BLACKFELLOWS LAKE ACCESS ROAD, BOAT RAMP AND TIMBER JETTY



LOCALITY PLAN

DRAWING LIST

DRG NUMBER TITLE

301015-04031-MA-DWG-0001 TITLE SHEET, LOCALITY PLAN AND DRAWING LIST

301015-04031-MA-DWG-0002 GENERAL NOTES SHEET 1 301015-04031-MA-DWG-0003 GENERAL NOTES SHEET 2

301015-04031-MA-DWG-0004 ACCESS ROAD, BOAT RAMP AND TIMBER JETTY GENERAL LAYOUT PLAN

301015-04031-MA-DWG-0005 BOAT RAMP PLAN AND TYPICAL SECTION

301015-04031-MA-DWG-0006 BOAT RAMP SECTIONS 301015-04031-MA-DWG-0007 BOAT RAMP DETAILS

301015-04031-MA-DWG-0008 ACCESS ROAD AND BOAT RAMP LONGITUDINAL SECTIONS

301015-04031-MA-DWG-0010 TIMBER JETTY PLAN AND SECTIONS

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ENGINEERING AND PERMIT STAMPS (As Required)



BLACKFELLOWS LAKE

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ACCESS ROAD, BOAT RAMP AND TIMBER JETTY TITLE SHEET, LOCALITY PLAN AND DRAWING LIST

301015-04031-MA-DWG-0001

ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT SAA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THESE DRAWINGS AND THE SPECIFICATION.

ALL CRITICAL ARRANGEMENTS AND DIMENSIONS SHOWN SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE WORK COMMENCES. DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.

BEFORE UNDERTAKING ANY WORK, ESTABLISH THE LOCATIONS OF ALL EXISTING SERVICES AFFECTED BY THE WORKS IF NECESSARY CARRY OUT DIAL -BEFORE-YOU-DIG ADVISE THE SUPERINTENDENT IF THERE ARE ANY UNKNOWN SERVICES THAT CAN POTENTIALLY BE AFFECTED

DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING AND BATTERS SHALL BE PROVIDED BY THE CONTRACTOR TO KEEP THE WORKS AND EXCAVATIONS STABLE AT ALL TIMES

THE CONTRACTOR SHALL PROVIDE TEST CERTIFICATES FROM A N.A.T.A. APPROVED TESTING LABORATORY CERTIFYING THAT THE MATERIALS USED COMPLY WITH THE RELEVANT SPECIFICATIONS.

UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES RELATIVE TO AUSTRALIAN HEIGHT DATUM.

PRIOR TO THE COMMENCEMENT OF ANY WORKS THE CONTRACTOR SHALL ARRANGE FOR SURVEYED CROSS-SECTIONS OF THE SITE TO BE UNDERTAKEN AT 10m INTERVALS. ON COMPLETION OF THE WORKS AN IDENTICAL SURVEY SHALL BE UNDERTAKEN BY THE CONTRACTOR AT THE SAME CROSS-SECTION LOCATIONS. THE SURVEYED CROSS SECTION SHALL EXTEND A MINIMUM OF 10m FROM EACH END (TOP AND BOTTOM) OF THE SCOUR PROTECTION.

SURVEY SHALL BE CARRIED OUT BY A SUITARLY EXPERIENCED AND QUALIFIED REGISTERED SURVEYOR. THE SUPERINTENDENT SHALL BE PROVIDED WITH TWO COPIES OF A1 SIZE DRAWINGS OF THE SURVEY, DETAILING ALL THE CROSS-SECTIONS AT 1:200 SCALE AND PLANS DETAILING CROSS-SECTION LOCATIONS AT 1:200 SCALE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FURTHER SURVEY REQUIRED DUE TO THE WORK BEING INCOMPLETE OR NOT COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS

DEMOLITION

CARRY OUT DEMOLITION WORK IN ACCORDANCE WITH AS 2601 MAKING DUE ALLOWANCE FOR ANY DETERIORATION IN THE CONDITION OF THE STRUCTURE.

PROTECT PROPERTY AND SERVICES WHICH ARE TO REMAIN ON OR ADJACENT TO THE SITE.

LAWFULLY DISPOSE OF ALL DEMOLITION/CONTAMINATED MATERIALS.

SUBGRADE PREPARATION

THE SOIL SUBGRADE WILL REQUIRE PROOF ROLLING PRIOR TO CONSTRUCTION, PROOF ROLLING SHALL BE COMPLETED IN THE FOLLOWING MANNER:

- THOROUGHLY MOISTEN THE EXISTING SOIL SUBGRADE THEN PROOF ROLL WITH EIGHT PASSES OF A 2-TONNE DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER. FOR THE LOWER HALF OF THE BOAT RAMP. THE STATIC LOAD OF THE ROLLER IS TO BE USED TO ACHIEVE EFFECTIVE
- PROOF ROLLING IS TO BE CARRIED OUT UNDER THE DIRECTION OF AN EXPERIENCED EARTHWORKS SUPERINTENDENT OR GEOTECHNICAL ENGINEER. ANY SOFT OR UNSTABLE AREAS IDENTIFIED DURING PROOF ROLLING SHOULD BE LOCALLY EXCAVATED AND REPLACED
- FOR THE INTERTIDAL SECTION OF THE RAMP. THE FORESHORE SUBGRADE IS TO BE IMPROVED BY ATTEMPTING PROOF ROLLING AT LOW TIDE, OR END TIPPING GRANULAR FILL OF MAXIMUM DIAMETER 150mm AND NOMINALLY COMPACTED WITH EXCAVATOR BUCKET TO PROVIDE A

CONCRETE

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS

CONCRETE USED IN THE WORKS SHALL BE EITHER MASS CONCRETE OR REINFORCED CONCRETE AS NOTED ON THE DRAWINGS AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

REINFORCED CONCRETE EXPOSURE CLASSIFICATION CONCRETE GRADE S50 CLEAR COVER TO REINFORCEMENT (MIN) 65 mm CLASS 2 FORMED UNFORMED WOOD FLOAT TRAFFICABLE SURFACE

FLYASH UP TO 45 kg/m2 MAY BE ADDED FOR INCREASED WORKABILITY.

SUPERPLASTICISER SLICH AS RHEORUIL D BY MASTER BUILDERS TECHNOLOGIES (MRT) OR APPROVED EQUIVALENT SHALL BE ADDED IN DOSAGES AS ADVISED BY THE MANUFACTURER. THE MANUFACTURER SHOULD BE CONSULTED IN RELATION TO THE DOSAGE AND USAGE OF RHEOBUILD AND IT'S EFFECTIVE LIFE NO OTHER ADMIXTURES SHALL BE USED IN CONCRETE UNLESS SPECIFIED OR APPROVED IN WRITING BY

THE FINISHED CONCRETE SHALL BE DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. CONCRETE SHALL BE COMPACTED WITH MECHANICAL VIBRATORS

TESTING AND ASSESSMENT FOR COMPLIANCE OF CONCRETE SHALL BE CARRIED OUT BY THE CONTRACTOR IN ACCORDANCE WITH AS 3600. CYLINDER COMPRESSION TESTS ARE REQUIRED AT 3 DAYS. 7 DAYS AND 20 DAYS FOR PRECAST ELEMENTS. PROPOSED CONCRETE MIX DESIGN TO BE SUBMITTED TO ENGINEER FOR

MAINTAIN COVER TO REINFORCEMENT AT CHAMFERS, ETC.

CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE

DURING AND IMMEDIATELY FOLLOWING POURING. THE CONCRETE SHALL BE PROTECTED FROM DRYING EFFECT OF WIND AND SUN. AWNINGS AND WIND BREAKS ARE TO BE UTILISED FOR THIS PURPOSE

CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 7 DAYS, AND PREVENTION OF LOSS OF MOISTURE FOR A FURTHER 14 DAYS FOLLOWED BY A GRADUAL DRYING OUT. POLYTHENE SHEETING OR WET HESSIAN MAY BE USED IF PROTECTED FROM WIND AND TRAFFIC DO NOT USE APPLIED CURING AGENTS.

THE SUPERINTENDENT SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELIVERED UNTIL FINAL APPROVAL IS OBTAINED.

ALL EXPOSED CONCRETE AREAS SHALL HAVE A 15mm x 15mm CHAMFER UNLESS NOTED OTHERWISE ON THE DRAWINGS.

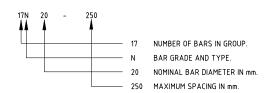
THE FINISHED CONCRETE SURFACE SHALL BE FREE OF CRACKS HAVING A CRACK WIDTH EQUAL TO OR GREATER THAN 0.1mm AT THE TIME OF PRACTICAL COMPLETION. IF CRACKING EXCEEDS THIS LIMIT, THE CONTRACTOR SHALL MAKE GOOD, AT HIS EXPENSE, THE CRACKS TO THE SATISFACTION OF THE SUPERINTENDENT WHICH MIGHT COMPRISE REPLACEMENT OF CONCRETE ELEMENT OR SEALING THE CRACKS WITH SILANE/SILICA FUME GEL. OR OTHER WORKS

REINFORCEMENT

THE SUPERINTENDENT SHALL BE GIVEN 24 HOURS NOTICE FOR REINFORCEMENT INSPECTION AND CONCRETE SHALL NOT BE DELIVERED UNTIL FINAL APPROVAL IS OBTAINED

REINFORCEMENTS SYMBOLS:

- N DENOTES GRADE 500 N BARS TO AS/NZS 4671 DUCTILITY CLASS N.
- DENOTES GRADE 250 R HOT ROLLED PLAIN BARS TO AS 1302 DUCTILITY CLASS N.
- DENOTES GRADE 500 L DEFORMED WELDED WIRE MESH TO AS/NZS 4671
- DENOTES GRADE 500 N DEFORMED WELDED WIRE MESH TO AS/NZS 4671 DUCTILITY CLASS N.
- LTM DENOTES GRADE 500 L DEFORMED WELDED WIRE MESH TO AS/NZS 4671 DUCTILITY CLASS L.



REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.

ALL REINFORCEMENT TO BE HOT DIP GALVANISED UNO.

ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED AT NOT GREATER THAN 1m CENTRES BOTH WAYS. CONCRETE BLOCKS SHALL BE MADE FROM THE SAME CONCRETE TO BE POURED AROUND THE BLOCK. PLASTIC CHAIRS SHALL NOT BE USED. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS

SLAB REINFORCEMENT SHALL EXTEND AT LEAST 12 BAR DIAMETERS ONTO SUPPORTS AND 50 PERCENT OF BOTTOM REINFORCEMENT SHALL BE COGGED TO ACHIEVE ANCHORAGE AT SIMPLY SUPPORTED ENDS.

SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN OR OTHERWISE APPROVED IN WRITING BY THE SUPERINTENDENT. LAPS SHALL BE IN ACCORDANCE WITH AS 3600 AND NOT LESS THAN THE DEVELOPMENT LENGTH FOR EACH BAR AND SHALL BE AS FOLLOWS:-

BAR	LAP
DIA	LENGTH
12	400
16	500
20	600
24	800
28	1000
32	1200
36	1500

JOGGLES TO BARS SHALL BE 1 BAR DIAMETER OVER A LENGTH OF 12 BAR DIAMETERS

SCOUR PROTECTION

A. ROCK

ROCK SHALL CONSIST OF MATERIAL WHICH COMPLIES WITH THESE NOTES AND THE DRAWINGS. THIS REQUIREMENT APPLIES TO BOTH IMPORTED ROCK AND IN-SITU ROCK WHICH IS RE-USED

INDIVIDUAL ROCKS SHALL BE FREE FROM CRACKS, CLEAVAGE PLANES, SEAMS AND DEFECTS WHICH WOULD RESULT IN THE BREAKDOWN OF THE ROCK IN A MARINE ENVIRONMENT

ROCK ARMOUR SHALL BE IGNEOUS ROCK ONLY AND AS A MINIMUM. SHALL SATISFY THE FOLLOWING CRITERIA:-

- ROCK SHALL BE ROUGH AND ANGULAR
- THE ARMOUR STONE THICKNESS SHALL COMPRISE AT LEAST TWO LAYERS OF ROCK.
- ROCK SHALL HAVE A MINIMUM DRY DENSITY OF 2600kg/m³.
- ROCK SHALL HAVE NO MORE THAN 10% (BY VOLUME) OLIVINE MATERIAL AND SHALL EXHIBIT NO ZONES OF SECONDARY ALTERATION SUCH AS CHLORITISATION
- ROCK SHALL HAVE A SATURATED POINT LOAD STRENGTH INDEX (ISSO) NO LESS THAN 5.0MPa FOR
- THE RATIO OF THE MAXIMUM DIMENSION TO THE MINIMUM DIMENSION, MEASURED AT RIGHT ANGLES TO THE MAXIMUM DIMENSION SHALL NOT EXCEED 2.5.

THE ARMOUR STONE, UNDERLAYER AND CORE MATERIAL SHALL BE PLACED SUCH THAT THE SPECIFIED REQUIREMENTS FOR MASS (MAXIMUM, MINIMUM AND 50% OR MEDIAN), FINISHED SIDE SLOPES, CREST AND TOE LEVELS, LAYER THICKNESSES AND DENSITY REQUIREMENTS, ARE SATISFIED. IN ADDITION ROCKS SHALL BE WEDGED AND LOCKED TOGETHER SUCH THAT THEY ARE NOT FREE TO MOVE. ARMOUR STONE SHALL NOT BE ROLLED OR DROPPED INTO POSITION, IT SHALL BE PLACED.

THE METHOD OF ROCK PLACEMENT SHALL BE SUCH AS TO:

- MINIMISE IT'S BREAKDOWN ON HANDLING AND PRODUCTION OF FINES
- MINIMISE THE SEGREGATION OF VARIOUS GRADES OF ROCK
- RESTRICT WATER CONTAMINATION

ROCK	SIZ	ΕΤΑ	BLE	
TYPE 1	M15 M50 M85	40 50 60	D15 D50 D85	250 300 350
TYPE 2	M15 M50 M85	900 1100 1300	D15 D50 D85	800 850 900

B. EXCAVATION

THE EXTENT OF THE EXCAVATION WORK IS INDICATED ON THE DRAWINGS

THE CONTRACTOR SHALL USE APPROPRIATE METHODS NECESSARY (SUCH AS OXYACETYLENE, POWER CUTTING/GRINDING, IMPACT HAMMER ETC.) TO REMOVE ALL MATERIALS TO BE EXCAVATED WHEN CARRYING OUT THE WORKS WITHOUT DISTURBING THE EMBANKMENT OUTSIDE THE EXCAVATION ZONE

THE CONTRACTOR SHALL HAVE SATISFIED HIMSELF AS TO THE EXTENT OF MATERIAL THAT WILL REQUIRE METHODS FOR REMOVAL OTHER THAN MACHINE EXCAVATION AND PROVIDED FOR THIS IN THE LUMP SUM PRICE.

THE SURFACE BENEATH THE GEOTEXTILE SHALL BE MADE CONTINUOUS AND FREE OF VOIDS BY PLACING A LAYER OF GRANULAR FILL TO PROVIDE A SMOOTH BEDDING AS NECESSARY

THE FILL LAYER SHALL HAVE A MAXIMUM PARTICLE DIAMETER OF 150mm AND SHALL BE WELL GRADED. EXCAVATED MATERIAL THAT IS GRANULAR SHALL BE USED AS FILL SUBJECT TO THE SUPERINTENDENT'S APPROVAL OF ITS SUITABILITY

AT ALL TIMES DURING EXCAVATION THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TO THE SATISFACTION OF THE SUPERINTENDENT AND RELEVANT AUTHORITIES, A FLOATING BOOM WITH SUSPENDED SILT CURTAIN TO PREVENT FINES CONTAMINATING THE LAKE.

C. GEOTEXTILE

GEOTEXTILE SHALL BE "ELCOMAX 1200R" OR APPROVED EQUIVALENT.

GEOTEXTILE FILTER FABRIC SHALL BE LAID WITH MINIMUM 1000mm OVERLAPS UNLESS DETAILED OR SPECIFIED OTHERWISE. WHERE FABRIC IS LAID UNDER WATER AND VISIBILITY IS POOR (IE; THE FABRIC CANNOT BE SEEN CLEARLY FROM THE SURFACE). THEN OVERLAPS SHALL BE INCREASED TO 2000mm LINLESS THE CONTRACTOR HAS OTHER MEANS OF GUARANTEEING THE MINIMUM 1000mm OVERLAP. THE GEOTEXTILE FILTER SHALL BE LAID TO HAVE OVERLAPS PARALLEL TO THE SLOPE THE STITCHING OF ADJACENT SHEETS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS MAY BE CONSIDERED BY THE PRINCIPAL'S REPRESENTATIVE, AS AN

SHOULD PLACEMENT OF GEOTEXTILE IN WATER BE NECESSARY, GEOTEXTILE WILL REQUIRE BALLAST TO SECURE IT IN POSITION. GEOTEXTILE SHALL BE SECURED AND STABILISED DURING CONSTRUCTION TO AVOID

SPECIFIC DESIGN LOADING FOR RAMP CONCRETE DECK STRUCTURE: FOR BASIS OF DESIGN REFER TO 301015-04031-MA-BOD-0001 NOTING THE FOLLOWING

MAX UNIFORMLY DISTRIBUTION LOAD = 15 kPa

VEHICLE LOADING: A160 (2 x 1t WHEEL LOADS AT 2m C/C)

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BLACKFELLOWS LAKE ACCESS ROAD, BOAT RAMP AND TIMBER JETT GENERAL NOTES SHEET 1

301015-04031-MA-DWG-0002

- MINERAL AGGREGATES TO COMPLY WITH CLAUSE 2.1 MATERIALS OF RTA SPECIFICATION R116 "ASPHALT (DENSE AND OPEN GRADED)"
- MINERAL FILLER TO COMPLY WITH AS 2357 (LATEST EDITION) MINERAL FILLERS FOR ASPHALT AND CLAUSE 2.12 – FILLER OF RTA SPECIFICATION R116 "ASPHALT (DENSE AND OPEN GRADED)".
- BITUMEN BINDER SHALL COMPLY WITH CLAUSE 2.13 BINDER OF RTA SPECIFICATION R116 "ASPHALT (DENSE AND OPEN GRADED)"

MIX PROPORTIONS

- JOB MIX 14mm NOMINAL SIZE AGGREGATE MINIMUM BITUMEN CONTENT (%) BY MASS OF TOTAL MASS - 5.1%.
- AIR VOIDS IN COMPACTED MIX BETWEEN 4% AND 7% OF THE VOLUME OF THE MIX.
- VOIDS FILLED IN BINDER 65-80% OF AIR VOIDS IN THE TOTAL MINERAL AGGREGATE FILLED BY BINDER IN ACCORDANCE WITH RTA TEST METHOD T605 AND T607.

PAVEMENT PREPARATION

- THE EXISTING SURFACE TO BE SEALED SHALL BE DRY AND BROOMED BEFORE COMMENCEMENT OF WORK TO ENSURE COMPLETE REMOVAL OF ALL SUPERFICIAL FOREIGN MATTER.
- ALL DEPRESSIONS OR UNEVEN AREAS ARE TO BE TACK COATED AND BROUGHT UP TO GENERAL LEVEL OF PAVEMENT WITH ASPHALTIC CONCRETE BEFORE LAYING OF MAIN COURSE.

TACK COAT

THE WHOLE OF THE AREA TO BE SHEETED WITH ASPHALTIC CONCRETE SHALL BE LIGHTLY AND EVENLY COATED WITH RAPID SETTING BITUMEN COMPLYING WITH RTA SPECIFICATIONS 3252, 3253, 3254 AND 3269. APPLICATION RATE FOR RESIDUAL BITUMEN SHALL BE 0.15 TO 0.30 LITRES/SQUARE METER. APPLICATION SHALL BE MEANS OF A MECHANICAL SPRAYER WITH SPRAY BAR.

SPREADING

- A10 ALL ASPHALTIC CONCRETE SHALL BE SPREAD WITH A SELE PROPELLED PAVING MACHINE
- THE ASPHALTIC CONCRETE SHALL BE LAID AT A MIX TEMPERATURE AS SHOWN BELOW: ROAD SURFACE TEMPERATURE IN SHADE A(°C), MIX TEMPERATURES (°C)

NOT PERMITTED 10-15°C 150°C 145°C OVER 25°C: 140°C

A12. ASPHALTIC CONCRETE SHALL NOT BE LAID WHEN THE ROAD SURFACE IS WET OR WHEN COLD WINDS CHILL THE MIX TO ADVERSELY AFFECT SPREADING AND COMPACTION

- A13. THE NUMBER OF JOINTS BOTH LONGITUDINAL AND TRANSVERSE SHALL BE KEPT TO A MINIMUM
- A14. THE DENSITY AND SURFACE FINISH AT JOINTS SHALL BE SIMILAR TO THOSE OF THE REMAINDER OF THE LAYER.

COMPACTION

- A15. ALL COMPACTION SHALL BE UNDERTAKEN USING SELF PROPELLED ROLLERS.
- A16. INITIAL ROLLING SHALL BE COMPACTED BEFORE THE MIX TEMPERATURE FALLS BELOW 105°C
- SECONDARY ROLLING SHALL BE COMPACTED BEFORE THE MIX TEMPERATURE FALLS BELOW 60°C USE PNEUMATIC TYRED ROLLER.
- MINIMUM CHARACTERISTIC VALUE OF RELATIVE COMPACTION OF A LOT WHEN TESTED IN ACCORDANCE WITH CLAUSE 4.9 - COMPACTION OF RTA SPECIFICATION 116 "ASPHALT (DENSE AND OPEN GRADED)" SHALL BE 95%

FINISHED PAVEMENT PROPERTIES

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REVISION DESCRIPTION

REV DATE

A19 FINISHED SURFACES SHALL RE SMOOTH DENSE AND TRUE TO SHAPE AND SHALL NOT VARY MORE THAN 10mm FROM THE SPECIFIED PLAN LEVEL AT ANY POINT AND SHALL NOT DEVIATE FROM THE BOTTOM OF A ORARY 3m STRAIGHT EDGE LAID IN ANY DIRECTION MORE THAN 5mm

CA

CA

PG

REF DRAWING No

REFERENCE DRAWING TITLE

DRAWN DRAFT CHK DESIGNED ENG CHK APPROVED CUSTOMER

VIP

SEAL PAVEMENT

(14/10mm TWO COAT SEAL OR 30mm AC WEARING SURFACE) 100mm BASECOURSE (CBR>80)

TYPICAL PAVEMENT DESIGN

- THE SUB BASE MATERIAL CAN BE DGS40 OR RECYCLED CONCRETE SATISFYING THE REQUIREMENTS OF DGS40 STANDARD PROVIDED IN THE RTA 3051 SPECIFICATION.
- THE MINIMUM COMPACTION DRY DENSITY RATIOS ARE AS FOLLOWS (AS1289 5.4.1-1993): -SUB-BASE 98% MODIFIED -SUB-GRADE 100% STANDARD
- PAVEMENT SURFACE TO BE GRADED AT 1% CROSSFALL.

TIMBER

ALL TIMBER DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH AS 1720.

SAWN TIMBER SHALL BE HARDWOOD DURABILITY CLASS I OR II GRADE F17 UNLESS NOTED OTHERWISE. ALL HARDWOOD PILES TO BE TURPENTINE F22 UNLESS NOTED OTHERWISE.

TIMBER SHALL BE SELECTED FROM THE FOLLOWING SPECIES.

- GIRDERS AND CAPWALES USE RED IRONBARK, GREY GUM, WHITE MAHOGANY OR TALLOWWOOD.
- TIMBER IMMERSED IN SEA USE TURPENTINE.

ALL BOLTS IN TIMBER CONSTRUCTION TO BE STAINLESS STEEL 20mm DIAMETER UNLESS NOTED OTHERWISE, BOLT HOLES TO BE DRILLED EXACT SIZE, WASHERS UNDER HEADS AND NUTS TO BE AT LEAST 2.5 TIMES BOLT DIAMETER UNLESS OTHERWISE SPECIFIED

THE TOP HORIZONTAL SURFACE OF CAPWALES AND GIRDERS SHALL BE FLOOD COATED WITH CN OIL BY KOPPERS (IN ACCORDANCE WITH DIRECTIONS FOR USE), AND COVERED WITH A LAYER OF MALTHOID, THE MALTHOID SHALL BE TURNED DOWN THE SIDES OF TIMBER (AND TACKED WITH WITH GALV. NAILS IF NECESSARY) TO ALLOW WATER TO RUN OFF

RECESSES TO THE TOPS OF HORIZONTAL MEMBERS EXPOSED TO THE ENVIRONMENT (SUCH AS FROM BOLTS, ETC.) SHALL HAVE DEPRESSIONS FILLED WITH GREY PORION OR APPROVED EQUIVALENT AFTER COMPLETION OF THE AFFECTED PART OF THE WORKS.

CUTS. RECESS. LAPS AND END GRAIN SHALL BE COATED LIBERALLY WITH ON EMULSION BY KOPPERS IN ACCORDANCE WITH THE DIRECTIONS FOR USE

TIMBER DIMENSIONS ON THE FINISHED WIDTH AND THICKNESS TO BE:

+3mm: -3mm WIDTH OF DECK PLANKS

ALL TIMBER JOINTS AND CONNECTORS ARE TO BE 100mm MINIMUM AWAY FROM LOOSE KNOTS SEVERE SLOPING GRAIN, GUM VEINS OR OTHER MINOR DEFECTS.

RETIGHTEN ALL BOLTS WHEN FULL LOAD IS APPLIED, AND AT THE COMPLETION OF WORK.

STRUCTURAL STEEL

FABRICATE AND ERECT THE STRUCTURAL STEEL IN A SAFE MANNER, WITHOUT INTERFERING WITH OR DAMAGING ADJACENT STRUCTURES, USING METHODS COMPLYING WITH THE REQUIREMENTS OF AS4100 FOR MATERIALS, CONSTRUCTION, FABRICATION AND ERECTION.

ALL STEEL SHALL BE IN ACCORDANCE WITH AS 3678 AND AS 3679 GRADE 300.

THREE (3) COPIES OF WORKSHOP FABRICATION DRAWINGS SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR REVIEW AT LEAST 7 DAYS PRIOR TO COMMENCEMENT OF FABRICATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND DETAILS SHOWN ON THE SHOP

UNLESS NOTED OTHERWISE OR SPECIFIED, STEELWORK PERMANENTLY EXPOSED IN THE WORKS SHALL BE HOT DIPPED GALVANISED AFTER FABRICATION IN ACCORDANCE WITH AS 4680

BOLT TYPE COMMENTS

4.6/5 COMMERCIAL BOLTS OF GRADE 4.6 TO AS 1111 - SNUG TIGHTENED.

8.8/\$ HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 SNUG

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UNLESS NOTED OTHERWISE, ALL BOLTS SHALL BE GRADE 8.8/S. ALL BOLTS AND WASHERS SHALL BE

APPLY DENSO MASTIC, OR APPROVED EQUIVALENT TO ALL ENDS OF NUTS, BOLTS AND WASHERS UNLESS NOTED OTHERWISE, ALL FILLET WELDS SHALL BE 6mm CONTINUOUS TYPE SP USING E48XX

UNLESS NOTED OTHERWISE, BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS TYPE SP

ALL STEELWORK SHALL BE SECURELY TEMPORARILY BRACED AS NECESSARY TO STABILISE IN

ACCORDANCE WITH THE SPECIFICATION. SITE WELDING OR CUTTING OF STRUCTURAL STEELWORK UNLESS SPECIFICALLY REQUIRED BY THE DRAWINGS SHALL ONLY BE CARRIED OUT WITH THE PRIOR WRITTEN APPROVAL OF THE

THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL

TO STEEL AND TIMBER AND OTHER ELEMENTS TO STEEL WHETHER OR NOT DETAILED IN THE DRAWINGS.

ENGINEERING AND PERMIT STAMPS (As Required)

INFORMATION ONLY

NOT TO BE USED

FOR CONSTRUCTION

PILING

PILING WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 2159 AND TO THE REQUIREMENTS SPECIFIED BELOW AND ON THE DRAWINGS

THE CONTRACTOR SHALL MAINTAIN A COPY OF AS 2159 ON SITE AT ALL TIMES DURING THE CONTRACT

PRIOR TO INSTALLATION OF PILES THE CONTRACTOR SHALL PROBE THE PROPOSED PILE LOCATIONS IN ORDER TO ASSESS SEABED AND ROCK LEVELS. RESULTS OF PROBING SHALL BE MADE PROMPTLY AVAILABLE TO THE SUPERINTENDENT

ALL PILE TOES AND HEADS MUST BE PREPARED BY THE CONTRACTOR TO ENSURE THAT. THEY WILL NOT BE DAMAGED DURING INSTALLATION. THE CONTRACTOR WILL BE REQUIRED TO SATISFY THE SUPERINTENDENT OF THIS FOR THE PARTICULAR TYPE OF PILE AND METHOD OF INSTALLATION

THE CONTRACTOR SHALL MAINTAIN RECORDS FOR ALL PILES AS REQUIRED UNDER THE PROVISIONS OF AS 2159. ACCURATE RECORDS OF ROCK LEVELS AND FOUNDING LEVEL OF PILES SHALL BE KEPT AND PROVIDED TO THE SUPERINTENDENT WITHIN 2 DAYS OF INSTALLING THE PILE.

PRELIMINARY GEOTECH INVESTIGATION SHOWS FIRST 1m DEPTH CONSISTS OF SILTY CLAY. NO FURTHER GEOTECH DETAILS ARE AVAILABLE AT THE SITE AFTER 1m DEPTH.

MINIMUM EMBEDMENT OF THE PILES SHALL BE 3.5m INTO SILT CLAY/FIRM SAND OR CLAY EXCLUDING THE SOFT SILTY MATERIAL THE PILE SHALL BE SOCKETED MINIMUM 15m INTO ROCK IF THE SITE PRESENT SHALLOW ROCK. ALL OTHER SCENARIOS, REFER TO THE DESIGNER FOR THE MINIMUM EMBEDMENT REQUIREMENTS.

IF NO ULTIMATE CAPACITY IS SHOWN, PROVIDE AT LEAST 300 KN ULTIMATE AXIAL CAPACITY. PRIOR TO UNDERTAKING PILING WORKS THE CONTRACTOR SHALL SUPPLY CALCULATIONS OF THE REQUIRED SET FOR APPROVAL BY THE SUPERINTENDENT.

PILES SHALL BE DRIVEN SUCH THAT THE PILE AXIS IS WITHIN 50mm OF THE SPECIFIED PLAN POSITION INDICATED ON THE DRAWINGS MEASURED AT THE PILE HEAD. VARIATION, FROM VERTICALITY OR THE RAKE SPECIFIED SHALL NOT EXCEED 1 IN 75. VARIATION FROM THE SPECIFIED ELEVATION OF TOP OF PILES SHALL BE WITHIN 10mm AND THE PILE HEAD SHALL BE CUT SQUARE TO THE PILE AXIS UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

SOCKETED PILES SHALL BE PLACED AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT: HOLES SHALL BE BORED INTO SOUND ROCK TO RECEIVE THE PILES. THE DIAMETER OF THE HOLES SHALL BE LESS THAN THE OUTSIDE DIAMETER OF THE PILE. THE PILE SHALL BE DRIVEN INTO THE "INTERFERENCE FIT" HOLF

THE CONTRACTOR SHALL ENSURE THAT THE CONSTRUCTION METHOD DOES NOT OVERSTRESS ANY ELEMENT OF THE WORKS. AND IN DETERMINING HIS PROPOSED. CONSTRUCTION METHOD HE SHALL GIVE DUE CONSIDERATION TO THE EFFECTS OF NOISE AND VIBRATION ON THE SURROUNDING ENVIRONMENT

ALL PILES SHALL BE INSTALLED UNDER PERIODIC INSPECTION OF THE SUPERINTENDENT. THE CONTRACTOR SHALL GIVE ONE WORKING DAYS NOTICE OF HIS INTENTION TO DRIVE PILES SO THAT THE SUPERINTENDENT CAN ARRANGE FOR ATTENDANCE.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE SUPERINTENDENT IF IN THE CONTRACTOR'S OPINION, GROUND CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS OR INDICATED BY THE REPORT OF THE GEOTECHNICAL INVESTIGATION WORK SHOULD HOWEVER PROCEED IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED METHOD FOR INSTALLATION OF THE PILE THROUGH THE GROUND.

ANY PILES WHICH ARE DAMAGED DURING THE EXECUTION OF THE WORKS BY THE CONTRACTOR, OR WHICH DO NOT COMPLY WITH THE SPECIFIED TOLERANCES SHALL BE MADE GOOD OR REPLACED AS THE SUPERINTENDENT MAY DIRECT, ALL AT THE CONTRACTORS EXPENSE.

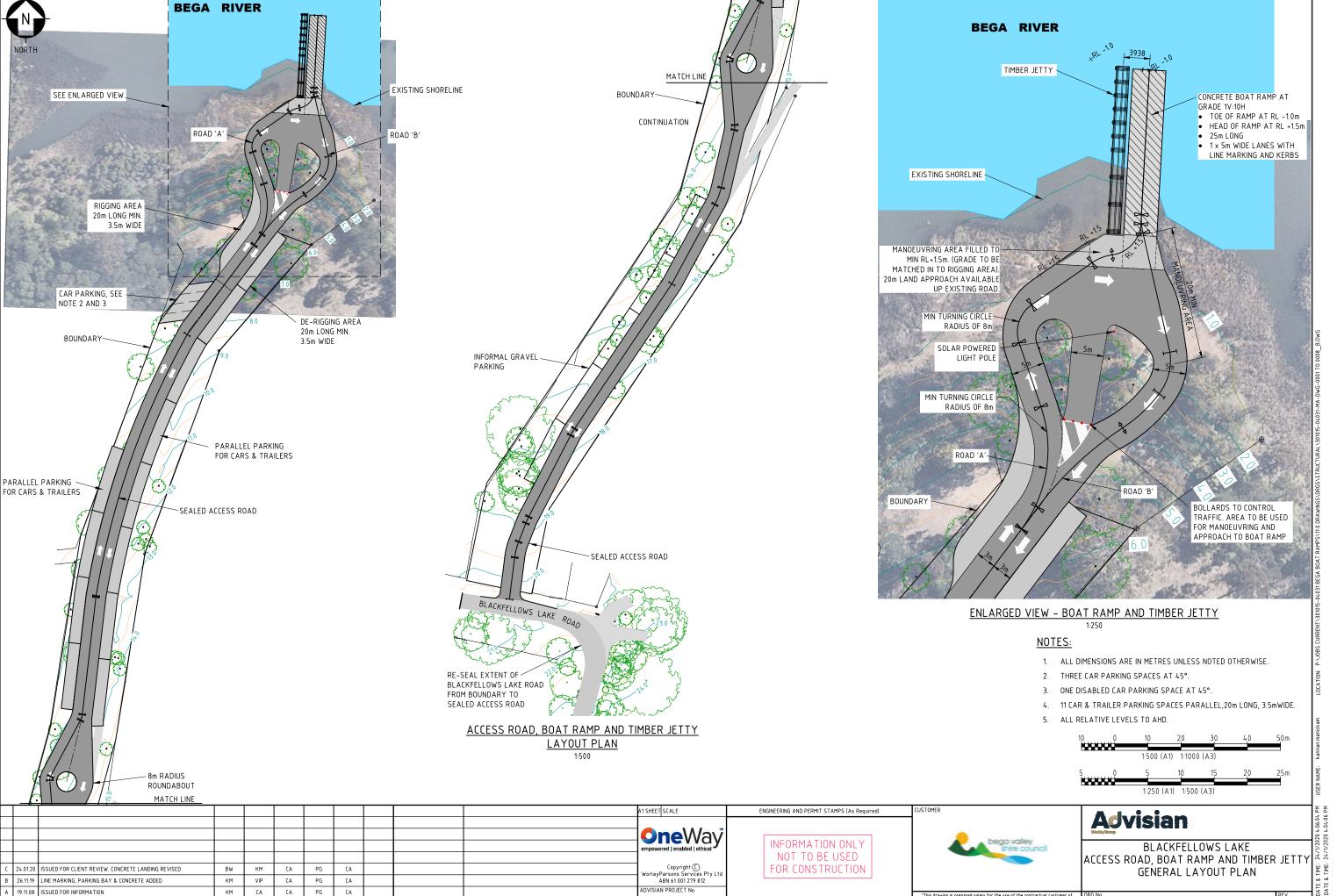
WHERE APPLICABLE. PILES SHALL BEAR AGAINST TIMBER CAPWALES TO ENSURE LOAD TRANSFER

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BLACKFELLOWS LAKE ACCESS ROAD, BOAT RAMP AND TIMBER JETT GENERAL NOTES SHEET 2

301015-04031-MA-DWG-0003

В



301015-04031

REFERENCE DRAWING TITLE

REVISION DESCRIPTION

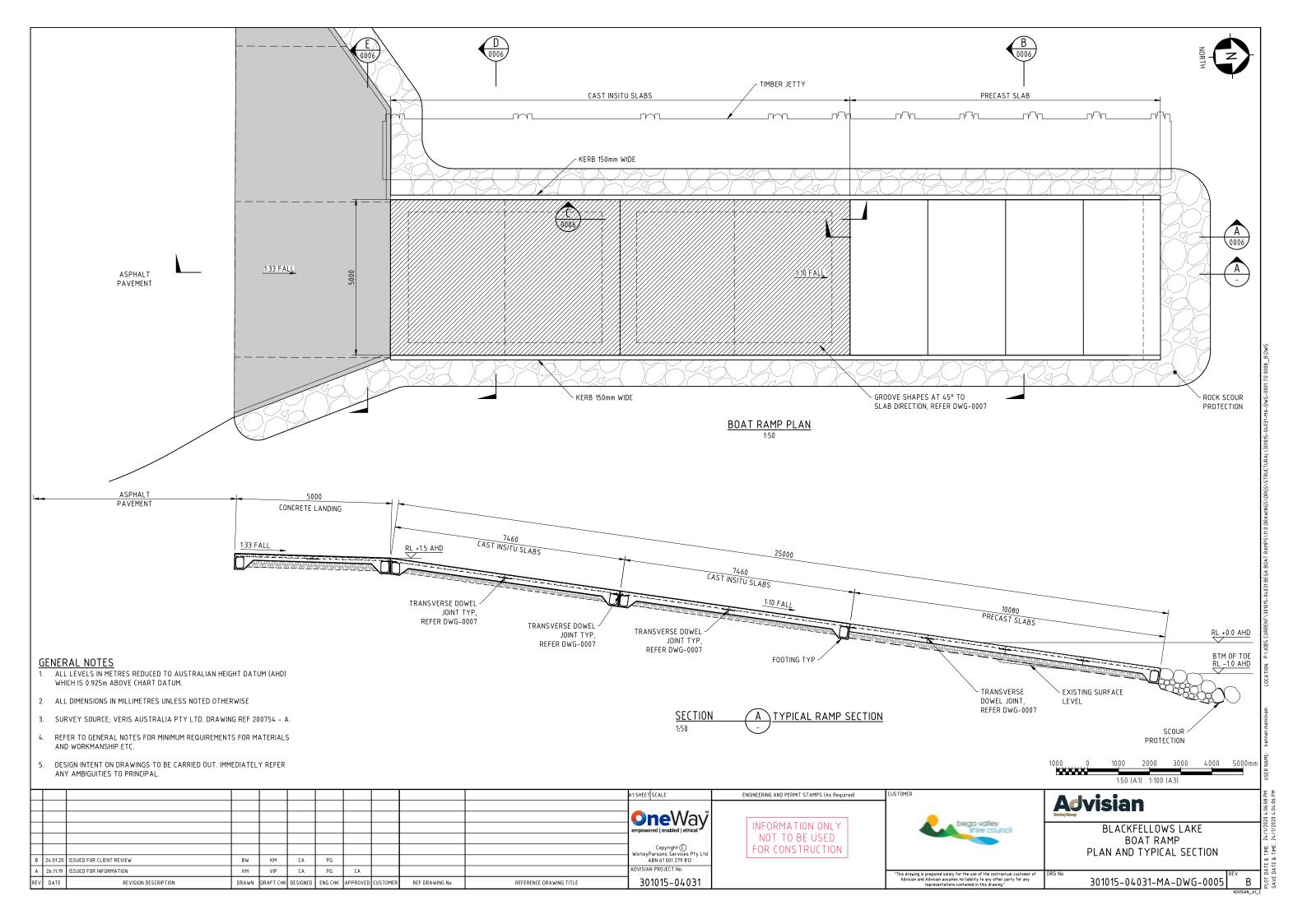
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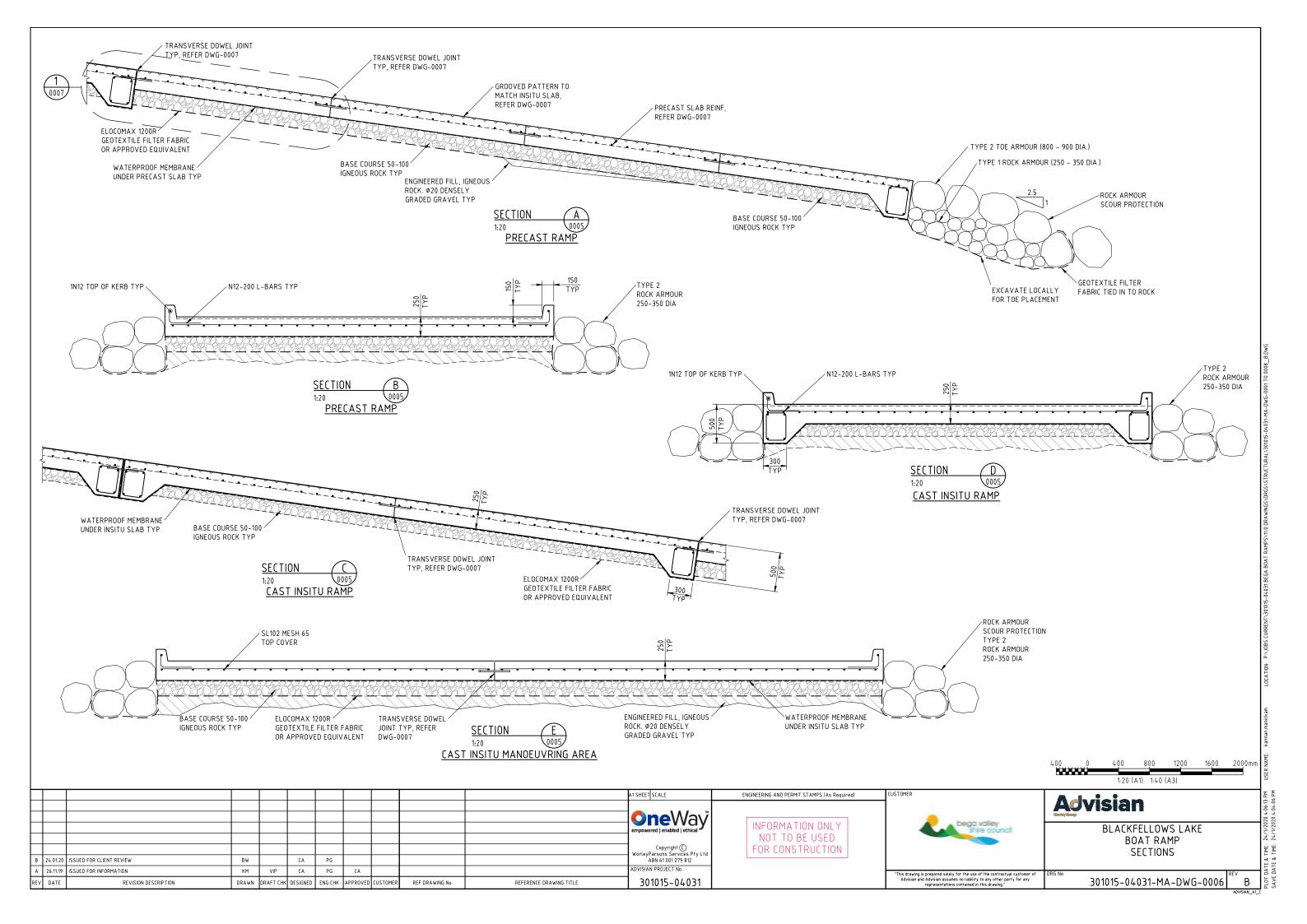
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CONTRACTOR TO DESIGN APPROPRIATE LIFTING AND TRANSPORTATION METHODS TO ENSURE THAT THE SLABS ARE NOT OVERSTRESSED DURING LIFTING IN COMPLIANCE WITH AS3600 CONCRETE STRUCTURES

ALL REINFORCEMENT AND TIE WIRES TO BE HOT DIP GALVANISED. UNLESS NOTED OTHERWISE.

 DEPART DAMAGE TO CALVANISED COATING ON DEINFORCEMENT WITH A COATING OF COLD.

 REPAIR DAMAGE TO GALVANISED COATING ON REINFORCEMENT WITH 2 COATS OF COLD GALVANISING PAINT.

3. STEEL REINFORCING CHAIRS ARE NOT ALLOWED.

GENERAL NOTES

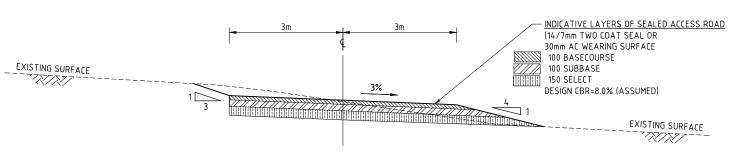
4. DIS-SIMILAR METALS TO BE ELECTRICALLY ISOLATED BY USE OF EPOXY PAINT, INSULATION TAPE ETC.

5. ALL EXPOSED SURFACES OF NEW REINFORCED CONCRETE SHALL BE COATED WITH AQURONCPT-2000. OR APPROVED EQUIVALENT FOLLOWING COMPLETION OF WET CURING. APPLICATION TO BE STRICTLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

6. WASHDOWN REINFORCEMENT AND FORMS WITH POTABLE WATER, TO REMOVE CHLORIDES PRIOR TO PLACEMENT OF INSITU CONCRETE.

6 WIDE SAWCUT 20 DEEP FILLED WITH SEALANT R16 SS DOWEL BAR AT 400 CTS, CAPPED 10 BITUMEN IMPREGNATED AND DEBONDED ON FIBREBOARD AND BITUMEN SECOND POUR PAINTED VERTICAL SURFACE ON FIRST POUR WATERPROOF MEMBRANE BASE COURSE 50-100 FLOCOMAX 1200R IGNEOUS ROCK TYP GEOTEXTILE FILTER FABRIC UNDER INSITU SLAB TYP OR APPROVED EQUIVALENT

TRANSVERSE DOWEL JOINT DETAIL



TYPICAL SECTION

SEALED ACCESS ROAD AND PARKING BAYS

1.50

TYPICAL ACCESS ROAD DESIGN

NOTE:

 THE SUB BASE MATERIAL CAN BE DGS40 OR RECYCLED CONCRETE SATISFYING THE REQUIREMENTS OF DGS40 STANDARD PROVIDED IN THE RTA 3051 SPECIFICATION.

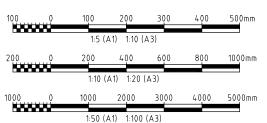
2. THE MINIMUM COMPACTION DRY DENSITY RATIOS ARE AS FOLLOWS (AS1289 5.4.1–1993): -SUB-BASE 98% MODIFIED -SUB-GRADE 100% STANDARD

3. PAVEMENT SURFACE TO BE GRADED AT 1% CROSSFALL.

4. PAVEMENT DESIGN HAS BEEN BASED ON A TRAFFIC LOADING OF 5x10 ESA

CONTRACTOR IS TO CONFIRM THE IN-SITU CBR VALUE PRIOR TO CONSTRUCTING THE ACCESS ROAD

6. ALL ACCESS ROAD MATERIALS SHALL COMPLY WITH RTA SPECIFICATION 3051.



<u>ALTERNATIVE GROOVE PATTERN</u>
1:5
GROOVES AT 100 CTS AT 45° TO SLAB DIRECTION

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BLACKFELLOWS LAKE BOAT RAMP DETAILS

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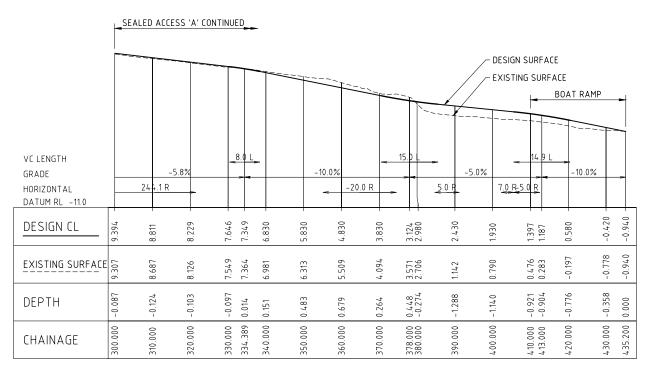
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USER NAME: kannan.manitkam

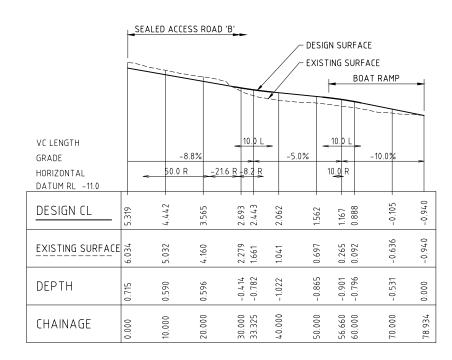
LONGITUDINAL SECTION ROAD 'A'

SCALE HORIZONTAL 1:500 SCALE VERTICAL 1:250



LONGITUDINAL SECTION ROAD 'A'

SCALE HORIZONTAL 1:500 SCALE VERTICAL 1:250



LONGITUDINAL SECTION ROAD 'B'

SCALE HORIZONTAL 1:500 SCALE VERTICAL 1:250



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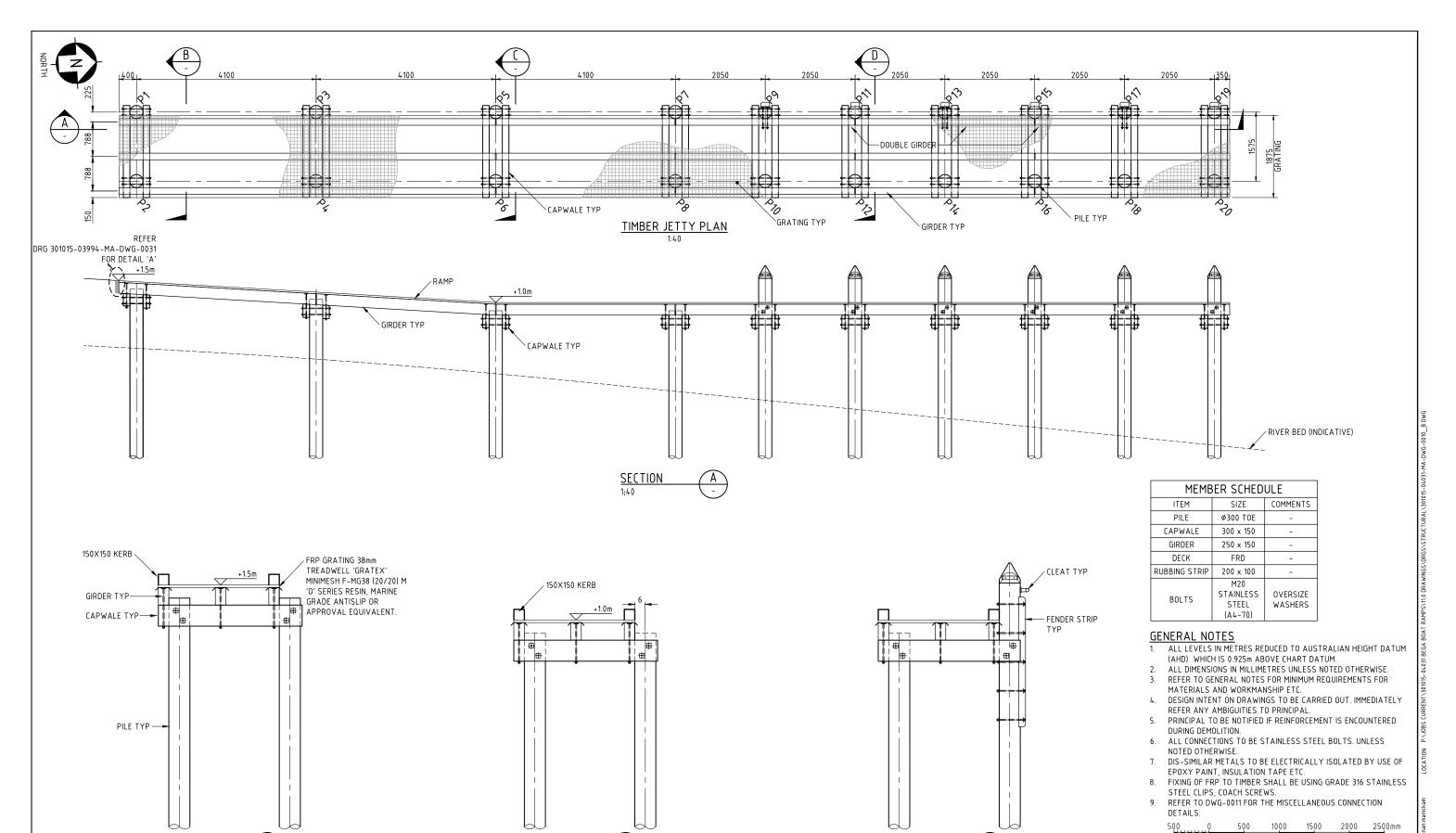


BLACKFELLOWS LAKE ACCESS ROAD AND BOAT RAMP LONGITUDINAL SECTIONS

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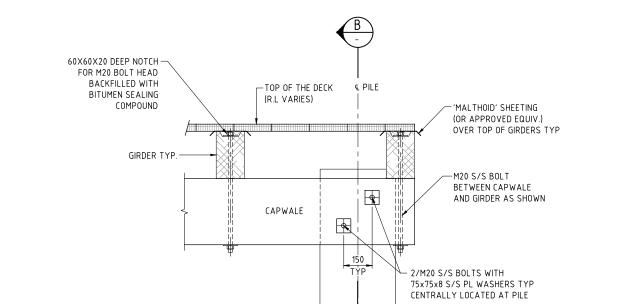
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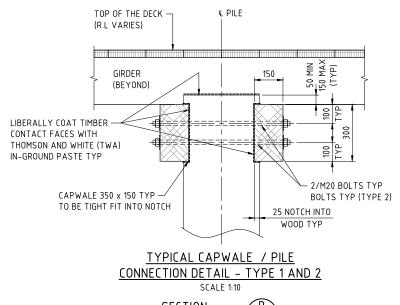
BLACKFELLOWS LAKE TIMBER JETTY PLAN AND SECTIONS

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TYPICAL CAPWALE/GIRDER/PILE **BOLTING CONNECTION DETAIL - TYPE 1** SCALE 1:10



SECTION SCALE 1:10

'KARDON' CONICAL BIRD CAP 6/M6 COACH BOLTS x 50 LG SPLIT RING 50x12 STEEL O/S DIA SHALL NOT BE LESS THAN THE DIA OF PILE x 0.9

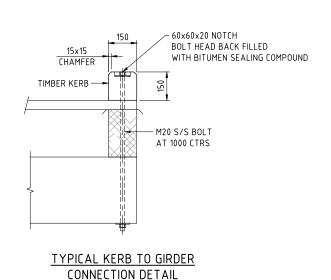
TOP OF PILE EXTENDING

ABOVE BOARDWALK

SCALE 1:5

∠5mm PLATE M12 S/S COACH SCREW WITH ROUND HEAD @300mm SPACING

DETAIL 'A'

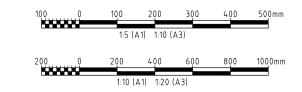


SCALE 1:10

TIMBER KERB RP DECK

> TYPICAL END KERB **CONNECTION DETAIL** SCALE 1:10

FOR GENERAL NOTES REFER MA-DWG-0002.



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