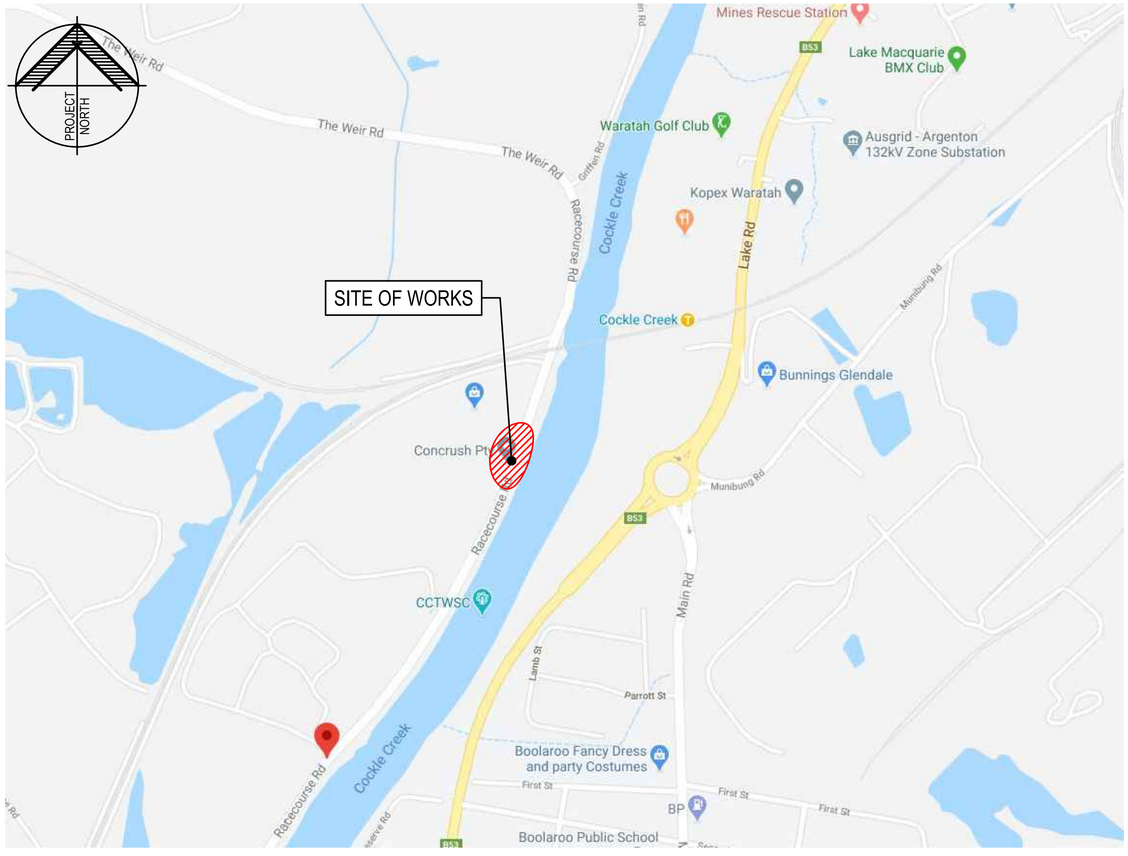
PROPOSED ROAD UPGRADE

21 RACECOURSE ROAD, TERALBA NSW

LAKE MACQUARIE CITY COUNCIL LOCAL GOVERNMENT AREA

SECTION 138 APPROVAL (DA - SSD 8753)



MAP DATA © 2020 GOOGLE

LOCALITY PLAN

NOT TO SCALE

Pavement design is in accordance with RCA Report 13589-201/0 June 2020.

Mark Allman BE PhD

Lindsay Dynan

Sydney | Perth | Newcastle | Central Coast

PROJECT

PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT

CONCRUSH PTY LTD

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y

DRAWING LIST

REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE

COVER PAGE & DRAWING LIST

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	N.T.S
DOCUMENT No.			REVISION
16015-LD-DR-C-10000			P03

CONSTRUCTION NOTES

GENERAL:

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL COUNCIL AND OTHER CONSULTANTS' DRAWINGS, SPECIFICATIONS , WORKS AUTHORISATION DEED (WAD) AND CLIENT CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THESE DRAWINGS.
3. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
4. SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ALL SETOUT COORDINATES PROVIDED ARE BASED ON MGA-94-56.
5. DURING CONSTRUCTION, ALL STRUCTURES SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVER-STRESSED. TEMPORARY STRUCTURES, FORMWORK, FALSEWORK, TEMPORARY BRACING, SHORING AND THE LIKE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITIONS, INCLUDING AMENDMENTS, OF THE RELEVANT SPECIFICATIONS, STANDARDS AND CODES OF PRACTICE, EXCEPT AS VARIED BY THE CONTRACT DOCUMENTS AND THE LAWS AND REQUIREMENTS OF STATUTORY AUTHORITIES.
7. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH ALL WORKCOVER REQUIREMENTS AND OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS.
8. WHERE THE ENGINEERS ARE ENGAGED FOR INSPECTIONS AND/OR SUPERVISION, A MINIMUM OF 24 HOURS NOTICE SHALL BE GIVEN.
9. CONSTRUCTION USING THESE DRAWINGS SHALL NOT COMMENCE UNTIL APPROVAL IS ISSUED BY THE PRINCIPAL CERTIFYING AUTHORITY.

GROUND PREPARATION:

1. EXCAVATION AND GROUND PREPARATION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT SPECIFICATIONS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REFERENCES AND ANY ADDITIONAL INSTRUCTIONS THAT MAY BE PROVIDED BY A GEOTECHNICAL ENGINEER DURING THE COURSE OF THE PROJECT.

GEOTECHNICAL REFERENCES:

1. FOR GEOTECHNICAL REFERENCES REFER TO THE FOLLOWING DOCUMENT:
   PREPARED BY: RCA AUSTRALIA
   REPORT No.: 13589-201/1
   DATED: JUNE 2020

DRAINAGE:

1. SELECTION AND INSTALLATION OF PITS, PIPES, TANKS AND TRENCHES SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF AS/NZS3500, LOCAL AND STATUTORY REQUIREMENTS (U.N.O.).
2. THE CONTRACTOR SHALL IDENTIFY AND LOCATE ALL SERVICES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
3. SEDIMENT AND EROSION CONTROLS TO BE PROVIDED IN ACCORDANCE WITH ALL LOCAL AND STATUTORY REGULATIONS.
4. WHERE REQUIRED, STORMWATER EASEMENTS SHALL BE OBTAINED BY THE OWNER. ALL NEGOTIATIONS/COMPENSATION PAYMENTS AND THE INTEGRATION OF ANY EASEMENTS INTO THE TITLE DOCUMENTS SHALL BE BY THE OWNER UNLESS AGREED OTHERWISE.
5. PIPE POSITIONS ARE INDICATIVE ONLY. FINAL POSITIONS TO BE DETERMINED ON-SITE AND SHALL CONFORM WITH THE INTENT OF THE DESIGN.
6. THE ENGINEER SHALL BE ADVISED IF ANY EXISTING STRUCTURES ARE WITHIN THE ZONE OF INFLUENCE OF AN EXCAVATION. ANY REQUIRED UNDER-PINNING OR PIERING SHALL BE PROVIDED.
7. WHERE EXCAVATING ADJACENT TO BOUNDARIES, ADEQUATE SHORING SHALL BE PROVIDED.
8. THE CONTRACTOR SHALL ENSURE THAT ALL NEW STRUCTURES ARE FOUNDED BELOW THE ZONE OF INFLUENCE OF ANY EXCAVATIONS WHETHER THEY BE FOR PIPELINES, TANKS OR OTHER DRAINAGE FACILITIES.
9. UNLESS NOTED OTHERWISE, THE MAXIMUM DEVIATION FROM NOMINATED LEVELS SHALL BE ±10mm, EXCEPT IN INSTANCES WHERE SUCH A DEVIATION COULD HAVE ADVERSE EFFECTS, IN WHICH CASE THE ENGINEER SHALL BE CONSULTED.
10. LOAD CLASS FOR COVERS/GRATES SHALL BE IN ACCORDANCE WITH AS3996 - 2019, TABLE 3.1.

DRAINAGE:

11. UNTIL COMPLETION OF ALL WORKS, THE CONTRACTOR SHALL FIRSTLY FILTER ALL STORMWATER IN ACCORDANCE WITH APPROVED DETAILS TO ENSURE THE REMOVAL OF ALL CONCRETE AND PLASTERING FINES, AND OTHER BUILDING SITE POLLUTANTS.
12. THE CONTRACTOR SHALL SEEK DIRECTION BEFORE COMMENCING ANY EXCAVATION THAT MAY RESULT IN DAMAGE TO ANY EXISTING TREES.
13. RETAINING STRUCTURES SHALL BE PROVIDED AS REQUIRED IN ORDER TO ACHIEVE THE LEVELS NOMINATED ON THE DRAWINGS. THESE STRUCTURES SHALL COMPLY WITH ALL LOCAL AND STATUTORY REGULATIONS, AND MAY REQUIRE DESIGN BY AN ENGINEER.
14. UNLESS NOTED OTHERWISE, WHERE A PIT INVERT IS BELOW THE INVERT OF THE LOWEST OUTLET PIPE, THE CONTRACTOR SHALL EITHER PROVIDE DRAINAGE HOLES IN THE BASE OF THE PIT OR ELSE FILL THE BASE OF THE PIT WITH MASS CONCRETE TO THE INVERT OF THE LOWEST OUTLET PIPE.
15. WHERE REQUIRED BY REGULATIONS, STEP IRONS IN ACCORDANCE WITH AS1657 SHALL BE INSTALLED IN DEEP PITS/TANKS TO ALLOW ACCESS FOR MAINTENANCE. PIT COVERS OVER DEEP PITS SHALL BE 'CHILD-PROOFED' BY BOLTING THEM DOWN, EXCEPT WHERE THE COVER WEIGHS OVER 30kg.
16. ALL IMPERVIOUS SURFACES SHALL BE GRADED SUCH THAT THEY ARE FREE DRAINING.
17. WHERE REQUIRED BY THE PRINCIPAL CERTIFIER, WORK-AS-EXECUTED DETAILS SHALL BE PREPARED BY A REGISTERED SURVEYOR/CHARTERED PROFESSIONAL ENGINEER VERIFYING THAT THE DRAINAGE SYSTEM HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS. ANY DEVIATIONS FROM THE APPROVED PLANS SHALL BE NOTED AND BROUGHT TO THE ATTENTION OF THE ENGINEER. ADEQUATE INSPECTIONS SHOULD BE CARRIED OUT DURING THE COURSE OF CONSTRUCTION.
18. WHERE AN ENGINEER'S CERTIFICATE WILL BE REQUIRED, THE ENGINEER SHALL BE CALLED ON TO INSPECT THE WORKS PRIOR TO ANY CONCRETE POURS, PRIOR TO BACKFILLING AROUND ANY TANKS, AND AT THE COMPLETION OF WORKS. THE ENGINEER SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE BEFORE AN INSPECTION IS REQUIRED.
19. ANY PROPOSED ALTERATIONS TO THE DETAILS SHOWN ON THE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
20. LEAF SCREENS, SILT CONTROLS AND ANY OTHER POLLUTANT CONTROL DEVICES SHALL BE REGULARLY SERVICED TO ENSURE THAT THE DRAINAGE SYSTEM REMAINS UNBLOCKED AND OPERATES AS ORIGINALLY INTENDED.
21. OVERLAND FLOW PATHS SHALL BE REGULARLY MAINTAINED AND KEPT FREE OF OBSTRUCTIONS TO THE FLOW OF WATER.
22. SUBSOIL DRAINAGE LINES SHALL BE PROVIDED BEHIND RETAINING WALLS AND OTHER AREAS AS REQUIRED TO RELIEVE HYDROSTATIC PRESSURE AND DRAIN GROUND WATERS. CONNECT INTO THE DRAINAGE SYSTEM IN SUCH A WAY AS TO AVOID BACKFLOW OF STORMWATER INTO THE SUBSOIL DRAINAGE LINE. IF IN DOUBT REFER TO ENGINEER.
23. UPON COMPLETION, PIPE/PIT EXCAVATIONS SHALL BE BACKFILLED WITH SUITABLE COMPACTED MATERIAL IN ACCORDANCE WITH NOTES BELOW.
24. ALL PVC PIPES ARE TO BE:-
    a. SEWER GRADE (U.N.O.)
    b. INSTALLED AND BACKFILLED IN ACCORDANCE WITH AS2566.1
25. ALL CONCRETE PIPES ARE TO BE:-
    a. STRENGTH LOAD CLASS 4 (U.N.O.)
    b. INSTALLED AND BACKFILLED IN ACCORDANCE WITH AS3725 WITH CLASS H2 BEDDING SUPPORT
26. ALL PIPES ARE TO BE INSTALLED WITH 450mm MINIMUM COVER (U.N.O.). WHERE ADEQUATE COVER CANNOT BE PROVIDED PIPES SHALL BE ENCASED IN CONCRETE, REFER TO ENGINEER FOR DETAILS.
27. THE CONTRACTOR SHALL ADEQUATELY SHIELD PIPES AGAINST CONSTRUCTION AND PERMANENT LOADS.
28. PIPES HAVE BEEN DESIGNED TO WITHSTAND SM1600 TRAFFIC LOADING IN ACCORDANCE WITH AS5100.

LAND DISTURBANCE:

1. THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE AND PRACTICAL. TO THIS END, WORKS IS TO BE UNDERTAKEN IN THE FOLLOWING GENERAL SEQUENCE:-
   a) CONSTRUCTION OF SEDIMENT AND EROSION CONTROLS PRIOR TO ANY WORK COMMENCING.
   b) REHABILITATION OF ANY DISTURBED LANDS WITHIN 20 WORKING DAYS.
   c) UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.
2. THE SITE MANAGER (PRINCIPAL CONTRACTOR) IS TO INFORM ALL CONTRACTORS AND SUBCONTRACTORS OF THEIR OBLIGATIONS UNDER THE EROSION AND SEDIMENT CONTROL PLAN.
3. TOPSOIL FROM ALL AREAS THAT WILL BE DISTURBED IS TO BE STRIPPED AND STOCKPILED AT THE NOMINATED LOCATION.
4. TEMPORARY CUT AND FILL BATTER GRADIENTS TO BE 1 VERTICAL (MAX) : 2 HORIZONTAL (MIN). U.N.O OR FLATTER.

INSPECTION AND MAINTENANCE:

1. THE SITE MANAGER (PRINCIPAL CONTRACTOR) WILL ENSURE THAT ALL SEDIMENT AND EROSION CONTROL WORKS ARE LOCATED AS INSTRUCTED IN TINSW/RMS OR LMCC SPECIFICATION AS IS REQUIRED.
2. ALL BUILDERS AND SUB-CONTRACTORS SHALL BE INFORMED OF THEIR RESPONSIBILITIES BY THE SITE MANAGER (PRINCIPAL CONTRACTOR) IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
3. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER ARE TO BE EMPTIED AS NECESSARY. DISPOSAL OF WASTE SHALL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT AND GENERALLY OFF SITE.
4. AT LEAST WEEKLY, THE CONTRACTOR SHALL INSPECT THE SITE AND ENSURE THAT:-
   a) DRAINS OPERATE EFFECTIVELY AND INITIATE REPAIR OR MAINTENANCE AS REQUIRED.
   b) SPILLED SOIL (OR OTHER MATERIAL) IS REMOVED FROM HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS, GUTTERS, PAVED AREAS AND DRIVEWAYS.
   c) SEDIMENT IS REMOVED FROM BASINS AND/OR TRAPS WHEN LESS THAN 20m OF TRAPPING CAPACITY REMAIN PER 1000m OF DISTURBED LANDS, AND/OR LESS THAN 500mm DEPTH REMAINS IN THE SETTLING ZONE. ANY COLLECTED SEDIMENT WILL BE DISPOSED IN AREAS WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS IS UNLIKELY.
   d) REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND INITIATE UPGRADING OR REPAIRS AS APPROPRIATE.
5. THE CONTRACTOR SHALL PROVIDE A DETAILED 'LOG BOOK' RECORDING INFORMATION & DATA WITH RESPECT TO THE SEDIMENT & EROSION CONTROL PLAN AND TO ENSURE SEDIMENT CONTROL DEVICES ARE FUNCTIONING PROPERLY. THIS IS TO BE KEPT ON SITE AT ALL TIMES AND UPDATED DAILY. INFORMATION RECORDED MUST INCLUDE:-
   a) RAINFALL EVENTS
   b) RAINFALL IN MILLIMETRES
   c) RESULTS OF ANY INSPECTIONS

KERBING:

1. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON MINIMUM 200mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1.
2. EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
3. WEAKENED PLANE JOINTS TO BE MINIMUM 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN SLABS.
4. PROVIDE BROOM FINISH TO ALL RAMPS AND VEHICULAR CROSSINGS. ALL OTHER KERBS OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
5. WHERE REPLACEMENT OF EXISTING KERBING IS REQUIRED, ROAD PAVEMENT IS TO BE SAWCUT 900mm FROM LIP OF GUTTER. UPON COMPLETION OF NEW KERBS, NEW BASECOURSE AND SURFACE IS TO BE LAID 900mm WIDE. MAKE GOOD ANY DAMAGE TO SURROUNDING KERBING OR PAVEMENT. EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

CONCRETE:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600, CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
2. ALL CONCRETE TO BE MANUFACTURED AND SUPPLIED ACCORDING TO AS1379.
3. CONSOLIDATE ALL CONCRETE BY MECHANICAL VIBRATION. CURE ALL CONCRETE SURFACES AS DIRECTED IN THE SPECIFICATION. (IF NO SPECIFICATION, IN ACCORDANCE WITH AS3600).
4. CONSTRUCTION JOINTS WHERE NOT SHOWN ON DRAWINGS SHALL BE LOCATED SUBJECT TO THE APPROVAL OF THE ENGINEER.
5. CONCRETE THICKNESSES SHOWN DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
6. FORMWORK: THE DESIGN, CERTIFICATION, CONSTRUCTION AND PERFORMANCE OF THE FORMWORK, FALSEWORK AND BACKPROPPING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE PROPOSED METHOD OF INSTALLATION AND REMOVAL OF FORMWORK IS TO BE SUBMITTED TO THE SUPERINTENDENT FOR COMMENT PRIOR TO WORK BEING CARRIED OUT.

SURVEY:

1. SURVEY INFORMATION USED FOR DESIGN PURPOSES SUPPLIED AS FOLLOWS:
   SURVEYOR: CADENCE CONSULTING SURVEYORS
   DOCUMENT No: CCS-1676
   DWG FILE: CCS-1676_DWG_DETAIL-1B
   DATED: 12 DECEMBER 2019
2. ORIGIN OF COORDINATES: PM 37793
3. ORIGIN OF LEVELS: PM 37793
4. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
5. SURVEY COORDINATE SYSTEM IS MAP GRID OF AUSTRALIA (MGA).
6. ALL SURVEY SETOUT SHALL BE UNDERTAKEN BY A REGISTERED SURVEYOR.
7. DAMAGED SURVEY MONUMENTS ARE TO BE REPAIRED OR REINSTATED TO THE SATISFACTION OF THE SURVEYOR GENERAL.

Lindsay Dynan

Sydney | Perth | Newcastle | Central Coast

PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT
CONCRUSH PTY LTD

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y

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P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
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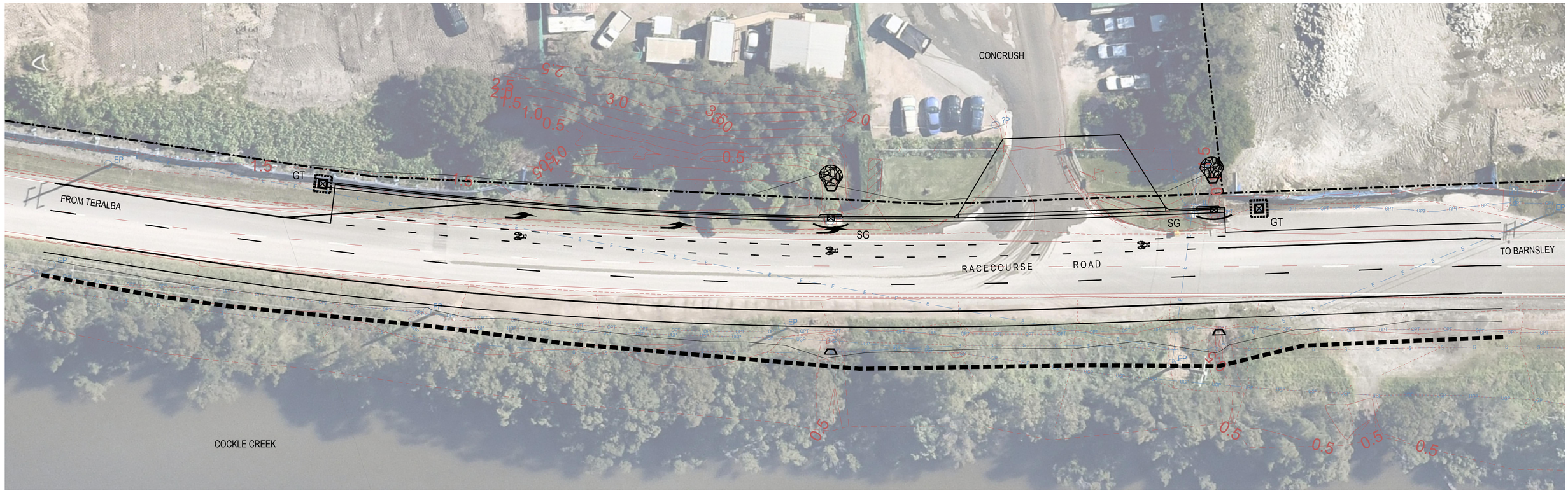
TITLE
CONSTRUCTION NOTES

DOCUMENT STATUS: FOR APPROVAL
SHEET SIZE: A3

DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	N.T.S

DOCUMENT No.: 16015-LD-DR-C-10001
REVISION: P03

PROJECT NORTH



SOIL & WATER MANAGEMENT PLAN

SCALE 1:500

LEGEND

- 1.0 — EXISTING CONTOUR
- GT — GEOTEXTILE DROP INLET PIT, REFER TO DRAWING 16015-LD-DR-C-10101 FOR DETAILS
- SG — MESH AND GRAVEL INLET, REFER TO DRAWING 16015-LD-DR-C-10101 FOR DETAILS
- TEMPORARY CULVERT ENTRY SEDIMENT TRAP, REFER TO DRAWING 16015-LD-DR-C-10101 FOR DETAILS
- SILT FENCE WITH MULCH BUND REFER TO DRAWING 16015-LD-DR-C-10101 FOR DETAILS
- E — EXISTING ELECTRICAL SERVICE
- OPT — EXISTING OPTICAL FIBRE SERVICE
- S — EXISTING SEWER SERVICE
- UGP — EXISTING UNDERGROUND POWER SERVICE
- BOUNDARY LINE
- / — EXISTING FENCE

NOTES

ALL INVESTIGATIONS AND WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CURRENT TFNSW QA SPECIFICATIONS, LAKE MACQUARIE CITY COUNCIL ENGINEERING GUIDELINES AND AUSTRALIAN STANDARDS UNLESS OTHERWISE STATED.

THE ARRANGEMENT OF SOIL & WATER MANAGEMENT MEASURES SHOWN ARE INDICATIVE ONLY AND RELATE TO A PARTICULAR STAGE OF THE CONSTRUCTION WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DESIGN, CONSTRUCT AND MAINTAIN ANY ADDITIONAL MEASURES THAT MAY BE REQUIRED TO SUPPORT THE CONTRACTOR'S CONSTRUCTION METHODOLOGIES, IN ORDER TO MEET ALL CONDITIONS AND REQUIREMENTS IMPOSED BY ANY STATUTORY AUTHORITY.

CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.

EXISTING CONTOURS ARE SHOWN AT 0.2m INTERVALS.

FOR SOIL AND WATER MANAGEMENT AND NOTES REFER TO DRAWING 16015-LD-DR-C-10102.

Lindsay Dynan

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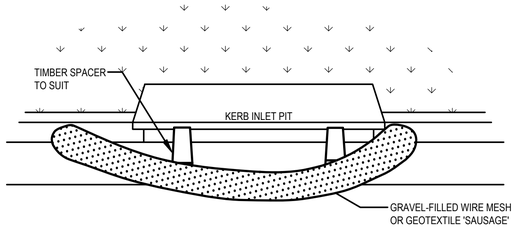
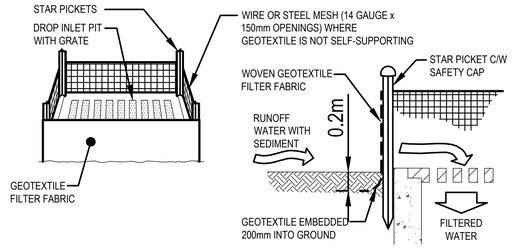


CONSTRUCTION NOTES:

1. INSTALL FILTERS TO KERB INLETS ONLY AT SAG POINTS.
2. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH X 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
5. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
6. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY FIRMLY ABUT EACH OTHER AND SEDIMENT - LADEN WATERS CANNOT PASS BETWEEN.

MESH AND GRAVEL INLET DETAIL - SG

N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-11 MESH AND GRAVEL INLET FILTER

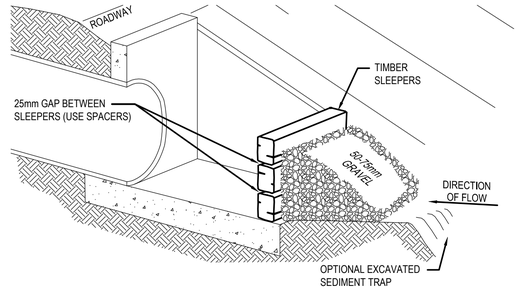


CONSTRUCTION NOTES:

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW BLUE BOOK STANDARD DRAWING 6-7 AND BLUE BOOK STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING
4. DO NOT COVER INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

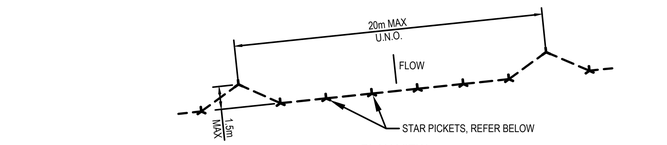
GEOTEXTILE DROP INLET PIT FILTER DETAIL - GT

N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-12 GEOTEXTILE INLET FILTER

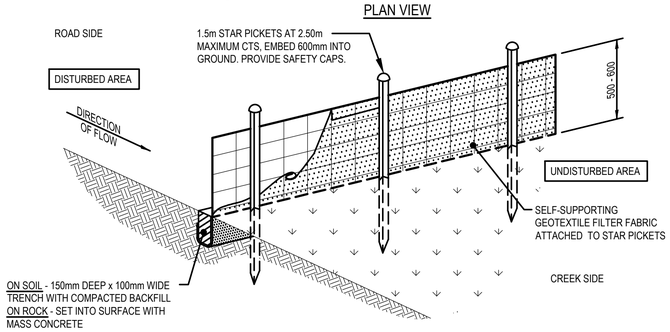


CULVERT ENTRY SEDIMENT TRAP DETAIL

N.T.S.



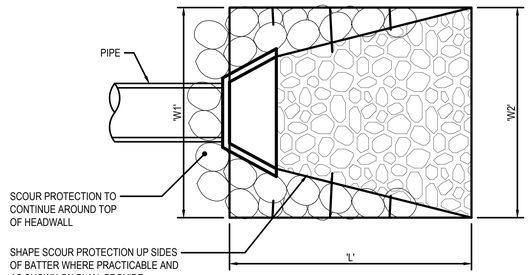
PLAN VIEW



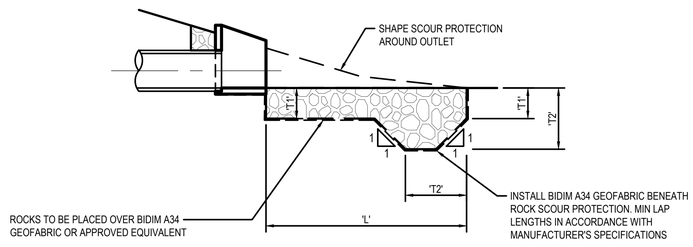
SILT FENCE WITH MULCH BUND DETAIL

N.T.S.
IN ACCORDANCE WITH LANDCOM 'BLUE BOOK'
SD6-8 SEDIMENT FENCE

NOTE: INSTALL SILT FENCE WITH CLEAN MULCH BUND 0.4m (H) x 0.6m (W) AT BASE. PLACE THE MULCH BUND ON THE ROAD SIDE OF THE SILT FENCE



PLAN



ELEVATION

ROCK SCOUR PROTECTION HEADWALL DETAIL

N.T.S.

HEADWALL SCOUR PROTECTION SCHEDULE							
HEADWALL	T1	T2	ROCK SIZES		L (m)	W1 (m)	W2 (m)
			D_{50}	D_{10}			
OUTLET	350	-	200	100	3.0	2.0	2.0
INLET	350	-	200	100	3.0	2.0	2.0
NOTE: LENGTH AND WIDTH DIMENSIONS SHOWN IN THE TABLE ARE MINIMUM DIMENSIONS AND DO NOT TAKE INTO ACCOUNT ADDITIONAL SHAPING THAT MAY BE REQUIRED AT EACH LOCATION. ALL AREAS OF SCOUR PROTECTION ARE TO BE SHAPED AS SHOWN ON THE PLANS.							

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PLOTTED: 14/02/2022 9:20 AM

GENERAL

1. ESCP REFERS TO EROSION AND SEDIMENT CONTROL PLAN OR A SOIL AND WATER MANAGEMENT PLAN (SWMP).
2. ESC REFERS TO EROSION AND SEDIMENT CONTROL.
3. SEDIMENT, INCLUDES, BUT IS NOT LIMITED TO, CLAY, SILT, SAND, GRAVEL, SOIL, MUD, CEMENT, AND CERAMIC WASTE.
4. ANY REFERENCE TO THE BLUE BOOK REFERS TO MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION. LANDCOM, 2004.
5. ANY REFERENCE TO THE IECA WHITE BOOKS (2008) REFERS TO IECA 2008. BEST PRACTICE EROSION AND SEDIMENT CONTROL. BOOKS 1-6.INTERNATIONAL EROSION CONTROL ASSOCIATION (AUSTRALASIA). PICTON NSW.
6. ANY MATERIAL DEPOSITED IN ANY CONSERVATION AREA FROM WORKS ASSOCIATED WITH THE DEVELOPMENT SHALL BE REMOVED IMMEDIATELY BY MEASURES INVOLVING MINIMAL GROUND AND/OR VEGETATION DISTURBANCE AND NO MACHINERY, OR FOLLOWING DIRECTIONS BY COUNCIL AND/OR WITHIN A TIMEFRAME ADVISED BY COUNCIL.

THE ESCP

7. THE ESCP AND ITS ASSOCIATED ESC MEASURES SHALL BE CONSTANTLY MONITORED, REVIEWED, AND MODIFIED AS REQUIRED TO CORRECT DEFICIENCIES. COUNCIL HAS THE RIGHT TO DIRECT CHANGES IF, IN ITS OPINION, THE MEASURES THAT ARE PROPOSED OR HAVE BEEN INSTALLED ARE INADEQUATE TO PREVENT POLLUTION.
8. PRIOR TO ANY ACTIVITIES ONSITE, THE RESPONSIBLE PERSON(S) IS TO BE NOMINATED. THE RESPONSIBLE PERSON(S) SHALL BE RESPONSIBLE FOR THE ESC MEASURES ONSITE. THE NAME, ADDRESS AND 24 HOUR CONTACT DETAILS OF THE PERSON(S) SHALL BE PROVIDED TO COUNCIL IN WRITING. COUNCIL SHALL BE ADVISED WITHIN 48 HOURS OF ANY CHANGES TO THE RESPONSIBLE PERSON(S), OR THEIR CONTACT DETAILS, IN WRITING.
9. AT LEAST 14 DAYS BEFORE THE NATURAL SURFACE IS DISTURBED IN ANY NEW STAGE, THE CONTRACTOR SHALL SUBMIT TO THE CERTIFIER, A PLAN SHOWING ESC MEASURES FOR THAT STAGE. THE DEGREE OF DESIGN DETAIL SHALL BE BASED ON THE DISTURBED AREA.
10. AT ANY TIME DURING CONSTRUCTION, THE ESC MEASURES ONSITE SHALL BE APPROPRIATE FOR THE AREA OF DISTURBANCE AND ITS CHARACTERISTICS INCLUDING SOILS (IN ACCORDANCE WITH THOSE REQUIRED FOR THE SITE AS PER DCP).
11. THE IMPLEMENTATION OF THE ESCP SHALL BE SUPERVISED BY PERSONNEL WITH APPROPRIATE QUALIFICATIONS AND/OR EXPERIENCE IN ESC ON CONSTRUCTION SITES.
12. THE APPROVED ESCP SHALL BE AVAILABLE ON-SITE FOR INSPECTION BY COUNCIL OFFICERS WHILE WORK ACTIVITIES ARE OCCURRING.
13. THE APPROVED ESCP SHALL BE UP TO DATE AND SHOW A TIMELINE OF INSTALLATION, MAINTENANCE AND REMOVAL OF ESC MEASURES.
14. ALL ESC MEASURES SHALL BE APPROPRIATE FOR THE SEDIMENT TYPE(S) OF THE SOILS ONSITE, IN ACCORDANCE WITH THE BLUE BOOK, IECA WHITE BOOKS OR OTHER CURRENT RECOGNISED INDUSTRY STANDARD FOR ESC FOR AUSTRALIAN CONDITIONS.
15. ADEQUATE SITE DATA, INCLUDING SOIL DATA FROM A NATA APPROVED LABORATORY, SHALL BE OBTAINED TO ALLOW THE PREPARATION OF AN APPROPRIATE ESCP, AND ALLOW THE SELECTION, DESIGN AND SPECIFICATION OF REQUIRED ESC MEASURES.
16. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE APPROVED ESCP (AS AMENDED FROM TIME TO TIME) UNLESS CIRCUMSTANCES ARISE WHERE:
    a) COMPLIANCE WITH THE ESCP WOULD INCREASE THE POTENTIAL FOR ENVIRONMENTAL HARM; OR
    b) CIRCUMSTANCES CHANGE DURING CONSTRUCTION AND THOSE CIRCUMSTANCES COULD NOT HAVE BEEN FORESEEN; OR
    c) COUNCIL DETERMINES THAT UNACCEPTABLE OFF-SITE SEDIMENTATION IS OCCURRING AS A RESULT OF A LAND-DISTURBING ACTIVITY. IN EITHER CASE, THE PERSON(S) RESPONSIBLE MAY BE REQUIRED TO TAKE ADDITIONAL, OR ALTERNATIVE PROTECTIVE ACTION, AND/OR UNDERTAKE REASONABLE RESTORATION WORKS WITHIN THE TIMEFRAME SPECIFIED BY THE COUNCIL.
17. ADDITIONAL ESC MEASURES SHALL BE IMPLEMENTED, AND A REVISED ESCP SUBMITTED FOR APPROVAL TO THE CERTIFIER (WITHIN FIVE BUSINESS DAYS OF ANY SUCH AMENDMENTS) IN THE EVENT THAT:
    a) THERE IS A HIGH PROBABILITY THAT SERIOUS OR MATERIAL ENVIRONMENTAL HARM MAY OCCUR AS A RESULT OF SEDIMENT LEAVING THE SITE; OR
    b) THE IMPLEMENTED WORKS FAIL TO ACHIEVE COUNCIL'S WATER QUALITY OBJECTIVES SPECIFIED IN THESE CONDITIONS; OR
    c) SITE CONDITIONS SIGNIFICANTLY CHANGE; OR
    d) SITE INSPECTIONS INDICATE THAT THE IMPLEMENTED WORKS ARE FAILING TO ACHIEVE THE "OBJECTIVE" OF THE ESCP.
18. A COPY OF ANY AMENDED ESCP SHALL BE FORWARDED TO AN APPROPRIATE COUNCIL OFFICER, WITHIN FIVE BUSINESS DAYS OF ANY SUCH AMENDMENTS.

SITE ESTABLISHMENT INCLUDING CLEARING AND MULCHING

19. NO LAND CLEARING SHALL BE UNDERTAKEN UNLESS PRECEDED BY THE INSTALLATION OF ADEQUATE DRAINAGE AND SEDIMENT CONTROL MEASURES, UNLESS SUCH CLEARING IS REQUIRED FOR THE PURPOSE OF INSTALLING SUCH MEASURES, IN WHICH CASE, ONLY THE MINIMUM CLEARING REQUIRED TO INSTALL SUCH MEASURES SHALL OCCUR.
20. BULK TREE CLEARING AND GRUBBING OF THE SITE SHALL BE IMMEDIATELY FOLLOWED BY SPECIFIED TEMPORARY EROSION CONTROL MEASURES (E.G. TEMPORARY GRASSING OR MULCHING) PRIOR TO COMMENCEMENT OF EACH STAGE OF CONSTRUCTION WORKS.
21. TREES AND VEGETATION CLEARED FROM THE SITE SHALL BE MULCHED ONSITE WITHIN 7 DAYS OF CLEARING.
22. APPROPRIATE MEASURES SHALL BE UNDERTAKEN TO CONTROL ANY DUST ORIGINATING DUE TO THE MULCHING OF VEGETATION ONSITE.
23. ALL OFFICE FACILITIES AND OPERATIONAL ACTIVITIES SHALL BE LOCATED SUCH THAT ANY EFFLUENT, INCLUDING WASH-DOWN WATER, CAN BE TOTALLY CONTAINED AND TREATED WITHIN THE SITE.
24. ALL REASONABLE AND PRACTICABLE MEASURES SHALL BE TAKEN TO ENSURE STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT SYSTEMS, DRAINS TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.
25. SITE EXIT POINTS SHALL BE APPROPRIATELY MANAGED TO MINIMISE THE RISK OF SEDIMENT BEING TRACKED ONTO SEALED, PUBLIC ROADWAYS.
26. STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT POINTS SHALL DRAIN TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.
27. THE APPLICANT SHALL ENSURE AN ADEQUATE SUPPLY OF ESC, AND APPROPRIATE POLLUTION CLEAN-UP MATERIALS ARE AVAILABLE ON-SITE AT ALL TIMES.
28. ALL TEMPORARY EARTH BANKS, FLOW DIVERSION SYSTEMS, AND SEDIMENT BASIN EMBANKMENTS SHALL BE MACHINE-COMPACTED, SEEDED AND MULCHED WITHIN TEN (10) DAYS OF FORMATION FOR THE PURPOSE OF ESTABLISHING A VEGETATIVE COVER, OR LINED APPROPRIATELY.
29. SEDIMENT DEPOSITED OFF SITE AS A RESULT OF ON-SITE ACTIVITIES SHALL BE COLLECTED AND THE AREA CLEANED/REHABILITATED AS SOON AS REASONABLE AND PRACTICABLE.
30. CONCRETE WASTE AND CHEMICAL PRODUCTS, INCLUDING PETROLEUM AND OIL-BASED PRODUCTS, SHALL BE PREVENTED FROM ENTERING ANY INTERNAL OR EXTERNAL WATER BODY, OR ANY EXTERNAL DRAINAGE SYSTEM, EXCLUDING THOSE ON-SITE WATER BODIES SPECIFICALLY DESIGNED TO CONTAIN AND/OR TREAT SUCH MATERIAL. APPROPRIATE MEASURES SHALL BE INSTALLED TO TRAP THESE MATERIALS ONSITE.
31. BRICK, TILE OR MASONRY CUTTING SHALL BE CARRIED OUT ON A PERVIOUS SURFACE (E.G. GRASS OR OPEN SOIL) AND IN SUCH A MANNER THAT ANY RESULTING SEDIMENT-LADEN RUNOFF IS PREVENTED FROM DISCHARGING INTO A GUTTER, DRAIN OR WATER. APPROPRIATE MEASURES SHALL BE INSTALLED TO TRAP THESE MATERIALS ONSITE.
32. NEWLY SEALED HARD-STAND AREAS (E.G. ROADS, DRIVEWAYS AND CAR PARKS) SHALL BE SWEPT THOROUGHLY AS SOON AS PRACTICABLE AFTER SEALING/SURFACING TO MINIMISE THE RISK OF COMPONENTS OF THE SURFACING COMPOUND ENTERING STORMWATER DRAINS.
33. STOCKPILES OF ERODIBLE MATERIAL SHALL BE PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC OR ORGANIC) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 10 DAYS.
34. STOCKPILES, TEMPORARY OR PERMANENT, SHALL NOT BE LOCATED IN AREAS IDENTIFIED AS NO-GO ZONES (INCLUDING, BUT NOT LIMITED TO, RESTRICTED ACCESS AREAS, BUFFER ZONES, OR AREAS OF NON-DISTURBANCE) ON THE ESCP.
35. NO MORE THAN 150m OF A STORMWATER, SEWER LINE OR OTHER SERVICE TRENCH SHALL TO BE OPEN AT ANY ONE TIME.
36. SITE SPOIL SHALL BE LAWFULLY DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
37. WHEREVER REASONABLE AND PRACTICABLE, STORMWATER RUNOFF ENTERING THE SITE FROM EXTERNAL AREAS, AND NON-SEDIMENT LADEN (CLEAN) STORMWATER RUNOFF ENTERING A WORK AREA OR AREA OF SOIL DISTURBANCE, SHALL BE DIVERTED AROUND OR THROUGH THAT AREA IN A MANNER THAT MINIMISES SOIL EROSION AND THE CONTAMINATION OF THAT WATER FOR ALL DISCHARGES UP TO THE SPECIFIED DESIGN STORM DISCHARGE.

SITE MANAGEMENT INCLUDING DUST

38. PRIORITY SHALL BE GIVEN TO THE PREVENTION, OR AT LEAST THE MINIMISATION, OF SOIL EROSION, RATHER THAN THE TRAPPING OF DISPLACED SEDIMENT. SUCH A CLAUSE SHALL NOT REDUCE THE RESPONSIBILITY TO APPLY AND MAINTAIN, AT ALL TIMES, ALL NECESSARY ESC MEASURES.
39. MEASURES USED TO CONTROL WIND EROSION SHALL BE APPROPRIATE FOR THE LOCATION AND PREVENT SOIL EROSION AT ALL TIMES, INCLUDING WORKING HOURS, OUT OF HOURS, WEEKENDS, PUBLIC HOLIDAYS, AND DURING ANY OTHER SHUTDOWN PERIODS.
40. THE APPLICATION OF LIQUID OR CHEMICAL-BASED DUST SUPPRESSION MEASURES SHALL ENSURE THAT SEDIMENT-LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD.
41. ALL CUT AND FILL EARTH BATTERS LESS THAN 3m IN ELEVATION SHALL BE TOPSOILED, AND GRASS SEEDED/HYDROMULCHED WITHIN 10 DAYS OF COMPLETION OF GRADING IN CONSULTATION WITH COUNCIL.
42. ONCE CUT/FILL OPERATIONS HAVE BEEN FINALISED IN A SECTION, ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE STABILISED IN ACCORDANCE WITH TIME LINES IN THE BLUE BOOK.
43. ALL REASONABLE AND PRACTICABLE MEASURES SHALL BE TAKEN TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT FROM THE SITE.
44. SUITABLE ALL-WEATHER MAINTENANCE ACCESS SHALL BE PROVIDED TO ALL SEDIMENT CONTROL DEVICES.
45. SEDIMENT CONTROL DEVICES, OTHER THAN SEDIMENT BASINS, SHALL BE DE-SILTED AND MADE FULLY OPERATIONAL AS SOON AS REASONABLE AND PRACTICABLE AFTER A SEDIMENT-PRODUCING EVENT, WHETHER NATURAL OR ARTIFICIAL, IF THE DEVICE'S SEDIMENT RETENTION CAPACITY FALLS BELOW 75% OF ITS DESIGN RETENTION CAPACITY.
46. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, SHALL BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THEIR OPERATIONAL LIVES.
47. WASHING/FLUSHING OF SEALED ROADWAYS SHALL ONLY OCCUR WHERE SWEEPING HAS FAILED TO REMOVE SUFFICIENT SEDIMENT AND THERE IS A COMPELLING NEED TO REMOVE THE REMAINING SEDIMENT (E.G. FOR SAFETY REASONS). IN SUCH CIRCUMSTANCES, ALL REASONABLE AND PRACTICABLE SEDIMENT CONTROL MEASURES SHALL BE USED TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT INTO RECEIVING WATERS. ONLY THOSE MEASURES THAT WILL NOT CAUSE SAFETY AND PROPERTY FLOODING ISSUES SHALL BE EMPLOYED. SEDIMENT REMOVED FROM ROADWAYS SHALL BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
48. SEDIMENT REMOVED FROM SEDIMENT TRAPS AND PLACES OF SEDIMENT DEPOSITION SHALL BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.

SEDIMENT BASINS - INSTALLATION, MAINTENANCE AND REMOVAL INCLUDING SEDIMENT TRAPS

49. AS-CONSTRUCTED PLANS SHALL BE PREPARED FOR ALL CONSTRUCTED SEDIMENT BASINS AND ASSOCIATED EMERGENCY SPILLWAYS. SUCH PLANS SHALL VERIFY THE BASIN'S DIMENSIONS, LEVELS AND VOLUMES COMPLY WITH THE APPROVED DESIGN DRAWINGS. THESE PLANS MAY BE REQUESTED BY THE CERTIFIER OR COUNCIL.
50. SEDIMENT BASINS SHALL BE CONSTRUCTED AND FULLY OPERATIONAL PRIOR TO ANY OTHER SOIL DISTURBANCE IN THEIR CATCHMENT.
51. INSTALL AN INTERNAL GATED VALVE, OR SIMILAR, IN ANY OUTLET PIPE ONCE PIPES INSTALLED, OR INSTALL A SACRIFICIAL PIPE FROM BASIN THROUGH WALL TO EXTERNAL OUTLET POINT. THE VALVE SHALL BE CONNECTED TO A RISER MADE FROM SLOTTED PIPE IN THE BASIN. THE VALVE MAY BE OPENED ONCE CAPTURED WATER MEETS WATER QUALITY REQUIREMENTS. THE FINAL SETUP FOR TEMPORARY INTERNAL OUTLET STRUCTURES TO BE CONFIRMED PRIOR TO CONSTRUCTION WITH COUNCIL. THIS SETUP WILL ENABLE DISCHARGE OF TREATED WATER FROM SITE WITHOUT NEED FOR PUMPING.
52. A SEDIMENT STORAGE LEVEL MARKER POST SHALL BE WITH A CROSS MEMBER SET JUST BELOW THE TOP OF THE SEDIMENT STORAGE ZONE (AS SPECIFIED ON THE APPROVED ESCP). AT LEAST A 75mm WIDE POST SHALL BE FIRMLY SET INTO THE BASIN FLOOR.
53. THE SITE MANAGER SHALL OBTAIN THE RELEVANT APPROVALS FROM THE RELEVANT ORGANISATIONS TO DISCHARGE TREATED WATER FROM ANY EXISTING BASINS. ORGANISATIONS MAY INCLUDE, BUT NOT BE LIMITED TO, HUNTER WATER, AND COUNCIL.
54. WHERE MORE THAN ONE STAGE IS TO BE DEVELOPED AT ONE TIME, OR BEFORE THE PRECEDING STAGE IS COMPLETE, THE SEDIMENT BASIN(S) FOR THESE STAGES SHALL HAVE SUFFICIENT CAPACITY TO CATER FOR ALL AREA DIRECTED TO THE BASIN(S).
55. PRIOR TO ANY FORECAST WEATHER EVENT LIKELY TO RESULT IN RUNOFF, ANY BASINS/TRAPS SHALL BE DEWATERED TO PROVIDE SUFFICIENT CAPACITY TO CAPTURE SEDIMENT LADEN WATER FROM THE SITE.
56. SUFFICIENT QUANTITIES OF CHEMICALS/AGENTS TO TREAT CAPTURED WATER SHALL BE PLACED SUCH THAT WATER ENTERING THE BASIN MIXES WITH THE CHEMICAL/AGENTS AND IS CARRIED INTO THE BASIN TO SPEED UP CLARIFICATION.
57. ANY BASIN SHALL BE DEWATERED WITHIN THE X-DAY RAINFALL DEPTH USED TO CALCULATE THE CAPACITY OF THE BASIN, AFTER A RAINFALL EVENT.
58. SUFFICIENT QUANTITIES OF CHEMICALS/AGENTS TO TREAT TURBID WATER SHALL BE SECURELY STORED ON-SITE TO PROVIDE FOR AT LEAST THREE COMPLETE TREATMENTS OF ALL BASINS REQUIRING CHEMICALLY TREATMENT ONSITE.
59. PRIOR TO THE CONTROLLED DISCHARGE (E.G. DE-WATERING ACTIVITIES) FROM EXCAVATIONS AND/OR SEDIMENT BASINS, THE FOLLOWING WATER QUALITY OBJECTIVES SHALL BE ACHIEVED:
    a) TOTAL SUSPENDED SOLIDS (TSS) TO A MAXIMUM 50mg/L;
    b) WATER PH BETWEEN 6.5 AND 8.5, UNLESS OTHERWISE REQUIRED BY THE COUNCIL;
    c) TURBIDITY (MEASURED IN NTUS) TO A MAXIMUM OF 60 NTU); AND
    d) EC LEVELS NO GREATER THAN BACKGROUND LEVELS.
60. THE DEVELOPMENT APPROVAL MAY REQUIRE TESTING OF ADDITIONAL WATER QUALITY ELEMENTS PRIOR TO DISCHARGE. E.G. HEAVY METALS.
61. A SAMPLE OF THE RELEASED TREATED WATER SHALL BE KEPT ONSITE IN A CLEAR CONTAINER WITH THE SAMPLE DATE RECORDED ON IT.
62. WATER QUALITY SAMPLES SHALL BE TAKEN AT A DEPTH NO LESS THAN 200MM BELOW THE WATER SURFACE OF THE BASIN.
63. NO ALUMINIUM BASED PRODUCTS MAY BE USED TREAT CAPTURED WATER ONSITE WITHOUT THE PRIOR WRITTEN PERMISSION FROM AN APPROPRIATE COUNCIL OFFICER. THE APPLICANT SHALL HAVE A DEMONSTRATED ABILITY TO USE SUCH PRODUCTS CORRECTLY AND WITHOUT ENVIRONMENTAL HARM PRIOR TO ANY APPROVAL.
64. THE CHEMICAL/AGENT USED IN TYPE D AND TYPE F BASINS TO TREAT CAPTURED WATER CAPTURED IN THE BASIN SHALL BE APPLIED IN CONCENTRATIONS SUFFICIENT TO ACHIEVE COUNCIL'S WATER QUALITY OBJECTIVES WITHIN THE X-DAY RAINFALL DEPTH USED TO CALCULATE THE CAPACITY OF THE BASIN, AFTER A RAINFALL EVENT.
65. ALL MANUFACTURERS' INSTRUCTIONS SHALL BE FOLLOWED FOR ANY CHEMICALS/AGENTS USED ONSITE, EXCEPT WHERE APPROVED BY THE RESPONSIBLE PERSON OR AN APPROPRIATE COUNCIL OFFICER.
66. THE APPLICANT SHALL ENSURE THAT ON EACH OCCASION A TYPE F OR TYPE D BASIN WAS NOT DE-WATERED PRIOR TO BEING SURCHARGED BY A FOLLOWING RAINFALL EVENT, A REPORT IS PRESENTED TO AN APPROPRIATE COUNCIL OFFICER WITHIN 5 DAYS IDENTIFYING THE CIRCUMSTANCES AND PROPOSED AMENDMENTS, IF ANY, TO THE BASIN'S OPERATING PROCEDURES.
67. SETTLED SEDIMENT SHALL BE REMOVED AS SOON AS REASONABLE AND PRACTICABLE FROM ANY SEDIMENT BASIN IF:
    a) IT IS ANTICIPATED THAT THE NEXT STORM EVENT IS LIKELY TO CAUSE SEDIMENT TO SETTLE ABOVE THE BASIN'S SEDIMENT STORAGE ZONE; OR
    b) THE ELEVATION OF SETTLED SEDIMENT IS ABOVE THE TOP OF THE BASIN'S SEDIMENT STORAGE ZONE; OR
    c) THE ELEVATION OF SETTLED SEDIMENT IS ABOVE THE BASINS SEDIMENT MARKER LINE.
68. SCOUR PROTECTION MEASURES PLACED ON SEDIMENT BASIN EMERGENCY SPILLWAYS SHALL APPROPRIATELY PROTECT THE SPILLWAY CHUTE AND ITS SIDE BATTERS FROM SCOUR, AND SHALL EXTEND A MINIMUM OF 3M BEYOND THE DOWNSTREAM TOE OF THE BASIN'S EMBANKMENT.
69. SUITABLE ALL-WEATHER MAINTENANCE ACCESS SHALL BE PROVIDED TO ALL SEDIMENT CONTROL DEVICES.
70. MATERIALS, WHETHER LIQUID OR SOLID, REMOVED FROM ANY ESC MEASURES DURING MAINTENANCE OR DECOMMISSIONING, SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
71. ALL SEDIMENT BASINS SHALL REMAIN FULLY OPERATIONAL AT ALL TIMES UNTIL THE BASIN'S DESIGN CATCHMENT ACHIEVES 70% GROUND COVER OR SURFACE STABILISATION ACCEPTABLE TO COUNCIL.
72. THE ESC MEASURES INSTALLED DURING THE DECOMMISSIONING AND REHABILITATION OF A SEDIMENT BASIN SHALL COMPLY WITH SAME STANDARDS SPECIFIED FOR THE NORMAL CONSTRUCTION WORKS.
73. A SEDIMENT BASIN SHALL NOT BE DECOMMISSIONED UNTIL ALL UP-SLOPE SITE STABILISATION MEASURES HAVE BEEN IMPLEMENTED AND ARE APPROPRIATELY WORKING TO CONTROL SOIL EROSION AND SEDIMENT RUNOFF.
74. IMMEDIATELY PRIOR TO THE CONSTRUCTION OF THE PERMANENT STORMWATER TREATMENT DEVICE, APPROPRIATE FLOW BYPASS CONDITIONS SHALL BE ESTABLISHED TO PREVENT SEDIMENT-LADEN WATER ENTERING THE DEVICE.

REVEGETATION/ STABILISATION

75. TEMPORARY STABILISATION MAY BE ATTAINED USING VEGETATION, NON REWETTABLE SOIL POLYMERS, OR PNEUMATICALLY APPLIED EROSION CONTROLS.
76. ALL CUT AND FILL EARTH BATTERS LESS THAN 3m IN ELEVATION SHALL BE TOPSOILED, AND GRASS SEEDED/HYDROMULCHED WITHIN 10 DAYS OF COMPLETION OF GRADING IN CONSULTATION WITH COUNCIL.
77. ONCE CUT/FILL OPERATIONS HAVE BEEN FINALISED IN A SECTION, ALL DISTURBED AREAS THAT ARE NOT BEING WORKED ON SHALL BE STABILISED IN ACCORDANCE WITH TIME LINES IN THE BLUE BOOK.
78. THE LMCC SEED MIX SHALL BE USED UNLESS STATED ON THE ESCP/SWMP.
79. THE PH LEVEL OF TOPSOIL SHALL BE APPROPRIATE TO ENABLE ESTABLISHMENT AND GROWTH OF SPECIFIED VEGETATION PRIOR TO INITIATING THE ESTABLISHMENT OF VEGETATION.
80. NON REWETTABLE BINDER SHALL BE USED IN ALL HYDROMULCH/ HYDROSEED/ POLYMER MIXES ON SLOPES OR WORKS ADJACENT TO A WATER COURSE.
81. SOIL AMELIORANTS SHALL BE ADDED TO THE SOIL IN ACCORDANCE WITH AN APPROVED LANDSCAPE PLAN, VEGETATION MANAGEMENT PLAN, AND/OR SOIL ANALYSIS.
82. SURFACE SOIL DENSITY, COMPACTION AND SURFACE ROUGHNESS SHALL BE ADJUSTED PRIOR TO SEEDING/PLANTING IN ACCORDANCE WITH AN APPROVED LANDSCAPE PLAN, VEGETATION MANAGEMENT PLAN, AND/OR SOIL ANALYSIS.
83. PROCEDURES FOR INITIATING A SITE SHUTDOWN, WHETHER PROGRAMMED OR UN-PROGRAMMED, SHALL INCORPORATE REVEGETATION OF ALL SOIL DISTURBANCES UNLESS OTHERWISE APPROVED BY COUNCIL. THE STABILISATION WORKS SHALL NOT RELY UPON THE LONGEVITY OF NON-VEGETATED EROSION CONTROL BLANKETS, OR TEMPORARY SOIL BINDERS.

SITE MONITORING AND MAINTENANCE

84. THE APPLICANT SHALL ENSURE THAT APPROPRIATE PROCEDURES AND SUITABLY QUALIFIED PERSONNEL ARE ENGAGED TO PLAN AND CONDUCT SITE INSPECTIONS AND WATER QUALITY MONITORING THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PHASE.
85. ALL ESC MEASURES SHALL BE INSPECTED AND ANY MAINTENANCE UNDERTAKEN IMMEDIATELY:
    a) AT LEAST DAILY (WHEN WORK IS OCCURRING ON-SITE); AND
    b) AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON-SITE); AND
    c) WITHIN 24HRS OF EXPECTED RAINFALL; AND
    d) WITHIN 18HRS OF A RAINFALL EVENT THAT CAUSES RUNOFF ON THE SITE.
86. WRITTEN RECORDS SHALL BE KEPT ONSITE OF ESC MONITORING AND MAINTENANCE ACTIVITIES CONDUCTED DURING THE CONSTRUCTION AND MAINTENANCE PERIODS, AND BE AVAILABLE TO COUNCIL OFFICERS ON REQUEST.
87. ALL ENVIRONMENTALLY RELEVANT INCIDENTS SHALL BE RECORDED IN A FIELD LOG THAT SHALL REMAIN ACCESSIBLE TO ALL RELEVANT REGULATORY AUTHORITIES.
88. ALL WATER QUALITY DATA, INCLUDING DATES OF RAINFALL, DATES OF TESTING, TESTING RESULTS AND DATES OF WATER RELEASE, SHALL BE KEPT IN AN ON-SITE REGISTER. THE REGISTER IS TO BE MAINTAINED UP TO DATE FOR THE DURATION OF THE APPROVED WORKS AND BE AVAILABLE ON-SITE FOR INSPECTION BY [INSERT NAME OF REGULATORY AUTHORITY] ON REQUEST.
89. AT NOMINATED INSTREAM WATER MONITORING SITES, A MINIMUM OF 3 WATER SAMPLES SHALL BE TAKEN AND ANALYSED, AND THE AVERAGE RESULT USED TO DETERMINE QUALITY.

INSTREAM WORKS

90. ALL INSTREAM WORKS (INCLUDING IN OR ADJACENT TO WATERCOURSES NATURAL OR MANMADE, FLOWING OR NOT) SHALL BE CARRIED OUT IN ACCORDANCE WITH THE IECA WHITE BOOKS.

SITE STAGING METHODOLOGY

91. THE INTENDED SITE CONSTRUCTION STAGING IS AS FOLLOWS:
    a) INSTALL SEDIMENT FENCING AS REQUIRED.
    b) CONSTRUCT THE PERMANENT ON-SITE DETENTION BASIN AND OUTLET STRUCTURES TO BE UTILISED AS THE SITE SEDIMENT BASIN. LOW FLOW OUTLET TO BE CAPPED DURING CONSTRUCTION.
    c) INSTALL DIVERSION SWALES TO DIRECT SEDIMENT LADEN WATER TO SEDIMENT BASIN.
    d) CONSTRUCT SITE BENCHING AND ROADWAYS
    e) DE-SILT SEDIMENT BASIN ONCE REQUIRED GROUND COVER IS ACHIEVED
    f) RE-INSTATE BASIN AS ON-SITE DETENTION. LOW FLOW STRUCTURES AND BIO-BASIN FEATURES TO BE FINALISED.

Lindsay Dynan

Sydney | Perth | Newcastle | Central Coast

PROJECT

PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT

CONCRUSH PTY LTD

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y

REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE

SOIL & WATER MANAGEMENT NOTES

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	N.T.S
DOCUMENT No.			REVISION
16015-LD-DR-C-10102			P03

Lindsay Dynan

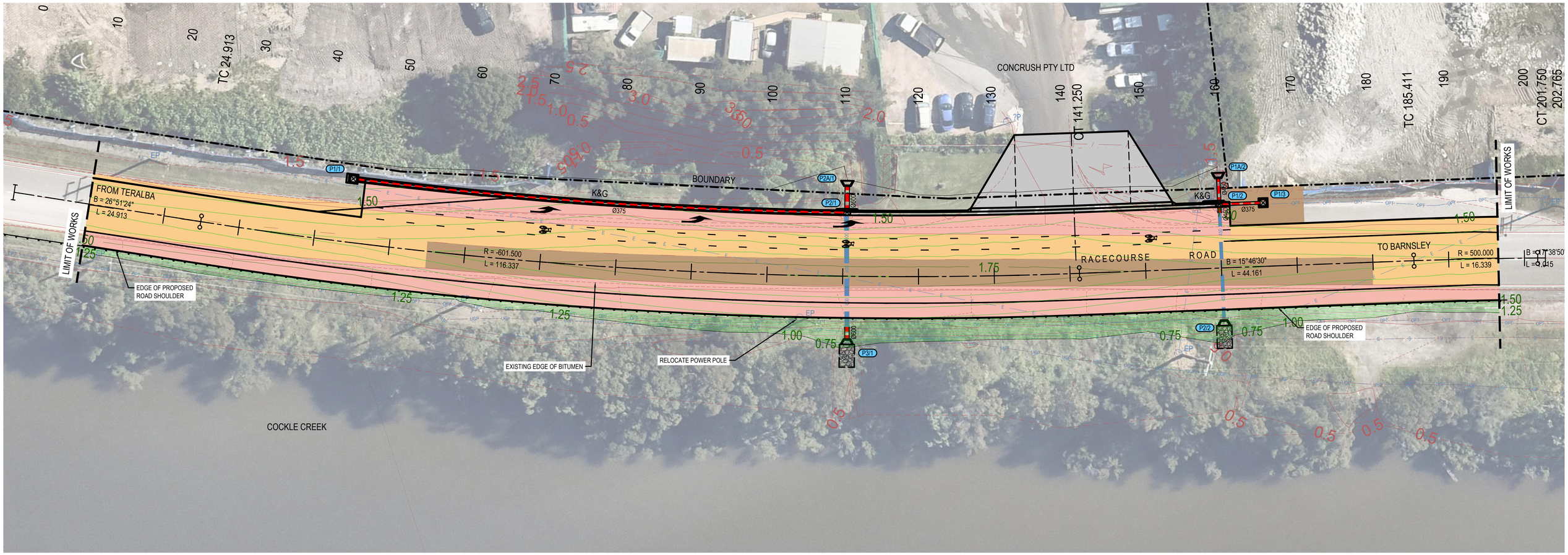
Sydney | Perth | Newcastle | Central Coast

PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT
CONCRUSH PTY LTD

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y

PROJECT NORTH



SAFETY BARRIER DETAILS

INSTALL STEEL RAIL SAFETY BARRIER FROM CH -16.5 TO CH197.8.

COMPONENT	LENGTH (m)	No.
ET-SS TERMINAL	15.48	2
EZY-GUARD SMART	136	-
EZY-GUARD HC	40	-
EZY-GUARD TRANSITION	1.905	4

INSTALL EZY-GUARD HC FOR 10m ON EACH SIDE OF POWER POLES AT CH11.2 AND CH59.4
PLUS TRANSITION TO/FROM EZY-GUARD SMART
TOTAL LENGTH OF BARRIER SYSTEM IS APPROX. 215m.

DETAIL PLAN

SCALE 1:500

LEGEND

- DENOTES NEW FLEXIBLE ROAD PAVEMENT, REFER TO DRAWING 16015-LD-DR-C-10400 FOR DETAILS
- DENOTES NEW CONCRETE DRIVEWAY AND CROSSING (200mm THICK), REFER TO LMCC DRAWING EGSD-104 FOR DETAILS
- DENOTES PAVEMENT MILLING AND ASPHALTIC CONCRETE WEARING COURSE 50mm THICK (AC14)
- ASPHALTIC CONCRETE CORRECTIVE COURSE VARIABLE THICKNESS (INCLUDES ASPHALTIC CONCRETE WEARING COURSE 50mm THICK)
- P1/1 NEW STORMWATER DRAINAGE PIT
- NEW STORMWATER DRAINAGE HEADWALL
- Ø375 NEW RCP STORMWATER DRAINAGE PIPELINE
- SCOUR ROCK PROTECTION, REFER TO DRAWING 16015-LD-DR-C-10101 FOR DETAILS
- K&G STANDARD CONCRETE KERB & GUTTER, REFER TO LMCC FOR DETAILS.
- 1.0 DESIGN CONTOUR (0.1m INTERVALS)
- 1.0 EXISTING CONTOUR (0.5m INTERVALS)
- NEW SAFETY BARRIER
- 450 EXISTING STORMWATER Ø450 PIPE
- 600 EXISTING STORMWATER Ø600 PIPE
- E EXISTING ELECTRICAL SERVICE
- OPT EXISTING OPTICAL FIBRE SERVICE
- S EXISTING SEWER SERVICE
- UGP EXISTING UNDERGROUND POWER SERVICE
- BOUNDARY LINE
- EXISTING FENCE

NOTES

ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CURRENT LAKE MACQUARIE CITY COUNCIL ENGINEERING GUIDELINES AND AUSTRALIAN STANDARDS UNLESS OTHERWISE STATED.

THE POSITION OF ALL EXISTING SERVICES SHOWN SHOULD BE REGARDED AS APPROXIMATE ONLY AND NOT NECESSARILY COMPREHENSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT SERVICE LOCATIONS AND INFORM ALL AUTHORITIES PRIOR TO ANY EXCAVATION.

BENCHMARKS TO BE PROVIDED PRIOR TO COMMENCEMENT OF CONSTRUCTION.

CONTRACTOR TO VERIFY SETOUT BEFORE COMMENCING EARTHWORKS. REFER ANY DISCREPANCIES TO ENGINEER.

INSTALL LINE AND PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS, IN ACCORDANCE WITH TRANSPORT FOR NSW DELINEATION GUIDES.

ALL PROPOSED LINEMARKING TO MAKE SMOOTH CONNECTION WITH EXISTING LINEMARKING.

REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE
DETAIL PLAN

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	1:500
DOCUMENT No.			REVISION
16015-LD-DR-C-10200			P03

Lindsay Dynan

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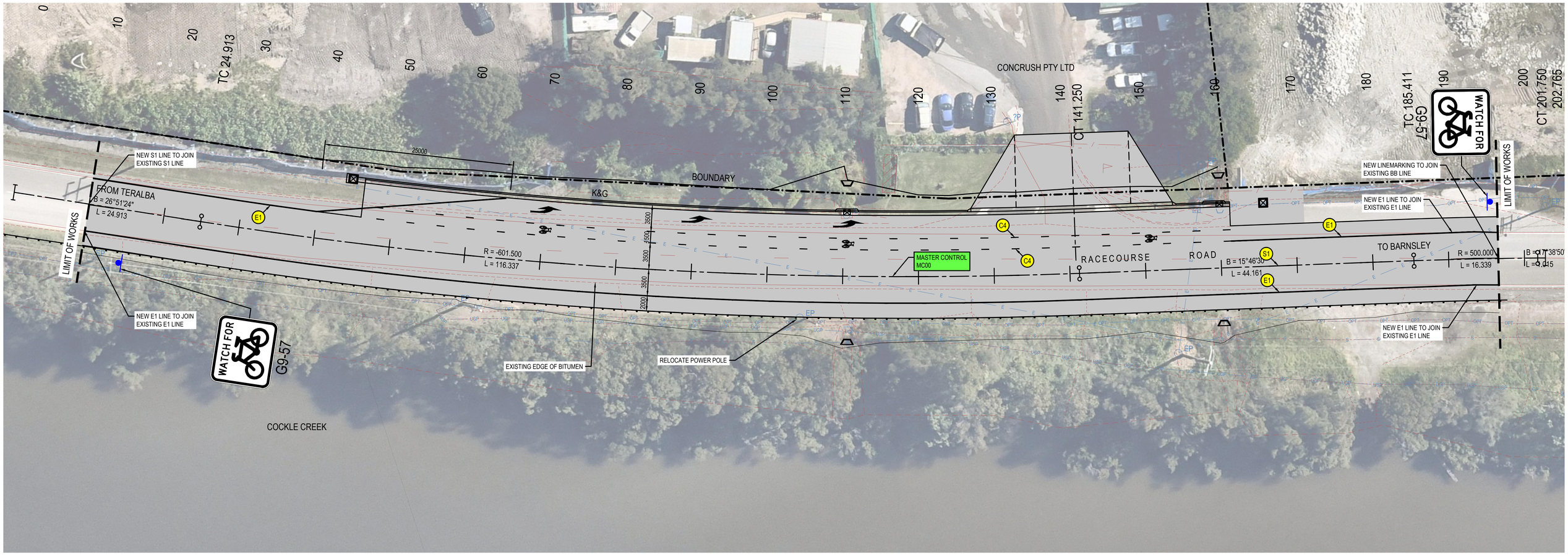
PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT
CONCRUSH PTY LTD

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y

PROJECT NORTH



LINE MARKING & SIGNPOSTING PLAN

SCALE 1:500

LEGEND

S1	ROAD CENTRE LINE
E1	ROAD EDGE LINE
C4	BICYCLE LANE, CONTINITY LINE
	PAVEMENT TURN ARROW
	PAVEMENT SYMBOL TYPIE PS-2
	DENOTES NEW PAVEMENT EXTENT, REFER TO DRAWING 16015-LD-DR-C-10200 FOR DETAILS
	NEW STORMWATER DRAINAGE PIT
	NEW STORMWATER DRAINAGE HEADWALL
K&G	STANDARD CONCRETE KERB & GUTTER, REFER TO LMCC FOR DETAILS
450	EXISTING STORMWATER Ø450 PIPE
600	EXISTING STORMWATER Ø600 PIPE
E	EXISTING ELECTRICAL SERVICE
OPT	EXISTING OPTICAL FIBRE SERVICE
S	EXISTING SEWER SERVICE
UGP	EXISTING UNDERGROUND POWER SERVICE
	BOUNDARY LINE
/	EXISTING FENCE

NOTES

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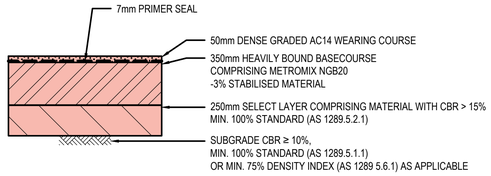
TITLE
LINE MARKING & SIGNPOSTING PLAN

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	1:500
DOCUMENT No.			REVISION
16015-LD-DR-C-10300			P03

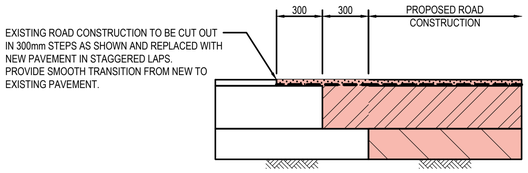
PLOTTED: 14/02/2022 9:22 AM



NEW FLEXIBLE ROAD PAVEMENT PROFILE

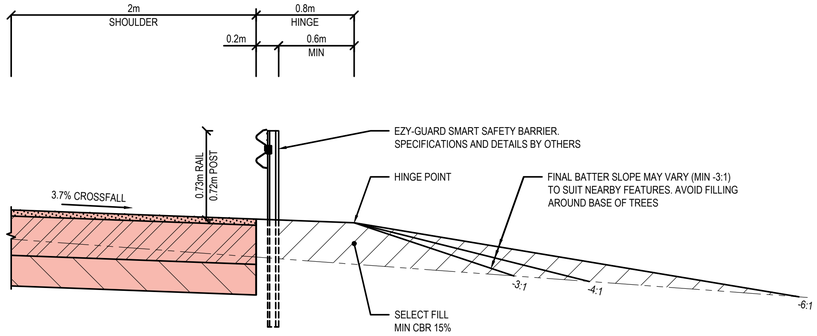
HEAVILY BOUND
SCALE 1:50

NOTE:
PAVEMENT DESIGNS ARE TO BE READ IN CONJUNCTION WITH
GEOTECHNICAL REPORT No. 13589-201-1, PREPARED BY: RCA AUSTRALIA DATED: JUNE 2020
PAVEMENT SELECTION IS AT THE DISCRETION OF COUNCIL AS THE FUTURE ASSET MANAGER.



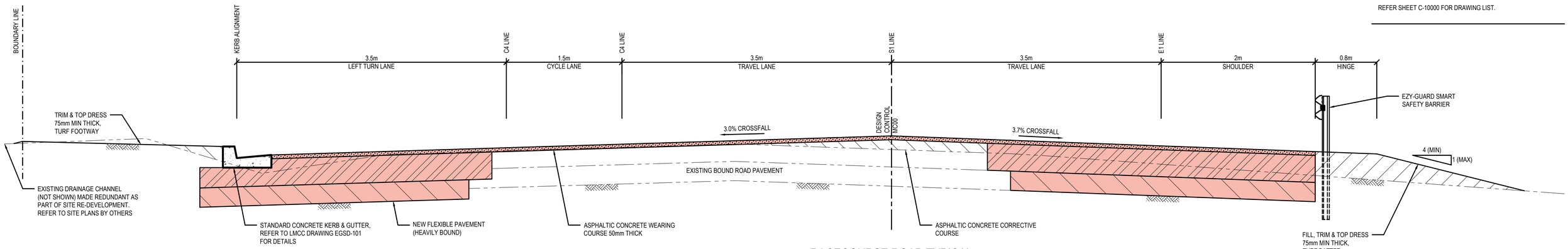
NEW TO EXISTING PAVEMENT ABUTMENT DETAIL

SCALE 1:20



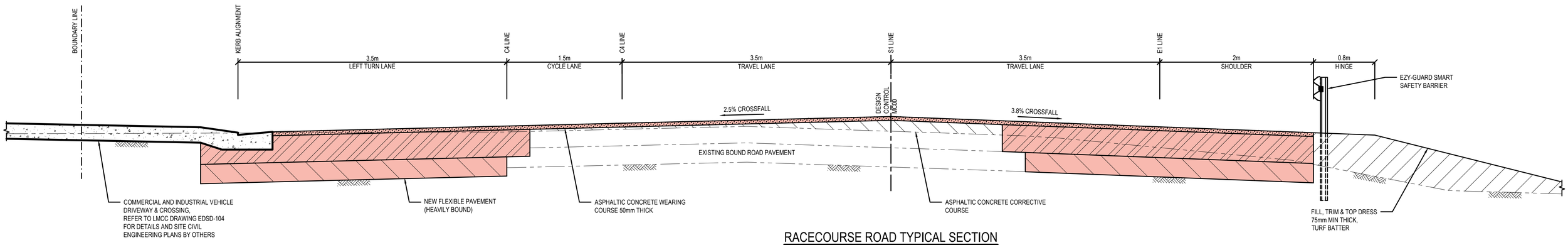
TYPICAL SECTION ROAD VERGE

SCALE 1:50



RACECOURSE ROAD TYPICAL SECTION MC00 CH -90.000

SCALE 1:50



RACECOURSE ROAD TYPICAL SECTION MC00 CH -141.250

SCALE 1:50

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PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT
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NOTES

REFER SHEET C-10300 FOR ALIGNMENT SETOUT DETAILS.

REFER SHEET C-10000 FOR DRAWING LIST.

REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE
TYPICAL SECTIONS

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	1:50, 1:20
DOCUMENT No.			REVISION
16015-LD-DR-C-10400			P03

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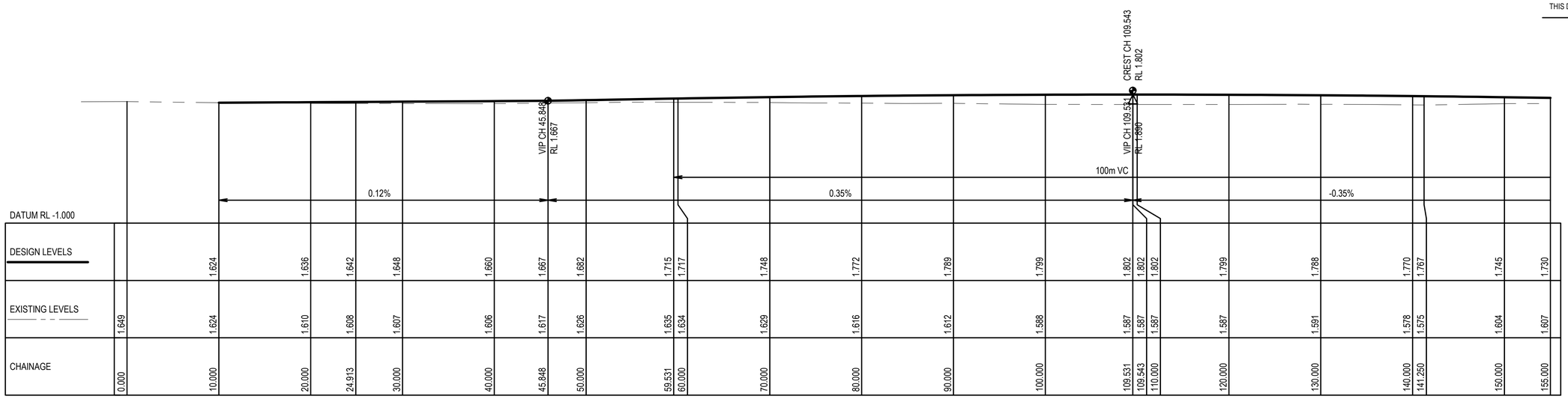
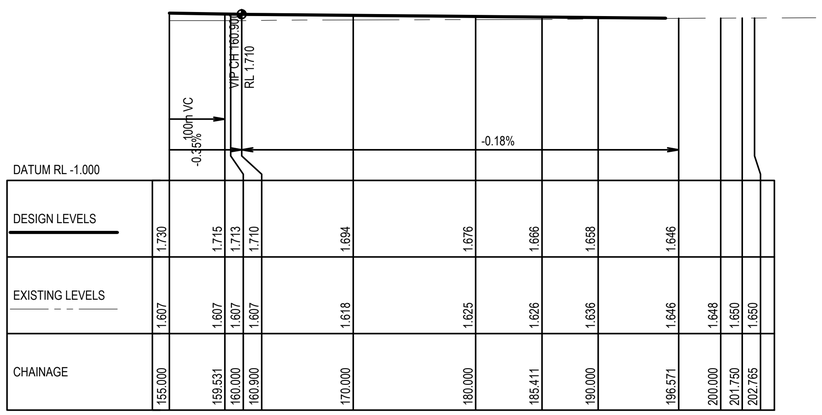


LONGITUDINAL SECTION ALONG CONTROL MC00

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION ALONG CONTROL MC00

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

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REV	DATE	DESCRIPTION	DRN	APP
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P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE
LONGITUDINAL SECTION - MC00

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	AS NOTED
DOCUMENT No.			REVISION
16015-LD-DR-C-10500			P03

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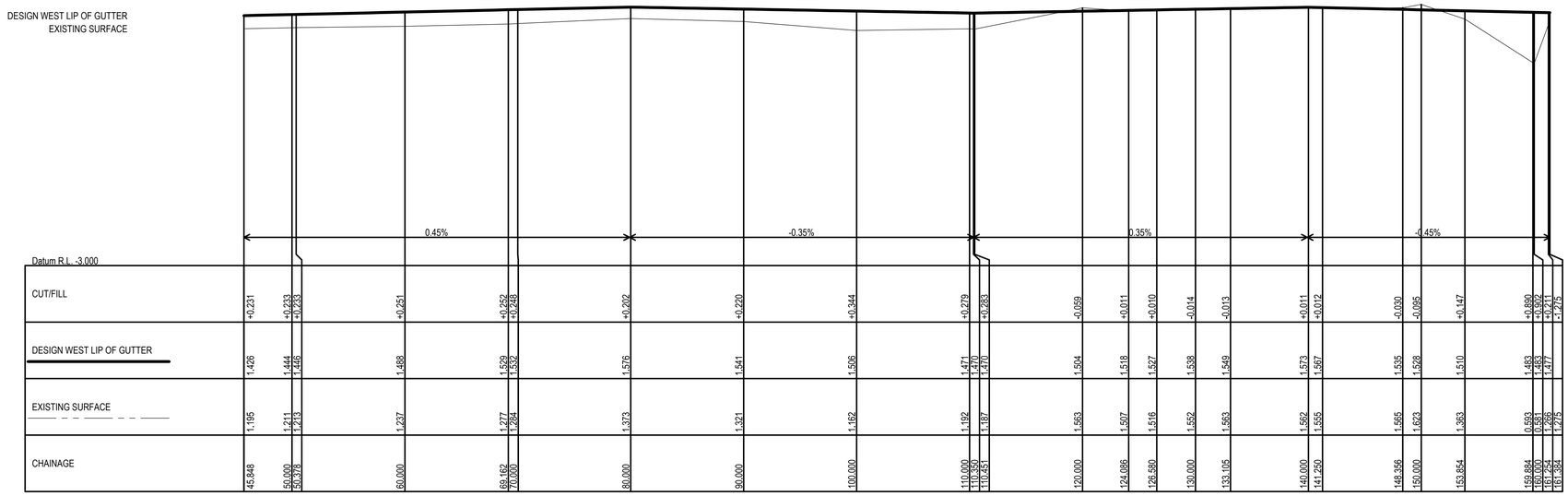

LONGITUDINAL SECTION ALONG LIP WESTERN KERB

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

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PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

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REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
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P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE
LONGITUDINAL SECTION - LIP WESTERN KERB

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	AS NOTED
DOCUMENT No.			REVISION
16015-LD-DR-C-10501			P03

PLOTTED: 14/02/2022 9:28 AM

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PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

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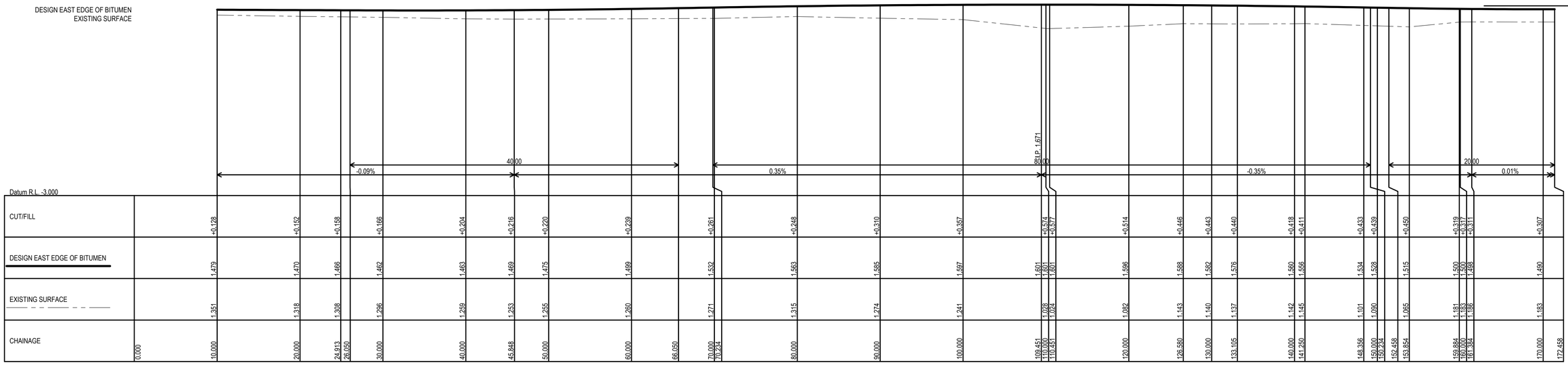
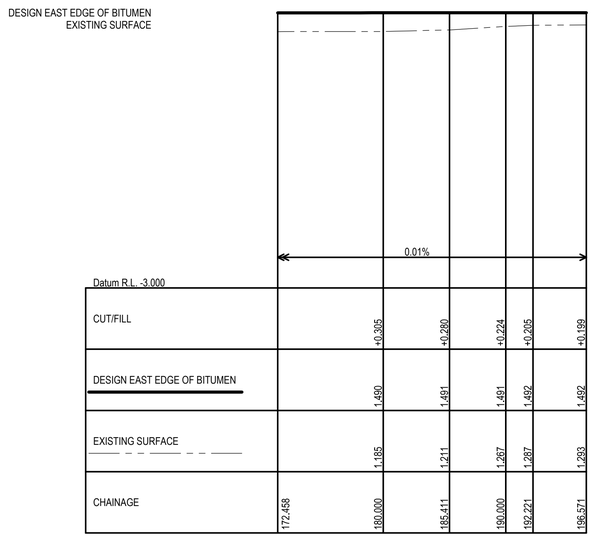


LONGITUDINAL SECTION ALONG ROAD EASTERN SHOULDER

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



LONGITUDINAL SECTION ALONG ROAD EASTERN SHOULDER

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
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TITLE

LONGITUDINAL SECTION - ROAD EASTERN SHOULDER

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
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C.T.	C.G.	N.L.	AS NOTED
DOCUMENT No.			REVISION
16015-LD-DR-C-10502			P03

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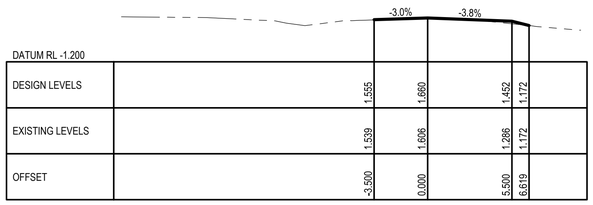
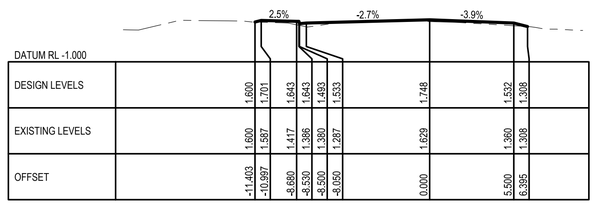


CH 40.000



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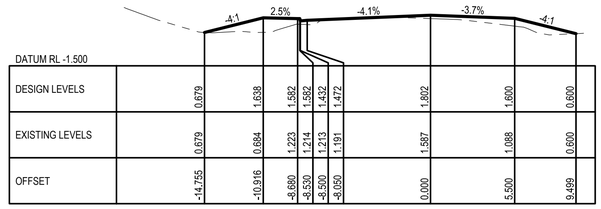
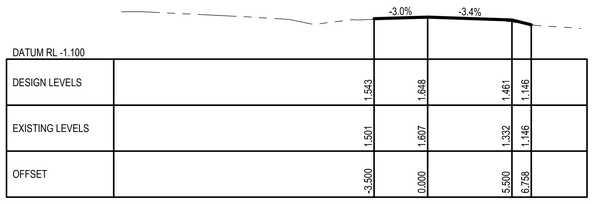


CH 110.000



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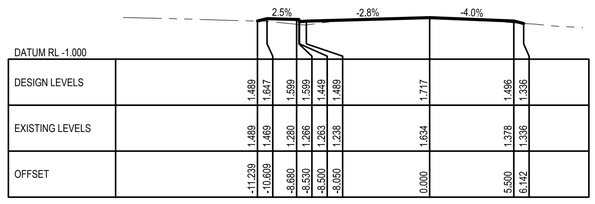
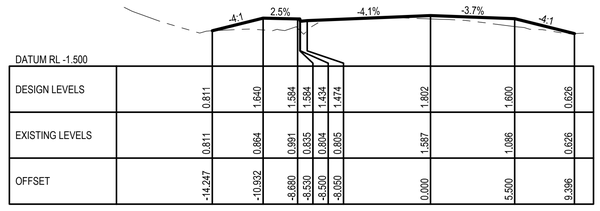
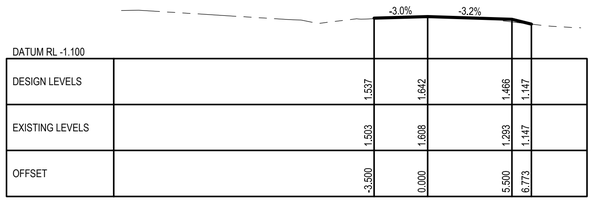


CH 60.000



CH 109.543



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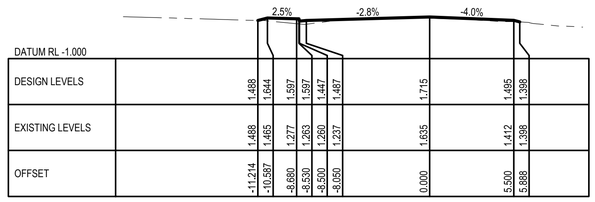

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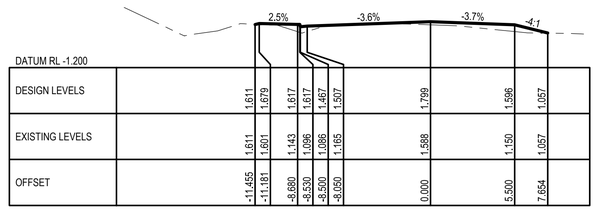

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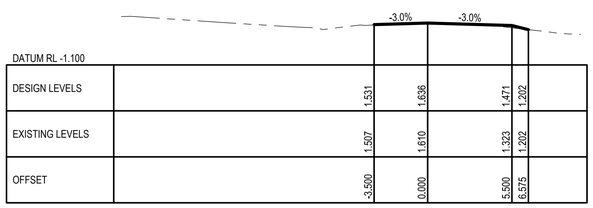

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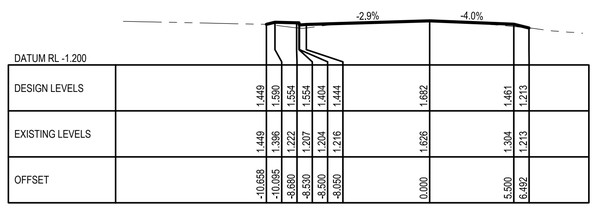

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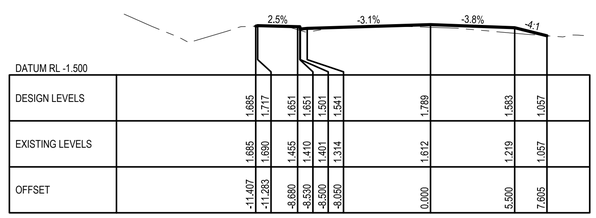

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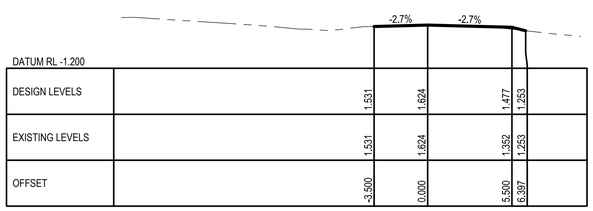
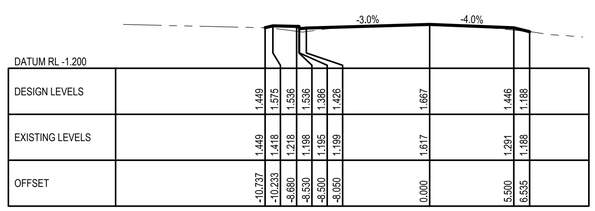


CH 10.000



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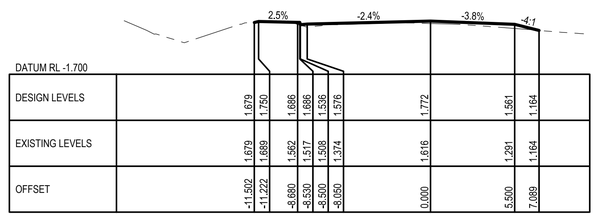

CH 80.000

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PROJECT
PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

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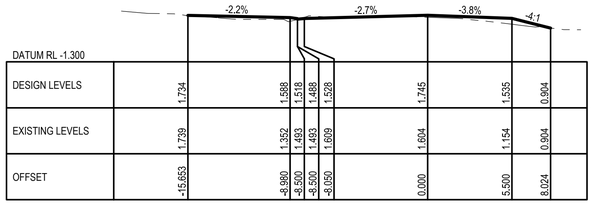
REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

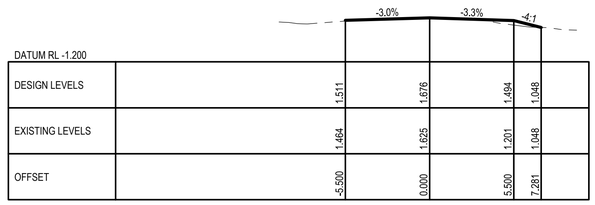
TITLE
CROSS SECTIONS - MC00
SHEET 1

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	1:200
DOCUMENT No.			REVISION
16015-LD-DR-C-10600			P03

PLOTTED: 14/02/2022 9:29 AM



CH 150.000



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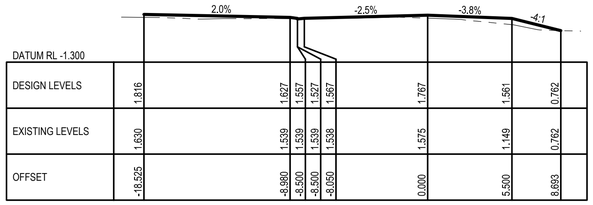
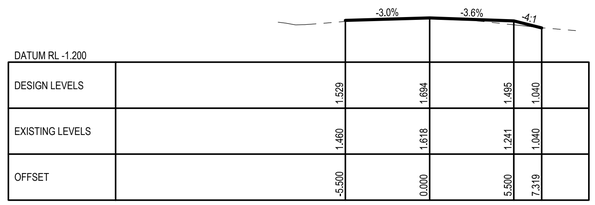
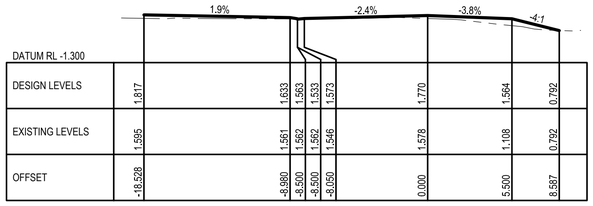


CH 141.250



CH 170.000



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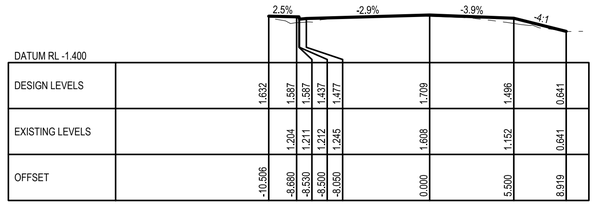
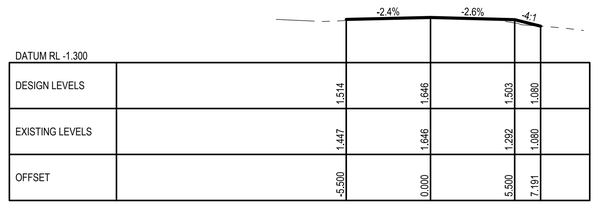


CH 161.384



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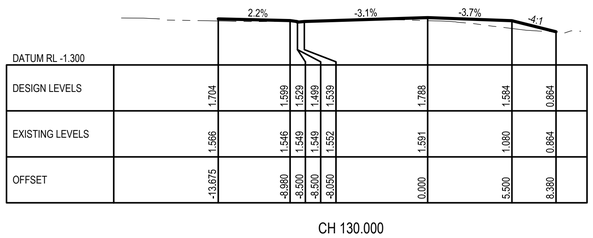
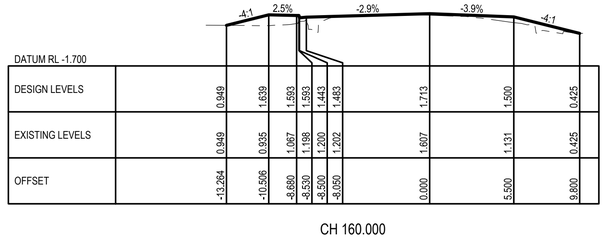
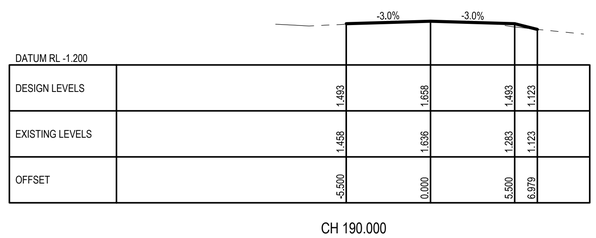


CH 130.000



CH 160.000



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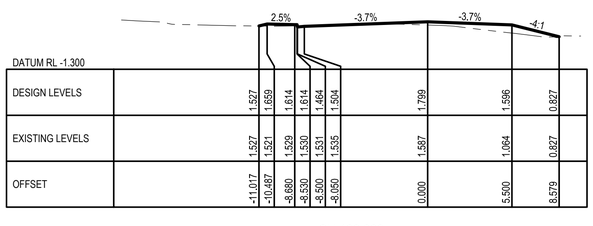

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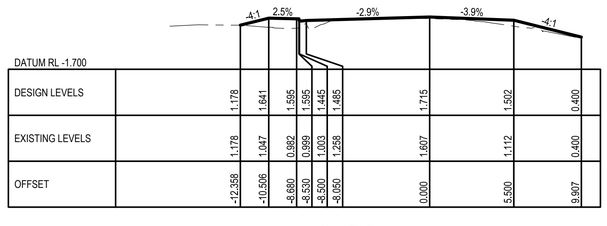

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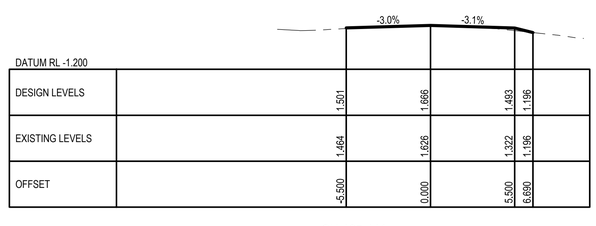


CH 185.411

Lindsay Dynan

Sydney | Perth | Newcastle | Central Coast

PROJECT

PROPOSED ROAD UPGRADE
21 RACECOURSE ROAD
TERALBA, NSW

CLIENT

CONCRUSH PTY LTD

THIS DRAWING CONTAINS COLOURED INFORMATION C M Y

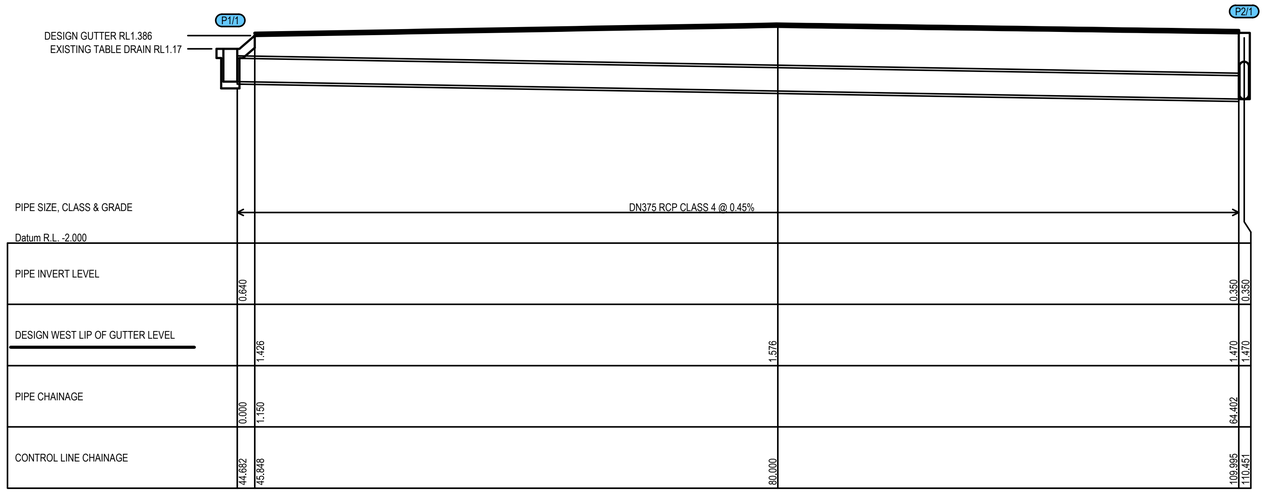
REV	DATE	DESCRIPTION	DRN	APP
P03		RE-ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P02	02/11/2021	ISSUED FOR COUNCIL APPROVAL	A.V.	C.G.
P01	01/10/2021	ISSUED FOR REVIEW	C.T.	C.G.

TITLE

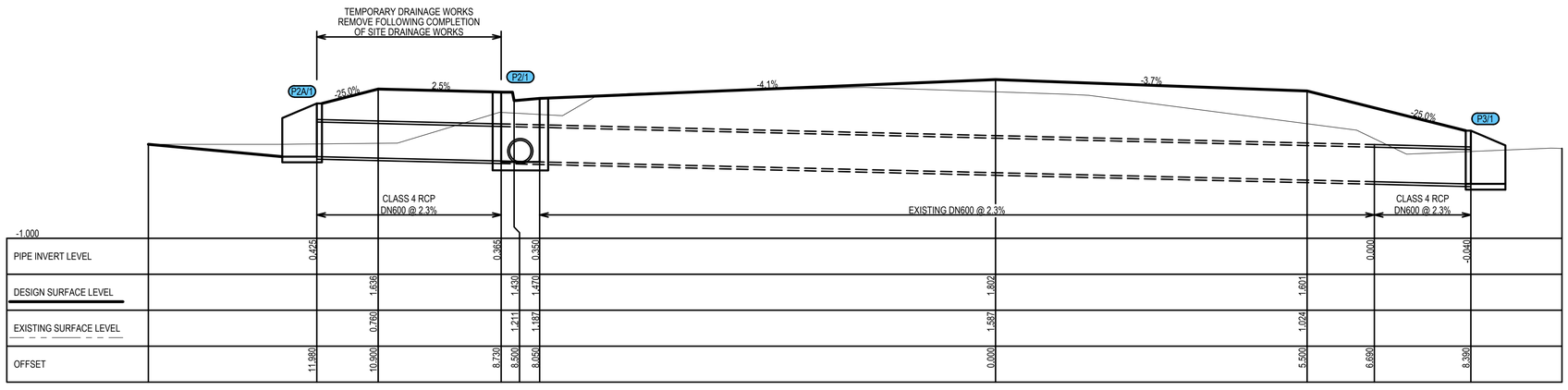
CROSS SECTIONS - MC00
SHEET 2

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	1:200
DOCUMENT No.			REVISION
16015-LD-DR-C-10601			P03

PLOTTED: 14/02/2022 9:29 AM

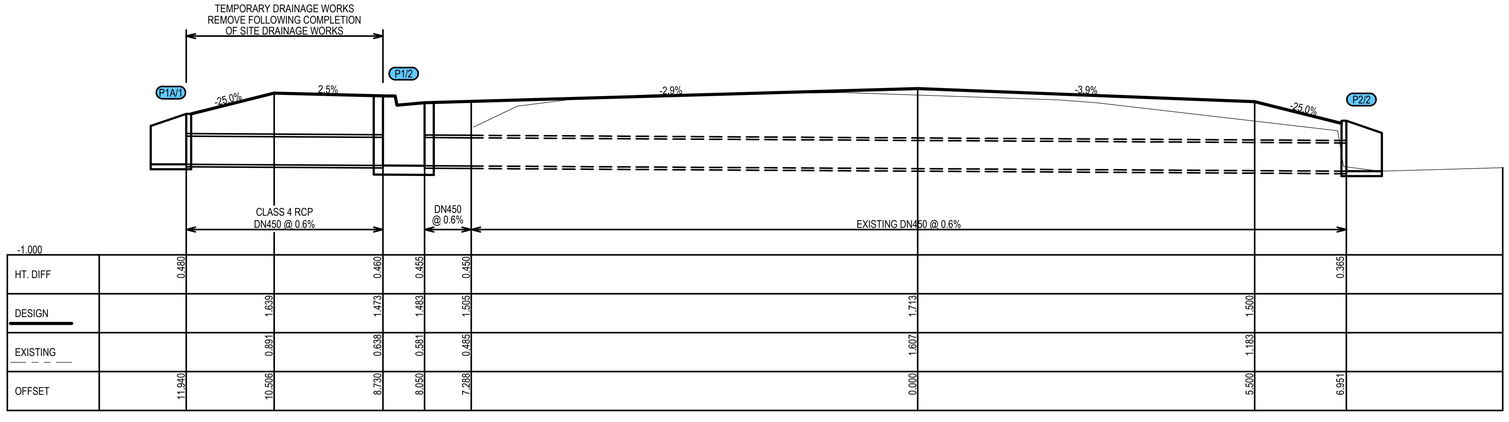


DRAINAGE PROFILE LINE 1



DRAINAGE PROFILE LINE 1 (AT CONTROL LINE CH 110.451)

Scale Horizontal 1:50 Vertical 1:50



DRAINAGE PROFILE LINE 2 (AT CONTROL LINE CH 160.000)

Scale Horizontal 1:50 Vertical 1:50

Lindsay Dynan

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PROJECT

PROPOSED ROAD UPGRADE
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TERALBA, NSW

CLIENT

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TITLE

DRAINAGE LONGITUDINAL SECTIONS

DOCUMENT STATUS			SHEET SIZE
FOR APPROVAL			A3
DRAWN	DESIGNED	APPROVED	SCALE
C.T.	C.G.	N.L.	1:50
DOCUMENT No.			REVISION
16015-LD-DR-C-10700			P03

PLOTTED: 14/02/2022 9:30 AM