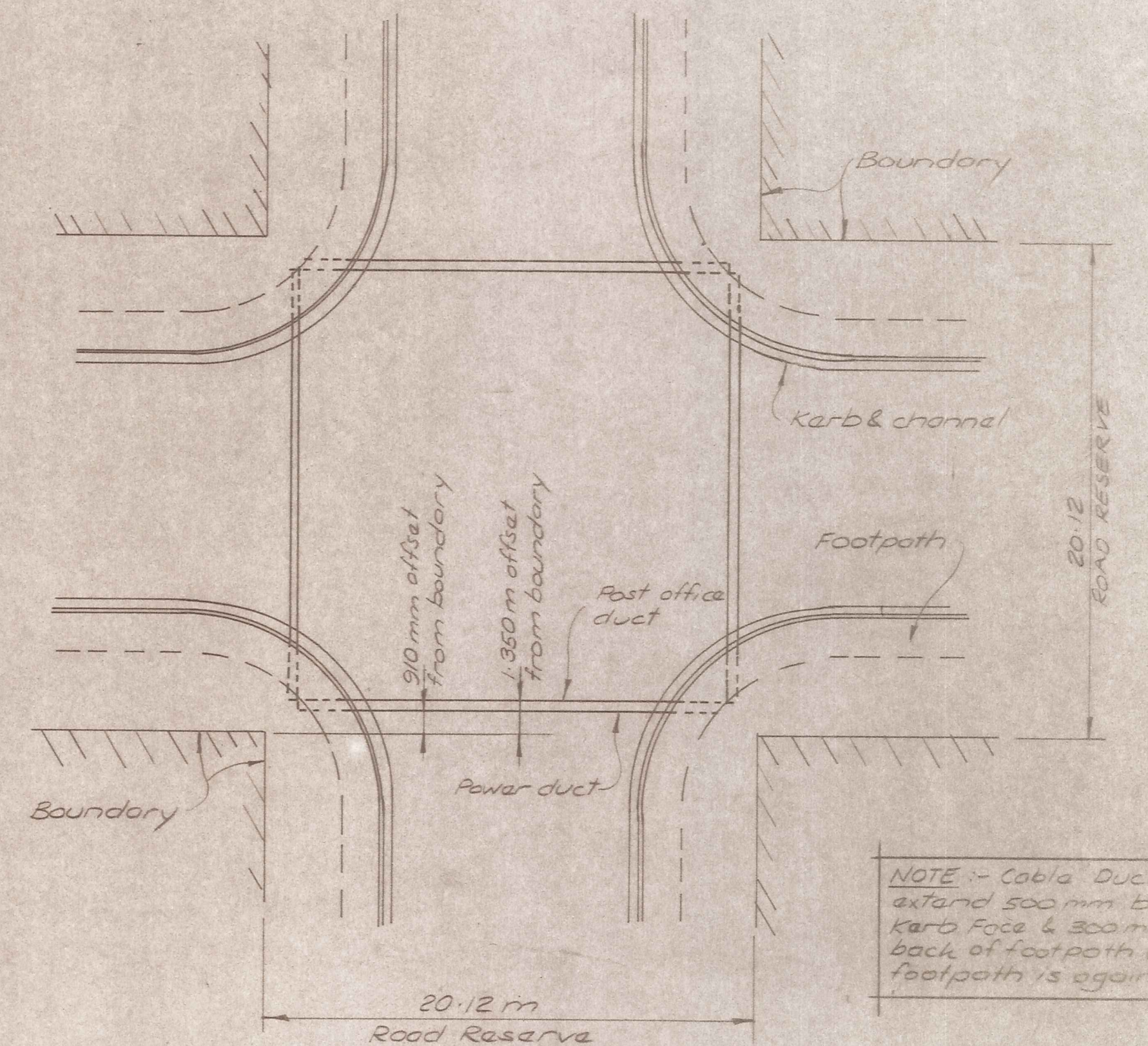
TYPICAL PLAN OF DRIVEWAY WITH FOOTPATH ADJACENT TO KERB

N.T.S.

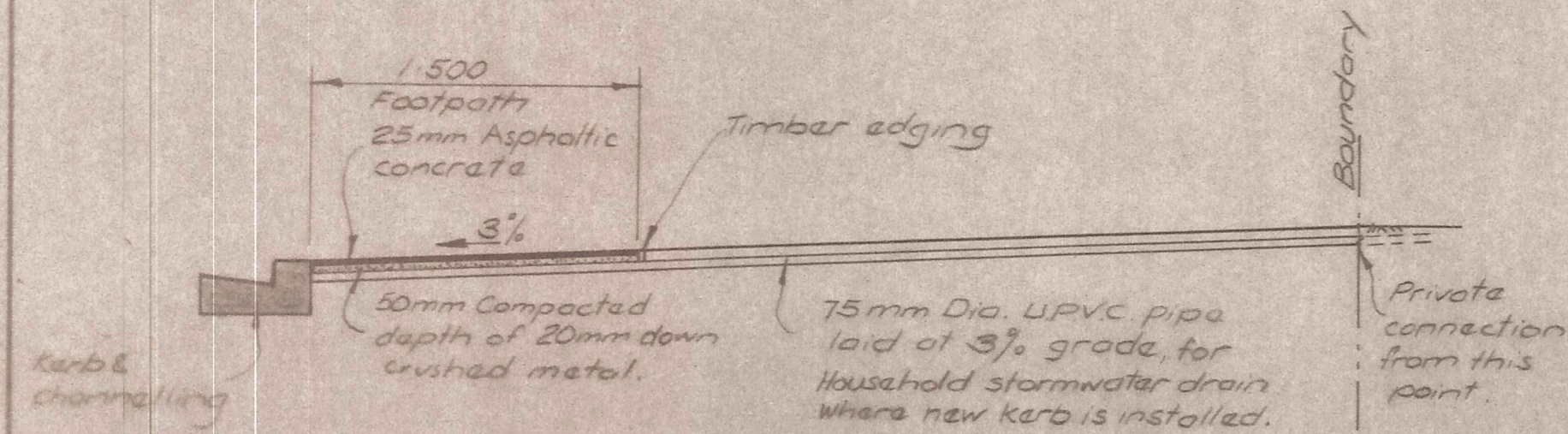


TYPICAL PLAN OF DRIVEWAY WITH FOOTPATH 600 mm OUT FROM THE BOUNDARY

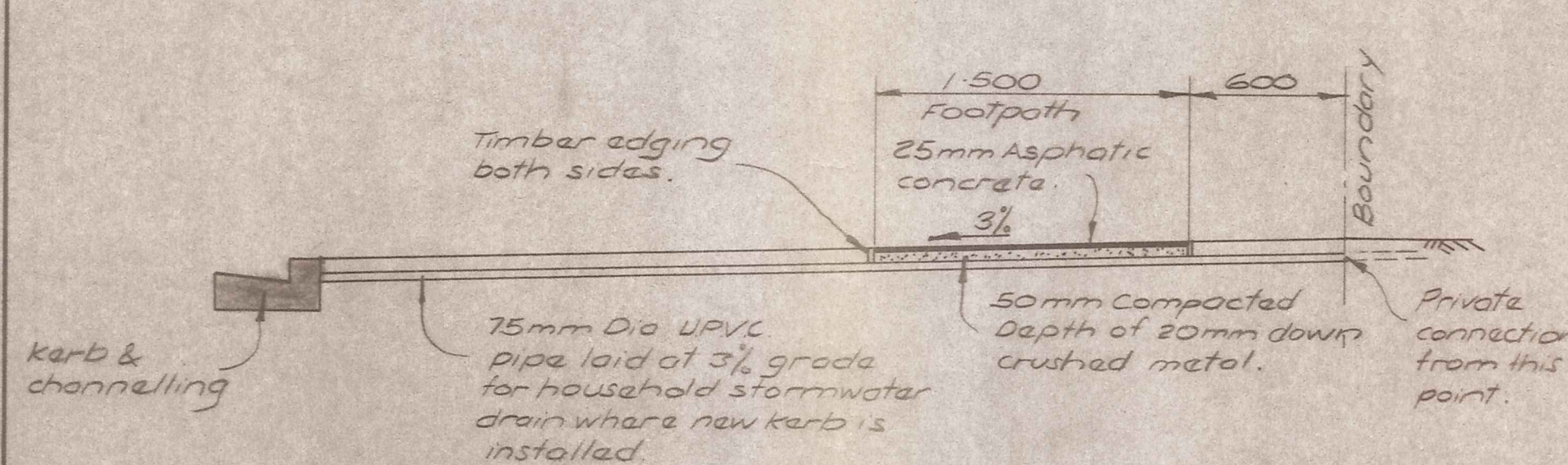
N.T.S.



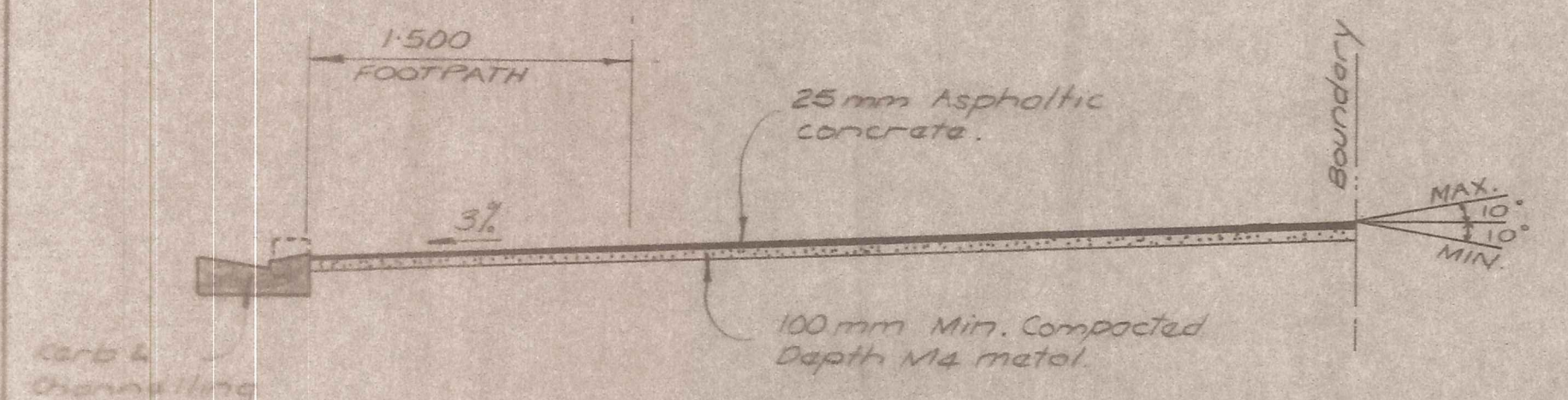
PLAN N.T.S.



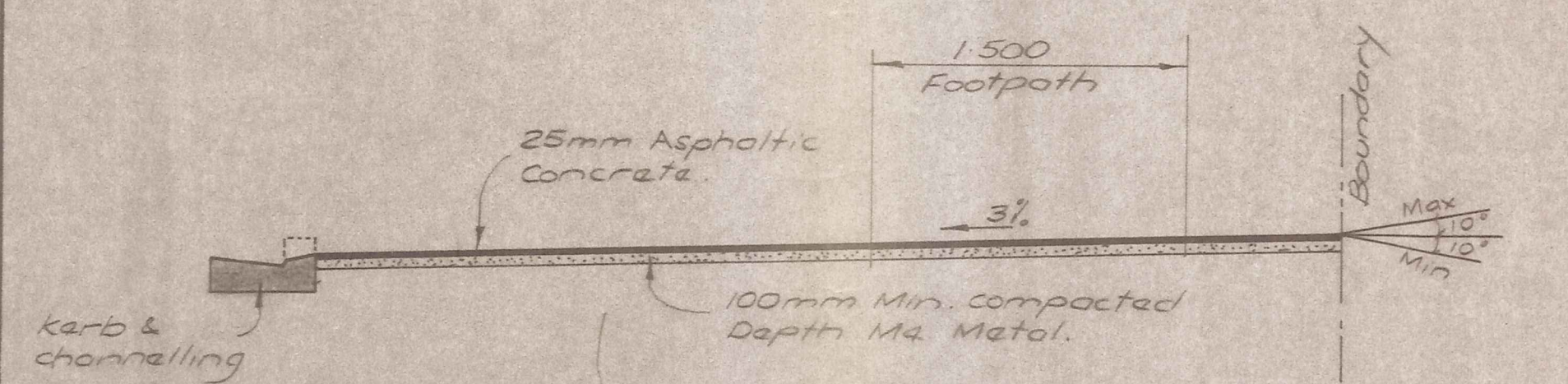
TYPICAL SECTION BETWEEN DRIVEWAYS (SHOWING HOUSEHOLD STORMWATER CONNECTION)



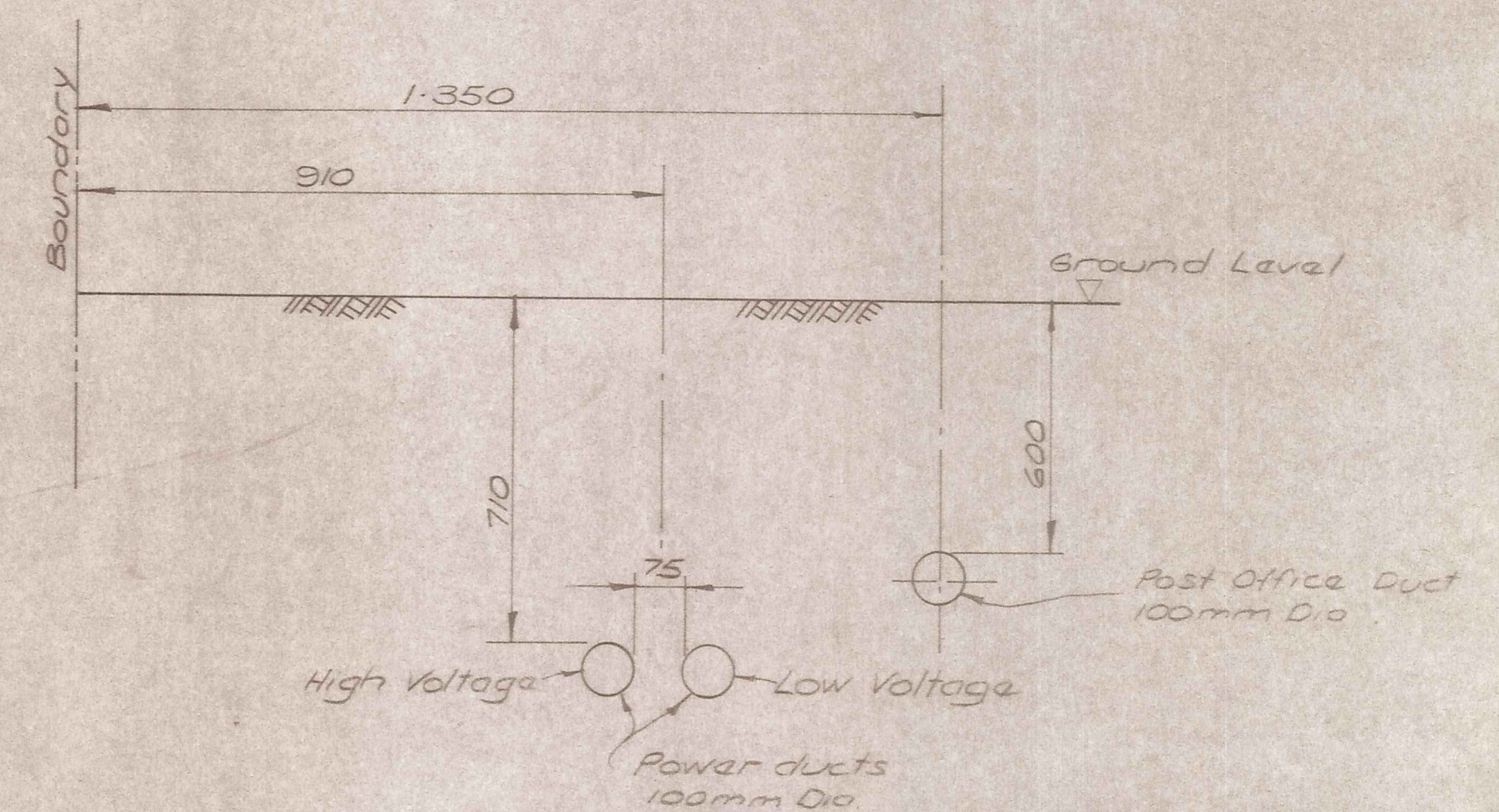
TYPICAL SECTION BETWEEN DRIVEWAYS



TYPICAL SECTION ALONG & DRIVEWAYS



TYPICAL SECTION ALONG & DRIVEWAYS

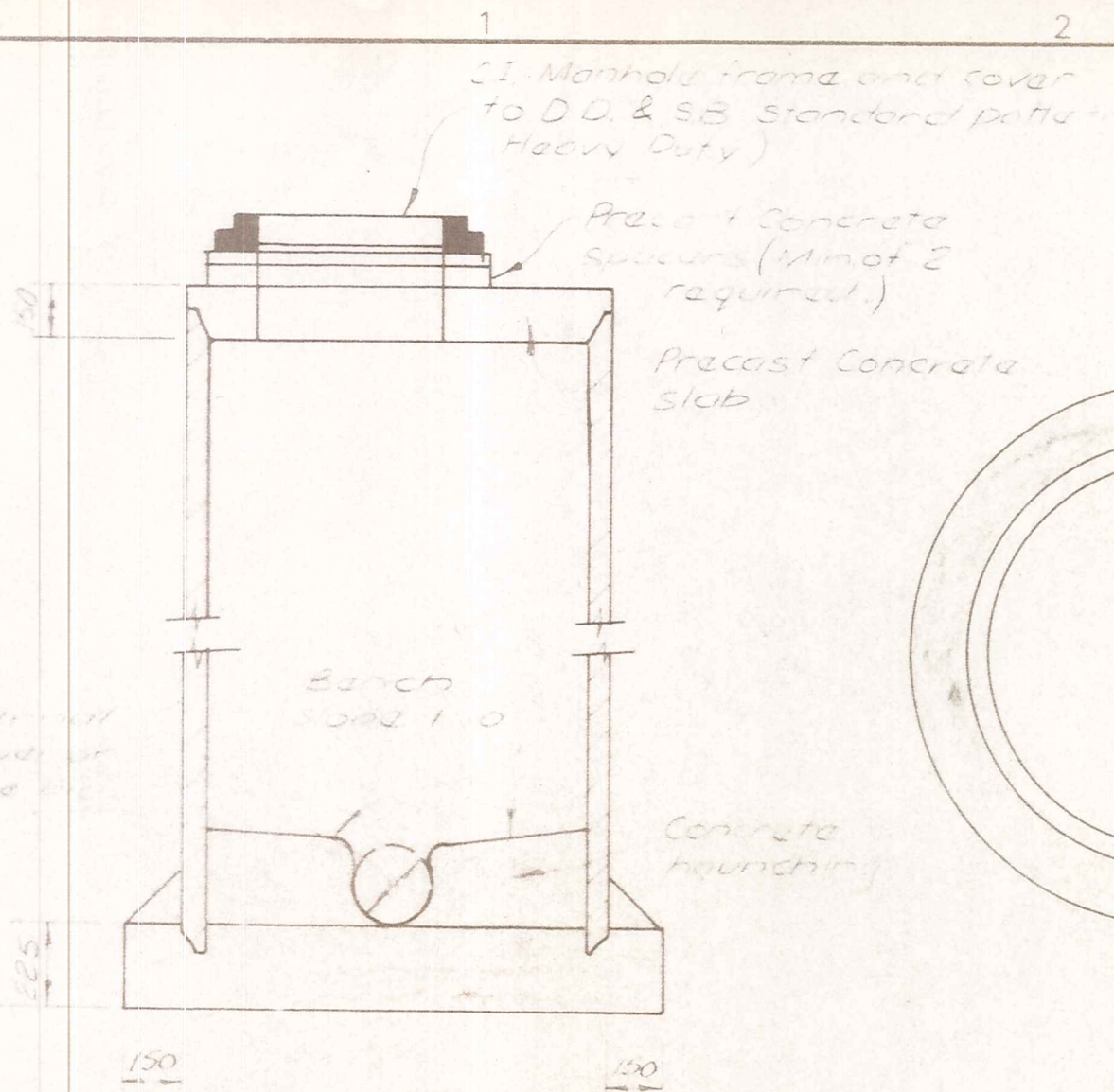


POWER AND TELEPHONE CABLE DUCTS INTERSECTION DETAILS

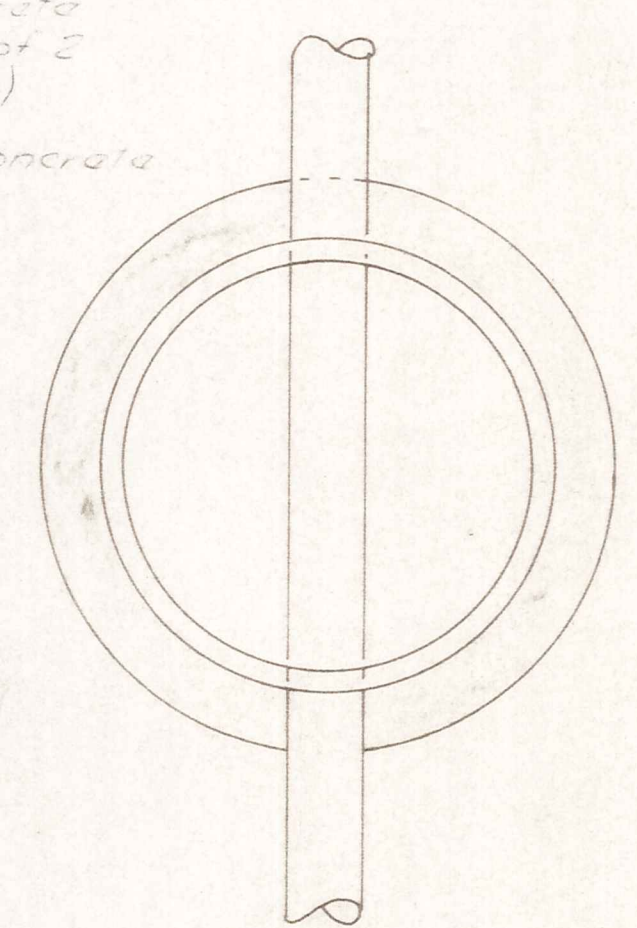
N.T.S.

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|------------|----|------|-------|------------|------|---------|-----------|
| NO. | BY | DATE | Appvd | | | | |
| | | | | B. HAWKINS | 6-82 | 10130 | 4 |
| | | | | M. COOPER | 6-82 | | 5 |
| | | | | R.H. Watts | 3/84 | | |

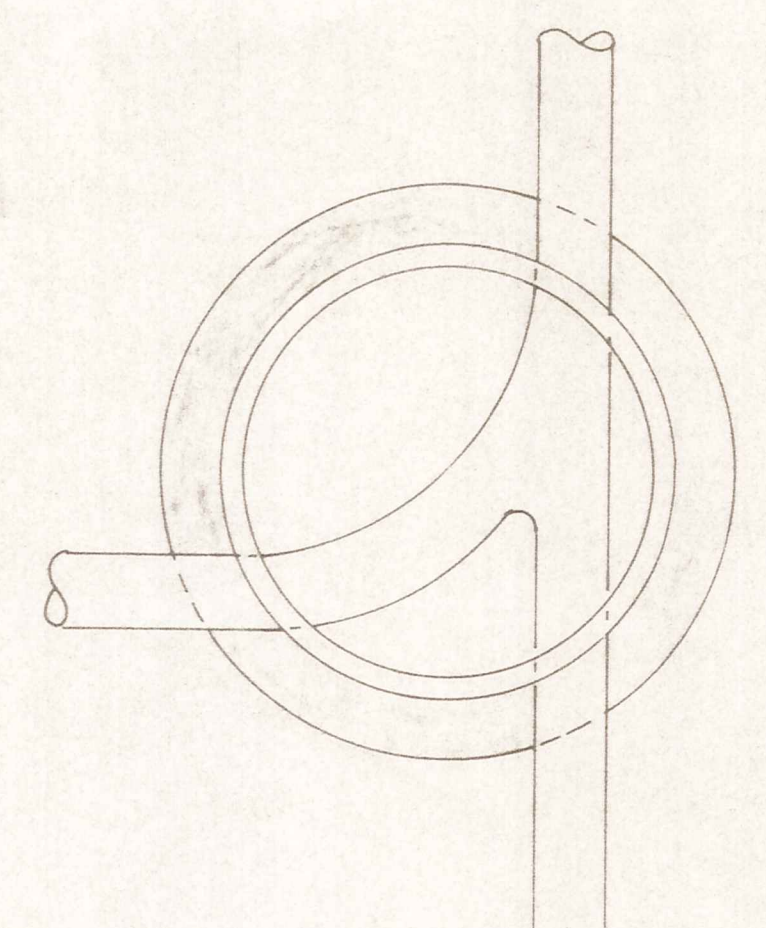
File 9/19/22 L.B. F.B.



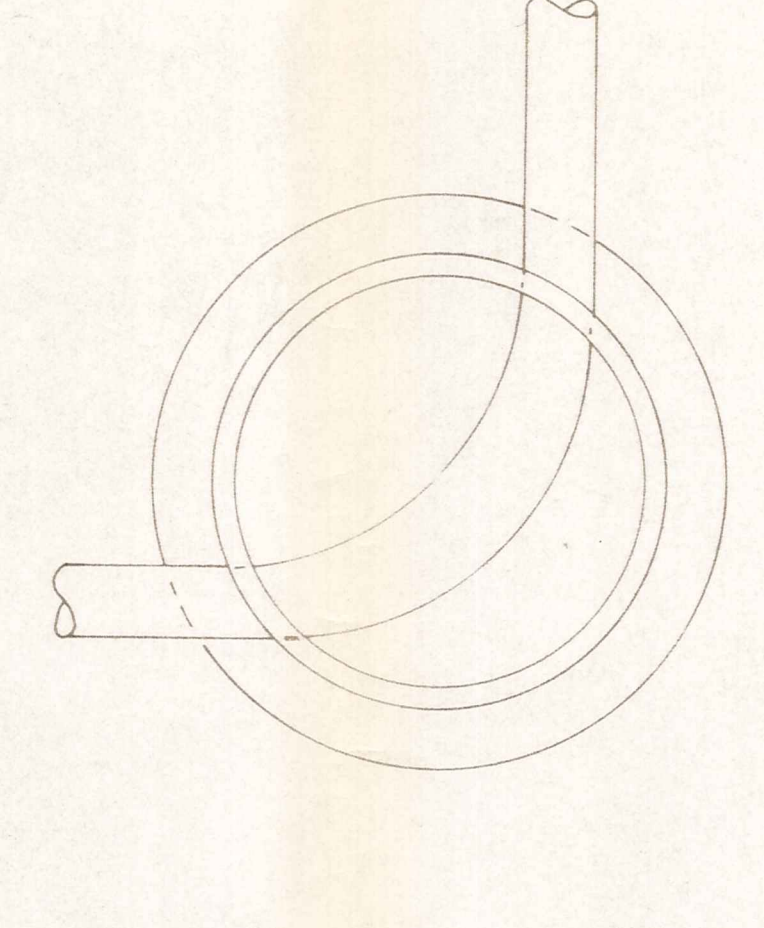
SECTION
PRECAST MANHOLE



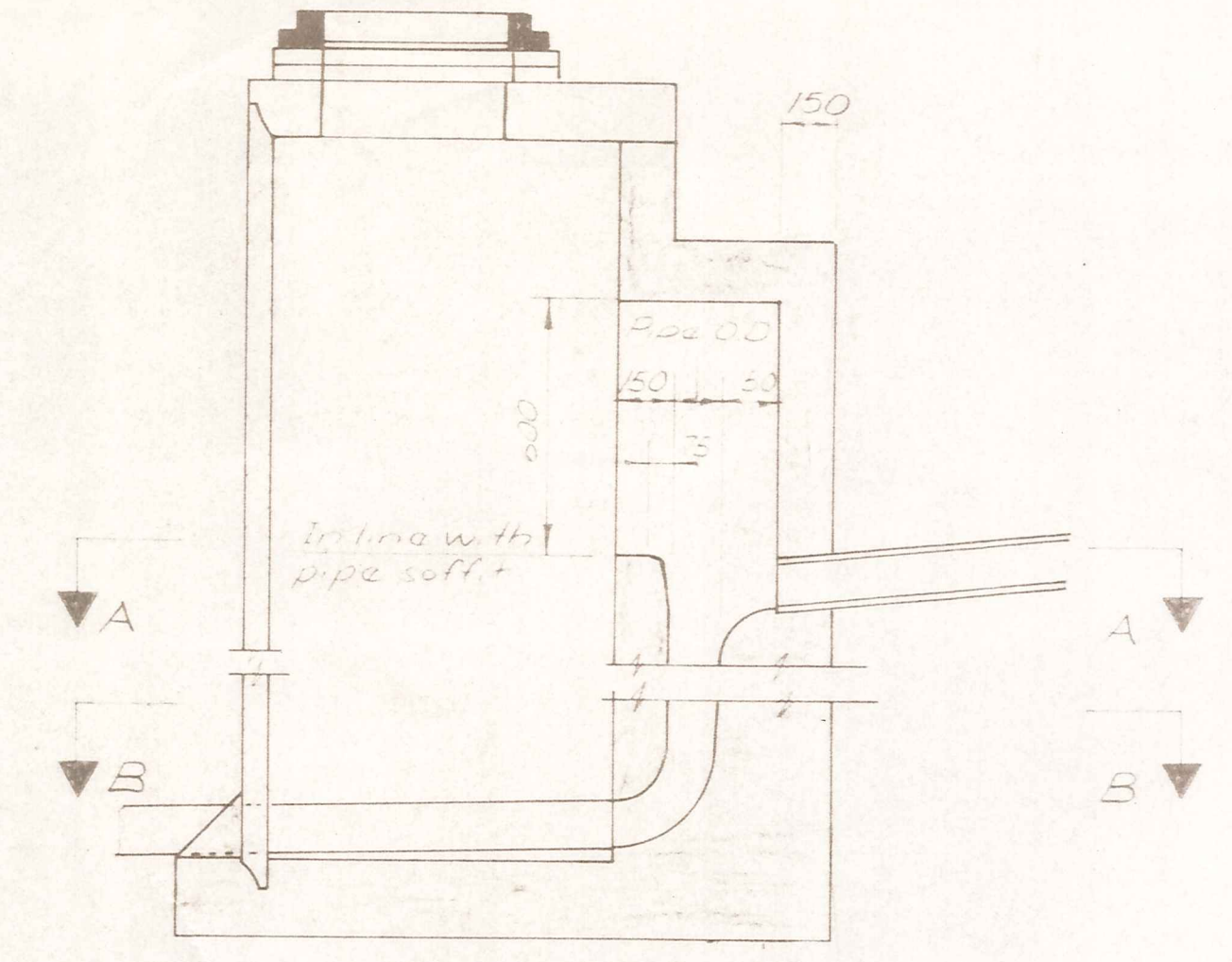
PRECAST
STRAIGHT THRU MANHOLES



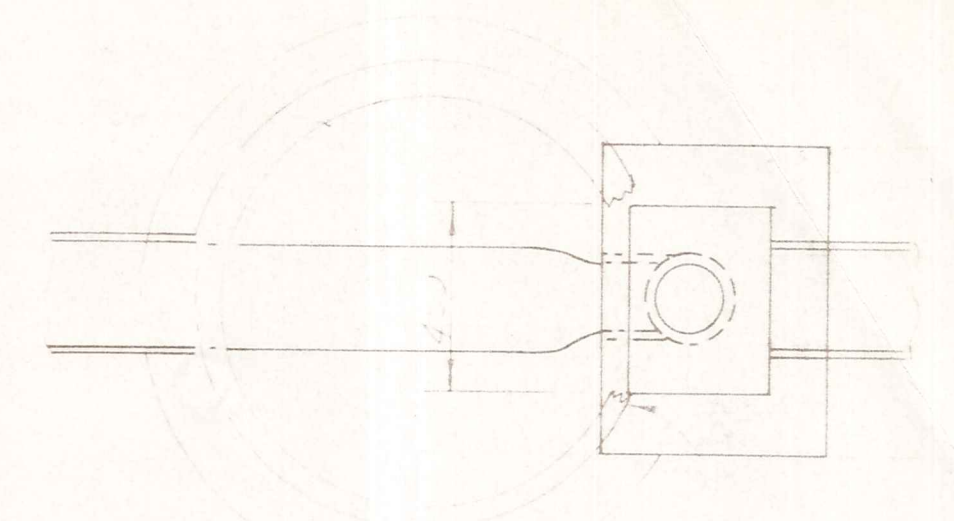
PRECAST
JUNCTION MANHOLES



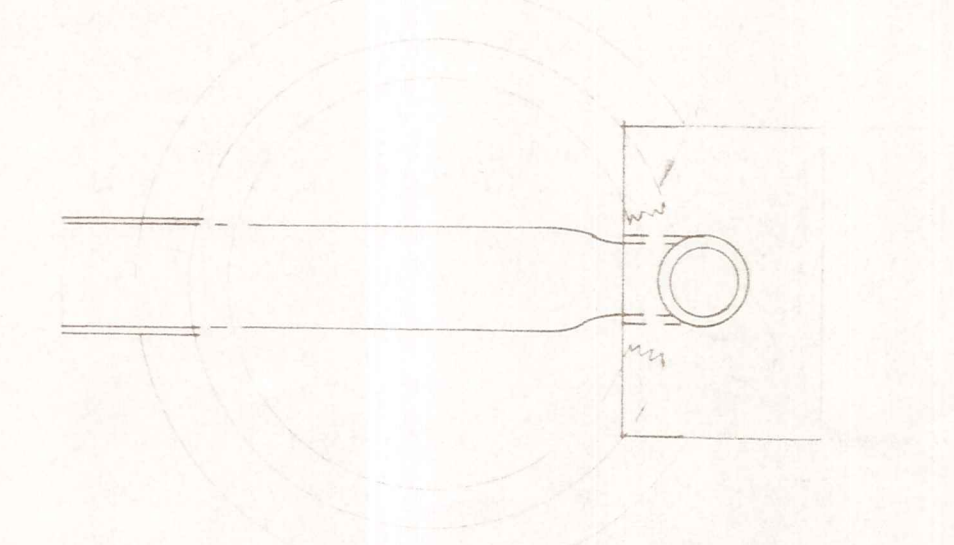
PRECAST
ANGLE MANHOLES



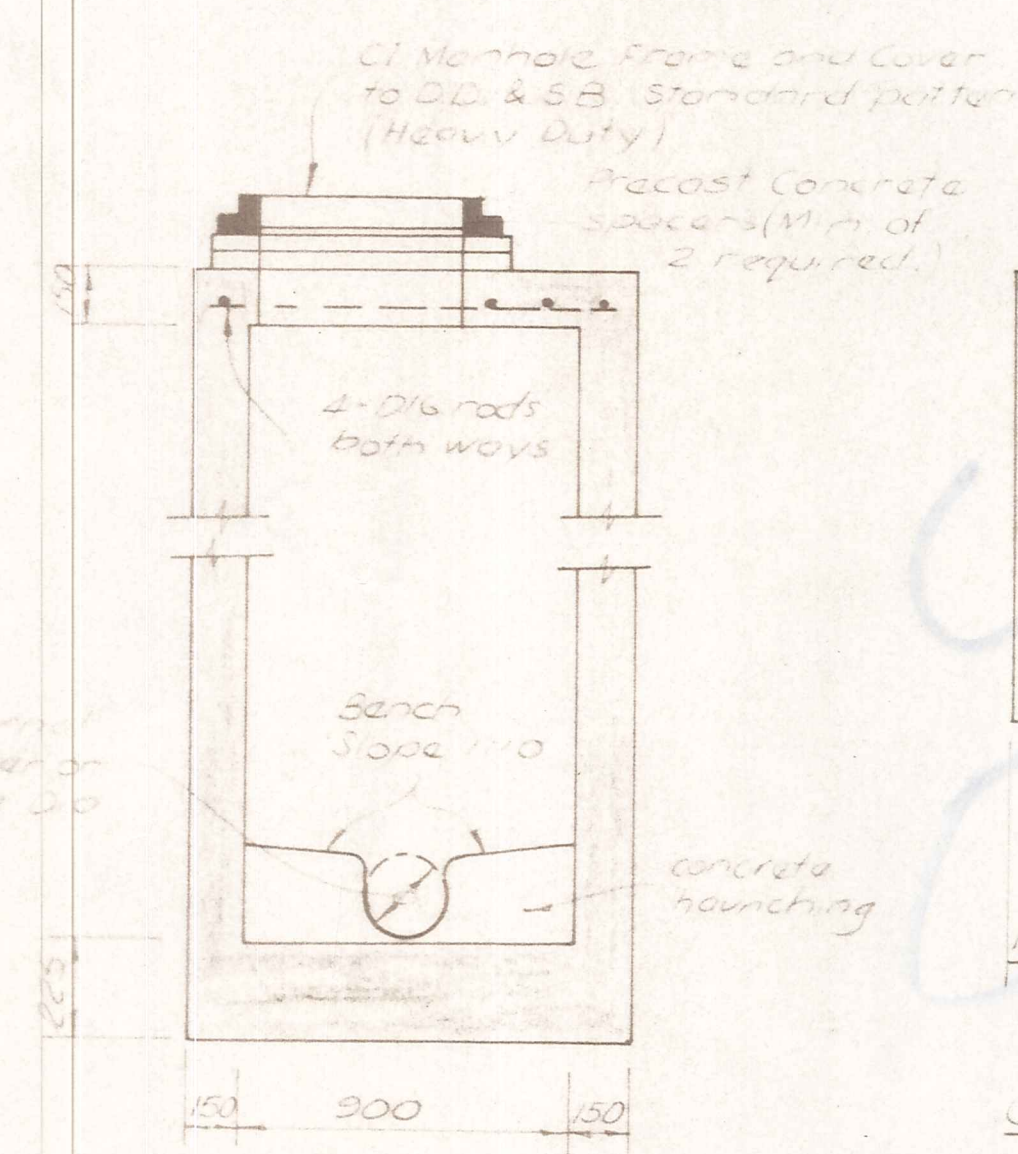
PRECAST
DROP MANHOLE



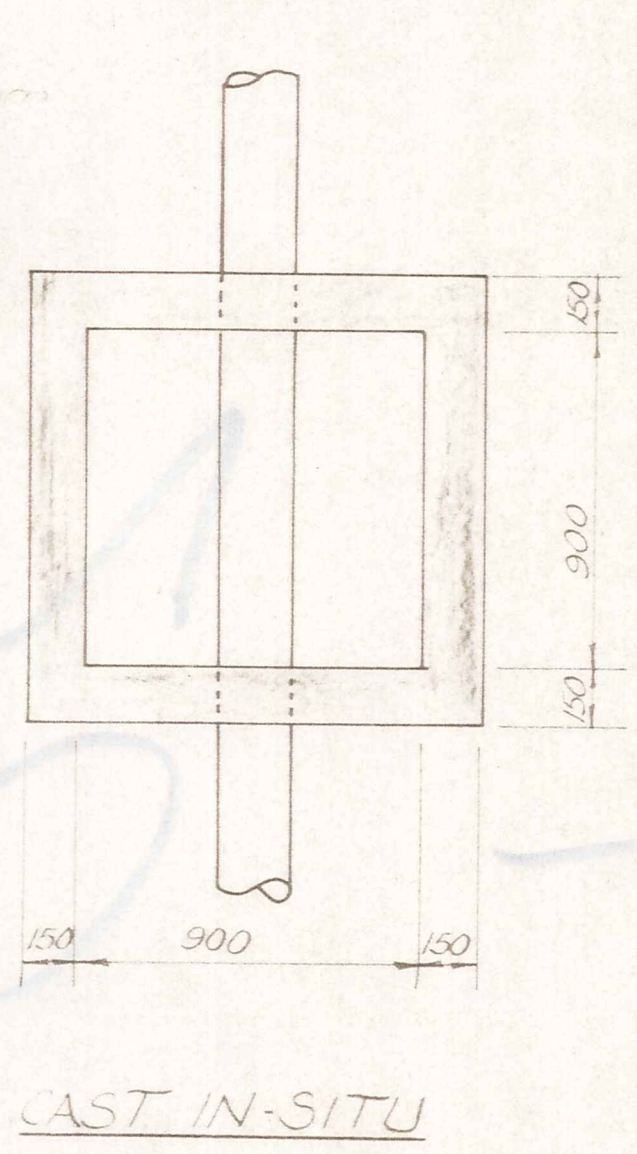
SECTION A-A



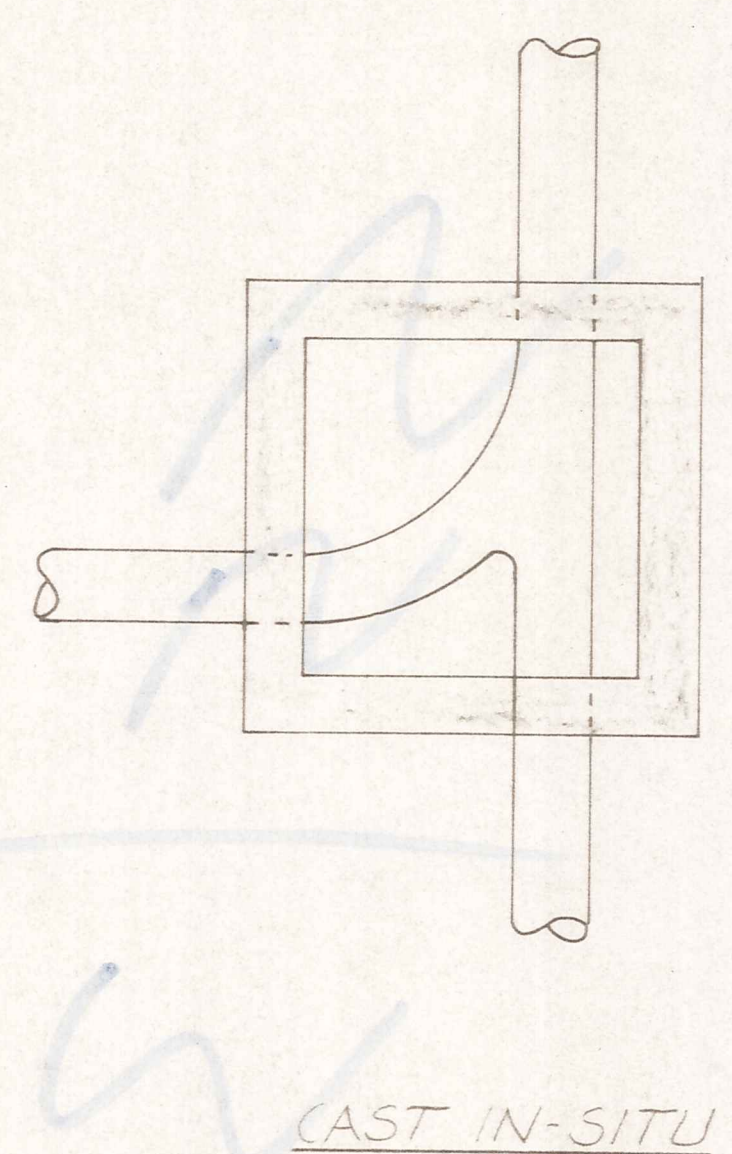
SECTION B-B



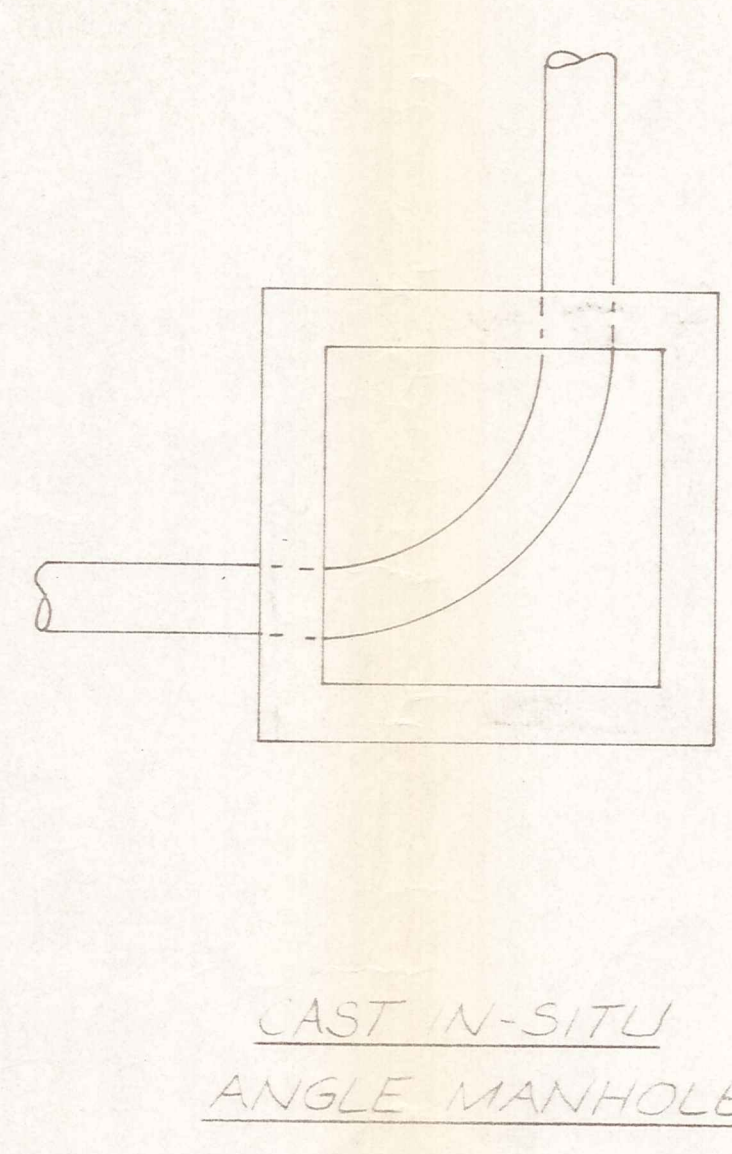
SECTION
CAST IN-SITU MANHOLE



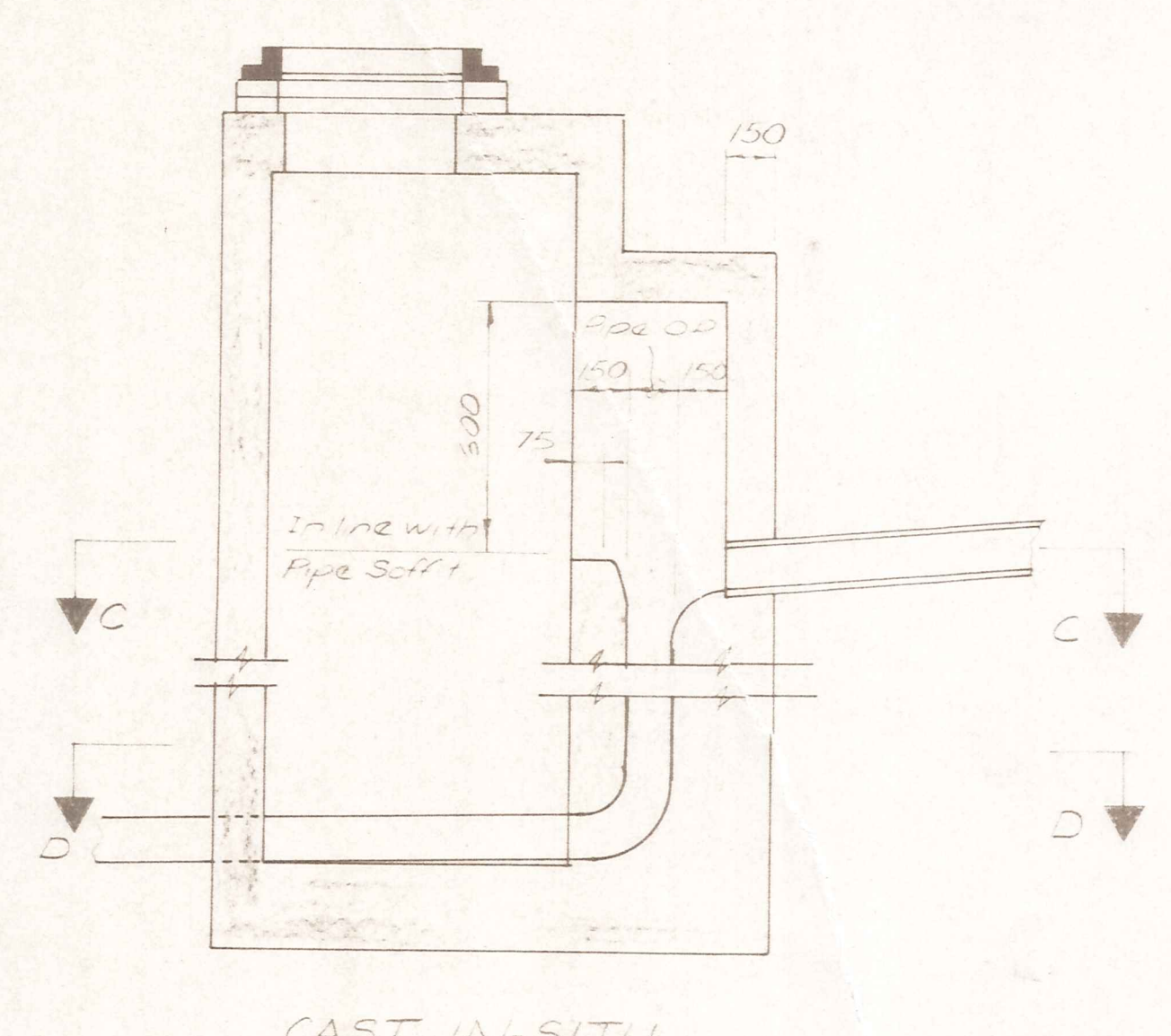
CAST IN-SITU
STRAIGHT THRU MANHOLES



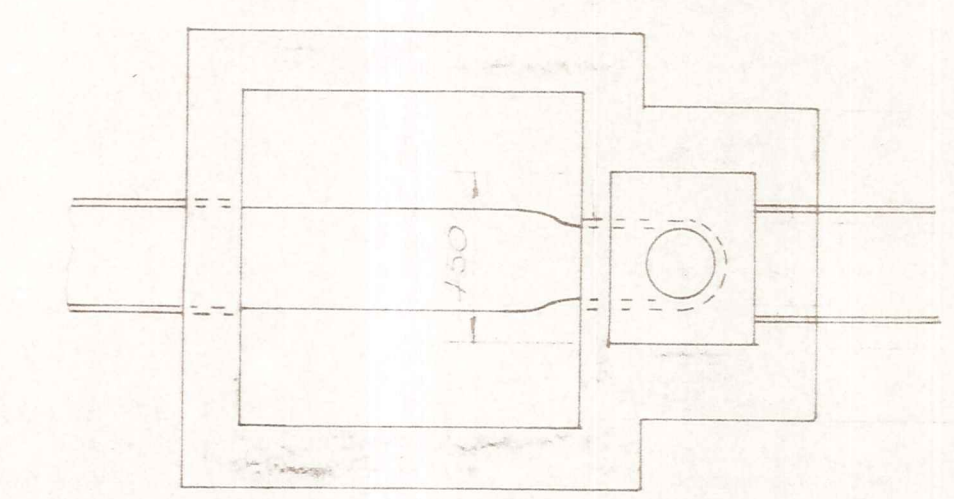
CAST IN-SITU
JUNCTION-MANHOLE



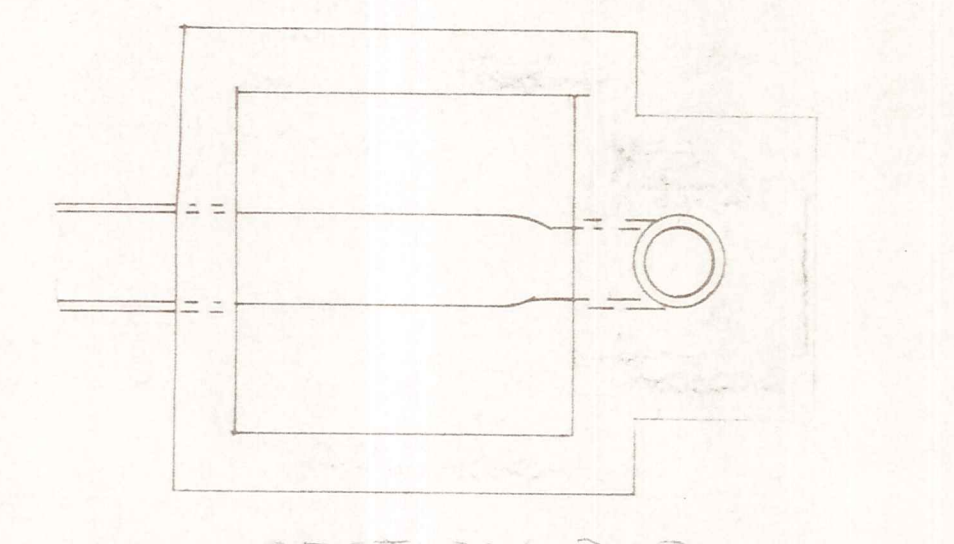
CAST IN-SITU
ANGLE MANHOLE



CAST IN-SITU
DROP MANHOLE



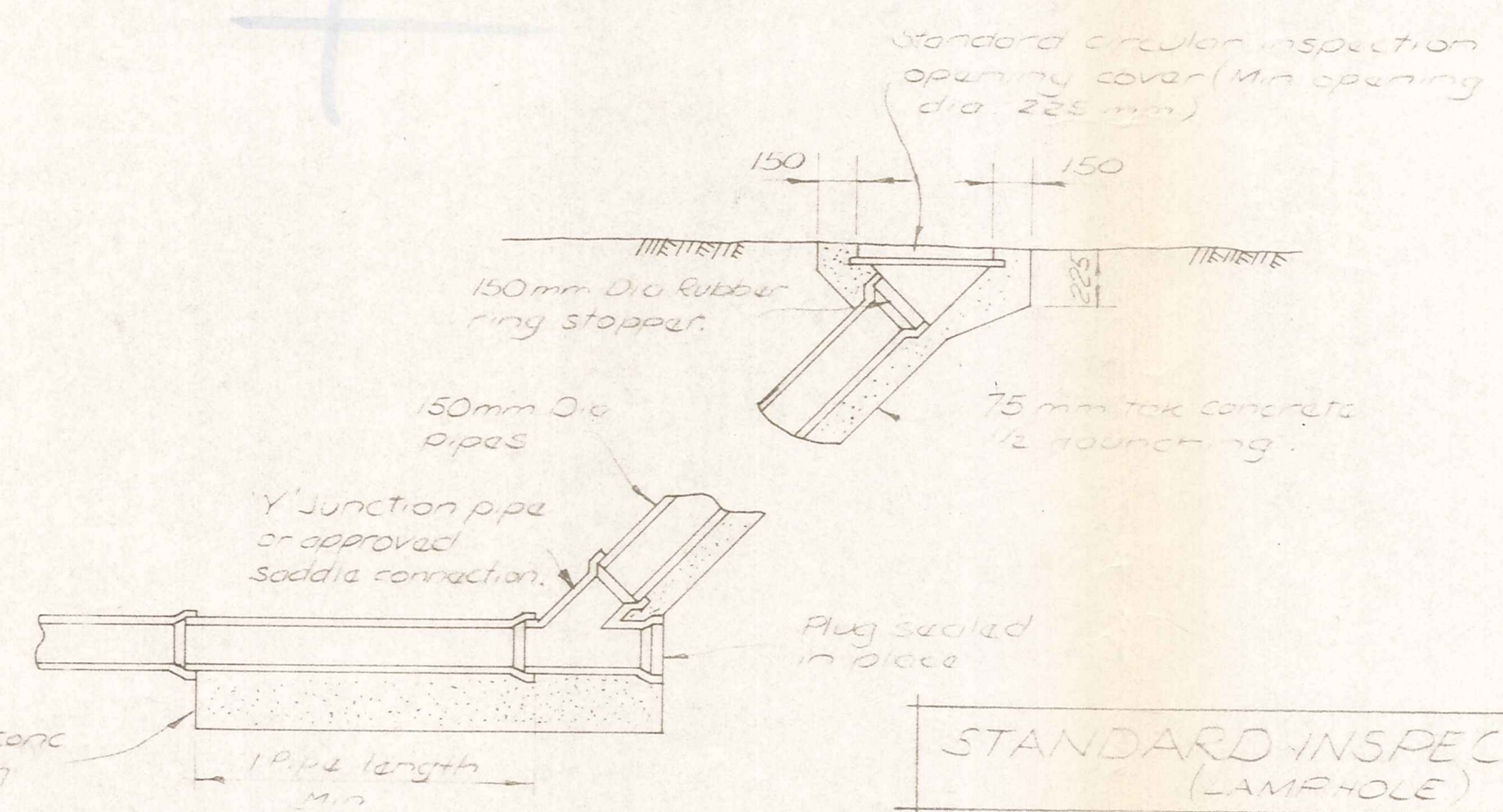
SECTION C-C



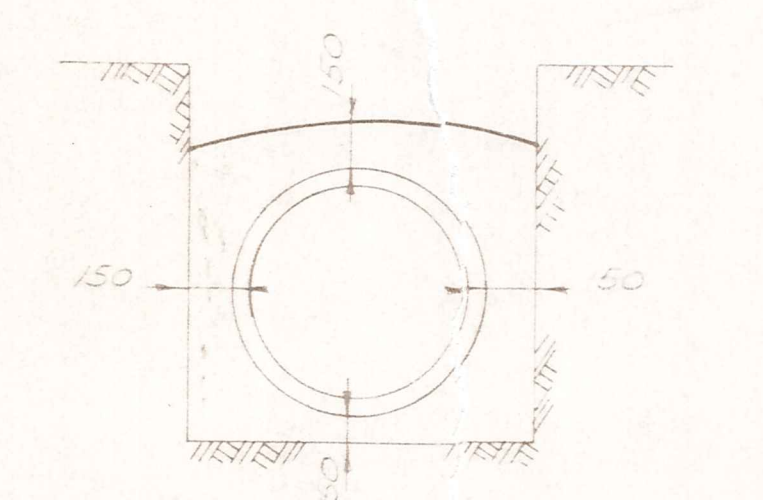
SECTION D-D

NOTE: Wall thickness increases to 225mm for manholes greater than 3.0m deep.

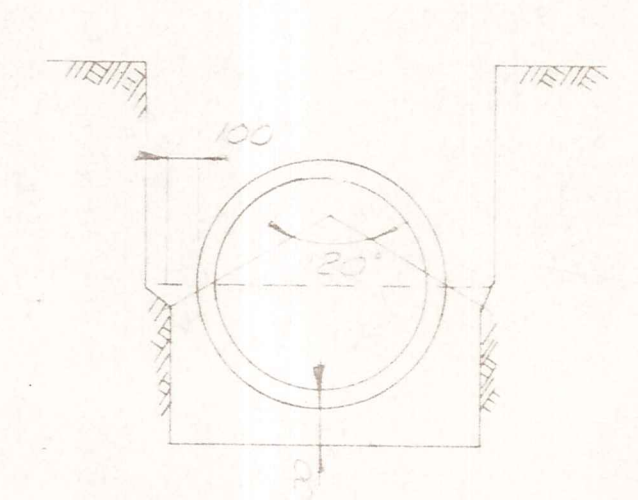
STANDARD SANITARY SEWER MANHOLE DETAILS
(FOR DIAMETERS LESS THAN 375 mm)



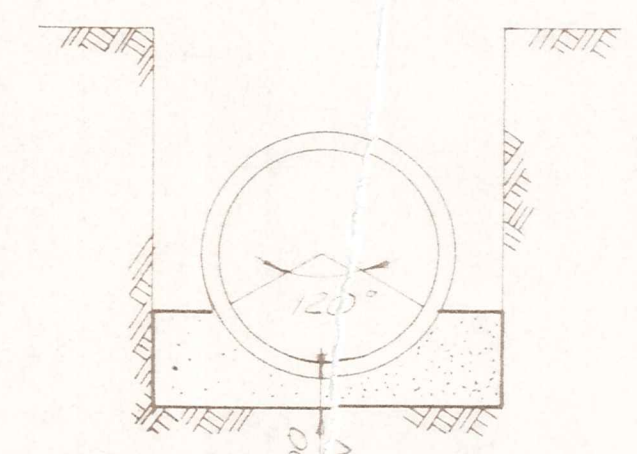
STANDARD INSPECTION OPENING
(LAMP-HOLE)



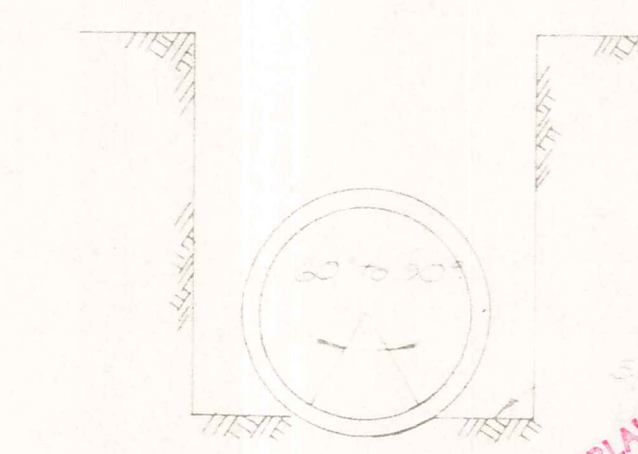
CONCRETE SURROUND



CONCRETE BEDDING



GRAVEL BEDDING



ORDINARY BEDDING

BEDDING OF PIPES

NOT TO SCALE

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CROMWELL
BOROUGH COUNCIL

NEIGHBOURHOOD 1
DEVELOPMENT

CONTRACT No 20
CONSTRUCTION OF
STREETWORKS AND
ENGINEERING SERVICES

STANDARD DETAILS

| AMENDMENTS | | | NAME | | DATE | JOB NO | Sheet |
|------------|----|------|-------|-----------|-------|--------------|----------|
| NO | BY | DATE | Appvd | Surveyed | Drawn | Checked | Approved |
| | | | | B HAWKINS | 6-82 | 10130 | 5 |
| | | | | M COOPER | 6-82 | | 5 |
| | | | | R.H. | 3/84 | File 9/19/22 | 5 |

SEVIN BLAIR CONTRACTORS LTD.