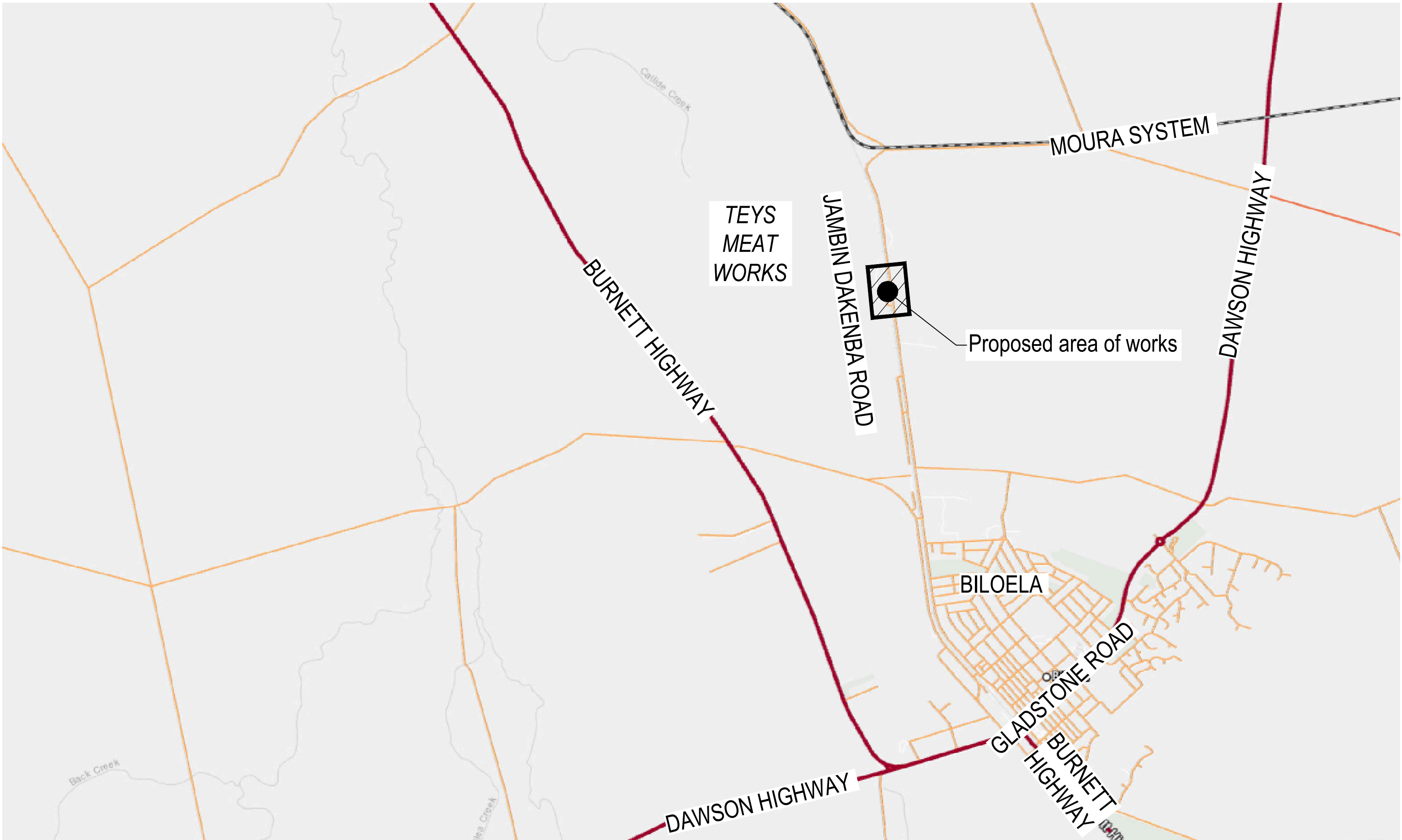


TEYS ROAD, BILOELA

CULVERT UPGRADE



LOCALITY PLAN  
(Not to scale)

DRAWING INDEX

| Drawing Number | Date   | Drawing Description                            |
|----------------|--------|------------------------------------------------|
| 001            | Sep-24 | Project Cover Sheet                            |
| 002            | Sep-24 | General Notes                                  |
| 300            | Sep-24 | Survey Control and Services Plan               |
| 400            | Sep-24 | Roadworks and Setout Plan                      |
| 500            | Sep-24 | Pavement Plan                                  |
| 600            | Sep-24 | Longitudinal Section                           |
| 700            | Sep-24 | Typical Cross Sections                         |
| 800            | Sep-24 | Annotated Cross Sections Sheet 1               |
| 801            | Sep-24 | Annotated Cross Sections Sheet 2               |
| 802            | Sep-24 | Annotated Cross Sections Sheet 3               |
| 1200           | Sep-24 | Stormwater Drainage Plan                       |
| 1250           | Sep-24 | Stormwater Longitudinal Section                |
| 1700           | Sep-24 | Temporary Erosion and Sediment Control Sheet 1 |
| 1701           | Sep-24 | Temporary Erosion and Sediment Control Sheet 2 |

STANDARD DRAWINGS

| DEPARTMENT OF TRANSPORT AND MAIN ROADS |      |                                                  |                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drawing Number                         | Rev. | Description                                      |                                                                                                                                                                                                                                                                                                                                                      |
| 1250                                   | F    | RC Box Culverts and Slab Link Box Culverts       | Culverts Height > 600 Drawing 1 of 3<br>General Arrangement and Notes<br>Culverts Height > 600 Drawing 2 of 3<br>Construction of Base Slabs and Aprons<br>Culverts Height > 600 Drawing 3 of 3<br>Installation of Precast Units and Construction of Headwalls & Wingwalls<br>Installation, Bedding and Filling / Backfilling Against / Over Culverts |
| 1359                                   | E    | Culverts                                         |                                                                                                                                                                                                                                                                                                                                                      |
| SIGNS & GUIDE POSTS                    |      |                                                  |                                                                                                                                                                                                                                                                                                                                                      |
| 1356                                   | F    | Road Edge Guide Posts                            | Timber and Tubular Steel Post and Installation Details                                                                                                                                                                                                                                                                                               |
| GENERAL EARTHWORKS & PROPERTY ACCESS   |      |                                                  |                                                                                                                                                                                                                                                                                                                                                      |
| 1178                                   | E    | Diversion of Water from Roadway and Table Drains |                                                                                                                                                                                                                                                                                                                                                      |

| CAPRICORN MUNICIPAL DEVELOPMENT GUIDELINES |                                                               |
|--------------------------------------------|---------------------------------------------------------------|
| Drawing Number                             | Rev. Description                                              |
| ROADWORKS                                  |                                                               |
| CMDG-R-017                                 | B Type Cross Sections Rural Roads                             |
| DRAINAGE                                   |                                                               |
| CMDG-D-011                                 | D Excavation, Bedding and Backfilling of Precast Box Culverts |

Notes:



MTS - Banana Shire Council  
Drawn:  
J. Grimish

a/MIW - Banana Shire Council  
Designed:  
J. Grimish

DIS Review - Banana Shire Council  
Certified:  
RPEQ #:  
14933



TEYS ROAD, BILOELA  
CULVERT UPGRADE  
PROJECT COVER SHEET

| Scale | Dwg. No. | Sheet   | Issue |
|-------|----------|---------|-------|
|       | 001      | 1 of 14 | B     |

1. Potential safety hazards identified by the Designer have been assessed for this project in accordance with Safe Design of Structures - Code of Practices by Safe Work Australia, 2012. Refer to the **Safety In Design Report** for the potential safety hazards.
2. Disclaimer: It must be acknowledged that new and/or different risks may become apparent during each project phase. The designer has ensured, so far as reasonably practicable, that the structure/municipal work is designed to minimise risk to the health and safety of persons involved in construction or use related activities. Further, in Appendix A - Safety in Design Risk Register of the **Safety In Design Report**, assumptions may have been made within the different project phases as to how the project and/or project elements will be constructed and maintained. This may differ from the end methods adopted.
3. Any person who undertakes alterations, variations or modifications to these design drawings, without consultation and approval from the original or subsequent designer, will assume the duties of a designer and will be held responsible for the safety in design for this project.
4. All works must comply with W.H. & S. Act, 2011.

1. Works shall be undertaken generally in accordance with the relevant CMDG construction specifications except where specific DTMR specification requirements are detailed within these Project specific Drawings. The most current version shall be adopted, unless noted otherwise.
2. Works to be measured in accordance with project specific *Supplementary Specification for Measurement and Work Operations for Work Items*.
3. If any archaeological or cultural material is exposed on the work site all works shall cease. The D.E.H.P., Aboriginal Land Council and B.S.C. are to be notified.
4. All works are to comply with the requirements of the Environmental Protection Act, 1994.
5. The positions shown on drawings for public utilities services are based on the B.Y.D.A. information supplied at time of design and have been located on site. Prior to construction the current Service Authority information is to be obtained from B.Y.D.A. (website: [www.byda.com.au](http://www.byda.com.au)). All surveyed positions of public utilities are to be confirmed on site, prior to any excavations.
6. Where these drawings make reference to the Administrator or Contract Administrator it shall mean Council's Superintendent managing the works.
7. Prior to commencement of work contact the Superintendent if any PSM's are in the vicinity of the work site.
8. Order of Precedence of Documents, Ambiguities or Discrepancies - The following order of precedence shall apply where there is any ambiguity, discrepancy or inconsistency between the design documents comprising the Contract, with the higher in the list having a higher priority:
  - a. These Project Specific Drawings
  - b. Supplementary Specifications
  - c. Technical Specifications
  - d. Standard Drawings

The Scheme Drawings listed on the Project Cover Sheet are to be read as a whole and not in isolation. Any isolated drawing separated from the control set will be considered voided and is not to be used.

- At a minimum materials and workmanship shall be the best of their respective kinds and fit for the purpose for which they are intended.

Dimensions / Levels - All levels and setout points shall be confirmed on site by a registered surveyor prior to construction. The Contractor shall seek clarification from the Council's Superintendent for any discrepancy prior to proceeding with work. Dimensions shall not be scaled from drawings.

- Existing Services** - Locate service prior to commencing works. Services are shown on these drawings for information only. No responsibility is taken for the accuracy or completeness of the information supplied. Take care to protect services from damage, and report any hits or damage to the service authority immediately.

1. During construction all necessary precautions shall be taken to control erosion and downstream sedimentation. Monitor the prevailing weather conditions and protect any downstream construction and gully inlets.
2. All sediment control devices, sediment fences, check dams, straw bales, stone traps and entry/exit sediment traps are to be in accordance with the E&SC plans within these project drawings or amended as required by the Contractor's suitably qualified professional.

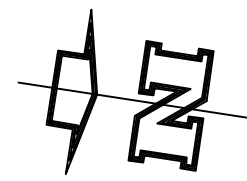
1. All unsuitable material is to be stripped prior to placement of structural fill.
2. All unsuitable material is to be removed in accordance with the specification or as directed by Council's Superintendent.
3. All contaminated soil to be removed in accordance with the specification or as directed by Council's Superintendent.
4. Earthwork quantities include existing road pavement excavated where applicable.
5. Earthwork quantities include unsuitable and or contaminated material except where noted otherwise.
6. Earthwork quantities in cut are bank (nett) volumes and in fill are compacted volumes.
7. Class A1 or B material to comply with the requirements of TMR MRTS04, and specific requirements within these project drawings.

1. All linemarking, signs and traffic devices shall comply with the M.U.T.C.D. - current edition.
2. Ensure that signage has clear sight distance, otherwise adjust location accordingly.
3. Superseded linemarking and signage to be removed.

1. Service Authority infrastructure adjustments are to be performed by contractors approved by the relevant service authority.

|     |                                  |          |
|-----|----------------------------------|----------|
|     |                                  |          |
|     |                                  |          |
|     |                                  |          |
| B   | Service Locating Details Updated | 23/10/24 |
| A   | Issued For Construction          | 11/09/24 |
| No. | Revision                         | Date     |

|        |                                                                                                                                                                                                                                            |                                                                |                                                                     |                                                                                                                                                                    |                                                                                                                                               |                                                                 |                         |                          |                    |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------|--------------------------|--------------------|
| Notes: |  <p><b>crc</b><br/>quality people client focused solution driven<br/>25 Barter Street, GYMPIE, QLD, 4570<br/>ABN 73 617 924 437 Job No.: CRC00345</p> | <p>MTS - Banana Shire Council<br/>Drawn:</p> <p>J. Grimish</p> | <p>a/MIW - Banana Shire Council<br/>Designed:</p> <p>J. Grimish</p> | <p>DIS Review - Banana Shire Council<br/>Certified:</p>  <p>RPEQ #: 14933</p> |  <p><b>Banana</b><br/>SHIRE<br/>SHIRE OF OPPORTUNITY</p> | <p>TEYS ROAD, BILOELA<br/>CULVERT UPGRADE<br/>GENERAL NOTES</p> |                         |                          |                    |
|        |                                                                                                                                                                                                                                            |                                                                |                                                                     |                                                                                                                                                                    |                                                                                                                                               | <p>Scale</p>                                                    | <p>Dwg. No.<br/>002</p> | <p>Sheet<br/>2 of 14</p> | <p>Issue<br/>B</p> |



NO WORK IS SO  
IMPORTANT THAT  
IT CANNOT BE  
DONE SAFELY



ENGINEERING SURVEY CONTROL

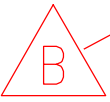
| STATION | EASTING    | NORTHING    | LEVEL   | REMARKS         |
|---------|------------|-------------|---------|-----------------|
| 101     | 246618.308 | 7301428.739 | 166.87  | Screw in Conc   |
| 102     | 246320.644 | 7302998.236 | 166.654 | Orig Sta Picket |
| 103     | 246189.539 | 7303279.294 | 166.26  | Spike in Conc   |
| 501     | 246384.969 | 7302517.728 | 165.971 | Star Picket     |

PERMANENT SURVEY MARKS

| PSM      | EASTING    | NORTHING    | LEVEL   | LOCATION             |
|----------|------------|-------------|---------|----------------------|
| PM119949 | 246299.074 | 7302854.774 | 165.155 | Jambin Dakenba Rd    |
| PM163428 | 246486.859 | 7302187.032 | 165.94  | Jambin Dakenba Rd    |
| PM186801 | 246284.849 | 7303153.436 | 166.9   | Teys Rd              |
| PM78550  | 248196.605 | 7301303.576 | 171.202 | Tognolini Baldwin Rd |
| PM79541  | 247458.266 | 7301393.33  | 168.327 | Tognolini Baldwin Rd |

SERVICES LOCATION TABLE

| POINT No. | APPROX. EXISTING DEPTH | RL @ TOP OF SERVICE | RL @ BOTTOM OF EXCAVATION | COVER FROM BOT. OF BOX | METHOD USED FOR LOCATION | TYPE OF SERVICE |
|-----------|------------------------|---------------------|---------------------------|------------------------|--------------------------|-----------------|
| C1        | 0.846                  | 164.499             | 164.995                   | 0.496                  | Pothole                  | Comms - Copper  |
| C2        | 1.323                  | 164.030             | 164.994                   | 0.964                  | Pothole                  | Comms - Fibre   |



LEGEND

- 101
- Survey Mark and Label
- C
- Comms
- E
- Electrical - Aerial

WARNING!

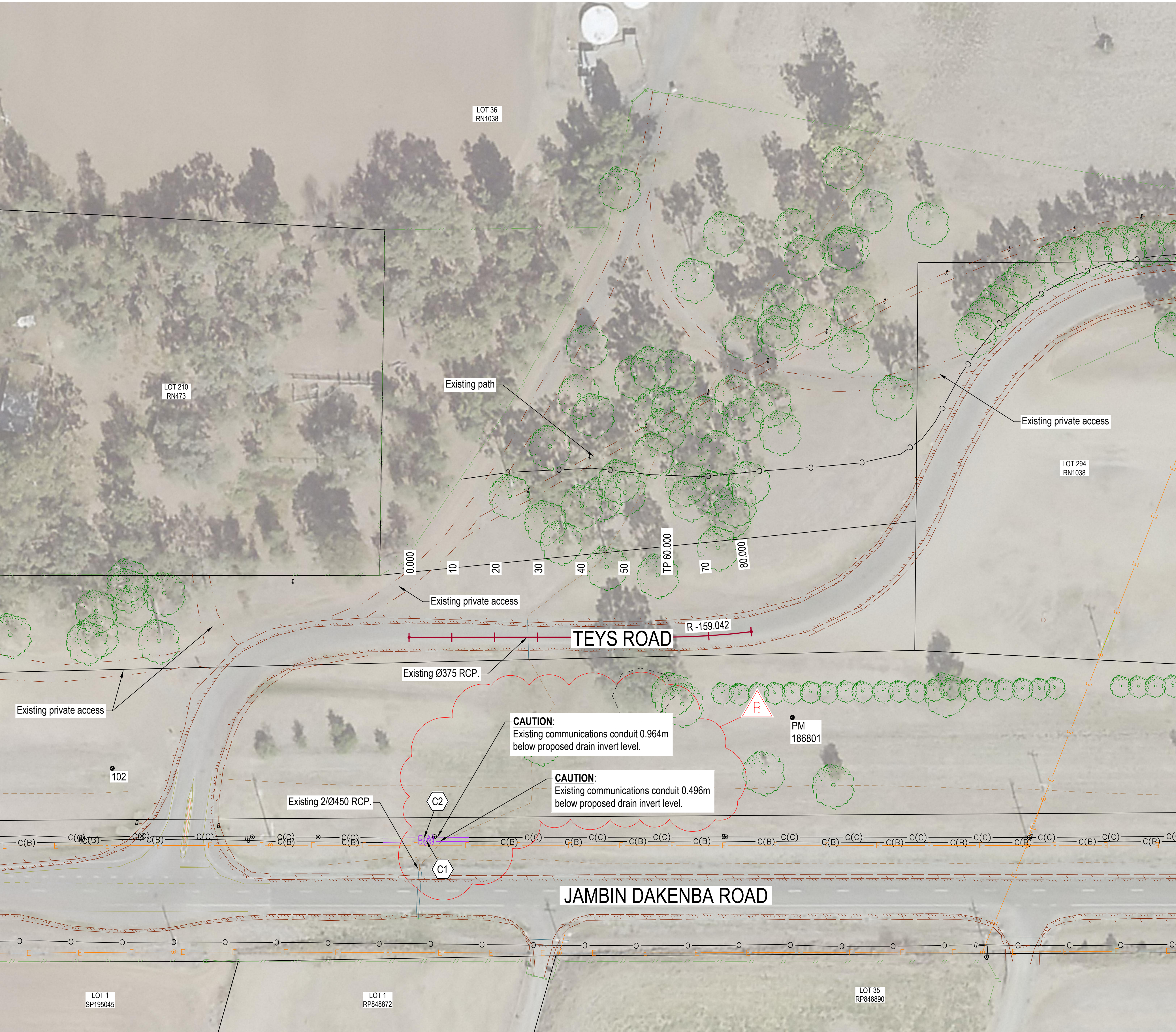
BEWARE OF AERIAL SERVICES

Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

WARNING!

BEWARE OF UNDERGROUND SERVICES

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.



PLAN

Scale A

Notes:

|     |                                  |          |
|-----|----------------------------------|----------|
|     |                                  |          |
| B   | Service Locating Details Updated | 23/10/24 |
| A   | Issued For Construction          | 11/09/24 |
| No. | Revision                         | Date     |



MTS - Banana Shire Council  
Drawn: J. Grimish

a/MIW - Banana Shire Council  
Designed: J. Grimish

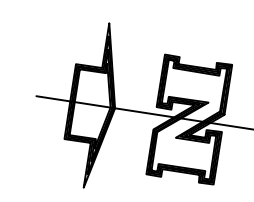
DIS Review - Banana Shire Council  
Certified:   
RPEQ #: 14933



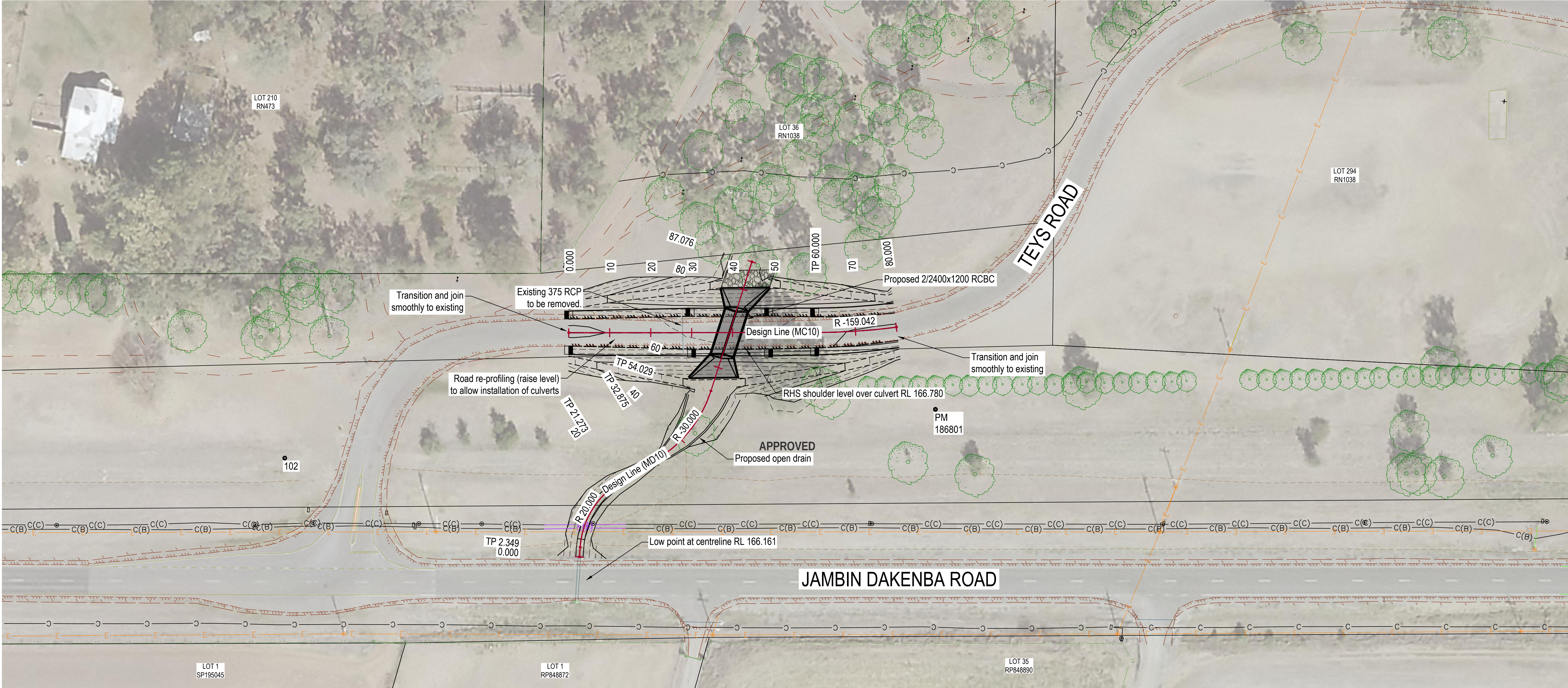
TEYS ROAD, BILOELA  
CULVERT UPGRADE  
SURVEY CONTROL AND SERVICES PLAN

Scale  
Scale A  
0 5 10 15 20 25 (A1)  
1:500

Dwg. No. 300  
Sheet 3 of 14  
Issue B



NO WORK IS SO  
IMPORTANT THAT  
IT CANNOT BE  
DONE SAFELY



PLAN  
Scale A

**WARNING!**  
**BEWARE OF AERIAL SERVICES**  
Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

**WARNING!**  
**BEWARE OF UNDERGROUND SERVICES**  
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LEGEND

- Red - Flexible Guidepost
- White - Flexible Guidepost
- Red - Tubular Flexible Guidepost
- White - Tubular Flexible Guidepost
- New Sign Location
- Existing Sign Location

|        |                                  |          |
|--------|----------------------------------|----------|
| Notes: |                                  |          |
| B      | Service Locating Details Updated | 23/10/24 |
| A      | Issued For Construction          | 11/09/24 |
| No.    | Revision                         | Date     |

**crc**  
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25 Barter Street, GYMPIE, QLD, 4570  
ABN 73 617 924 437 Job No.: CRC00345

MTS - Banana Shire Council  
Drawn: J. Grimish

a/MIW - Banana Shire Council  
Designed: J. Grimish

DIS Review - Banana Shire Council  
Certified: *[Signature]*  
RPEQ #: 14933

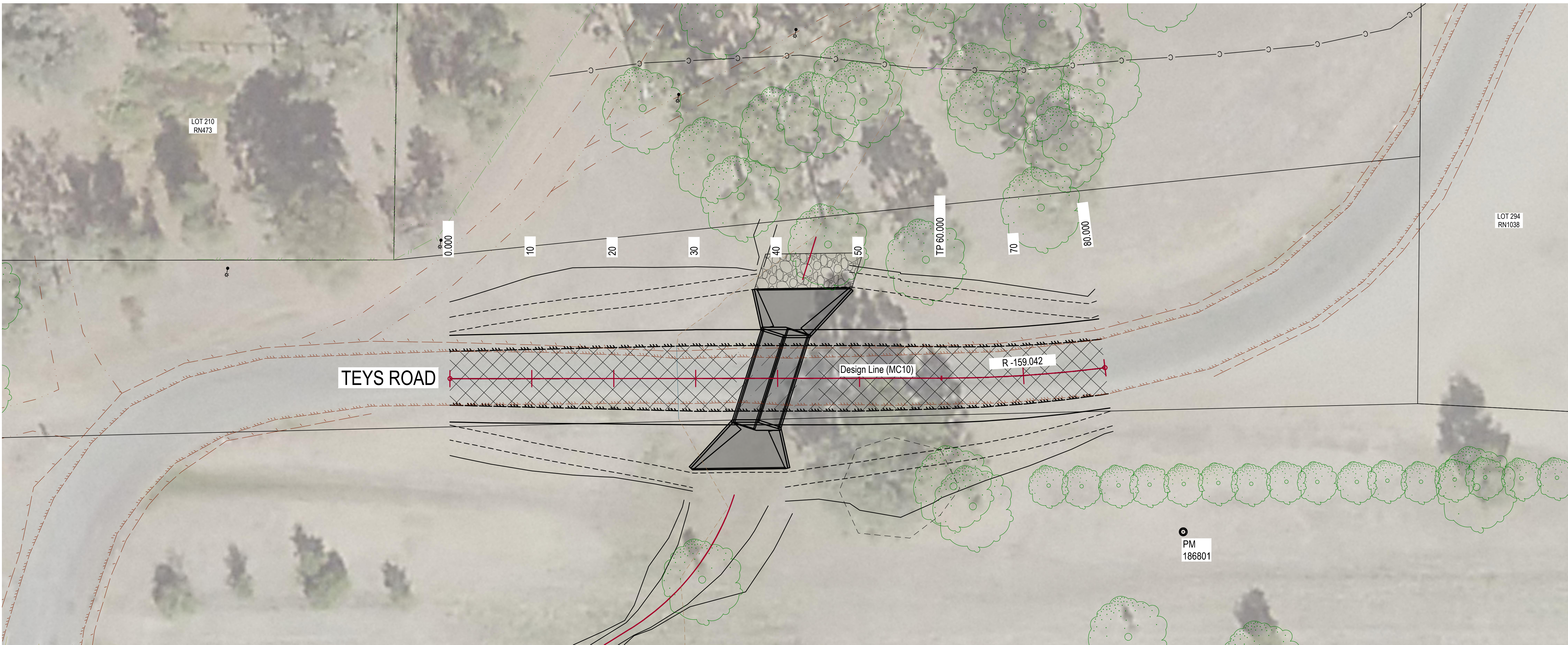
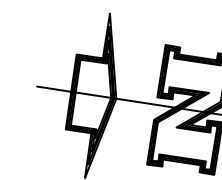


TEYS ROAD, BILOELA  
CULVERT UPGRADE  
ROADWORKS AND SETOUT PLAN

Scale  
Scale A 0 5 10 15 20 25 (A1) 1:500

|              |               |         |
|--------------|---------------|---------|
| Dwg. No. 400 | Sheet 4 of 14 | Issue B |
|--------------|---------------|---------|

Last Modified: Oct 23, 2024 - 3:42pm  
XREFS: X: CRC\_BSC\_TITLE.dwg; X: DESIGN.dwg; X: SURVEY.dwg; X: CONTROL\_MC10.dwg; X: CONTROL\_MD10.dwg; X: GUIDEPOSTS.dwg; X: AERIAL.dwg; X: CULVERT.dwg; X: CONTROL.dwg; X: CONTOURS.dwg; X: SURVEY.dwg; X: DESIGN.dwg; X: SURVEY.dwg; X: CONTROL\_MC10.dwg; X: CONTROL\_MD10.dwg; X: GUIDEPOSTS.dwg; X: AERIAL.dwg; X: CULVERT.dwg; X: CONTROL.dwg; X: CONTOURS.dwg



**PLAN**  
Scale A

**PAVEMENT DETAILS**

- New pavement to be constructed
- Seal (see notes)
- Initial Seal (see notes)
- 14mm S45R Seal
- 10mm AMC7 Initial Seal
- 200mm Type 2.1 Lightly Bound Base  
UCS 1 - 2 MPa at 28 days
- 100mm Type 2.3 Unbound Subbase
- 150mm Class A1 or B CBR 15 Select Fill
- Design Subgrade CBR 4.5 (4-day soaked)
- 450mm Total thickness

**PAVEMENT DETAILS (OVER CULVERT)**

- New pavement to be constructed
- Seal (see notes)
- Initial Seal (see notes)
- 14mm S45R Seal
- 10mm AMC7 Initial Seal
- 200mm Type 2.1 Lightly Bound Base  
UCS 1 - 2 MPa at 28 days
- 200mm Total thickness

**NOTES:**

1. Bitumen spray rates and aggregate spread rates are indicative only for the purposes of estimating. Seal design is the responsibility of the contractor and is to consider prevailing weather conditions at time of sealing and actual aggregates used.

**WARNING!**

**BEWARE OF UNDERGROUND SERVICES**

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

| PAVEMENT DESIGN      |                    |
|----------------------|--------------------|
| Design Period:       | 20 Years           |
| AADT:                | 489 (2024)         |
| HV:                  | 11%                |
| DESA:                | 5.21E+05           |
| Design Subgrade CBR: | 4.5 (4 Day Soaked) |
| Moderate Expansive   |                    |
| Nature Max CBR Swell | 2.5 - 5.0%         |

All works to be carried out in accordance with the relevant CMDG Construction Specifications.

Notes:

|     |                                  |          |
|-----|----------------------------------|----------|
|     |                                  |          |
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|     |                                  |          |
| B   | Service Locating Details Updated | 23/10/24 |
| A   | Issued For Construction          | 11/09/24 |
| No. | Revision                         | Date     |

**crc**

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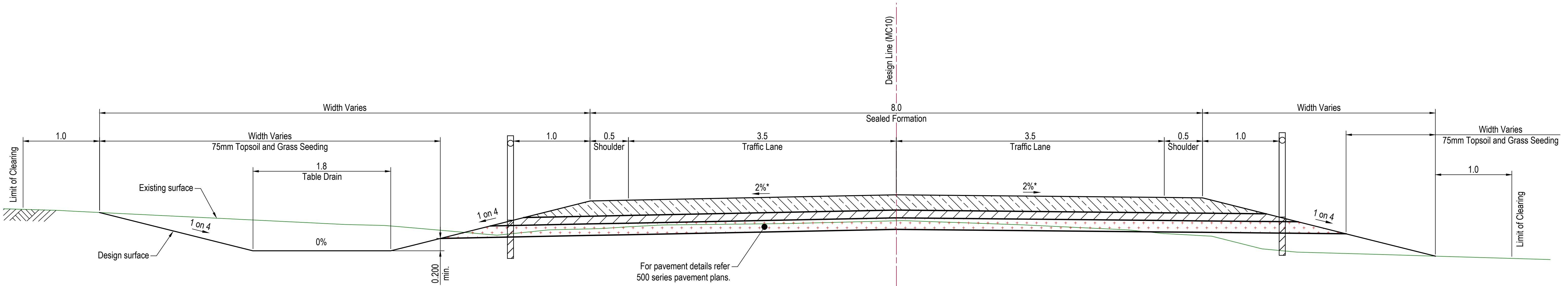
25 Barter Street, GYMPIE, QLD, 4570  
ABN 73 617 924 437 Job No.: CRC00345

|                                                    |                                                         |                                                                      |                                             |                                                        |                  |            |
|----------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------|------------------|------------|
| MTS - Banana Shire Council<br>Drawn:<br>J. Grimish | a/MIW - Banana Shire Council<br>Designed:<br>J. Grimish | DIS Review - Banana Shire Council<br>Certified:<br><br>RPEQ #: 14933 | <b>Banana SHIRE</b><br>SHIRE OF OPPORTUNITY | TEYS ROAD, BILOELA<br>CULVERT UPGRADE<br>PAVEMENT PLAN |                  |            |
| Scale<br>Scale A<br>                               |                                                         |                                                                      |                                             | Dwg. No.<br>500                                        | Sheet<br>5 of 14 | Issue<br>B |

**BEFORE  
YOU DIG**  
[www.byda.com.au](http://www.byda.com.au)

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

| CUT / FILL DEPTHS | DESIGN SURFACE LEVELS | EXISTING SURFACE LEVELS | CHAINAGE |
|-------------------|-----------------------|-------------------------|----------|
| 0                 | 167.035               | 167.035                 | 0.000    |
| 0.136             | 167.028               | 166.892                 | 5.000    |
| 0.245             | 166.994               | 166.749                 | 10.000   |
| 0.45              | 166.933               | 166.484                 | 15.000   |
| 0.592             | 166.873               | 166.282                 | 18.600   |
| 0.645             | 166.848               | 166.203                 | 20.000   |
| 0.858             | 166.775               | 165.916                 | 25.000   |
| 1.082             | 166.726               | 165.644                 | 30.000   |
| 1.216             | 166.702               | 165.486                 | 35.000   |
| 1.238             | 166.700               | 165.462                 | 37.200   |
| 1.239             | 166.700               | 165.461                 | 38.200   |
| 1.244             | 166.701               | 165.457                 | 40.000   |
| 1.108             | 166.719               | 165.611                 | 45.000   |
| 0.909             | 166.758               | 165.850                 | 50.000   |
| 0.726             | 166.818               | 166.093                 | 55.000   |
| 0.572             | 166.883               | 166.311                 | 59.100   |
| 0.54              | 166.898               | 166.359                 | 60.000   |
| 0.35              | 166.971               | 166.621                 | 65.000   |
| 0.214             | 167.022               | 166.808                 | 70.000   |
| 0.114             | 167.050               | 166.936                 | 75.000   |
| 0                 | 167.057               | 167.057                 | 80.000   |

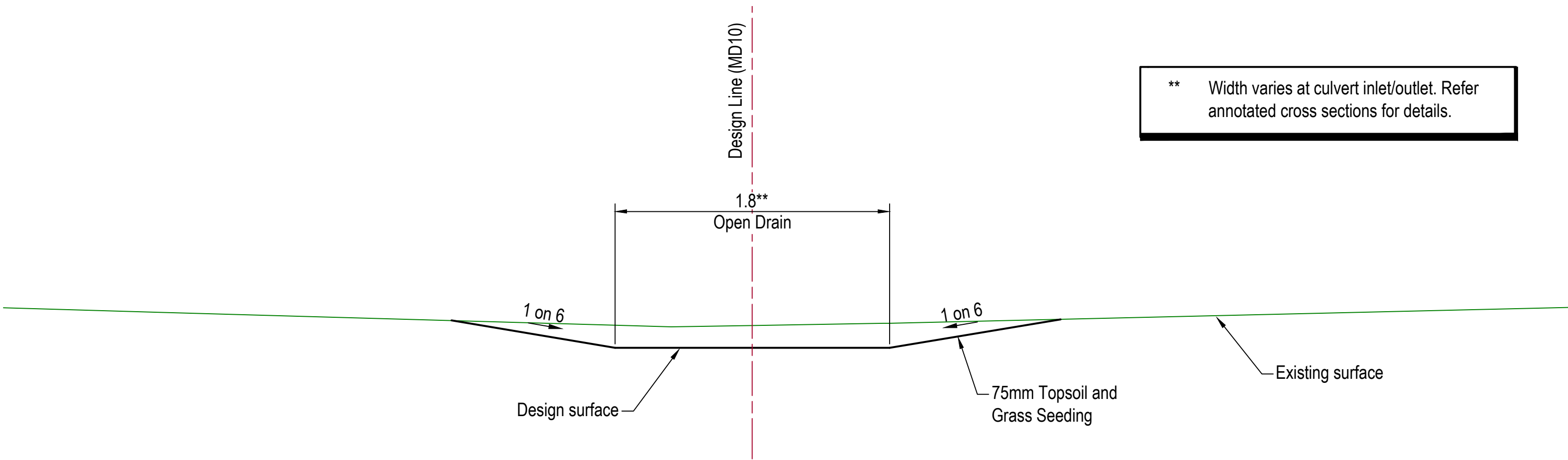


\* X-fall varies (one way crossfall over culvert).  
Refer annotated cross sections for details.

**TYPICAL CROSS SECTION - TEYS RD**

Ch. START - END (MC10)  
Scale A

Information shown on Type Cross Sections  
is nominal only. Refer Setting Out Drawings  
& Annotated Cross Sections for variations.



\*\* Width varies at culvert inlet/outlet. Refer  
annotated cross sections for details.

**TYPICAL CROSS SECTION - OPEN DRAIN**

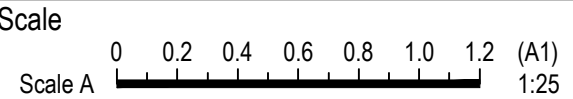
Ch. START - END (MD10)  
Scale A

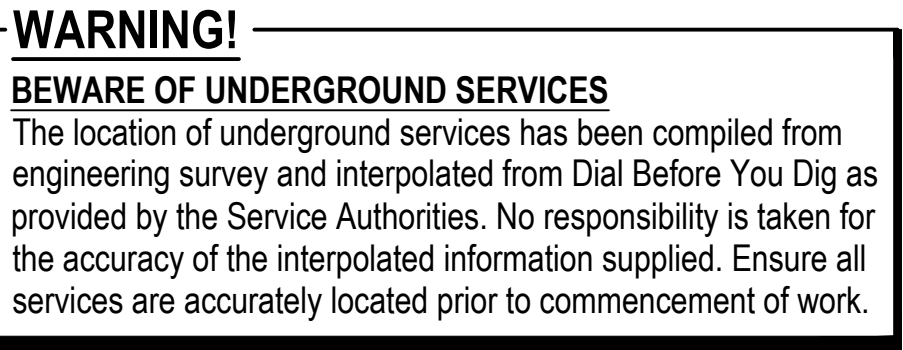
Notes:

|     |                                  |          |
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|     |                                  |          |
|     |                                  |          |
| B   | Service Locating Details Updated | 23/10/24 |
| A   | Issued For Construction          | 11/09/24 |
| No. | Revision                         | Date     |

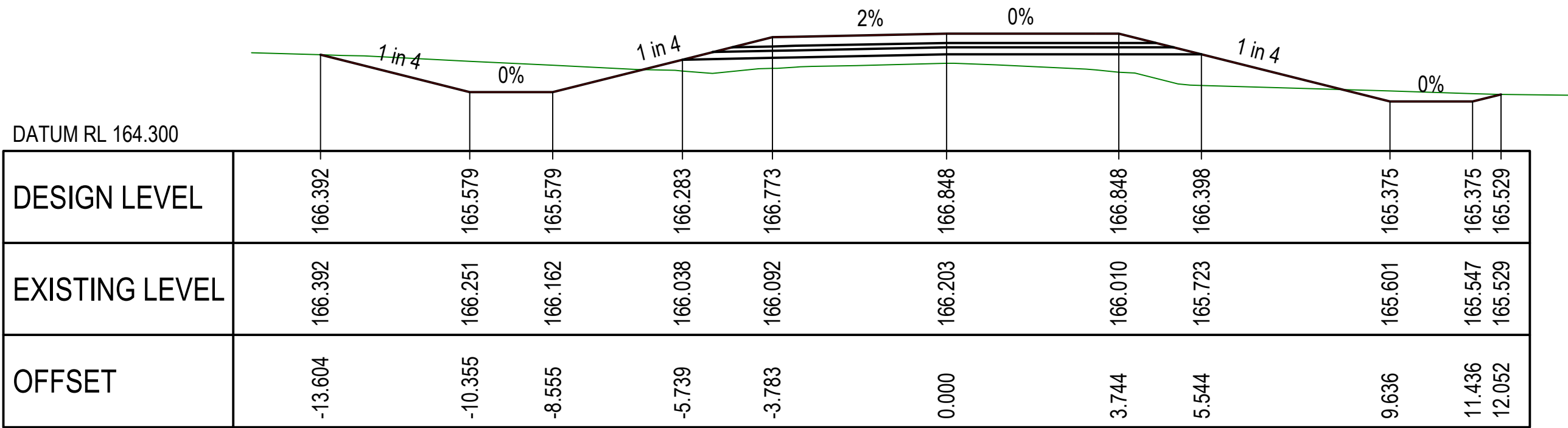
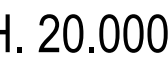
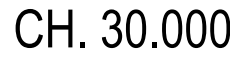
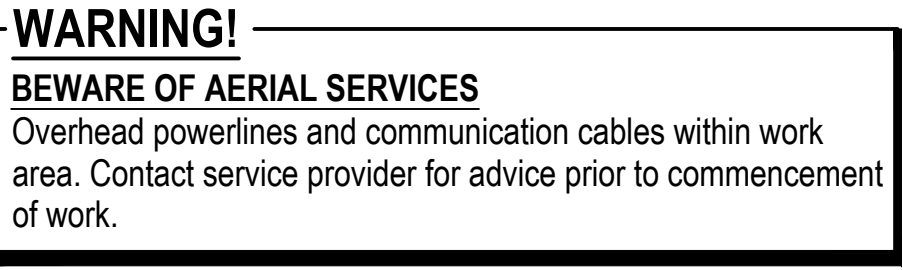


|                                                    |                                                         |                                                                                                                                                           |                                                                                       |                                                                 |                 |                  |            |
|----------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------|------------------|------------|
| MTS - Banana Shire Council<br>Drawn:<br>J. Grimish | a/MIW - Banana Shire Council<br>Designed:<br>J. Grimish | DIS Review - Banana Shire Council<br>Certified:<br><br>RPEQ #: 14933 |  | TEYS ROAD, BILOELA<br>CULVERT UPGRADE<br>TYPICAL CROSS SECTIONS | Dwg. No.<br>700 | Sheet<br>7 of 14 | Issue<br>B |
|----------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------|------------------|------------|





NO WORK IS SO  
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IT CANNOT BE  
DONE SAFELY



## CROSS SECTIONS - TEYS RD (MC10)

Scale A

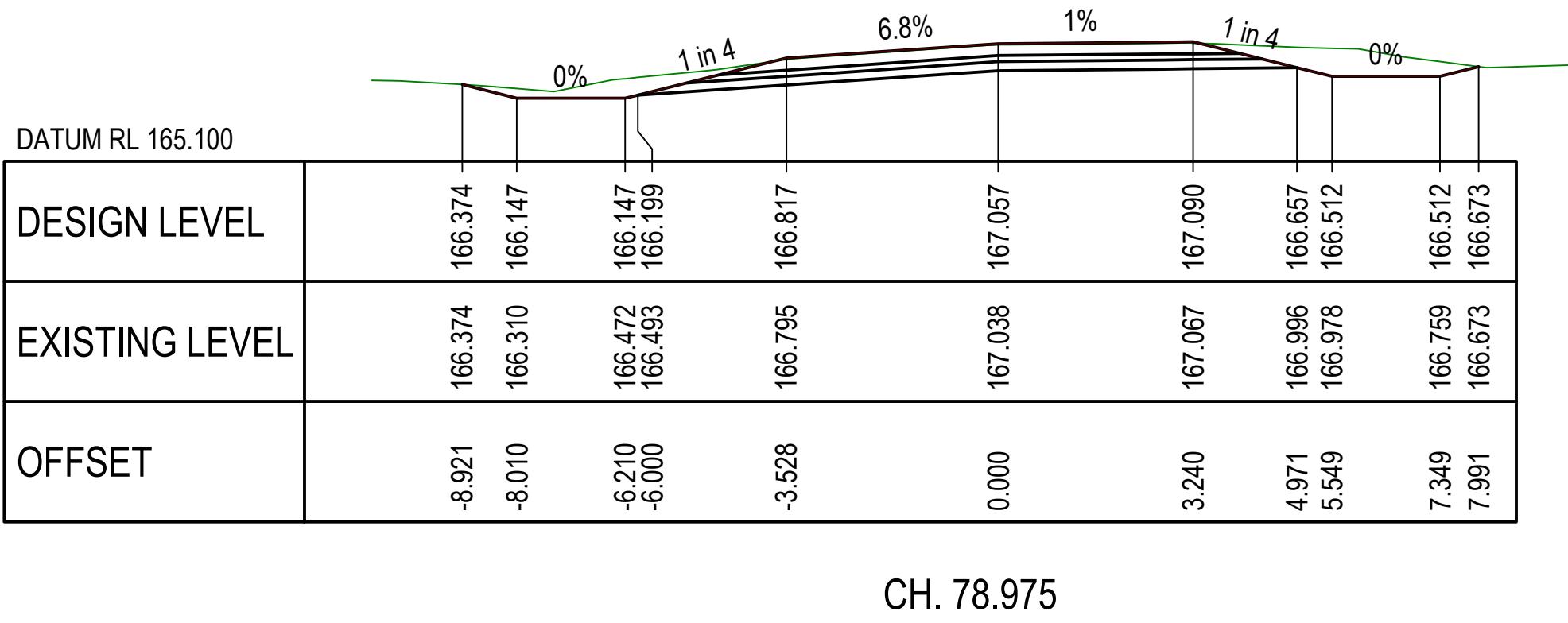
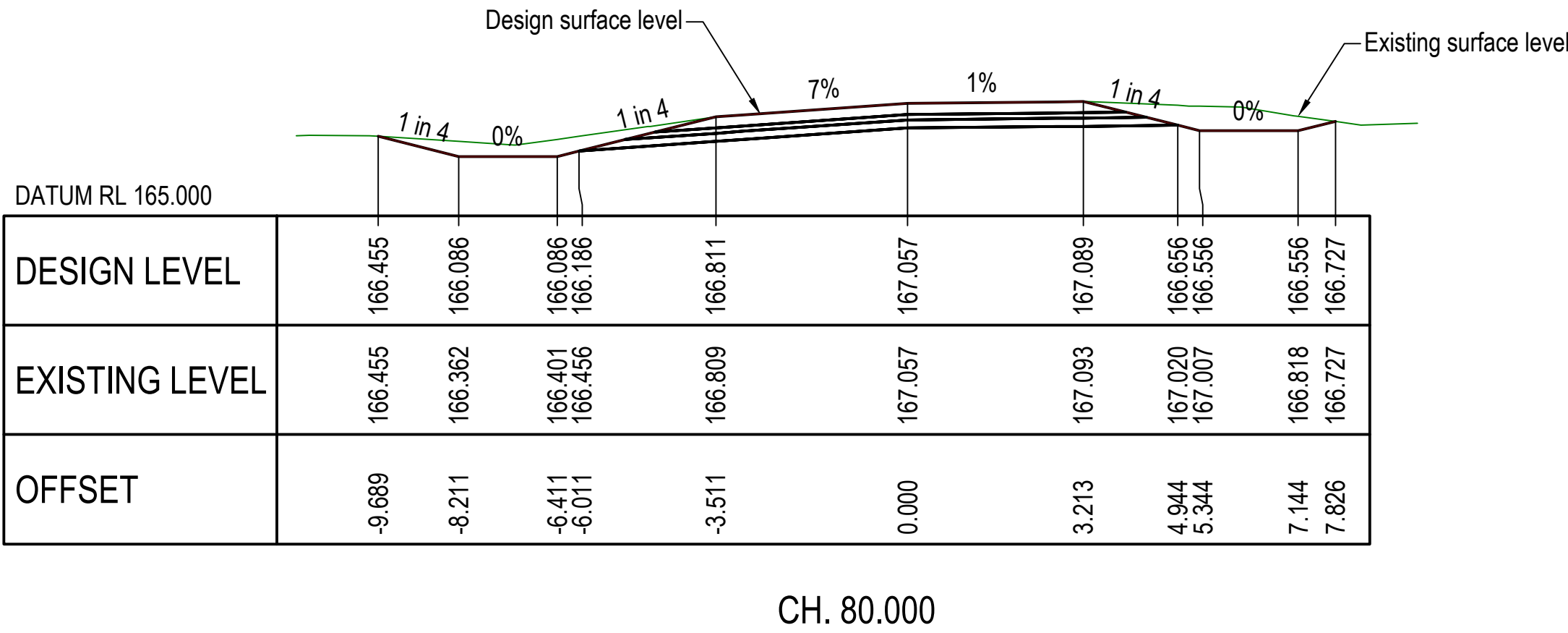
|     |                                  |          |               |                                                                                                                                                                                                                                            |                                                                  |                                                                       |                                                                                                                                                                     |                                                                                                                                           |                                                                                                                                                 |          |         |       |
|-----|----------------------------------|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|-------|
|     |                                  |          | <p>Notes:</p> |  <p><b>crc</b><br/>quality people client focused solution driven<br/>25 Barter Street, GYMPIE, QLD, 4570<br/>ABN 73 617 924 437 Job No.: CRC00345</p> | <p>MTS - Banana Shire Council<br/>Drawn:<br/><br/>J. Grimish</p> | <p>a/MIW - Banana Shire Council<br/>Designed:<br/><br/>J. Grimish</p> | <p>DIS Review - Banana Shire Council<br/>Certified:<br/><br/>RPEQ #: 14933</p> |  <p><b>Banana SHIRE</b><br/>SHIRE OF OPPORTUNITY</p> | <p>TEYS ROAD, BILOELA<br/>CULVERT UPGRADE<br/>ANNOTATED CROSS SECTIONS SHEET 1</p>                                                              |          |         |       |
| B   | Service Locating Details Updated | 23/10/24 |               |                                                                                                                                                                                                                                            |                                                                  |                                                                       |                                                                                                                                                                     |                                                                                                                                           |  <p>Scale 0 1.0 2.0 3.0 4.0 5.0 (A1)<br/>Scale A 1:100</p> | Dwg. No. | Sheet   | Issue |
| A   | Issued For Construction          | 11/09/24 |               |                                                                                                                                                                                                                                            |                                                                  |                                                                       |                                                                                                                                                                     |                                                                                                                                           |                                                                                                                                                 | 800      | 8 of 14 | B     |
| No. | Revision                         | Date     |               |                                                                                                                                                                                                                                            |                                                                  |                                                                       |                                                                                                                                                                     |                                                                                                                                           |                                                                                                                                                 |          |         |       |

Last Modified :- Oct 23, 2024 - 3:42pm



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Last Modified : Oct 23, 2024 - 3:49pm



CROSS SECTIONS - TEYS RD (MC10)

Scale A

WARNING!

BEWARE OF UNDERGROUND SERVICES

The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

WARNING!

BEWARE OF AERIAL SERVICES

Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

NO WORK IS SO  
IMPORTANT THAT  
IT CANNOT BE  
DONE SAFELY



|     |                                  |          |        |
|-----|----------------------------------|----------|--------|
|     |                                  |          | Notes: |
|     |                                  |          |        |
|     |                                  |          |        |
| B   | Service Locating Details Updated | 23/10/24 |        |
| A   | Issued For Construction          | 11/09/24 |        |
| No. | Revision                         | Date     |        |



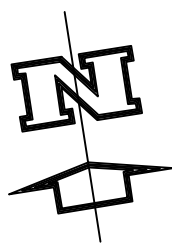
|                            |
|----------------------------|
| MTS - Banana Shire Council |
| Drawn:                     |
| J. Grimish                 |

|                              |
|------------------------------|
| a/MIW - Banana Shire Council |
| Designed:                    |
| J. Grimish                   |

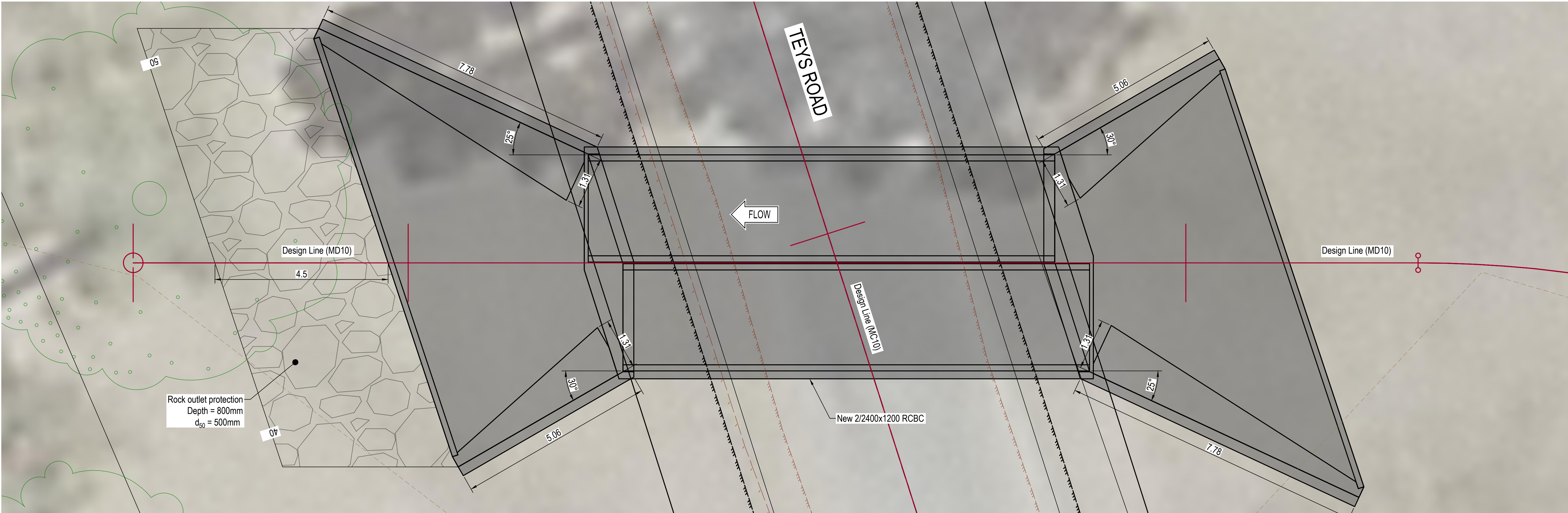
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|-----------------------------------|
| DIS Review - Banana Shire Council |
| Certified:                        |
|                                   |
| RPEQ #:                           |
| 14933                             |



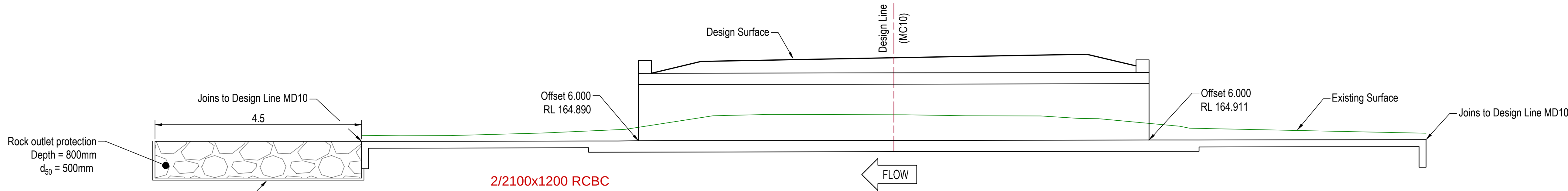
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|---------------------------------------------------------------------------|-----------------|-------------------|------------|
| TEYS ROAD, BILOELA<br>CULVERT UPGRADE<br>ANNOTATED CROSS SECTIONS SHEET 3 |                 |                   |            |
| Scale<br>Scale A<br>0 1.0 2.0 3.0 4.0 5.0 (A1)<br>1:100                   | Dwg. No.<br>802 | Sheet<br>10 of 14 | Issue<br>B |



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PLAN  
Scale A



**2/2100x1200 RCBC**  
**Culvert 01 (MC10)**  
**Ch. 39.200**  
**2/2400x1200 RCBC (10/2.40) (11.12 outside of walls)**  
**Skew Angle 18° Skew Number 107.7 (12.00 overall length)**  
Standard Drawings - 1250, 1359  
Basis for dimensions:  
External Box Wd. 2758mm, Internal Ht. 1219mm, Deck Thick. 245mm  
Leg Thick. 160mm, Headwall Ht. 275mm, Base Thick. 245mm  
Exposure Classification: B2  
Nibs supporting external legs

**WARNING!**  
**BEWARE OF AERIAL SERVICES**  
Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

**WARNING!**  
**BEWARE OF UNDERGROUND SERVICES**  
The location of underground services has been compiled from engineering survey and interpolated from Dial Before You Dig as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

DRAINAGE SCHEDULE

| DRAINAGE SCHEDULE |              |          |                            |                              |           |                   |                     |            |             |        |               |            |               |            |               |             |      |                           |               |            |                           |               |            |               |         |                |                 |           |                 |             |             |  |
|-------------------|--------------|----------|----------------------------|------------------------------|-----------|-------------------|---------------------|------------|-------------|--------|---------------|------------|---------------|------------|---------------|-------------|------|---------------------------|---------------|------------|---------------------------|---------------|------------|---------------|---------|----------------|-----------------|-----------|-----------------|-------------|-------------|--|
| Culvert           |              |          |                            |                              |           |                   | Base Slab / Footing |            |             |        | Headwall      |            | Apron         |            | Cutoff Wall   |             |      | Wingwall 1                |               |            |                           | Wingwall 2    |            |               |         | Blinding       | Excavation (m³) |           | Backfill        |             | Filters     |  |
| Alignment         | Chainage (m) | Skew No. | ID                         | Structure                    | Exp Class | Installation Type | Concrete (m³)       | Rebar (kg) | Fabric (m²) | Type   | Concrete (m³) | Rebar (kg) | Concrete (m³) | Rebar (kg) | Concrete (m³) | Fabric (m²) | Type | Length (m)                | Concrete (m³) | Rebar (kg) | Length (m)                | Concrete (m³) | Rebar (kg) | Concrete (m³) | Culvert | Inlet / Outlet | Overlay (m²)    | Fill (m³) | Foundation (m²) | Block Count | Strip Count |  |
| MC10              | 32           | 107.7    | 1                          | "2/2400x1200 RCBC (10/2.40)" | B2        | New               | 19.0                | 925.3      | 146.6       | RL1218 | 0.9           | 94.7       | 13.7          | 1224.4     | 1.5           |             |      | "L 7.6 @ 25° R 7.6 @ 25°" | 6.8           | 956.5      | "L 4.9 @ 30° R 4.9 @ 30°" | 4.4           | 603.6      | 8.7           | 112.1   |                |                 | 63.2      |                 | 8           | 4           |  |
|                   |              |          | Total Fabric (Area / Type) |                              |           |                   | 146.6 / RL1218      |            |             |        |               |            |               |            |               |             |      |                           |               |            |                           |               |            |               |         |                |                 |           |                 |             |             |  |

Notes:



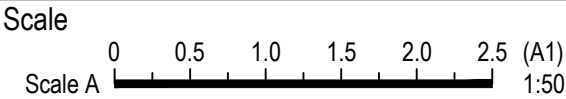
MTS - Banana Shire Council  
Drawn:  
J. Grimish

a/MIW - Banana Shire Council  
Designed:  
J. Grimish

DIS Review - Banana Shire Council  
Certified:  
RPEQ #:  
14933



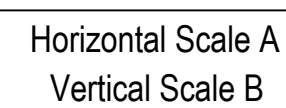
TEYS ROAD, BILOELA  
CULVERT UPGRADE  
STORMWATER DRAINAGE PLAN

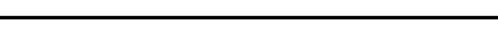
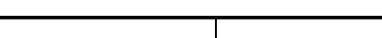
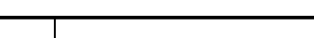
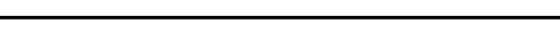


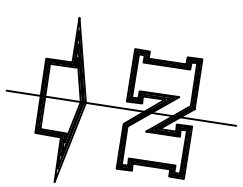
Dwg. No. 1200  
Sheet 11 of 14  
Issue B

XREFS: X: CRC\_BSC\_TITLE.dwg; X:AERIAL.dwg; X: CONTOURS.dwg; X: CULVERT.dwg; X: DESIGN.dwg; X: SURVEY.dwg; X: CONTROL\_MD10.dwg; X: CONTROL\_MC10.dwg  
Last Modified: Oct 23, 2024 - 3:49pm

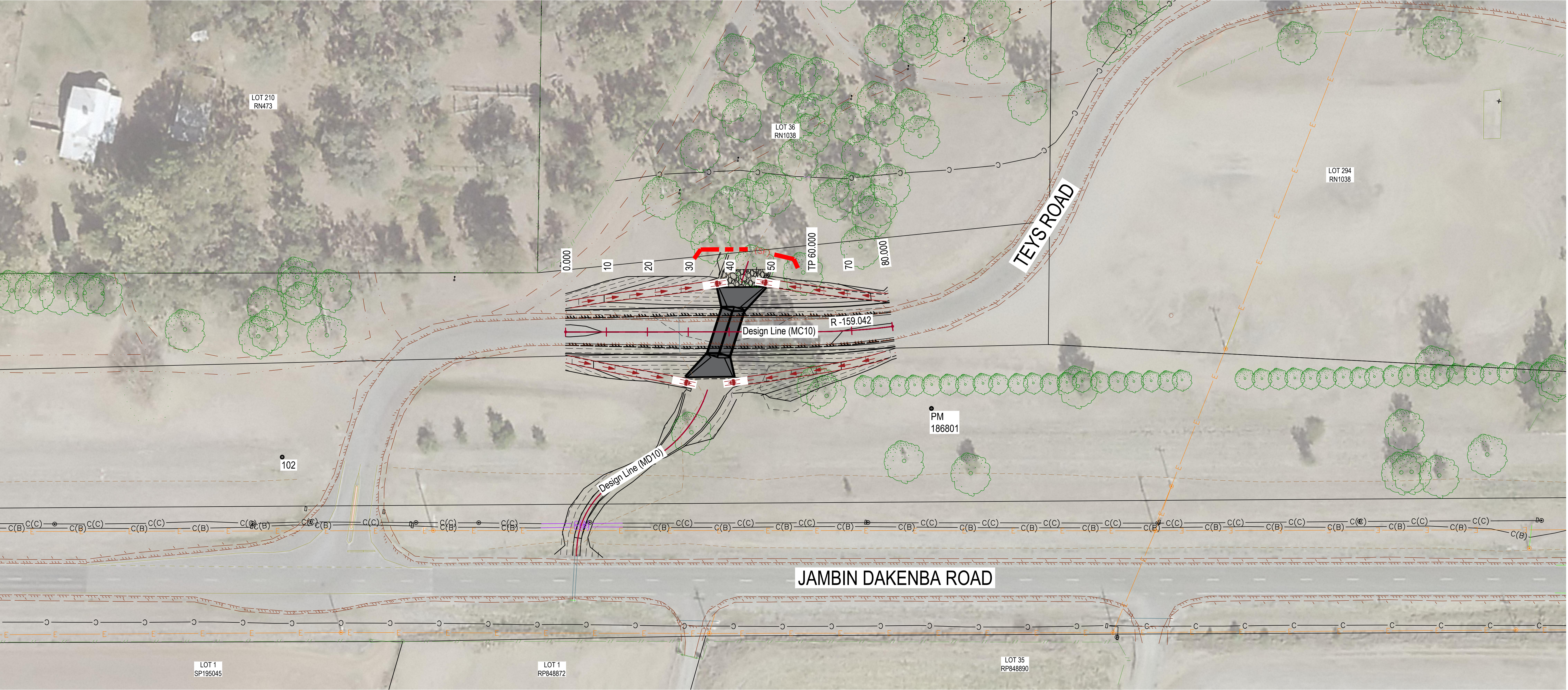
**BEFORE  
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|     |                                  |          |        |                                                                                                                                                                                                                                                           |                                                        |                                                             |                                                                                                                                                               |                                                                                                                                                     |                                                                                                                                                                                       |                      |                       |                |
|-----|----------------------------------|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------|----------------|
|     |                                  |          | Notes: | <div><p><b>crc</b><br/>quality people client focused solution driven</p><p>25 Barter Street, GYMPIE, QLD, 4570<br/>ABN 73 617 924 437    Job No.: CRC00345</p></div> | MTS - Banana Shire Council<br>Drawn:<br><br>J. Grimish | a/MIW - Banana Shire Council<br>Designed:<br><br>J. Grimish | DIS Review - Banana Shire Council<br>Certified:<br><br><br>RPEQ #: 14933 | <div><p><b>Banana SHIRE</b><br/>SHIRE OF OPPORTUNITY</p></div> | TEYS ROAD, BILOELA<br>CULVERT UPGRADE<br>STORMWATER LONGITUDINAL SECTION SHEET 1                                                                                                      |                      |                       |                |
| B   | Service Locating Details Updated | 23/10/24 |        |                                                                                                                                                                                                                                                           |                                                        |                                                             |                                                                                                                                                               |                                                                                                                                                     | <div></div> | Dwg. No.<br><br>1250 | Sheet<br><br>12 of 14 | Issue<br><br>B |
| A   | Issued For Construction          | 11/09/24 |        |                                                                                                                                                                                                                                                           |                                                        |                                                             |                                                                                                                                                               |                                                                                                                                                     |                                                                                                                                                                                       |                      |                       |                |
| No. | Revision                         | Date     |        |                                                                                                                                                                                                                                                           |                                                        |                                                             |                                                                                                                                                               |                                                                                                                                                     |                                                                                                                                                                                       |                      |                       |                |



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DONE SAFELY



PLAN  
Scale A

LEGEND

- Diversion Bank
- Silt Fence (SF)
- Geo Log
- Dirty Water Flow
- Clean Water Flow
- Rock Check Dam
- End of line rock check dam (to act as rock filter dam)
- Existing Trees

Notes:

|     |                                  |          |
|-----|----------------------------------|----------|
| No. | Revision                         | Date     |
| B   | Service Locating Details Updated | 23/10/24 |
| A   | Issued For Construction          | 11/09/24 |

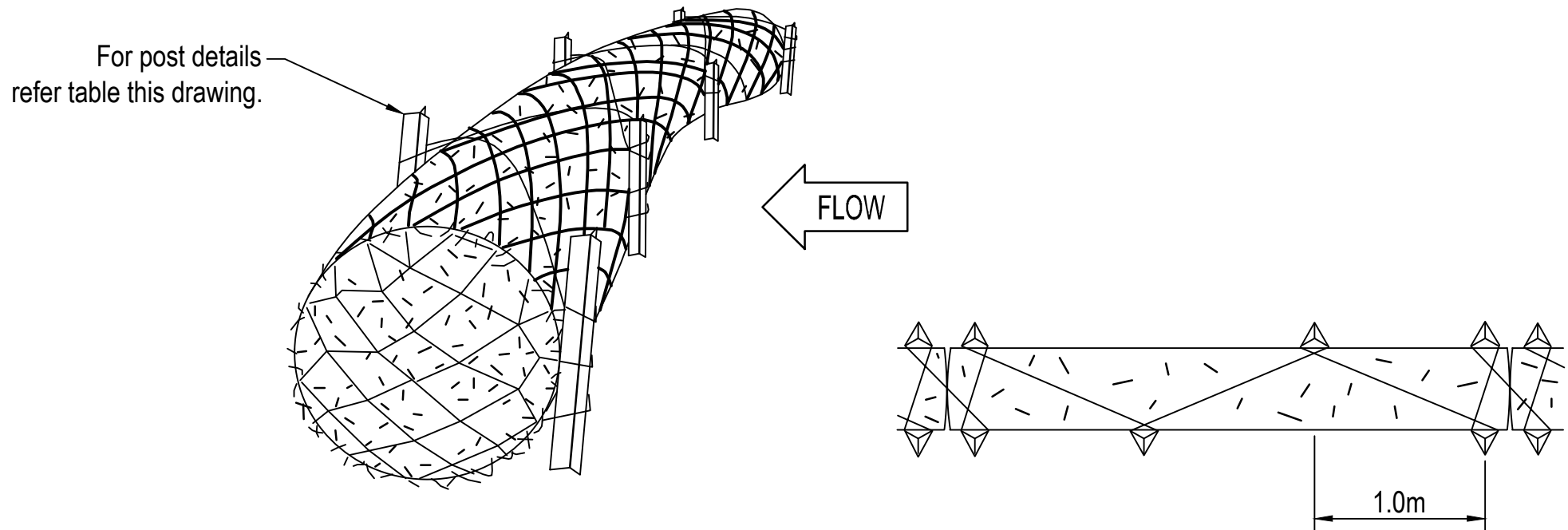


|                                                    |                                                         |                                                                                        |
|----------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------|
| MTS - Banana Shire Council<br>Drawn:<br>J. Grimish | a/MIW - Banana Shire Council<br>Designed:<br>J. Grimish | DIS Review - Banana Shire Council<br>Certified:<br><i>[Signature]</i><br>RPEQ #: 14933 |
|----------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------|



|                                                                                         |                  |                   |            |
|-----------------------------------------------------------------------------------------|------------------|-------------------|------------|
| TEYS ROAD, BILOELA<br>CULVERT UPGRADE<br>TEMPORARY EROSION AND SEDIMENT CONTROL SHEET 1 |                  |                   |            |
| Scale<br>Scale A<br>0 5 10 15 20 25 (A1)<br>1:500                                       | Dwg. No.<br>1700 | Sheet<br>13 of 14 | Issue<br>B |

Last Modified : Oct 23, 2024 - 3:43pm  
XREFS : X\_CRC\_BSC\_TITLE.dwg

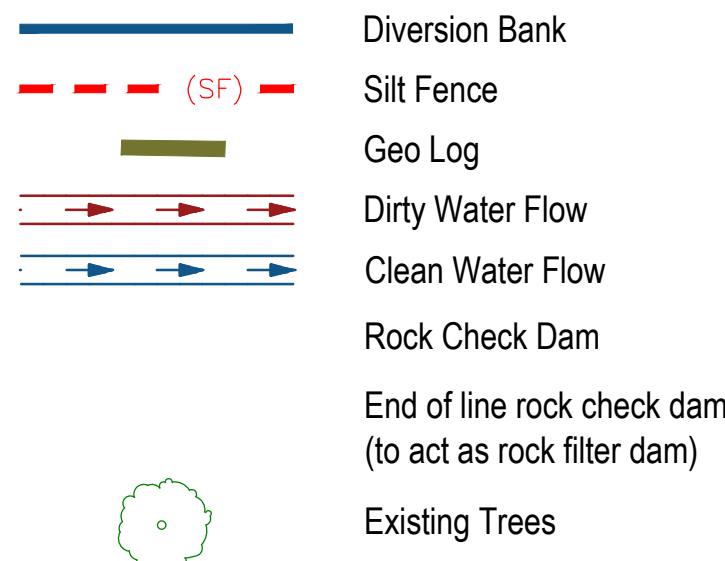


#### TYPICAL ANCHORAGE OF GEO LOG

Geo Log to be installed in accordance with IECA  
Sediment and Erosion Control Design Fact  
Sheets - Instream Practices

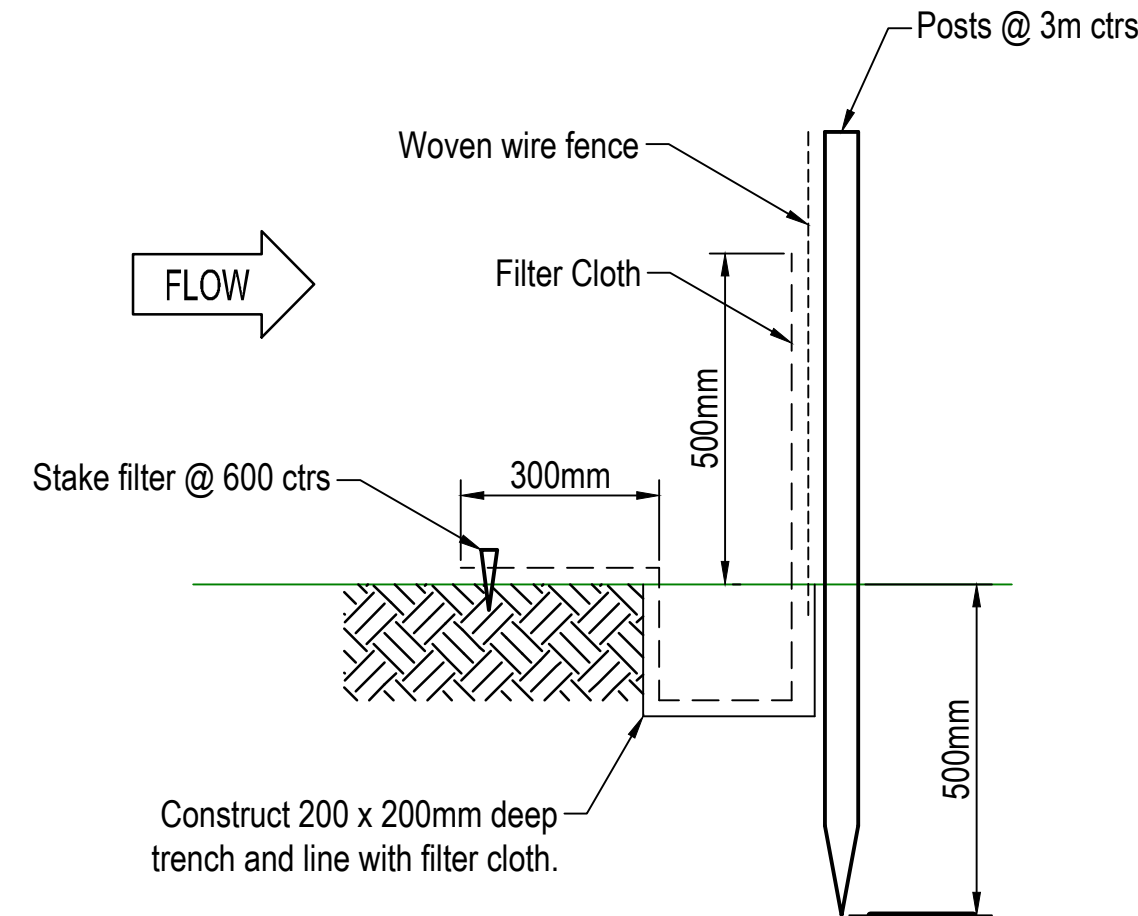
#### PLAN GEO-LOG STAKING METHOD

#### LEGEND



#### MATERIALS

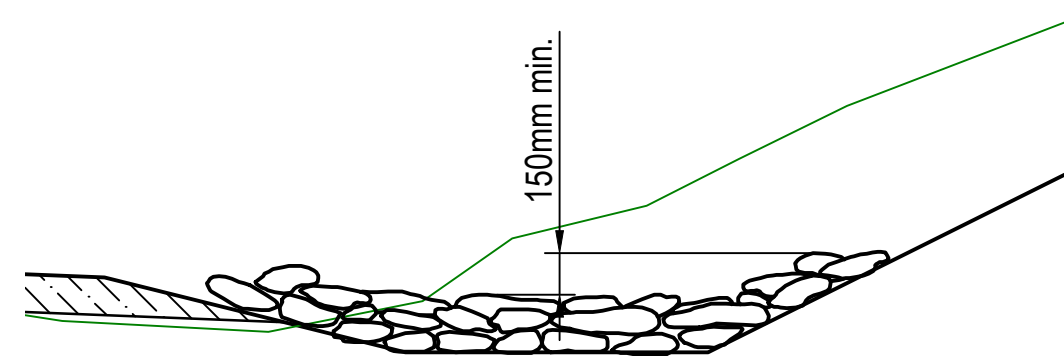
| MATERIAL           | TYPE                                                                                                              |
|--------------------|-------------------------------------------------------------------------------------------------------------------|
| Posts (either)     | 1.5kg/m (min) Steel Star Picket<br>or 1500mm <sup>2</sup> (min) Hardwood<br>or 2500mm <sup>2</sup> (min) Softwood |
| Fence              | Woven wire 14 gauge<br>150mm max aperture<br>Filter as specified                                                  |
| Filter Cloth       | (terram 100, polyfelt ts500, Bidim u24 or equivalent)                                                             |
| Prefabricated Unit | Geofab, envirofence or approved equivalent                                                                        |



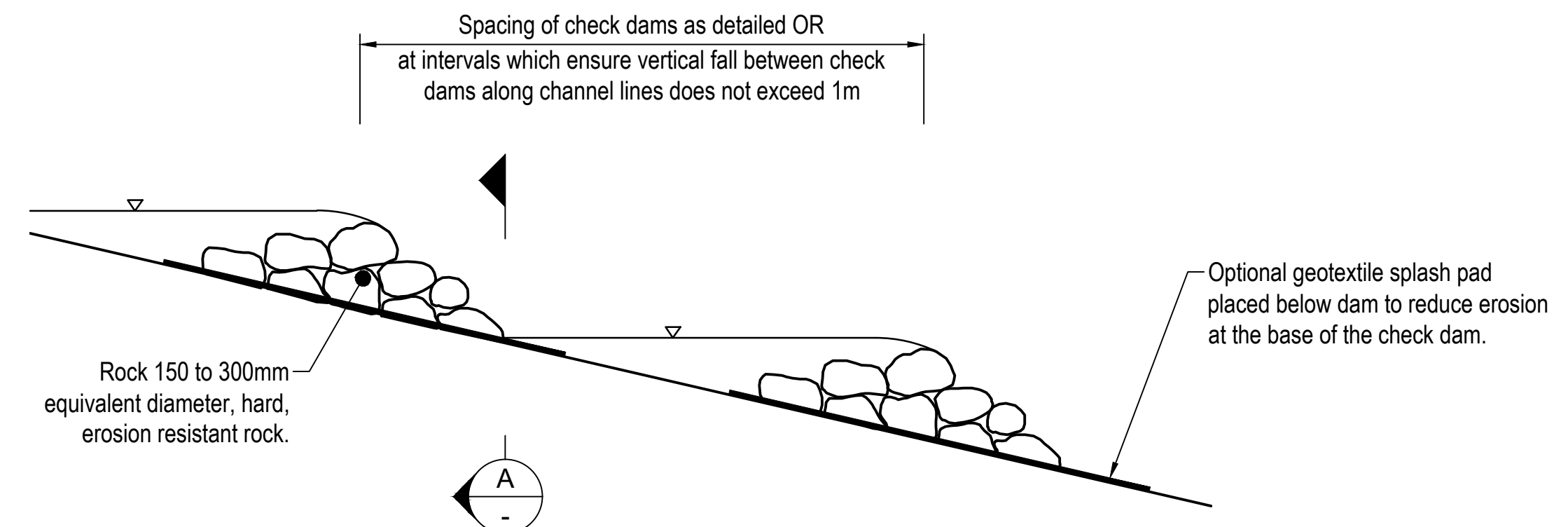
#### SILT FENCE N.T.S.

#### Erection Notes

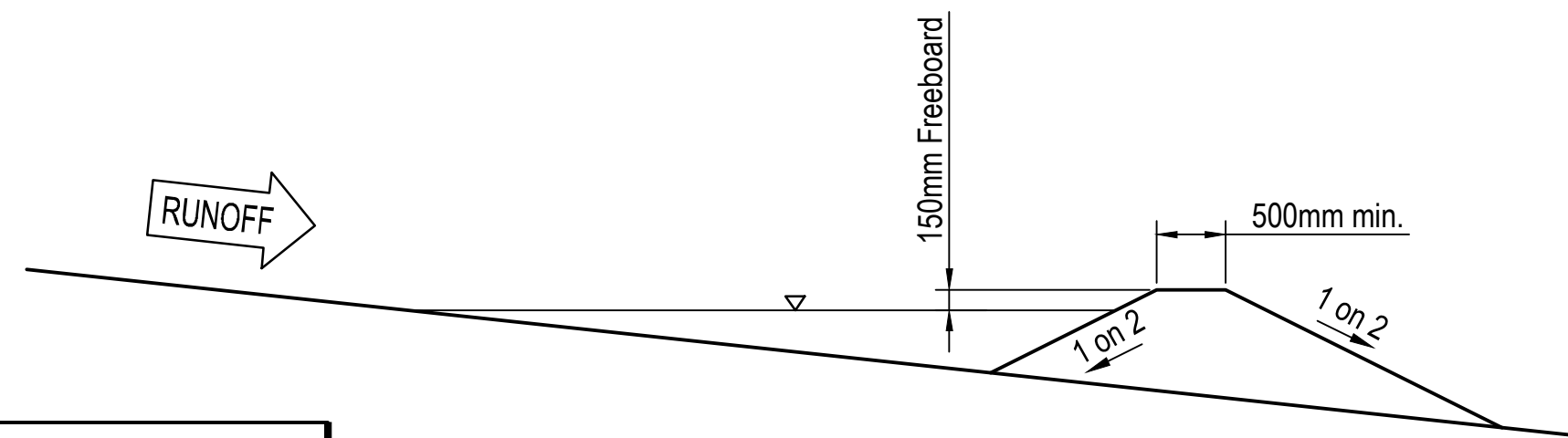
Woven fence to be fastened securely to fence posts with wire ties or staples. Filter cloth to be fastened securely to woven wire fence with ties spaced every 600mm at top of mid section. When two sections of filter cloth adjoin each other they shall be overlapped by 150mm and folded and material removed when bulging of fence occurs.



#### SECTION A-A



#### ROCK CHECK DAM



A minimum freeboard of 300mm is recommended for non-vegetated earth embankments.

#### DIVERSION BANK

#### Notes

- Design and construction of all sediment management devices is the contractors responsibility and shall be completed and effective prior to:
  - Stripping of topsoil and grass.
  - Bulk earthworks to the site.
  - Service installations.
- All sediment management devices are to remain in place until notice from the Contract Administrator
- Both temporary and permanent sediment management devices shall be maintained at a suitable level/condition throughout construction. Sediment fences are to be cleaned out when capacity is reduced by 30%.
- If erosion and sediment control devices have been found to be deficient or failed in service, due to unforeseen circumstances, corrective action is to be undertaken immediately which may include amendments/additions to the original approved erosion control plans. such additions or amendments are to be approved by the Contract Administrator.
- All erosion and sediment control devices are to be inspected at least weekly, before and after rainfall events. Any damage or excess erosion/sediment is to be repaired/managed as required to maintain control devices.
- Devices shown on the drawings shall not necessarily be limited to the locations shown. Additional devices may be required as directed by Contract Administrator.
- Rock check dams to be installed per detail this drawing in drainage channels with slopes greater than 2%. Spacing of check dams to be at every 1.0m vertical drop in drainage channel.
- Contract Administrator to order installation of topsoil and grass seeding to disturbed areas.
- The contractor shall ensure all turfed and/or seeded areas are regularly watered to ensure vegetation is maintained until there is 80% coverage.
- Stockpiles shall be protected from erosion and sediment loss by:
  - The installation of diversion works on the upstream side.
  - The use of silt fences or other approved controls on the downstream side.
  - Compaction.
  - Re-vegetation if left exposed for longer than 30 days

Notes:



MTS - Banana Shire Council  
Drawn: J. Grimish

a/MIW - Banana Shire Council  
Designed: J. Grimish

DIS Review - Banana Shire Council  
Certified:   
RPEQ #: 14933



TEYS ROAD, BILOELA  
CULVERT UPGRADE  
TEMPORARY EROSION AND SEDIMENT CONTROL SHEET 2

|       |          |          |       |
|-------|----------|----------|-------|
| Scale | Dwg. No. | Sheet    | Issue |
|       | 1701     | 14 of 14 | B     |