# Shire of Goomalling

Office Address: 32 Quinlan Street, Goomalling
Postal Address: PO Box 118, Goomalling WA 6460
Telephone: (08) 9629 1101 Facsimile: (08) 9629 1017
All communications to be addressed to the Chief Executive Officer

Est. 1895


In reply please quote:

Our Ref : PB23109

24th November 2023

Mr Aaron Lohmann
**** Via Email: Aaron.Lohman@cbh.com.au
**GOOMALLING WA 6460**

Dear Aaron,

Thank-you for your letter regarding the proposal for additions to existing grain handling facilities at the Konnongorring receival site.

I advise that the Council has discussed this matter at its November 2023 Ordinary Meeting and that the following motion was passed;

RESOLUTION: 719
Moved Cr Barratt, seconded Cr Haywood that Council:

Grants development approval to CBH Group for a new rail siding on various land parcels at Konnongorring (outlined in Attachment 11.1.1), subject to the following conditions:

1. This approval shall expire if the development hereby approved has not been substantially commenced within a period of three years from the date hereof, or within any extension of that time (requested in writing prior to the approval expiring) that may be granted by the local government. Where the Development Approval has lapsed no further development is to be carried out.
2. The development hereby approved must be carried out in accordance with the plans and reports submitted with the application, addressing all conditions, or otherwise amended by the local government and shown on the approved plans and these shall not be altered and/or modified without the prior knowledge and written consent of the local government.
3. The Drainage Design Report to be implemented and maintained to the satisfaction of the local government.
4. The applicant/operator to implement dust control measures to the satisfaction of the local government on an on-going basis.
5. Any lighting devices are to be positioned and shielded so as not to cause any direct, reflected or incidental light to encroach beyond the property boundaries, in accordance with Australian Standard AS4282/1997.

6. Within 6 months of the proposed upgrade being completed, the applicant/operator to commission a short term noise monitoring survey to confirm operational noise levels at nearby receivers and to undertake mitigations measures as required to the satisfaction of the local government. Following this, to commission a short term noise monitoring survey if there are any sustained noise complaints received and to undertake mitigations measures (as required) to reduce impacts on nearby receivers to the satisfaction of the local government.

**Advice**

A) The applicant/operator is encouraged to review noise levels through construction.

B) If the applicant is aggrieved by this determination there is a right of review by the State Administrative Tribunal in accordance with the Planning and Development Act 2005 Part 14. An application must be made within 28 days of the determination.

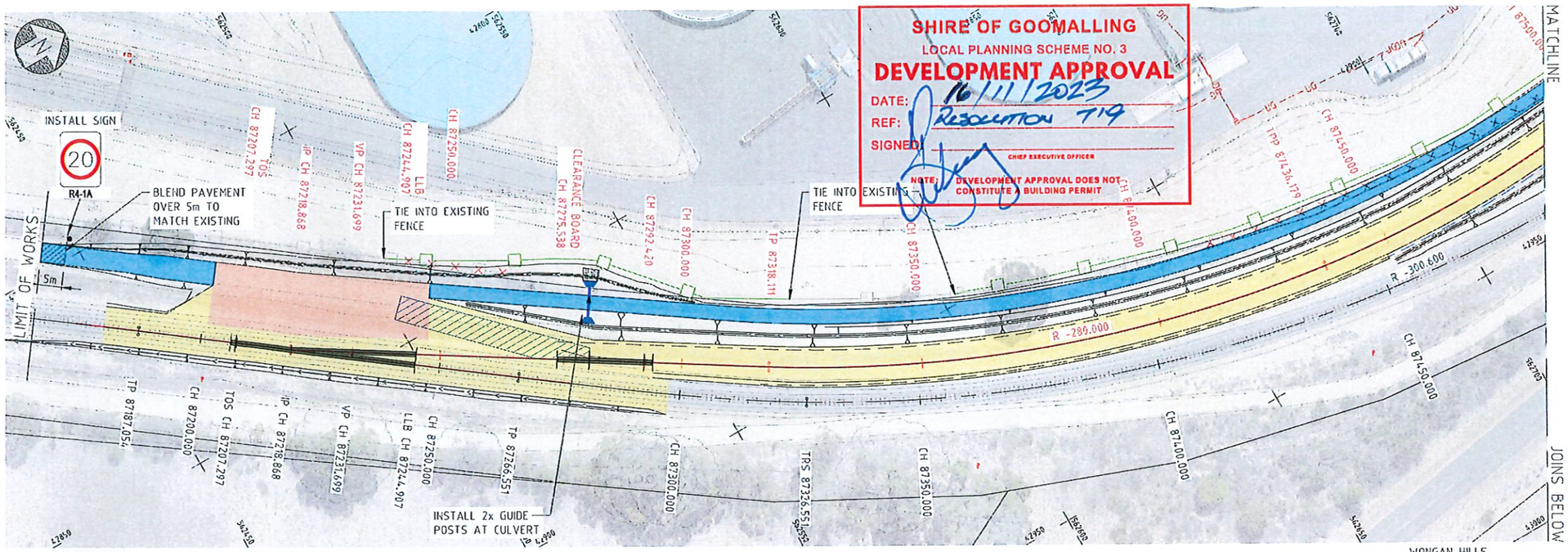
C) The Council has agreed to the Public Works Exemption portion of this Application.

CARRIED: 7/0

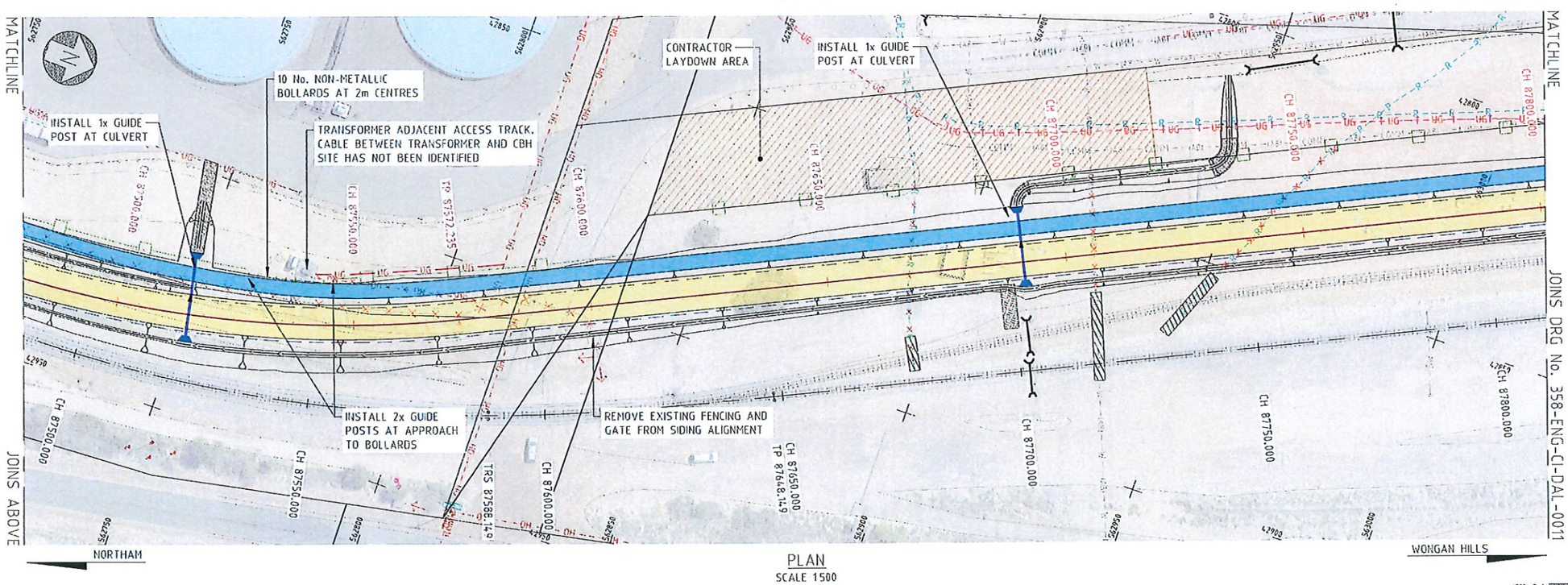
If you have any further queries Aaron, please don't hesitate to contact us again.

Yours faithfully

**PETER BENTLEY**
**CHIEF EXECUTIVE OFFICER**




PLAN
SCALE 1:500




PLAN
SCALE 1500

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- CH 87350.000 — NEW SIDING CHAINAGES
- RAIL TO BE REMOVED
- PROPOSED WATER
- PROPOSED UNDERGROUND POWER
- ELECTRICAL COMMS NOT USED
- ELECTRICAL CABLE OVERHEAD
- ELECTRICAL CABLE UNDERGROUND
- ELECT CABLE UNDERGROUND NOT USED
- STORMWATER NOT USED
- TELSTRA
- WATER RETIC UNDERGROUND
- WATER RETIC NOT USED
- PROPOSED CULVERT, HEADWALLS & CATCHPIT
- EXISTING CULVERT
- PROPOSED DRAINAGE CHANNEL
- CONDUIT/PIPE TO BE SLURRY FILLED
- EXISTING DRAINAGE CHANNEL
- DRAINAGE BUND
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED
- CBH ACCESS ROAD PAVEMENT BLEND
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- PROP 1200mm HIGH STOCK FENCE
- POSITION OF SAFETY LINE

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   CONCRETE SLEEPER ARRANGEMENT:
   50kg RAIL - 154mm
   60kg RAIL - 170mm
   RAIL PAD - 8mm
   LPCS/FDCS - 140mm/215mm

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1500 @ A1
1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E

BG&E Project No. PE22014

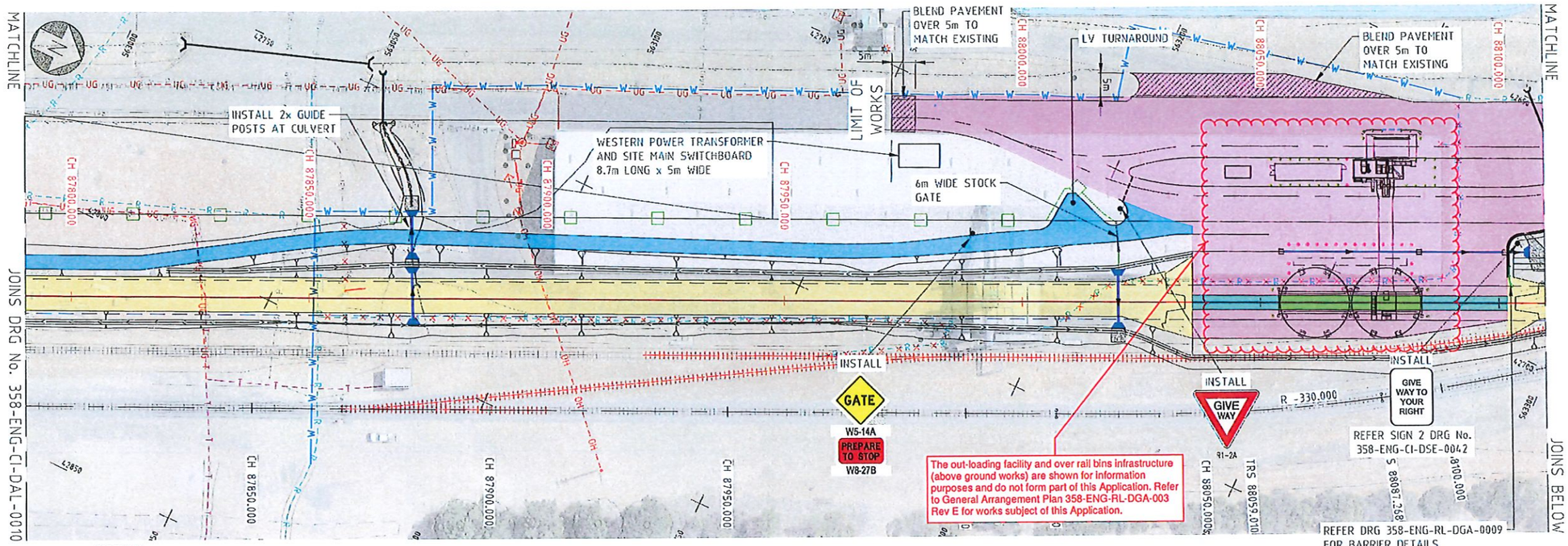
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| B | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

| | | |
|---|---|---|
| SCALE 1500 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SGB | 27.10.23 |
| | DESIGN APPR TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
CIVIL LAYOUT PLAN SHEET 1 OF 2

DRG No 358-ENG-CI-DAL-0010 | SHEET 1 OF 2 | REV. E

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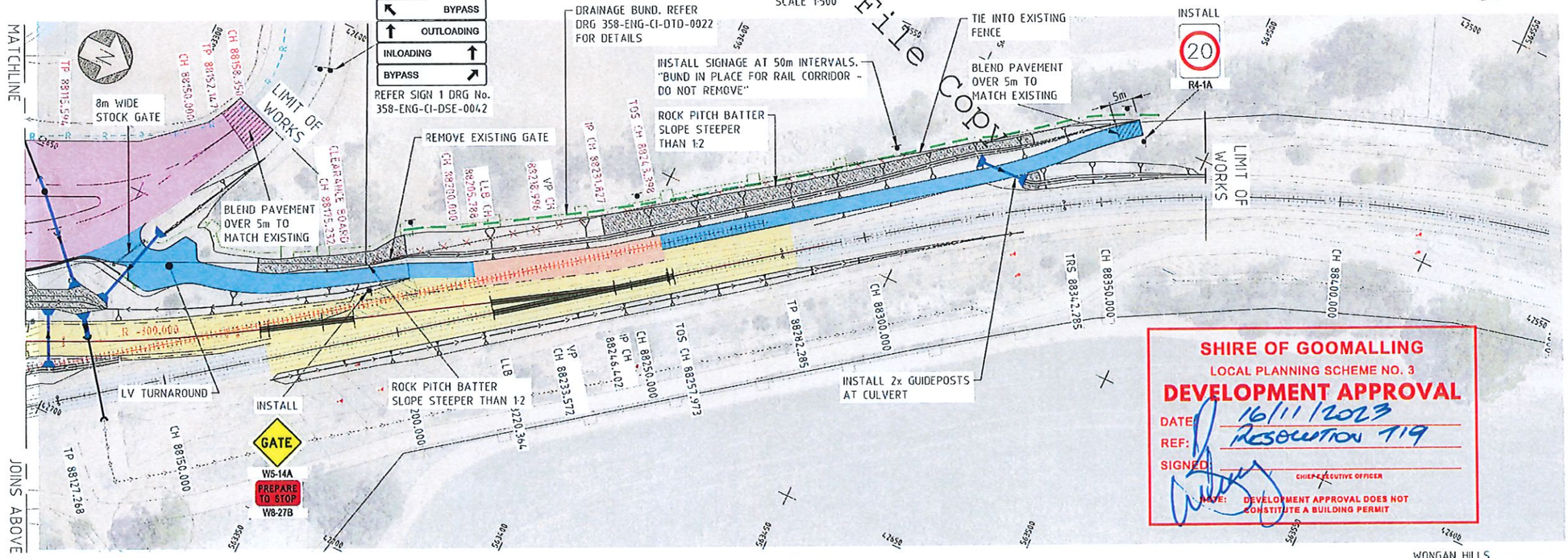


PLAN
SCALE 1:500

## LEGEND

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| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1:500 @ A1 / 1:1000 @ A3: 0 5 10 15 20 25 30 35 40 45 50 m



DO NOT SCALE FROM THIS DRAWING

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ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
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BG&E Project No. PE22014

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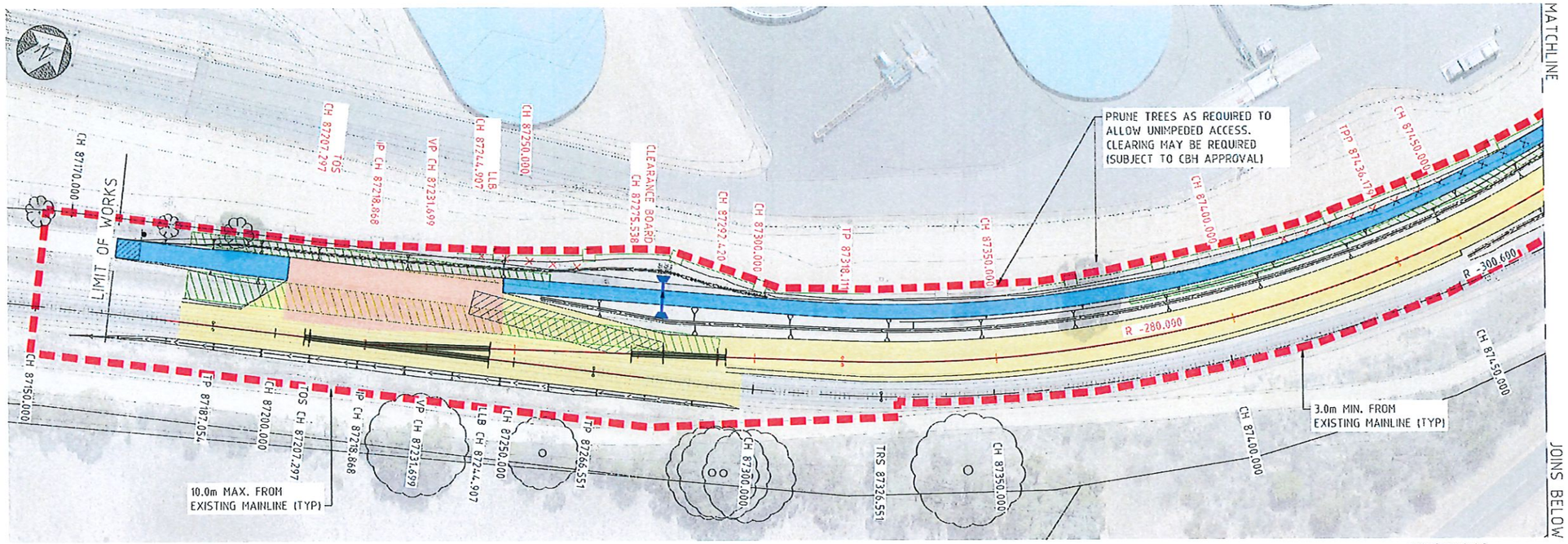
| SCALE 1500 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SGB | 27.10.23 |
| CONTRACT No. CW9951 | DESIGN APPR TB | 27.10.23 |
| | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
CIVIL LAYOUT PLAN SHEET 2 OF 2

DRG No. 358-ENG-CI-DAL-0011 | SHEET 2 OF 2 | REV. E

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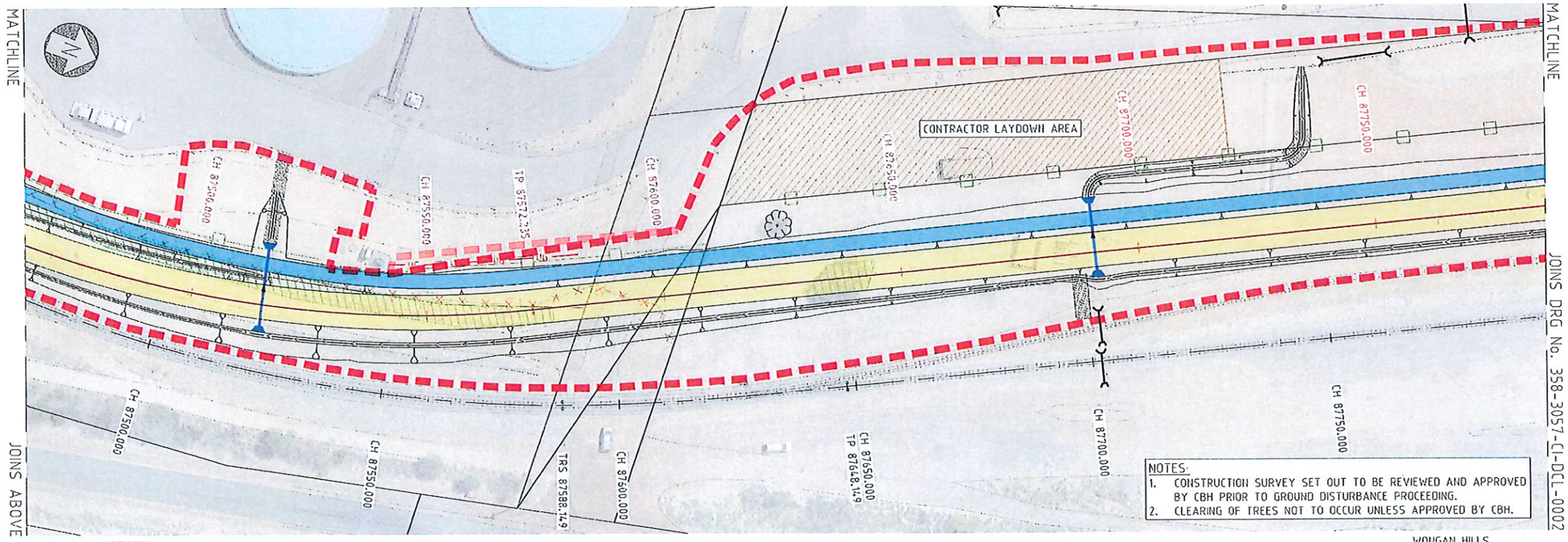


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SCALE 1:500

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**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1500 @ A1
1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m



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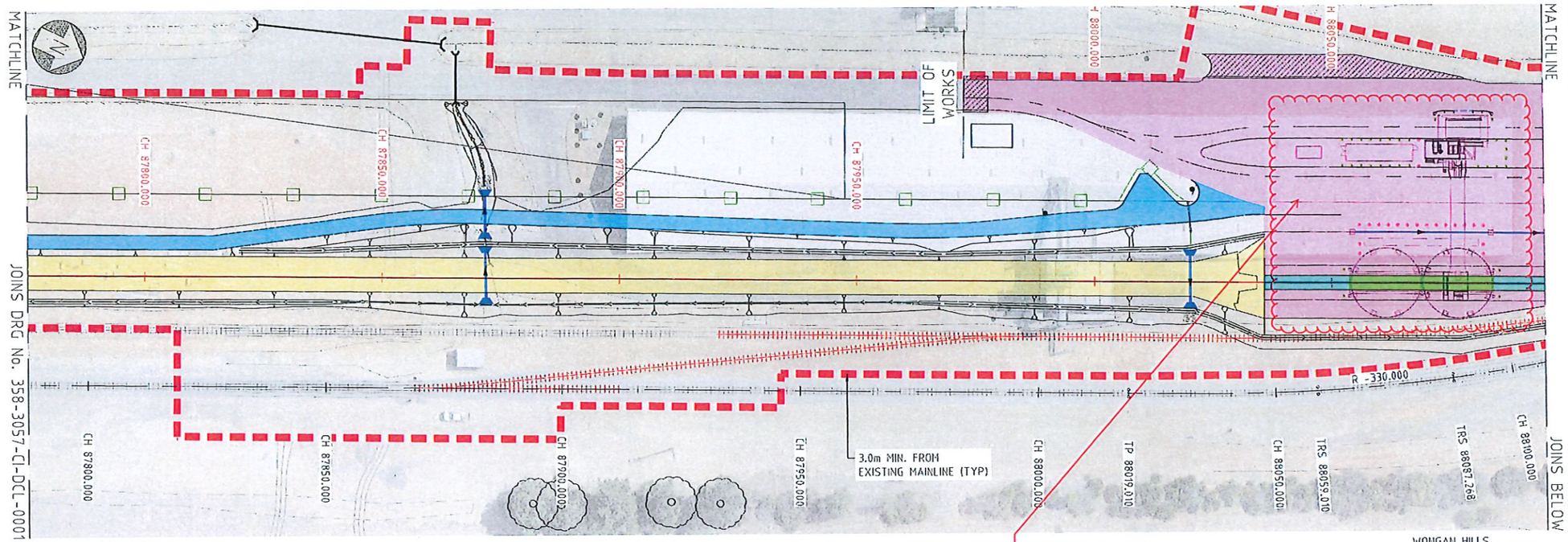
| | | | |
|---|---|---|---|
| SCALE 1500 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SP | 27.10.23 |
| | DESIGN APPR | TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

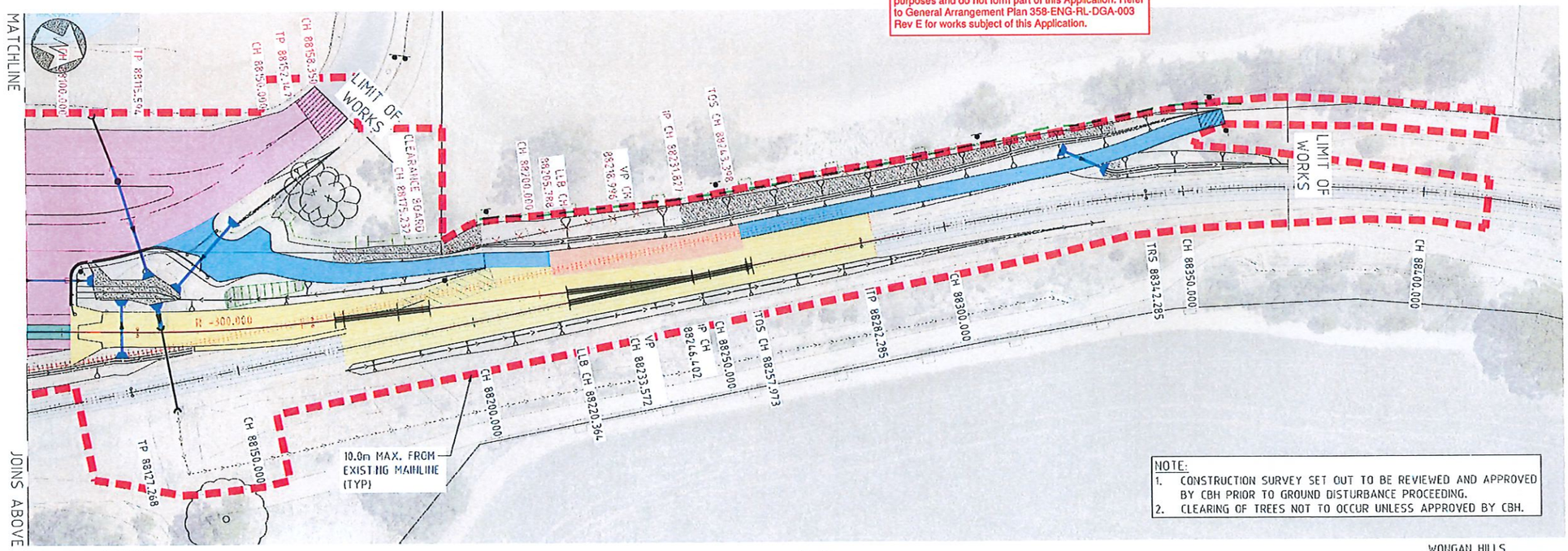
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
CLEARING / GROUND DISTURBANCE PLAN SHEET 1 OF 2

DRG No. 358-ENG-CI-DCL-0003 | SHEET 1 OF 2 | REV. D




PLAN
SCALE 1:500

The out-loading facility and over rail bins infrastructure (above ground works) are shown for information purposes and do not form part of this Application. Refer to General Arrangement Plan 358-ENG-RL-DGA-003 Rev E for works subject of this Application.




PLAN
SCALE 1:500

NOTE:
1. CONSTRUCTION SURVEY SET OUT TO BE REVIEWED AND APPROVED BY CBH PRIOR TO GROUND DISTURBANCE PROCEEDING.
2. CLEARING OF TREES NOT TO OCCUR UNLESS APPROVED BY CBH.

## LEGEND

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## SURVEY

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| HEIGHT DATUM. | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 7.14
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:500 @ A1 / 1:1000 @ A3 — 0 5 10 15 20 25 30 35 40 45 50 m



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CBHGROUP
ABN 29 256 604 947

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BG&E Project No. PE22014

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| REF DRAWING No. | REFERENCE DRAWING TITLE |
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| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
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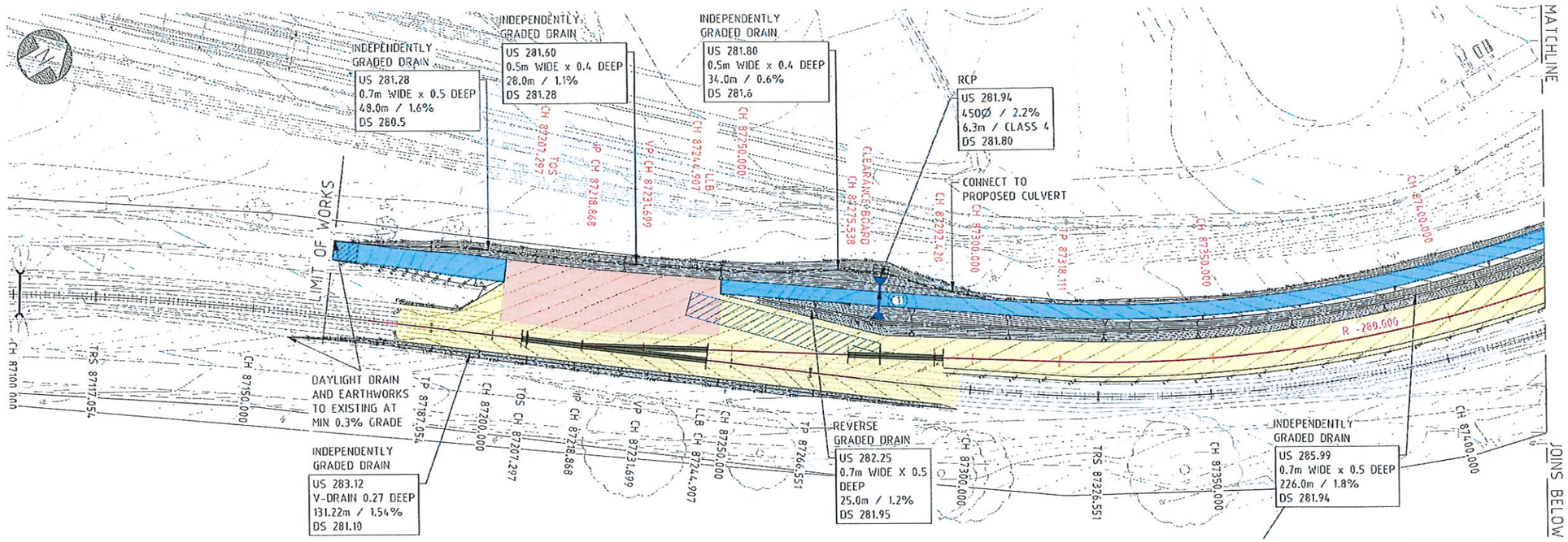
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 23.09.23 | ISSUED FOR 85% CLIENT REVIEW | JK | TB | HB |
| A | 01.05.23 | ISSUED FOR 40% CLIENT REVIEW | JH | DFR | HB |

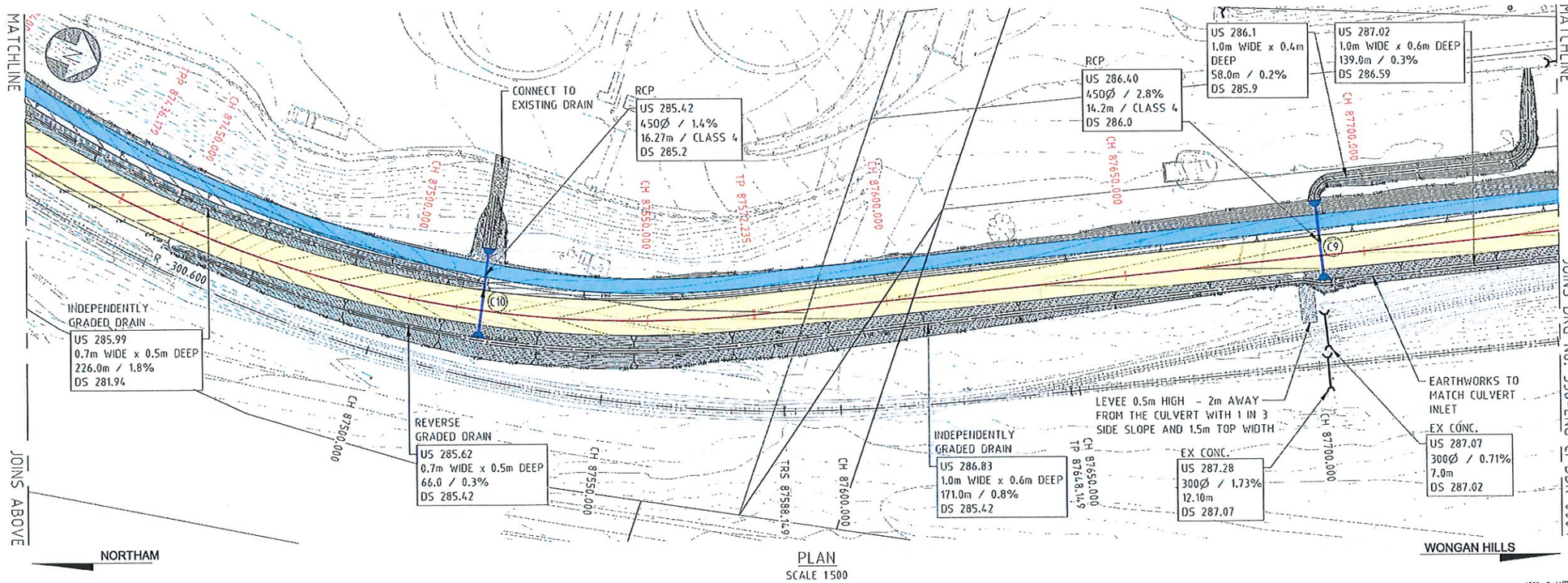
| | | |
|---|---|---|
| SCALE 1500 | DRAWN | AS 27.10.23 |
| SHEET A1 | CHECKED | TB 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SP 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | TB 27.10.23 |
| | PROJECT APPR | HB 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
CLEARING / GROUND DISTURBANCE PLAN SHEET 2 OF 2

DRG No. 358-ENG-CI-DCL-0004 | SHEET 2 OF 2 | REV. D




PLAN
SCALE 1500




PLAN
SCALE 1500

## LEGEND

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- PROPOSED DRAINAGE CHANNEL
- PROPOSED SCOUR PROTECTION
- EXISTING CULVERT
- PROPOSED DRAINAGE PIT
- (P3) DRAINAGE STRUCTURE ID
- KERB
- EXISTING DRAINAGE CHANNEL
- EXIST MINOR CONTOURS (0.1m)
- EXIST MAJOR CONTOURS (0.5m)
- DESIGN MINOR CONTOURS (0.1m)
- 246.5 DESIGN MAJOR CONTOURS (0.5m)
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
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- DRAINAGE BUND

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2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. REFER TO DRG No. 358-ENG-CI-DTD-0023 FOR DRAINAGE SCHEDULE DETAILS.

## SURVEY

| | |
|---|---|
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| SHEET A1 | CHECKED TB | 27.10.23 |
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| CONTRACT No CW9951 | DESIGN APPR TB | 27.10.23 |
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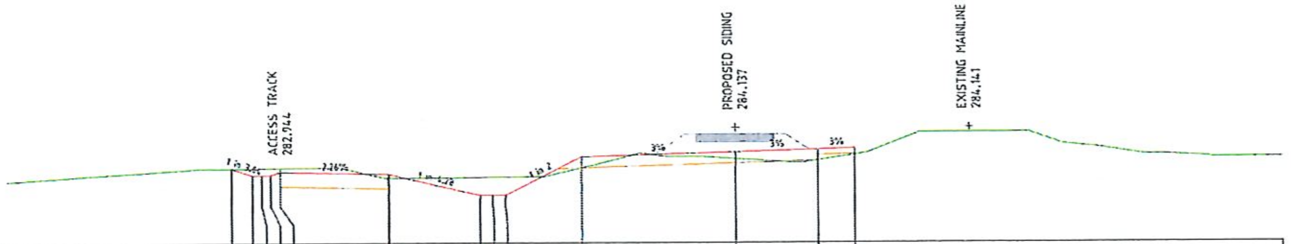
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE PLAN SHEET 1 OF 3

DRG No. 358-ENG-CI-DDR-0003 | SHEET 1 OF 3 | REV. E



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X=42882.142
DATUM 281.000

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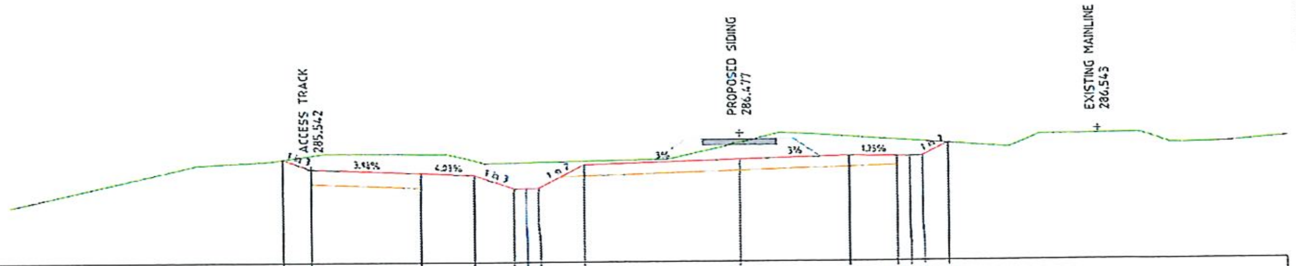
| SUBGRADE SURFACE LEVEL | | | | | 282.744 | 282.477 | | | | 283.036 | 283.164 | 283.246 | 283.431 |
| EXISTING SURFACE LEVEL | 283.044 | 283.043 | 283.049 | 283.051 | 283.053 | 282.774 | 282.788 | 282.791 | 282.794 | 283.040 | 283.284 | 283.244 | 283.394 |
| CUT / FILL DEPTHS | -0.000 | -0.191 | -0.193 | -0.194 | -0.108 | 0.103 | -0.495 | -0.498 | -0.501 | 0.296 | 0.180 | 0.287 | 0.168 |
| OFFSET | -13.867 | -13.298 | -13.047 | -12.796 | -12.535 | -9.532 | -7.036 | -6.686 | -6.336 | -4.250 | 0.000 | 2.261 | 3.261 |

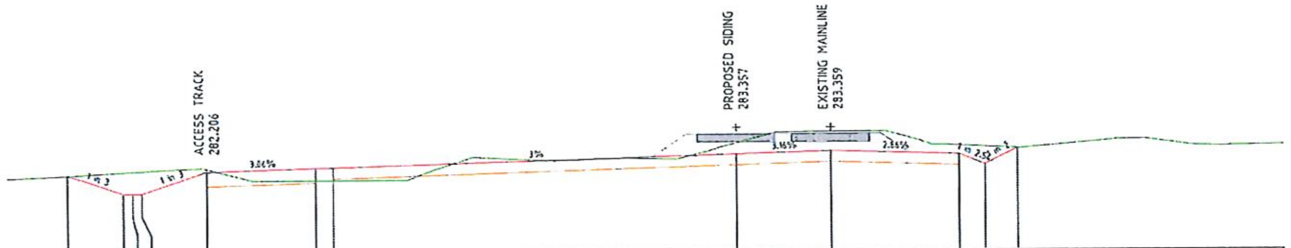
CHAINAGE 87300



Y:562686.109
X:42933.031
DATUM 283.000

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 285.808 | 285.542 | 285.423 | 285.365 | 285.002 | 285.002 | 285.002 | 285.631 | 285.759 | 285.849 | 285.825 | 285.825 | 285.825 | 286.180 |
| SUBGRADE SURFACE LEVEL | | 285.142 | | | | | | 285.331 | 285.459 | 285.549 | 285.589 | | | |
| EXISTING SURFACE LEVEL | 285.808 | 285.920 | 285.947 | 285.764 | 285.704 | 285.710 | 285.716 | 285.737 | 286.225 | 286.374 | 286.280 | 286.255 | 286.231 | 286.180 |
| CUT / FILL DEPTHS | 0.000 | -0.377 | -0.524 | -0.399 | -0.702 | -0.708 | -0.714 | -0.106 | -0.467 | -0.526 | -0.455 | -0.430 | -0.405 | 0.000 |
| OFFSET | -12.540 | -11.744 | -8.743 | -7.297 | -6.209 | -5.859 | -5.509 | -4.250 | 0.000 | 3.000 | 4.334 | 4.684 | 5.034 | 5.744 |

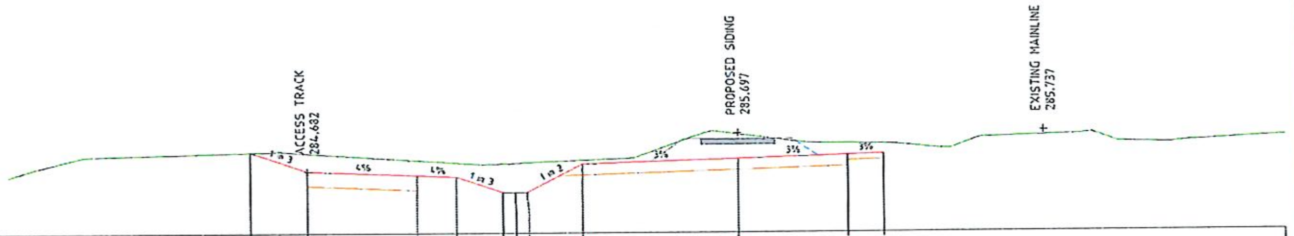
CHAINAGE 87450



Y=562504.383
X=42855.669
DATUM 280.000

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 282.122 | 281.616 | 281.616 | 281.616 | 282.206 | 282.298 | 282.304 | 282.636 | 282.718 | 282.618 | 282.339 | 282.780 |
| SUBGRADE SURFACE LEVEL | | | | | 281.906 | 281.898 | 282.004 | 282.337 | 282.418 | 282.318 | | |
| EXISTING SURFACE LEVEL | 282.122 | 282.205 | 282.219 | 282.232 | 282.283 | 281.965 | 281.965 | 282.949 | 283.245 | 282.857 | 282.826 | 282.780 |
| CUT / FILL DEPTHS | 0.000 | -0.589 | -0.602 | -0.616 | -0.077 | 0.333 | 0.339 | -0.313 | -0.527 | -0.240 | -0.486 | -0.000 |
| OFFSET | -18.349 | -16.831 | -16.581 | -16.331 | -14.562 | -11.560 | -11.072 | 0.000 | 2.594 | 6.106 | 6.814 | 7.695 |

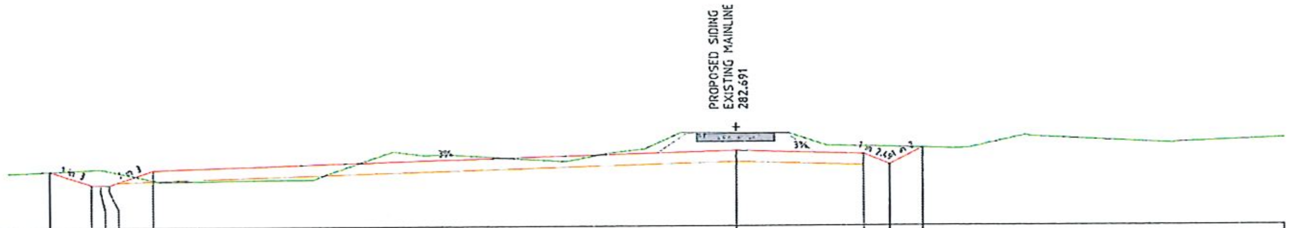
CHAINAGE 87250



Y=562636.943
X=42924.385
DATUM 283.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 285.204 | 284.682 | 284.562 | 284.519 | 284.101 | 284.101 | 284.101 | 284.864 | 284.992 | 285.082 | 285.112 |
| SUBGRADE SURFACE LEVEL | | 284.282 | | | | | | 284.564 | 284.692 | 284.797 | 284.962 |
| EXISTING SURFACE LEVEL | 285.204 | 285.166 | 284.975 | 284.905 | 284.881 | 284.895 | 284.908 | 284.967 | 285.658 | 285.405 | 285.393 |
| CUT / FILL DEPTHS | 0.000 | -0.486 | -0.413 | -0.386 | -0.780 | -0.794 | -0.807 | -0.103 | -0.666 | -0.324 | -0.281 |
| OFFSET | -13.368 | -11.803 | -8.803 | -7.731 | -6.477 | -6.127 | -5.777 | -4.250 | 0.000 | 3.000 | 4.000 |

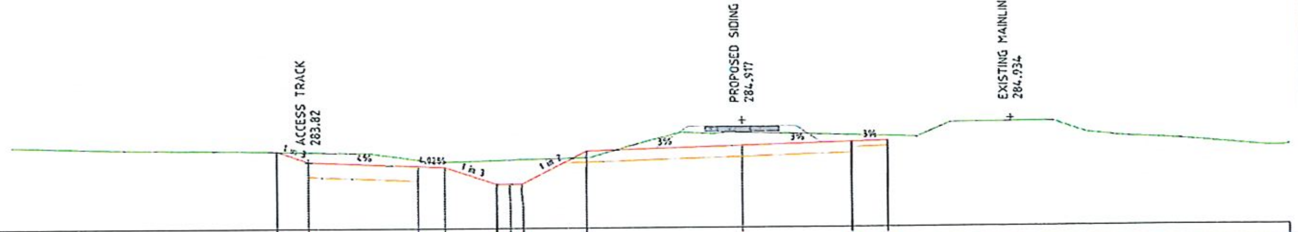
CHAINAGE 87400



Y=562468.698
X=42832.266
DATUM 280.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 281.548 | 281.170 | 281.170 | 281.170 | 281.570 | 282.050 | 281.945 | 281.662 | 282.115 |
| SUBGRADE SURFACE LEVEL | | | | | 281.270 | 281.750 | 281.645 | | |
| EXISTING SURFACE LEVEL | 281.546 | 281.596 | 281.607 | 281.558 | 281.296 | 282.535 | 282.159 | 282.140 | 282.115 |
| CUT / FILL DEPTHS | 0.000 | -0.426 | -0.437 | -0.387 | 0.274 | -0.485 | -0.214 | -0.478 | 0.000 |
| OFFSET | -18.835 | -17.700 | -17.450 | -17.200 | -16.000 | 0.000 | 3.500 | 4.205 | 5.111 |

CHAINAGE 87207.297



Y=562590.119
X=42507.039
DATUM 282.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 284.109 | 283.820 | 283.700 | 283.671 | 283.200 | 283.200 | 283.200 | 284.097 | 284.225 | 284.315 | 284.345 |
| SUBGRADE SURFACE LEVEL | | 283.420 | | | | | | 283.797 | 283.925 | 284.030 | 284.195 |
| EXISTING SURFACE LEVEL | 284.109 | 284.094 | 283.878 | 283.822 | 283.858 | 283.867 | 283.876 | 283.930 | 284.592 | 284.504 | [illegible] |
| CUT / FILL DEPTHS | 0.000 | -0.274 | -0.178 | -0.151 | -0.658 | -0.667 | -0.675 | 0.168 | -0.367 | -0.189 | -0.099 |
| OFFSET | -12.745 | -11.877 | -8.877 | -8.157 | -6.744 | -6.394 | -6.044 | -4.250 | 0.000 | 3.000 | 4.000 |

CHAINAGE 87350

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: Resolution 7/19
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m

DO NOT SCALE FROM THIS DRAWING

CBH GROUP
ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E

BG&E Project No. PE22014

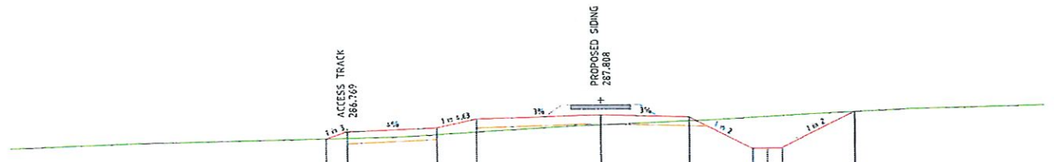
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.03.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | | | |
|---|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 | |
| SHEET A1 | CHECKED | TB | 27.10.23 | |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 | |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 | |
| | PROJECT APPR | MB | 27.10.23 | |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 1 OF 4

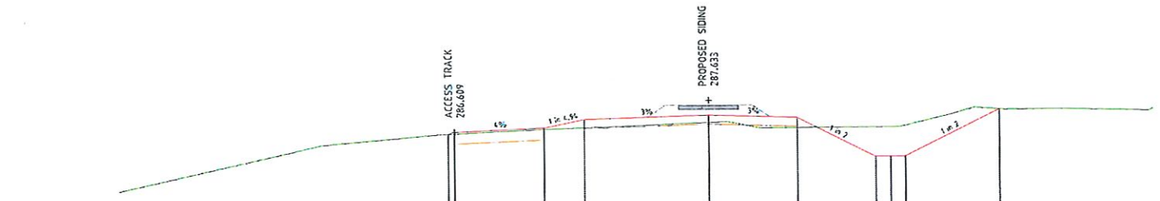
DWG No 358-ENG-CI-DSE-0025
SHEET 1 OF 4
REV. E




Y=562830.390
X=42960.323
DATUM 285.000

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.536 | 286.760 | 286.899 | 287.181 | 287.308 | 287.218 | 286.147 | 286.147 | 286.147 | 287.361 |
| SUBGRADE SURFACE LEVEL | | 286.347 | 286.499 | 286.881 | 287.088 | 286.918 | | | | |
| EXISTING SURFACE LEVEL | 286.536 | 286.559 | 286.661 | 286.742 | 286.971 | 287.085 | 287.187 | 287.213 | 287.259 | 287.361 |
| CUT / FILL DEPTHS | 0.000 | 0.219 | 0.228 | 0.438 | 0.337 | 0.133 | -1.041 | -1.067 | -1.093 | 0.000 |
| OFFSET | -9.300 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 5.143 | 5.643 | 6.143 | 8.573 |

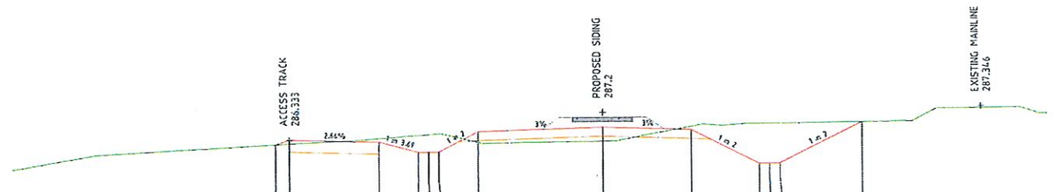
CHAINAGE 87600




Y=562784.554
X=42920.246
DATUM 283.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.540 | 286.603 | 286.729 | 287.086 | 287.133 | 287.043 | 285.716 | 285.716 | 285.716 | 287.289 |
| SUBGRADE SURFACE LEVEL | | 286.279 | | | | | | | | |
| EXISTING SURFACE LEVEL | 286.540 | 286.553 | 286.683 | 286.732 | 286.892 | 286.783 | 286.713 | 286.714 | 286.757 | 287.289 |
| CUT / FILL DEPTHS | 0.000 | 0.059 | 0.046 | 0.274 | 0.241 | 0.340 | -0.996 | -0.998 | -1.041 | 0.000 |
| OFFSET | -8.822 | -8.616 | -5.616 | -4.250 | 0.000 | 3.000 | 5.653 | 6.153 | 6.653 | 9.799 |

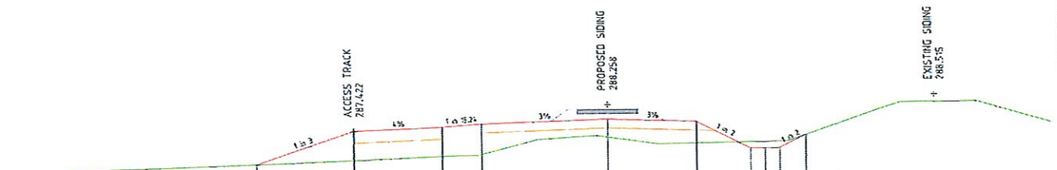
CHAINAGE 87550




Y=562736.002
X=42931.810
DATUM 284.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.170 | 286.333 | 286.453 | 285.980 | 286.573 | 286.700 | 286.610 | 285.464 | 285.464 | 286.835 |
| SUBGRADE SURFACE LEVEL | | 285.933 | | 285.980 | 286.373 | 286.400 | 286.277 | 285.464 | 285.464 | |
| EXISTING SURFACE LEVEL | 286.178 | 286.203 | 286.365 | 286.464 | 286.271 | 286.249 | 286.727 | 286.862 | 286.862 | 286.835 |
| CUT / FILL DEPTHS | 0.000 | 0.130 | -0.112 | -0.564 | 0.352 | 0.461 | -0.112 | -1.338 | -1.398 | 0.000 |
| OFFSET | -11.603 | -10.600 | -7.598 | -6.295 | -4.250 | 0.000 | 3.000 | 5.293 | 5.643 | 8.736 |

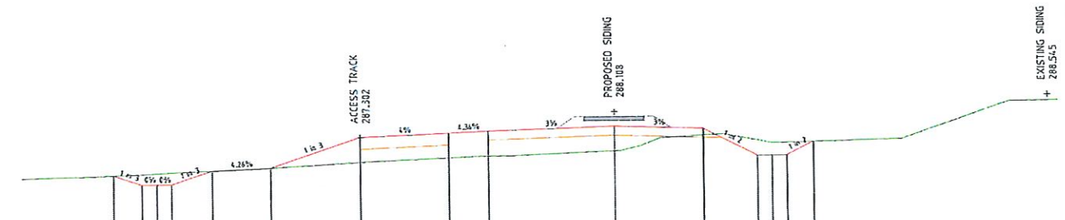
CHAINAGE 87500




Y=562966.696
X=42837.708
DATUM 285.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.323 | 287.422 | 287.542 | 287.631 | 287.758 | 287.668 | 286.753 | 286.753 | 286.753 | 287.201 |
| SUBGRADE SURFACE LEVEL | | 287.022 | 287.142 | 287.231 | 287.458 | 287.368 | | | | |
| EXISTING SURFACE LEVEL | 286.423 | 286.438 | 286.555 | 286.615 | 287.158 | 286.948 | 286.949 | 286.977 | 286.994 | 287.201 |
| CUT / FILL DEPTHS | 0.000 | 0.984 | 0.986 | 1.016 | 0.300 | 0.728 | -0.216 | -0.224 | -0.231 | 0.000 |
| OFFSET | -11.896 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.830 | 5.330 | 5.830 | 6.726 |

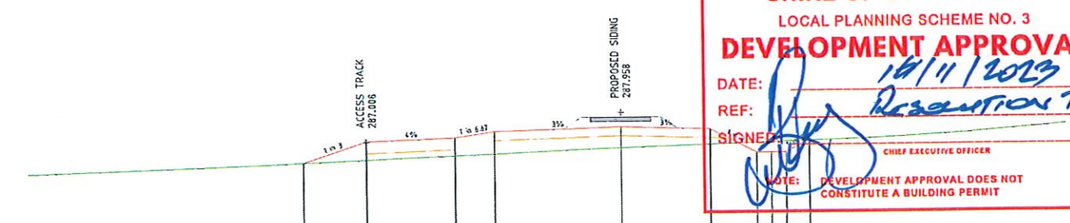
CHAINAGE 87750




Y=562921.261
X=42858.580
DATUM 284.000

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.062 | 285.749 | 285.749 | 285.714 | 286.207 | 286.291 | 287.302 | 287.422 | 287.481 | 287.608 | 287.518 | 286.598 | 286.598 | 286.598 | 287.047 |
| SUBGRADE SURFACE LEVEL | | | | | | | 286.402 | 287.022 | 287.181 | 287.308 | 287.218 | | | | |
| EXISTING SURFACE LEVEL | | 286.063 | 286.078 | 286.130 | 286.145 | 286.207 | 286.447 | 286.595 | 286.642 | 286.791 | 287.297 | 287.115 | 287.078 | 287.029 | 287.047 |
| CUT / FILL DEPTHS | | 0.001 | -0.349 | -0.371 | -0.376 | 0.000 | 0.034 | 0.027 | 0.039 | 0.017 | 0.221 | -0.518 | -0.421 | -0.431 | 0.000 |
| OFFSET | | -16.933 | -15.994 | -15.494 | -14.994 | -13.621 | -11.631 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.841 | 5.341 | 5.841 | 6.739 |

CHAINAGE 87700




Y=562875.825
X=42839.451
DATUM 284.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.382 | 287.008 | 287.128 | 287.331 | 287.458 | 287.268 | 286.572 | 286.572 | 286.572 | 286.961 |
| SUBGRADE SURFACE LEVEL | | 286.082 | 286.128 | 287.031 | 287.158 | 287.068 | | | | |
| EXISTING SURFACE LEVEL | 286.382 | 286.397 | 286.526 | 286.582 | 286.764 | 286.859 | 286.965 | 286.971 | 286.937 | 286.961 |
| CUT / FILL DEPTHS | 0.000 | 0.611 | 0.602 | 0.748 | 0.694 | 0.590 | -0.333 | -0.349 | -0.364 | 0.000 |
| OFFSET | -10.719 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.592 | 5.092 | 5.592 | 6.370 |

CHAINAGE 87650

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7.1.9
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/+61 8 6354 3300 E/info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

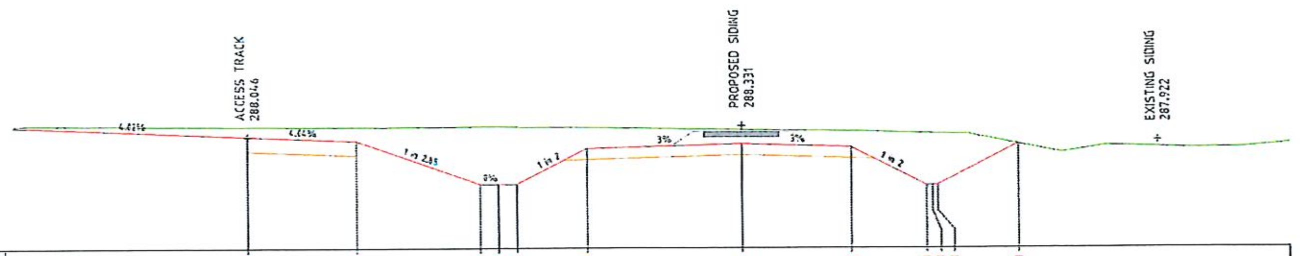
| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 95% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | JM | MB |
| B | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JM | DFR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | |
|---|---|---|
| SCALE 1:100 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR JM | 27.10.23 |
| | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 2 OF 4

DRG No. 358-ENG-CI-DSE-0026 | SHEET 2 OF 4 | REV. E

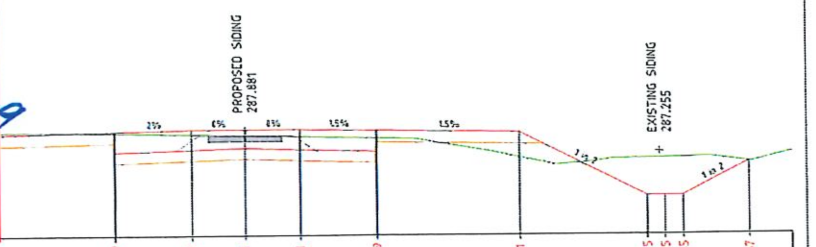
**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT



Y=563103.002
X=42775.093
DATUM 285.000

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 288.046 | 287.925 | 286.734 | 286.734 | 286.734 | 287.703 | 287.831 | 287.741 | 286.703 | 286.703 | 286.703 | 287.620 |
| SUBGRADE SURFACE LEVEL | 287.646 | 287.525 | | | | 287.403 | 287.531 | 287.441 | | | | |
| EXISTING SURFACE LEVEL | 288.318 | 288.300 | 288.313 | 288.311 | 288.309 | 288.284 | 288.223 | 288.179 | 288.127 | 288.123 | 288.119 | 287.620 |
| CUT / FILL DEPTHS | -0.272 | -0.375 | -1.579 | -1.577 | -1.575 | -0.581 | -0.392 | -0.439 | -1.424 | -1.420 | -1.416 | 0.000 |
| OFFSET | -13.579 | -10.578 | -7.188 | -6.688 | -6.188 | -4.250 | 0.000 | 3.000 | 5.075 | 5.225 | 5.375 | 7.610 |

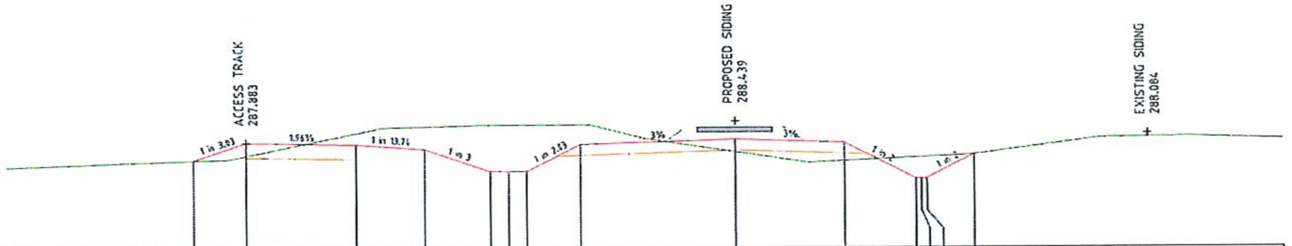
CHAINAGE 87900



Y=563239.308
X=42712.437
DATUM 285.000

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.816 | 287.762 | 287.762 | 287.698 | 287.839 | 287.881 | 287.881 | 287.881 | 287.849 | 287.791 | 286.045 | 286.045 | 286.045 | 286.957 |
| SUBGRADE SURFACE LEVEL | 287.496 | 287.362 | 287.362 | 287.378 | 287.519 | 287.536 | 287.581 | 287.536 | 287.529 | 287.471 | | | | |
| EXISTING SURFACE LEVEL | 287.847 | 287.848 | 287.848 | 287.840 | 287.802 | 287.763 | 287.736 | 287.698 | 287.640 | 287.101 | 287.066 | 287.077 | 287.088 | 286.957 |
| CUT / FILL DEPTHS | -0.030 | -0.086 | -0.086 | -0.142 | 0.037 | 0.117 | 0.144 | 0.183 | 0.209 | 0.690 | -1.021 | -1.032 | -1.043 | 0.000 |
| OFFSET | -17.201 | -14.201 | -14.200 | -10.630 | -3.605 | -1.500 | 0.000 | 1.500 | 3.605 | 7.500 | 10.992 | 11.492 | 11.992 | 13.816 |

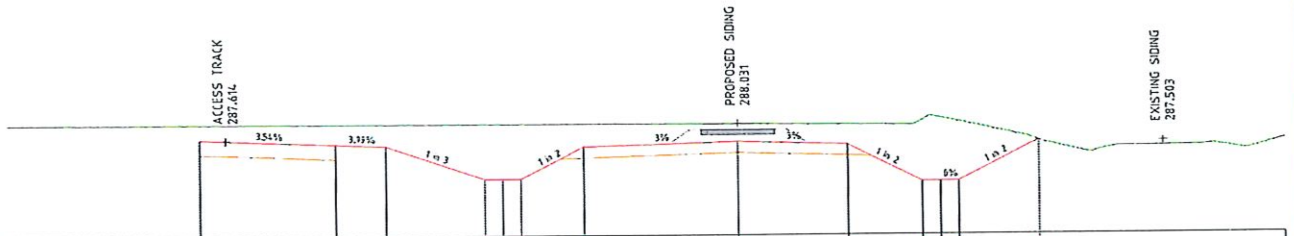
CHAINAGE 88050



Y=563057.567
X=42795.964
DATUM 285.000

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.406 | 287.883 | 287.823 | 287.687 | 287.085 | 287.085 | 287.085 | 287.812 | 287.939 | 287.849 | 286.871 | 286.871 | 286.871 | 287.527 |
| SUBGRADE SURFACE LEVEL | | | 287.423 | | | | | 287.512 | 287.639 | 287.549 | | | | |
| EXISTING SURFACE LEVEL | 287.406 | 287.528 | 288.132 | 288.305 | 288.346 | 288.346 | 288.345 | 288.344 | 287.605 | 287.354 | 287.446 | 287.453 | 287.460 | 287.527 |
| CUT / FILL DEPTHS | 0.000 | 0.355 | -0.309 | -0.619 | -1.261 | -1.261 | -1.261 | -0.532 | 0.334 | 0.495 | -0.575 | -0.582 | -0.589 | 0.000 |
| OFFSET | -14.876 | -13.431 | -10.411 | -8.533 | -6.727 | -6.227 | -5.727 | -4.250 | 0.000 | 3.000 | 4.956 | 5.106 | 5.256 | 6.568 |

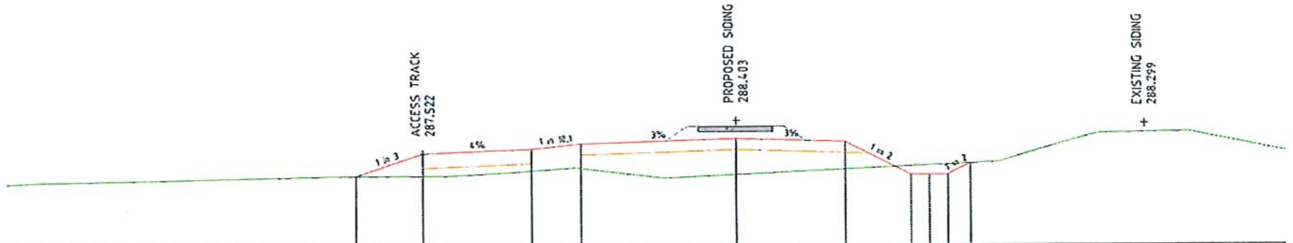
CHAINAGE 87850



Y=563193.873
X=42733.349
DATUM 285.000

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.624 | 287.493 | 287.439 | 286.535 | 286.535 | 286.535 | 287.403 | 287.531 | 287.441 | 286.430 | 286.430 | 286.430 | 287.531 |
| SUBGRADE SURFACE LEVEL | 287.224 | 287.093 | | | | | 287.103 | 287.231 | 287.141 | | | | |
| EXISTING SURFACE LEVEL | 288.039 | 288.035 | 288.034 | 288.032 | 288.032 | 288.031 | 288.029 | 288.019 | 287.988 | 288.076 | 288.150 | 288.053 | 287.531 |
| CUT / FILL DEPTHS | -0.414 | -0.542 | -0.596 | -1.497 | -1.497 | -1.497 | -0.626 | -0.488 | -0.547 | -1.646 | -1.720 | -1.623 | 0.000 |
| OFFSET | -14.778 | -11.068 | -9.699 | -6.987 | -6.487 | -5.987 | -4.250 | 0.000 | 3.000 | 5.022 | 5.522 | 6.022 | 8.226 |

CHAINAGE 88000



Y=563012.131
X=42816.836
DATUM 285.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.913 | 287.522 | 287.642 | 287.776 | 287.903 | 287.813 | 286.908 | 286.908 | 286.908 | 287.223 |
| SUBGRADE SURFACE LEVEL | | 287.122 | 287.242 | 287.476 | 287.603 | 287.513 | | | | |
| EXISTING SURFACE LEVEL | 286.913 | 286.911 | 287.046 | 287.110 | 286.930 | 287.066 | 287.148 | 287.170 | 287.193 | 287.223 |
| CUT / FILL DEPTHS | -0.000 | 0.611 | 0.596 | 0.665 | 0.973 | 0.747 | -0.240 | -0.262 | -0.285 | 0.000 |
| OFFSET | -10.426 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.810 | 5.310 | 5.810 | 6.440 |

CHAINAGE 87800

Y=563148.437
X=42754.221
DATUM 285.000

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.756 | 287.636 | 287.595 | 287.001 | 287.001 | 287.001 | 287.553 | 287.681 | 287.591 | 286.863 | 286.863 | 286.863 | 287.866 |
| SUBGRADE SURFACE LEVEL | 287.356 | 287.236 | | | | | 287.253 | 287.381 | 287.291 | | | | |
| EXISTING SURFACE LEVEL | 288.147 | 288.143 | 288.142 | 288.137 | 288.136 | 288.135 | 288.145 | 288.089 | 288.030 | 288.001 | 287.998 | 287.995 | 287.866 |
| CUT / FILL DEPTHS | -0.391 | -0.507 | -0.547 | -1.137 | -1.135 | -1.134 | -0.591 | -0.408 | -0.439 | -1.138 | -1.135 | -1.132 | 0.000 |
| OFFSET | -12.165 | -9.163 | -8.137 | -6.355 | -5.855 | -5.355 | -4.250 | 0.000 | 3.000 | 4.456 | 4.606 | 4.756 | 6.763 |

CHAINAGE 87950

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m

CBH GROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E
BG&E Project No. PE22014

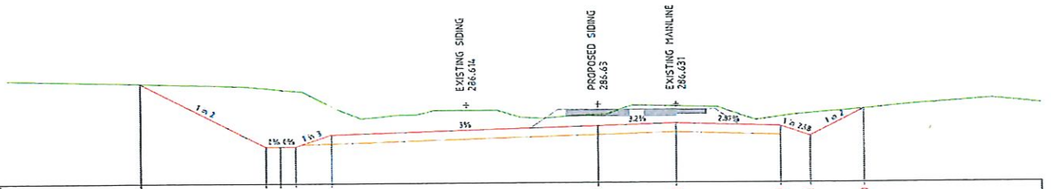
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | JH | HB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | HB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | HB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 3 OF 4

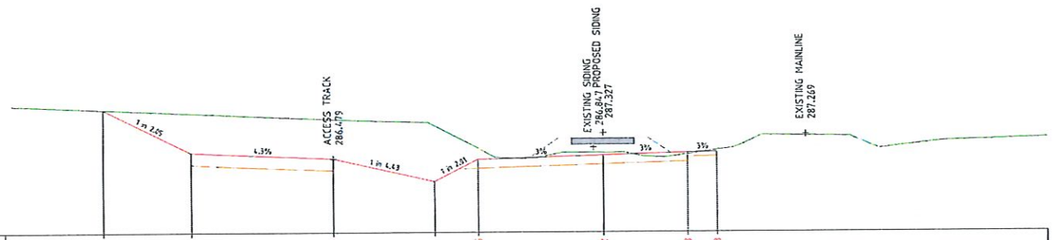
DRG No 358-ENG-CI-DSE-0027
SHEET 3 OF 4
REV. D




Y=563371.653
X=42642.742
DATUM 284.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.370 | 285.234 | 285.234 | 285.234 | 285.634 | 285.705 | 285.990 | 285.889 | 285.553 | 286.440 |
| SUBGRADE SURFACE LEVEL | | | | | 285.334 | 285.605 | 285.690 | 285.589 | | |
| EXISTING SURFACE LEVEL | 287.370 | 287.205 | 287.157 | 287.109 | 286.587 | 286.285 | 286.568 | 286.207 | 286.317 | 286.440 |
| CUT / FILL DEPTHS | 0.000 | -1.971 | -1.923 | -1.875 | -0.953 | -0.380 | -0.578 | -0.318 | -0.765 | 0.000 |
| OFFSET | -15.521 | -11.248 | -10.748 | -10.248 | -7.048 | 0.000 | 2.652 | 6.164 | 7.168 | 8.984 |

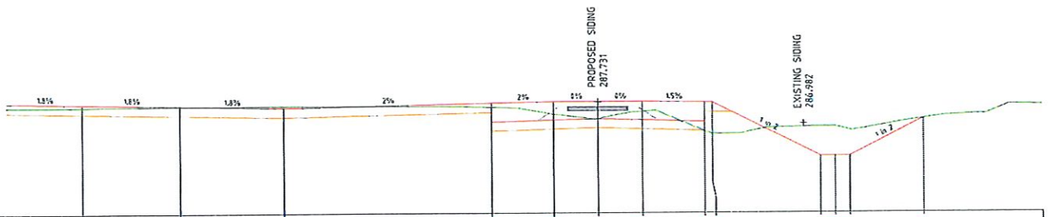
CHAINAGE 88200




Y=563329.287
X=42668.975
DATUM 284.000

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 288.143 | 286.687 | 286.480 | 285.707 | 286.445 | 286.572 | 286.658 | 286.688 |
| SUBGRADE SURFACE LEVEL | | 286.287 | | | 286.145 | 286.272 | 286.273 | 286.538 |
| EXISTING SURFACE LEVEL | 288.143 | 288.011 | 287.799 | 287.593 | 286.829 | 286.664 | 286.685 | 286.751 |
| CUT / FILL DEPTHS | 0.000 | -1.324 | -1.319 | -1.886 | -0.384 | -0.091 | 0.052 | -0.063 |
| OFFSET | -16.950 | -13.963 | -9.155 | -5.734 | -4.250 | 0.000 | 2.847 | 3.847 |

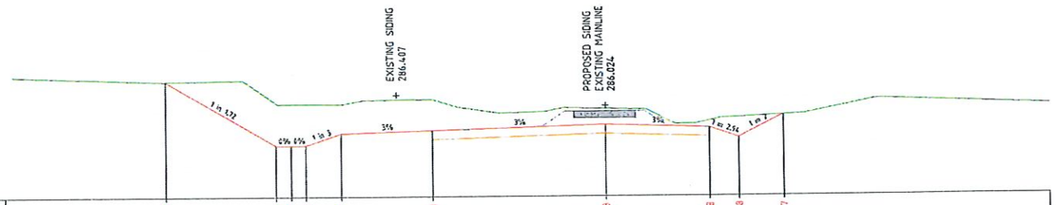
CHAINAGE 88150




Y=563284.743
X=42691.606
DATUM 284.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.671 | 287.611 | 287.548 | 287.489 | 287.731 | 287.731 | 287.731 | 287.699 | 287.695 | 285.886 | 285.886 | 285.886 | 287.139 |
| SUBGRADE SURFACE LEVEL | 287.351 | 287.291 | 287.228 | 287.169 | 286.910 | 286.855 | 286.910 | 287.279 | 287.275 | | | | |
| EXISTING SURFACE LEVEL | 287.582 | 287.600 | 287.600 | 287.554 | 287.316 | 287.301 | 287.396 | 286.739 | 285.659 | 286.877 | 286.877 | 286.754 | 287.139 |
| CUT / FILL DEPTHS | 0.089 | 0.012 | -0.052 | 0.135 | 0.415 | 0.519 | 0.335 | 0.960 | 1.045 | -0.991 | -0.991 | -0.868 | 0.000 |
| OFFSET | -17.477 | -14.149 | -10.630 | -3.605 | -1.500 | 0.000 | 1.500 | 3.685 | 3.872 | 7.491 | 7.991 | 8.491 | 10.997 |

CHAINAGE 88100




Y=563408.256
X=42619.170
DATUM 283.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.875 | 284.715 | 284.715 | 284.715 | 285.115 | 285.780 | 285.383 | 285.278 | 284.938 | 285.697 |
| SUBGRADE SURFACE LEVEL | | | | | | 284.980 | 285.583 | 284.978 | | |
| EXISTING SURFACE LEVEL | 286.875 | 286.141 | 286.103 | 286.101 | 286.099 | 286.265 | 285.930 | 285.512 | 285.475 | 285.697 |
| CUT / FILL DEPTHS | 0.000 | -1.426 | -1.386 | -1.386 | -0.983 | -1.052 | -0.547 | -0.232 | -0.496 | 0.000 |
| OFFSET | -14.834 | -11.130 | -10.630 | -10.130 | -8.930 | -5.830 | 0.000 | 3.500 | 4.500 | 6.018 |

CHAINAGE 88243.398

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 119
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1100 @ A1
1200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m



CBHGROUP
ABN 29 256 604 947

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P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

BG&E

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

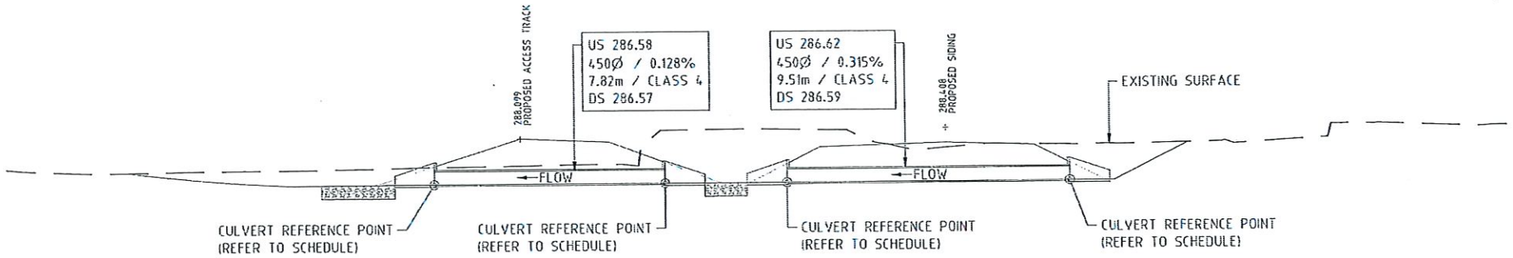
| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APP'D |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 4 OF 4

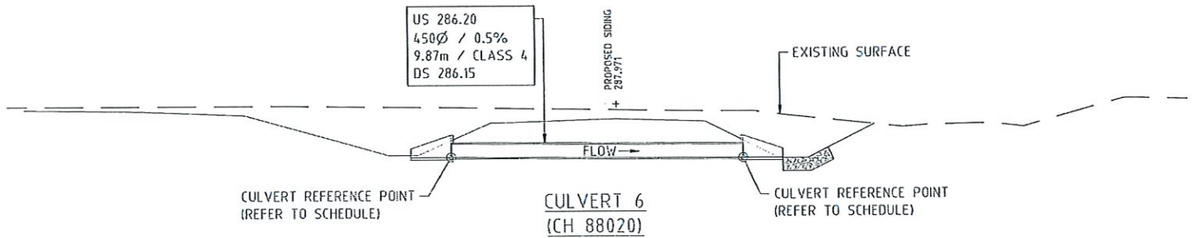
DRG No. 358-ENG-CI-DSE-0028 | SHEET 4 OF 4 | REV. D

NOTES:
1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-CI-DTD-0023 FOR DRAINAGE SCHEDULE DETAILS.

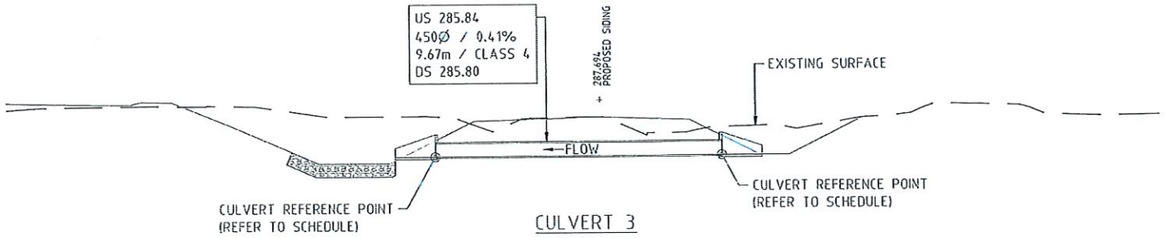



CULVERT 8
(CH 87872)
SCALE 1:100

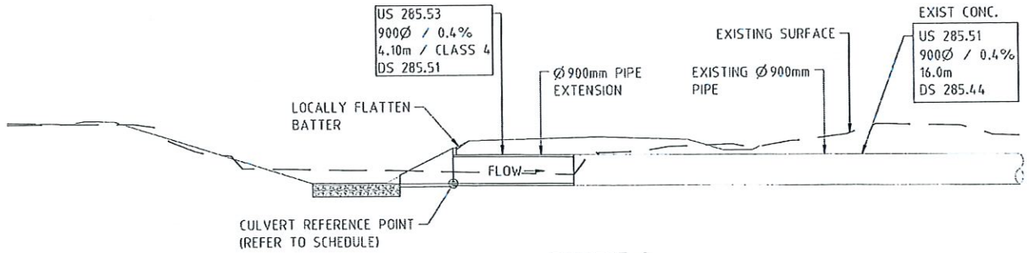
CULVERT 7
(CH 87872)
SCALE 1:100




CULVERT 6
(CH 88020)
SCALE 1:100




CULVERT 3
(CH 88115)
SCALE 100




CULVERT 2
(CH 88123)
SCALE 1:100

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/+61 8 6364 3300 E/info@bgeng.com
bgeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|---|---|
| | | D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| | | A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | JH | MB |

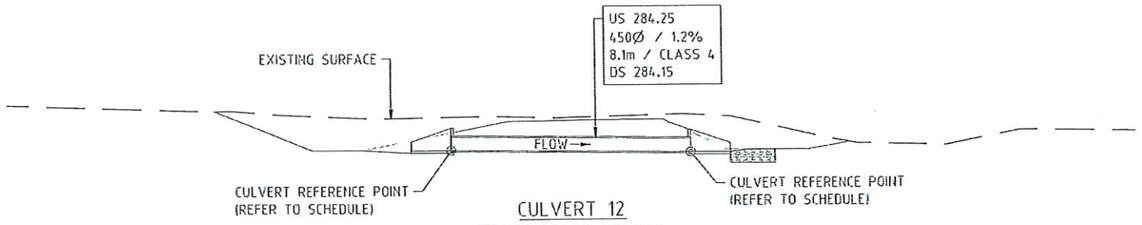
| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SGB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | TB | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 1 OF 4

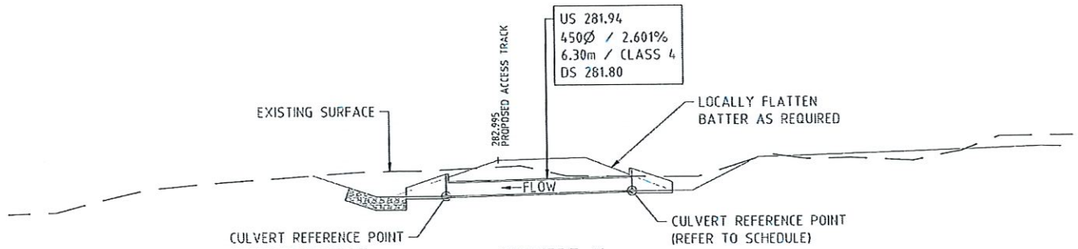
DRG No. 358-ENG-CI-DTD-0005 | SHEET 1 OF 4 | REV. D

NOTES:

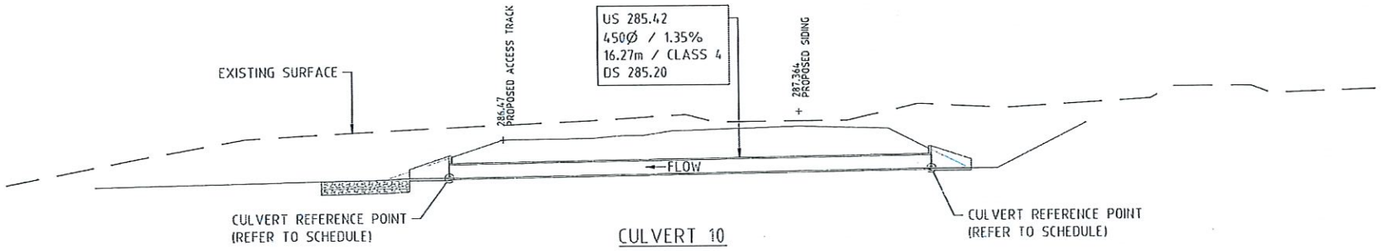
1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-CI-DTD-0023 FOR DRAINAGE SCHEDULE DETAILS.



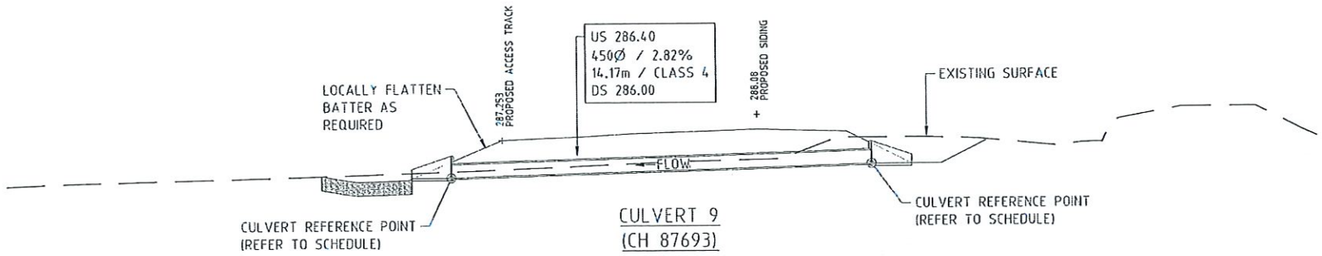

CULVERT 12
(MAINLINE CH 88328)
SCALE 1:100




CULVERT 11
(CH 87280)
SCALE 1:100




CULVERT 10
(CH 87517)
SCALE 1:100




CULVERT 9
(CH 87693)
SCALE 1:100

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: Resolution 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m



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CBHGROUP
ABN 29 256 604 947


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556 Wellington St, Perth WA 6000
P/+61 8 6364 3300 E/info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014


| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

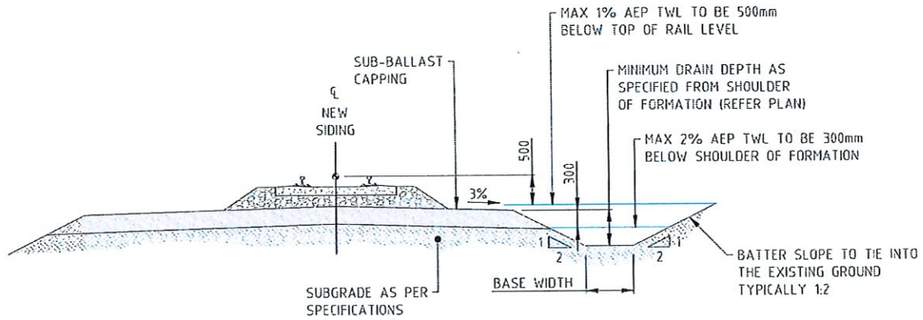
| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | HB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | JH | HB |

| | | |
|---|---|---|
| SCALE 1:100 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR HB | 27.10.23 |

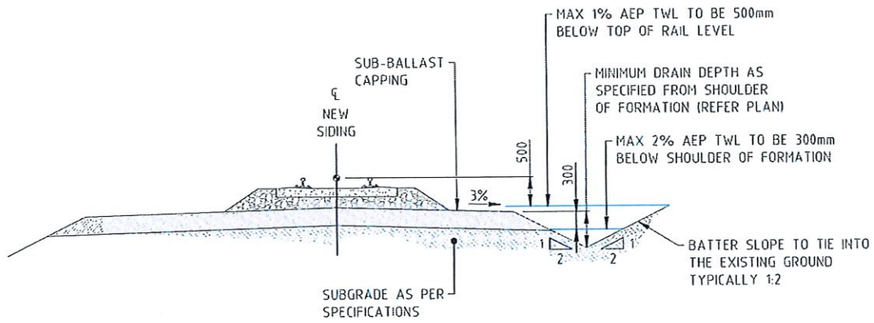
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 2 OF 4

DRG No. 358-ENG-CI-DTD-0006 | SHEET 2 OF 4 | REV. D

NOTE
ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.




TYPICAL SECTION OF TRAPEZOIDAL DRAIN
SCALE 1:50




TYPICAL SECTION OF V-DRAIN
SCALE 1:50

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 15 November2023
REF: Resolution 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1 / 1:100 @ A3 — 0 1 2 3 4 5 m


DO NOT SCALE FROM THIS DRAWING

CBHGROUP ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
P/ +61 8 6354 3300 E/ info@bgeng.com
bgeng.com—
BG&E
BG&E Project No. PE22014

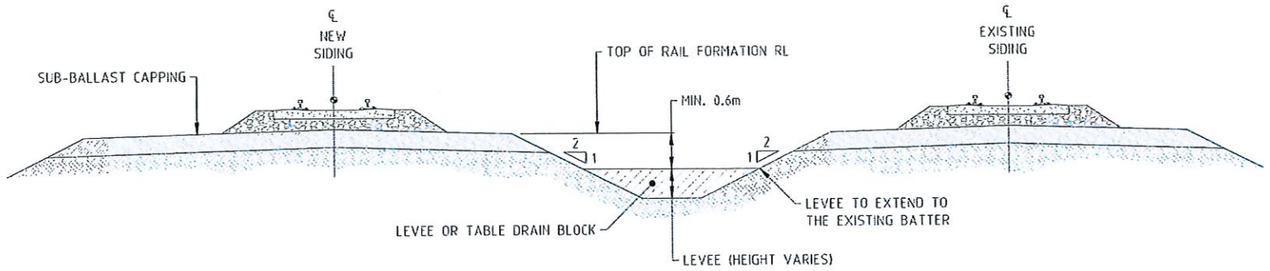
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | NB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | NB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | NB |

| | | |
|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR NB | 27.10.23 |

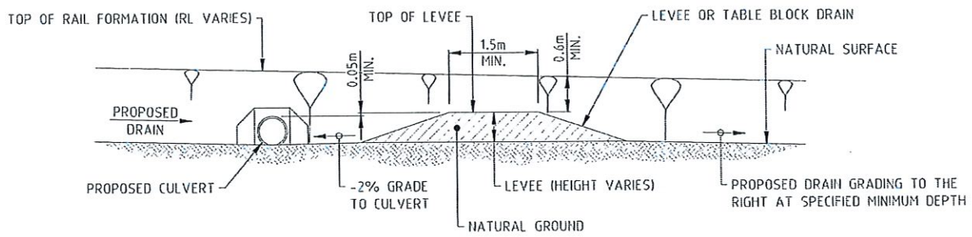
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 3 OF 4

CDS No 358-ENG-CI-DTD-0021 | SHEET 3 OF 4 | REV. C



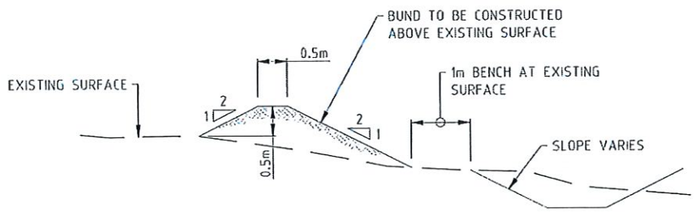

TYPICAL SECTION OF LEVEE OR DRAIN BLOCK

SCALE 1:50




TYPICAL LONG SECTION THROUGH LEVEE OR DRAIN BLOCK

SCALE 1:50




TYPICAL DRAINAGE BUND DETAIL

SCALE 1:50

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE 16/11/2023
REF: Resolution 719
SIGNED
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1 / 1:100 @ A3 — 0 1000 2000 3000 4000 5000 mm



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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556 Wellington St, Perch WA 6000
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BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.09.23 | ISSUED FOR 105% CLIENT REVIEW | AS | TB | MB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |

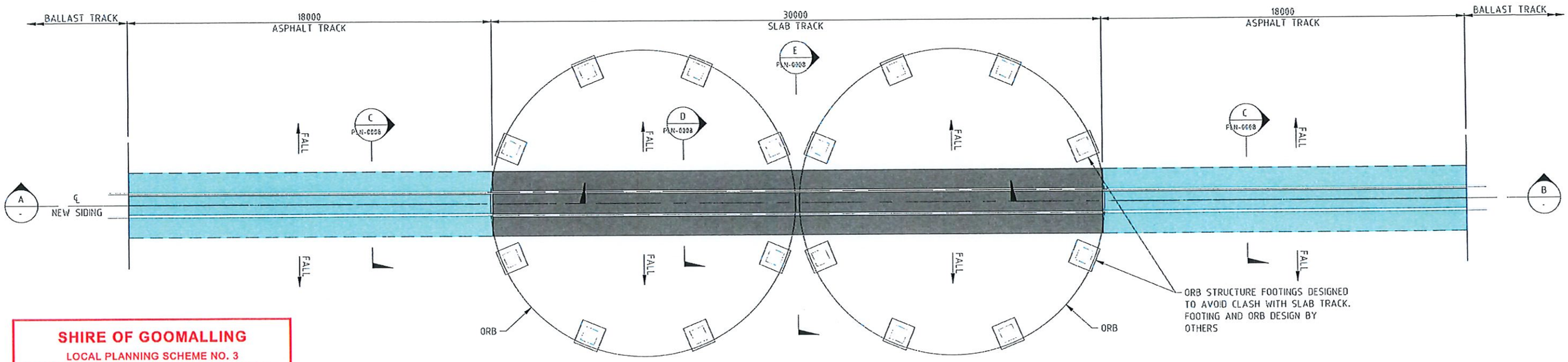
| | | | |
|---|---|---|---|
| SCALE 1:50 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| | DESIGNED | SOB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGN APPR | TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 4 OF 4

DRG No 358-ENG-CI-DTD-0022 | SHEET 4 OF 4 | REV. C

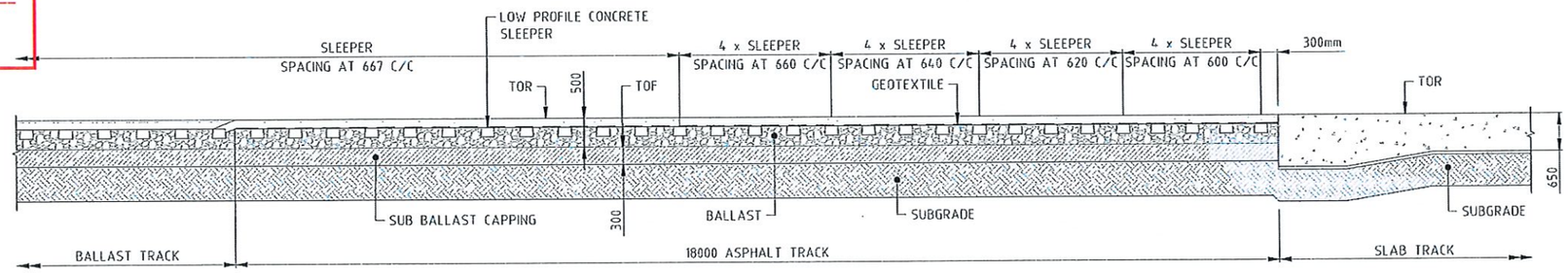
NOTE

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. NORTH ASPHALT TRACK DISTANCE BETWEEN TOR TO TOF IS MAINTAINED AS 576mm AS PER THE FDCS SECTION LOCATED AT 2m AT THE NORTH OF THE ASPHALT TRACK

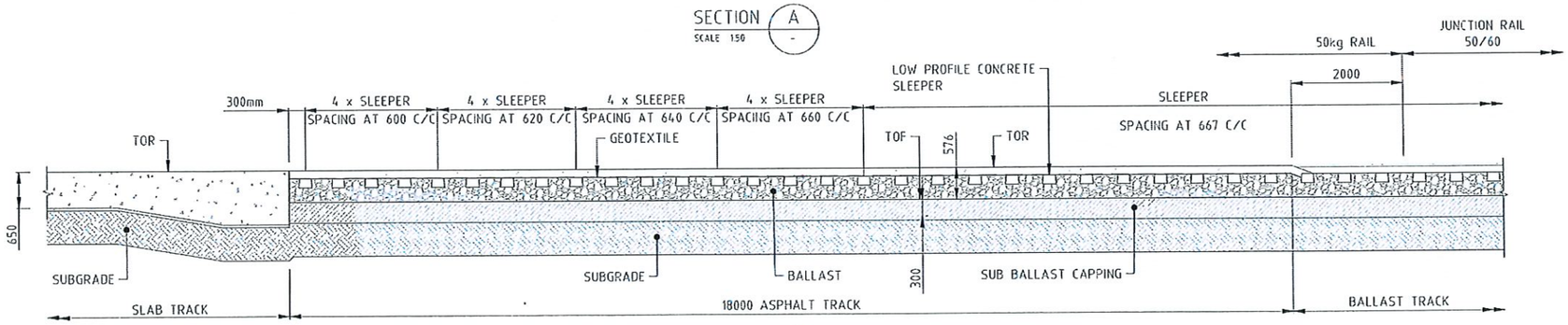



SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: Resolution 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

SLAB TRACK AND ASPHALT TRACK PLAN
SCALE 1:100




SECTION A
SCALE 1:50




SECTION B
SCALE 1:50

150 @ A1 / 100 @ A3 — 0 1 2 3 4 5 m

100 @ A1 / 200 @ A3 — 0 1 2 3 4 5 6 7 8 9 10 m



DO NOT SCALE FROM THIS DRAWING

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BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |

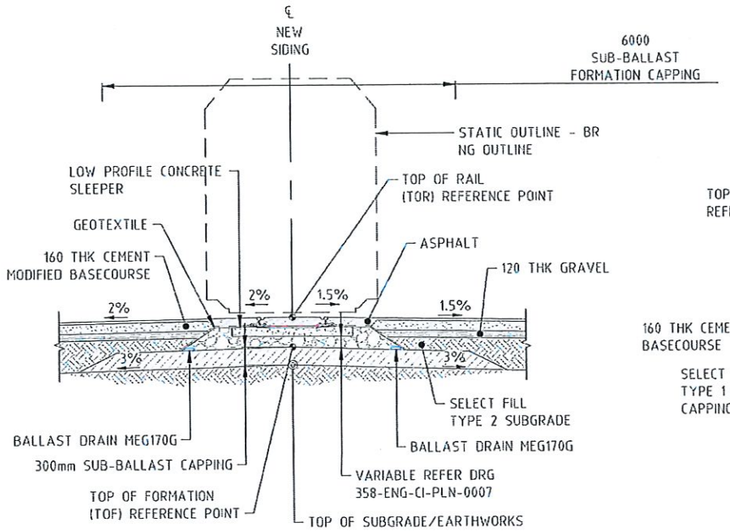
| | | |
|---|---|---|
| SCALE | 1:50, 1:100 | |
| SHEET | A1 | |
| PROJECT | KONNONGORRING | |
| CONTRACT No | CW9951 | |
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SOB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SLAB TRACK PLAN AND SECTIONS

DRG No 358-ENG-CI-PLN-0007 | SHEET 1 OF 1 | REV. D

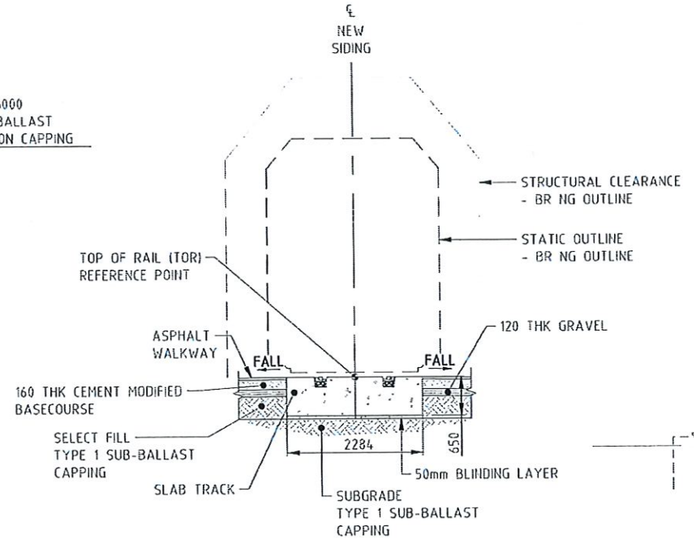
## NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. REFER DRAWING 358-ENG-CI-DSE-0041 FOR PAVEMENT DETAILS.



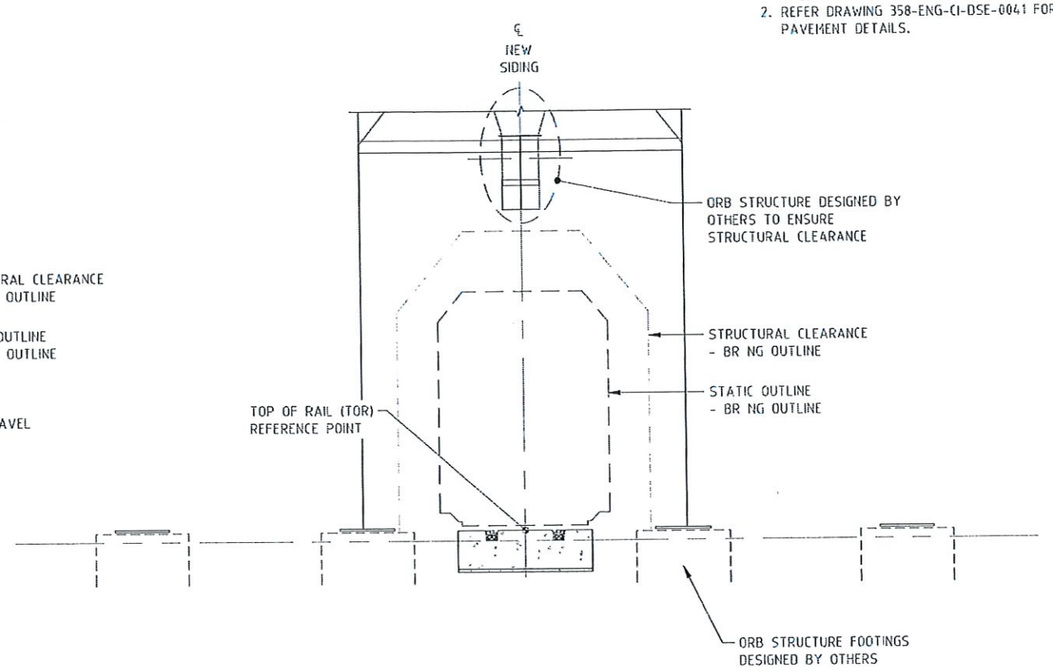

ASPHALT TRACK

SECTION C
SCALE 1:50 PLN-0007

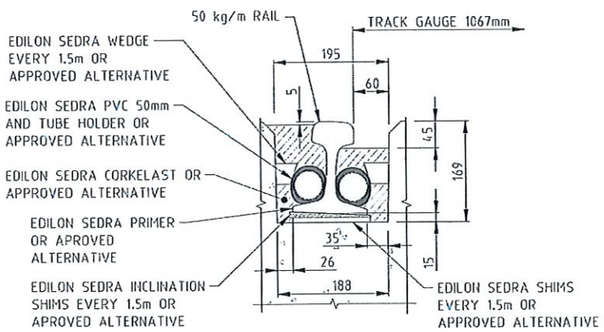



SLAB TRACK

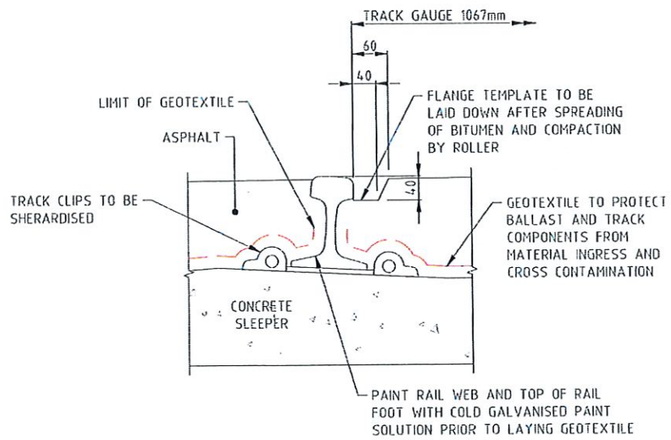
SECTION D
SCALE 1:50 PLN-0007




SECTION E
SCALE 1:50 PLN-0007




TYPICAL RAIL DETAIL
AT SLAB TRACK
SCALE:1:5




TYPICAL RAIL DETAIL
AT ASPHALT TRACK
SCALE:1:5

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 10/11/2023
REF: RESOLUTION TP
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

15 @ A1 / 110 @ A3: 0 50 100 150 200 250 300 350 400 450 500 mm

150 @ A1 / 1100 @ A3: 0 1000 2000 3000 4000 5000 mm



DO NOT SCALE FROM THIS DRAWING

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BGE Project No. PE22014

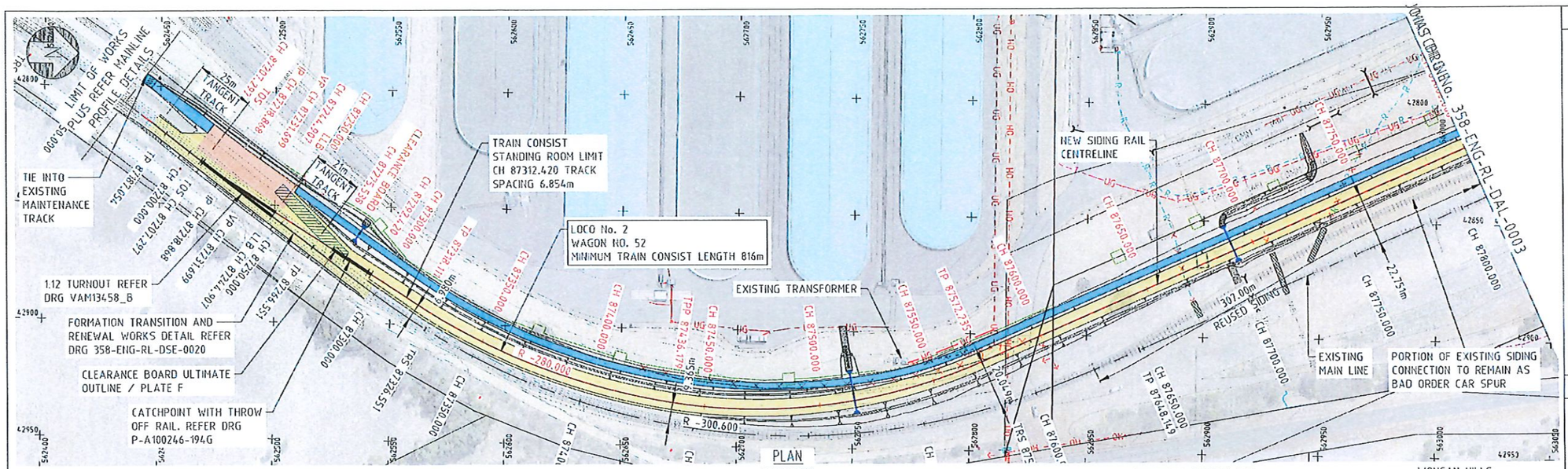
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |

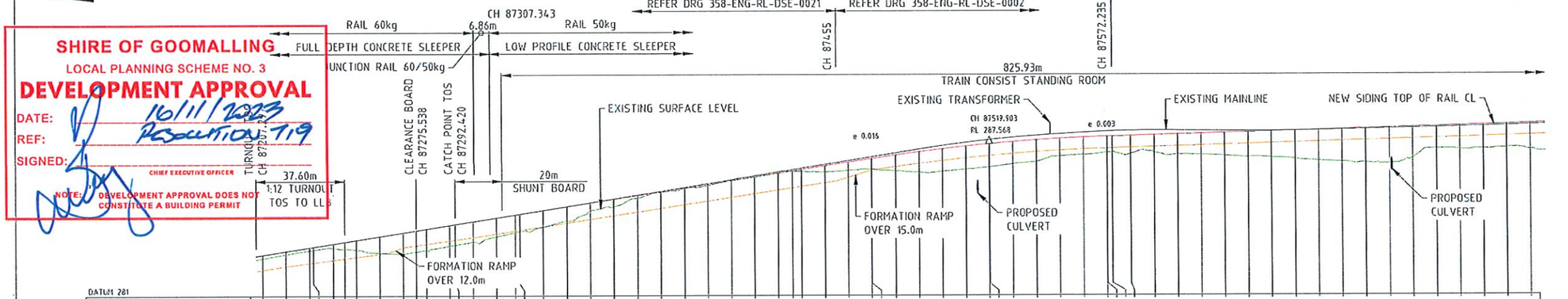
| | | |
|---|---|---|
| SCALE 1:5, 1:50 | DRAWN AS | 23.10.23 |
| SHEET A1 | CHECKED JH | 23.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 23.10.23 |
| CONTRACT No CW9951 | DESIGN APVR JH | 23.10.23 |
| | PROJECT APPR MB | 23.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SLAB TRACK SECTIONS

DRG No 358-ENG-CI-PLN-0008 | SHEET 1 OF 1 | REV. C




PLAN
SCALE 1:1000




LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:1000H 1:100V

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: Resolution 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALL
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF SIDING LOW RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.
- EXISTING MAIN LINE
- EXISTING SURFACE LEVEL

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1:100 @ A1 / 1:200 @ A3

1:1000 @ A1 / 1:2000 @ A3



DO NOT SCALE FROM THIS DRAWING

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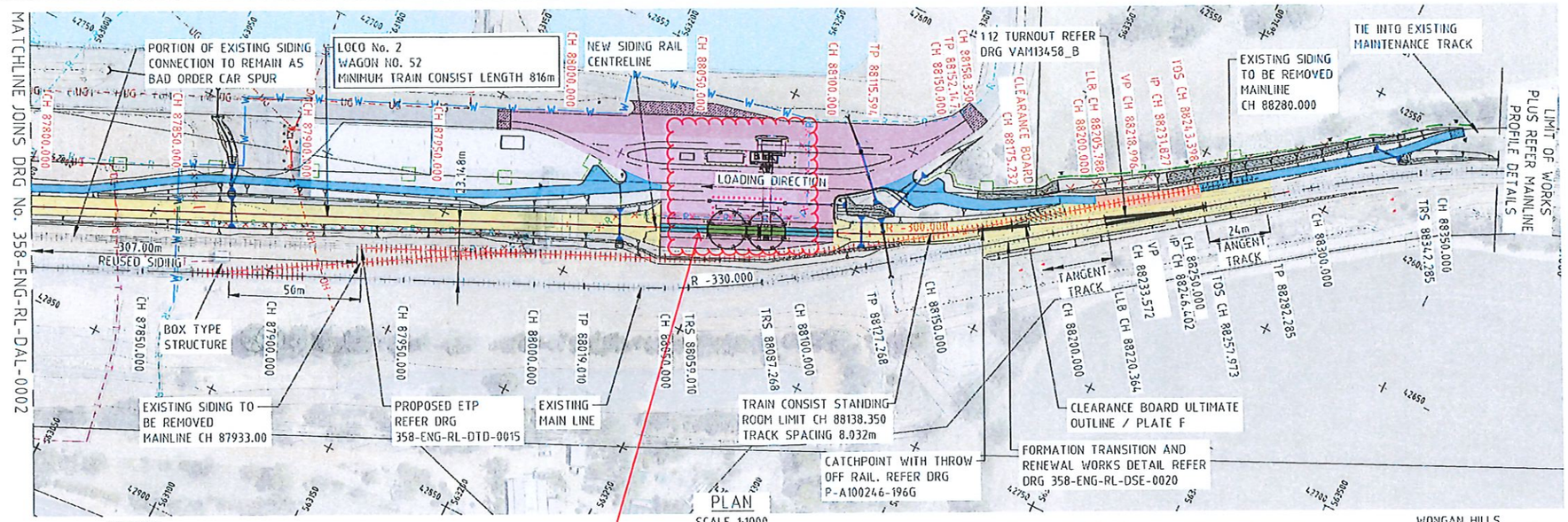
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| D | 20.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | JH | HB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | HB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | HB |

| | | |
|---|---|---|
| SCALE | 1:1000H, 1:100V | |
| SHEET | A1 | |
| PROJECT | KONNONGORRING | |
| CONTRACT No | CW9951 | |
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SGB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | HB | 27.10.23 |

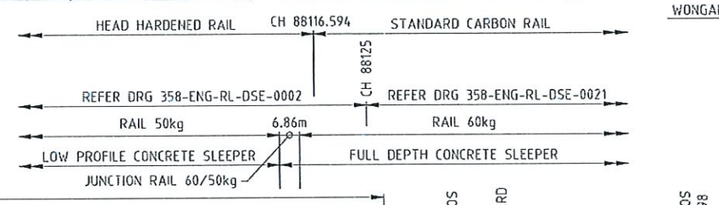
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SIDING PLAN AND PROFILE SHEET 1 OF 2

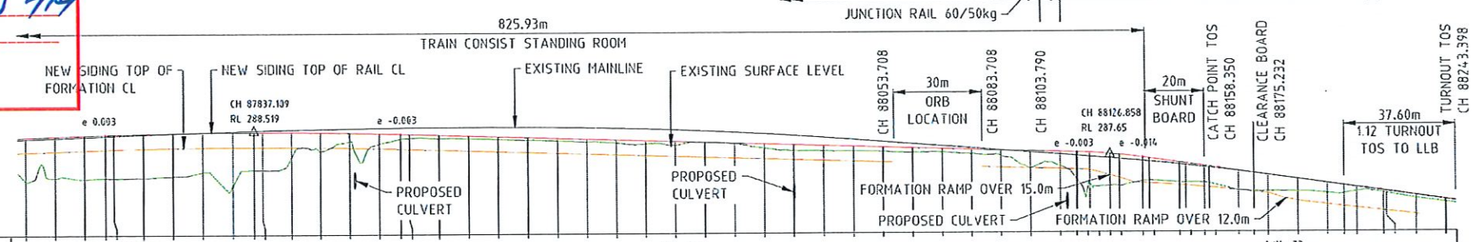
DRG No. 358-ENG-RL-DAL-0002 | SHEET 1 OF 2 | REV. E




The out-loading facility and over rail bins infrastructure (above ground works) are shown for information purposes and do not form part of this Application. Refer to General Arrangement Plan 358-ENG-RL-DGA-003 Rev E for works subject of this Application.

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: Resolution 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT




DATUM 285

VERTICAL GRADE: 1 IN 333 (0.3%); 1 IN -333 (-0.3%); 1 IN -72 (-1.4%)

VERTICAL CURVE: 166.67K LVC = 100; 20K LVC = 21.9

HORIZONTAL ALIGNMENT: TAN 543.36; ARC 36.55; TAN 79.68; TAN 11.57

HORIZONTAL RADIUS: R=-300

CANT

| CHAINAGE | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF RAIL LOW RAIL TO TOP OF FORMATION | TOP OF FORMATION (TOF) LEVEL AT CL | TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | EXISTING SURFACE LEVEL | DESIGN BALLAST DEPTH (m) |
|---|---|---|---|---|---|---|
| 87760.000 | 286.288 | -0.5 | 287.788 | -0.967 | 286.82 | -0.184 |
| 87770.000 | 286.378 | -0.5 | 287.878 | -0.885 | 286.993 | -0.184 |
| 87780.000 | 286.348 | -0.5 | 287.848 | -0.956 | 286.892 | -0.184 |
| 87787.109 | 286.349 | -0.5 | 287.849 | -0.960 | 286.889 | -0.184 |
| 87790.000 | 286.378 | -0.5 | 287.878 | -0.973 | 286.905 | -0.184 |
| 87800.000 | 286.403 | -0.5 | 287.903 | -0.947 | 286.956 | -0.184 |
| 87810.000 | 286.422 | -0.5 | 287.922 | -0.817 | 287.105 | -0.184 |
| 87820.000 | 286.436 | -0.5 | 287.936 | -0.298 | 287.638 | -0.184 |
| 87830.000 | 286.443 | -0.5 | 287.943 | -0.765 | 287.178 | -0.184 |
| 87837.109 | 286.443 | -0.5 | 287.943 | -0.335 | 287.608 | -0.184 |
| 87840.000 | 286.444 | -0.5 | 287.944 | -0.118 | 287.826 | -0.184 |
| 87850.000 | 286.439 | -0.5 | 287.939 | -0.227 | 287.712 | -0.184 |
| 87860.000 | 286.429 | -0.5 | 287.929 | -0.165 | 287.764 | -0.184 |
| 87870.000 | 286.412 | -0.5 | 287.912 | -0.373 | 287.539 | -0.184 |
| 87880.000 | 286.389 | -0.5 | 287.889 | -0.392 | 287.497 | -0.184 |
| 87887.109 | 286.369 | -0.5 | 287.869 | -0.472 | 287.397 | -0.184 |
| 87890.000 | 286.361 | -0.5 | 287.861 | -0.478 | 287.383 | -0.184 |
| 87900.000 | 286.331 | -0.5 | 287.831 | -0.420 | 287.411 | -0.184 |
| 87910.000 | 286.301 | -0.5 | 287.801 | -0.408 | 287.393 | -0.184 |
| 87920.000 | 286.271 | -0.5 | 287.771 | -0.407 | 287.364 | -0.184 |
| 87930.000 | 286.241 | -0.5 | 287.741 | -0.397 | 287.344 | -0.184 |
| 87940.000 | 286.211 | -0.5 | 287.711 | -0.382 | 287.329 | -0.184 |
| 87950.000 | 286.181 | -0.5 | 287.681 | -0.509 | 287.172 | -0.184 |
| 87960.000 | 286.151 | -0.5 | 287.651 | -0.488 | 287.163 | -0.184 |
| 87970.000 | 286.121 | -0.5 | 287.621 | -0.358 | 287.263 | -0.184 |
| 87980.000 | 286.091 | -0.5 | 287.591 | -0.307 | 287.284 | -0.184 |
| 87990.000 | 286.061 | -0.5 | 287.561 | -0.321 | 287.240 | -0.184 |
| 88000.000 | 286.031 | -0.5 | 287.531 | 0.160 | 287.691 | 0.316 |
| 88010.000 | 286.001 | -0.5 | 287.501 | 0.144 | 287.645 | 0.316 |
| 88020.000 | 285.971 | -0.5 | 287.471 | 0.169 | 287.640 | 0.316 |
| 88030.000 | 285.941 | -0.5 | 287.441 | 0.570 | 287.011 | 0.316 |
| 88040.000 | 285.911 | -0.5 | 287.411 | 0.151 | 287.562 | 0.316 |
| 88050.000 | 285.881 | -0.5 | 287.381 | 0.116 | 287.497 | 0.316 |
| 88060.000 | 285.851 | | 287.351 | 0.144 | 287.495 | 0.316 |
| 88070.000 | 285.821 | | 287.321 | 0.169 | 287.490 | 0.316 |
| 88080.000 | 285.791 | | 287.291 | 0.570 | 287.861 | 0.316 |
| 88090.000 | 285.761 | -0.576 | 287.261 | -0.099 | 287.162 | -0.185 |
| 88100.000 | 285.731 | -0.576 | 287.231 | 0.436 | 287.667 | -0.183 |
| 88110.000 | 285.701 | -0.576 | 287.201 | 0.258 | 287.459 | -0.382 |
| 88115.594 | 285.684 | -0.576 | 287.184 | -0.091 | 287.093 | -0.442 |
| 88125.000 | 285.655 | -0.576 | 287.155 | -0.091 | 287.064 | -0.362 |
| 88126.858 | 285.649 | -0.713 | 287.149 | -0.156 | 286.993 | -0.317 |
| 88130.000 | 285.639 | -0.775 | 287.139 | -0.143 | 286.996 | -0.399 |
| 88137.805 | 285.617 | -0.853 | 287.117 | -0.006 | 287.111 | -0.264 |
| 88140.000 | 285.607 | -0.835 | 287.107 | -0.026 | 287.081 | -0.245 |
| 88156.350 | 285.557 | -0.755 | 287.057 | -0.066 | 286.991 | -0.228 |
| 88160.000 | 285.543 | -0.744 | 287.043 | -0.313 | 286.730 | -0.343 |
| 88170.000 | 285.513 | -0.711 | 287.013 | -0.379 | 286.635 | -0.331 |
| 88175.232 | 285.498 | -0.762 | 286.998 | -0.437 | 286.561 | -0.316 |
| 88180.000 | 285.483 | -0.657 | 286.983 | -0.547 | 286.436 | -0.29 |
| 88190.000 | 285.453 | -0.638 | 286.953 | -0.603 | 286.350 | -0.267 |
| 88200.000 | 285.423 | -0.621 | 286.923 | -0.597 | 286.326 | -0.264 |
| 88205.788 | 285.406 | -0.736 | 286.906 | -0.537 | 286.369 | -0.238 |
| 88210.000 | 285.393 | -0.724 | 286.893 | | 286.372 | |
| 88218.996 | 285.365 | -0.769 | 286.865 | | | |
| 88220.000 | 285.362 | -0.698 | 286.862 | | | |
| 88231.827 | 285.329 | -0.675 | 286.829 | | | |
| 88240.000 | 285.305 | -0.672 | 286.805 | | | |
| 88243.398 | 285.295 | -0.649 | 286.795 | | | |
| 88250.000 | 285.275 | | 286.775 | | | |
| 88257.973 | 285.251 | | 286.751 | | | |
| 88292.285 | 285.149 | | 286.649 | | | |
| 88300.000 | 285.126 | | 286.626 | | | |
| 88342.285 | 285.025 | | 286.525 | | | |
| 88350.000 | 285.006 | | 286.506 | | | |
| 88360.000 | 284.976 | | 286.476 | | | |

LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:1000H 1:100V

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALL
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF SIDING LOW RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.
- EXISTING MAIN LINE
- EXISTING SURFACE LEVEL

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL
   JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1:100 @ A1 / 1:200 @ A3 — 0 1 2 3 4 5 6 7 8 9 10 m
1:1000 @ A1 / 1:2000 @ A3 — 0 10 20 30 40 50 60 70 80 90 100 m



DO NOT SCALE FROM THIS DRAWING

CBH GROUP ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeng.com
bgeng.com—
BG&E Project No. PE22014

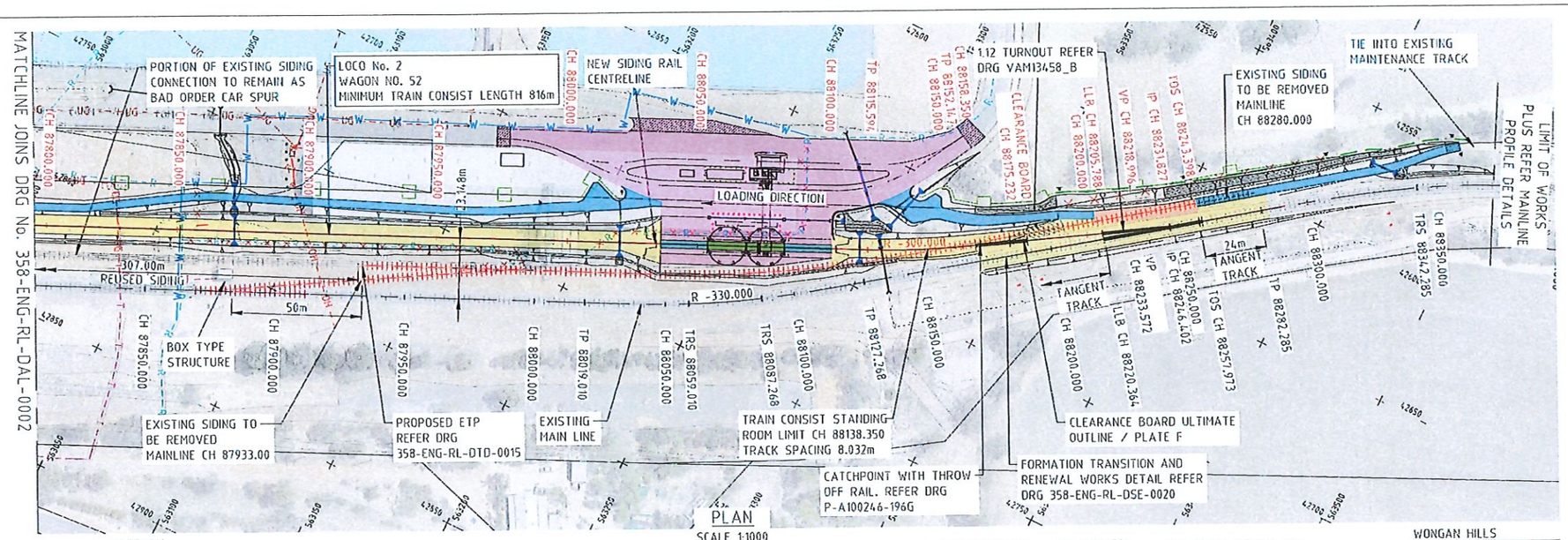
| REF | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 35% CLIENT REVIEW | LJ | DPR | MB |

REF DRAWING No. | REFERENCE DRAWING TITLE

| | | |
|---|---|---|
| SCALE | 1:1000H, 1:100V | |
| SHEET | A1 | |
| PROJECT | KONNONGORRING | |
| CONTRACT No | CW9951 | |
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SOB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | MB | 27.10.23 |

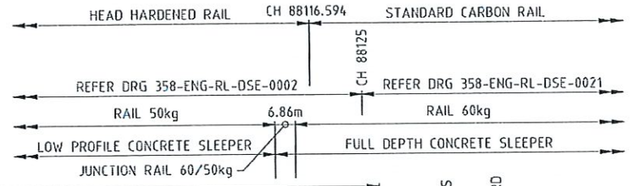
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SIDING PLAN AND PROFILE SHEET 2 OF 2

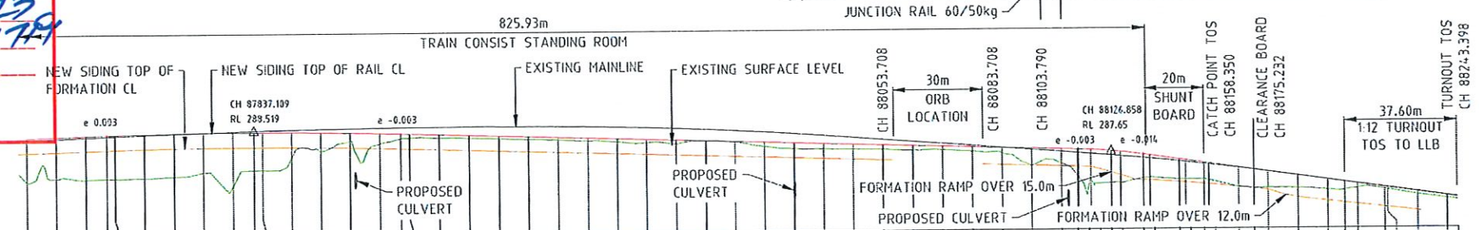
DWG No. 358-ENG-RL-DAL-0003 | SHEET 2 OF 2 | REV. E




PLAN

SCALE 1:1000




DATUM 285

| | |
|---|---|
| VERTICAL GRADE | 0.3% · 1 IN 333 · 1 IN -333 · -0.3% · 1 IN -72 · -1.4% |
| VERTICAL CURVE | 166.67K LVC = 100 · 20K LVC = 21.9 |
| HORIZONTAL ALIGNMENT | TAN 543.36 · ARC 36.55 · TAN 79.68 · TAN 11.57 |
| HORIZONTAL RADIUS | R=-300 |
| CANT | |

| CHAINAGE | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF RAIL LOW RAIL TO TOP OF FORMATION | TOP OF FORMATION (TOF) LEVEL AT CL | TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | EXISTING SURFACE LEVEL | DESIGN BALLAST DEPTH (m) |
|---|---|---|---|---|---|---|
| 87760.000 | 286.298 | -0.5 | 287.798 | 0.967 | 286.162 | -0.184 |
| 87770.000 | 286.319 | -0.5 | 287.819 | 0.885 | 286.933 | -0.184 |
| 87780.000 | 286.340 | -0.5 | 287.840 | 0.956 | 286.884 | -0.184 |
| 87787.109 | 288.316 | -0.5 | 288.816 | 0.960 | 286.856 | -0.184 |
| 87790.000 | 288.378 | -0.5 | 288.878 | 0.973 | 286.905 | -0.184 |
| 87800.000 | 288.403 | -0.5 | 288.903 | 0.947 | 286.956 | -0.184 |
| 87810.000 | 288.427 | -0.5 | 288.927 | 0.817 | 287.110 | -0.184 |
| 87820.000 | 288.436 | -0.5 | 288.936 | 1.298 | 286.638 | -0.184 |
| 87830.000 | 288.444 | -0.5 | 288.944 | 0.765 | 287.179 | -0.184 |
| 87837.109 | 288.444 | -0.5 | 288.944 | 0.335 | 287.609 | -0.184 |
| 87840.000 | 288.444 | -0.5 | 288.944 | 0.118 | 287.826 | -0.184 |
| 87850.000 | 288.439 | -0.5 | 288.939 | -0.227 | 288.166 | -0.184 |
| 87860.000 | 288.429 | -0.5 | 288.929 | -0.665 | 288.594 | -0.184 |
| 87870.000 | 288.412 | -0.5 | 288.912 | -0.373 | 288.285 | -0.184 |
| 87880.000 | 288.389 | -0.5 | 288.889 | -0.392 | 288.281 | -0.184 |
| 87887.109 | 288.367 | -0.5 | 288.867 | -0.472 | 288.339 | -0.184 |
| 87890.000 | 288.358 | -0.5 | 288.858 | -0.478 | 288.336 | -0.184 |
| 87900.000 | 288.331 | -0.5 | 288.831 | -0.412 | 288.243 | -0.184 |
| 87910.000 | 288.301 | -0.5 | 288.801 | -0.408 | 288.209 | -0.184 |
| 87920.000 | 288.271 | -0.5 | 288.771 | -0.407 | 288.178 | -0.184 |
| 87930.000 | 288.241 | -0.5 | 288.741 | -0.399 | 288.153 | -0.184 |
| 87940.000 | 288.211 | -0.5 | 288.711 | -0.382 | 288.133 | -0.184 |
| 87950.000 | 288.181 | -0.5 | 288.681 | -0.369 | 288.099 | -0.184 |
| 87960.000 | 288.151 | -0.5 | 288.651 | -0.344 | 288.077 | -0.184 |
| 87970.000 | 288.121 | -0.5 | 288.621 | -0.322 | 288.073 | -0.184 |
| 87980.000 | 288.091 | -0.5 | 288.591 | -0.309 | 288.027 | -0.184 |
| 87990.000 | 288.061 | -0.5 | 288.561 | -0.289 | 288.095 | -0.184 |
| 88000.000 | 288.031 | -0.5 | 288.531 | -0.268 | 288.059 | -0.184 |
| 88010.000 | 288.001 | -0.5 | 288.501 | -0.236 | 288.079 | -0.184 |
| 88020.000 | 287.971 | -0.5 | 288.471 | -0.207 | 288.262 | -0.184 |
| 88030.000 | 287.941 | -0.5 | 288.441 | -0.180 | 288.251 | -0.184 |
| 88040.000 | 287.911 | -0.5 | 288.411 | -0.160 | 288.251 | -0.316 |
| 88050.000 | 287.881 | -0.5 | 288.381 | -0.144 | 288.236 | -0.316 |
| 88060.000 | 287.851 | -0.5 | 288.351 | -0.151 | 288.2 | -0.316 |
| 88070.000 | 287.821 | -0.5 | 288.321 | -0.116 | 288.204 | -0.316 |
| 88080.000 | 287.791 | -0.5 | 288.291 | -0.144 | 288.147 | -0.316 |
| 88090.000 | 287.761 | -0.576 | 288.337 | -0.169 | 288.592 | -0.316 |
| 88100.000 | 287.731 | -0.576 | 288.307 | -0.570 | 287.737 | -0.316 |
| 88110.000 | 287.701 | -0.576 | 288.277 | -0.099 | 288.178 | -0.185 |
| 88115.594 | 287.686 | -0.576 | 288.262 | 0.436 | 288.226 | -0.183 |
| 88115.999 | 287.685 | -0.576 | 288.261 | 0.258 | 288.003 | -0.382 |
| 88120.000 | 287.670 | -0.713 | 288.383 | -0.091 | 288.474 | -0.442 |
| 88130.000 | 287.640 | -0.775 | 288.415 | -0.091 | 288.506 | -0.367 |
| 88137.305 | 287.621 | -0.853 | 288.474 | -0.156 | 288.630 | -0.317 |
| 88140.000 | 287.617 | -0.855 | 288.472 | -0.143 | 288.615 | -0.309 |
| 88150.000 | 287.587 | -0.755 | 288.342 | -0.006 | 288.377 | -0.264 |
| 88152.147 | 287.577 | -0.744 | 288.321 | -0.026 | 288.347 | -0.245 |
| 88158.350 | 287.511 | -0.71 | 288.221 | -0.066 | 288.356 | -0.228 |
| 88160.000 | 287.488 | -0.702 | 288.190 | -0.133 | 288.324 | -0.343 |
| 88170.000 | 287.348 | -0.657 | 288.005 | -0.379 | 288.295 | -0.331 |
| 88175.232 | 287.273 | -0.638 | 287.911 | -0.437 | 288.277 | -0.316 |
| 88180.000 | 287.208 | -0.621 | 287.829 | -0.543 | 288.210 | -0.29 |
| 88190.000 | 286.769 | -0.736 | 286.033 | -0.603 | 288.293 | -0.267 |
| 88200.000 | 286.636 | -0.724 | 285.912 | -0.595 | 288.275 | -0.264 |
| 88205.788 | 286.549 | -0.769 | 285.780 | -0.537 | 288.102 | -0.238 |
| 88210.000 | 286.498 | -0.698 | 285.800 | | 285.973 | |
| 88218.996 | 286.365 | -0.675 | 285.690 | | | |
| 88220.000 | 286.351 | -0.672 | 285.679 | | | |
| 88230.000 | 286.211 | -0.644 | 285.567 | | | |
| 88240.000 | 286.072 | | | | | |

LONGITUDINAL PROFILE ALONG SIDING CL

SCALE 1:1000H 1:100V

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALL
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF SIDING LOW RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.
- EXISTING MAIN LINE
- EXISTING SURFACE LEVEL

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 74
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT



DO NOT SCALE FROM THIS DRAWING

CBHGROUP ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgea.com.au
BG&E
BG&E Project No. PE22014

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

REF DRAWING No. | REFERENCE DRAWING TITLE

SCALE 1:1000H, 1:100V
SHEET A1
PROJECT KONNONGORRING
CONTRACT No CW9951

| | | |
|---|---|---|
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SGB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | MB | 27.10.23 |

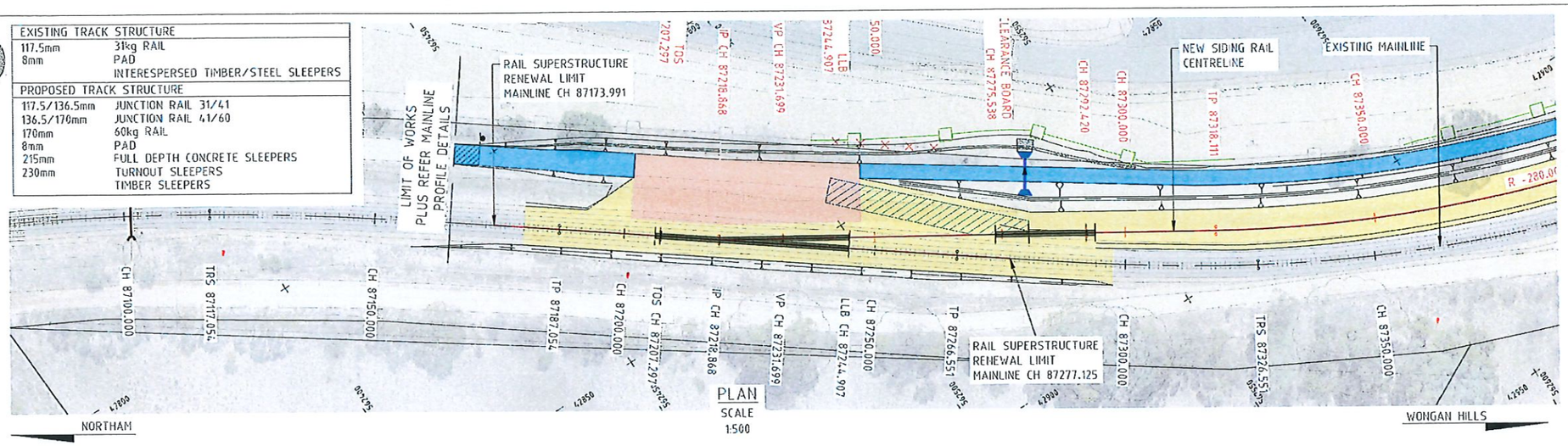
1:100 @ A1 · 1:200 @ A3 · 1:1000 @ A1 · 1:2000 @ A3

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SIDING PLAN AND PROFILE SHEET 2 OF 2

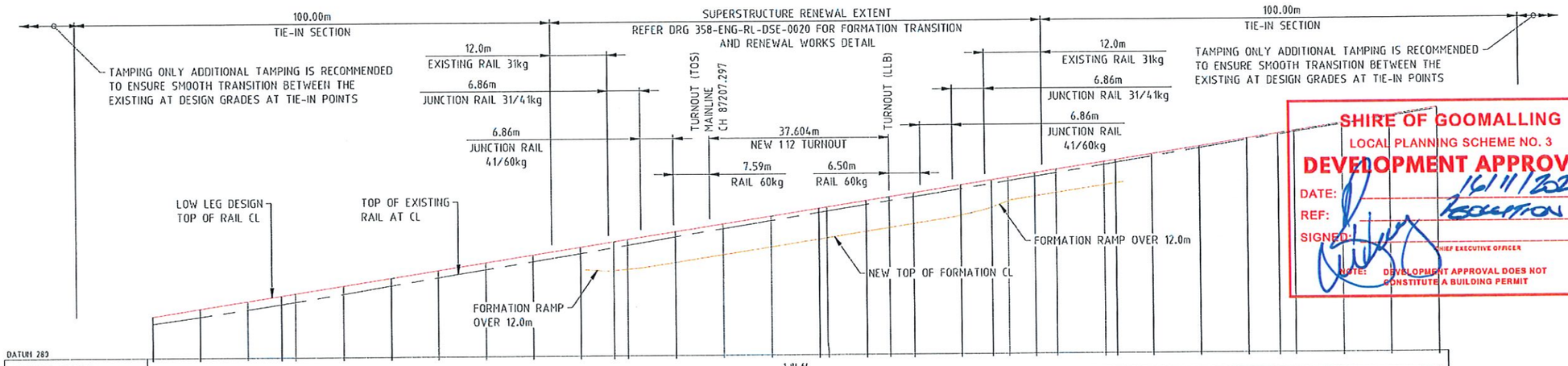
DRG No 358-ENG-RL-DAL-0003 · SHEET 2 OF 2 · REV. E

| EXISTING TRACK STRUCTURE | |
|---|---|
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | INTERESPERSED TIMBER/STEEL SLEEPERS |

| PROPOSED TRACK STRUCTURE | |
|---|---|
| 117.5/136.5mm | JUNCTION RAIL 31/41 |
| 136.5/170mm | JUNCTION RAIL 41/60 |
| 170mm | 60kg RAIL |
| 8mm | PAD |
| 215mm | FULL DEPTH CONCRETE SLEEPERS |
| 230mm | TURNOUT SLEEPERS |
| | TIMBER SLEEPERS |




PLAN
SCALE 1:500




DATUM 283

| | |
|---|---|
| VERTICAL GRADE | 1 IN 64 1.56% |
| VERTICAL CURVE | |
| HORIZONTAL ALIGNMENT | ARC 168.86 · L70 · TAN 79.5 · L60 · ARC 261.6 |
| HORIZONTAL RADIUS | R=501.6 · R=-300.6 |
| CANT | |

| CHAINAGE | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF EXISTING RAIL LEVEL AT CL | TOP OF FORMATION (TOF) LEVEL AT CL | TRACK LIFT (mm) (-LOWER / +HIGHER) | TRACK SLEW (mm) (-LEFT / +RIGHT) | BALLAST DEPTH |
|---|---|---|---|---|---|---|
| 87090.000 | 280.562 | 280.718 | | 147 | -13 | |
| 87100.000 | 280.618 | 280.857 | | 161 | -6 | |
| 87110.000 | 280.674 | 281.003 | | 169 | 0 | |
| 87117.054 | 280.714 | 281.112 | | 173 | 7 | |
| 87120.000 | 280.734 | 281.159 | | 170 | 14 | |
| 87130.000 | 280.786 | 281.319 | | 166 | 20 | |
| 87140.000 | 280.842 | 281.488 | | 154 | 21 | |
| 87150.000 | 280.898 | 281.651 | | 150 | 23 | |
| 87160.000 | 280.954 | 281.814 | | 140 | 22 | |
| 87170.000 | 281.010 | 281.975 | | 140 | 19 | |
| 87180.000 | 281.066 | 282.138 | | 134 | 14 | |
| 87187.054 | | 282.255 | | 129 | 9 | |
| 87190.000 | | 282.304 | | 121 | 2 | 0.266 |
| 87200.000 | | 282.473 | | 113 | -2 | 0.248 |
| 87210.000 | | 282.639 | | 100 | -2 | 0.233 |
| 87220.000 | | 282.801 | | 95 | -3 | 0.233 |
| 87230.000 | | 282.963 | | 90 | -3 | 0.233 |
| 87231.699 | | 282.990 | | 84 | 0 | 0.233 |
| 87240.000 | | 283.122 | | 81 | 12 | 0.233 |
| 87244.907 | | 283.198 | | 80 | 19 | 0.248 |
| 87250.000 | | 283.277 | | 81 | 26 | 0.248 |
| 87260.000 | | 283.437 | | 78 | 29 | 0.273 |
| 87266.551 | | 283.541 | | 75 | 29 | |
| 87270.000 | | 283.597 | | 71 | 27 | |
| 87275.538 | | 283.686 | | 69 | 29 | |
| 87280.000 | | 283.757 | | 65 | 31 | |
| 87290.000 | | 283.923 | | 53 | 44 | |
| 87292.420 | | 283.965 | | 44 | 49 | |
| 87300.000 | | 284.092 | | 37 | 46 | |
| 87310.000 | | 284.257 | | 28 | 38 | |
| 87320.000 | | 284.423 | | 24 | 15 | |
| 87326.551 | | 284.529 | | 21 | -14 | |
| 87330.000 | | 284.584 | | 21 | -38 | |
| 87340.000 | | 284.741 | | 23 | -68 | |
| 87350.000 | | 284.895 | | 24 | -99 | |
| 87360.000 | | 285.049 | | | | |

LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:500H 1:50V

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALLS
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF DESIGN RAIL AT CL.
- TOP OF EXISTING RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON.
6. TOP OF FORMATION LEVEL IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING FORMATION. IF NO INFORMATION IS PROVIDED, TOP OF FORMATION IS AS EXISTING.
7. DESIGN BALLAST DEPTH IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING BALLAST DEPTH. IF NO INFORMATION IS PROVIDED, BALLAST DEPTH IS AS EXISTING (ADDING THE PROPOSED LIFT).

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM: | MGA94 ZONE 50 |
| HEIGHT DATUM: | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7.9
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT



DO NOT SCALE FROM THIS DRAWING

CBHGROUP ABN 29 256 604 947


Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeng.com
bgeng.com—
BG&E Project No. PE22014

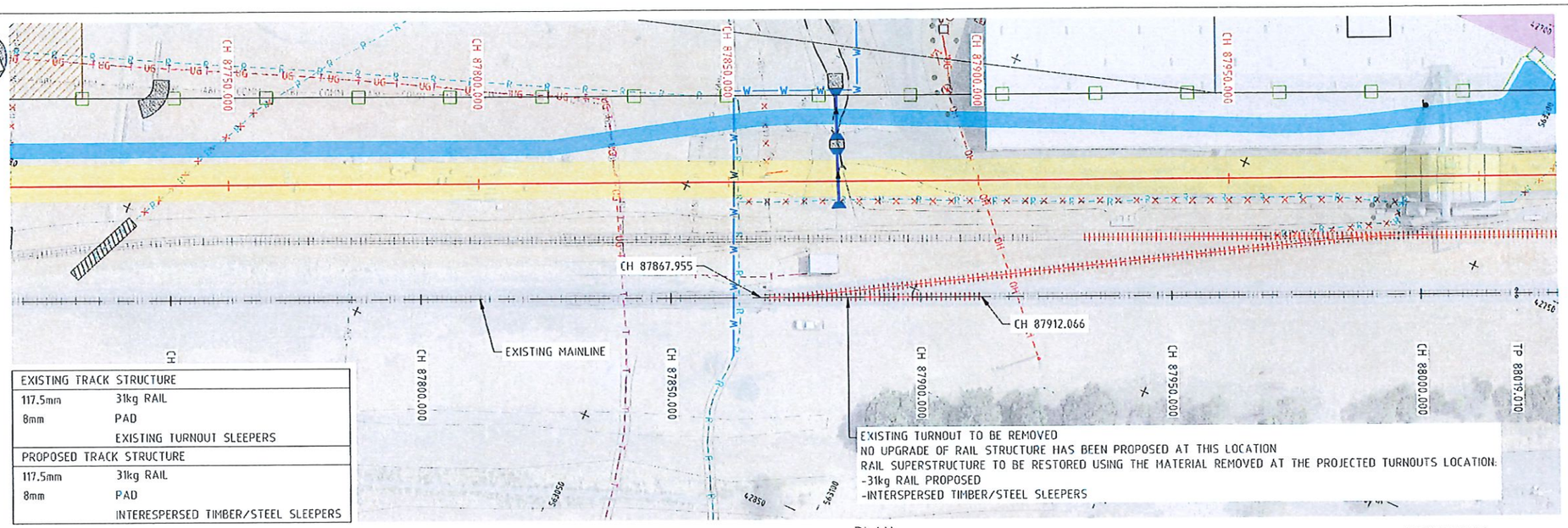

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JH | DFR | MB |
| A | 15.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:500H, 1:50V | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOD | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE PLAN AND PROFILE SHEET 1 OF 3

DRG No. 358-ENG-RL-DAL-0004 | SHEET 1 OF 3 | REV. E



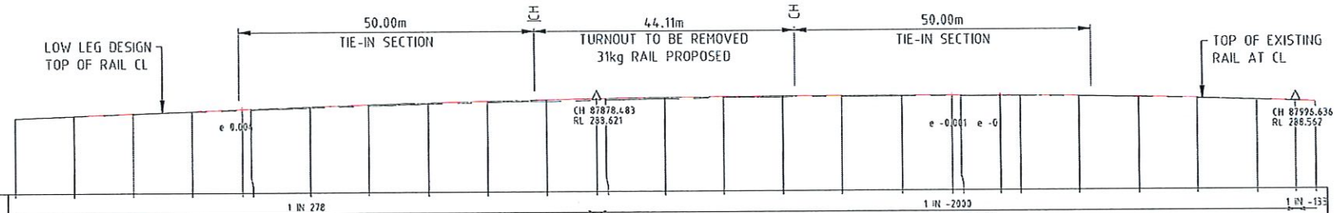

| EXISTING TRACK STRUCTURE | |
|---|---|
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | EXISTING TURNOUT SLEEPERS |
| **PROPOSED TRACK STRUCTURE** | |
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | INTERESPERSED TIMBER/STEEL SLEEPERS |

NORTHAM

WONGAN HILLS

## PLAN
SCALE 1:500

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: Resolution 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT




DATUM 287

| CHAINAGE | VERTICAL GRADE / VERTICAL CURVE | HORIZONTAL ALIGNMENT / HORIZONTAL RADIUS | CANT | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF EXISTING RAIL LEVEL AT CL | TOP OF FORMATION (TOF) LEVEL AT CL | TRACK LIFT (-LOWER / +HIGHER) | TRACK SLEW (-LEFT / +RIGHT) |
|---|---|---|---|---|---|---|---|---|
| 87780.000 | 0.36% | TAN 370.86 | | 288.467 | 288.266 | | 1 | 1 |
| 87790.000 | 1 IN 278 | | | 288.393 | 288.302 | | 1 | -5 |
| 87800.000 | | | | 288.339 | 288.337 | | 1 | -6 |
| 87810.000 | | | | 288.375 | 288.37 | | 4 | -7 |
| 87818.483 | | | | 288.405 | 288.394 | | | |
| 87820.000 | | | | 288.411 | 288.399 | | 14 | -6 |
| 87830.000 | | | | 288.445 | 288.43 | | 15 | -5 |
| 87840.000 | | | | 288.475 | 288.459 | | 16 | -2 |
| 87850.000 | | | | 288.502 | 288.487 | | 16 | -2 |
| 87860.000 | | | | 288.525 | 288.511 | | 14 | -3 |
| 87870.000 | | | | 288.545 | 288.52 | | 18 | -2 |
| 87878.483 | 292.68K | | | 288.560 | 288.535 | | 19 | -6 |
| 87880.000 | LVC = 120 | | | 288.562 | 288.539 | | 14 | -8 |
| 87890.000 | | | | 288.575 | 288.556 | | 16 | -15 |
| 87900.000 | | | | 288.585 | 288.571 | | 18 | -23 |
| 87910.000 | | | | 288.592 | 288.577 | | 29 | -35 |
| 87920.000 | | | | 288.595 | 288.581 | | 29 | -40 |
| 87930.000 | | | | 288.594 | 288.583 | | 26 | -42 |
| 87938.483 | | | | 288.591 | 288.583 | | 21 | -41 |
| 87940.000 | | | | 288.591 | 288.582 | | 22 | -35 |
| 87946.636 | | | | 288.587 | 288.579 | | 19 | -38 |
| 87950.000 | -0.05% | | | 288.585 | 288.577 | | 19 | -54 |
| 87960.000 | | | | 288.574 | 288.569 | | 22 | -56 |
| 87970.000 | 142.86K | | | 288.556 | 288.552 | | 15 | -44 |
| 87980.000 | LVC = 100 | | | 288.532 | 288.528 | | 13 | -37 |
| 87990.000 | | | | 288.500 | 288.5 | | 13 | -36 |
| 87996.636 | 1 IN -133 | | | 288.475 | 288.476 | | 14 | -37 |
| 88000.000 | | | | 288.461 | 288.462 | | 14 | -37 |
| | | | | | | | 12 | -33 |
| | | | | | | | 15 | -34 |
| | | | | | | | 11 | -32 |
| | | | | | | | 8 | -34 |
| | | | | | | | 9 | -31 |
| | | | | | | | 9 | -31 |
| | | | | | | | 7 | -29 |
| | | | | | | | 6 | -26 |
| | | | | | | | 6 | -21 |
| | | | | | | | 3 | -18 |
| | | | | | | | 5 | -19 |
| | | | | | | | 1 | -16 |
| | | | | | | | 0 | -10 |
| | | | | | | | -2 | 0 |

## LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:500H 1:50V

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALLS
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF DESIGN RAIL AT CL.
- TOP OF EXISTING RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON.
6. TOP OF FORMATION LEVEL IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING FORMATION. IF NO INFORMATION IS PROVIDED, TOP OF FORMATION IS AS EXISTING.
7. DESIGN BALLAST DEPTH IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING BALLAST DEPTH. IF NO INFORMATION IS PROVIDED, BALLAST DEPTH IS AS EXISTING (ADDING THE PROPOSED LIFT).

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM: | MGA94 ZONE 50 |
| HEIGHT DATUM: | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

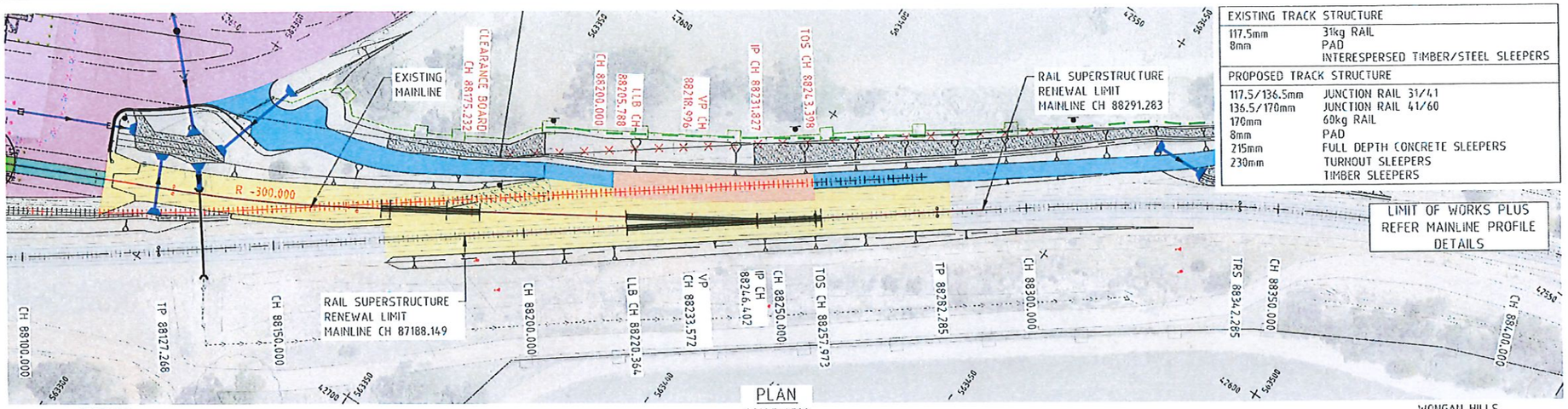
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 29.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

| | | |
|---|---|---|
| SCALE | 1:500H, 1:50V | |
| SHEET | A1 | |
| PROJECT | KONNONGORRING | |
| CONTRACT No | CW9951 | |
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SOB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE PLAN AND PROFILE SHEET 2 OF 3

DRG No. 358-ENG-RL-DAL-0005 | SHEET 2 OF 3 | REV. E




| EXISTING TRACK STRUCTURE | |
|---|---|
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | INTERESPERSED TIMBER/STEEL SLEEPERS |

| PROPOSED TRACK STRUCTURE | |
|---|---|
| 117.5/136.5mm | JUNCTION RAIL 31/41 |
| 136.5/170mm | JUNCTION RAIL 41/60 |
| 170mm | 60kg RAIL |
| 8mm | PAD |
| 215mm | FULL DEPTH CONCRETE SLEEPERS |
| 230mm | TURNOUT SLEEPERS |
| | TIMBER SLEEPERS |

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALLS
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF DESIGN RAIL AT CL.
- TOP OF EXISTING RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON.
6. TOP OF FORMATION LEVEL IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING FORMATION. IF NO INFORMATION IS PROVIDED, TOP OF FORMATION IS AS EXISTING.
7. DESIGN BALLAST DEPTH IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING BALLAST DEPTH. IF NO INFORMATION IS PROVIDED, BALLAST DEPTH IS AS EXISTING (ADDING THE PROPOSED LIFT).

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM: | MGA94 ZONE 50 |
| HEIGHT DATUM. | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

## PLAN

SCALE 1500

NORTHAM — WONGAN HILLS

TAMPING ONLY
ADDITIONAL TAMPING IS RECOMMENDED TO ENSURE SMOOTH TRANSITION BETWEEN THE EXISTING AT DESIGN GRADES AT TIE-IN POINTS

50.00m TIE-IN SECTION

SUPERSTRUCTURE RENEWAL EXTENT
REFER DRG 358-ENG-RL-DSE-0020 FOR FORMATION TRANSITION AND RENEWAL WORKS DETAILS

100.00m TIE-IN SECTION

TAMPING ONLY ADDITIONAL TAMPING IS RECOMMENDED TO ENSURE SMOOTH TRANSITION BETWEEN THE EXISTING AT DESIGN GRADES AT TIE-IN POINTS

12.0m EXISTING RAIL 31kg
6.86m JUNCTION RAIL 31/41kg
6.86m JUNCTION RAIL 41/60kg
TURNOUT (LLB)
37.604m NEW 1-12 TURNOUT
6.5m RAIL 60kg
7.59m RAIL 60kg
TURNOUT (TOS) MAINLINE CH 88257.973
12.0m RAIL 31kg
6.86m JUNCTION RAIL 31/41kg
6.86m JUNCTION RAIL 41/60kg

TOP OF EXISTING RAIL AT CL
FORMATION RAMP OVER 12.0m
NEW TOP OF FORMATION CL
LOW LEG DESIGN TOP OF RAIL CL
FORMATION RAMP OVER 12.0m

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: Resolution 7.9
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

DATUM 283

| | |
|---|---|
| VERTICAL GRADE | -0.75%; 1 IN -133; 1 IN -72; -1.39% |
| VERTICAL CURVE | 93.03K LVC = 60; 201.54K LVC = 59.99 |
| HORIZONTAL ALIGNMENT | L40; TAN 155.02; L60; ARC 267.11 |
| HORIZONTAL RADIUS | R=311.8 |
| CANT | |

| CHAINAGE | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF EXISTING RAIL LEVEL AT CL | TOP OF FORMATION (TOF) LEVEL AT CL | TRACK LIFT (-LOWER / +HIGHER) | TRACK SLEW (-LEFT / +RIGHT) | BALLAST DEPTH |
|---|---|---|---|---|---|---|
| 88110.000 | 287.712 | 287.666 | | 46 | 70 | |
| 88120.000 | 287.637 | 287.6 | | 43 | 95 | |
| 88127.268 | 287.583 | 287.554 | | 32 | 112 | |
| 88130.000 | 287.562 | 287.536 | | 25 | 109 | |
| 88138.311 | 287.500 | 287.478 | | 22 | 91 | |
| 88140.000 | 287.487 | 287.465 | | 21 | 68 | |
| 88150.000 | 287.405 | 287.384 | | 20 | 50 | |
| 88158.250 | 287.328 | 287.310 | | 16 | 41 | |
| 88160.000 | 287.312 | 287.301 | | 9 | 30 | |
| 88168.310 | 287.226 | 287.219 | | 7 | 21 | |
| 88170.000 | 287.208 | 287.2 | | 9 | 18 | |
| 88175.232 | 287.150 | 287.14 | 286.665 | 12 | 16 | |
| 88180.000 | 287.094 | 287.082 | 286.609 | 15 | 11 | |
| 88190.000 | 286.968 | 286.951 | 286.493 | 18 | 10 | |
| 88198.307 | 286.856 | 286.839 | 286.284 | 17 | 9 | 0.253 |
| 88200.000 | 286.835 | 286.816 | 286.229 | 19 | 7 | 0.275 |
| 88205.788 | 286.752 | 286.733 | 286.117 | 19 | 6 | 0.244 |
| 88210.000 | 286.693 | 286.673 | 285.952 | 21 | 4 | 0.248 |
| 88218.996 | 286.568 | 286.544 | 285.877 | 25 | 3 | 0.246 |
| 88220.000 | 286.551 | 286.529 | 285.810 | 31 | 2 | 0.233 |
| 88230.000 | 286.414 | 286.383 | 285.773 | 33 | -2 | 0.233 |
| 88240.000 | 286.295 | 286.239 | 285.634 | 40 | 3 | 0.233 |
| 88250.000 | 286.195 | 286.09 | 285.514 | 46 | 2 | 0.248 |
| 88260.000 | 285.996 | 285.947 | 285.305 | 49 | 6 | 0.266 |
| 88270.000 | 285.856 | 285.81 | 285.215 | 47 | 5 | 0.237 |
| 88280.000 | 285.717 | 285.677 | 285.132 | 37 | 12 | |
| 88282.285 | 285.685 | 285.647 | 285.101 | 26 | 25 | |
| 88290.000 | 285.577 | 285.551 | | 17 | 56 | |
| 88300.000 | 285.438 | 285.422 | | 3 | 88 | |
| 88310.000 | 285.298 | 285.295 | | -1 | 111 | |
| 88320.000 | 285.159 | 285.16 | | 2 | 129 | |
| 88330.000 | 285.019 | 285.017 | | 4 | 127 | |
| 88340.000 | 284.880 | 284.875 | | 5 | 106 | |
| 88342.285 | 284.848 | 284.843 | | 8 | 83 | |
| 88350.000 | 284.740 | 284.734 | | 13 | 56 | |
| 88360.000 | 284.601 | 284.589 | | 19 | 34 | |
| 88365.997 | 284.517 | 284.501 | | 24 | 15 | |
| 88370.000 | 284.461 | 284.442 | | 30 | 7 | |
| 88380.000 | 284.317 | 284.293 | | | | |
| 88390.000 | 284.168 | 284.138 | | | | |

## LONGITUDINAL PROFILE ALONG SIDING CL

SCALE 1:500H 1:50V



DO NOT SCALE FROM THIS DRAWING

CBHGROUP ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
555 Wellington St, Perth WA 6000
P/+61 8 6363 3300 E/info@bgeeng.com
bgeeng.com—
BG&E

BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

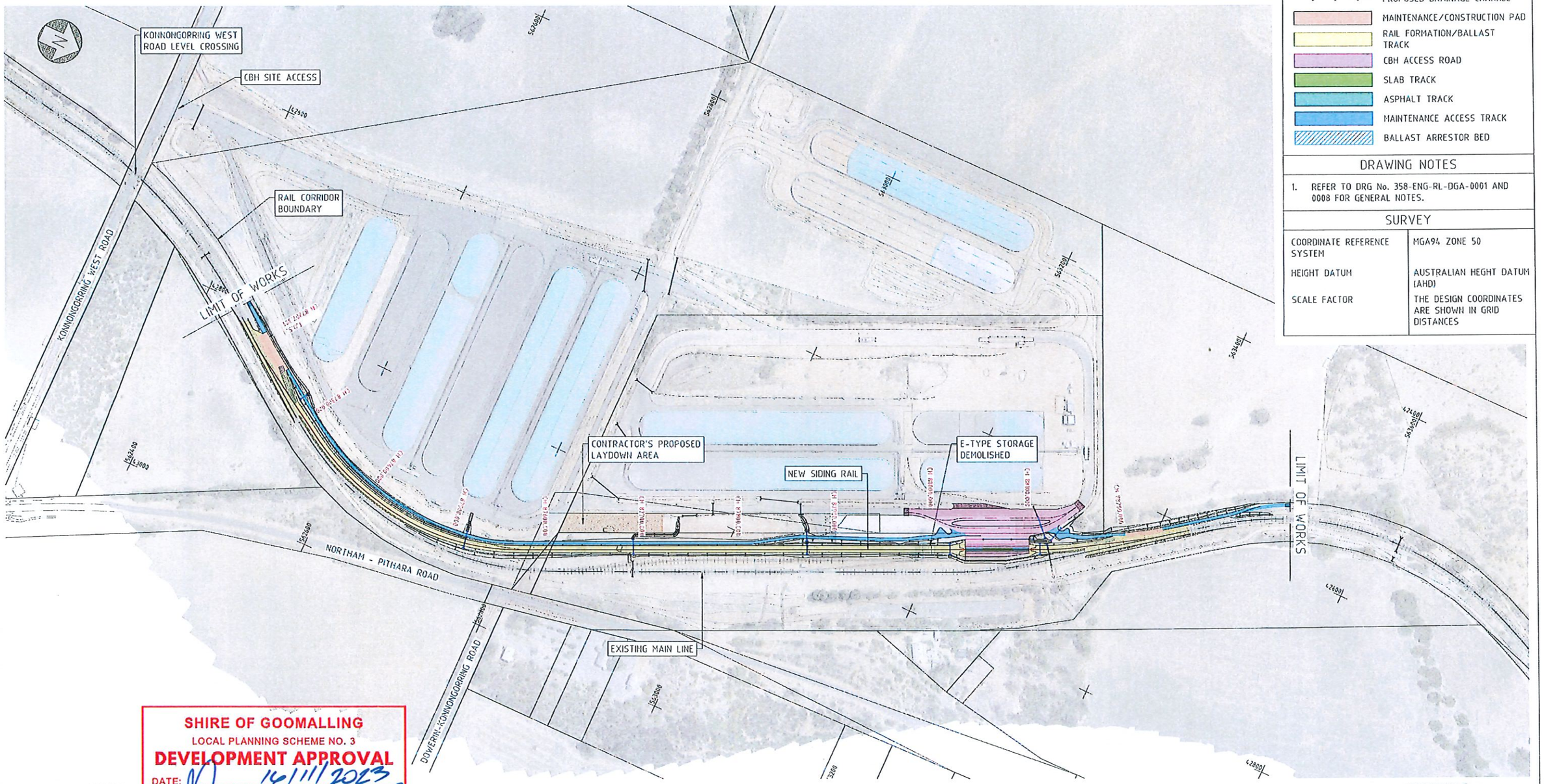
| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 29.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | JH | HB |
| A | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JH | DFR | HB |

SCALE 1:500H, 1:50V
SIZE A1
PROJECT KONNONGORRING
CONTRACT No CW9951

| | | |
|---|---|---|
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SOB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | HB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE PLAN AND PROFILE SHEET 3 OF 3

DRG No 358-ENG-RL-DAL-0010 | SHEET 3 OF 3 | REV. D




GENERAL ARRANGMENT PLAN
SCALE 1:2000

## LEGEND

- CADASTRAL BOUNDARY
- PROPOSED CULVERT WITH HEADWALLS
- CH 87350.000 — NEW SIDING CHAINAGES
- PROPOSED DRAINAGE CHANNEL
- MAINTENANCE/CONSTRUCTION PAD
- RAIL FORMATION/BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## DRAWING NOTES

1. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 0008 FOR GENERAL NOTES.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: Resolution 7.1.4
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

12000 @ A1
14000 @ A3
0 20 40 60 80 100 120 140 160 180 200 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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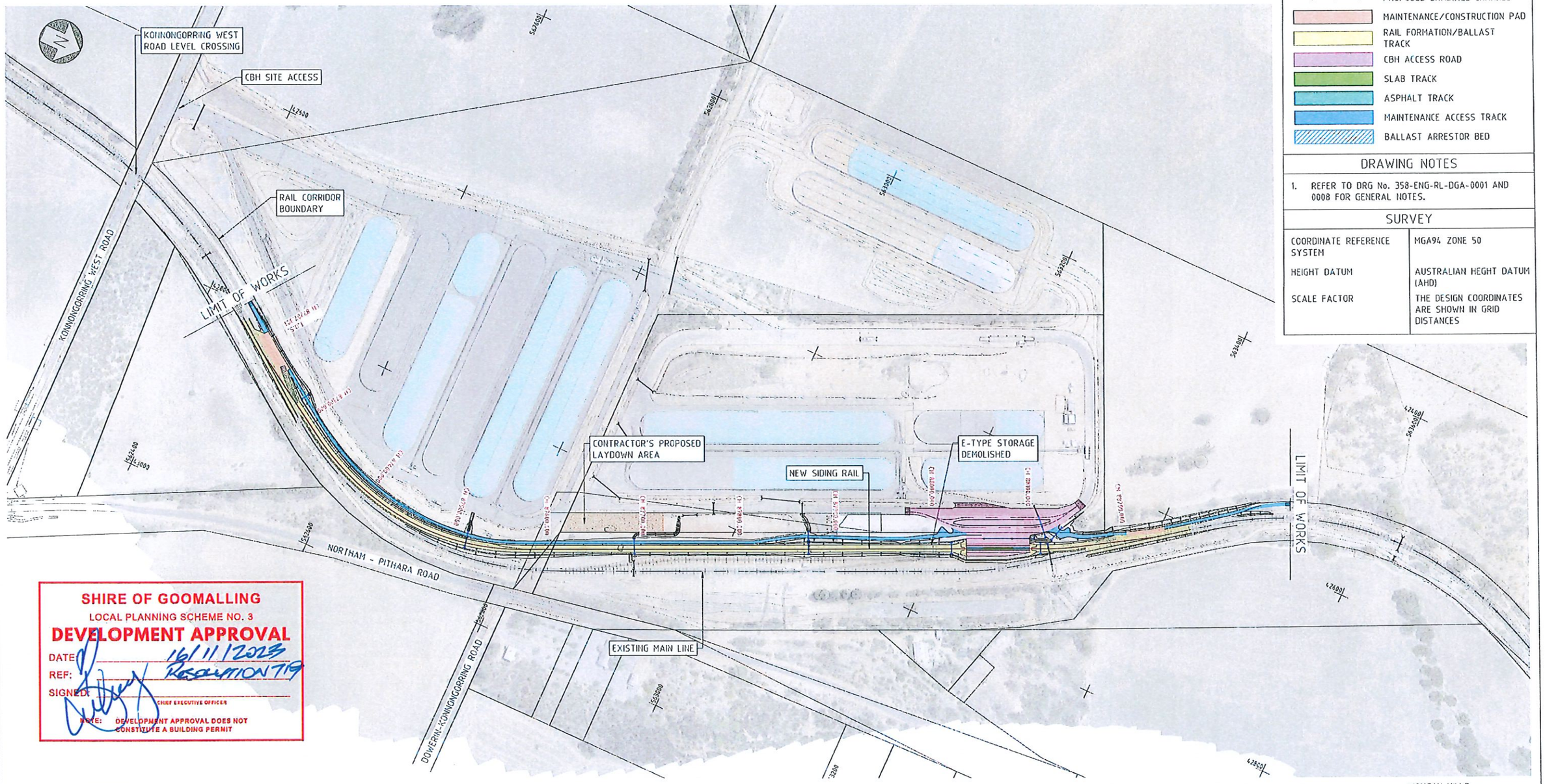
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|---|---|
| | | E | 19.10.23 | ISSUED FOR DA APPROVAL - FACILITY STRUCTURE REMOVED | AS | MH | MB |
| | | D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | TB/JH | MB |
| | | B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| | | A | 15.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | |
|---|---|---|
| SCALE 1:2000 | DRAWN AS | 28.09.23 |
| SHEET A1 | CHECKED AE | 28.09.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 28.09.23 |
| | DESIGN APPR TB | 28.09.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 28.09.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
GENERAL ARRANGEMENT PLAN

BG&E No. 358-ENG-RL-DGA-0003 | SHEET 1 OF 1 | REV. E




SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

GENERAL ARRANGMENT PLAN
SCALE 12000

## LEGEND

- CADASTRAL BOUNDARY
- PROPOSED CULVERT WITH HEADWALLS
- CH 87350.000 — NEW SIDING CHAINAGES
- PROPOSED DRAINAGE CHANNEL
- MAINTENANCE/CONSTRUCTION PAD
- RAIL FORMATION/BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## DRAWING NOTES

1. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 0008 FOR GENERAL NOTES.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

12000 @ A1
14000 @ A3
0 20 40 60 80 100 120 140 160 180 200 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

Perth Office—
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556 Wellington St, Perth WA 6000
P / +61 8 6363 9300 E / info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

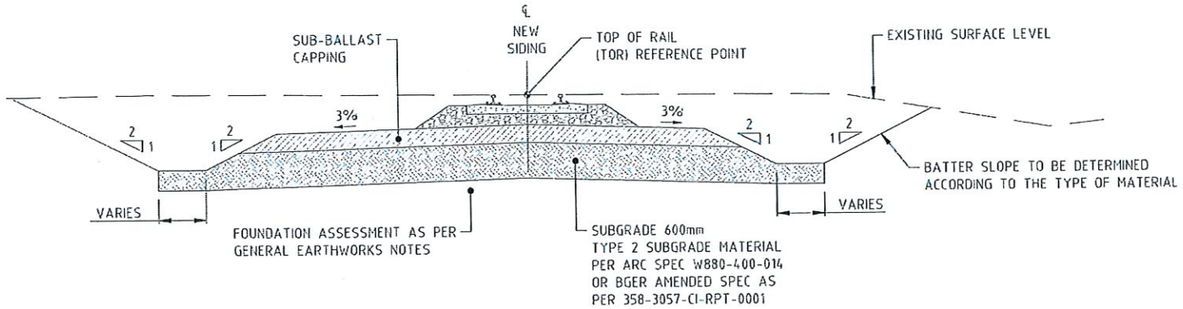
| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| E | 19.10.23 | ISSUED FOR DA APPROVAL - FACILITY STRUCTURE REMOVED | AS | YM | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | TB/JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| A | 16.12.22 | ISSUED FOR 35% CLIENT REVIEW | LJ | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:2000 | DRAWN | AS | 28.09.23 |
| SHEET A1 | CHECKED | AE | 28.09.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 28.09.23 |
| CONTRACT No CW9951 | DESIGN APPR | TB | 28.09.23 |
| | PROJECT APPR | MB | 28.09.23 |

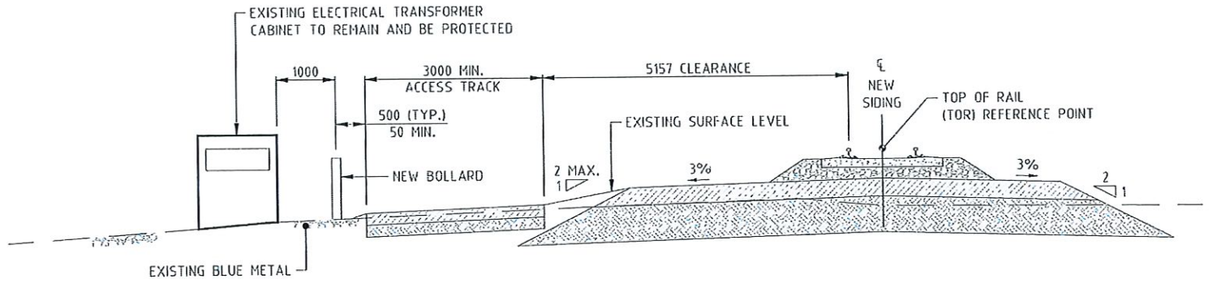
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
GENERAL ARRANGEMENT PLAN

DRG No 358-ENG-RL-DGA-0003 | SHEET 1 OF 1 | REV. E

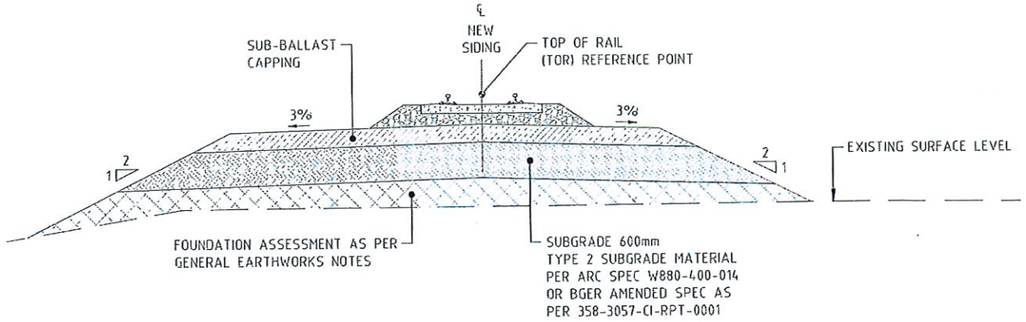
NOTE
ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.




TYPICAL SECTION OF FORMATION IN CUT
SCALE 1:50




EXISTING TRANSFORMER / NEW SIDING SECTION
(CH 87545)
SCALE 1:50




TYPICAL SECTION OF FORMATION IN FILL
SCALE 150

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 119
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1
1:100 @ A3



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

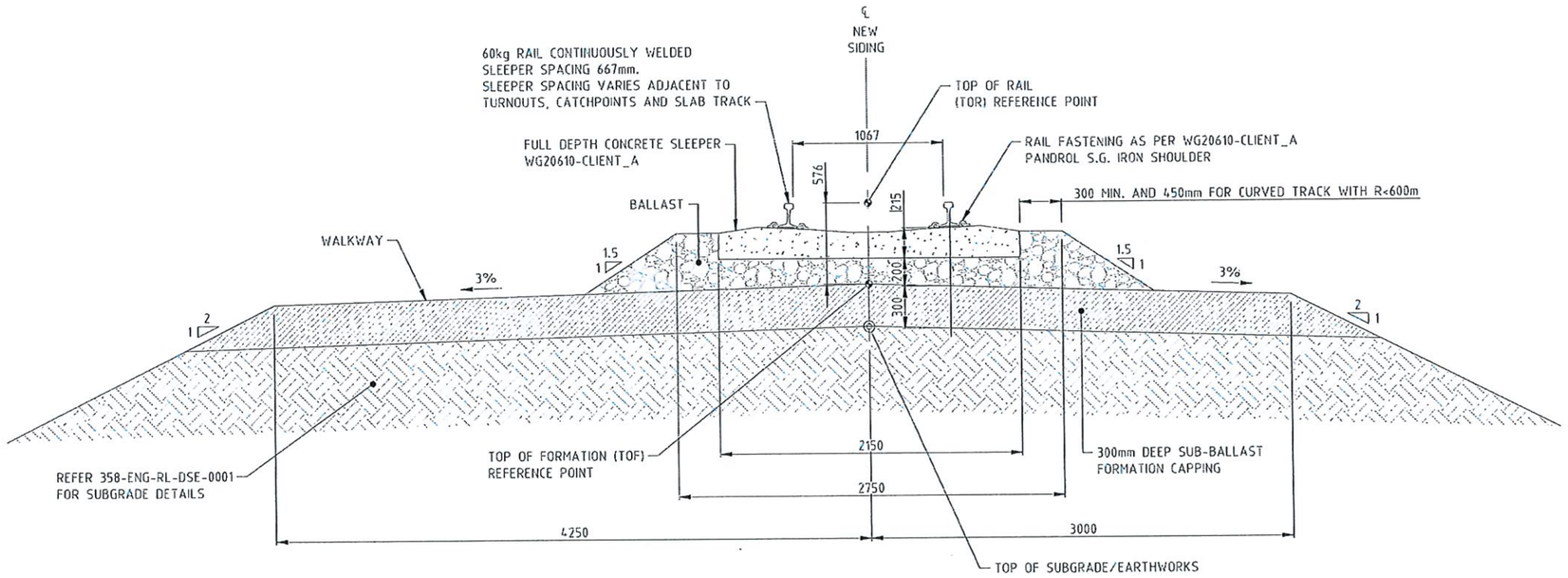
| REV | DATE | REVISION DESCRIPTION | | CHK'D | APP'D |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/JH | MB |
| B | 04.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 35% CLIENT REVIEW | LJ | DPR | MB |

| | | |
|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

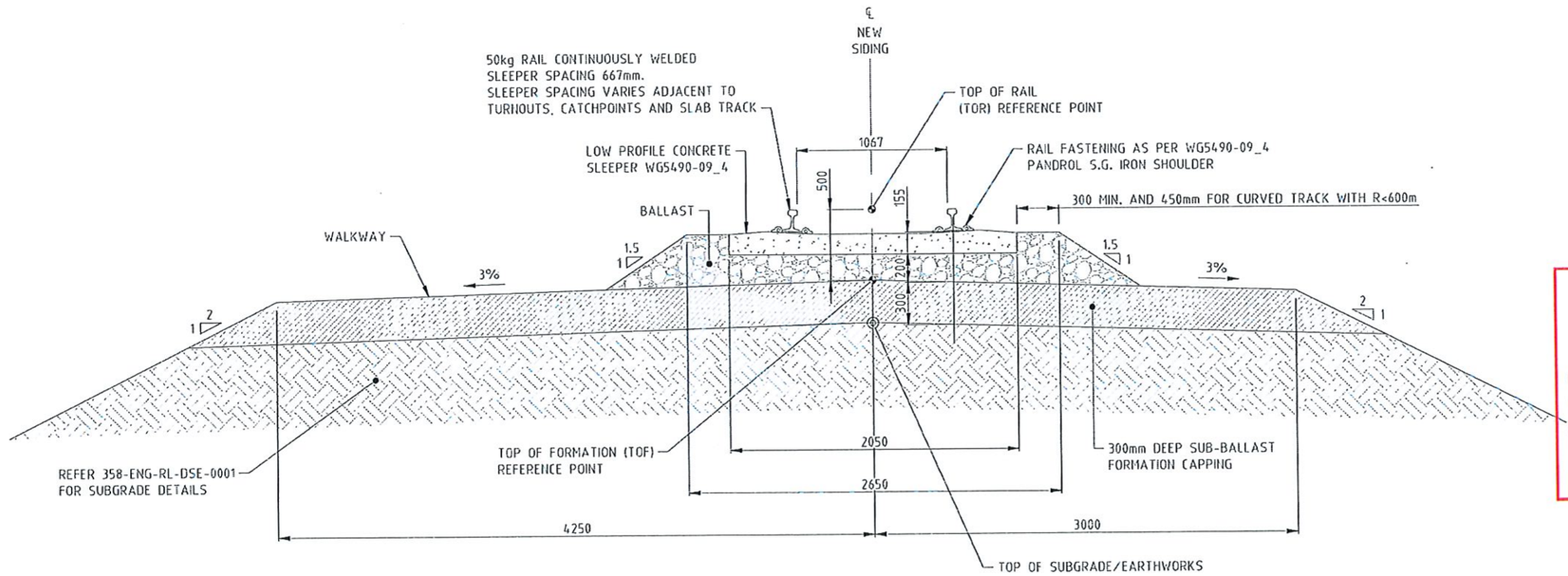
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 1 OF 4

DRG No. 358-ENG-RL-DSE-0001 | SHEET 1 OF 4 | REV. E

NOTE
ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.




TYPICAL RAIL FORMATION SECTION 60kg/m
(SIDING SECTION ONLY)
SCALE 1:20




TYPICAL RAIL FORMATION SECTION 50kg/m
(SIDING SECTION ONLY)
SCALE 1:20

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

123 @ A1 140 @ A3 — 0 200 400 600 800 1000 1200 1400 1600 1800 2000 mm



DO NOT SCALE FROM THIS DRAWING

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BG&E Project No. PE22014

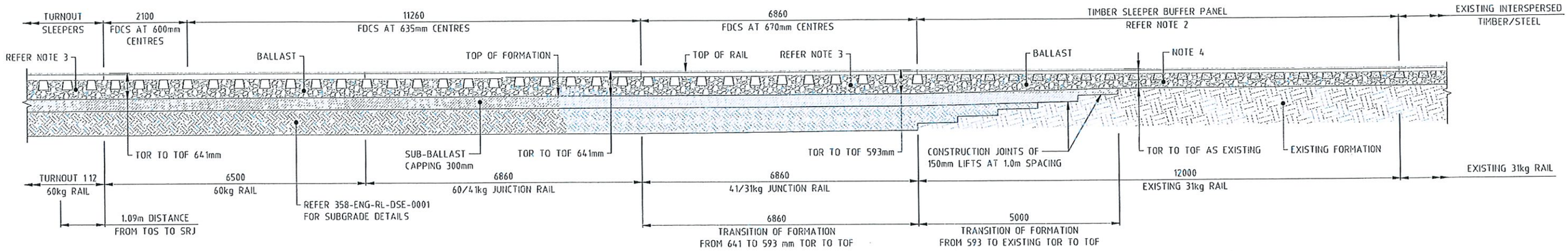

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 04.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | GPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | GPR | MB |

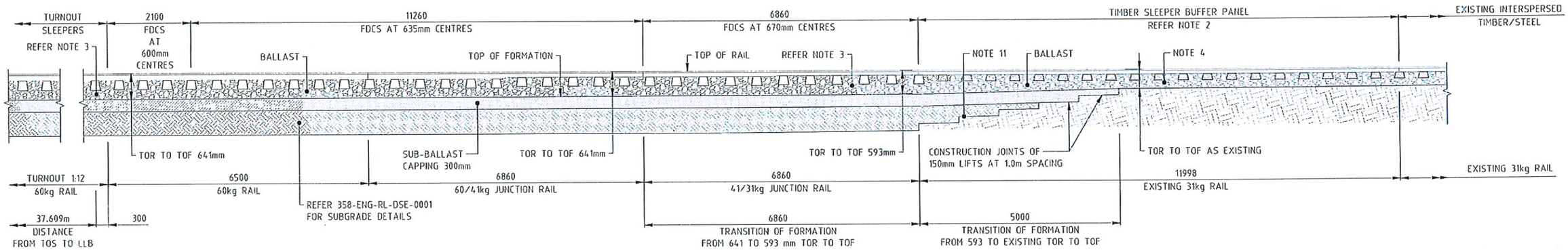
| | | |
|---|---|---|
| SCALE 1:20 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR JH | 27.10.23 |
| | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 2 OF 4

DRG No 358-ENG-RL-DSE-0002 | SHEET 2 OF 4 | REV. E




TYPICAL TRANSITION BETWEEN TURNOUT AND MAINLINE
TOS SIDE
SCALE 1:50

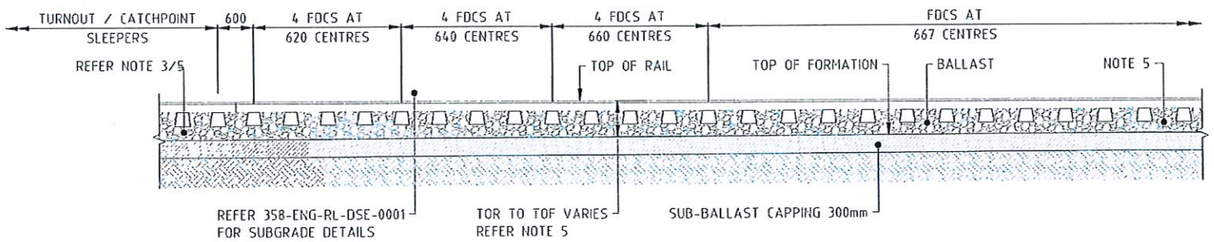



TYPICAL TRANSITION BETWEEN TURNOUT AND MAINLINE
LLB SIDE
SCALE 1:50

## NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. EXISTING SLEEPER SPACING TO BE ACHIEVED IN 12m BUFFER PANEL STARTING FROM 600mm BY TRANSITIONING IN 4m INTERVALS.
3. MAINLINE: DESIGN BALLAST DEPTH UNDER RAIL 250mm.
4. BALLAST DEPTH UNDER RAIL AS EXISTING.
5. SIDING: DESIGN BALLAST DEPTH UNDER RAIL MINIMUM 200mm. BALLAST DEPTH VARIES ACCORDING TO ONE SIDE 3% CROSSFALL DRAINAGE. REFER DRG 358-ENG-RL-DSE-0021.
6. FDCS DEPTH UNDER RAIL: 215mm
7. TURNOUTS SLEEPERS DEPTH UNDER RAIL: 230mm
8. TIMBER SLEEPERS DEPTH AS EXISTING.
9. SLEEPER SPACING TO BE LOCALLY ADJUSTED TO POSITION WELD LOCATION IN THE CENTER OF THE BAY.
10. SLEEPER SPACING TO BE LOCALLY ADJUSTED TO ALLOW TRANSITION FROM 600mm TO 667mm.
11. KEY IN WITH EXISTING FORMATION LOCATION IS INDICATIVE. REFER TO DRG 358-ENG-RL-DSE-0021.

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT




TYPICAL TRANSITION BETWEEN TURNOUT/CATCHPOINT AND SIDING
SCALE 1:50

1:50 @ A1 / 1:100 @ A3 — 0 1 2 3 4 5 m



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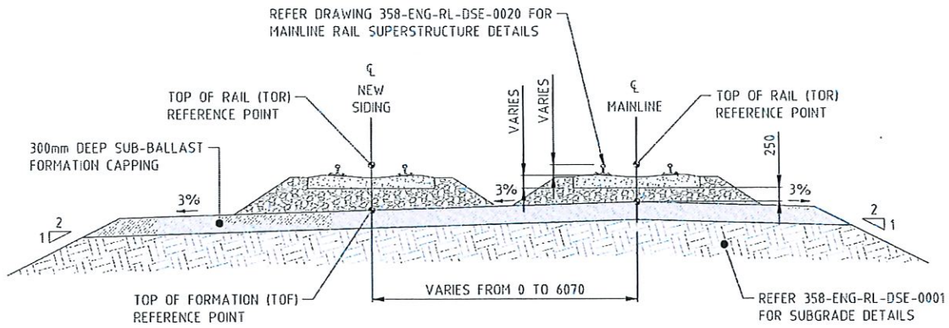
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|---|---|
| | | C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | A | 29.03.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |

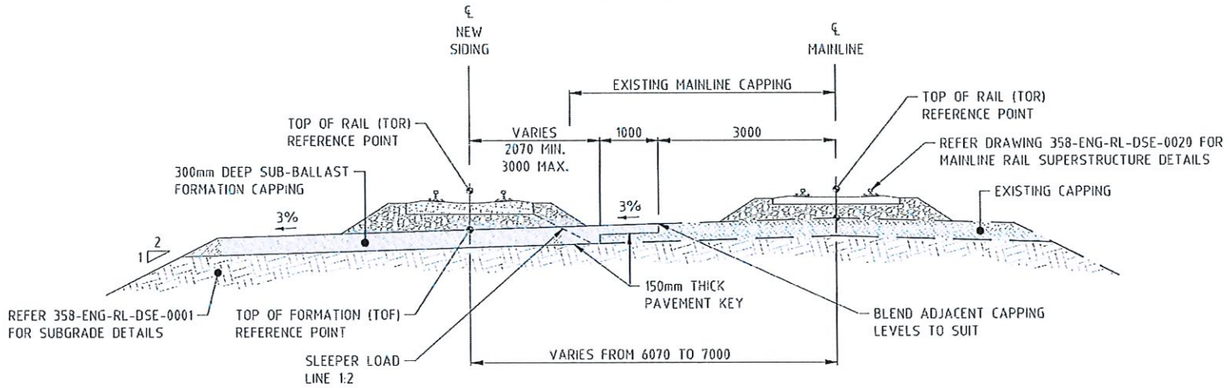
| | | | |
|---|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 | TITLE KONNONGORRING FIXED RAIL LOADING FACILITY RAIL AND CIVIL TYPICAL CROSS SECTIONS SHEET 3 OF 4 |
| SHEET A1 | CHECKED JH | 27.10.23 | |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 | |
| CONTRACT No CW9951 | DESIGN APVR JH | 27.10.23 | |
| | PROJECT APPR MB | 27.10.23 | CAD No 358-ENG-RL-DSE-0020 — SHEET 3 OF 4 — REV. C |

## NOTE

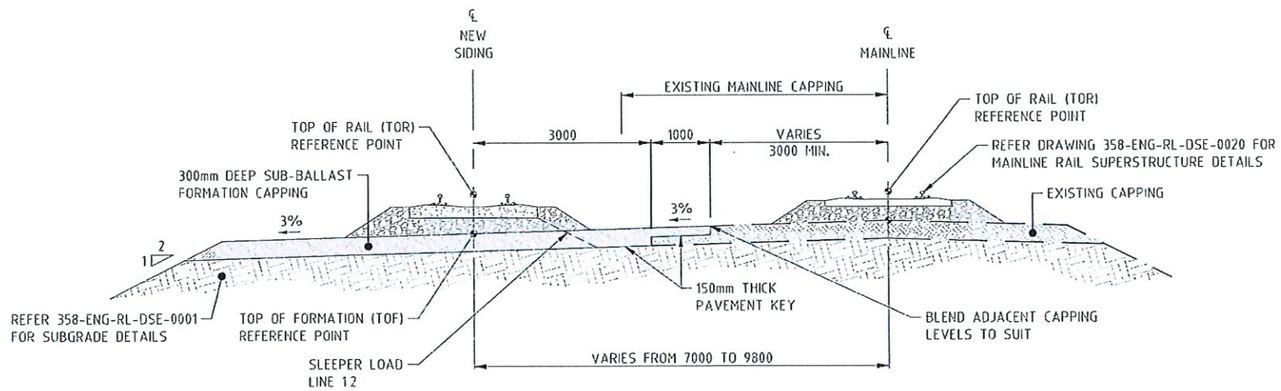
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. REFER TO PROFILE DRG No's. 358-ENG-RL-DAL-0002, 0003 AND 0004 FOR SECTION EXTENTS.




TIE IN SIDING/MAINLINE
MAINLINE RENEWAL
SCALE 1:50




TIE IN SIDING/MAINLINE
MAINLINE SUBSTRUCTURE AS PER EXISTING
SCALE 1:50




TIE IN SIDING/MAINLINE
MAINLINE SUBSTRUCTURE AS PER EXISTING
SCALE 1:50

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1 / 1:100 @ A3 — 0 1 2 3 4 5 m



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BG&E Project No. PE22014

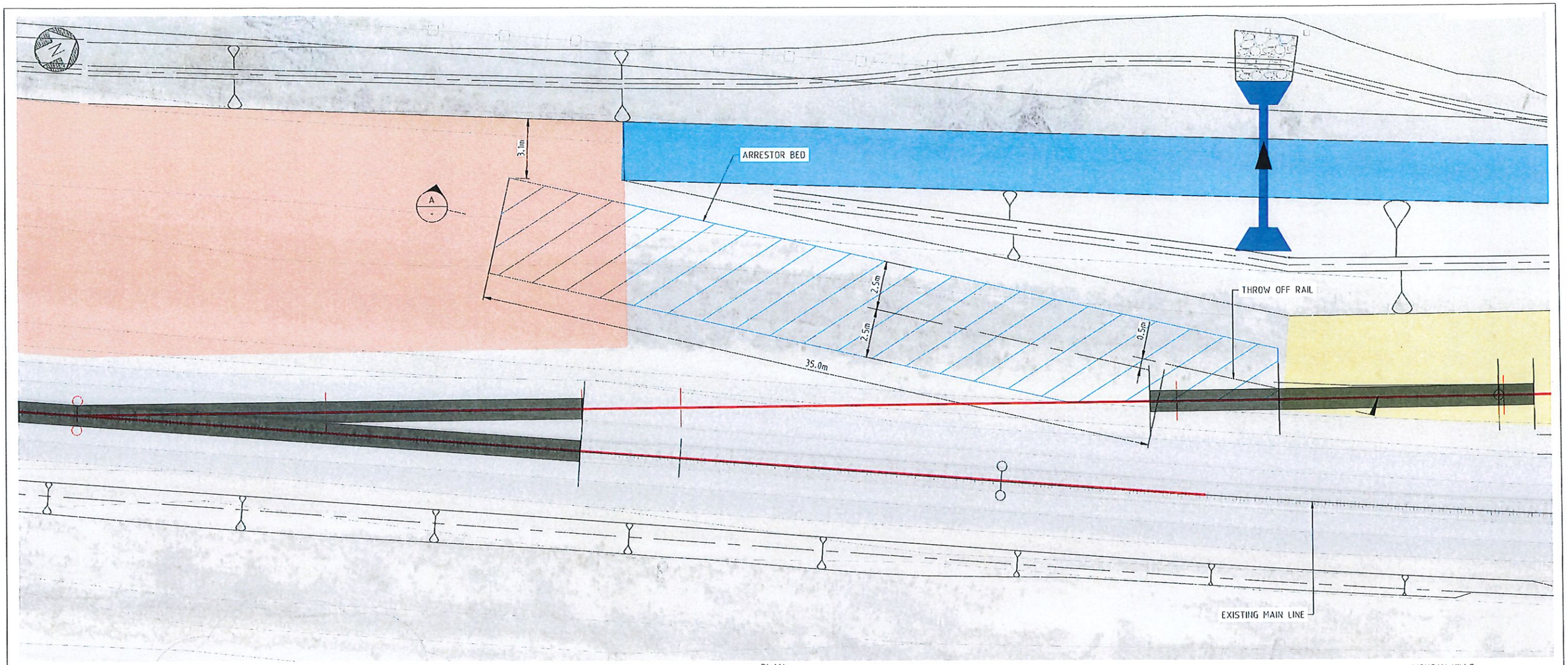

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |

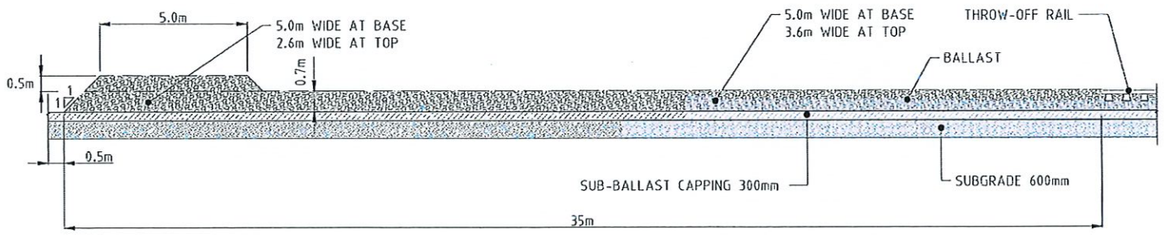
| | | | |
|---|---|---|---|
| SCALE 1:50 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 4 OF 4

DRG No 358-ENG-RL-DSE-0021 | SHEET 4 OF 4 | REV. C




PLAN
SCALE 1:100




SOUTH END BALLAST ARRESTOR BED

SECTION A
SCALE 1:100

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3



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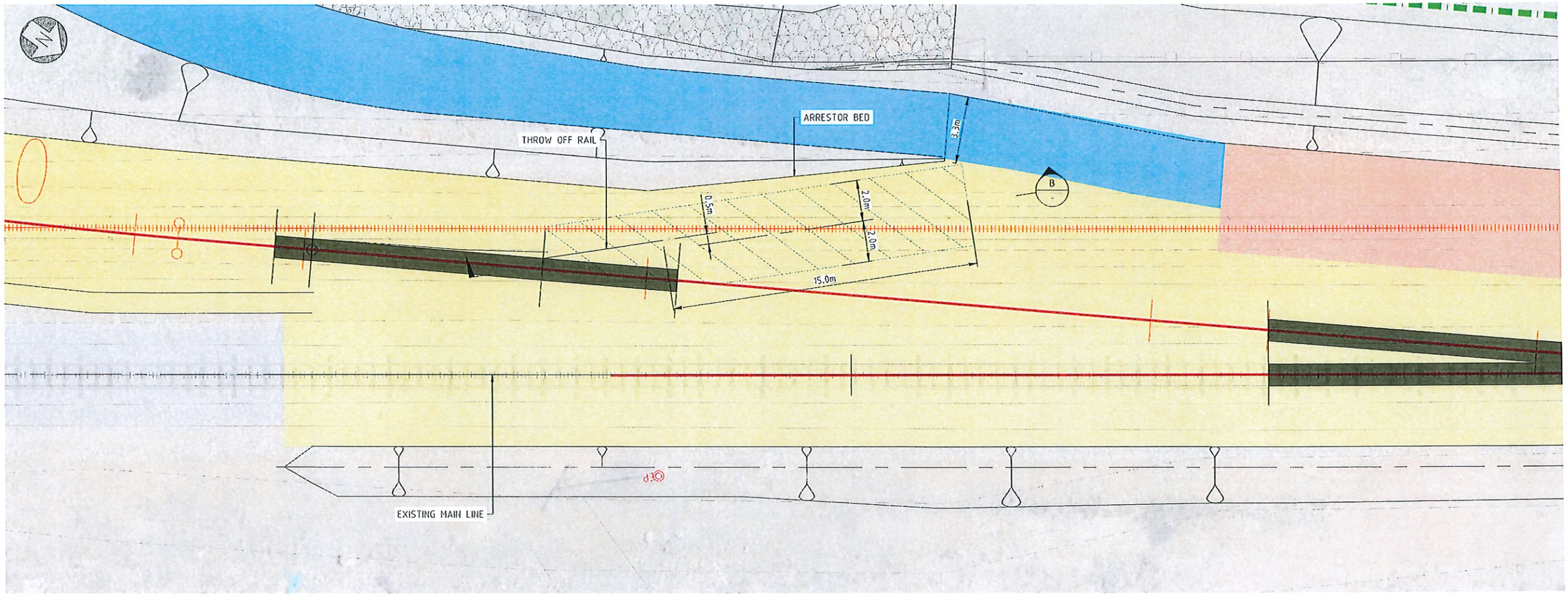
|---|---|---|---|---|---|---|---|
| | | C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | B | 23.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/AS | MB |

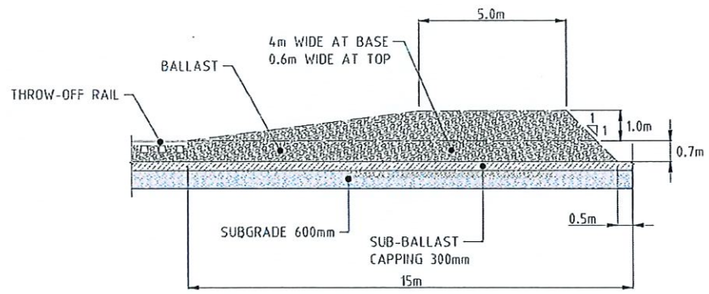
| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SOUTH END BALLAST ARRESTOR BED

DRG No 358-ENG-RL-DTD-0003 | SHEET 1 OF 1 | REV. C




PLAN
SCALE 1:100




NORTH END BALLAST ARRESTOR BED

SECTION B
SCALE 1:100

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 119
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3



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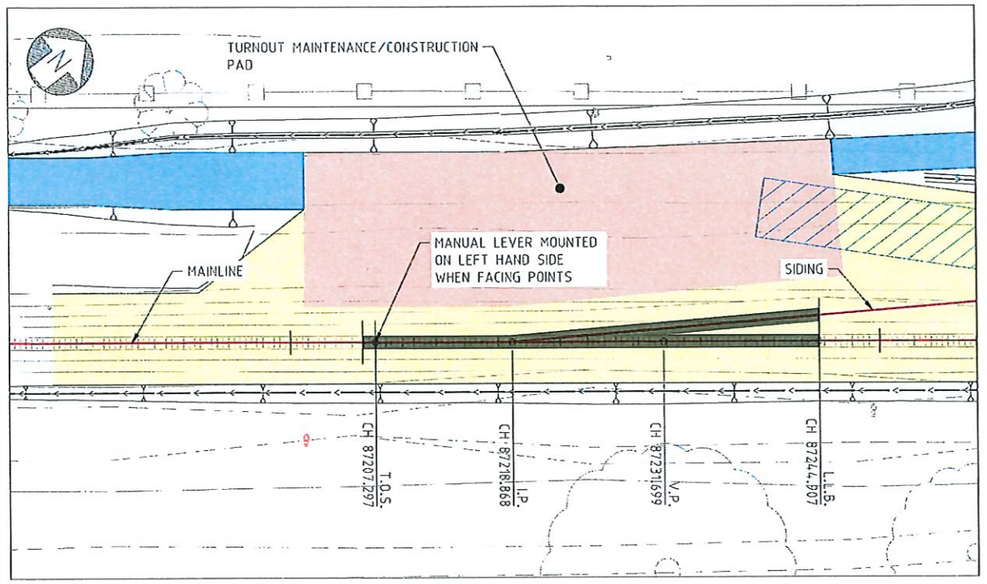
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/JH | HB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | HB | 27.10.23 |

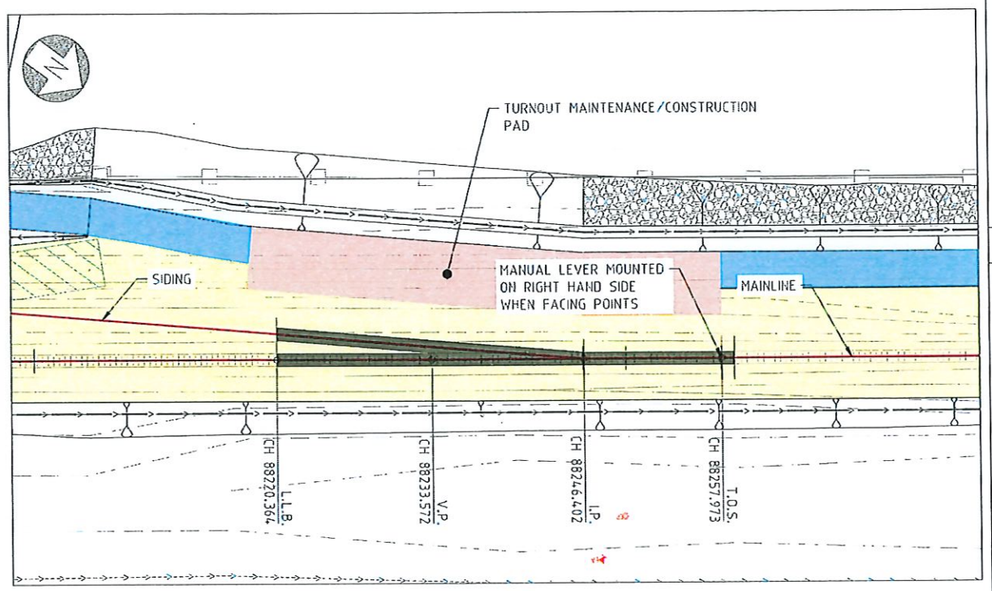
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
NORTH END BALLAST ARRESTOR BED

DRG No. 358-ENG-RL-DTD-0004 | SHEET 1 OF 1 | REV. C




PLAN - TURNOUT SOUTH

SCALE 1:250




PLAN - TURNOUT NORTH

SCALE 1:250

## LEGEND

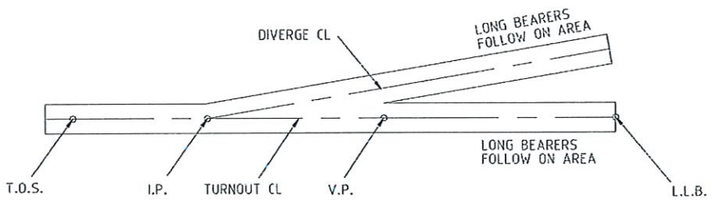
| | |
|---|---|
| | CADASTRAL BOUNDARY |
| | NEW TURNOUT |
| T.O.S. | TOE OF SWITCH |
| I.P. | INTERSECTION POINT |
| L.L.B. | LAST LONG BEARER |
| V.P. | THEORETICAL POINT |

## DRAWING NOTES

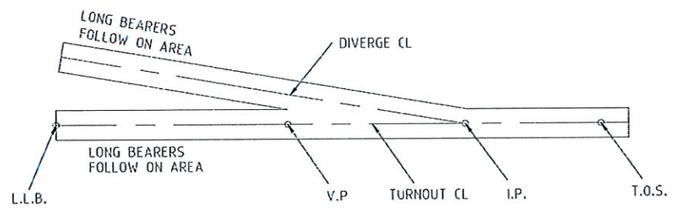
1. THESE SETOUT DETAILS ARE FOR TURNOUT INSTALLATION ONLY AND SHOULD BE READ IN CONJUNCTION WITH RAIL TOR, TOF AND TURNOUT INSTALLATIONS MANUALS.
2. CONTRACTOR TO VERIFY TIE INS PRIOR TO CONSTRUCTION.
3. TURNOUTS TO BE INSTALLED AS PER VAM13458_B WITH ALL ASSOCIATED BEARERS, JEWELLERY AND CANT BEARERS.
4. CHAINAGE ARE INDICATIVE AND MUST NOT BE USED FOR TURNOUT INSTALLATION TURNOUTS MUST BE INSTALLED USING EASTING NORTHINGS AND LEVELS PROVIDED IN THIS DRAWINGS.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |




TURNOUT SETOUT DIAGRAM SOUTH




TURNOUT SETOUT DIAGRAM NORTH

## TURNOUT SCHEDULE AND SETOUT TABLE

| TURNOUT ID | DES T.O.S CHAINAGE | TURNOUT ANGLE | HAND OF TURNOUT | SWITCH TYPE | RAIL SIZE (kg/m) | T.O.S. | | | I.P. | | | V.P. | | | L.L.B. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | EASTING | NORTHING | R.L. | EASTING | NORTHING | R.L. | EASTING | NORTHING | R.L. | EASTING | NORTHING | R.L. | REFERENCE DRAWING |
| T/O SOUTH | 87207.297 | 1 IN 12 | L/HAND | RBM | 60 | 42832.257 | 562468.687 | 282.594 | 42839.203 | 562477.994 | 282.897 | 42846.875 | 562488.279 | 282.989 | 42854.750 | 562498.828 | 283.205 | VAM13458_b |
| T/O NORTH | 88257.973 | 1 IN 12 | R/HAND | RBM | 60 | 42641.442 | 563378.075 | 281.744 | 42633.599 | 563388.702 | 281.932 | 42625.979 | 563399.027 | 282.120 | 42619.111 | 563408.337 | 282.762 | VAM13458_b |

## TURNOUT DIMENSIONS

| TURNOUT ID | TURNOUT ANGLE | S.R.J. TO T.O.S. (m) | T.O.S. TO I.P. (m) | I.P. TO V.P. (m) | V.P. TO L.L.B. (m) |
|---|---|---|---|---|---|
| T/O SOUTH | 1 IN 12 | 1.090 | 11.570 | 12.826 | 13.213 |
| T/O NORTH | 1 IN 12 | 1.090 | 11.570 | 12.826 | 13.213 |

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:250 @ A1 / 1:500 @ A3 — 0 4 8 12 16 20 24 m



DO NOT SCALE FROM THIS DRAWING

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BG&E Project No. PE22014

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|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
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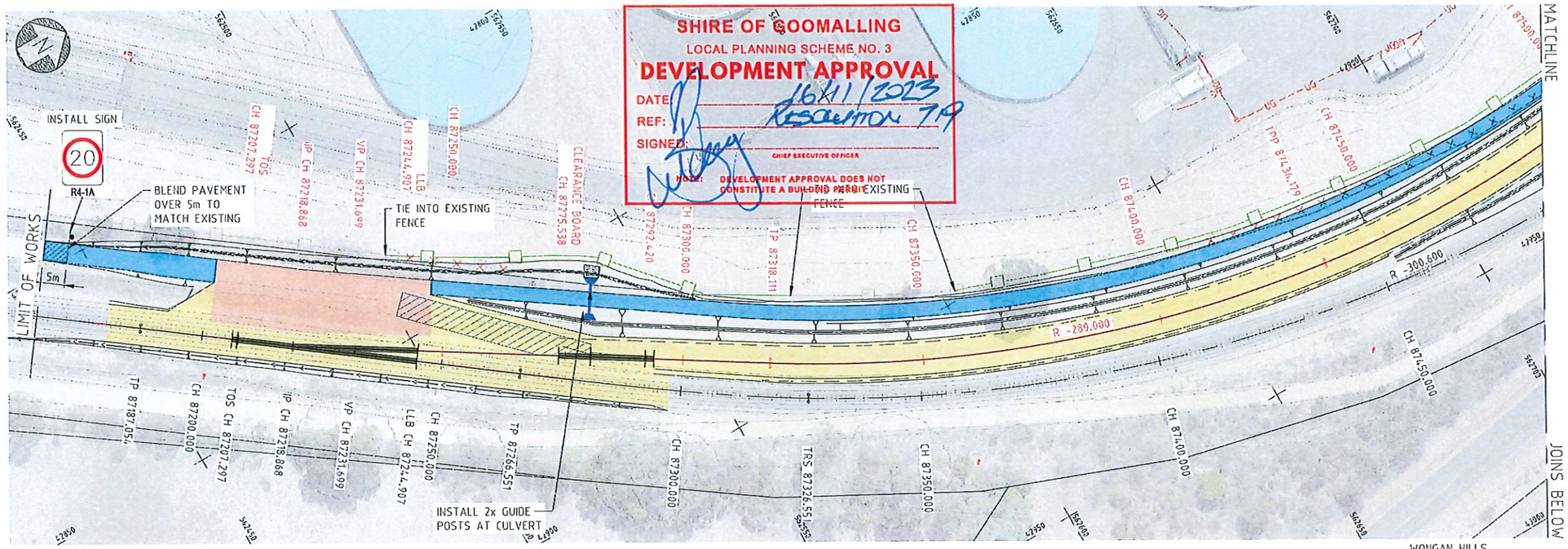
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 29.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |

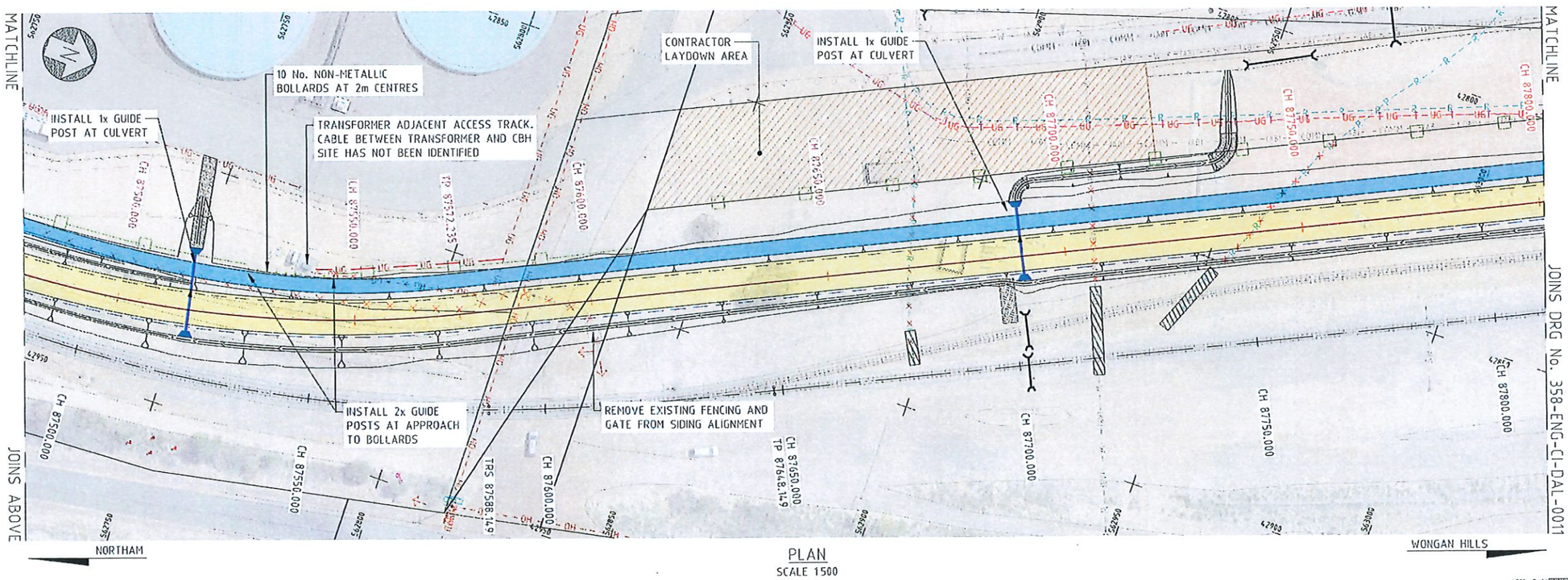
| | | |
|---|---|---|
| SCALE 1:250 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR JH | 27.10.23 |
| | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE TURNOUT SETOUT DETAILS

DRG No 358-ENG-RL-DTD-0007 | SHEET 1 OF 1 | REV. E




PLAN
SCALE 1:500




PLAN
SCALE 1:500

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7.9
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- CH 87350.000 — NEW SIDING CHAINAGES
- RAIL TO BE REMOVED
- PROPOSED WATER
- PROPOSED UNDERGROUND POWER
- ELECTRICAL COMMS NOT USED
- ELECTRICAL CABLE OVERHEAD
- ELECTRICAL CABLE UNDERGROUND
- ELECT CABLE UNDERGROUND NOT USED
- STORMWATER NOT USED
- TELSTRA
- WATER RETIC UNDERGROUND
- WATER RETIC NOT USED
- PROPOSED CULVERT, HEADWALLS & CATCHPIT
- EXISTING CULVERT
- PROPOSED DRAINAGE CHANNEL
- CONDUIT/PIPE TO BE SLURRY FILLED
- EXISTING DRAINAGE CHANNEL
- DRAINAGE BUND
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED
- CBH ACCESS ROAD PAVEMENT BLEND
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- PROP 1200mm HIGH STOCK FENCE
- POSITION OF SAFETY LINE

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   CONCRETE SLEEPER ARRANGEMENT:
   50kg RAIL - 154mm
   60kg RAIL - 170mm
   RAIL PAD - 8mm
   LPCS/FDCS - 140mm/215mm

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1500 @ A1
1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
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bgeng.com—
BG&E Project No. PE22014

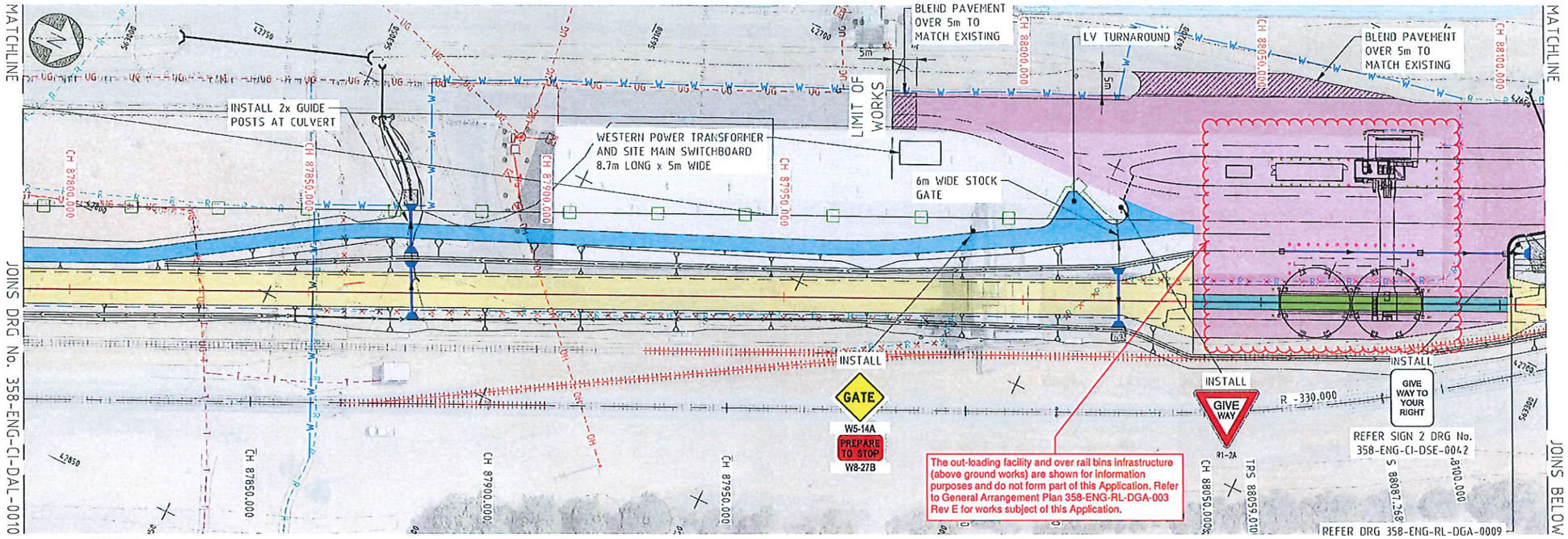
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| B | 01.05.23 | ISSUED FOR 66% CLIENT REVIEW | JH | DFR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

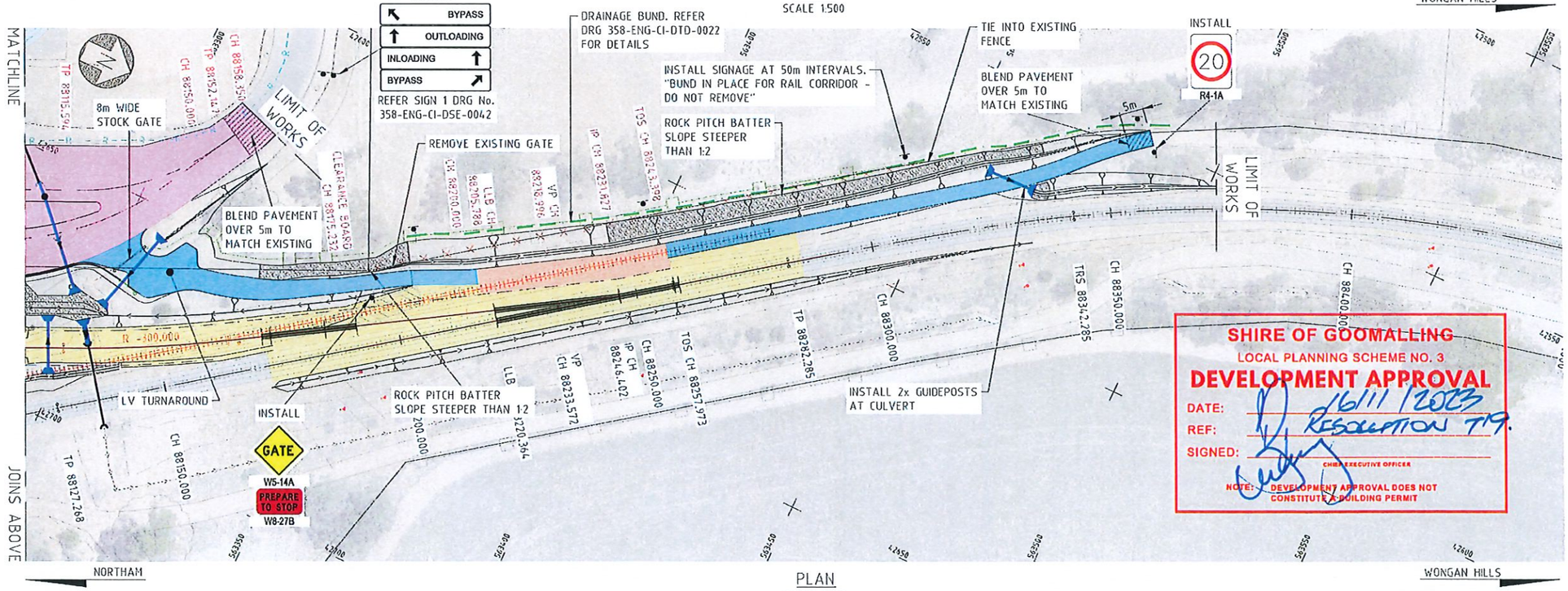
| | | |
|---|---|---|
| SCALE 1500 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| | DESIGNED SGB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGN APPR TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
CIVIL LAYOUT PLAN SHEET 1 OF 2

DRG No 358-ENG-CI-DAL-0010 | SHEET 1 OF 2 | REV. E




PLAN
SCALE 1:500




PLAN
SCALE 1:500

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- CH 87350.000 — NEW SIDING CHAINAGES
- RAIL TO BE REMOVED
- PROPOSED WATER
- PROPOSED UNDERGROUND POWER
- ELECTRICAL COMMS NOT USED
- ELECTRICAL CABLE OVERHEAD
- ELECTRICAL CABLE UNDERGROUND
- ELECT CABLE UNDERGROUND NOT USED
- STORMWATER NOT USED
- TELSTRA
- WATER RETIC UNDERGROUND
- WATER RETIC NOT USED
- PROPOSED CULVERT, HEADWALLS & CATCHPIT
- EXISTING CULVERT
- PROPOSED DRAINAGE CHANNEL
- CONDUIT/PIPE TO BE SLURRY FILLED
- EXISTING DRAINAGE CHANNEL
- DRAINAGE BUND
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED
- CBH ACCESS ROAD PAVEMENT BLEND
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- PROP 1200mm HIGH STOCK FENCE
- POSITION OF SAFETY LINE

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   CONCRETE SLEEPER ARRANGEMENT:
   50kg RAIL - 154mm
   60kg RAIL - 170mm
   RAIL PAD - 8mm
   LPCS/FDCS - 140mm/215mm

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1:500 @ A1 / 1:1000 @ A3 — 0 5 10 15 20 25 30 35 40 45 50 m



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BG&E
BG&E Project No. PE22014

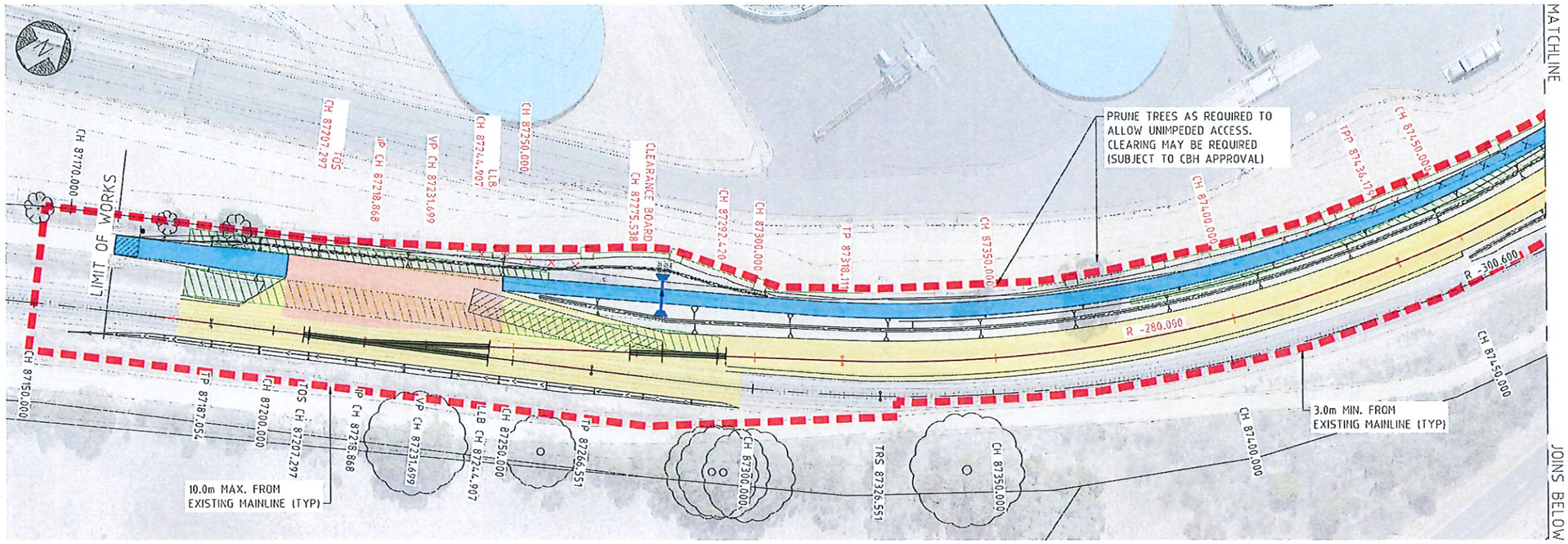
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | TB | HB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | HB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | HB |

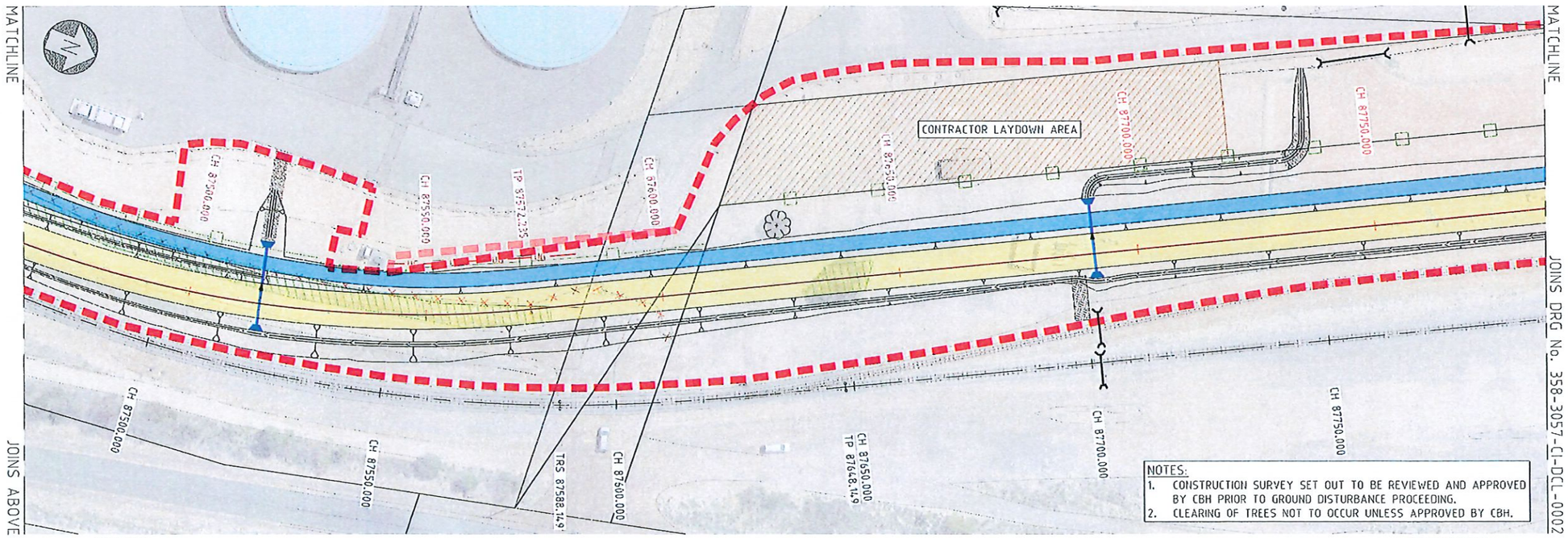
| | | |
|---|---|---|
| SCALE | 1:500 | |
| SHEET | A1 | |
| PROJECT | KONNONGORRING | |
| CONTRACT No | CW9951 | |
| DRAWN | AS | 27.10.23 |
| CHECKED | TB | 27.10.23 |
| DESIGNED | SGB | 27.10.23 |
| DESIGN APPR | TB | 27.10.23 |
| PROJECT APPR | HB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
CIVIL LAYOUT PLAN SHEET 2 OF 2

DRG No. 358-ENG-CI-DAL-0011 | SHEET 2 OF 2 | REV. E




PLAN
SCALE 1:500




PLAN
SCALE 1500

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- CH 87350.000 — NEW SIDING CHAINAGES
- RAIL TO BE REMOVED
- PROPOSED CULVERT AND HEADWALLS
- EXISTING CULVERT
- PROPOSED DRAINAGE CHANNEL
- CONDUIT/PIPE TO BE SLURRY FILLED
- EXISTING DRAINAGE CHANNEL
- PROPOSED DISTURBANCE AREA
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED
- CONTRACTOR LAYDOWN AREA
- CBH ACCESS ROAD PAVEMENT BLEND
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- PROP 1200mm HIGH STOCK FENCE

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   CONCRETE SLEEPER ARRANGEMENT:
   50kg RAIL - 154mm
   60kg RAIL - 170mm
   RAIL PAD - 8mm
   LPCS/FDCS - 140mm/215mm

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1500 @ A1
1:1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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BG&E

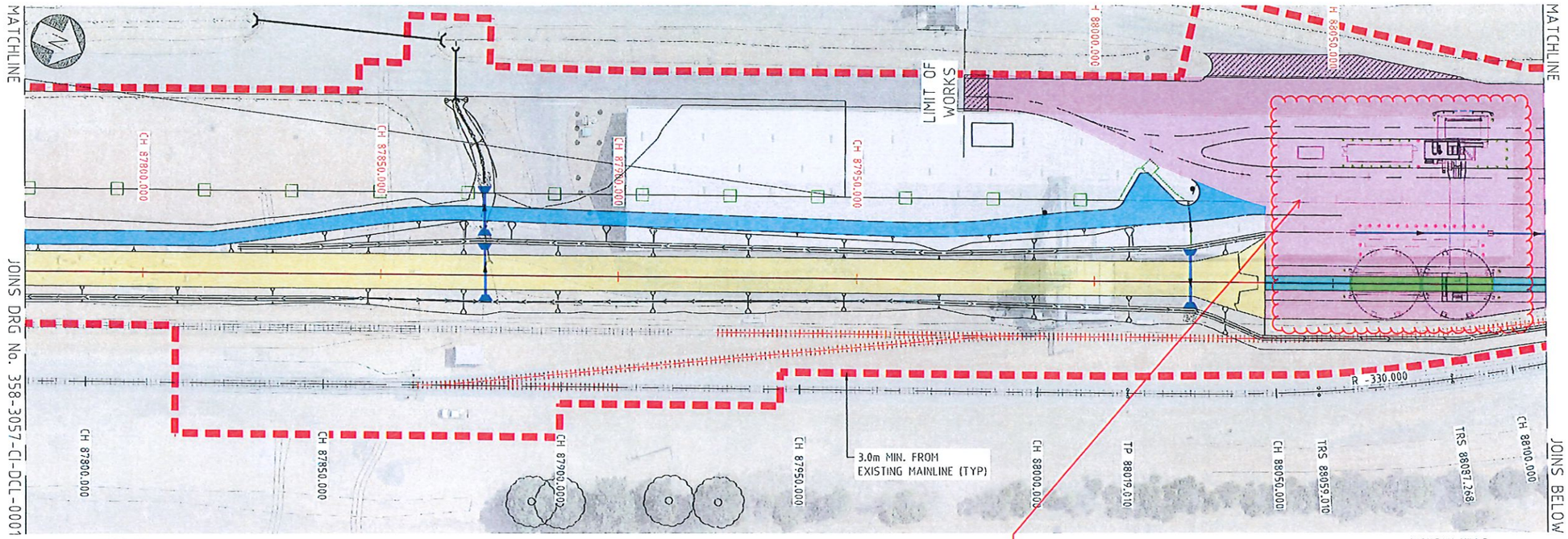
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CK'D | APP'D |
|---|---|---|---|---|---|---|---|
| | | D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | IB | HB |
| | | C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | IB | HB |
| | | B | 23.08.23 | ISSUED FOR 65% CLIENT REVIEW | JK | IB | HB |
| | | A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | HB |

| | | |
|---|---|---|
| SCALE 1500 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED IB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SP | 27.10.23 |
| | DESIGN APPR IB | 27.10.23 |
| CONTRACT No. CW9951 | PROJECT APPR HB | 27.10.23 |

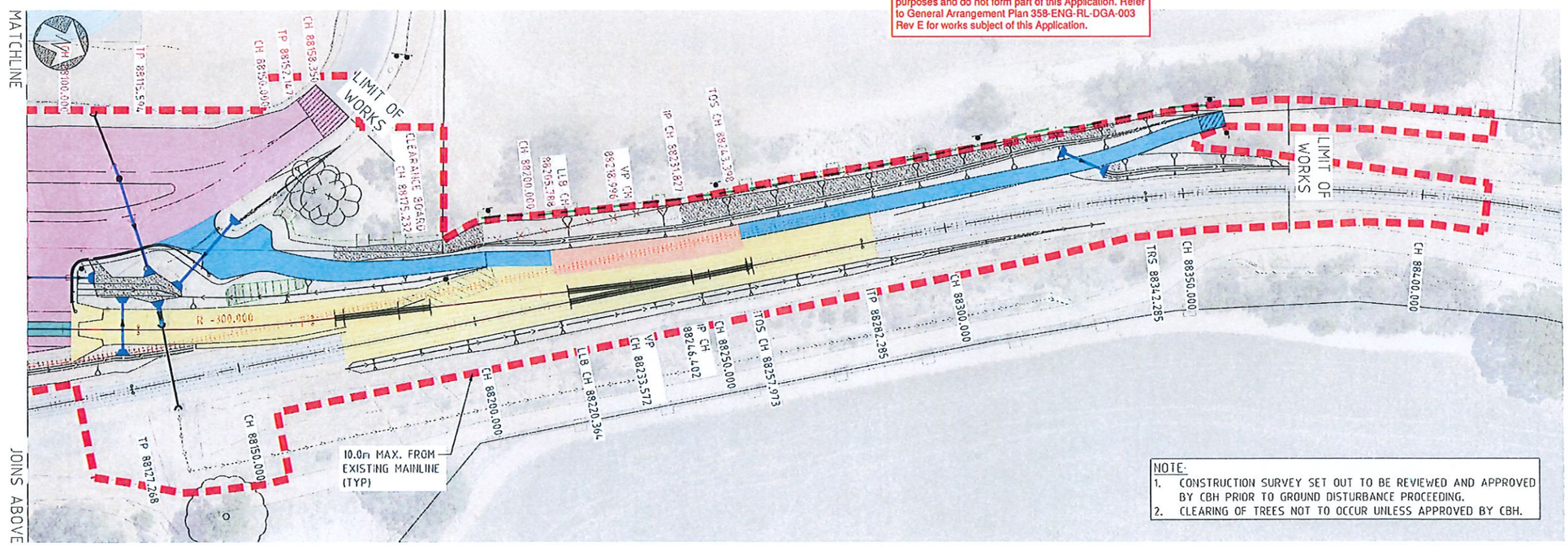
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
CLEARING / GROUND DISTURBANCE PLAN SHEET 1 OF 2

DRG No. 358-ENG-CI-DCL-0003 | SHEET 1 OF 2 | REV. D




PLAN
SCALE 1:500

The out-loading facility and over rail bins infrastructure (above ground works) are shown for information purposes and do not form part of this Application. Refer to General Arrangement Plan 358-ENG-RL-DGA-003 Rev E for works subject of this Application.




PLAN
SCALE 1500

NOTE:
1. CONSTRUCTION SURVEY SET OUT TO BE REVIEWED AND APPROVED BY CBH PRIOR TO GROUND DISTURBANCE PROCEEDING.
2. CLEARING OF TREES NOT TO OCCUR UNLESS APPROVED BY CBH.

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- CH 87350.000 — NEW SIDING CHAINAGES
- RAIL TO BE REMOVED
- PROPOSED CULVERT AND HEADWALLS
- EXISTING CULVERT
- PROPOSED DRAINAGE CHANNEL
- CONDUIT/PIPE TO BE SLURRY FILLED
- EXISTING DRAINAGE CHANNEL
- PROPOSED DISTURBANCE AREA
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED
- CONTRACTOR LAYDOWN AREA
- CBH ACCESS ROAD PAVEMENT BLEND
- EXISTING FENCE
- EXISTING FENCE TO BE REMOVED
- PROP 1200mm HIGH STOCK FENCE

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   CONCRETE SLEEPER ARRANGEMENT:
   50kg RAIL - 154mm
   60kg RAIL - 170mm
   RAIL PAD - 8mm
   LPCS/FDCS - 140mm/215mm

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM: | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:500 @ A1 / 1:1000 @ A3 — 0 5 10 15 20 25 30 35 40 45 50 m



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ABN 29 256 604 947

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bgeeng.com—
BG&E
BGBE Project No. PE22014

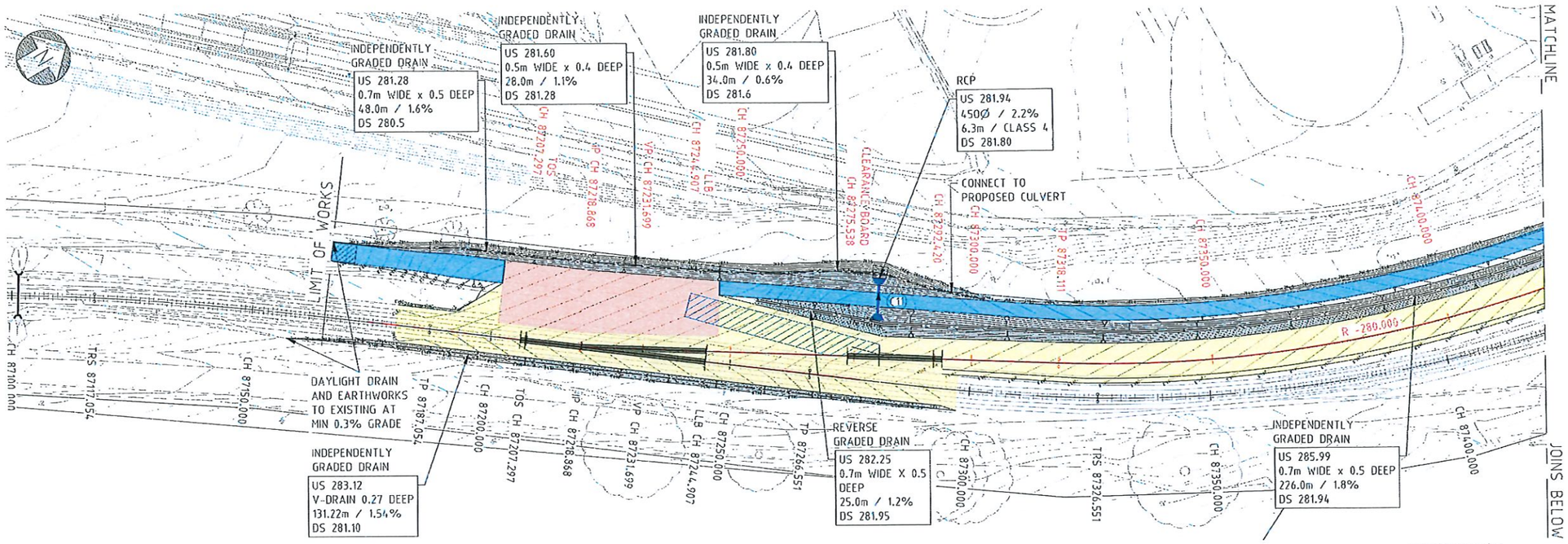
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 23.08.23 | ISSUED FOR 65% CLIENT REVIEW | JC | TB | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |

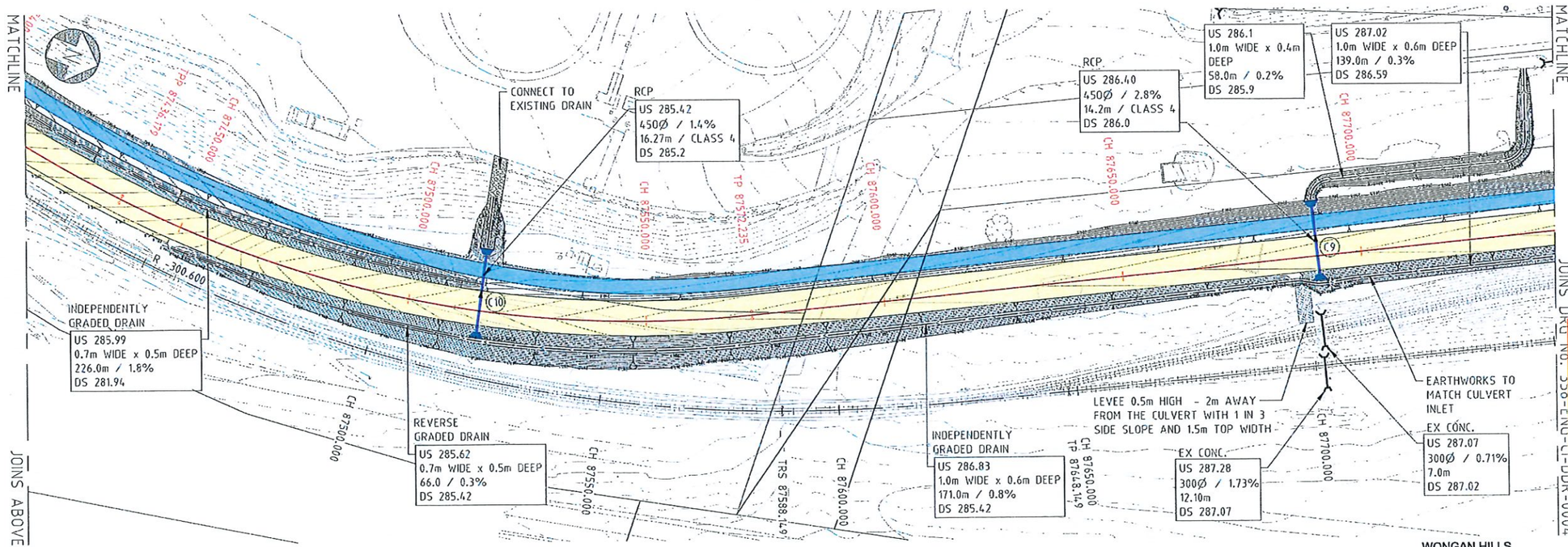
| | | |
|---|---|---|
| SCALE 1500 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SP | 27.10.23 |
| | DESIGN APPR TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
CLEARING / GROUND DISTURBANCE PLAN SHEET 2 OF 2

DRG No. 358-ENG-CI-DCL-0004 | SHEET 2 OF 2 | REV. D




PLAN
SCALE 1500




PLAN
SCALE 1500

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- RAIL TO BE REMOVED
- PROPOSED CULVERT, HEADWALLS AND CATCHPIT
- PROPOSED DRAINAGE CHANNEL
- PROPOSED SCOUR PROTECTION
- EXISTING CULVERT
- PROPOSED DRAINAGE PIT
- (P3) DRAINAGE STRUCTURE ID
- KERB
- EXISTING DRAINAGE CHANNEL
- EXIST MINOR CONTOURS (0.1m)
- EXIST MAJOR CONTOURS (0.5m)
- DESIGN MINOR CONTOURS (0.1m)
- DESIGN MAJOR CONTOURS (0.5m)
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED
- DRAINAGE BUND

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 FOR GENERAL NOTES.
3. REFER TO DRG No. 358-ENG-CI-DTD-0023 FOR DRAINAGE SCHEDULE DETAILS.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1500 @ A1
1000 @ A3
0 5 10 15 20 25 30 35 40 45 50 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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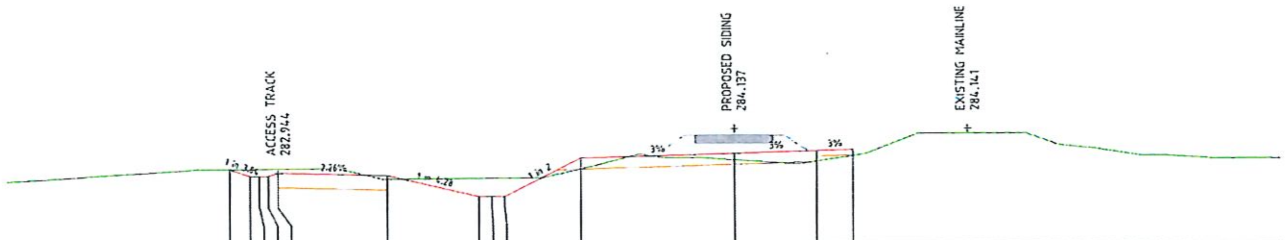
bgeeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|---|---|
| | | E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| | | B | 01.05.23 | ISSUED FOR 65% CLIENT REVIEW | JH | DFR | MB |
| | | A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | GF | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1500 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | TB | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE PLAN SHEET 1 OF 3

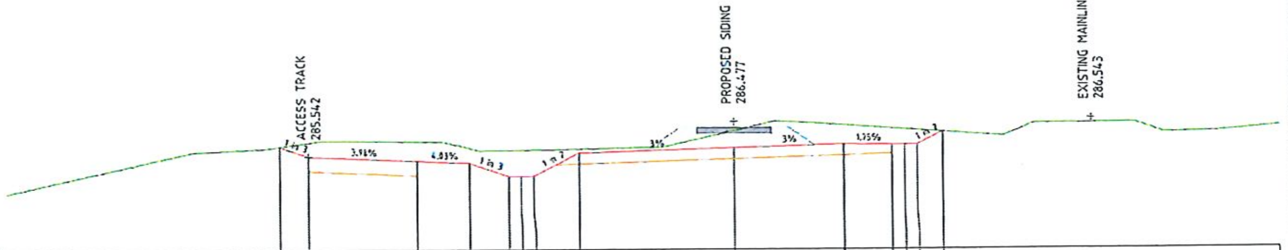
DRG No 358-ENG-CI-DDR-0003 | SHEET 1 OF 3 | REV. E



Y=562546.800
X=42882.142
DATUM 281.000

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 283.043 | 282.856 | 282.857 | 282.857 | 282.944 | 282.877 | 282.293 | 282.293 | 282.293 | 283.336 | 283.464 | 283.531 | 283.561 |
| SUBGRADE SURFACE LEVEL | | | | | 282.544 | 282.477 | | | | 283.036 | 283.164 | 283.246 | 283.411 |
| EXISTING SURFACE LEVEL | 283.044 | 283.048 | 283.049 | 283.051 | 283.053 | 282.774 | 282.788 | 282.791 | 282.794 | 283.040 | 283.284 | 283.244 | 283.394 |
| CUT / FILL DEPTHS | -0.000 | -0.191 | -0.193 | -0.194 | -0.108 | 0.103 | -0.495 | -0.498 | -0.501 | 0.296 | 0.180 | 0.287 | 0.168 |
| OFFSET | -13.867 | -13.298 | -13.047 | -12.796 | -12.535 | -9.532 | -7.036 | -6.686 | -6.336 | -4.250 | 0.000 | 2.261 | 3.261 |

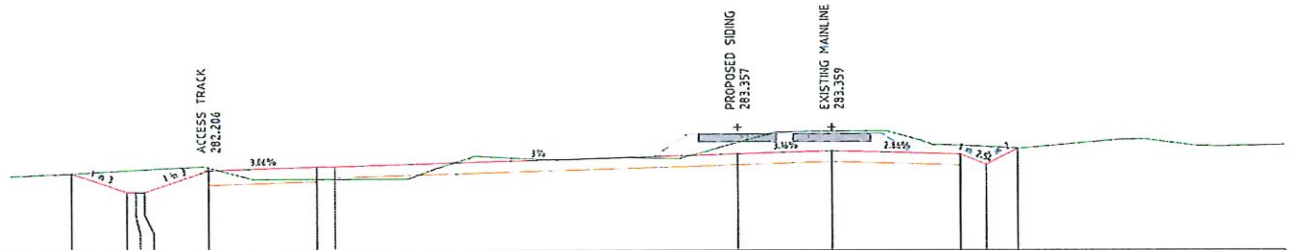
CHAINAGE 87300



Y=562686.109
X=42933.031
DATUM 283.000

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 285.808 | 285.542 | 285.423 | 285.365 | 285.002 | 285.002 | 285.002 | 285.631 | 285.759 | 285.849 | 285.825 | 285.825 | 285.825 | 286.180 |
| SUBGRADE SURFACE LEVEL | | 285.242 | | | | | | 285.331 | 285.459 | 285.549 | 285.389 | | | |
| EXISTING SURFACE LEVEL | 285.808 | 285.920 | 285.947 | 285.764 | 285.704 | 285.710 | 285.716 | 285.737 | 286.225 | 286.374 | 286.280 | 286.255 | 286.231 | 286.180 |
| CUT / FILL DEPTHS | 0.000 | -0.377 | -0.524 | -0.399 | -0.702 | -0.708 | -0.714 | -0.106 | -0.467 | -0.526 | -0.455 | -0.430 | -0.405 | 0.000 |
| OFFSET | -12.540 | -11.744 | -8.743 | -7.297 | -6.209 | -5.859 | -5.509 | -4.250 | 0.000 | 3.000 | 4.334 | 4.684 | 5.034 | 5.744 |

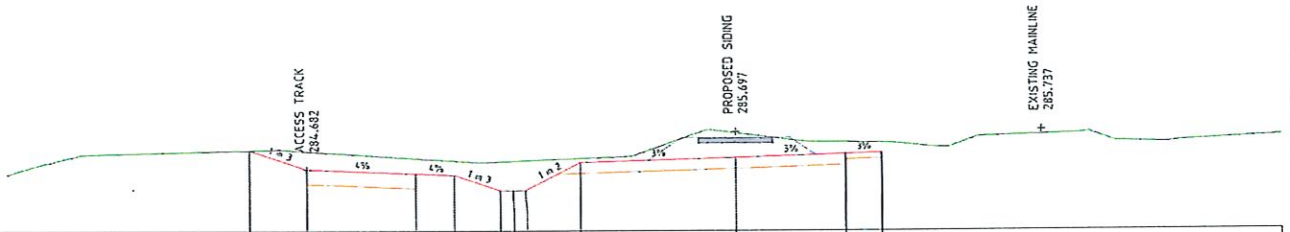
CHAINAGE 87450



Y=562504.383
X=42855.669
DATUM 280.000

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 282.122 | 281.616 | 281.616 | 281.616 | 282.206 | 282.298 | 282.304 | 282.636 | 282.718 | 282.618 | 282.339 | 282.780 |
| SUBGRADE SURFACE LEVEL | | | | | 281.906 | 281.898 | 282.004 | 282.337 | 282.418 | 282.318 | | |
| EXISTING SURFACE LEVEL | 282.122 | 282.205 | 282.219 | 282.232 | 282.283 | 281.965 | 281.965 | 282.949 | 283.245 | 282.857 | 282.826 | 282.780 |
| CUT / FILL DEPTHS | 0.000 | -0.589 | -0.602 | -0.616 | -0.077 | 0.333 | 0.339 | -0.313 | -0.527 | -0.240 | -0.486 | -0.000 |
| OFFSET | -18.349 | -16.831 | -16.581 | -16.331 | -14.562 | -11.560 | -11.072 | 0.000 | 2.594 | 6.106 | 6.814 | 7.695 |

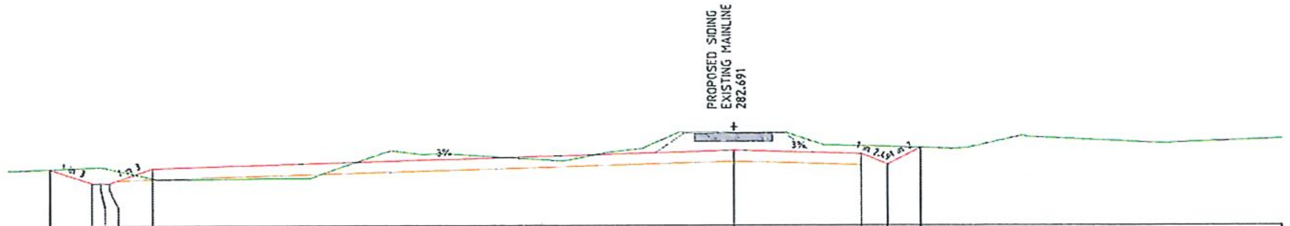
CHAINAGE 87250



Y=562636.943
X=42924.385
DATUM 283.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 285.204 | 284.682 | 284.562 | 284.519 | 284.101 | 284.101 | 284.101 | 284.864 | 284.992 | 285.082 | 285.112 |
| SUBGRADE SURFACE LEVEL | | 284.282 | | | | | | 284.564 | 284.692 | 284.797 | 284.962 |
| EXISTING SURFACE LEVEL | 285.204 | 285.168 | 284.975 | 284.905 | 284.881 | 284.895 | 284.908 | 284.967 | 285.658 | 285.405 | 285.393 |
| CUT / FILL DEPTHS | 0.000 | -0.486 | -0.413 | -0.386 | -0.780 | -0.794 | -0.807 | -0.103 | -0.666 | -0.324 | -0.281 |
| OFFSET | -13.368 | -11.803 | -8.803 | -7.731 | -6.477 | -6.127 | -5.777 | -4.250 | 0.000 | 3.000 | 4.000 |

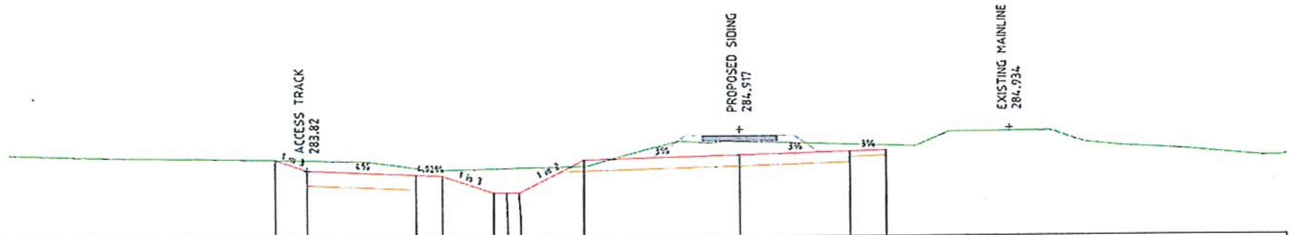
CHAINAGE 87400



Y=562468.698
X=42832.266
DATUM 280.000

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 281.548 | 281.170 | 281.170 | 281.170 | 281.570 | 282.050 | 281.945 | 281.662 | 282.115 |
| SUBGRADE SURFACE LEVEL | | | | | 281.272 | 281.750 | 281.645 | | |
| EXISTING SURFACE LEVEL | 281.546 | 281.596 | 281.607 | 281.558 | 281.296 | 282.535 | 282.159 | 282.140 | 282.115 |
| CUT / FILL DEPTHS | 0.000 | -0.426 | -0.437 | -0.387 | 0.274 | -0.485 | -0.214 | -0.478 | 0.000 |
| OFFSET | -18.835 | -17.700 | -17.450 | -17.200 | -16.000 | 0.000 | 3.500 | 4.205 | 5.111 |

CHAINAGE 87207.297



Y=562590.119
X=42907.039
DATUM 282.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 284.109 | 283.820 | 283.700 | 283.671 | 283.200 | 283.200 | 283.200 | 284.097 | 284.225 | 284.315 | 284.345 |
| SUBGRADE SURFACE LEVEL | | 283.420 | | | | | | 283.797 | 283.925 | 284.030 | 284.195 |
| EXISTING SURFACE LEVEL | 284.109 | 284.094 | 283.878 | 283.822 | 283.858 | 283.867 | 283.876 | 283.930 | 284.592 | 284.504 | 284.474 |
| CUT / FILL DEPTHS | 0.000 | -0.274 | -0.178 | -0.151 | -0.658 | -0.667 | -0.675 | 0.168 | -0.367 | -0.189 | -0.129 |
| OFFSET | -12.745 | -11.877 | -8.877 | -8.157 | -6.744 | -6.394 | -6.044 | -4.250 | 0.000 | 3.000 | 4.000 |

CHAINAGE 87350

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m

DO NOT SCALE FROM THIS DRAWING

CBH GROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P / +61 8 6364 3300 E / info@bgeeng.com
bgeeng.com—

BG&E

BG&E Project No. PE22014

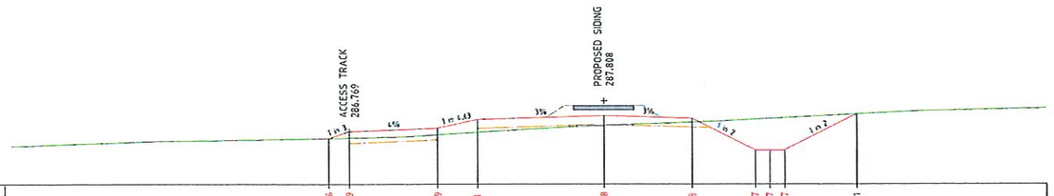
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| | 27.10.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | [illegible] | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JK | TB | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 1 OF 4

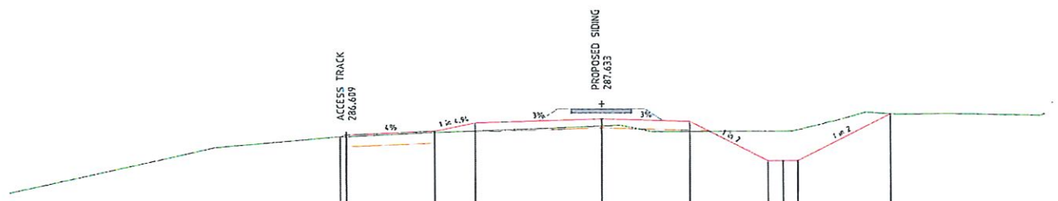
| DRG No | SHEET | REV. |
|---|---|---|
| 358-ENG-CI-DSE-0025 | 1 OF 4 | E |




Y=552830.390
X=42900.323
DATUM 285.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.536 | 286.769 | 286.849 | 287.181 | 287.308 | 287.218 | 286.147 | 286.147 | 286.147 | 287.361 |
| SUBGRADE SURFACE LEVEL | | 286.369 | 286.499 | 286.881 | 287.008 | 286.918 | | | | |
| EXISTING SURFACE LEVEL | 286.536 | 286.550 | 286.641 | 286.742 | 286.971 | 287.085 | 287.187 | 287.213 | 287.239 | 287.361 |
| CUT / FILL DEPTHS | 0.000 | 0.219 | 0.228 | 0.438 | 0.337 | 0.133 | -1.041 | -1.067 | -1.093 | 0.000 |
| OFFSET | -9.300 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 5.143 | 5.643 | 6.143 | 8.572 |

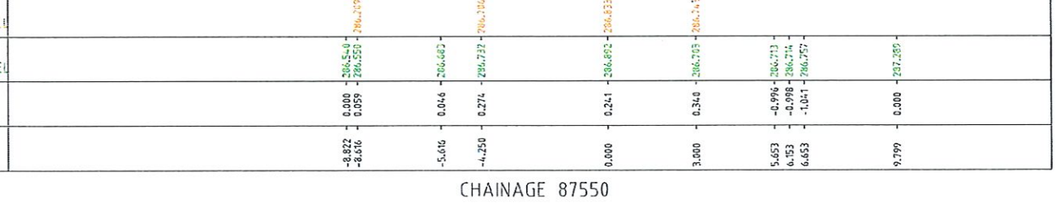
CHAINAGE 87600




Y=552784.554
X=42920.246
DATUM 283.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.549 | 286.609 | 286.779 | 287.086 | 287.133 | 287.043 | 285.716 | 285.716 | 285.716 | 287.289 |
| SUBGRADE SURFACE LEVEL | | 286.219 | 286.389 | 286.786 | 286.833 | 286.743 | | | | |
| EXISTING SURFACE LEVEL | 286.549 | 286.550 | 286.682 | 286.727 | 286.892 | 286.793 | 286.713 | 286.714 | 286.757 | 287.289 |
| CUT / FILL DEPTHS | 0.000 | 0.329 | 0.096 | 0.274 | 0.241 | 0.249 | -0.996 | -0.998 | -1.041 | 0.000 |
| OFFSET | -8.822 | -8.616 | -5.616 | -4.250 | 0.000 | 3.000 | 5.653 | 6.153 | 6.653 | 9.799 |

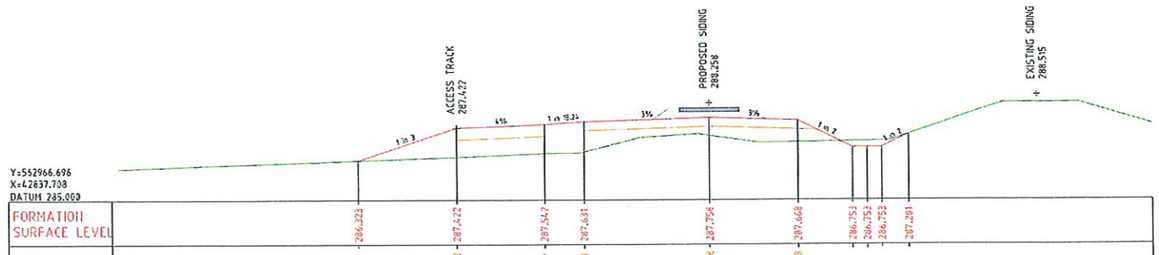
CHAINAGE 87550




Y=552736.002
X=42931.810
DATUM 284.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.178 | 286.333 | 286.353 | 285.988 | 285.988 | 285.988 | 286.573 | 286.780 | 286.610 | 285.464 | 285.464 | 285.464 | 286.835 |
| SUBGRADE SURFACE LEVEL | | 285.533 | | | | | | | | | | | |
| EXISTING SURFACE LEVEL | 286.178 | 286.283 | 286.365 | 286.464 | 286.489 | 286.535 | 286.221 | 286.249 | 286.722 | 286.802 | 286.905 | 286.998 | 286.835 |
| CUT / FILL DEPTHS | 0.000 | 0.130 | -0.112 | -0.564 | -0.589 | -0.815 | 0.352 | 0.461 | -0.112 | -1.338 | -1.341 | -1.344 | 0.000 |
| OFFSET | -11.063 | -10.600 | -7.598 | -6.295 | -5.945 | -5.595 | -4.250 | 0.000 | 3.000 | 5.393 | 5.643 | 5.993 | 8.[illegible] |

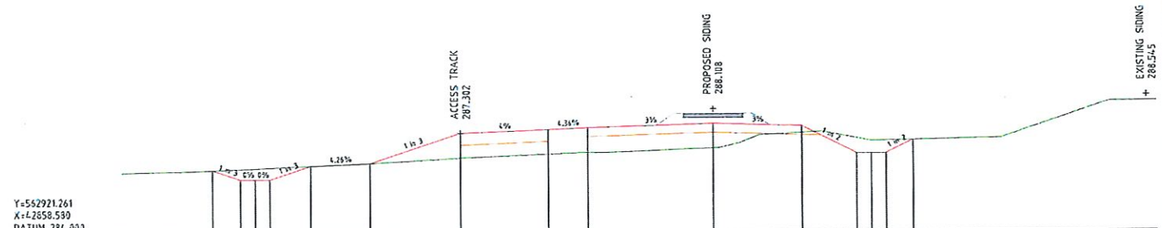
CHAINAGE 87500




Y=552966.696
X=42837.708
DATUM 285.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.323 | 287.422 | 287.547 | 287.631 | 287.756 | 287.668 | 286.753 | 286.753 | 286.753 | 287.201 |
| SUBGRADE SURFACE LEVEL | | 287.022 | 287.147 | 287.231 | 287.456 | 287.368 | | | | |
| EXISTING SURFACE LEVEL | 286.323 | 286.438 | 286.555 | 286.615 | 287.152 | 286.948 | 286.949 | 286.977 | 286.984 | 287.201 |
| CUT / FILL DEPTHS | 0.000 | 0.984 | 0.986 | 1.016 | 0.600 | 0.728 | -0.216 | -0.224 | -0.231 | 0.000 |
| OFFSET | -11.896 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.830 | 5.330 | 5.830 | 6.726 |

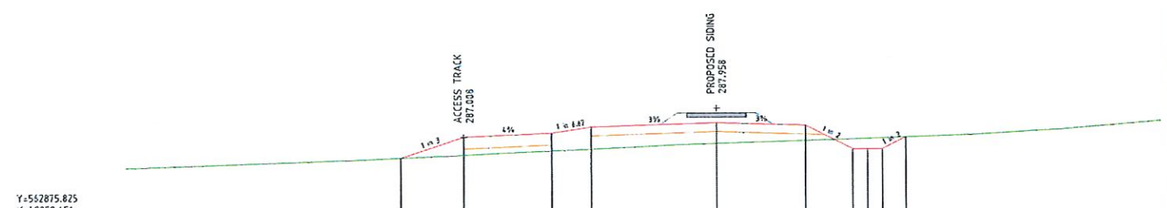
CHAINAGE 87750




Y=552921.261
X=42858.530
DATUM 284.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.082 | 285.749 | 285.749 | 285.744 | 286.207 | 286.791 | 287.302 | 287.422 | 287.481 | 287.606 | 287.510 | 286.598 | 286.598 | 286.598 | 287.047 |
| SUBGRADE SURFACE LEVEL | | | | | | | 286.902 | 287.022 | 287.081 | 287.206 | 287.210 | | | | |
| EXISTING SURFACE LEVEL | | 286.061 | 286.098 | 286.120 | 286.145 | 286.791 | 286.447 | 286.595 | 286.642 | 286.791 | 287.297 | 287.115 | 287.078 | 287.029 | 287.047 |
| CUT / FILL DEPTHS | | 0.001 | -0.349 | -0.371 | -0.396 | 0.000 | 0.834 | 0.827 | 0.839 | 0.817 | 0.221 | -0.518 | -0.421 | -0.431 | 0.000 |
| OFFSET | | -16.933 | -15.994 | -15.494 | -14.944 | -13.621 | -11.631 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.841 | 5.341 | 5.841 | 6.739 |

CHAINAGE 87700




Y=552875.825
X=42879.451
DATUM 284.000

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.382 | 287.038 | 287.128 | 287.331 | 287.458 | 287.368 | 286.572 | 286.572 | 286.572 | 286.961 |
| SUBGRADE SURFACE LEVEL | | 286.682 | 286.772 | 286.975 | 287.102 | 287.012 | | | | |
| EXISTING SURFACE LEVEL | 286.382 | 286.397 | 286.574 | 286.582 | 286.764 | 286.859 | 286.905 | 286.921 | 286.937 | 286.961 |
| CUT / FILL DEPTHS | 0.000 | 0.611 | 0.602 | 0.748 | 0.694 | 0.589 | -0.333 | -0.349 | -0.364 | 0.000 |
| OFFSET | -10.719 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.592 | 5.092 | 5.592 | 6.370 |

CHAINAGE 87650

1:100 @ A1
1:200 @ A3





CBHGROUP
ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
P/+61 8 6354 3300 E/info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

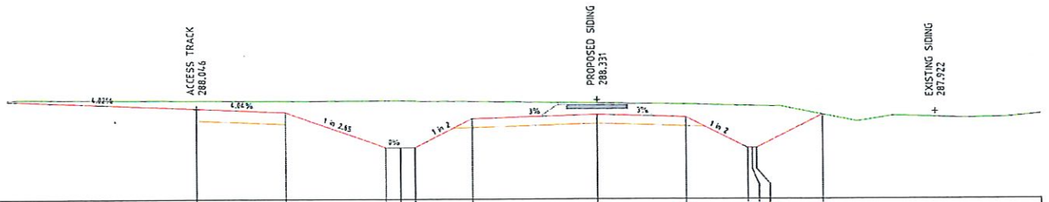
BG&E

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APP'D |
|---|---|---|---|---|---|
| E | 27.10.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 23.09.23 | ISSUED FOR 95% CLIENT REVIEW | AS | TB | MB |
| C | 23.03.23 | ISSUED FOR 85% CLIENT REVIEW | JK | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN AS | 27.10.23 | TITLE KONNONGORRING FIXED RAIL LOADING FACILITY CIVIL EARTHWORK AND DRAINAGE SIDING CROSS SECTIONS SHEET 2 OF 4 |
| SHEET A1 | CHECKED TB | 27.10.23 | |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 | |
| CONTRACT No CW9951 | DESIGN APPR JH | 27.10.23 | |
| | PROJECT APPR MB | 27.10.23 | |

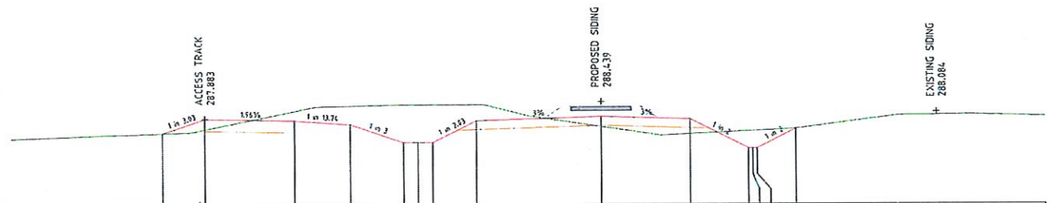
BGE No. 358-ENG-CI-DSE-0026 | SHEET 2 OF 4 | REV. E




Y=563103.002
X=42775.093
DATUM 285.000

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 288.046 | 287.925 | 286.734 | 286.734 | 286.734 | 287.783 | 287.831 | 287.741 | 286.703 | 286.703 | 286.703 | 287.820 |
| SUBGRADE SURFACE LEVEL | 287.646 | 287.525 | | | | 287.409 | 287.531 | 287.441 | | | | |
| EXISTING SURFACE LEVEL | 288.318 | 288.309 | 288.313 | 288.311 | 288.309 | 288.294 | 288.223 | 288.179 | 288.127 | 288.123 | 288.119 | 287.820 |
| CUT / FILL DEPTHS | -0.272 | -0.375 | -1.579 | -1.577 | -1.575 | -0.581 | -0.392 | -0.439 | -1.424 | -1.420 | -1.416 | 0.000 |
| OFFSET | -13.579 | -10.578 | -7.180 | -6.688 | -6.188 | -4.250 | 0.000 | 3.000 | 5.075 | 5.325 | 5.575 | 7.610 |

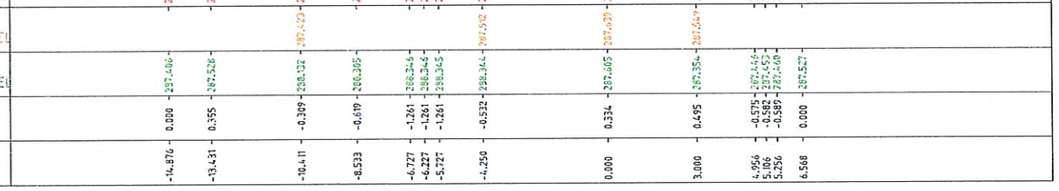
CHAINAGE 87900




Y=563057.567
X=42755.964
DATUM 285.000

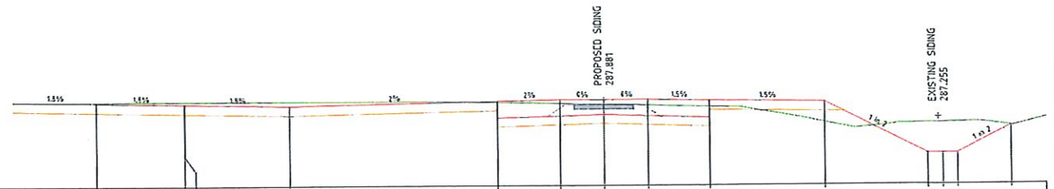
| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.406 | 287.883 | 287.423 | 287.697 | 287.695 | 287.695 | 287.695 | 287.812 | 287.939 | 287.639 | 287.549 | 287.354 | 286.871 | 286.871 | 286.871 | 287.527 |
| SUBGRADE SURFACE LEVEL | | | 287.423 | | | | | 287.512 | 287.639 | | 287.549 | 287.354 | | | | |
| EXISTING SURFACE LEVEL | 287.406 | 287.528 | 288.332 | 288.305 | 288.345 | 288.345 | 288.345 | 288.344 | 287.605 | 287.639 | 287.354 | 287.354 | 287.446 | 287.453 | 287.460 | 287.527 |
| CUT / FILL DEPTHS | 0.000 | 0.355 | -0.909 | -0.619 | -1.261 | -1.261 | -1.261 | -0.532 | 0.334 | 0.495 | -0.579 | -0.582 | -0.589 | -0.589 | -0.589 | 0.000 |
| OFFSET | -14.876 | -13.431 | -10.411 | -8.533 | -6.727 | -6.227 | -5.727 | -4.250 | 0.000 | 3.000 | 4.956 | 5.106 | 5.256 | | | 6.568 |

CHAINAGE 87850




Y=563012.131
X=42816.836
DATUM 285.000

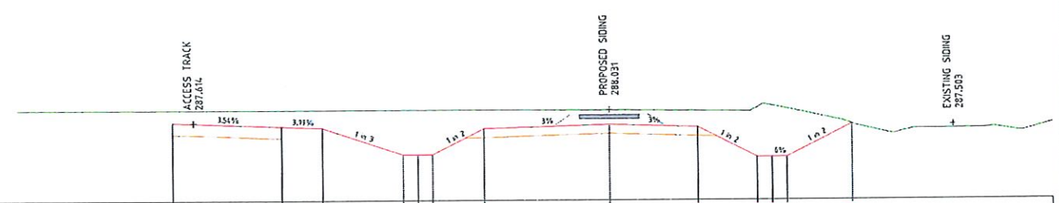
| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.973 | 287.522 | 287.642 | 287.776 | 287.783 | 287.815 | 286.938 | 286.938 | 286.938 | 287.223 |
| SUBGRADE SURFACE LEVEL | | 287.423 | 287.242 | 287.476 | 287.483 | 287.515 | 287.639 | | | |
| EXISTING SURFACE LEVEL | 286.973 | 286.911 | 287.242 | 287.110 | 287.108 | 287.064 | 286.938 | 287.146 | 287.176 | 287.223 |
| CUT / FILL DEPTHS | -0.000 | 0.611 | 0.596 | 0.665 | 0.675 | 0.747 | 0.973 | -0.240 | -0.242 | -0.285 | -0.285 | 0.000 |
| OFFSET | -10.426 | -8.600 | -5.600 | -4.250 | 0.000 | 3.000 | 4.810 | 5.310 | 5.810 | |




Y=563239.308
X=42712.477
DATUM 285.000

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.816 | 287.762 | 287.762 | 287.698 | 287.839 | 287.881 | 287.881 | 287.881 | 287.849 | 287.791 | 286.845 | 286.845 | 286.845 | 286.957 |
| SUBGRADE SURFACE LEVEL | 287.619 | 287.762 | 287.762 | 287.378 | 287.519 | 286.835 | 287.081 | 287.030 | 287.529 | 287.471 | | | | |
| EXISTING SURFACE LEVEL | 287.647 | 287.849 | 287.849 | 287.849 | 287.807 | 287.763 | 287.736 | 287.690 | 287.649 | 287.601 | 287.066 | 287.077 | 287.088 | 286.957 |
| CUT / FILL DEPTHS | -0.030 | -0.086 | -0.086 | -0.142 | 0.037 | 0.117 | 0.144 | 0.183 | 0.209 | 0.690 | -1.021 | -1.032 | -1.043 | 0.000 |
| OFFSET | -17.201 | -16.201 | -14.200 | -10.630 | -3.605 | -1.500 | 0.000 | 1.500 | 3.605 | 7.500 | 10.992 | 11.492 | 11.992 | 13.816 |

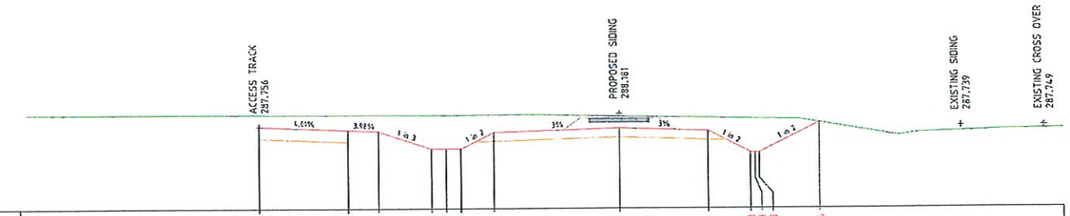
CHAINAGE 88050




Y=563193.873
X=42733.349
DATUM 285.000

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.624 | 287.493 | 287.439 | 286.535 | 286.535 | 286.535 | 287.493 | 287.531 | 287.441 | 286.430 | 286.430 | 286.430 | 287.531 |
| SUBGRADE SURFACE LEVEL | 287.624 | 287.293 | | | | | 287.493 | 287.231 | 287.141 | | | | |
| EXISTING SURFACE LEVEL | 286.829 | 286.835 | 286.834 | 286.832 | 286.832 | 286.832 | 286.829 | 286.819 | 287.988 | 288.476 | 286.155 | 286.053 | 287.531 |
| CUT / FILL DEPTHS | -0.474 | -0.542 | -0.546 | -1.497 | -1.497 | -1.497 | -0.626 | -0.588 | -0.547 | -1.646 | -1.720 | -1.823 | 0.000 |
| OFFSET | -14.778 | -11.048 | -9.499 | -6.987 | -6.487 | -5.987 | -4.250 | 0.000 | 3.000 | 5.022 | 5.522 | 6.022 | 8.226 |

CHAINAGE 88000




Y=563148.437
X=42754.221
DATUM 285.000

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.756 | 287.636 | 287.595 | 287.081 | 287.081 | 287.081 | 287.553 | 287.681 | 287.591 | 286.843 | 286.843 | 286.843 | 287.866 |
| SUBGRADE SURFACE LEVEL | 287.236 | 287.236 | | | | | 287.553 | 287.181 | 287.291 | | | | |
| EXISTING SURFACE LEVEL | 288.147 | 288.143 | 288.142 | 288.137 | 288.136 | 288.135 | 288.145 | 288.089 | 288.036 | 287.491 | 287.153 | 287.095 | 287.866 |
| CUT / FILL DEPTHS | -0.391 | -0.507 | -0.547 | -1.137 | -1.135 | -1.134 | -0.591 | -0.408 | -0.439 | -1.138 | -1.152 | -1.152 | 0.000 |
| OFFSET | -12.165 | -9.163 | -8.137 | -6.355 | -5.855 | -5.355 | -4.250 | 0.000 | 3.000 | 4.456 | 4.956 | 5.456 | 6.763 |

CHAINAGE 87950

1100 @ A1
1200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE 16/11/2023
REF: RESOLUTION 719
SIGNED
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6354 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

BG&E

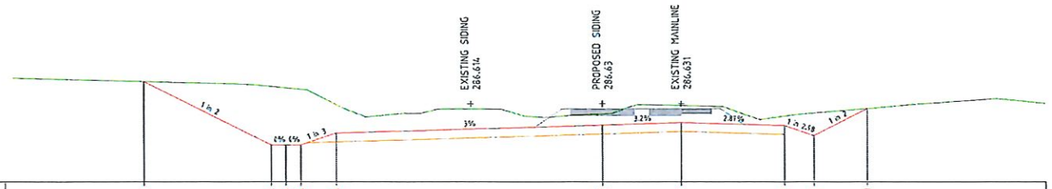
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 90% CLIENT REVIEW | AS | TB | MB |
| B | 23.08.23 | ISSUED FOR 65% CLIENT REVIEW | JC | JH | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SIZE A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 3 OF 4

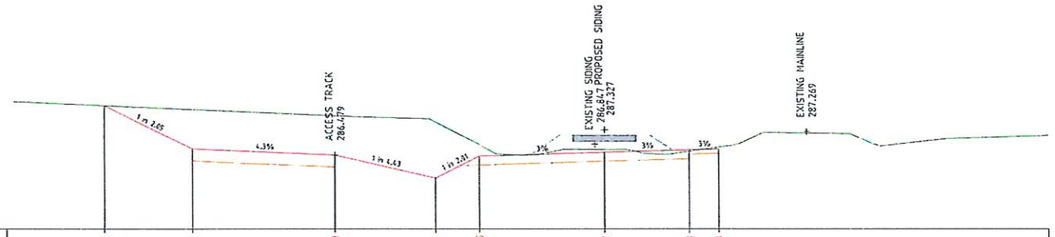
DWG No 358-ENG-CI-DSE-0027 | SHEET 3 OF 4 | REV. D




Y=563371.653
X=42642.742
DATUM 284.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.370 | 285.234 | 285.234 | 285.234 | 286.634 | 285.905 | 285.990 | 285.889 | 285.553 | 286.460 |
| SUBGRADE SURFACE LEVEL | | | | | 285.334 | 285.605 | 285.690 | 285.589 | | |
| EXISTING SURFACE LEVEL | 287.370 | 287.205 | 287.157 | 287.109 | 286.587 | 286.285 | 286.568 | 286.207 | 286.317 | 286.469 |
| CUT / FILL DEPTHS | 0.000 | -1.971 | -1.923 | -1.875 | -0.953 | -0.380 | -0.578 | -0.318 | -0.765 | 0.000 |
| OFFSET | -15.521 | -11.248 | -10.748 | -10.248 | -9.048 | 0.000 | 2.652 | 6.164 | 7.368 | 8.584 |

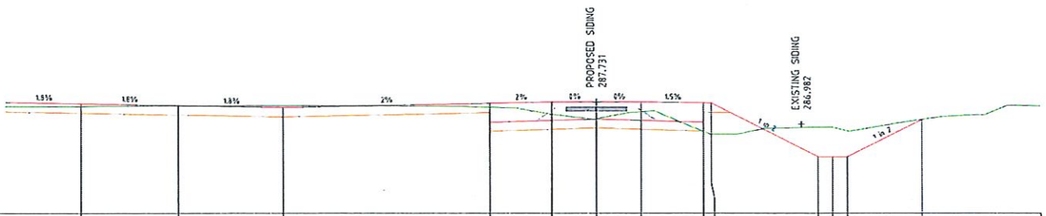
CHAINAGE 88200




Y=563329.287
X=42668.975
DATUM 284.000

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.143 | 286.687 | 286.480 | 285.787 | 286.445 | 286.572 | 286.658 | 286.688 |
| SUBGRADE SURFACE LEVEL | | 286.287 | | | 286.145 | 286.272 | 286.372 | 286.530 |
| EXISTING SURFACE LEVEL | 286.143 | 288.011 | 287.799 | 287.593 | 286.829 | 286.664 | 286.605 | 286.751 |
| CUT / FILL DEPTHS | 0.000 | -1.324 | -1.319 | -1.886 | -0.384 | -0.091 | 0.052 | -0.063 |
| OFFSET | -16.950 | -13.963 | -9.155 | -5.734 | -4.250 | 0.000 | 2.847 | 3.847 |

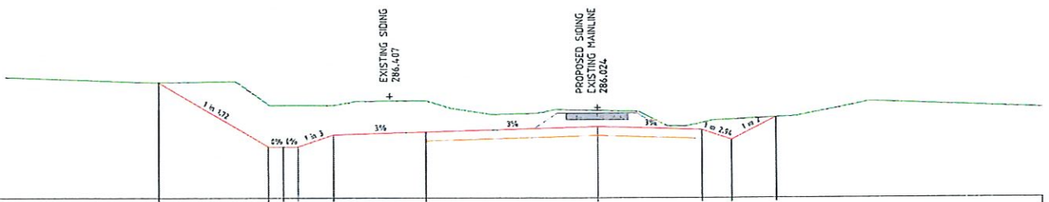
CHAINAGE 88150




Y=563284.743
X=42691.406
DATUM 284.000

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 287.671 | 287.611 | 287.548 | 287.485 | 287.731 | 287.731 | 287.731 | 287.699 | 287.695 | 285.886 | 287.139 |
| SUBGRADE SURFACE LEVEL | 287.251 | 287.251 | 287.226 | 287.364 | 286.810 | 286.855 | 286.810 | 287.279 | 287.275 | 285.886 | |
| EXISTING SURFACE LEVEL | 287.582 | 287.600 | 287.600 | 287.554 | 287.316 | 287.161 | 287.396 | 286.739 | 286.650 | 286.877 | 287.139 |
| CUT / FILL DEPTHS | 0.089 | 0.012 | -0.052 | 0.135 | 0.415 | 0.570 | 0.335 | 0.960 | 1.045 | -0.991 | 0.000 |
| OFFSET | -17.477 | -14.149 | -10.630 | -3.605 | -1.500 | 0.000 | 1.500 | 3.605 | 3.872 | 7.491 | 10.997 |

CHAINAGE 88100




Y=553408.256
X=42619.170
DATUM 283.000

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| FORMATION SURFACE LEVEL | 286.875 | 284.715 | 284.715 | 284.715 | 285.115 | 285.208 | 285.383 | 285.278 | 284.938 | 285.697 |
| SUBGRADE SURFACE LEVEL | | | | | | 284.708 | 285.283 | 284.978 | | |
| EXISTING SURFACE LEVEL | 286.875 | 286.141 | 286.103 | 286.101 | 286.099 | 286.260 | 285.930 | 285.512 | 285.625 | 285.697 |
| CUT / FILL DEPTHS | 0.000 | -1.426 | -1.388 | -1.386 | -0.983 | -1.052 | -0.547 | -0.232 | -0.686 | 0.000 |
| OFFSET | -14.834 | -11.130 | -10.630 | -10.130 | -8.930 | -5.830 | 0.000 | 3.500 | 4.500 | 6.018 |

CHAINAGE 88243.398

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1100 @ A1
1200 @ A3



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeng.com
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BG&E Project No. PE22014

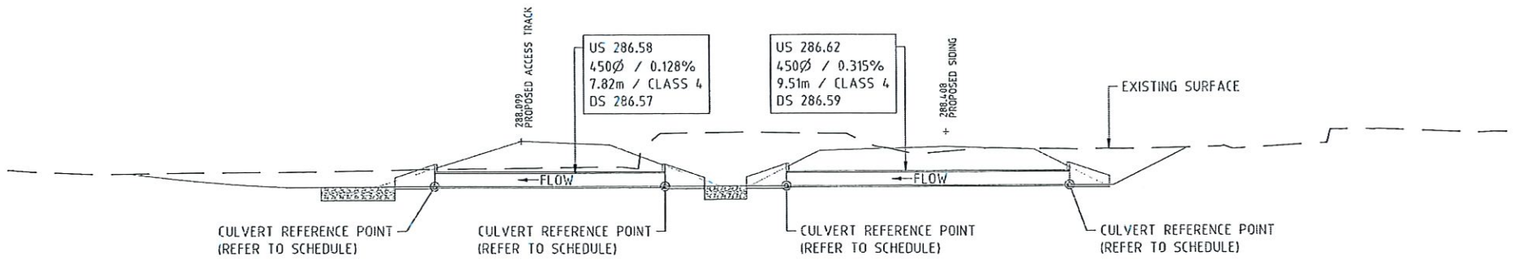
| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|---|---|
| | | D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | C | 23.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| | | A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
SIDING CROSS SECTIONS SHEET 4 OF 4

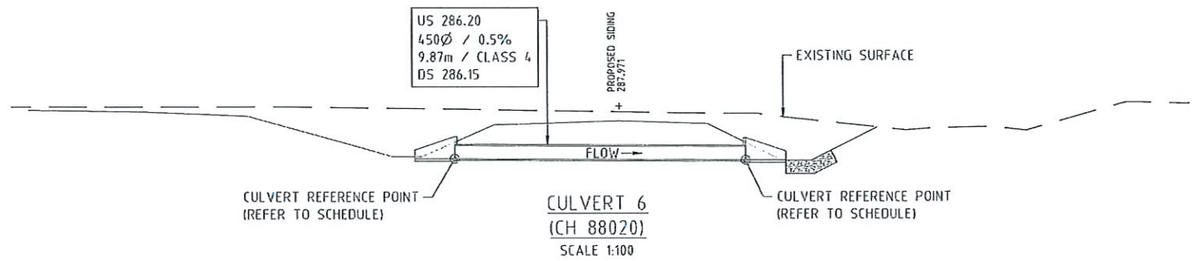
CDG No 358-ENG-CI-DSE-0028 | SHEET 4 OF 4 | REV. D

NOTES:
1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-CI-DTD-0023 FOR DRAINAGE SCHEDULE DETAILS.

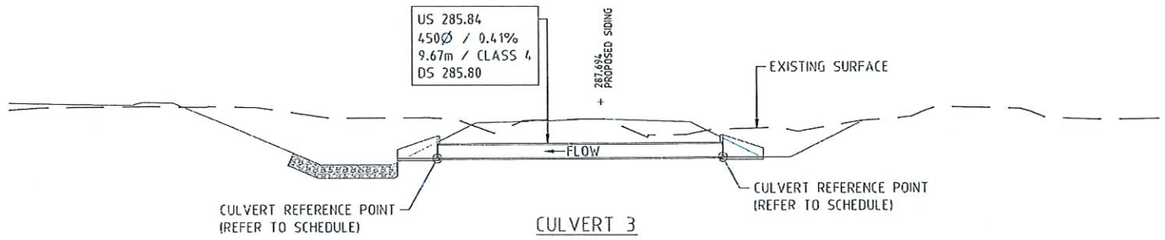



CULVERT 8
(CH 87872)
SCALE 1:100

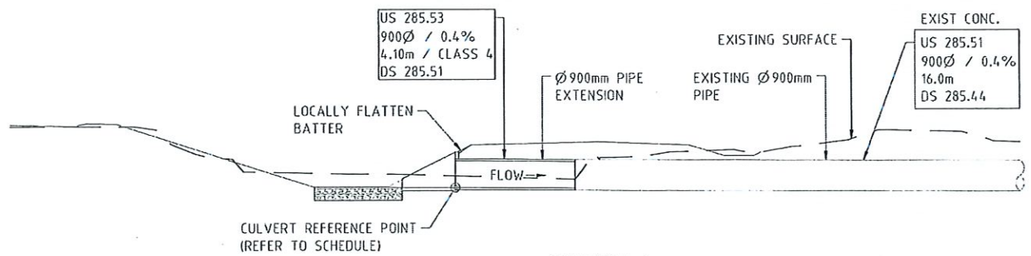
CULVERT 7
(CH 87872)
SCALE 1:100




CULVERT 6
(CH 88020)
SCALE 1:100




CULVERT 3
(CH 88115)
SCALE 100




CULVERT 2
(CH 88123)
SCALE 1:100

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1 / 1:200 @ A3



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CBHGROUP
ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | JI | MB |

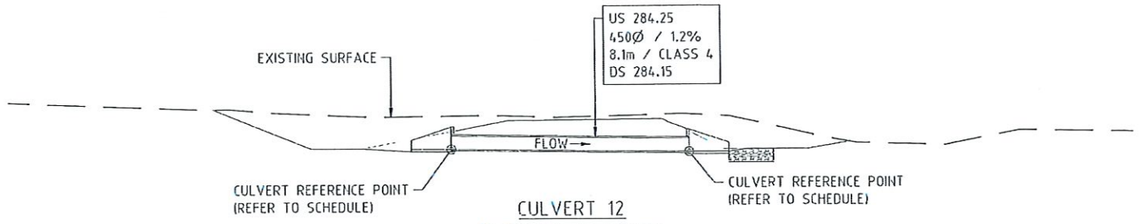
| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 1 OF 4

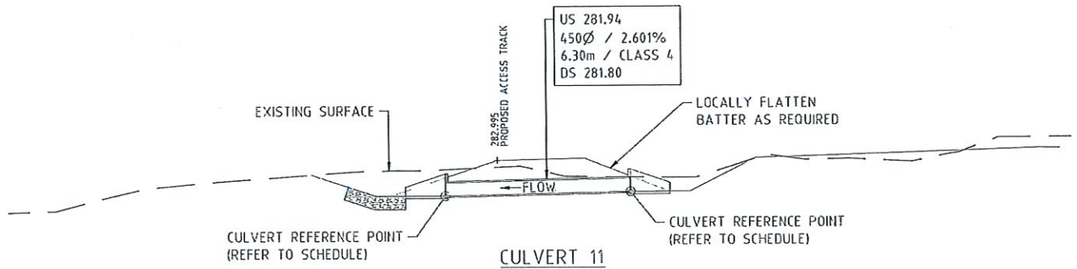
DRG No. 358-ENG-CI-DTD-0005 | SHEET 1 OF 4 | REV. D

NOTES:

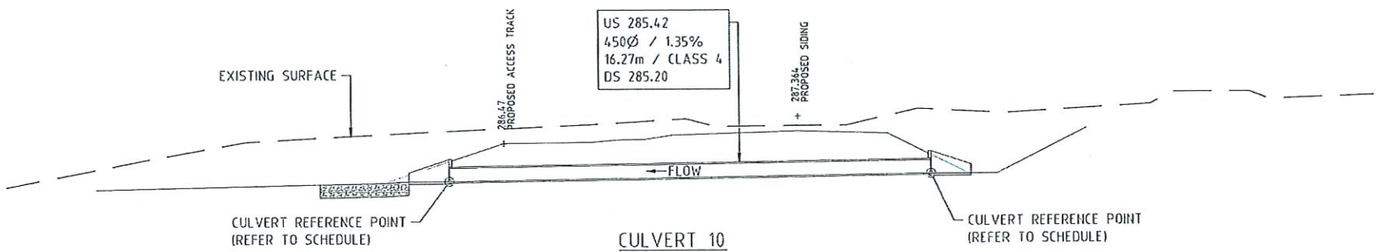
1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-CI-DTD-0023 FOR DRAINAGE SCHEDULE DETAILS.



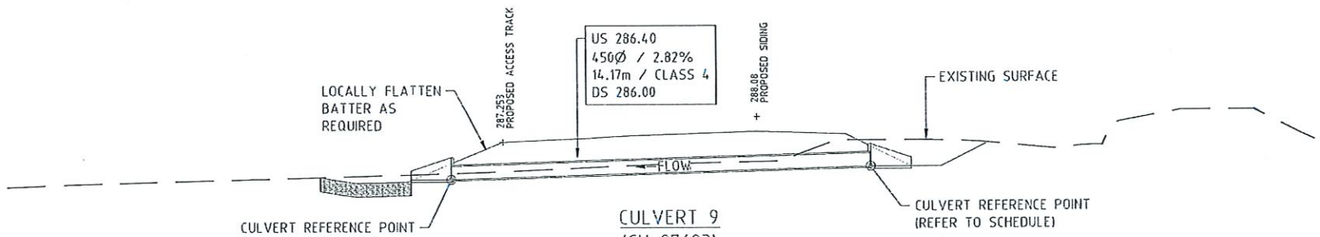

CULVERT 12
(MAINLINE CH 88328)
SCALE 1:100




CULVERT 11
(CH 87280)
SCALE 1:100




CULVERT 10
(CH 87517)
SCALE 1:100




CULVERT 9
(CH 87693)
SCALE 1:100

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1 / 1:200 @ A3 — 0 1 2 3 4 5 6 7 8 9 10 m



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556 Wellington St, Perth WA 6000
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| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

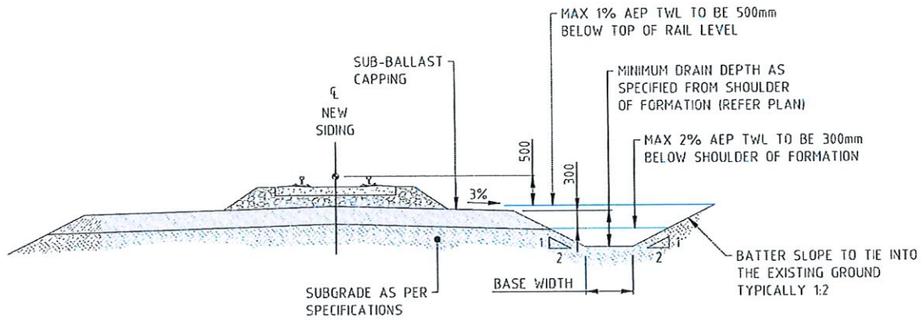
| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | JH | MB |

| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOD | 27.10.23 |
| | DESIGN APPR | TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

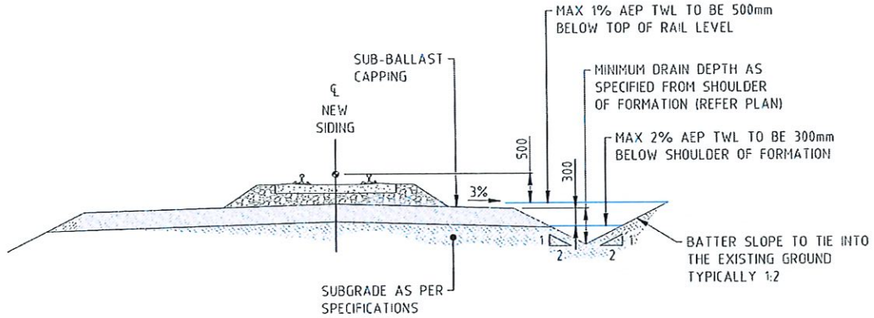
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 2 OF 4

CDS No. 358-ENG-CI-DTD-0006 | SHEET 2 OF 4 | REV. D

NOTE
ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.




TYPICAL SECTION OF TRAPEZOIDAL DRAIN
SCALE 1:50




TYPICAL SECTION OF V-DRAIN
SCALE 1:50

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

150 @ A1 / 100 @ A3 — 0 1 2 3 4 5 m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556 Wellington St, Perth WA 6000
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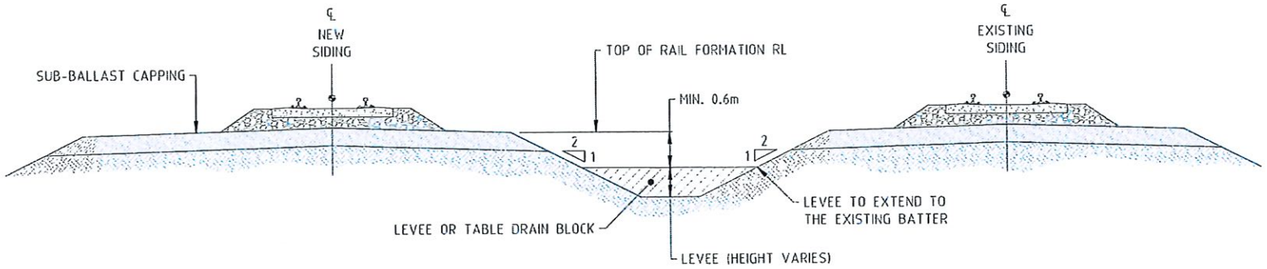
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| A | 23.03.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | HB |

| | | |
|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR TB | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR HB | 27.10.23 |

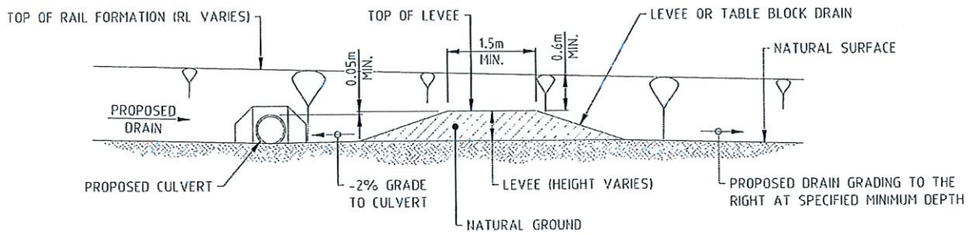
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 3 OF 4

| DRG No | SHEET | REV. |
|---|---|---|
| 358-ENG-CI-DTD-0021 | 3 OF 4 | C |



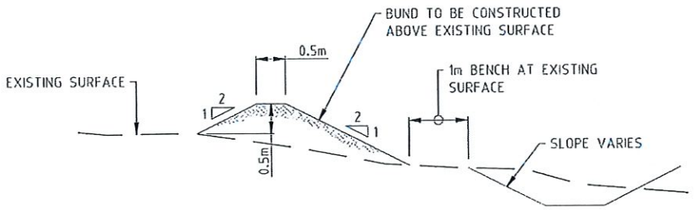

TYPICAL SECTION OF LEVEE OR DRAIN BLOCK

SCALE 1:50




TYPICAL LONG SECTION THROUGH LEVEE OR DRAIN BLOCK

SCALE 1:50




TYPICAL DRAINAGE BUND DETAIL

SCALE 1:50

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1
1:100 @ A3
0 1000 2000 3000 4000 5000 mm



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CBHGROUP
ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
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BG&E Project No. PE22014

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|---|---|

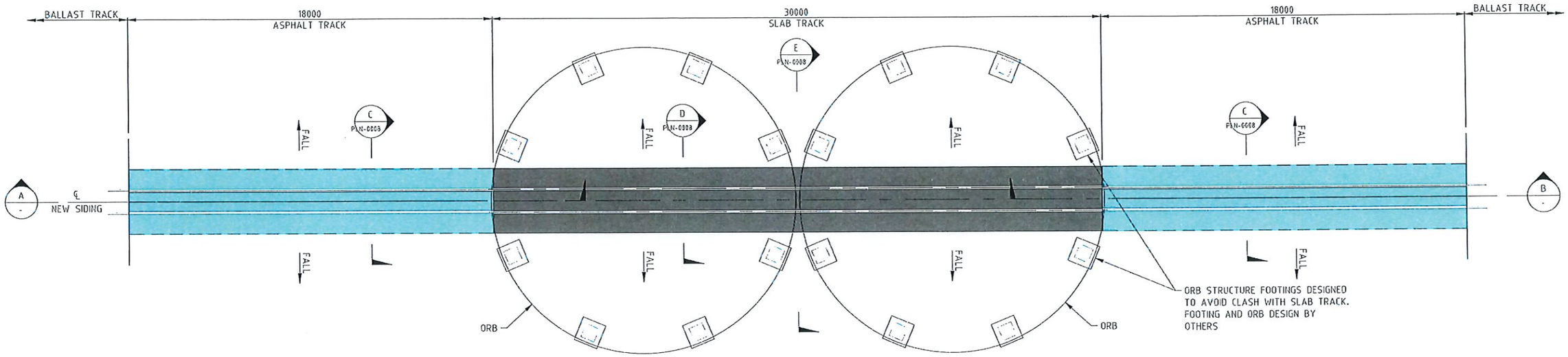
| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB | HB |

| | | |
|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SGB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR TB | 27.10.23 |
| | PROJECT APPR HB | 27.10.23 |

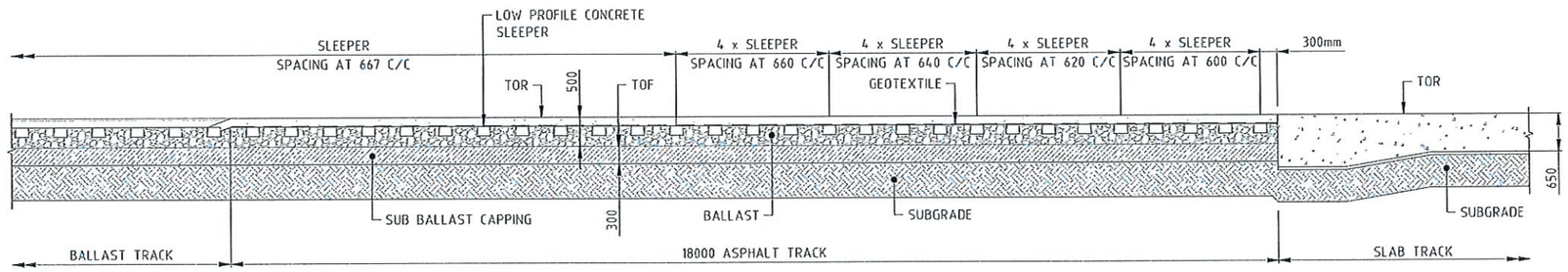
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
CIVIL EARTHWORK AND DRAINAGE
DRAINAGE DETAILS SHEET 4 OF 4

DWG No. 358-ENG-CI-DTD-0022 | SHEET 4 OF 4 | REV. C

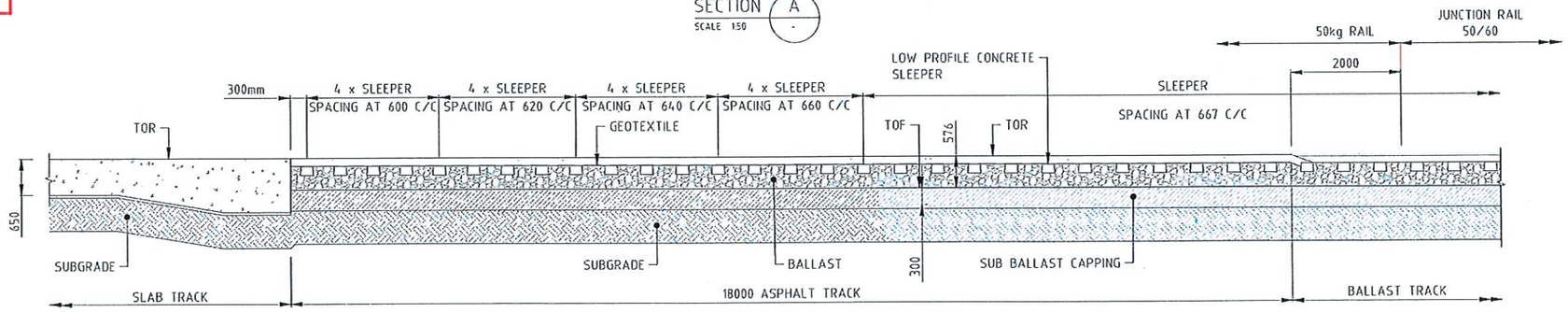
NOTE
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. NORTH ASPHALT TRACK: DISTANCE BETWEEN TOR TO TOF IS MAINTAINED AS 576mm AS PER THE FDCS SECTION LOCATED AT 2m AT THE NORTH OF THE ASPHALT TRACK




SLAB TRACK AND ASPHALT TRACK PLAN
SCALE 1:100




SECTION A
SCALE 1:50




SECTION B
SCALE 1:50

1:50 @ A1 / 1:100 @ A3 — 0 1 2 3 4 5 m

1:100 @ A1 / 1:200 @ A3 — 0 1 2 3 4 5 6 7 8 9 10 m

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT



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ABN 29 256 604 947


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BG&E Project No. PE22014


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| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
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| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.03.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 23.03.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |

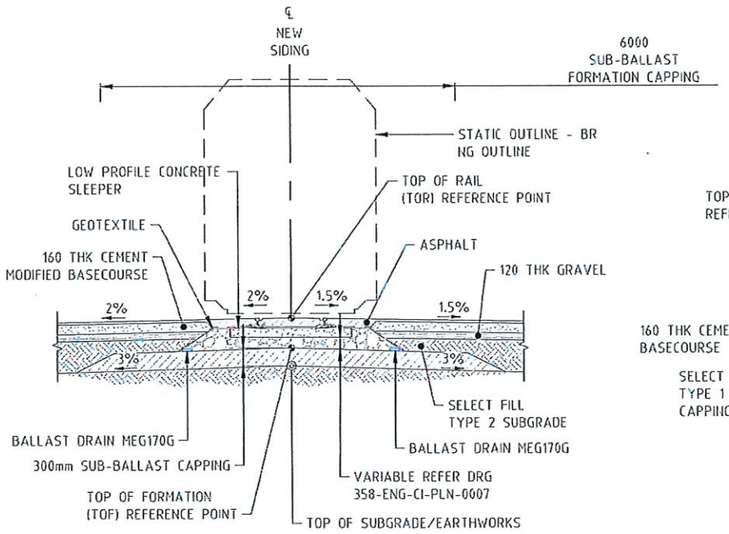
| | | |
|---|---|---|
| SCALE 1:50, 1:100 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SLAB TRACK PLAN AND SECTIONS

DRG No 358-ENG-CI-PLN-0007 | SHEET 1 OF 1 | REV. D

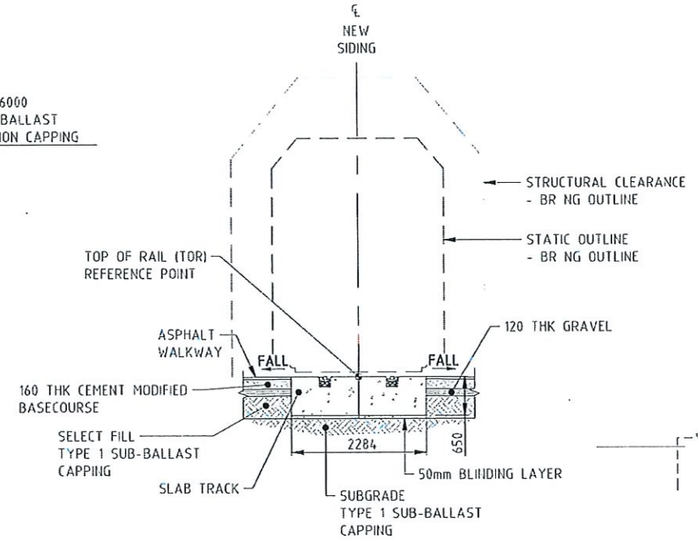
## NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. REFER DRAWING 358-ENG-CI-DSE-0041 FOR PAVEMENT DETAILS.



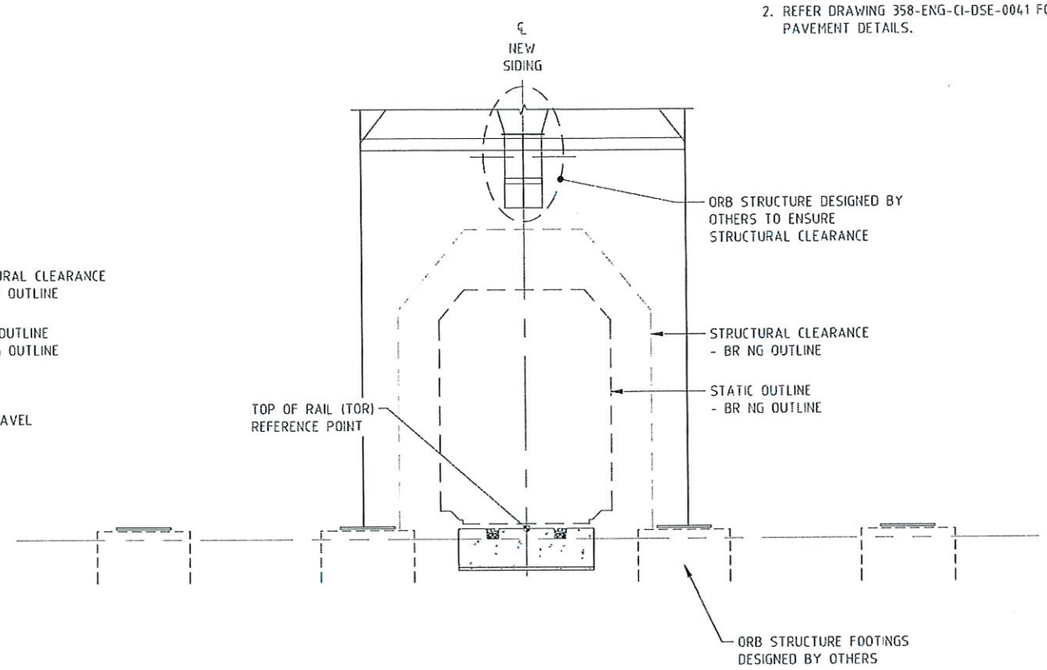

ASPHALT TRACK

SECTION C PLN-0007
SCALE 1:50

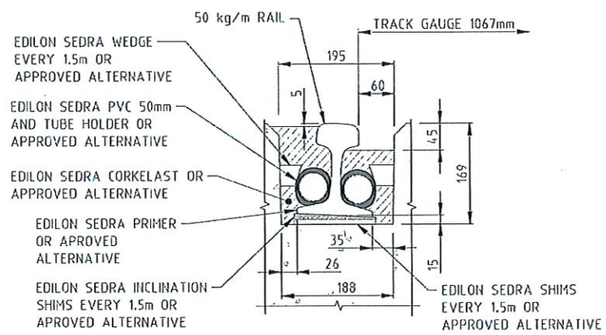



SLAB TRACK

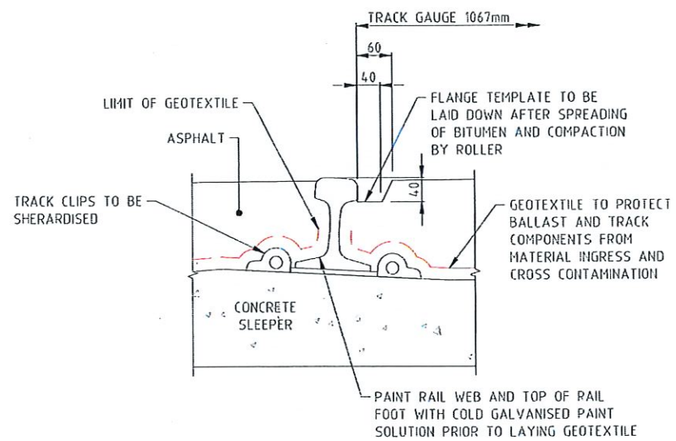
SECTION D PLN-0007
SCALE 1:50




SECTION E PLN-0007
SCALE 1:50




TYPICAL RAIL DETAIL
AT SLAB TRACK
SCALE:1:5




TYPICAL RAIL DETAIL
AT ASPHALT TRACK
SCALE:1:5

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2013
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

15 @ A1 / 110 @ A3: 0 50 100 150 200 250 300 350 400 450 500 mm

150 @ A1 / 1100 @ A3: 0 1000 2000 3000 4000 5000 mm



DO NOT SCALE FROM THIS DRAWING

CBHGROUP ABN 29 256 604 947

Perth Office—
Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6354 3300 E/ info@bgeng.com
bgeng.com—

BG&E Project No. PE22014

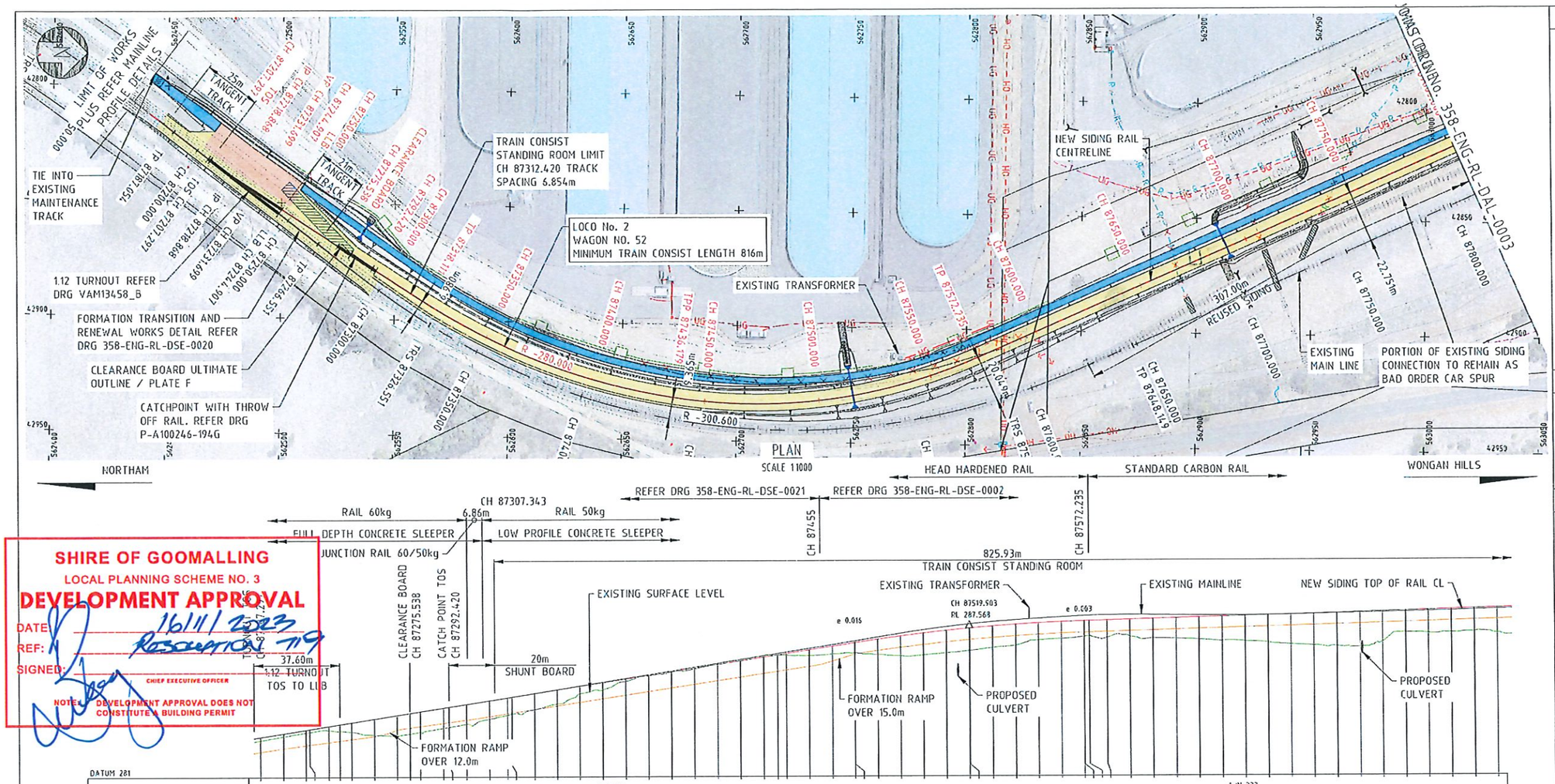
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |

| | | |
|---|---|---|
| SCALE 1:5, 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR JH | 27.10.23 |
| | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SLAB TRACK SECTIONS

DRG No 358-ENG-CI-PLN-0008 | SHEET 1 OF 1 | REV. C




PLAN
SCALE 1:1000




DATUM 281

| | |
|---|---|
| VERTICAL GRADE | 1 IN 64 (1.56%); 1 IN 333 (0.3%) |
| VERTICAL CURVE | 79.37K; LVC = 100 |
| HORIZONTAL ALIGNMENT | TAN 11.57; TAN 59.24; ARC 118.07; ARC 135.06; TAN 543.36 |
| HORIZONTAL RADIUS | R=-280; R=-240 |
| CANT | |

| CHAINAGE | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF RAIL LOW RAIL TO TOP OF FORMATION | TOP OF FORMATION (TOF) LEVEL AT CL | TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | EXISTING SURFACE LEVEL | DESIGN BALLAST DEPTH (m) |
|---|---|---|---|---|---|---|
| 87210.000 | 282.733 | -0.641 | 282.092 | -0.491 | 282.583 | -0.333 |
| 87220.000 | 282.869 | -0.644 | 282.225 | -0.513 | 282.756 | -0.336 |
| 87230.000 | 283.045 | -0.648 | 282.397 | -0.545 | 282.972 | -0.326 |
| 87239.699 | 283.072 | -0.672 | 282.4 | -0.548 | 282.945 | -0.344 |
| 87240.000 | 283.291 | -0.674 | 282.616 | -0.526 | 283.142 | -0.286 |
| 87244.907 | 283.278 | -0.707 | 282.571 | -0.418 | 282.989 | -0.299 |
| 87250.000 | 283.357 | -0.721 | 282.636 | -0.313 | 282.949 | -0.328 |
| 87260.000 | 283.513 | -0.739 | 282.774 | -0.049 | 282.82 | -0.346 |
| 87270.000 | 283.669 | -0.631 | 283.038 | 0.257 | 284.781 | -0.238 |
| 87275.538 | 283.756 | -0.629 | 283.127 | 0.262 | 283.865 | -0.226 |
| 87280.000 | 283.825 | -0.637 | 283.188 | 0.251 | 283.939 | -0.244 |
| 87290.000 | 283.981 | -0.655 | 283.326 | 0.215 | 283.11 | -0.262 |
| 87292.420 | 284.019 | -0.66 | 283.359 | 0.208 | 283.151 | -0.267 |
| 87300.000 | 284.137 | -0.674 | 283.463 | 0.180 | 283.284 | -0.281 |
| 87310.000 | 284.295 | -0.682 | 283.613 | 0.109 | 283.505 | -0.366 |
| 87318.111 | 284.426 | -0.684 | 283.742 | 0.053 | 283.649 | -0.368 |
| 87320.000 | 284.444 | -0.684 | 283.762 | 0.013 | 283.712 | -0.371 |
| 87330.000 | 284.605 | -0.687 | 283.918 | -0.031 | 283.984 | -0.374 |
| 87340.000 | 284.761 | -0.69 | 284.072 | -0.088 | 284.152 | -0.376 |
| 87350.000 | 284.917 | -0.692 | 284.226 | -0.147 | 284.373 | -0.376 |
| 87360.000 | 285.073 | -0.695 | 284.378 | -0.216 | 284.162 | -0.379 |
| 87370.000 | 285.229 | -0.698 | 284.532 | -0.279 | 284.253 | -0.382 |
| 87380.000 | 285.385 | -0.7 | 284.685 | -0.337 | 284.348 | -0.384 |
| 87390.000 | 285.541 | -0.703 | 284.838 | -0.401 | 285.24 | -0.387 |
| 87400.000 | 285.697 | -0.705 | 284.992 | -0.466 | 284.526 | -0.389 |
| 87410.000 | 285.853 | -0.708 | 285.145 | -0.524 | 285.669 | -0.392 |
| 87420.000 | 286.009 | -0.711 | 285.298 | -0.572 | 285.886 | -0.395 |
| 87430.000 | 286.165 | -0.713 | 285.452 | -0.619 | 286.07 | -0.397 |
| 87436.179 | 286.262 | -0.715 | 285.547 | -0.645 | 286.26 | -0.4 |
| 87440.000 | 286.321 | -0.716 | 285.605 | -0.647 | 286.251 | -0.403 |
| 87450.000 | 286.477 | -0.719 | 285.759 | -0.636 | 286.225 | -0.331 |
| 87460.000 | 286.633 | -0.647 | 285.986 | -0.642 | 286.292 | -0.184 |
| 87469.908 | 286.788 | -0.501 | 286.286 | -0.648 | 286.337 | -0.184 |
| 87470.000 | 286.789 | -0.5 | 286.289 | -0.648 | 286.337 | -0.184 |
| 87480.000 | 286.939 | -0.5 | 286.439 | 0.171 | 286.268 | -0.184 |
| 87490.000 | 287.089 | -0.5 | 286.589 | 0.368 | 286.221 | -0.184 |
| 87500.000 | 287.239 | -0.5 | 286.739 | 0.461 | 286.21 | -0.184 |
| 87510.000 | 287.389 | -0.5 | 286.889 | 0.482 | 286.33 | -0.184 |
| 87519.503 | 287.512 | -0.5 | 287.012 | 0.485 | 286.527 | -0.184 |
| 87520.000 | 287.512 | -0.5 | 287.012 | 0.5 | 286.911 | -0.184 |
| 87530.000 | 287.638 | -0.5 | 287.138 | 0.440 | 286.998 | -0.184 |
| 87540.000 | 287.764 | -0.5 | 287.264 | 0.416 | 287.072 | -0.184 |
| 87550.000 | 287.889 | -0.5 | 287.389 | 0.241 | 287.132 | -0.184 |
| 87560.000 | 288.015 | -0.5 | 287.515 | 0.230 | 287.182 | -0.184 |
| 87569.903 | 288.138 | -0.5 | 287.638 | 0.176 | 287.274 | -0.184 |
| 87570.000 | 288.138 | -0.5 | 287.638 | 0.5 | 287.314 | -0.184 |
| 87572.235 | 288.168 | -0.5 | 287.668 | 0.5 | 287.325 | -0.184 |
| 87580.000 | 288.268 | -0.5 | 287.768 | 0.259 | 287.364 | -0.184 |
| 87590.000 | 288.378 | -0.5 | 287.878 | 0.230 | 287.374 | -0.184 |
| 87600.000 | 288.488 | -0.5 | 287.988 | 0.337 | 287.388 | -0.184 |
| 87610.000 | 288.598 | -0.5 | 288.098 | 0.394 | 287.944 | -0.184 |
| 87620.000 | 288.708 | -0.5 | 288.208 | 0.465 | 287.932 | -0.184 |
| 87630.000 | 288.818 | -0.5 | 288.318 | 0.555 | 287.844 | -0.184 |
| 87640.000 | 288.928 | -0.5 | 288.428 | 0.605 | 287.823 | -0.184 |
| 87650.000 | 289.038 | -0.5 | 288.538 | 0.694 | 287.749 | -0.184 |
| 87660.000 | 289.148 | -0.5 | 288.648 | 0.882 | 287.686 | -0.184 |
| 87670.000 | 289.258 | -0.5 | 288.758 | 0.878 | 287.64 | -0.184 |
| 87680.000 | 289.368 | -0.5 | 288.868 | 0.943 | 287.6 | -0.184 |
| 87690.000 | 289.478 | -0.5 | 288.978 | 1.011 | 287.567 | -0.184 |
| 87700.000 | 289.588 | -0.5 | 289.088 | 0.817 | 287.791 | -0.184 |
| 87710.000 | 289.698 | -0.5 | 289.198 | 0.445 | 287.703 | -0.184 |
| 87720.000 | 289.808 | -0.5 | 289.308 | 0.510 | 287.668 | -0.184 |
| 87730.000 | 289.918 | -0.5 | 289.418 | 0.511 | 287.698 | -0.184 |
| 87740.000 | 290.028 | -0.5 | 289.528 | 0.492 | 287.736 | -0.184 |
| 87750.000 | 290.138 | -0.5 | 289.638 | 0.480 | 287.758 | -0.184 |

LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:1000H 1:100V

1100 @ A1 / 1200 @ A3 — 0 1 2 3 4 5 6 7 8 9 10 m
11000 @ A1 / 12000 @ A3 — 0 10 20 30 40 50 60 70 80 90 100 m

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALL
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF SIDING LOW RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.
- EXISTING MAIN LINE
- EXISTING SURFACE LEVEL

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL
   JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: Resolution 119
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT



DO NOT SCALE FROM THIS DRAWING

CBHGROUP ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/+61 8 6364 3300 E/info@bgeeng.com
bgeeng.com—
BG&E
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

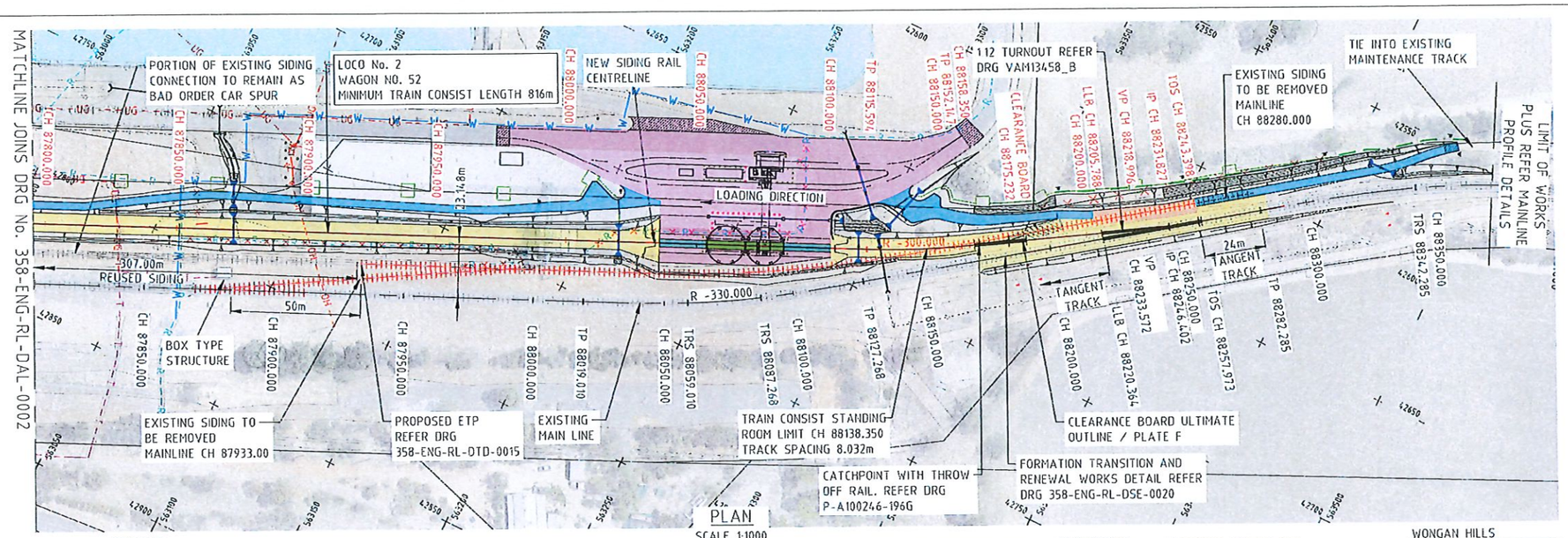
| REV | DATE | REVISION DESCRIPTION | BY | CKD | APP'D |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

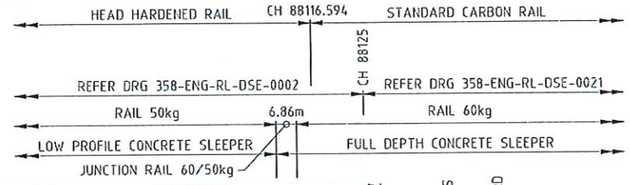
SCALE 1:1000H, 1100V
SHEET A1
PROJECT KONNONGORRING
CONTRACT No CW9951

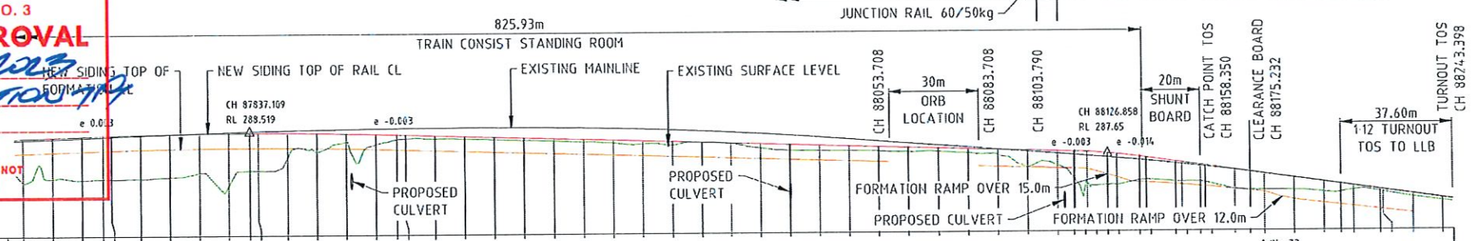
| | | |
|---|---|---|
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SGB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SIDING PLAN AND PROFILE SHEET 1 OF 2

DRG No 358-ENG-RL-DAL-0002 | SHEET 1 OF 2 | REV. E







PLAN

SCALE 1:1000

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7114
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

DATUM 285

VERTICAL GRADE: 1 IN 333, 0.3% | 1 IN -333, -0.3% | 1 IN -72, -1.4%
VERTICAL CURVE: 166.67K, LVC = 100 | 20K, LVC = 21.9
HORIZONTAL ALIGNMENT: TAN 543.36 | ARC 36.55 | TAN 79.68 | TAN 11.57
HORIZONTAL RADIUS: R=-300
CANT

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 288.288 | 288.318 | 288.348 | 288.369<br>288.378 | 288.403 | 288.422 | 288.436 | 288.443 | 288.444<br>288.444 | 288.439 | 288.429 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.5 | -0.5 | -0.5 | -0.5<br>-0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5<br>-0.5 | -0.5 | -0.5 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.788 | 287.818 | 287.848 | 287.869<br>287.878 | 287.903 | 287.922 | 287.936 | 287.943 | 287.944<br>287.944 | 287.939 | 287.929 |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | 0.967 | 0.885 | 0.956 | 0.960 | 0.973 | 0.947 | 0.817 | 1.298 | 0.765 | 0.335 | 0.118 |
| EXISTING SURFACE LEVEL | 286.82 | 286.933 | 286.892 | 286.926<br>286.918 | 286.93 | 286.975 | 287.119 | 286.646 | 287.16<br>287.179 | 287.605 | 287.611 |
| DESIGN BALLAST DEPTH (m) | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 |
| CHAINAGE | 87760.000 | 87770.000 | 87780.000 | 87787.109<br>87790.000 | 87800.000 | 87810.000 | 87820.000 | 87830.000 | 87837.109<br>87840.000 | 87850.000 | 87860.000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 288.412 | 288.389 | 288.369<br>288.361 | 288.331 | 288.301 | 288.271 | 288.241 | 288.211 | 288.181 | 288.151 | 288.121 | 288.091 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.5 | -0.5 | -0.5<br>-0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.912 | 287.889 | 287.869<br>287.861 | 287.831 | 287.801 | 287.771 | 287.741 | 287.711 | 287.681 | 287.651 | 287.621 | 287.591 |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | -0.227 | -0.165 | -0.373 | -0.392 | -0.412 | -0.418 | -0.412 | -0.420 | -0.408 | -0.407 | -0.397 | -0.382 |
| EXISTING SURFACE LEVEL | 288.139 | 288.055 | 288.213<br>288.234 | 288.223 | 288.213 | 288.188 | 288.153 | 288.13 | 288.089 | 288.058 | 288.017 | 287.973 |
| DESIGN BALLAST DEPTH (m) | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 |
| CHAINAGE | 87870.000 | 87880.000 | 87887.109<br>87890.000 | 87900.000 | 87910.000 | 87920.000 | 87930.000 | 87940.000 | 87950.000 | 87960.000 | 87970.000 | 87980.000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 288.061 | 288.031 | 288.001 | 287.971 | 287.941 | 287.911 | 287.881 | 287.851 | 287.821 | 287.791 | 287.761 | 287.731 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | | | | -0.576 | -0.576 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.561 | 287.531 | 287.501 | 287.471 | 287.441 | 287.411 | 287.381 | | | | 287.185 | 287.155 |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | -0.509 | -0.488 | -0.358 | -0.307 | -0.321 | 0.160 | 0.144 | 0.151 | 0.116 | 0.144 | 0.169 | 0.570 |
| EXISTING SURFACE LEVEL | 288.07 | 288.019 | 287.859 | 287.778 | 287.762 | 287.751 | 287.736 | 287.7 | 287.704 | 287.647 | 287.592 | 287.161 |
| DESIGN BALLAST DEPTH (m) | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 |
| CHAINAGE | 87990.000 | 88000.000 | 88010.000 | 88020.000 | 88030.000 | 88040.000 | 88050.000 | 88060.000 | 88070.000 | 88080.000 | 88090.000 | 88100.000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 287.701 | 287.684<br>287.683<br>287.667<br>287.620<br>287.591 | 287.497<br>287.467 | 287.327<br>287.297 | 287.211<br>287.188 | 287.048<br>286.975<br>286.909 | 286.769 | 286.630 | 286.549<br>286.490 | 286.365<br>286.351 | 286.211 | 286.072 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.576 | -0.576<br>-0.576<br>-0.576<br>-0.713<br>-0.775 | -0.853<br>-0.835 | -0.755<br>-0.744 | -0.71<br>-0.702 | -0.657<br>-0.638<br>-0.621 | -0.736 | -0.724 | -0.709<br>-0.698 | -0.675<br>-0.672 | -0.646 | |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.125 | 287.108<br>287.107<br>287.091<br>286.907<br>286.816 | 286.644<br>286.632 | 286.572<br>286.553 | 286.5<br>286.486 | 286.391<br>286.337<br>286.288 | 286.033 | 285.906 | 285.84<br>285.792 | 285.69<br>285.679 | 285.565 | |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | -0.099 | 0.436<br>0.258 | -0.091 | -0.091 | -0.156<br>-0.143 | -0.006<br>-0.026<br>-0.066 | -0.313 | -0.379 | -0.437<br>-0.547 | -0.603<br>-0.597 | -0.537 | |
| EXISTING SURFACE LEVEL | 287.224 | 286.782<br>286.741<br>286.656<br>286.556<br>286.558 | 286.714<br>286.723 | 286.664<br>286.656 | 286.657<br>286.629 | 286.397<br>286.364<br>286.354 | 286.346 | 286.285 | 286.277<br>286.339 | 286.293<br>286.275 | 286.102 | 285.973 |
| DESIGN BALLAST DEPTH (m) | -0.185 | -0.183<br>-0.382 | -0.442 | -0.362 | -0.317<br>-0.309 | -0.264<br>-0.245<br>-0.228 | -0.343 | -0.331 | -0.316<br>-0.29 | -0.267<br>-0.264 | -0.238 | |
| CHAINAGE | 88110.000 | 88115.594<br>88115.909<br>88120.000<br>88126.858<br>88130.000 | 88137.806<br>88140.000 | 88150.000<br>88152.147 | 88158.350<br>88160.000 | 88170.000<br>88175.232<br>88180.000 | 88190.000 | 88200.000 | 88205.788<br>88210.000 | 88218.996<br>88220.000 | 88230.000 | 88240.000 |

LONGITUDINAL PROFILE ALONG SIDING CL

SCALE 1:1000H 1:100V

## LEGEND

| | |
|---|---|
| —— | CADASTRAL BOUNDARY |
| CH 87201.248 — | EXISTING MAINLINE CHAINAGES |
| —— | EXISTING MAIN LINE/SIDING |
| ┼┼┼┼┼┼ | RAIL TO BE REMOVED |
| ▶—◀ | PROPOSED CULVERT WITH HEADWALL |
| CH 87700.000 | PROPOSED SIDING CHAINAGES |
| —— | PROPOSED SIDING/MAINLINE ALIGNMENT |
| ▭ | MAINTENANCE/CONSTRUCTION PAD |
| 🟨 | BALLAST TRACK |
| 🟪 | CBH ACCESS ROAD |
| 🟩 | SLAB TRACK |
| ▭ | ASPHALT TRACK |
| 🟦 | MAINTENANCE ACCESS TRACK |
| ▨ | BALLAST ARRESTOR BED |

## LONGITUDINAL PROFILE LEGEND

| | |
|---|---|
| —— | TOP OF SIDING LOW RAIL AT CL. |
| —— | TOP OF FORMATION DESIGN AT CL. |
| —— | EXISTING MAIN LINE |
| — — — | EXISTING SURFACE LEVEL |

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1:100 @ A1 / 1:200 @ A3 — 0 1 2 3 4 5 6 7 8 9 10 m
1:1000 @ A1 / 1:2000 @ A3 — 0 10 20 30 40 50 60 70 80 90 100 m

DO NOT SCALE FROM THIS DRAWING

CBH GROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E

BG&E Project No. PE22014

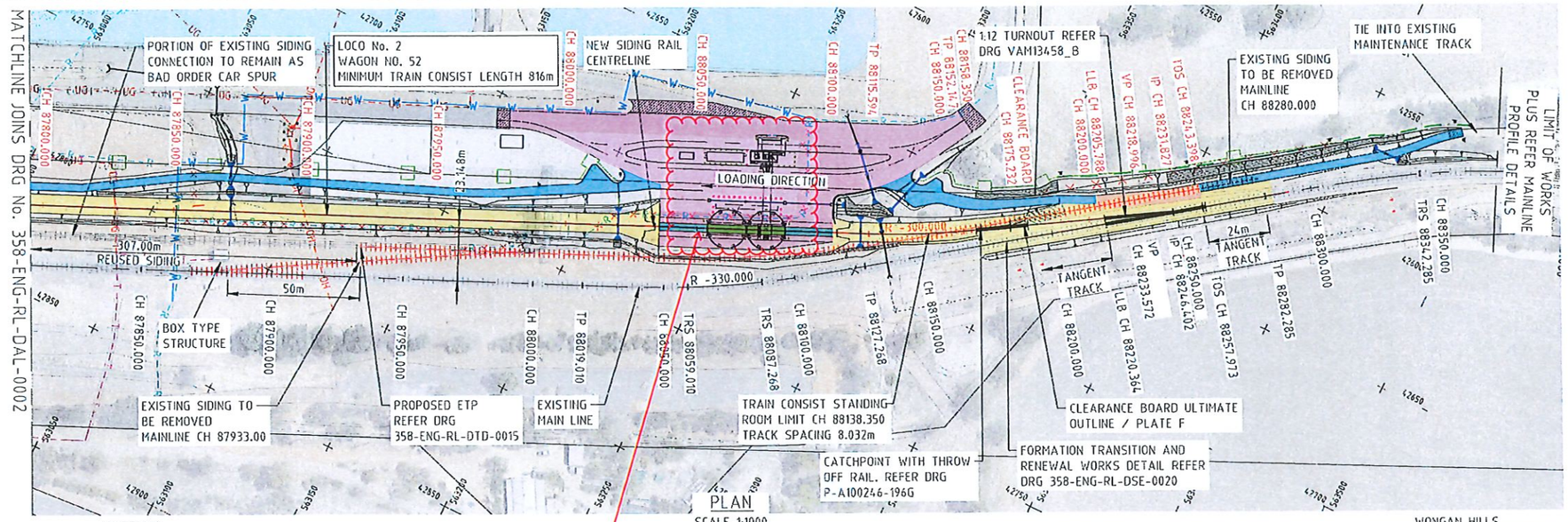
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

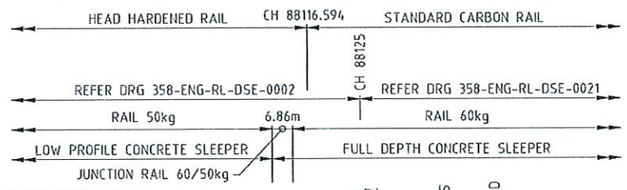
| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | CPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | CPR | MB |

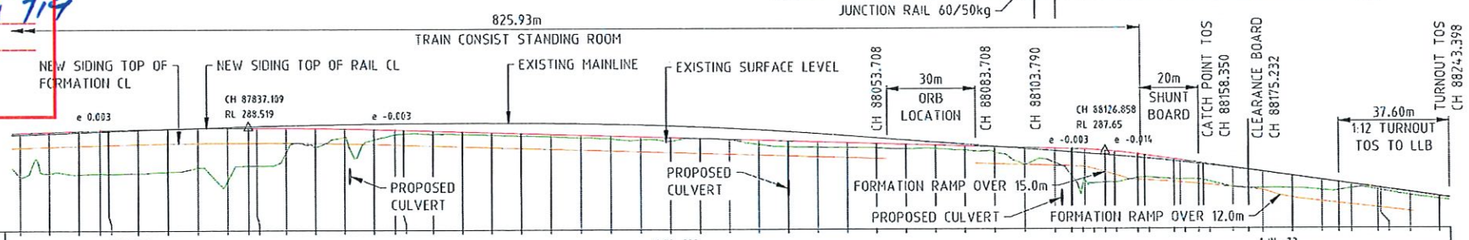
| | | | | |
|---|---|---|---|---|
| SCALE 1:1000H, 1:100V | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SIDING PLAN AND PROFILE SHEET 2 OF 2

DRG No 358-ENG-RL-DAL-0003
SHEET 2 OF 2
REV. E







The out-loading facility and over rail bins infrastructure (above ground works) are shown for information purposes and do not form part of this Application. Refer to General Arrangement Plan 358-ENG-RL-DGA-003 Rev E for works subject of this Application.

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

DATUM 285

VERTICAL GRADE: 1 IN 333 0.3% | 1 IN -333 -0.3% | 1 IN -72 -1.4%
VERTICAL CURVE: 166.67K LVC = 100 | 2K LVC = 21.9
HORIZONTAL ALIGNMENT: TAN 543.36 | ARC 36.55 | TAN 79.68 | TAN 11.57
HORIZONTAL RADIUS: R=-300
CANT

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 288.288 | 288.318 | 288.348 | 288.369<br>288.378 | 288.403 | 288.422 | 288.436 | 288.443 | 288.444<br>288.444 | 288.439 | 288.429 | 288.412 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.5 | -0.5 | -0.5 | -0.5<br>-0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5<br>-0.5 | -0.5 | -0.5 | -0.5 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.788 | 287.818 | 287.848 | 287.869<br>287.878 | 287.903 | 287.922 | 287.936 | 287.943 | 287.944<br>287.944 | 287.939 | 287.929 | 287.912 |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | 0.967 | 0.885 | 0.956 | 0.960 | 0.973 | 0.947 | 0.817 | 1.298 | 0.765 | 0.335 | 0.118 | -0.227 |
| EXISTING SURFACE LEVEL | 286.82 | 286.933 | 286.892 | 286.926<br>286.918 | 286.93 | 286.975 | 287.119 | 286.646 | 287.18<br>287.179 | 287.605 | 287.811 | 288.139 |
| DESIGN BALLAST DEPTH (m) | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 |
| CHAINAGE | 87760.000 | 87770.000 | 87780.000 | 87787.109<br>87790.000 | 87800.000 | 87810.000 | 87820.000 | 87830.000 | 87837.109<br>87840.000 | 87850.000 | 87860.000 | 87870.000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 288.389 | 288.369<br>288.361 | 288.331 | 288.301 | 288.271 | 288.241 | 288.211 | 288.181 | 288.151 | 288.121 | 288.091 | 288.061 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.5 | -0.5<br>-0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.889 | 287.869<br>287.861 | 287.831 | 287.801 | 287.771 | 287.741 | 287.711 | 287.681 | 287.651 | 287.621 | 287.591 | 287.561 |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | -0.165 | -0.373 | -0.392 | -0.412 | -0.418 | -0.412 | -0.420 | -0.408 | -0.407 | -0.397 | -0.382 | -0.509 |
| EXISTING SURFACE LEVEL | 288.055 | 288.213<br>288.234 | 288.223 | 288.213 | 288.188 | 288.153 | 288.13 | 288.089 | 288.058 | 288.017 | 287.973 | 288.07 |
| DESIGN BALLAST DEPTH (m) | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 | -0.184 |
| CHAINAGE | 87880.000 | 87887.109<br>87890.000 | 87900.000 | 87910.000 | 87920.000 | 87930.000 | 87940.000 | 87950.000 | 87960.000 | 87970.000 | 87980.000 | 87990.000 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 288.031 | 288.001 | 287.971 | 287.941 | 287.911 | 287.881 | 287.851 | 287.821 | 287.791 | 287.761 | 287.731 | 287.701 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | -0.5 | | | | -0.576 | -0.576 | -0.576 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.531 | 287.501 | 287.471 | 287.441 | 287.411 | 287.381 | | | | 287.185 | 287.155 | 287.125 |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | -0.488 | -0.358 | -0.307 | -0.321 | 0.160 | 0.144 | 0.151 | 0.116 | 0.144 | 0.169 | 0.570 | -0.099 |
| EXISTING SURFACE LEVEL | 288.019 | 287.859 | 287.778 | 287.762 | 287.751 | 287.736 | 287.7 | 287.704 | 287.647 | 287.592 | 287.161 | 287.224 |
| DESIGN BALLAST DEPTH (m) | -0.184 | -0.184 | -0.184 | -0.184 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | -0.195 |
| CHAINAGE | 88000.000 | 88010.000 | 88020.000 | 88030.000 | 88040.000 | 88050.000 | 88060.000 | 88070.000 | 88080.000 | 88090.000 | 88100.000 | 88110.000 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOW LEG DESIGN TOP OF RAIL AT CL | 287.684<br>287.683<br>287.667<br>287.620<br>287.591 | 287.497<br>287.467 | 287.327<br>287.297 | 287.211<br>287.188 | 287.048 | 286.975 | 286.909 | 286.769 | 286.630 | 286.549<br>286.490 | 286.365<br>286.351 | 286.211 | 286.072 |
| TOP OF RAIL LOW RAIL TO TOP OF FORMATION | -0.576<br>-0.576<br>-0.576<br>-0.713<br>-0.775 | -0.853<br>-0.835 | -0.755<br>-0.744 | -0.71<br>-0.702 | -0.657 | -0.638 | -0.621 | -0.736 | -0.724 | -0.709<br>-0.698 | -0.675<br>-0.672 | -0.646 | |
| TOP OF FORMATION (TOF) LEVEL AT CL | 287.108<br>287.107<br>287.091<br>286.907<br>286.816 | 286.644<br>286.632 | 286.572<br>286.554 | 286.5<br>286.486 | 286.391 | 286.337 | 286.288 | 286.033 | 285.906 | 285.84<br>285.792 | 285.69<br>285.679 | 285.565 | |
| TOF TO EXISTING DEPTH (- CUT / + FILL) AT CL | 0.436<br>0.258 | -0.091 | -0.091 | -0.156<br>-0.143 | -0.006 | -0.026 | -0.066 | -0.313 | -0.379 | -0.437<br>-0.547 | -0.603<br>-0.597 | -0.537 | |
| EXISTING SURFACE LEVEL | 286.782<br>286.741<br>286.654<br>286.556<br>286.556 | 286.714<br>286.723 | 286.664<br>286.656 | 286.657<br>286.629 | 286.397 | 286.364 | 286.354 | 286.346 | 286.285 | 286.277<br>286.339 | 286.293<br>286.275 | 286.102 | 285.973 |
| DESIGN BALLAST DEPTH (m) | -0.183<br>-0.382 | -0.442 | -0.362 | -0.317<br>-0.309 | -0.264 | -0.245 | -0.228 | -0.343 | -0.331 | -0.316<br>-0.29 | -0.267<br>-0.264 | -0.238 | |
| CHAINAGE | 88115.594<br>88115.909<br>88120.000<br>88126.858<br>88130.000 | 88137.806<br>88140.000 | 88150.000<br>88152.147 | 88158.350<br>88160.000 | 88170.000 | 88175.232 | 88180.000 | 88190.000 | 88200.000 | 88205.788<br>88210.000 | 88218.995<br>88220.000 | 88230.000 | 88240.000 |

## LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:1000H 1:100V

## LEGEND

| | |
|---|---|
| ——— | CADASTRAL BOUNDARY |
| CH 87201.248 — | EXISTING MAINLINE CHAINAGES |
| ╫╫╫╫ | EXISTING MAIN LINE/SIDING |
| 🟥 ╫╫╫╫ | RAIL TO BE REMOVED |
| ▶——◀—— | PROPOSED CULVERT WITH HEADWALL |
| CH 87700.000 — | PROPOSED SIDING CHAINAGES |
| ——— | PROPOSED SIDING/MAINLINE ALIGNMENT |
| ■ | MAINTENANCE/CONSTRUCTION PAD |
| 🟨 | BALLAST TRACK |
| 🟪 | CBH ACCESS ROAD |
| 🟩 | SLAB TRACK |
| ■ | ASPHALT TRACK |
| 🟦 | MAINTENANCE ACCESS TRACK |
| ▨ | BALLAST ARRESTOR BED |

## LONGITUDINAL PROFILE LEGEND

| | |
|---|---|
| ——— | TOP OF SIDING LOW RAIL AT CL. |
| ——— | TOP OF FORMATION DESIGN AT CL. |
| ——— | EXISTING MAIN LINE |
| — — — — — | EXISTING SURFACE LEVEL |

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING.
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

1:100 @ A1 / 1:200 @ A3: 0 1 2 3 4 5 6 7 8 9 10 m
1:1000 @ A1 / 1:2000 @ A3: 0 10 20 30 40 50 60 70 80 90 100 m

DO NOT SCALE FROM THIS DRAWING

CBH GROUP
ABN 29 256 604 947

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Level 19, Kings Square 1
556 Wellington St, Perth WA 6000
P/ +61 8 6364 3300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 15.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

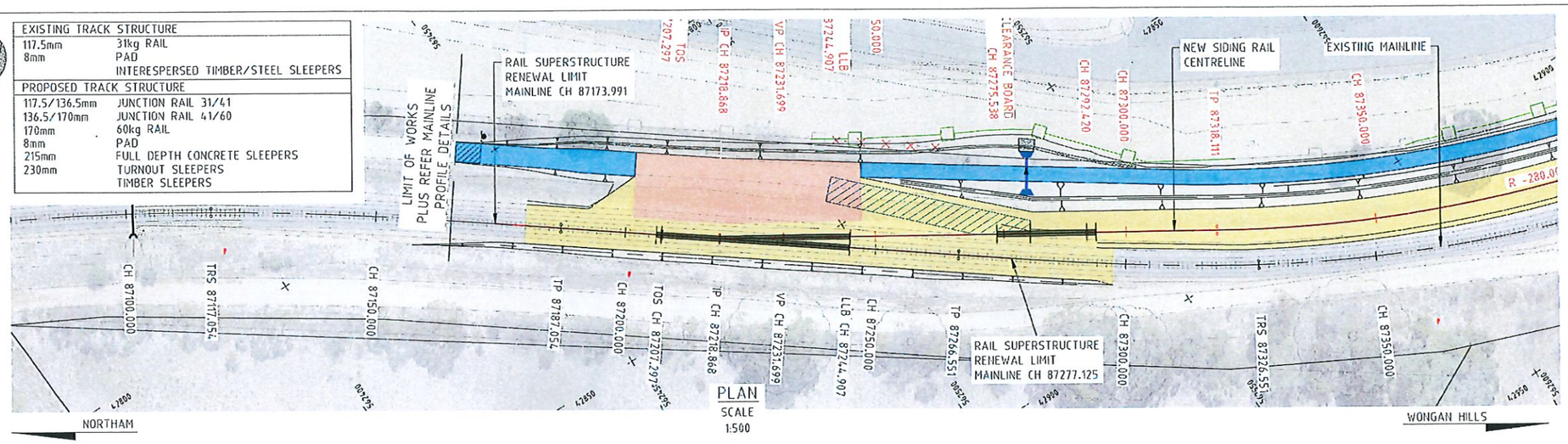
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| | | | |
|---|---|---|---|
| SCALE | 1:1000H, 1:100V | DRAWN | AS | 27.10.23 |
| SHEET | A1 | CHECKED | JH | 27.10.23 |
| PROJECT | KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No | CW9951 | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SIDING PLAN AND PROFILE SHEET 2 OF 2

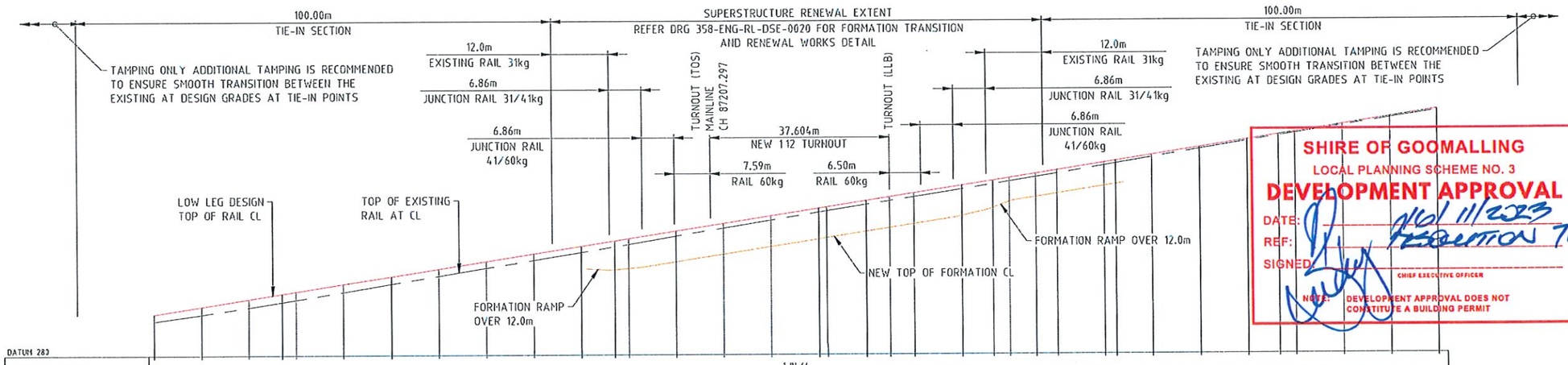
DRG No 358-ENG-RL-DAL-0003
SHEET 2 OF 2
REV. E

| EXISTING TRACK STRUCTURE | |
|---|---|
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | INTERESPERSED TIMBER/STEEL SLEEPERS |
| **PROPOSED TRACK STRUCTURE** | |
| 117.5/136.5mm | JUNCTION RAIL 31/41 |
| 136.5/170mm | JUNCTION RAIL 41/60 |
| 170mm | 60kg RAIL |
| 8mm | PAD |
| 215mm | FULL DEPTH CONCRETE SLEEPERS |
| 230mm | TURNOUT SLEEPERS |
| | TIMBER SLEEPERS |



## PLAN

SCALE
1:500



SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7.19
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

DATUM 280

| | |
|---|---|
| VERTICAL GRADE | 1 IN 64<br>1.56% |
| VERTICAL CURVE | |
| HORIZONTAL ALIGNMENT | ARC 168.86<br>L70<br>TAN 79.5<br>L60<br>ARC 261.6 |
| HORIZONTAL RADIUS | R=501.6<br>R=-300.6 |
| CANT | |

| CHAINAGE | LOW LEG DESIGN TOP OF RAIL AT CL | TOP OF EXISTING RAIL LEVEL AT CL | TOP OF FORMATION (TOF) LEVEL AT CL | BALLAST DEPTH |
|---|---|---|---|---|
| 87090.000 | 280.862 | 280.718 | | |
| 87100.000 | 281.018 | 280.857 | | |
| 87110.000 | 281.174 | 281.003 | | |
| 87117.054 | 281.284 | 281.112 | | |
| 87120.000 | 281.330 | 281.159 | | |
| 87130.000 | 281.486 | 281.319 | | |
| 87140.000 | 281.642 | 281.488 | | |
| 87150.000 | 281.798 | 281.651 | | |
| 87160.000 | 281.954 | 281.814 | | |
| 87170.000 | 282.110 | 281.975 | | |
| 87180.000 | 282.266 | 282.138 | 281.781 | |
| 87187.054 | 282.376 | 282.255 | 281.775 | |
| 87190.000 | 282.422 | 282.304 | 281.851 | 0.266 |
| 87200.000 | 282.578 | 282.473 | 281.937 | 0.248 |
| 87210.000 | 282.734 | 282.639 | 282.093 | 0.233 |
| 87220.000 | 282.890 | 282.801 | 282.249 | 0.233 |
| 87230.000 | 283.046 | 282.963 | 282.405 | 0.233 |
| 87231.699 | 283.072 | 282.990 | 282.431 | 0.233 |
| 87240.000 | 283.202 | 283.122 | 282.561 | 0.233 |
| 87244.907 | 283.278 | 283.198 | 282.637 | 0.248 |
| 87250.000 | 283.358 | 283.277 | 282.717 | 0.248 |
| 87260.000 | 283.514 | 283.437 | [illegible] | 0.273 |
| 87266.551 | 283.616 | 283.541 | [illegible] | |
| 87270.000 | 283.670 | 283.597 | 283.174 | |
| 87275.538 | 283.756 | 283.686 | [illegible] | |
| 87280.000 | 283.826 | 283.757 | 283.341 | |
| 87290.000 | 283.982 | 283.923 | 283.497 | |
| 87292.420 | 284.020 | 283.965 | [illegible] | |
| 87300.000 | 284.138 | 284.092 | | |
| 87310.000 | 284.294 | 284.257 | | |
| 87320.000 | 284.450 | 284.423 | | |
| 87326.551 | 284.552 | 284.529 | | |
| 87330.000 | 284.606 | 284.584 | | |
| 87340.000 | 284.762 | 284.741 | | |
| 87350.000 | 284.918 | 284.895 | | |
| 87360.000 | 285.074 | 285.049 | | |

| TRACK LIFT (mm) (-LOWER / +HIGHER) | TRACK SLEW (mm) (-LEFT / +RIGHT) |
|---|---|
| 147 | -13 |
| 161 | -5 |
| 169 | 0 |
| 173 | 7 |
| 170 | 14 |
| 166 | 20 |
| 154 | 21 |
| 150 | 23 |
| 140 | 22 |
| 140 | 19 |
| 134 | 14 |
| 129 | 9 |
| 121 | 2 |
| 113 | -2 |
| 100 | -2 |
| 95 | -3 |
| 90 | -3 |
| 84 | 0 |
| 81 | 12 |
| 80 | 19 |
| 81 | 26 |
| 78 | 29 |
| 75 | 29 |
| 71 | 27 |
| 69 | 29 |
| 65 | 31 |
| 53 | 44 |
| 44 | 49 |
| 37 | 46 |
| 28 | 38 |
| 24 | 15 |
| 21 | -14 |
| 21 | -38 |
| 23 | -68 |
| 24 | -99 |

## LONGITUDINAL PROFILE ALONG SIDING CL

SCALE 1:500H 1:50V

1:50 @ A1 / 1:100 @ A3 0 1 2 3 4 5

1:500 @ A1 / 1:1000 @ A3 0 5 10 15 20 25 30 35 40 45 50 m

## LEGEND

| | |
|---|---|
| ─── | CADASTRAL BOUNDARY |
| CH 87201.248 — | EXISTING MAINLINE CHAINAGES |
| ┼┼┼┼┼┼ | EXISTING MAIN LINE/SIDING |
| ┼┼┼┼┼┼ | RAIL TO BE REMOVED |
| ◀───▶ | PROPOSED CULVERT WITH HEADWALLS |
| CH 87700.000 — | PROPOSED SIDING CHAINAGES |
| ─── | PROPOSED SIDING/MAINLINE ALIGNMENT |
| 🟥 | MAINTENANCE/CONSTRUCTION PAD |
| 🟨 | BALLAST TRACK |
| 🟪 | CBH ACCESS ROAD |
| 🟩 | SLAB TRACK |
| 🟦 | ASPHALT TRACK |
| 🟦 | MAINTENANCE ACCESS TRACK |
| ▨ | BALLAST ARRESTOR BED |

## LONGITUDINAL PROFILE LEGEND

| | |
|---|---|
| ─── | TOP OF DESIGN RAIL AT CL. |
| ── ─ ── | TOP OF EXISTING RAIL AT CL. |
| ─── | TOP OF FORMATION DESIGN AT CL. |

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON.
6. TOP OF FORMATION LEVEL IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING FORMATION. IF NO INFORMATION IS PROVIDED, TOP OF FORMATION IS AS EXISTING.
7. DESIGN BALLAST DEPTH IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING BALLAST DEPTH. IF NO INFORMATION IS PROVIDED, BALLAST DEPTH IS AS EXISTING (ADDING THE PROPOSED LIFT).

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM: | MGA94 ZONE 50 |
| HEIGHT DATUM: | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

DO NOT SCALE FROM THIS DRAWING

CBH GROUP
ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
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bgeeng.com—

BG&E

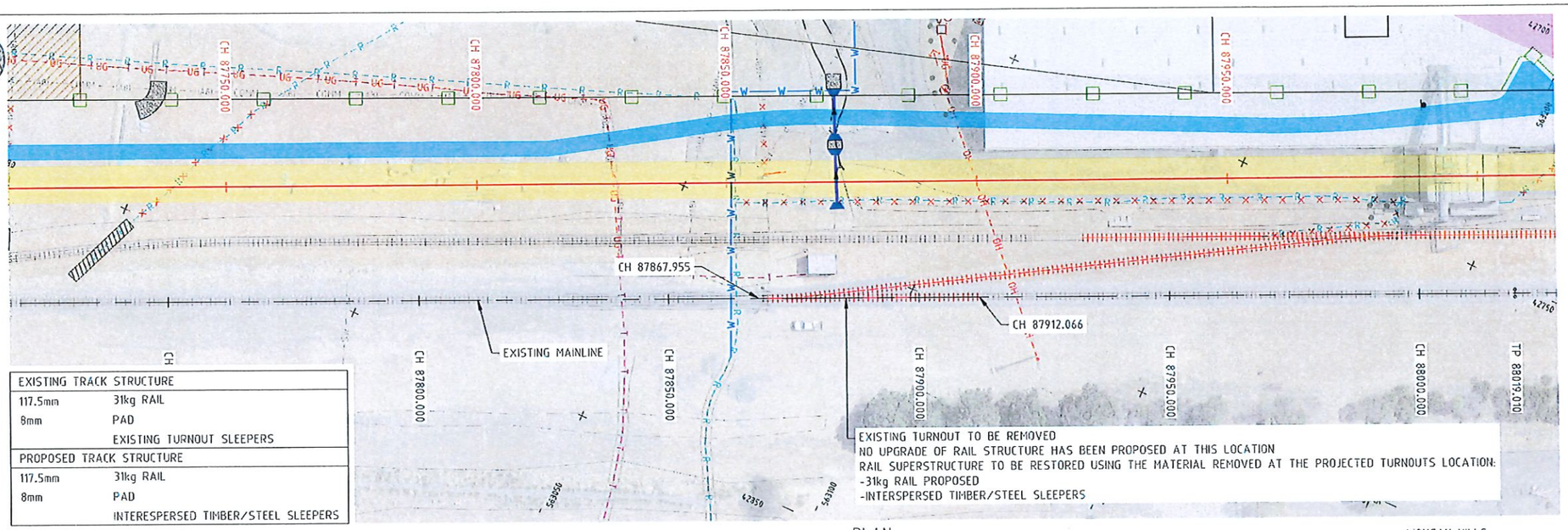
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|---|---|
| | | E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| | | D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| | | C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | HB |
| | | B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | HB |
| | | A | 15.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | HB |

| | | | |
|---|---|---|---|
| SCALE 1:500H, 1:50V | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE PLAN AND PROFILE SHEET 1 OF 3

DRG No 358-ENG-RL-DAL-0004
SHEET 1 OF 3
REV. E



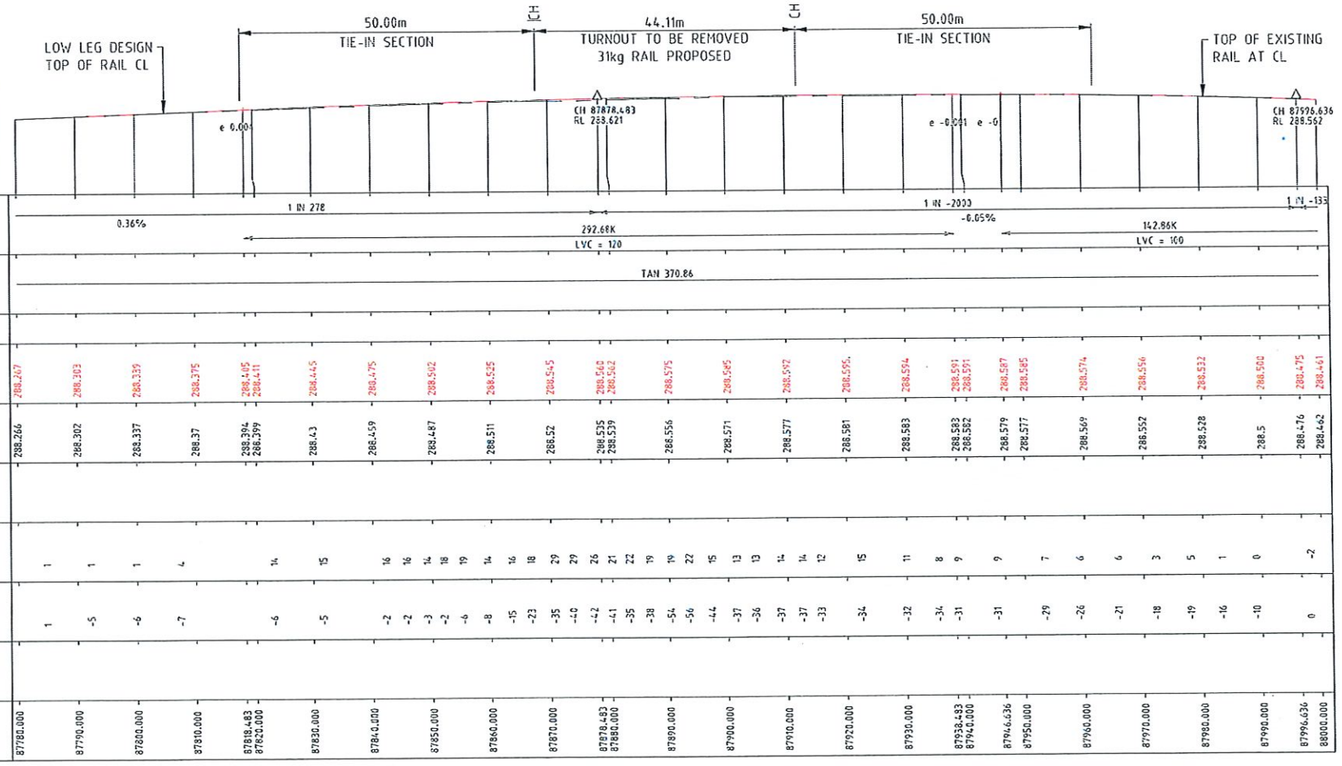

| EXISTING TRACK STRUCTURE | |
|---|---|
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | EXISTING TURNOUT SLEEPERS |
| **PROPOSED TRACK STRUCTURE** | |
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | INTERESPERSED TIMBER/STEEL SLEEPERS |

NORTHAM

## PLAN
SCALE 1:500

WONGAN HILLS

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT




## LONGITUDINAL PROFILE ALONG SIDING CL
SCALE 1:500H 1:50V

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALLS
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF DESIGN RAIL AT CL.
- TOP OF EXISTING RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
5. TURNOUTS AND CATCHPOINTS TO BE MANUFACTURED FROM HEAD HARDENED RAIL JUNCTION RAILS TO BE MANUFACTURED FROM STANDARD CARBON.
6. TOP OF FORMATION LEVEL IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING FORMATION. IF NO INFORMATION IS PROVIDED, TOP OF FORMATION IS AS EXISTING.
7. DESIGN BALLAST DEPTH IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING BALLAST DEPTH. IF NO INFORMATION IS PROVIDED, BALLAST DEPTH IS AS EXISTING (ADDING THE PROPOSED LIFT).

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM: | MGA94 ZONE 50 |
| HEIGHT DATUM: | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |



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BG&E
BG&E Project No. PE22014

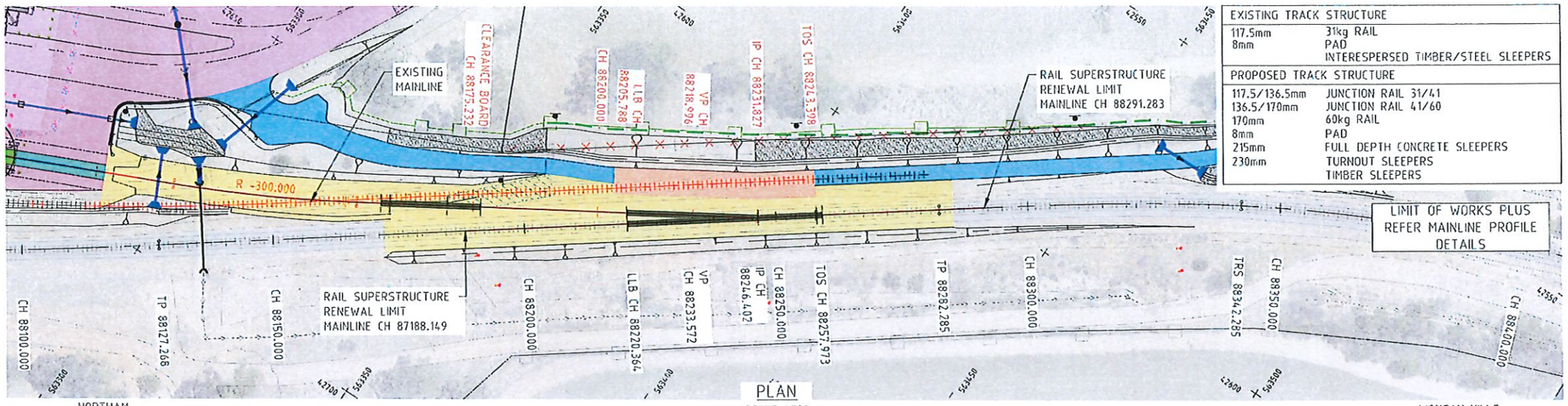
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

| | | |
|---|---|---|
| SCALE | 1:500H, 1:50V | |
| SHEET | A1 | |
| PROJECT | KONNONGORRING | |
| CONTRACT No | CW9951 | |
| DRAWN | AS | 27.10.23 |
| CHECKED | JH | 27.10.23 |
| DESIGNED | SOB | 27.10.23 |
| DESIGN APPR | JH | 27.10.23 |
| PROJECT APPR | MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE PLAN AND PROFILE SHEET 2 OF 3

DRG No 358-ENG-RL-DAL-0005 | SHEET 2 OF 3 | REV. E

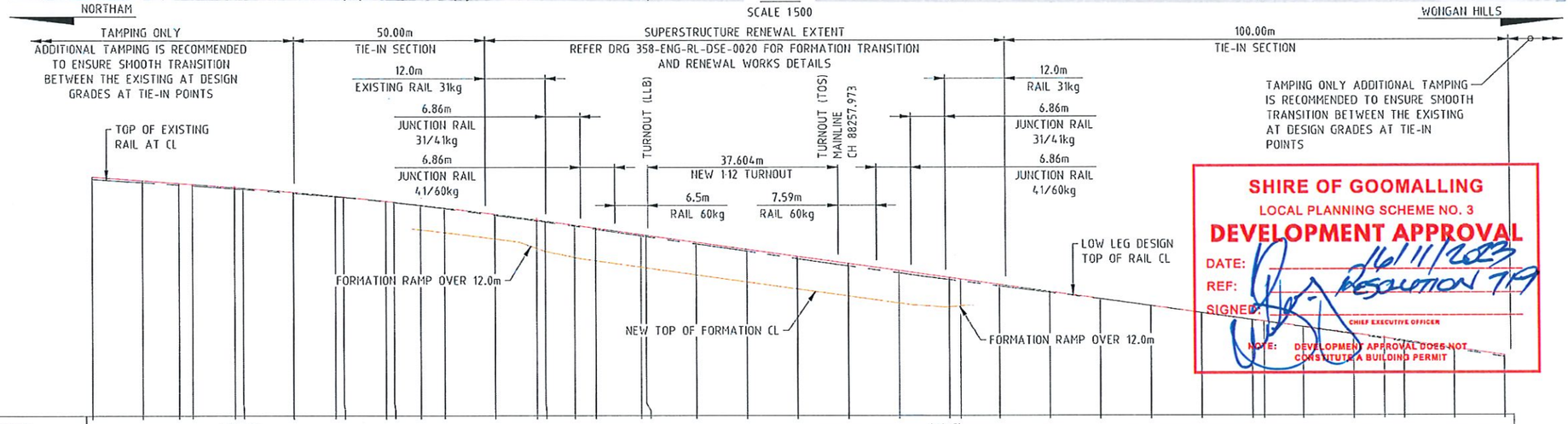



| EXISTING TRACK STRUCTURE | |
|---|---|
| 117.5mm | 31kg RAIL |
| 8mm | PAD |
| | INTERESPERSED TIMBER/STEEL SLEEPERS |

| PROPOSED TRACK STRUCTURE | |
|---|---|
| 117.5/136.5mm | JUNCTION RAIL 31/41 |
| 136.5/170mm | JUNCTION RAIL 41/60 |
| 170mm | 60kg RAIL |
| 8mm | PAD |
| 215mm | FULL DEPTH CONCRETE SLEEPERS |
| 230mm | TURNOUT SLEEPERS |
| | TIMBER SLEEPERS |

## PLAN

SCALE 1500




SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7.9
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

DATUM 283

| | |
|---|---|
| VERTICAL GRADE | 1 IN -133 (-0.75%); 1 IN -72 (-1.39%) |
| VERTICAL CURVE | 93.03K LVC = 60; 201.54K LVC = 59.59 |
| HORIZONTAL ALIGNMENT | L40; TAN 155.02; L60; ARC 267.11 |
| HORIZONTAL RADIUS | R=311.8 |
| CANT | |
| LOW LEG DESIGN TOP OF RAIL AT CL | 287.712; 287.637; 287.583; 287.562; 287.508; 287.487; 287.405; 287.384; 287.328; 287.312; 287.226; 287.208; 287.150; 287.074; 286.968; 286.951; 286.856; 286.833; 286.752; 286.693; 286.568; 286.551; 286.444; 286.383; 286.275; 286.195; 286.096; 285.956; 285.81; 285.717; 285.645; 285.577; 285.438; 285.298; 285.159; 285.019; 284.868; 284.812; 284.748; 284.589; 284.501; 284.441; 284.317; 284.168 |
| TOP OF EXISTING RAIL LEVEL AT CL | 287.664; 287.6; 287.554; 287.536; 287.478; 287.465; 287.384; 287.315; 287.301; 287.219; 287.2; 287.14; 287.082; 286.951; 286.839; 286.816; 286.733; 286.673; 286.568; 286.544; 286.579; 286.383; 286.239; 286.09; 285.947; 285.81; 285.677; 285.647; 285.551; 285.422; 285.295; 285.16; 285.017; 284.875; 284.843; 284.734; 284.589; 284.501; 284.442; 284.293; 284.138 |
| TOP OF FORMATION (TOF) LEVEL AT CL | 286.605; 286.007; 285.41; 285.209; 285.111; 285.054; 285.077; 285.015; 284.777; 284.634; 284.494; 284.355; 284.215; 284.132; 283.951 |
| TRACK LIFT (-LOWER / +HIGHER) | 46; 43; 32; 25; 22; 21; 20; 16; 9; 7; 9; 12; 15; 18; 17; 19; 21; 25; 31; 33; 40; 46; 49; 47; 45; 37; 26; 17; 3; -1; 2; 4; 5; 8; 13; 19; 24; 30 |
| TRACK SLEW (-LEFT / +RIGHT) | 70; 95; 112; 109; 91; 68; 50; 41; 30; 21; 18; 16; 11; 10; 9; 7; 6; 4; 3; 2; -2; 3; 2; 6; 5; 12; 25; 56; 88; 111; 129; 127; 106; 83; 56; 34; 15; 7 |
| BALLAST DEPTH | 0.253; 0.275; 0.264; 0.248; 0.246; 0.233; 0.233; 0.233; 0.246; 0.266; 0.237 |
| CHAINAGE | 88110.000; 88120.000; 88127.266; 88130.000; 88138.311; 88140.000; 88150.000; 88158.350; 88160.000; 88168.310; 88170.000; 88175.232; 88180.000; 88190.000; 88198.367; 88200.000; 88205.788; 88210.000; 88218.996; 88220.000; 88230.000; 88240.000; 88250.000; 88260.000; 88270.000; 88280.000; 88282.285; 88290.000; 88300.000; 88310.000; 88320.000; 88330.000; 88340.000; 88342.285; 88350.000; 88360.000; 88365.997; 88370.000; 88380.000; 88390.000 |

## LONGITUDINAL PROFILE ALONG SIDING CL

SCALE 1:500H 1:50V

## LEGEND

- CADASTRAL BOUNDARY
- CH 87201.248 — EXISTING MAINLINE CHAINAGES
- EXISTING MAIN LINE/SIDING
- RAIL TO BE REMOVED
- PROPOSED CULVERT WITH HEADWALLS
- CH 87700.000 — PROPOSED SIDING CHAINAGES
- PROPOSED SIDING/MAINLINE ALIGNMENT
- MAINTENANCE/CONSTRUCTION PAD
- BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## LONGITUDINAL PROFILE LEGEND

- TOP OF DESIGN RAIL AT CL.
- TOP OF EXISTING RAIL AT CL.
- TOP OF FORMATION DESIGN AT CL.

## DRAWING NOTES

1. ALL DIMENSIONS ARE IN METRES (m) UNLESS NOTED OTHERWISE.
2. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 358-ENG-RL-DGA-0002 FOR GENERAL NOTES.
3. FOR TRACK STRUCTURE COMPONENTS ALONG SIDING REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   50kg RAIL - 154mm
   JUNCTION RAIL 60/50 - 170/154mm
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   LOW PROFILE CONCRETE SLEEPERS - 155mm
4. FOR TRACK STRUCTURE COMPONENTS ALONG MAINLINE REFER TO THE FOLLOWING:
   60kg RAIL - 170mm
   JUNCTION RAIL 60/41 - 170/136.5mm
   JUNCTION RAIL 41/31 - 136.5/117.5mm
   EXISTING 31kg RAIL
   RAIL PAD - 8mm
   FULL DEPTH CONCRETE SLEEPERS - 215mm
   EXISTING TIMBER SLEEPERS
   EXISTING STEEL SLEEPERS
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6. TOP OF FORMATION LEVEL IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING FORMATION. IF NO INFORMATION IS PROVIDED, TOP OF FORMATION IS AS EXISTING.
7. DESIGN BALLAST DEPTH IS ONLY PROVIDED IN THE SECTIONS WHERE THERE ARE CHANGES IN THE EXISTING BALLAST DEPTH. IF NO INFORMATION IS PROVIDED, BALLAST DEPTH IS AS EXISTING (ADDING THE PROPOSED LIFT).

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM: | MGA94 ZONE 50 |
| HEIGHT DATUM: | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR: | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |



DO NOT SCALE FROM THIS DRAWING

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ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
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bgeng.com—
BG&E Project No. PE22014

BG&E

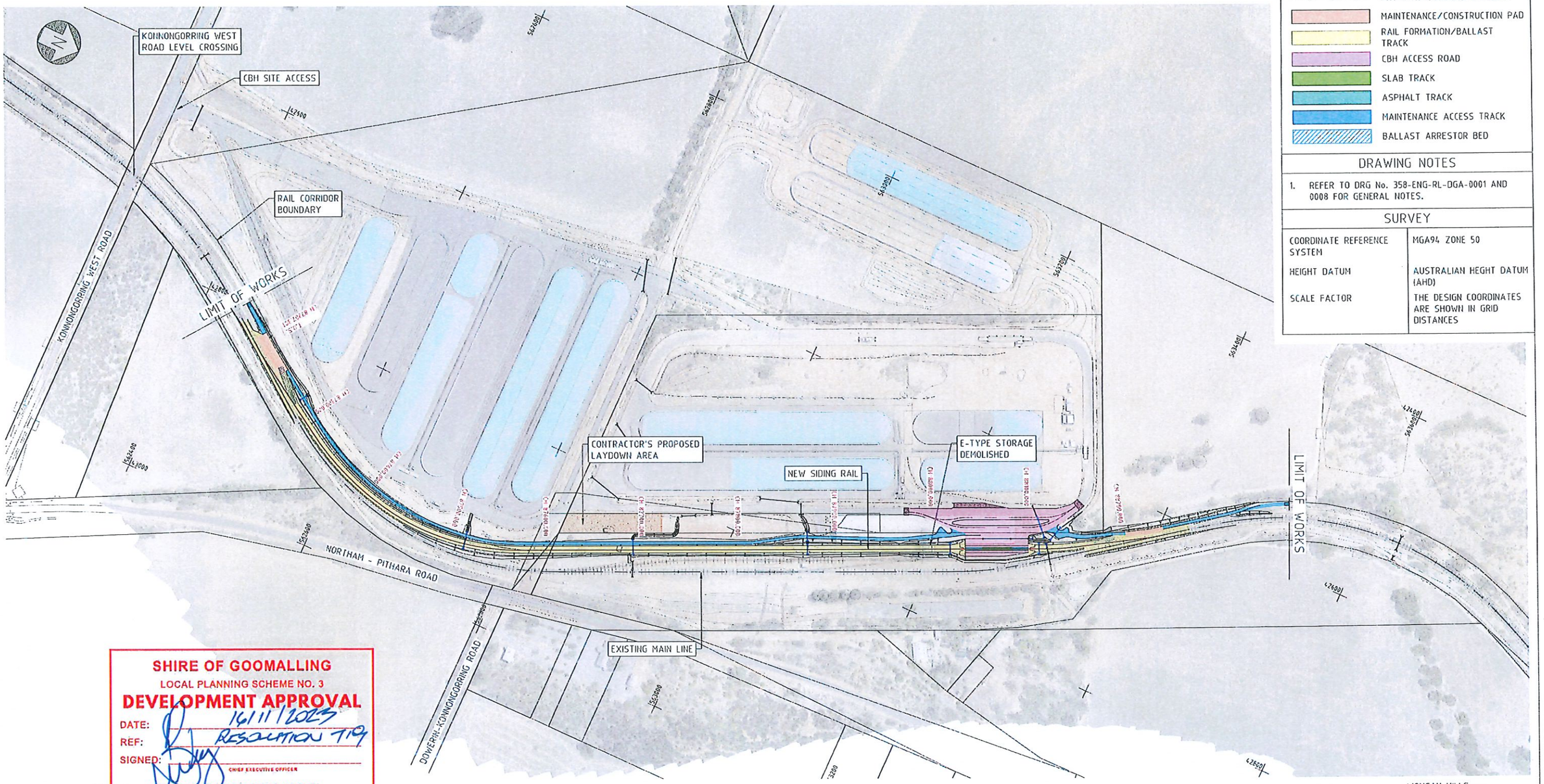
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| D | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 23.03.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |

| | | |
|---|---|---|
| SCALE 1:500H, 1:50V | DRAWN | AS 27.10.23 |
| SHEET A1 | CHECKED | JH 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SDB 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH 27.10.23 |
| | PROJECT APPR | KB 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE PLAN AND PROFILE SHEET 3 OF 3

DRG No 358-ENG-RL-DAL-0010 | SHEET 3 OF 3 | REV. D




GENERAL ARRANGMENT PLAN
SCALE 1:2000

## LEGEND

- CADASTRAL BOUNDARY
- PROPOSED CULVERT WITH HEADWALLS
- CH 87350.000 — NEW SIDING CHAINAGES
- PROPOSED DRAINAGE CHANNEL
- MAINTENANCE/CONSTRUCTION PAD
- RAIL FORMATION/BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## DRAWING NOTES

1. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 0008 FOR GENERAL NOTES.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

12000 @ A1
14000 @ A3
0 20 40 60 80 100 120 140 160 180 200 m



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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556 Wellington St, Perth WA 6000
P/ +61 8 6354 5300 E/ info@bgeeng.com
bgeeng.com—
BG&E Project No. PE22014

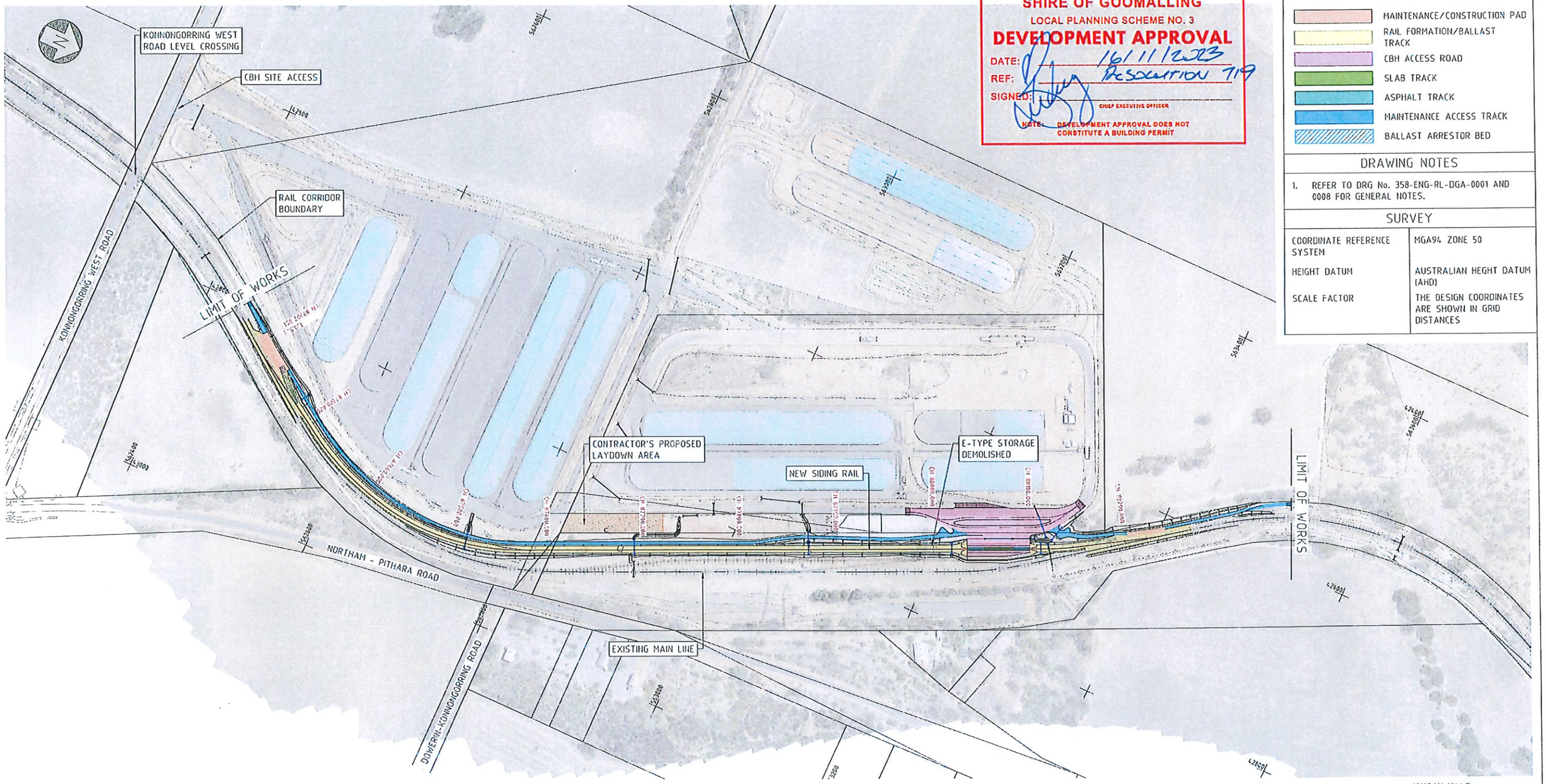
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 19.10.23 | ISSUED FOR DA APPROVAL - FACILITY STRUCTURE REMOVED | AS | MM | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:2000 | DRAWN | AS | 28.09.23 |
| SHEET A1 | CHECKED | AE | 28.09.23 |
| PROJECT KONNONGORRING | DESCHED | SOB | 28.09.23 |
| CONTRACT No CW9951 | DESIGN APPR | TB | 28.09.23 |
| | PROJECT APPR | MB | 28.09.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
GENERAL ARRANGEMENT PLAN

DRG No 358-ENG-RL-DGA-0003 | SHEET 1 OF 1 | REV. E




SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

## LEGEND

- CADASTRAL BOUNDARY
- PROPOSED CULVERT WITH HEADWALLS
- CH 87350.000 — NEW SIDING CHAINAGES
- PROPOSED DRAINAGE CHANNEL
- MAINTENANCE/CONSTRUCTION PAD
- RAIL FORMATION/BALLAST TRACK
- CBH ACCESS ROAD
- SLAB TRACK
- ASPHALT TRACK
- MAINTENANCE ACCESS TRACK
- BALLAST ARRESTOR BED

## DRAWING NOTES

1. REFER TO DRG No. 358-ENG-RL-DGA-0001 AND 0008 FOR GENERAL NOTES.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |

GENERAL ARRANGMENT PLAN
SCALE 1:2000

1:2000 @ A1
1:4000 @ A3
0 20 40 60 80 100 120 140 160 180 200 m



DO NOT SCALE FROM THIS DRAWING

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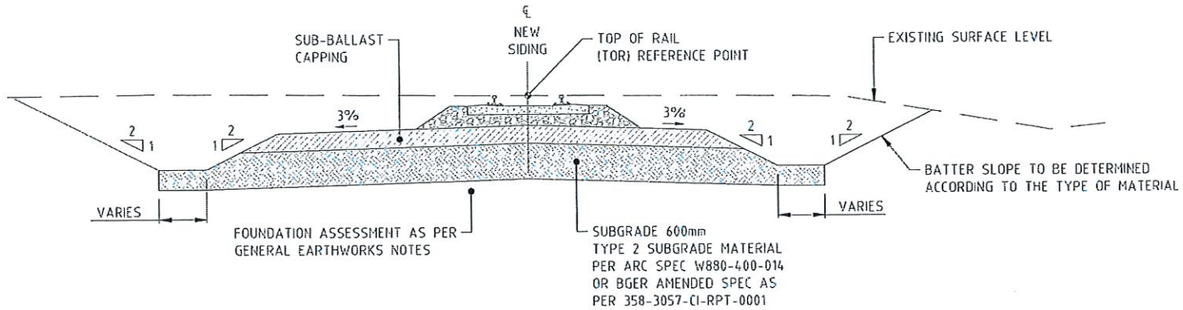
| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|---|---|
| | | E | 19.10.23 | ISSUED FOR DA APPROVAL - FACILITY STRUCTURE REMOVED | AS | YM | MB |
| | | D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| | | C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/JH | MB |
| | | B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| | | A | 16.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:2000 | DRAWN | AS | 28.09.23 |
| SHEET A1 | CHECKED | AE | 28.09.23 |
| | DESIGNED | SOB | 28.09.23 |
| PROJECT KONNONGORRING | DESIGN APPR | TB | 28.09.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 28.09.23 |

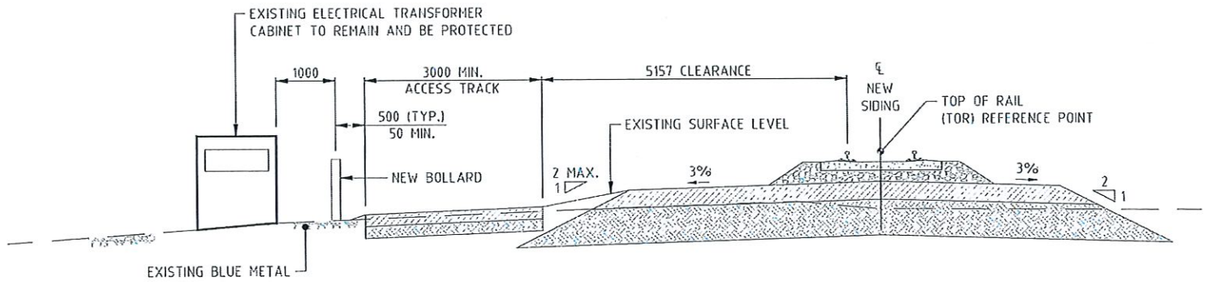
TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
GENERAL ARRANGEMENT PLAN

DRG No 358-ENG-RL-DGA-0003 | SHEET 1 OF 1 | REV. E

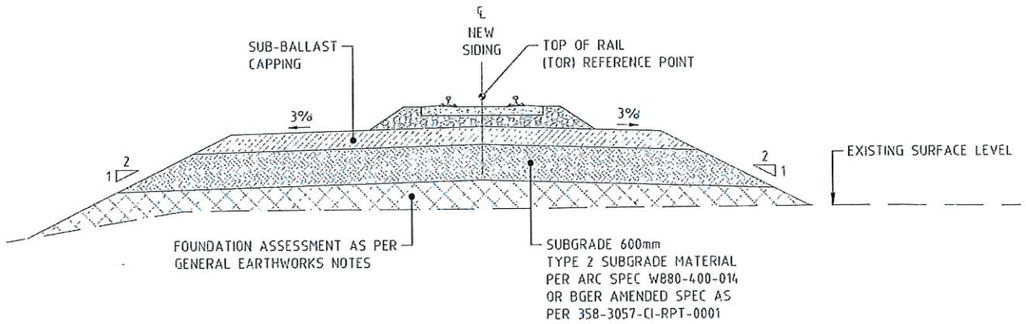
NOTE
ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.




TYPICAL SECTION OF FORMATION IN CUT
SCALE 1:50




EXISTING TRANSFORMER / NEW SIDING SECTION
(CH 87545)
SCALE 1:50




TYPICAL SECTION OF FORMATION IN FILL
SCALE 1:50

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1 / 1:100 @ A3 — 0 1 2 3 4 5 m


DO NOT SCALE FROM THIS DRAWING

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| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

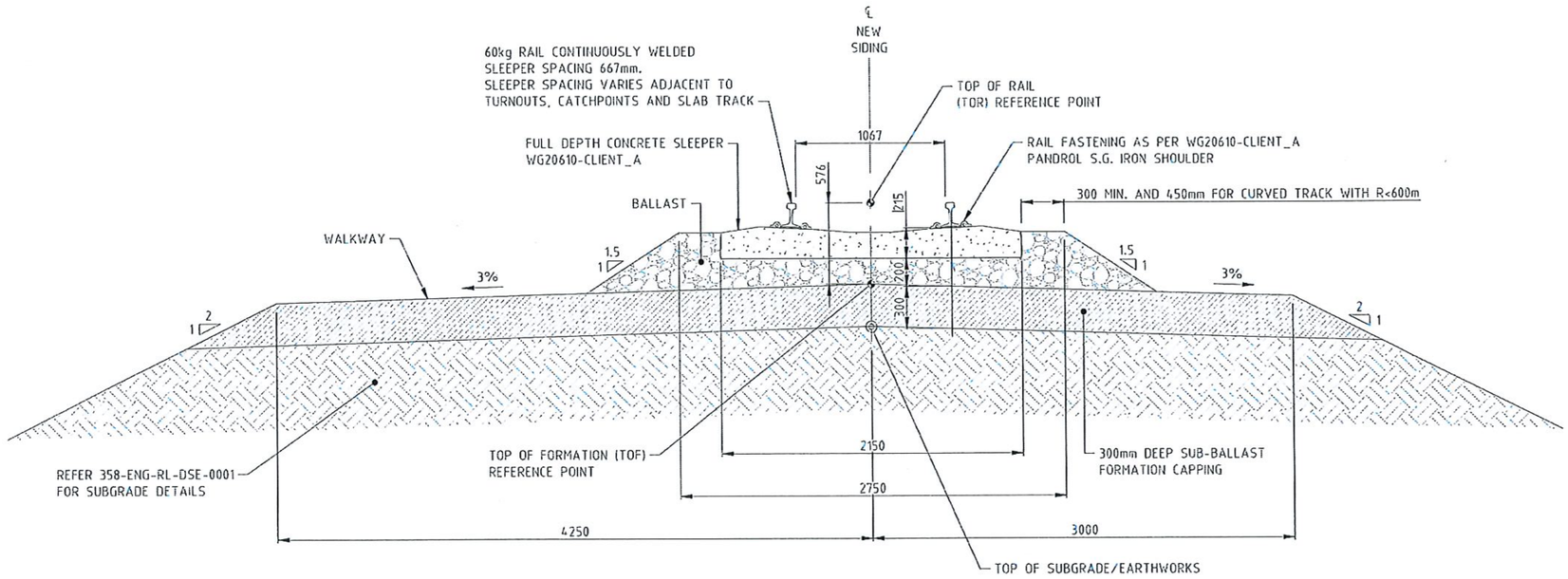
| REV | DATE | REVISION DESCRIPTION | BY | CKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DPR | MB |
| A | 15.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DPR | MB |

| | | | |
|---|---|---|---|
| SCALE 1:50 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| | DESIGN APPR | JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR | MB | 27.10.23 |

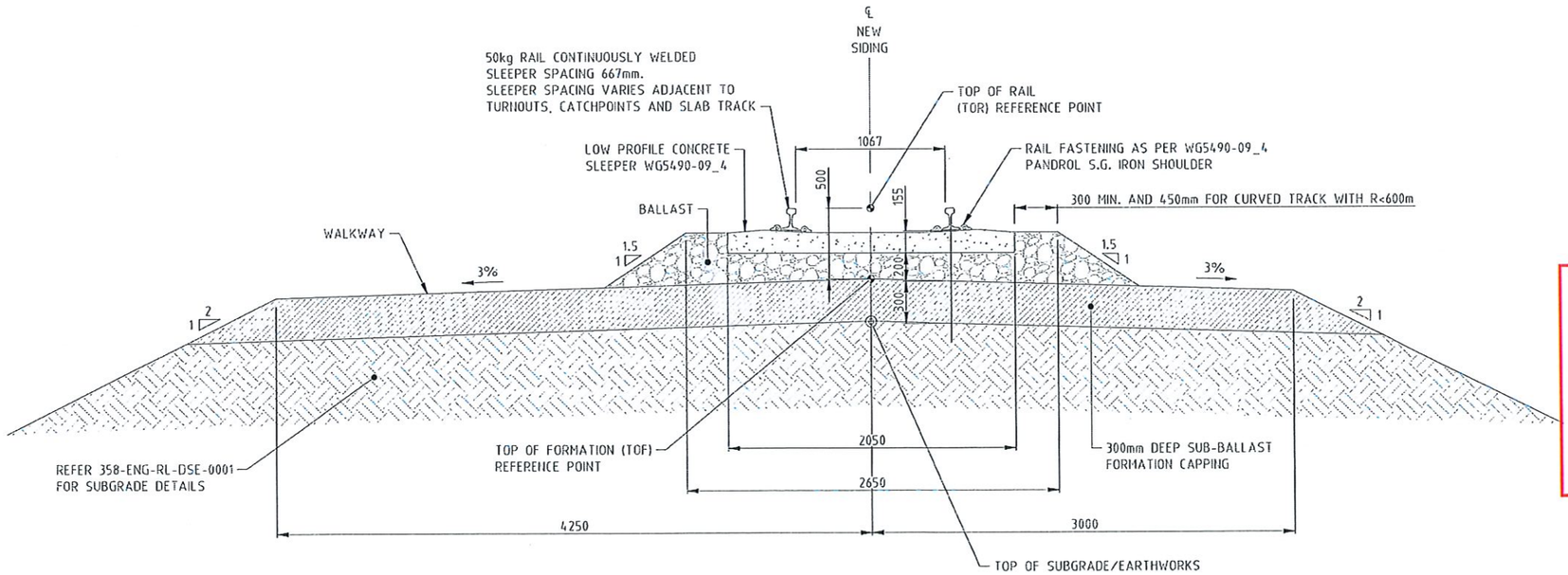
TITLE KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 1 OF 4

DRG No 358-ENG-RL-DSE-0001 | SHEET 1 OF 4 | REV. E

NOTE
ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.




TYPICAL RAIL FORMATION SECTION 60kg/m
(SIDING SECTION ONLY)
SCALE 1:20




TYPICAL RAIL FORMATION SECTION 50kg/m
(SIDING SECTION ONLY)
SCALE 1:20

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:20 @ A1 | 1:40 @ A3 — 0 200 400 600 800 1000 1200 1400 1600 1800 2000 mm



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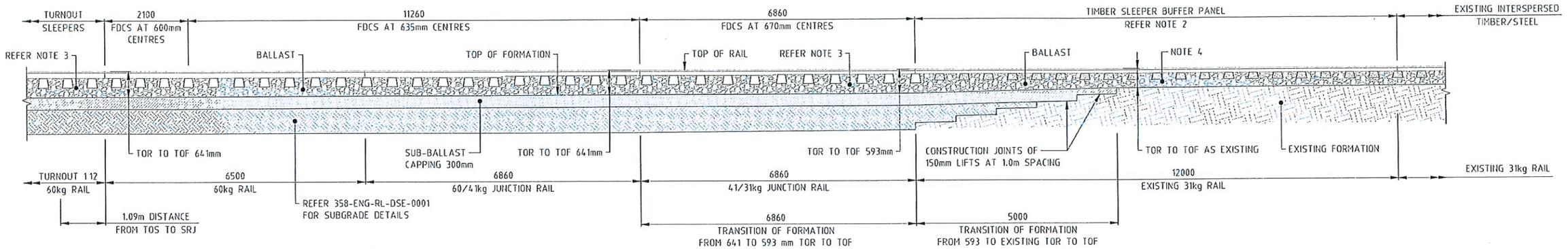
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|
| | |

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |
| B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | DFR | MB |
| A | 15.12.22 | ISSUED FOR 30% CLIENT REVIEW | LJ | DFR | MB |

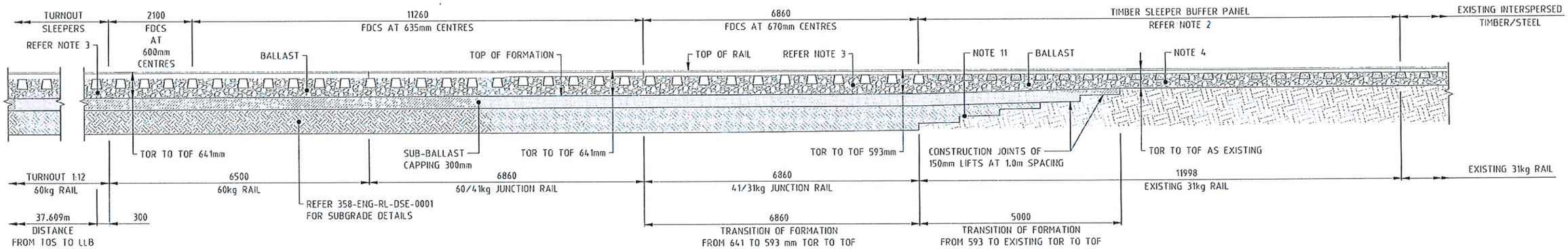
| | | |
|---|---|---|
| SCALE 1:20 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 2 OF 4

DRG No. 358-ENG-RL-DSE-0002 | SHEET 2 OF 4 | REV. E




TYPICAL TRANSITION BETWEEN TURNOUT AND MAINLINE
TOS SIDE
SCALE 1:50

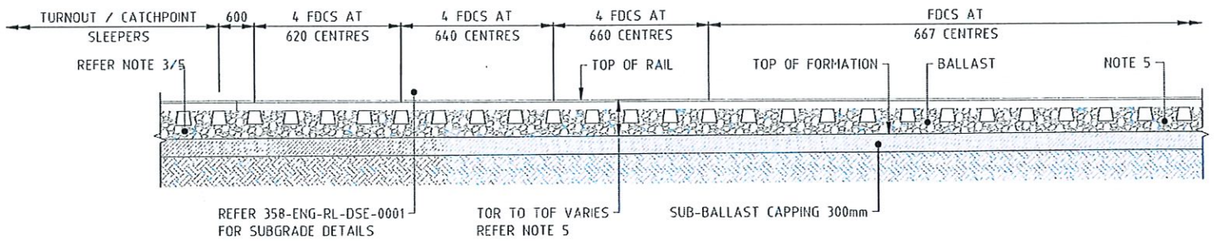



TYPICAL TRANSITION BETWEEN TURNOUT AND MAINLINE
LLB SIDE
SCALE 1:50

## NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. EXISTING SLEEPER SPACING TO BE ACHIEVED IN 12m BUFFER PANEL STARTING FROM 600mm BY TRANSITIONING IN 4m INTERVALS.
3. MAINLINE: DESIGN BALLAST DEPTH UNDER RAIL 250mm.
4. BALLAST DEPTH UNDER RAIL AS EXISTING.
5. SIDING: DESIGN BALLAST DEPTH UNDER RAIL MINIMUM 200mm. BALLAST DEPTH VARIES ACCORDING TO ONE SIDE 3% CROSSFALL DRAINAGE. REFER DRG 358-ENG-RL-DSE-0021.
6. FDCS DEPTH UNDER RAIL: 215mm
7. TURNOUTS SLEEPERS DEPTH UNDER RAIL: 230mm
8. TIMBER SLEEPERS DEPTH AS EXISTING.
9. SLEEPER SPACING TO BE LOCALLY ADJUSTED TO POSITION WELD LOCATION IN THE CENTER OF THE BAY.
10. SLEEPER SPACING TO BE LOCALLY ADJUSTED TO ALLOW TRANSITION FROM 600mm TO 667mm.
11. KEY IN WITH EXISTING FORMATION LOCATION IS INDICATIVE. REFER TO DRG 358-ENG-RL-DSE-0021.

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED:
CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT




TYPICAL TRANSITION BETWEEN TURNOUT/CATCHPOINT AND SIDING
SCALE 1:50

1:50 @ A1
1:100 @ A3
0 1 2 3 4 5 m



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| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| A | 28.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |

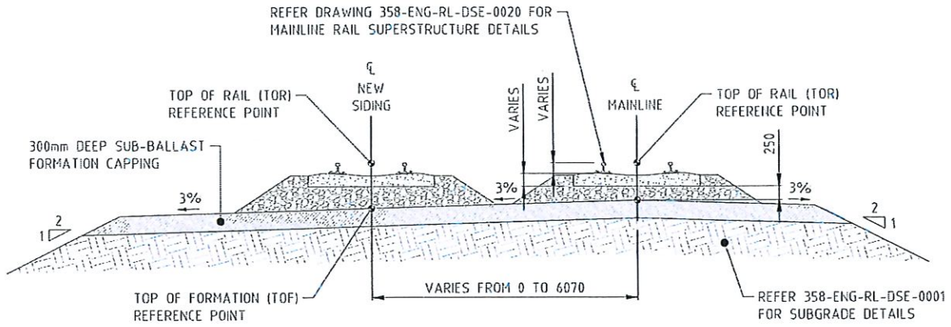
| | | |
|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SGB | 27.10.23 |
| | DESIGN APPR JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 3 OF 4

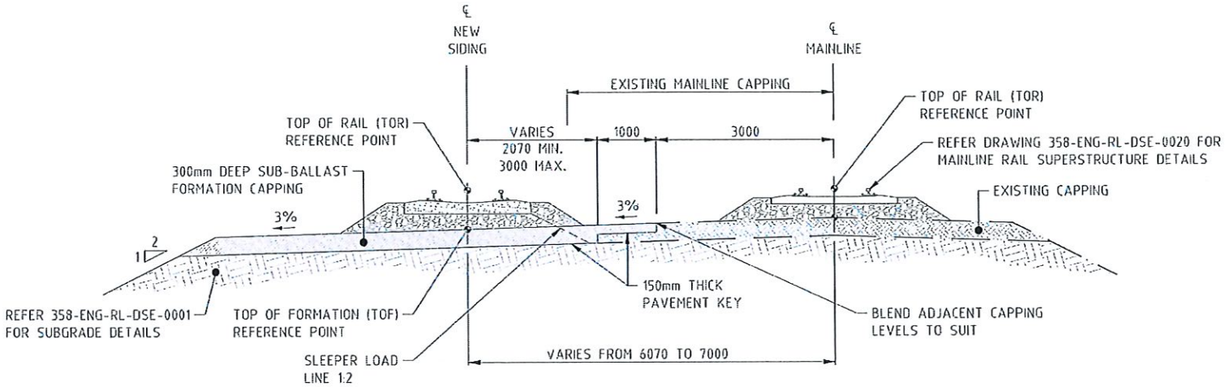
CDS No. 358-ENG-RL-DSE-0020 | SHEET 3 OF 4 | REV. C

NOTE

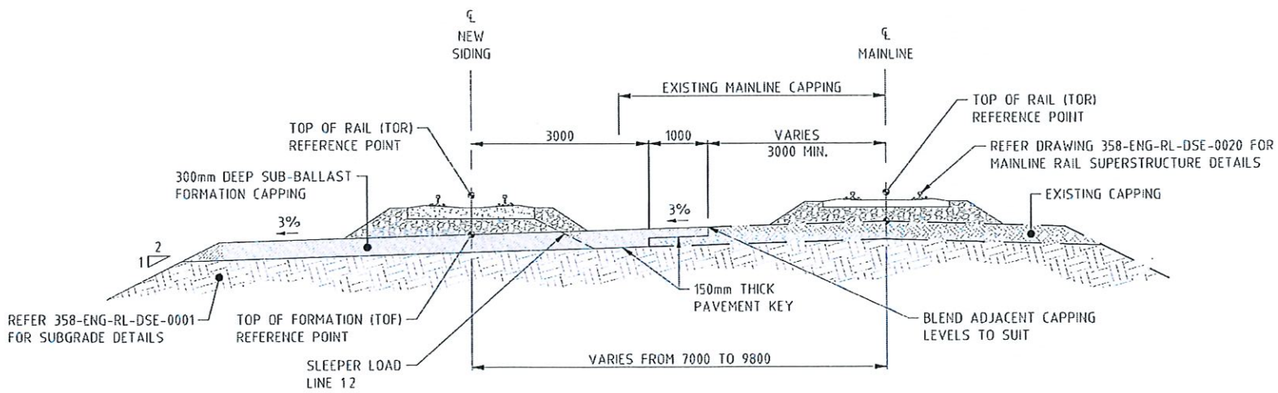
1. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
2. REFER TO PROFILE DRG No's. 358-ENG-RL-DAL-0002, 0003 AND 0004 FOR SECTION EXTENTS.




TIE IN SIDING/MAINLINE
MAINLINE RENEWAL
SCALE 1:50




TIE IN SIDING/MAINLINE
MAINLINE SUBSTRUCTURE AS PER EXISTING
SCALE 1:50




TIE IN SIDING/MAINLINE
MAINLINE SUBSTRUCTURE AS PER EXISTING
SCALE 1:50

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 7.9
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:50 @ A1
1:100 @ A3



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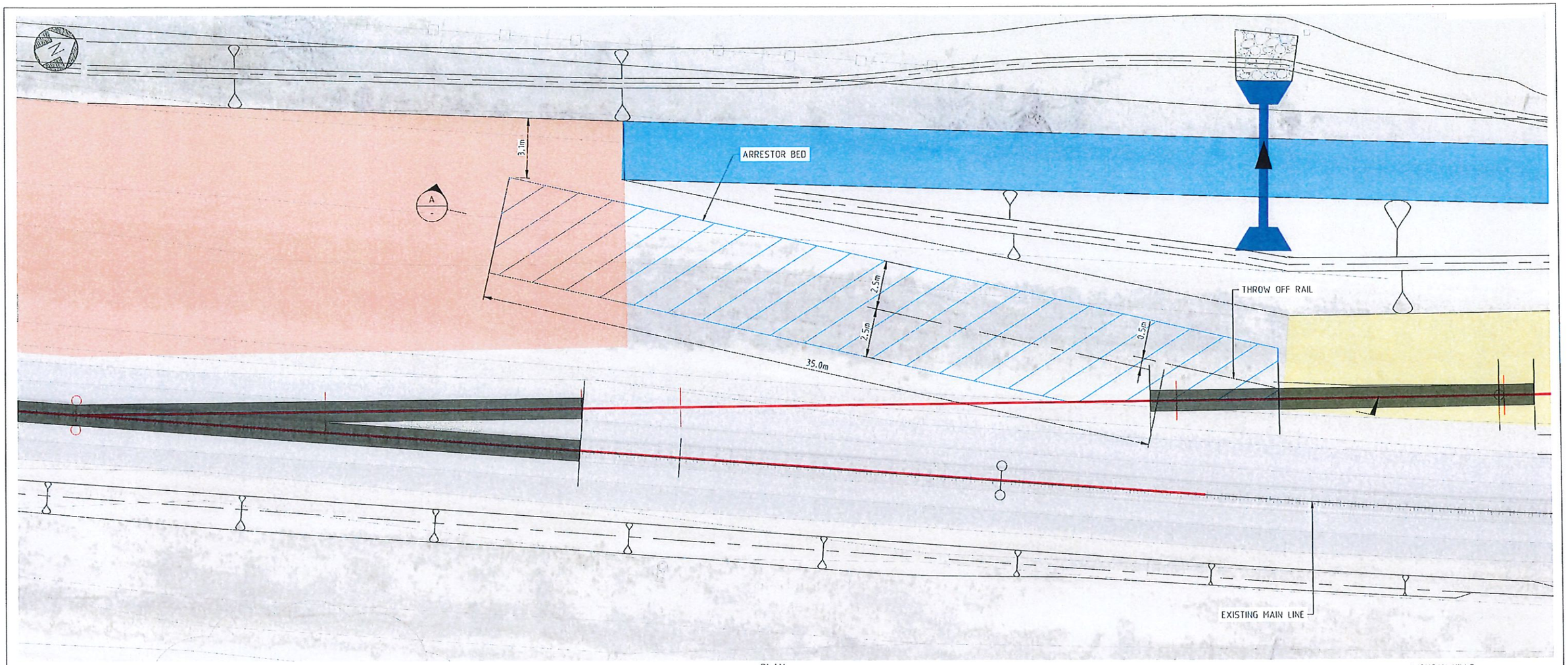
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHK'D | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | MB |
| B | 28.09.23 | ISSUED FOR 95% CLIENT REVIEW | AS | TB | MB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | MB |

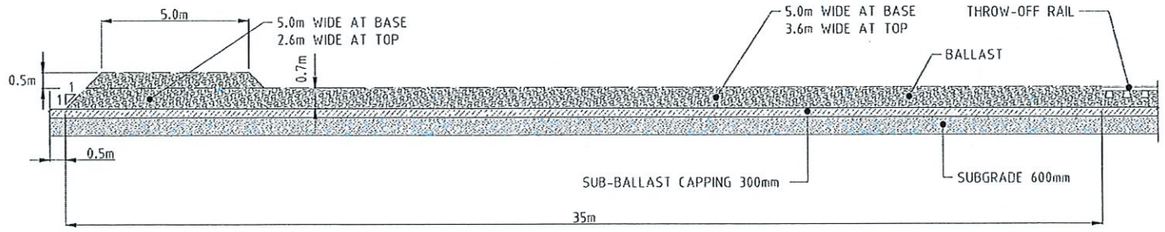
| | | |
|---|---|---|
| SCALE 1:50 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED TB | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR JH | 27.10.23 |
| | PROJECT APPR MB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
TYPICAL CROSS SECTIONS SHEET 4 OF 4

DRG No 358-ENG-RL-DSE-0021 | SHEET 4 OF 4 | REV. C




PLAN
SCALE 1:100




SOUTH END BALLAST ARRESTOR BED

SECTION A
SCALE 1:100

**SHIRE OF GOOMALLING**
LOCAL PLANNING SCHEME NO. 3
**DEVELOPMENT APPROVAL**
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m



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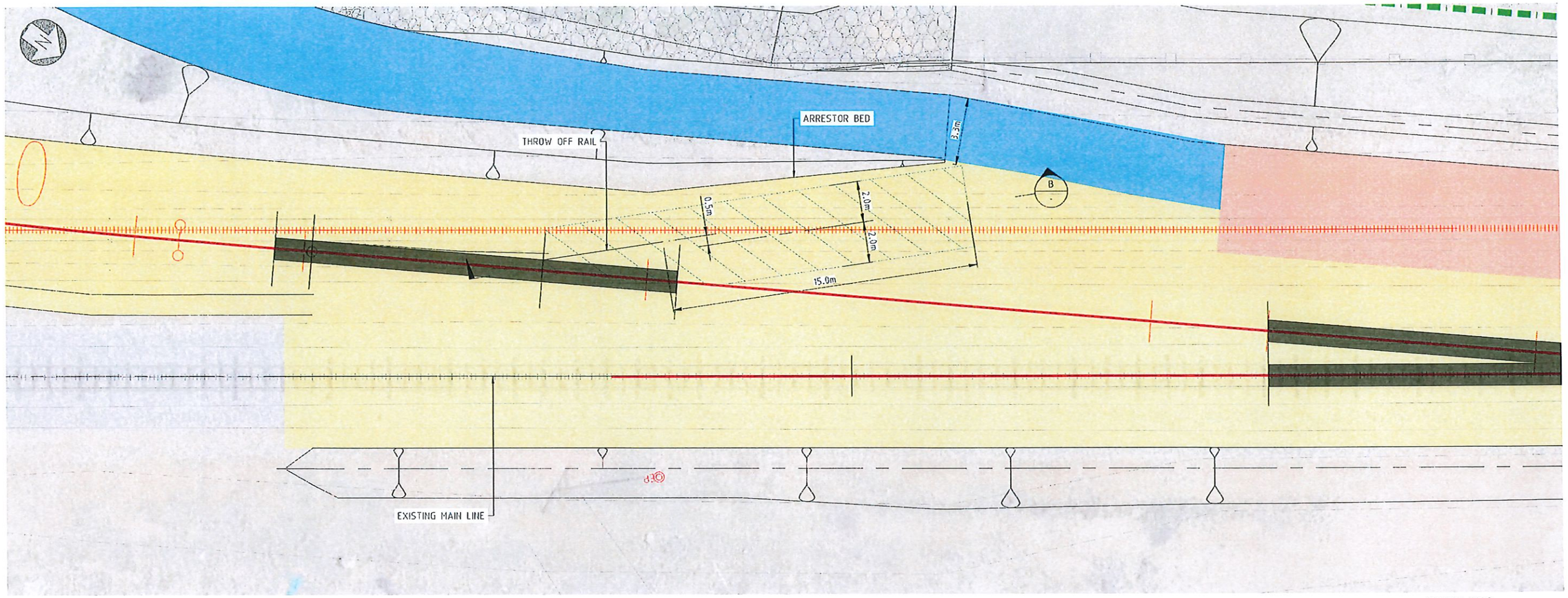
| REF DRAWING No. | REFERENCE DRAWING TITLE |
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/JH | HB |

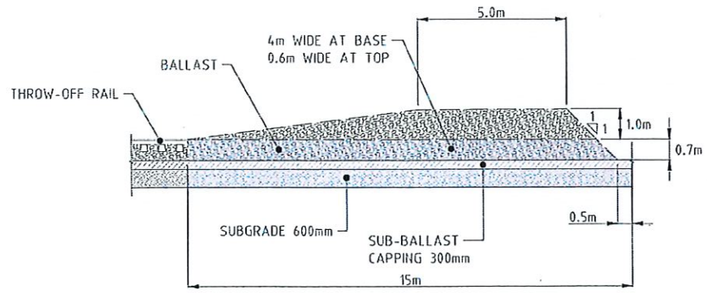
| | | |
|---|---|---|
| SCALE 1:100 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SGB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR JH | 27.10.23 |
| | PROJECT APPR HB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
SOUTH END BALLAST ARRESTOR BED

DWG No 358-ENG-RL-DTD-0003 | SHEET 1 OF 1 | REV. C




PLAN
SCALE 1:100




NORTH END BALLAST ARRESTOR BED

SECTION B
SCALE 1:100

SHIRE OF GOOMALLING
LOCAL PLANNING SCHEME NO. 3
DEVELOPMENT APPROVAL
DATE: 16/11/2023
REF: RESOLUTION 719
SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:100 @ A1
1:200 @ A3
0 1 2 3 4 5 6 7 8 9 10 m



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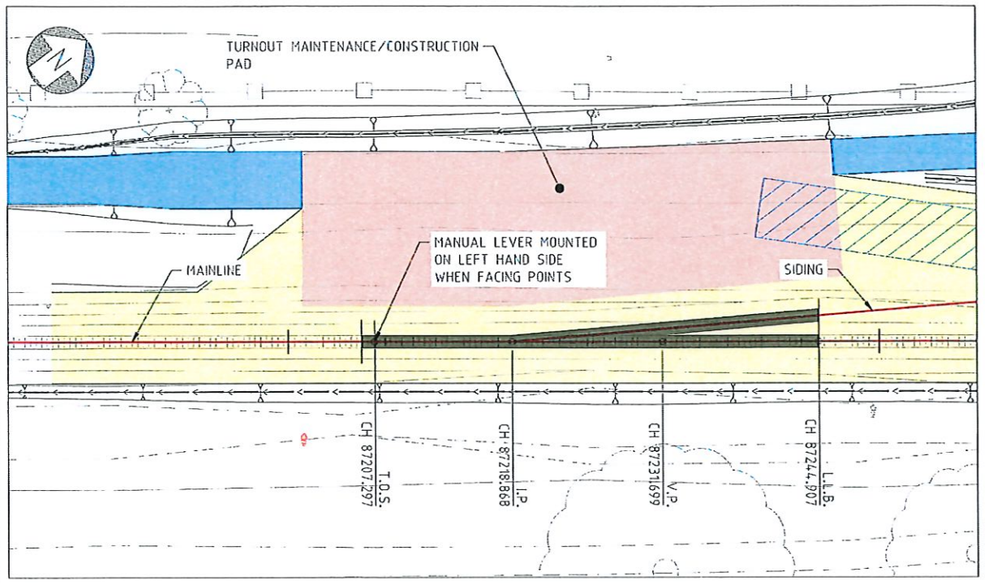
|---|---|

| REV | DATE | REVISION DESCRIPTION | BY | CHKD | APP'D |
|---|---|---|---|---|---|
| C | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| B | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| A | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | TB/AS | HB |

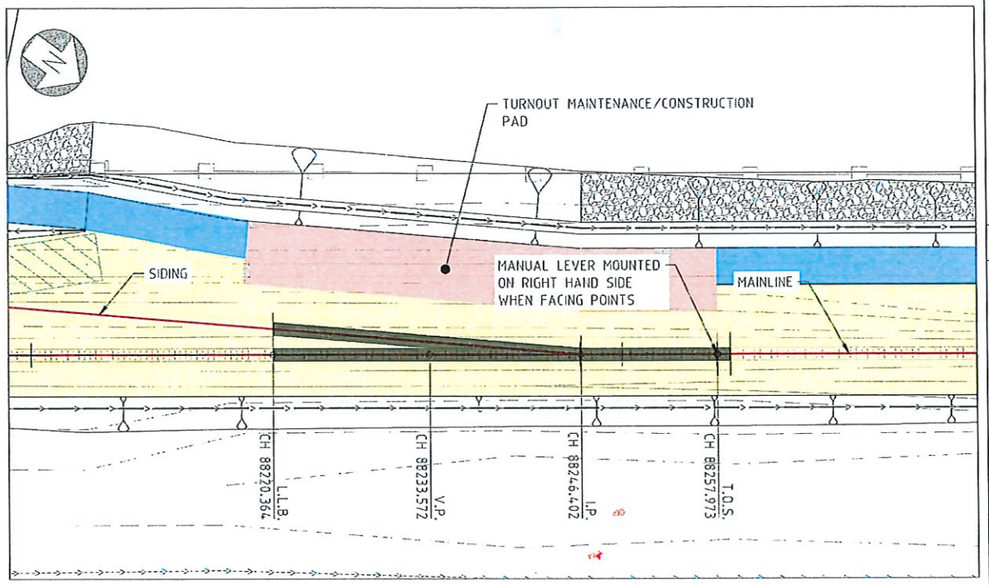
| | | | |
|---|---|---|---|
| SCALE 1:100 | DRAWN | AS | 27.10.23 |
| SHEET A1 | CHECKED | JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED | SOB | 27.10.23 |
| CONTRACT No CW9951 | DESIGN APPR | JH | 27.10.23 |
| | PROJECT APPR | HB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
NORTH END BALLAST ARRESTOR BED

DWG No. 358-ENG-RL-DTD-0004 | SHEET 1 OF 1 | REV. C




PLAN - TURNOUT SOUTH
SCALE 1:250




PLAN - TURNOUT NORTH
SCALE 1:250

## LEGEND

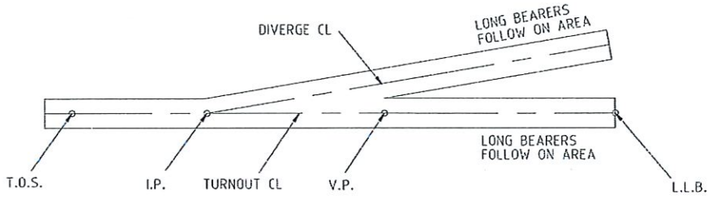
| | |
|---|---|
| | CADASTRAL BOUNDARY |
| | NEW TURNOUT |
| T.O.S. | TOE OF SWITCH |
| I.P. | INTERSECTION POINT |
| L.L.B. | LAST LONG BEARER |
| V.P. | THEORETICAL POINT |

## DRAWING NOTES

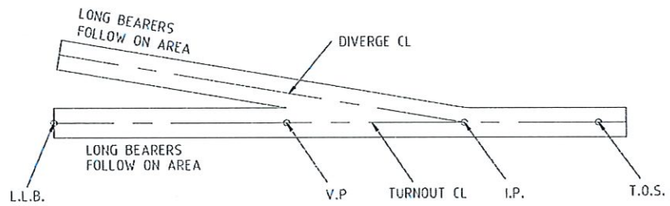
1. THESE SETOUT DETAILS ARE FOR TURNOUT INSTALLATION ONLY AND SHOULD BE READ IN CONJUNCTION WITH RAIL TOR. TOF AND TURNOUT INSTALLATIONS MANUALS.
2. CONTRACTOR TO VERIFY TIE INS PRIOR TO CONSTRUCTION.
3. TURNOUTS TO BE INSTALLED AS PER VAM13458_B WITH ALL ASSOCIATED BEARERS, JEWELLERY AND CANT BEARERS.
4. CHAINAGE ARE INDICATIVE AND MUST NOT BE USED FOR TURNOUT INSTALLATION TURNOUTS MUST BE INSTALLED USING EASTING NORTHINGS AND LEVELS PROVIDED IN THIS DRAWINGS.

## SURVEY

| | |
|---|---|
| COORDINATE REFERENCE SYSTEM | MGA94 ZONE 50 |
| HEIGHT DATUM | AUSTRALIAN HEIGHT DATUM (AHD) |
| SCALE FACTOR | THE DESIGN COORDINATES ARE SHOWN IN GRID DISTANCES |




TURNOUT SETOUT DIAGRAM SOUTH




TURNOUT SETOUT DIAGRAM NORTH

## TURNOUT SCHEDULE AND SETOUT TABLE

| TURNOUT ID | DES T.O.S CHAINAGE | TURNOUT ANGLE | HAND OF TURNOUT | SWITCH TYPE | RAIL SIZE (kg/m) | T.O.S. | | | I.P. | | | V.P. | | | L.L.B. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | EASTING | NORTHING | R.L. | EASTING | NORTHING | R.L. | EASTING | NORTHING | R.L. | EASTING | NORTHING | R.L. | REFERENCE DRAWING |
| T/O SOUTH | 87207.297 | 1 IN 12 | L/HAND | RBM | 60 | 42832.257 | 562468.687 | 282.594 | 42839.203 | 562477.994 | 282.897 | 42846.875 | 562488.279 | 282.989 | 42854.750 | 562498.828 | 283.205 | VAM13458_b |
| T/O NORTH | 88257.973 | 1 IN 12 | R/HAND | RBM | 60 | 42641.442 | 563378.075 | 281.744 | 42633.599 | 563388.702 | 281.932 | 42625.979 | 563399.027 | 282.120 | 42619.111 | 563408.337 | 282.762 | VAM13458_b |

## TURNOUT DIMENSIONS

| TURNOUT ID | TURNOUT ANGLE | S.R.J. TO T.O.S. (m) | T.O.S. TO I.P. (m) | I.P. TO V.P. (m) | V.P. TO L.L.B. (m) |
|---|---|---|---|---|---|
| T/O SOUTH | 1 IN 12 | 1.090 | 11.570 | 12.826 | 13.213 |
| T/O NORTH | 1 IN 12 | 1.090 | 11.570 | 12.826 | 13.213 |

SHIRE OF GOOMALLING
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SIGNED: CHIEF EXECUTIVE OFFICER
NOTE: DEVELOPMENT APPROVAL DOES NOT CONSTITUTE A BUILDING PERMIT

1:250 @ A1
1:500 @ A3



DO NOT SCALE FROM THIS DRAWING

CBHGROUP
ABN 29 256 604 947

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BG&E
BG&E Project No. PE22014

| REF DRAWING No. | REFERENCE DRAWING TITLE | REV | DATE | REVISION DESCRIPTION | BY | CHKD | APPD |
|---|---|---|---|---|---|---|---|
| | | E | 27.10.23 | RE-ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| | | D | 28.09.23 | ISSUED FOR 100% CLIENT REVIEW | AS | TB | HB |
| | | C | 23.08.23 | ISSUED FOR 85% CLIENT REVIEW | JC | JH | HB |
| | | B | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | CFR | HB |
| | | A | 01.05.23 | ISSUED FOR 60% CLIENT REVIEW | JH | CFR | HB |

| | | |
|---|---|---|
| SCALE 1:250 | DRAWN AS | 27.10.23 |
| SHEET A1 | CHECKED JH | 27.10.23 |
| PROJECT KONNONGORRING | DESIGNED SOB | 27.10.23 |
| | DESIGN APPR JH | 27.10.23 |
| CONTRACT No CW9951 | PROJECT APPR HB | 27.10.23 |

TITLE
KONNONGORRING
FIXED RAIL LOADING FACILITY
RAIL AND CIVIL
MAINLINE TURNOUT SETOUT DETAILS

CPG No 358-ENG-RL-DTD-0007 | SHEET 1 OF 1 | REV. E

# Shire of Goomalling

Office Address: 32 Quinlan Street, Goomalling
Postal Address: PO Box 118, Goomalling WA 6460
Telephone: (08) 9629 1101 Facsimile: (08) 9629 1017
All communications to be addressed to the Chief Executive Officer

Est. 1895


In reply please quote:

Our Ref : PB23115

21st December 2023

Mr Aaron Lohmann
**** Via Email: Aaron.Lohman@cbh.com.au
**GOOMALLING WA 6460**

Dear Aaron,

Thank-you for your letter discussions regarding Condition 6 of the recent approval for proposed Rail Siding.

I advise that the Council has discussed this matter at its December 2023 Ordinary Meeting and it was resolved that it was prepared to withdraw Condition 6 for the rail siding project. It did however suggest that a noise condition was likely to be recommended in the wider operational project you are undertaking.

If you have any further queries Aaron, please don't hesitate to contact us again.

Yours faithfully

**PETER BENTLEY**
**CHIEF EXECUTIVE OFFICER**