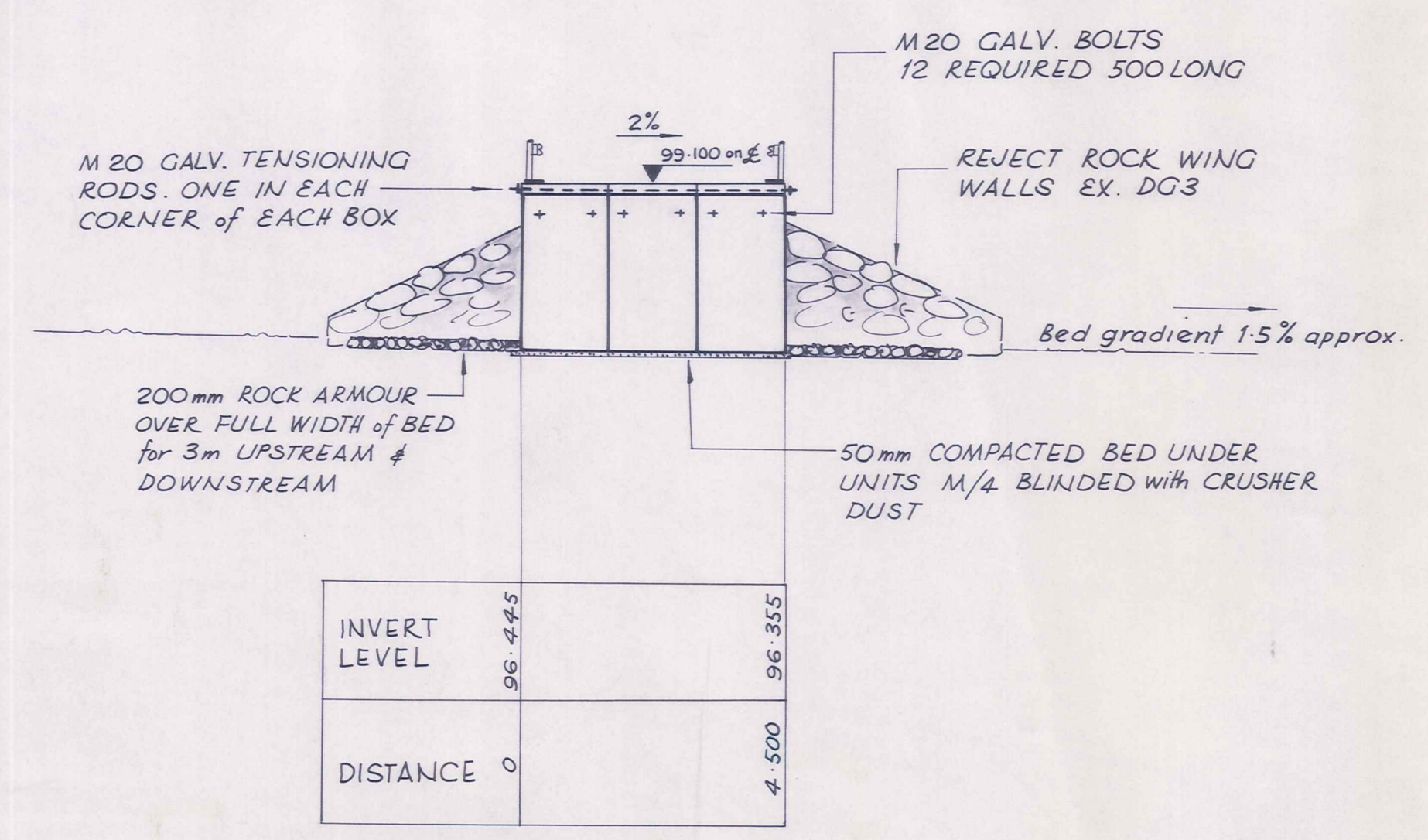
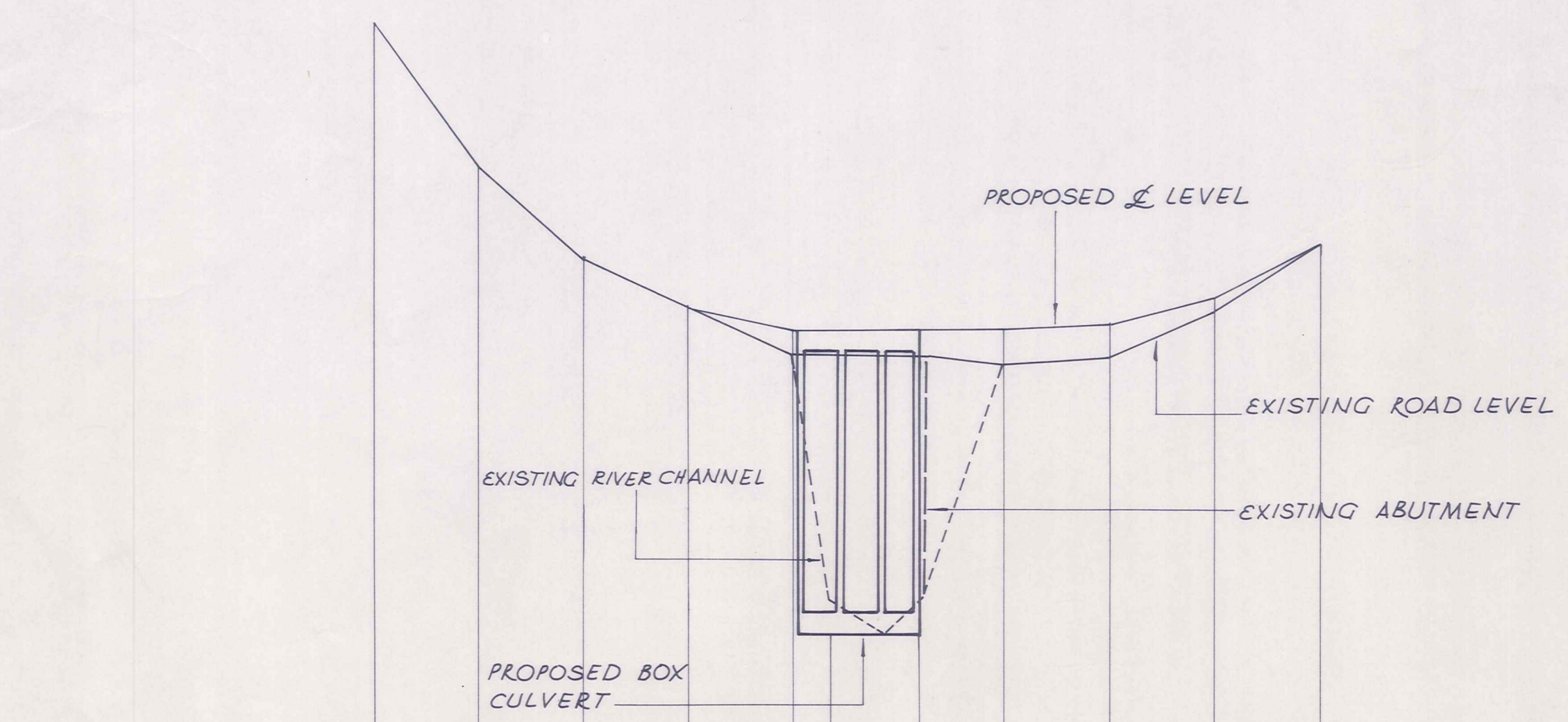


LOCATION PLAN

SCALE 1:500



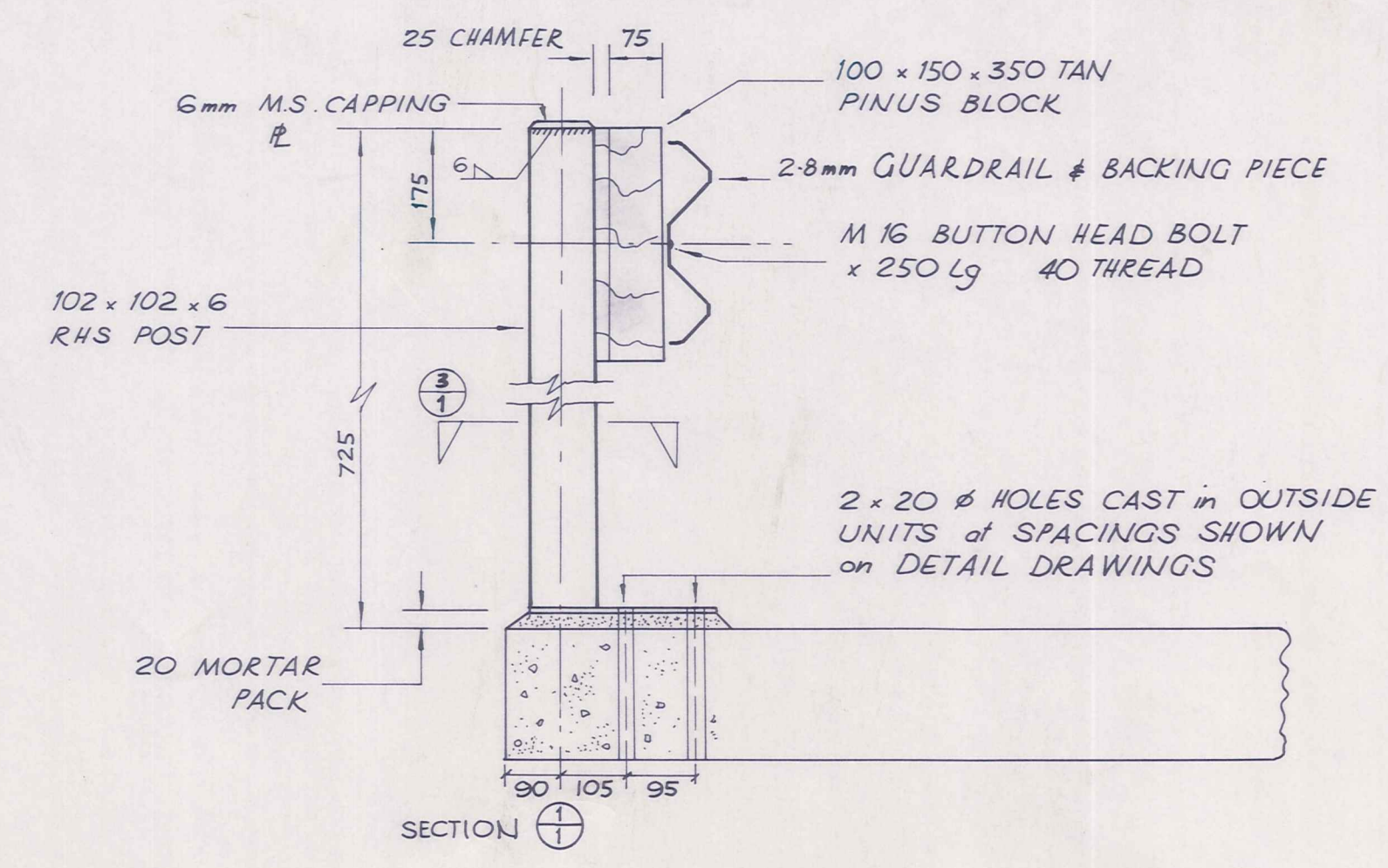
SECTION ON CREEK BED



LONGITUDINAL SECTION on ROAD L

HORIZ. 1:500
VERT. 1:50

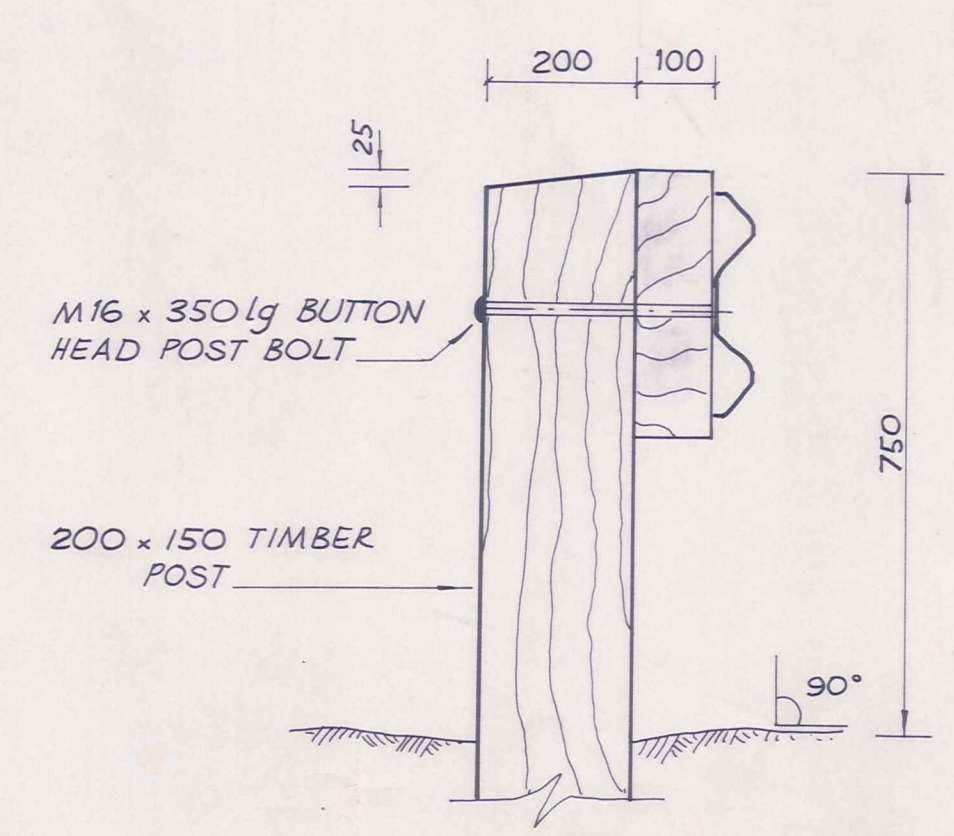
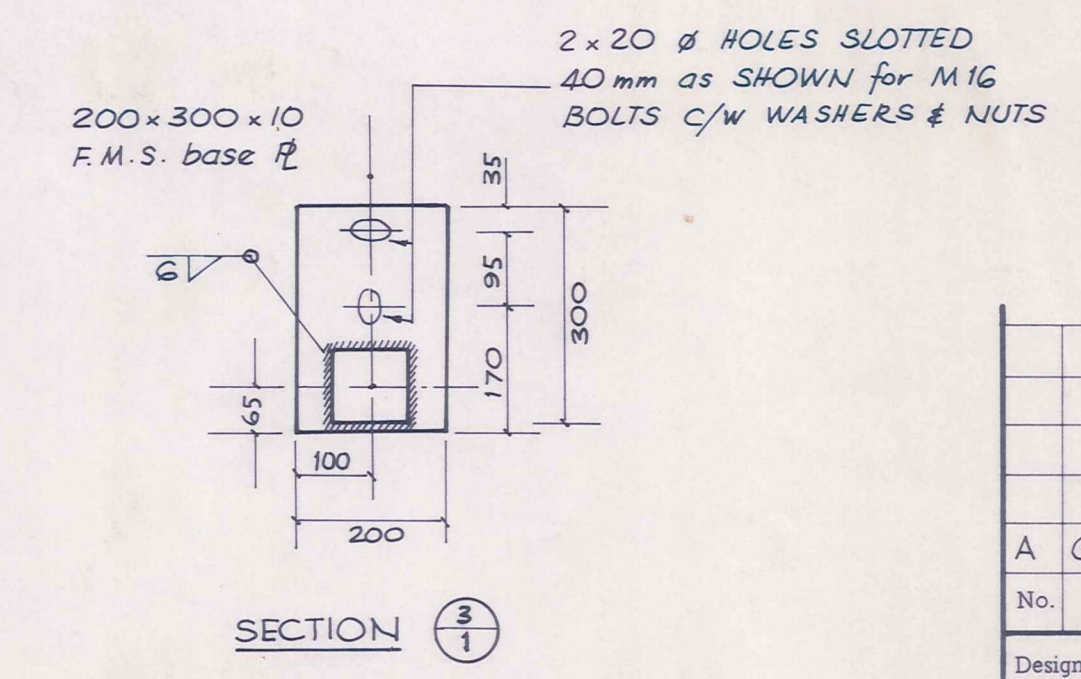
| H.A.D. 95.00 | | | | | | | | | | | |
|---------------------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| PROPOSED FINISHED L LEVEL | 102.015 | 102.015 | 100.629 | 99.777 | 99.307 | 99.100 | | 99.100 | 99.132 | 99.387 | 99.895 |
| EXISTING ROAD LEVEL | 102.015 | 102.015 | 100.629 | 99.777 | 99.307 | 98.867 | 98.847 | 98.834 | 98.807 | 99.260 | 99.895 |
| CHAINAGE (Distance) | 00 | 10 | 20 | 30 | 40 | 43.5 | 51.9 | 60 | 70 | 80 | 90 |



CULVERT GUARDRAIL POST (STEEL)

SCALE 1:10

- NOTES
1. Posts at 1.905m centres
 2. Steel posts fabricated & then hot dip galvanized
 3. Timber posts to be treated with c3 preservatives
 4. All bolts, washers & nuts to be galvanized
 5. Guardrail to be Flexrail 3810-12 (Highway type) or similar



CULVERT GUARDRAIL POST (TIMBER)

SCALE 1:10

| | | | |
|---------------------|--------------------|---------|----------|
| A Guardrail revised | | AUG '88 | D.H. |
| No. | Revisions | Date | Appvd |
| Designed | DOM HOLIDAY | Date | JULY '88 |
| Drawn | MARILYN J. CASSIDY | Date | JULY '88 |
| Checked | | | |
| Approved | <i>[Signature]</i> | Date | 7/88 |
| File | 4043/2/29 | L.B. | F.B. |

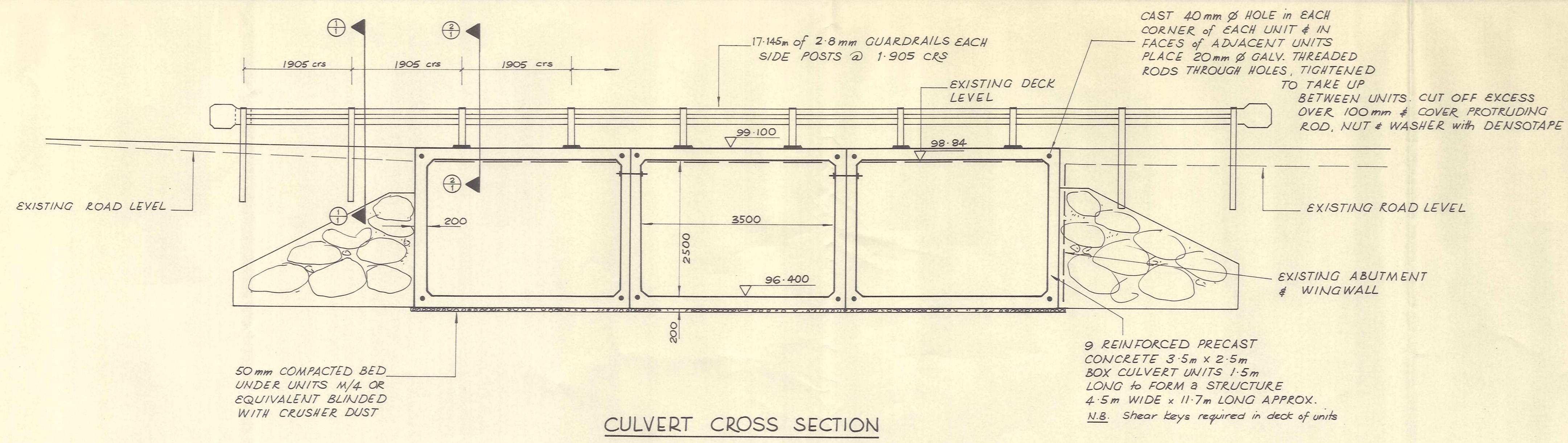
DUFFILL WATTS & KING LTD
Consulting Civil & Structural Engineers
Dunedin Invercargill Alexandra Queenstown

Client: **VINCENT COUNTY COUNCIL**

Project: **MARSHALL ROAD BRIDGE RENEWAL**

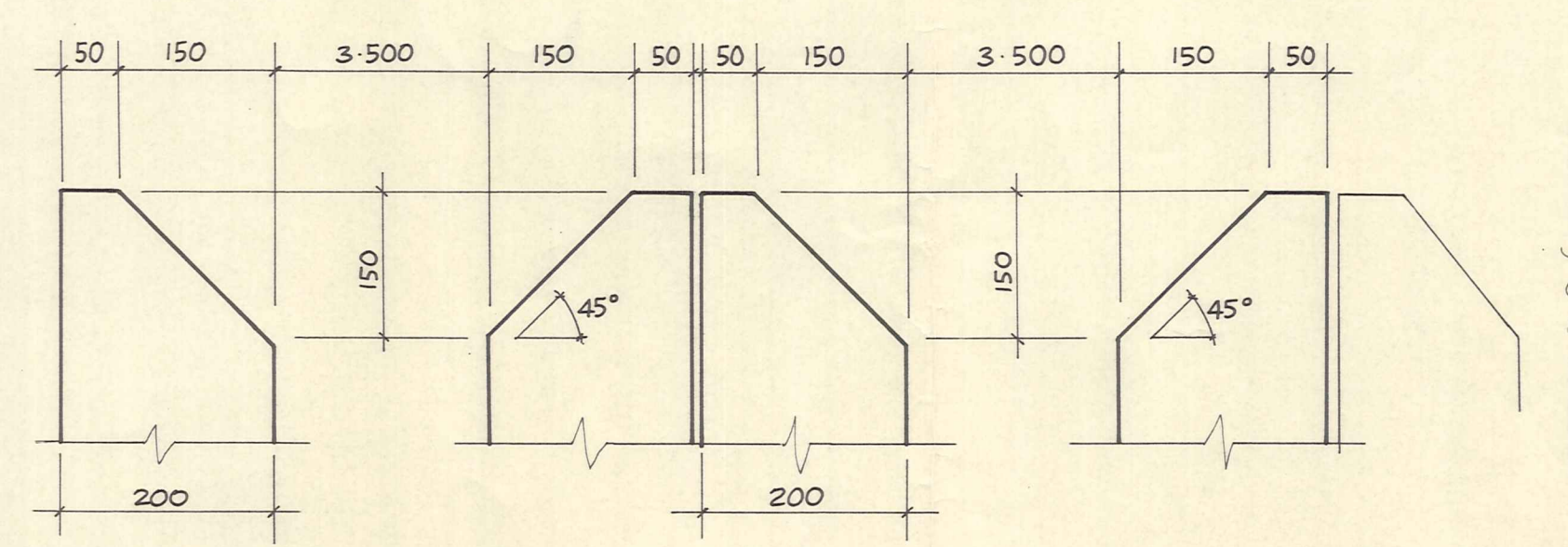
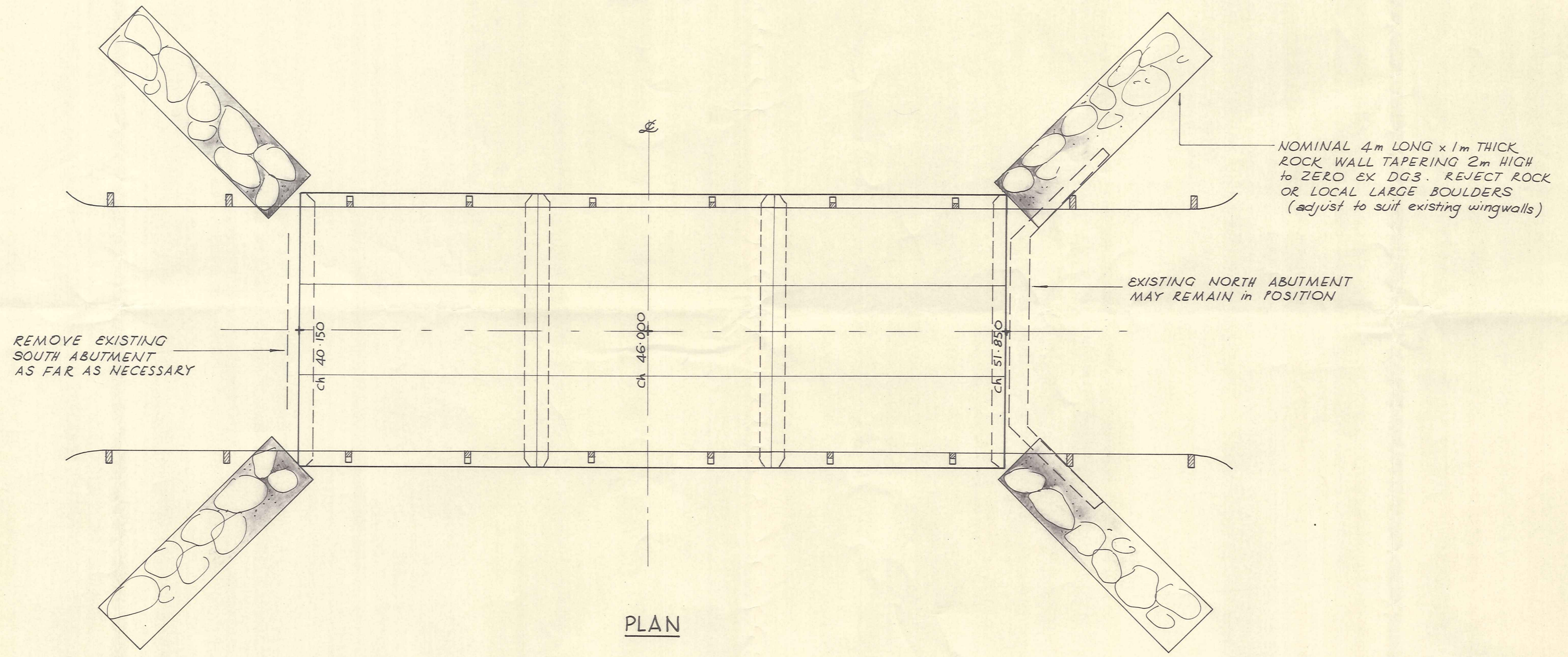
Sheet Title: **SECTION ON CREEK BED, LOCATION PLAN, LONGITUDINAL SECTION, CULVERT GUARDRAIL POSTS (STEEL & TIMBER)**

| | | |
|---------|-----------|----------|
| Job No. | Sheet No. | Revision |
| 13578 | 1 | A |
| | of 2 | shts |



CULVERT CROSS SECTION

SCALE 1:50



DETAIL of UPSTREAM & DOWNSTREAM EDGES OF PRECAST CULVERT UNITS

PLAN VIEW (N.T.S.)

| | | | |
|---------------------|--------------------|---------|----------|
| A Guardrail revised | | AUG '88 | D.H. |
| No. | Revisions | Date | Appvd |
| Designed | DON HOLLIDAY | Date | JULY '88 |
| Traced | MARILYN CANNON | Date | JULY '88 |
| Drawn | D. HOLLIDAY | | |
| Checked | | | |
| Approved | <i>[Signature]</i> | 7/88 | |
| File | 4043/2/29 | L.B. | F.B. |

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Client

VINCENT COUNTY COUNCIL

Project

MARSHALL ROAD
BRIDGE RENEWAL

Sheet Title

CULVERT & GUARDRAIL DETAILS

| | | | | | |
|---------|-------|-----------|---|----------|---|
| Job No. | 13578 | Sheet No. | 2 | Revision | A |
| | | of | 2 | shts | |

ORIGINAL SIZE mm