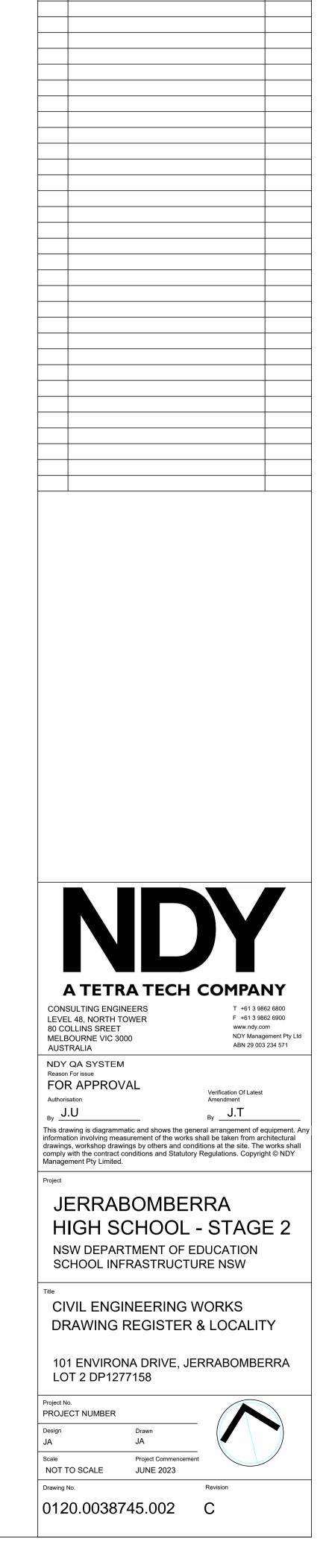
JERRABOMBERRA HIGH SCHOOL - STAGE 2 CIVIL ENGINEERING WORKS

NSW DEPARTMENT OF EDUCTATION SCHOOL INFRASTRUCTURE NSW LOT 2 ON DP1277158

101 ENVIRONA ROAD, JERRABOMBERRA NSW 2619

DRAWING REGISTER					
DRAWING No.	DESCRIPTION				
JHS-CI-DA-01	DRAWING REGISTER & LOCALITY				
JHS-CI-DA-02	CONSTRUCTION NOTES - SHEET 1				
JHS-CI-DA-03	CONSTRUCTION NOTES & LEGEND				
JHS-CI-DA-04	EROSION & SEDIMENT CONTROL (ESC) - LAYOUT PLAN				
JHS-CI-DA-05	EROSION & SEDIMENT CONTROL (ESC) - DETAILS				
JHS-CI-DA-06	BULK EARTHWORKS - LAYOUT PLAN				
JHS-CI-DA-07	BULK EARTHWORKS - SECTIONS - SHEET 1				
JHS-CI-DA-08	BULK EARTHWORKS - SECTIONS - SHEET 2				
JHS-CI-DA-09	GENERAL ARRANGEMENT - LAYOUT PLAN				
JHS-CI-DA-10	STORMWATER DRAINAGE PLAN - LAYOUT PLAN - SHEET 1				
JHS-CI-DA-11	STORMWATER DRAINAGE PLAN - LAYOUT PLAN - SHEET 2				
JHS-CI-DA-12	STORMWATER DRAINAGE PLAN - LAYOUT PLAN - SHEET 3				





30 40 50 60 70 80 90 100 110 120 130 140 150 When reproduced at correct scale this line measures 150

GENERAL NOTES:

- 1.1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE APPROVED CONDITIONS OF CONSENT.
- 1.2. ALL DRAWINGS LISTED IN THE DRAWING SCHEDULE ARE TO BE READ AS A WHOLE AND NOT IN ISOLATION.
- 1.3. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH PROJECT SPECIFICATION AND ALL RELEVANT STANDARD DRAWINGS.
- 1.4. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.
- 1.5. PRIOR TO COMMENCEMENT OF WORK, FENCE OFF AND CLEARLY DELINEATE ALL AREAS WHERE WORK CANNOT BE CARRIED OUT.
- 1.6. SHOULD SITE WORKS EXPOSE ANY ARCHAEOLOGICAL OR CULTURAL MATERIAL, ALL WORKS SHALL CEASE AND OFFICIALS OF THE NATIONAL PARKS AND WILDLIFE. ABORIGINAL LAND COUNCIL AND LOCAL AUTHORITY TO BE NOTIFIED
- ALL WORKS ARE TO COMPLY WITH THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION ACT. 1994.
- 1.8. WHERE THIS SET OF DRAWINGS REFERENCE IS MADE TO THE ENGINEER CONSULTING ENGINEER AND OR COUNCIL ENGINEER IT SHALL MEAN THE SUPERINTENDENT UNDER THE CONTRACT FOR THE WORKS.
- 1.9. WHERE IN THIS SET OF DRAWINGS REFERENCE IS MADE TO THE LOCAL AUTHORITY IT SHALL MEAN QUEANBEYAN-PALERANG REGIONAL COUNCIL
- 1.10. THE CONTRACTOR IS TO VERIFY LOCATION AND LEVELS OF ALL SERVICES AND TO LIAISE WITH THE LOCAL AND SERVICE AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
- 1.11. THE CONTRACTOR IS TO INFORM THE LOCAL AUTHORITY AND THE ENGINEER PRIOR TO COMMENCEMENT OF WORK
- 1.12. PRIOR TO COMMENCEMENT OF WORK, A SIGN DETAILING THE PROJECT AND CONTAINING THE NAMES AND CONTACT NAMES OF THE DEVELOPER, CONTRACTOR AND PRINCIPAL CONSULTANT SHALL BE ERECTED AND MAINTAINED IN A PROMINENT POSITION AT THE SITE TO THE SATISFACTION OF THE LOCAL AUTHORITY. THE SIGN SHALL REMAIN IN PLACE UNTIL COMPLETION OF THE CONTRACT
- 1.13. INFORMATION ON THESE DRAWINGS SHALL TAKE PRECEDENCE IF THERE IS ANY DISCREPANCY AND OR CONFLICT BETWEEN THESE DRAWINGS AND STANDARD DRAWINGS. ADVISE THE SUPERINTENDENT IMMEDIATELY OF ANY AND ALL DISCREPANCIES.
- 1.14. LEVELS SHOWN AT ALL INTERFACES ARE TO BE CONFIRMED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 1.15. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT QPRC DEVELOPMENT CONSTRUCTION & DESIGN SPECIFICATIONS. WSAA, NATSPEC/AUS-SPEC, THE BUILDING CODE OF AUSTRALIA AND WITH THE POLICIES, BY-LAWS, CODES AND SPECIFICATIONS OF THE RELEVANT LOCAL **AUTHORITIES.**
- 1.16. WHERE PROVIDED, THE ACCOMPANYING BILLS OF QUANTITIES SHALL ONLY SERVE AS A SUPPLEMENT FOR PRICING PURPOSES. THE CONTRACTOR SHALL ALLOW FOR ALL WORKS REQUIRED TO COMPLY WITH THE DRAWINGS. THIS INCLUDES ANY TEMPORARY, INTERMEDIATE OR PROTECTIVE WORKS REQUIRED TO FACILITATE FINAL CONSTRUCTION.
- 1.17. ELECTRONIC SETOUT DATA SUPPLIED TO ASSIST WITH CONSTRUCTION SHALL BE UTILISED IN CONJUNCTION WITH THE ENGINEERING DRAWINGS. ANY INCONSISTENCIES BETWEEN THE ELECTRONIC DATA AND ENGINEERING DRAWINGS SHALL BE REFERRED TO THE SUPERINTENDENT IMMEDIATELY FOR RESOLUTION.

2. EXISTING FEATURES

- 2.1. UNLESS OTHERWISE SPECIFIED ALL EXISTING SERVICES AND STRUCTURES ARE TO BE MAINTAINED IN GOOD ORDER FOR THE DURATION OF THE CONTRACT AND WHERE RELOCATION IS REQUIRED REFER TO SPECIFICATION.
- 2.2. ALL WORK JOINING TO EXISTING CONSTRUCTION TO BE DONE NEATLY & TO THE SATISFACTION OF THE SUPERINTENDENT.
- 2.3. ALL BENCHMARKS TO BE LEVEL CHECKED BY CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 2.4. THE LOCATION OF EXISTING SERVICES AS SHOWN ON THE PLAN IS INDICATIVE ONLY AND THE CONTRACTOR MUST ASCERTAIN THE POSITION OF ALL SERVICES (I.E. WATER, ELECTRICITY, TELECOM, GAS ETC.), BEFORE COMMENCING CONSTRUCTION.
- 2.5. LEVELS AND GRADIENTS AT JUNCTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE SATISFACTORY CONNECTIONS AND THE COSTS DEEMED INCLUDED IN THE RELEVANT SCHEDULE ITEMS:
- 2.6. IF THE LOCATION, LINE AND / OR LEVEL OF ANY EXISTING SERVICE IS NOT AS DESCRIBED ON THE DRAWINGS THE SUPERINTENDENT IS TO BE NOTIFIED IMMEDIATELY AND PRIOR TO PROCEEDING WITH FURTHER WORK:
- 2.7. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE REPAIR OR REPLACE EXISTING SERVICES DAMAGED DURING THE WORKS TO THE SATISFACTION OF THE SUPERINTENDENT.
- 2.8. EXISTING DRIVEWAYS AFFECTED BY WORKS SHALL BE RECONSTRUCTED IN THE SAME MATERIAL AS EXISTING OR AS DIRECTED BY THE LOCAL AUTHORITY
- 2.5. CLEARING AND GRUBBING AS DIRECTED, INCLUDING REMOVAL AND DISPOSAL OF CLEARED VEGETATION SHALL BE CARRIED OUT USING METHODS APPROVED.
- 2.6. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY, FROM AS CONSTRUCTED SURVEY AND FROM 'DIAL BEFORE YOU DIG' SEARCHES. THERE MAY BE ADDITIONAL SERVICES WHICH ARE NOT SHOWN ON THESE DRAWINGS.
- 2.7. IF EXISTING OR PROPOSED HYDRANTS OR VALVES ARE FOUND TO BE WITHIN AN AREA OF CONCRETE THE SURROUND IS TO BE SET IN THE CONCRETE WITH A COMPRESSIBLE LAYER BETWEEN IT AND THE NEW CONCRETE TO ALLOW REMOVAL FOR MAINTENANCE. ALL COVER BOXES AND SURROUNDS ARE TO BE REPLACED AT NEW LEVELS IN ACCORDANCE WITH OPRC DEVELOPMENT MANUAL AND STD DWGS.

3. SAFETY IN DESIGN NOTES:

- 3.1 POTENTIAL SAFETY HAZARDS CONSIDERED BY THE DESIGNERS TO HAVE A HIGHER RISK THAN NORMAL CONSTRUCTION ACTIVITY ARE THAT IDENTIFIED WITH APPROPRIATE NOTES ON THESE DRAWINGS. IT SHOULD BE NOTED THAT DESIGNERS HAVE A LOWER LEVEL OF UNDERSTANDING OF THE RISKS INVOLVED IN CONSTRUCTION COMPARED TO THAT OF A COMPETENT CONTRACTOR. IT IS THEREFORE ESSENTIAL THAT AN ADEQUATE SAFETY PLAN IS PREPARED BY THE CONTRACTOR FOR THE WORKS. THE DESIGNERS MAY NOT BE AWARE OF ALL SAFETY RISKS AND HAZARDS INVOLVED IN THIS PROJECT AND THE ABSENCE OF COMMENT DOES NOT IMPLY THAT THERE ARE NO RISKS OR HAZARDS INVOLVED IN THIS PROJECT.
- 3.2 THE CONTRACTOR SHALL COMPLETE AND WILL SOLELY BE RESPONSIBLE FOR THE IMPLEMENTATION OF ANY NECESSARY SAFETY PLANS TO COMPLETE THE WORKS.
- 3.3 THE CONTRACTOR MUST COMPLY WITH ANY GUIDELINE ACTS OR CODE OF PRACTICE AND OTHER RELEVANT DOCUMENTS REGARDING SAFE WORK PRACTICES.
- 3.4 THE CONTRACTOR WILL HAVE A NOMINATED WH&S OFFICER FOR THE DURATION OF THE CONTRACT. THE WH&S OFFICER WILL BE RESPONSIBLE FOR ALL THE WH&S ISSUES ON THE SITE.
- 3.5 ALL PERSONS ENTERING THE SITE SHALL COMPLETE A SAFETY INDUCTION WITH THE NOMINATED WH&S OFFICER. THIS IS TO INCLUDE REFERENCE TO SAFETY IN DESIGN ISSUES RELEVANT TO THE PROJECT.
- 3.6 ALL CONSTRUCTION UNDERTAKEN BY THE CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT EDITION OF THE WORKPLACE HEALTH AND SAFETY
- 3.5. ALL BUILDING SITE MANAGERS MUST TAKE ALL ACTION NECESSARY TO ENSURE BUILDING MATERIAL AND/OR MACHINERY ON CONSTRUCTION SITES ARE SECURED IMMEDIATELY FOLLOWING THE FIRST CYCLONE WATCH AND THAT RELEVANT EMERGENCY TELEPHONE CONTACTS ARE PROVIDED TO COUNCIL OFFICERS. PRIOR TO COMMENCEMENT OF WORKS.
- 3.6. EXCAVATIONS WORKS CARRIED OUT BY CONTRACTORS AT DEPTH OF 1.5M OR GREATER MUST PROVIDE A "SAFE WORK PLAN" AS PER WORKPLACE HEALTH AND SAFETY LEGISLATION PRIOR TO COMMENCING ANY WORK.

GENERAL SERVICES:

- 4.1 ELECTRICAL AND COMMUNICATIONS CONDUIT LOCATIONS ARE SHOWN FOR INFORMATION ONLY. FOR EXACT LOCATIONS REFER TO ELECTRICAL CONSULTANTS LAYOUT PLANS. FOR WATER CONDUIT LOCATIONS REFER WATER RETICULATION DRAWINGS.
- 4.2 ALL CONDUITS ARE TO HAVE BRASS CONDUIT MARKERS INSTALLED IN THE KERB AND CHANNEL FOR THE APPROPRIATE SERVICE.
- 4.3 SERVICE AUTHORITY INFRASTRUCTURE ADJUSTMENTS ARE TO BE PERFORMED BY AUTHORIZED CONTRACTORS APPROVED BY THE RELEVANT SERVICE AUTHORITY.

EARTHWORKS NOTES

- 5.1.1. BULK EARTHWORKS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE QRPC SPECIFICATION 'C213 EARTHWORKS CONSTRUCTION SPECIFICATION' AND THE REQUIREMENTS OF AS3798-2007.
- 5.1.2. ALL EARTHWORKS, CLEARING ETC. SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT BY DOUGLAS PARTNERS PROJECT 94188.00 DATED APRIL
- 5.1.3. NOT WITHSTANDING THE LIMITS OF EARTHWORKS SHOWN ON THE DRAWINGS, THE ACTUAL LIMIT SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT, THE ACTUAL LIMITS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT DURING CONSTRUCTION.
- 5.1.4. FINISHED SURFACE LEVELS FOR THE SITE MAY BE ADJUSTED BY A WRITTEN DIRECTION OF THE SUPERINTENDENT DURING CONSTRUCTION WITH PRIOR APPROVAL FROM THE LOCAL AUTHORITY:
- 5.1.5. ALL EARTHWORKS QUANTITIES ARE NET VOLUMES. CONTRACTOR TO MAKE ALLOWANCE FOR BULKING AND COMPACTION'
- 5.1.6. ALLOWANCE HAS BEEN PROVIDED FOR LANDSCAPING WORKS AND NO FURTHER DETAILED TRIMMING WILL BE REQUIRED TO ACHIEVE FINISHED SURFACE LEVELS
- 5.1.7. GEOTECHNICAL SUPERVISION OF EARTHWORKS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE EARTHWORKS SPECIFICATION BY A N.A.T.A. REGISTERED GEOTECHNICAL TESTING AUTHORITY AT THE CONTRACTORS COST.
- 5.1.8. THE CONTRACTOR SHALL PROVIDE DETAILS OF ALL TESTING TO THE ENGINEER PROGRESSIVELY THROUGH THE WORKS AND NOTIFY THE ENGINEER OF ANY NON-CONFORMANCES.
- 5.1.9. ALL NON CONFORMING WORK IS TO BE RECTIFIED AS DIRECTED BY THE ENGINEER.
- 5.1.10. CONTRACTOR SHALL (IF IN DOUBT) DURING EARTHWORK OPERATION DIRECT CONCERN TO THE SUPERINTENDENT WHO SHALL SEEK ADVICE FROM THE GEOTECHNICAL CONSULTANT.
- 5.1.11. EARTHWORKS SHALL BE CARRIED OUT TO THE FINISHED SURFACE LEVELS SHOWN. CUT AND FILL BATTERS ARE NOT TO EXCEED 1 IN 4 SLOPE UNLESS INDICATED OTHERWISE. WHERE REQUIRED, BATTERS OF 1 IN 4 TO BE USED TO TIE BACK TO FSL.
- 5.1.12. THE CONTRACTOR SHALL INFORM THE LOCAL AUTHORITY. AND ALL RELEVANT SERVICE PROVIDERS AND THE SUPERINTENDENT OF THE START DATE PRIOR TO COMMENCEMENT OF WORKS:
- 5.1.13. ALL EARTHWORKS TESTING TO BE SUPERVISED TO LEVEL 1. FREQUENCY OF FIELD DENSITY TESTING TO BE TYPE 1 IN ACCORDANCE WITH TABLE 8.1 OF AS 3798-2017:

FILLING AND COMPACTION

- FILLING IS TO BE CARRIED OUT IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND AS3798-2017, APPENDIX B, LEVEL 1
- ALL FILL UNDER ROADS SHALL BE COMPACTED TO 100% STANDARD COMPACTION:
- FILLING ON ROAD EMBANKMENT TO BE COMPACTED TO 95% STANDARD DRY DENSITY AS1289 5.1.1 - 2017 AND TRIMMED TO BE FREE DRAINING. ALL ROAD EMBANKMENT FILL SHALL BE SUPERVISED BY A QUALIFIED GEOTECHNICAL ENGINEER TO LEVEL 1 REQUIREMENTS IN ACCORDANCE WITH THE AS.3798-2007.
- PLACE FILL IN LAYERS OF LOOSE AGGREGATES OR GRANULAR MATERIAL THICKNESS APPROPRIATE TO THE TYPE OF COMPACTION EQUIPMENT BEING USED AND NOT GREATER THAN 200mm. COMPACT EACH FILLING LAYER TO THE MINIMUM DRY DENSITY SPECIFIED. THE MOISTURE CONTENT OF FILL MATERIAL SHOULD BE MAINTAINED WITHIN THE RANGE OF -1% TO +2% OF THE OPTIMUM MOISTURE CONTENT.
- FILLING MATERIAL AS REQUIRED TO COMPLETE THE WORKS SHALL BE SOURCED FROM MATERIAL EXCAVATED FROM SITE. ALL FILLING MATERIAL MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO ITS INCORPORATION INTO THE WORKS.
- FILL SHALL BE PLACED AND COMPACTED TO THE FOLLOWING STANDARDS:
 - (I) COHESIVE MATERIALS:- ALLOTMENT FILL SHALL ACHIEVE A MINIMUM DRY DENSITY RATIO (M.D.D.R.) OF 98% STANDARD. COMMERCIAL ALLOTMENT FILL SHALL ACHIEVE A 98% STANDARD.ROAD EMBANKMENTS SHALL ACHIEVE THE FOLLOWING MINIMUM STANDARDS.
 - (A) GREATER THAN OR EQUAL TO 0.3m BELOW PAVEMENT SUBGRADE: 95% STD. M.D.D.R.
 - (B) LESS THAN 0.3m BELOW PAVEMENT SUBGRADE: 100% STD. M.D.D.R.
 - (II) NON COHESIVE MATERIALS:- FILL SHALL ACHIEVE A MINIMUM DENSITY INDEX RATIO OF 75%.

STRIPPING, STOCKPILE AND TOPSOIL 5.3

- PRIOR TO THE COMMENCEMENT OF FILLING THE SITE IS TO BE STRIPPED (AS REQUIRED) - DEPTH TO BE NOTED & CONFIRMED BY CONTRACTOR. PLACEMENT OF FILL ON PREPARED AREAS SHALL NOT COMMENCE UNTIL AUTHORISED BY A LEVEL 1 GEOTECHNICAL ENGINEER.
- EARTHWORKS SPOIL IS TO BE STOCKPILED AS DIRECTED BY THE SUPERINTENDENT:
- ALL OPEN SPACES AREAS CLEARED OF VEGETATION MUST BE COVERED FOR THE FULL WIDTH WITH TOPSOIL IN ACCORDANCE WITH AS 4419:2018 SOIL FOR LANDSCAPING AND GARDEN USE, TO A DEPTH OF NOT LESS THAN 40mm
- SILT FENCING IS TO BE PLACED ON THE DOWNSTREAM SIDE OF ALL STOCKPILE SITES AND AN ADEQUATE CUTOFF DRAINS ARE TO BE PLACED ON THE **UPSTREAM SIDE OF ALL STOCKPILE SITES:**

PROTECTION DURING WORKS

- ALL EXPOSED SURFACES APART FROM SWALE DRAINS ARE TO BE GRASS SEEDED AS A SEDIMENT AND EROSION CONTROL MEASURE.
- ALL OPEN DRAINS ARE TO BE TURFED AS SOON AS PRACTICAL, AFTER THE OPEN DRAIN IS COMPLETED.
- 5.4.3. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT THE SITE AND SURROUNDING AREAS FROM DAMAGE RESULTING FROM STORMWATER RUNOFF TEMPORARY DIVERSION DRAINS AND OR OTHER DRAINAGE CONTROL DEVICES ARE TO BE IMPLEMENTED BY THE CONTRACTOR DURING CONSTRUCTION TO MINIMISE THE EFFECTS OF WEATHER. NO EXTENSIONS OF TIME WILL BE GRANTED SHOULD DAMAGE TO THE WORKS AND SURROUNDING AREAS RESULT FROM THE CONTRACTOR'S NEGLIGENCE IN NOT PROVIDING ADEQUATE PROTECTION.
- ALL AREAS ARE TO BE FREE DRAINING.
- BATTER SLOPES TO BE 1 IN 4 MAX UNLESS SPECIFIED OTHERWISE:
- SETOUT OF EARTHWORKS IS TO THE CORNER OF PADS. PATHWAYS AND BATTERS AS SHOWN:

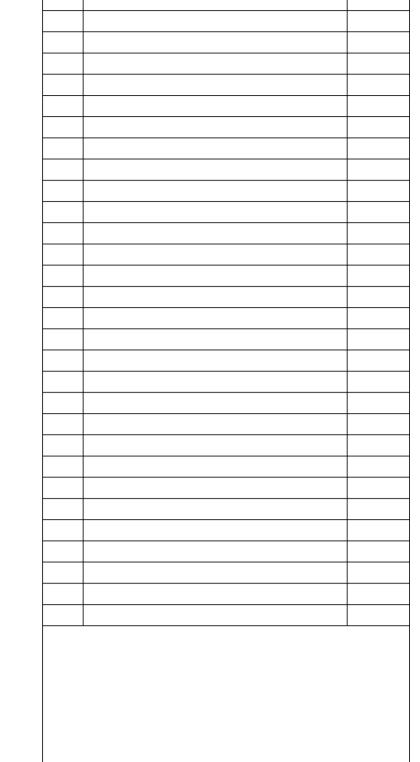
ROADWORKS

6.1 GENERAL:

- FOR DETAILS OF CONCRETE PATHWAYS, REFER LOCAL AUTHORITY STANDARD
- WARNING AND DIRECTIONAL TACTILE GROUND SURFACE INDICATORS (TGSI'S) 6.1.2 SHALL CONFORM WITH AS/NZS 1428.4

6.2 KERB \ KERB AND CHANNEL NOTES AND SET-OUT

- ALL KERB RADII SHOWN ARE TO LIP LINE.
- ALL LEVELS SHOWN REFER TO: LIP OF KERB AND CHANNEL EDGE OF BITUMEN
- SUBSOIL DRAINS TO BE PROVIDED UNDER ALL KERB AND CHANNEL AND KERB ONLY.
- WHERE DIFFERENT KERB TYPES MEET, TRANSITION TO BE TAKEN OUT OVER
- ALL KERBS TO BE CONSTRUCTED IN ACCORDANCE WITH QPRC STANDARD DRAWINGS.
- THE CONTRACTOR SHALL ENSURE THAT ALL KERB AND CHANNEL GRADES SHALL NOT FALL BELOW 0.5% AT ANY POINT IRRESPECTIVE OF ROAD CENTRE LINE GRADING SHOWN ON LONGITUDINAL SECTIONS.
- 6.2.13. WHERE NEW KERB AND CHANNEL AND/OR AC MEET EXISTING SURFACES THE CONTRACTOR SHALL VERIFY THE LEVELS WITH THE SUPERINTENDENT
- 6.2.14. SUBSOIL DRAINAGE SHALL BE CONTINUOUS WITH ADJOINING KERB AND CHANNEL WHERE CONCRETE INVERT IS CONSTRUCTED.



Description

ISSUED FOR APPROVAL

Date

04/07/2023

28/07/2023



CONSULTING ENGINEERS LEVEL 48. NORTH TOWER 80 COLLINS SREET MELBOURNE VIC 3000 AUSTRALIA

FOR INFORMATION

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Verification Of Latest

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Authorisation Amendment J.T J.U This drawing is diagrammatic and shows the general arrangement of equipment. An nformation involving measurement of the works shall be taken from architectural Irawings, workshop drawings by others and conditions at the site. The works shall

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JERRABOMBERRA HIGH SCHOOL - STAGE 2 **NSW DEPARTMENT OF EDUCATION** SCHOOL INFRASTRUCTURE NSW

CIVIL ENGINEERING WORKS **CONSTRUCTION NOTES - SHEET 1**

101 ENVIRONA DRIVE, JERRABOMBERRA LOT 2 DP1277158

PROJECT NUMBER NOT TO SCALE JUNE 2023

0120.0038745.002

7. PAVEMENT

- 7.1. FOLLOWING THE COMPLETION OF EXCAVATION THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT WHO SHALL CONFIRM THE PAVEMENT THICKNESS TO BE CONSTRUCTED FOLLOWING JOINT INSPECTION AND APPROVAL FROM LOCAL AUTHORITY INSPECTOR.
- REFER PAVEMENT DRAWING FOR TYPES. FINAL MAKE UP TO BE DETERMINED BY THE
- 7.3. FINAL PAVEMENT DEPTHS AND MATERIAL TYPES SHALL BE DETERMINED BY THE SUPERINTENDENT AFTER EXISTING SUB-GRADE TESTING IS COMPLETED BY THE CONTRACTOR.
- 7.4. PAVEMENT MATERIALS SHALL BE PER QPRC SPECIFICATIONS.

STORMWATER NOTES

8.1. GENERAL

STORMWATER STRUCTURES AND CONNECTIONS ARE TO BE LOCATED AS INDICATED ON THE PLAN. ADJUSTMENTS TO THE DESIGN LAYOUT WHERE REQUIRED TO SUIT ACTUAL AS-CONSTRUCTED GEOMETRY SHALL REQUIRE THE ENGINEERS APPROVAL.

8.2. STRUCTURES

- ALL DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH QPRC 8.2.1. **DEVELOPMENT MANUAL STANDARDS**
- ALL DRAINAGE STRUCTURES WITHIN ROAD RESERVE/TRAFFICABLE PAVEMENTS TO HAVE AS3996-2019, CLASS D (TRAFFICABLE) COVERS / GRATES & FRAMES UNLESS NOTED OTHERWISE.
- FINAL PIT LOCATION AND ORIENTATION TO BE CONFIRMED ON SITE BY THE 8.2.3. SUPERINTENDENT.

8.3. PIPES

- ALL REINFORCED CONCRETE PIPES TO COMPLY WITH AS 4058-2007 AND AS 8.3.1. 4139-2003.
- ALL REINFORCED CONCRETE BOX CULVERTS AND LINK SLABS TO COMPLY WITH 8.3.2. AS 1597.1-2010 AND AS 1597.2.2-2013.
- ALL REINFORCED CONCRETE PIPES UP TO 600mm NOMINAL DIAMETER ARE TO BE 8.3.3. RCP CLASS 3 - OVER 600mm NOMINAL DIAMETER ARE TO BE RCP CLASS 2 UNLESS NOTED OTHERWISE.
- PIPES SHALL BE BEDDED IN ACCORDANCE WITH AS3725 2007, THE MINIMUM PIPE SUPPORT TYPE SHALL BE HS2 WITHIN ROAD RESERVES AND H1 ELSEWHERE.
- uPVC PIPES SHALL BE CLASS SN8 UNLESS NOTED OTHERWISE.
- WHERE ROOFWATER DRAINS AND SEWER MAINS ARE TO BE CONSTRUCTED PARALLEL TO EACH OTHER, THE ROOFWATER DRAINAGE CONNECTION SHALL EXTEND 1.00 BEYOND THE SEWER MAIN.
- MINIMUM COVER TO ROOFWATER PIPES TO BE 450mm EXCEPT WHERE LESS COVER IS NECESSARY TO DISCHARGE TO STREET KERB AND CHANNEL
- ROOFWATER DRAINAGE SYSTEMS SHALL DISCHARGED INTO A GULLY OR STORMWATER MANHOLE WHEREVER POSSIBLE.

8.4. TRENCHES

- THE WIDTH OF TRENCHING EXCAVATION SHALL BE IN ACCORDANCE WITH QPRC STANDARD DRAWINGS AT THE TRENCH BASE AND COMPLY WITH ALL REGULATIONS OF WORKPLACE HEALTH AND SAFETY ACT.
- 8.4.2. ALL TRENCHES SHALL BE BACKFILLED IN LAYERS OF LOOSE THICKNESS APPROPRIATE TO THE TYPE OF COMPACTION EQUIPMENT BEING USED AND NOT GREATER THAN 150mm.

8.5. SCOUR PROTECTION

- ROCK PROTECTION TO BE PROVIDED AROUND THE HEADWALL, WINGWALLS AND 8.5.1. APRON AND WHERE APPLICABLE ABOVE THE HEADWALL WHERE THE HEADWALL IS LOCATED WITHIN AN OVERLAND FLOW PATH.
- GEOTEXTILE TO BE CONSTRUCTED OUT OF WATER PERMEABLE MATERIAL USUALLY SYNTHETIC MATERIAL SUCH AS POLYPROPYLENE. TO BE USED AS PART OF EROSION AND SEDIMENT CONTROL METHOD IN CONSTRUCTION AND STORMWATER MANAGEMENT SITUATIONS TO TRAP OR PREVENT CLOGGING OF AGGREGATES BY SOIL/CLAY/SILT PARTICLES.
- GEOTEXTILE MUST BE OF SUFFICIENT STRENGTH/DURABILITY TO WITHSTAND BREAKAGE FROM WATER FLOW, SEDIMENT BUILDUP, AND EXPOSURE TO SUNLIGHT.
- CONSULT WITH MANUFACTURER OF GEOTEXTILE TO VERIFY THAT IT CAN PERFORM THE FUNCTION THAT IS REQUIRED OF IT.
- IF SLOPE OF CHANNEL / TABLE DRAIN IS BETWEEN 1:1 AND 1:10, EXCAVATE OUT TO A DEPTH OF 300mm WHERE THE ROCK CHECK DAMS ARE GOING TO BE EMBEDDED.
- LAY DOWN GEOTEXTILE OVER THE WHOLE AREA THE ROCK CHECK DAMS IS TO BE CONSTRUCTED UPON.

9. OPEN DRAINS

9.1. SWALE DRAINS ARE TO BE GRADED EVENLY BETWEEN INVERT LEVELS PROVIDED

9.2. UNLESS NOTED OTHERWISE, DRAINS SHALL BE TURFED.

10. COMPACTION

- 10.1. THE CONTRACTOR IS RESPONSIBLE FOR COMPACTION TECHNIQUES OVER ALL STORMWATER PIPES TO BE IN ACCORDANCE WITH THE MANUFACTURER'S **SPECIFICATIONS:**
- 10.2. FOR COMPACTION FILL DEPTHS OVER PIPES REFER TO TABLE B1 AS/NZS 3275:2007
- 10.3. BLACKFILL MATERIAL TYPE AND COMPACTION SHALL BE IN ACCORDANCE WITH FNQROC STD DRAWINGS S1045B AND S1046B
- 10.4. MINIMUM FILL OVER PIPE INCLUDES MATERIAL BEING COMPACTED. AS MEASURED AFTER COMPACTION.
- 10.5. THE BEDDING SUPPORT TYPE CHOSEN HAS LITTLE OR NO EFFECT ON THE CLASS OF THE PIPE FOR LOW FILLS AND HIGH TRAFFIC LOADS.

ANY AREAS WHERE WATER MAINS OR SEWER MAINS ARE CONSTRUCTED IN FILL MATERIAL THE COMPACTION OF THE FILLED AREA IS TO HAVE MINIMUM LEVEL 2 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARDS AND VERIFICATION OF THE COMPACTION INCLUDED IN THE ITP

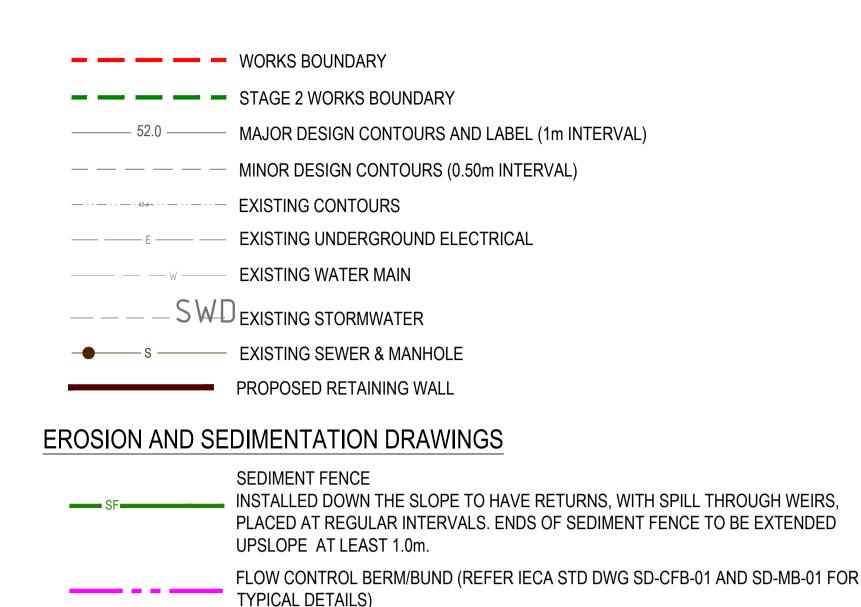
11 CONCRETE NOTES:

- NON-VEHICULAR PATHS ONLY, MAY USE DANLEY 'EXPANDA' JOINT SYSTEMS.
- GRANULAR SUB-BASE UNDER CONCRETE TO BE CRUSHED ROCK, ROADBASE OR APPROVED ALTERNATIVE (CBR15 MIN.) FOR VEHICLE PAVEMENTS. 'CRUSHER DUST' TO BE USED UNDER PATHS AND NON TRAFFICABLE CONCRETE
- GRANULAR SUB-BASE SHALL BE COMPACTED AS SPECIFIED, TO A UNIFORMLY SMOOTH, FLAT SURFACE TO THE SATISFACTION OF THE SUPERINTENDENT PRIOR TO CONCRETE PLACEMENT.
- ALL SERVICE COVERS WITHIN SHARED / FOOTPATH PAVEMENTS TO BE INFILL TYPE, WHERE POSSIBLE, TO MINIMISE SLIP HAZARD
- FIXED INTERNAL PENETRATIONS AND EDGES ABUTTING STRUCTURES TO BE ISOLATED WITH A 10mm FLEXIBLE (ABLEFLEX) JOINT. VALVE COVERS AND OTHER 'FLOATING' SERVICES MAY BE CAST DIRECTLY INTO THE SLAB.
- ALL INTERNAL CORNERS AND PENETRATIONS REQUIRE 2X PARALLEL N12 TRIMMERS (900mm LONG) ACROSS EACH CORNER TO CONTROL CRACKING, UNLESS ALIGNED WITH AN APPROPRIATE FORMED OR INDUCED JOINT.
- FOR SLABS ≤100mm THICK, SUFFICIENT COMPACTION IS ACHIEVED THOUGH 1.7. SCREENING PROCESS. FOR >100mm THICK AN IMMERSION VIBRATOR MUST BE USED TO ADEQUATELY DISPEL ENTRAINED AIR
- SURFACE SHALL BE TREATED WITH A MOISTURE EVAPORATION RETARDANT (ALIPHATIC ALCOHOL) AFTER SCREEDING AND PRIOR TO FLOATING.
- AN ADDITIONAL CURING COMPOUND MUST BE APPLIED OVER FINISHED WORKS. THE PRODUCT MUST BE APPROPRIATE FOR THE NOMINATED ARCHITECTURAL FINISH AND APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
- LMC SUB-BASE TO BE CURED BY THE APPLICATION OF A WAX EMULSION HYDROCARBON RESIN.
- CONCRETE CUTTING SHALL BE UNDERTAKEN WITHIN 8 HOURS OF PLACEMENT. A SOFF-CUT SAW IS RECOMMENDED TO ENSURE CORRECT DEPTH OF CUTS. MINIMISE SPALLING THAT ARISES AND PERMIT CUTTING WITHIN THE APPROPRIATE
- FINISHED SURFACE SHALL NOT BE TRAFFICKED EARLIER THAN 10 DAYS AFTER **PLACEMENT**
- BEFORE STARTING THE CONSTRUCTION OF THE CONCRETE PATHWAYS, ENSURE THE BEDDING COMPLIES WITH A MINIMUM STANDARD OF DENSITY, AND THE COMPACTED MATERIALS MEET THE SPECIFIED REQUIREMENTS IN TERMS OF SHEAR STRENGTH, STIFFNESS, PERMEABILITY, AND DEFORMATION RESISTANCE. REFER TO TECHNICAL SPECIFICATION.
- 1.14. CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF 3 DAYS OR BY PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF SEVEN DAYS FOLLOWED BY A GRADUAL DRYING OUT.

CONSTRUCTION VEHICLES SHALL ACCESS STAGE 2 VIA ENVIRONA DRIVE AND LEXCEN AVENUE. CONTRACTOR TO CONSTRUCT AND MAINTAIN ACCESS TRACK AS REQUIRED DURING CONSTRUCTION AND DEMOLISH FOLLOWING COMPLETION OF WORKS.

LEGENDS

GENERAL DRAWINGS



USED WHERE CHANNELS ARE <0.5m DEPTH, ROCK TO BE USED WHERE CHANNELS ARE >0.5m DEPTH). AREA TO BE TOPSOILED AND SEEDED OR STABILISED TO DESIGN REQUIREMENTS. BATTERS TO BE LANDSCAPED. TURFED OR HYDROMULCHED ETC IN ACCORDANCE

CHECK DAM. INDICATIVE ONLY (SAND BAGS TO BE



SEDIMENT BASIN. INDICATIVE LOCATION ONLY.

WITH APPROVED CIVIL DRAWINGS.



CONSTRUCTION ENTRY / TRUCK SHAKEDOWN FACILITY [LLLL] (TO BE INSTALLED AT SITE ENTRY)

STORMWATER DRAWINGS

⊠	PROPOSED STORMWATER PIT	
	PROPOSED STORMWATER PIPE	
SWp	PROPOSED SUBSOIL DRAINAGE	
	OVERLAND FLOW PATH	
FSL 42.72	FINISHED SURFACE LEVEL	
→ DD →	DIVERSION DRAIN	

EARTHWORKS DRAWINGS

BEL 42.72 **BULK EARTHWORKS LEVEL**

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Date

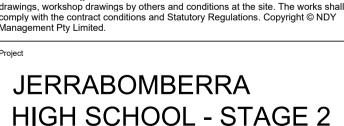
04/07/2023

28/07/2023

Description

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This drawing is diagrammatic and shows the general arrangement of equipment. An information involving measurement of the works shall be taken from architectural

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Verification Of Latest

Amendment J.T

NDY Management Pty Ltd

NSW DEPARTMENT OF EDUCATION SCHOOL INFRASTRUCTURE NSW

CIVIL ENGINEERING WORKS **CONSTRUCTION NOTES & LEGEND**

101 ENVIRONA DRIVE, JERRABOMBERRA LOT 2 DP1277158

PROJECT NUMBER			
Design JA	Drawn JA		
Scale NOT TO SCALE	Project Co		

LEVEL 48. NORTH TOWER

FOR INFORMATION

80 COLLINS SREET

NDY QA SYSTEM

AUSTRALIA

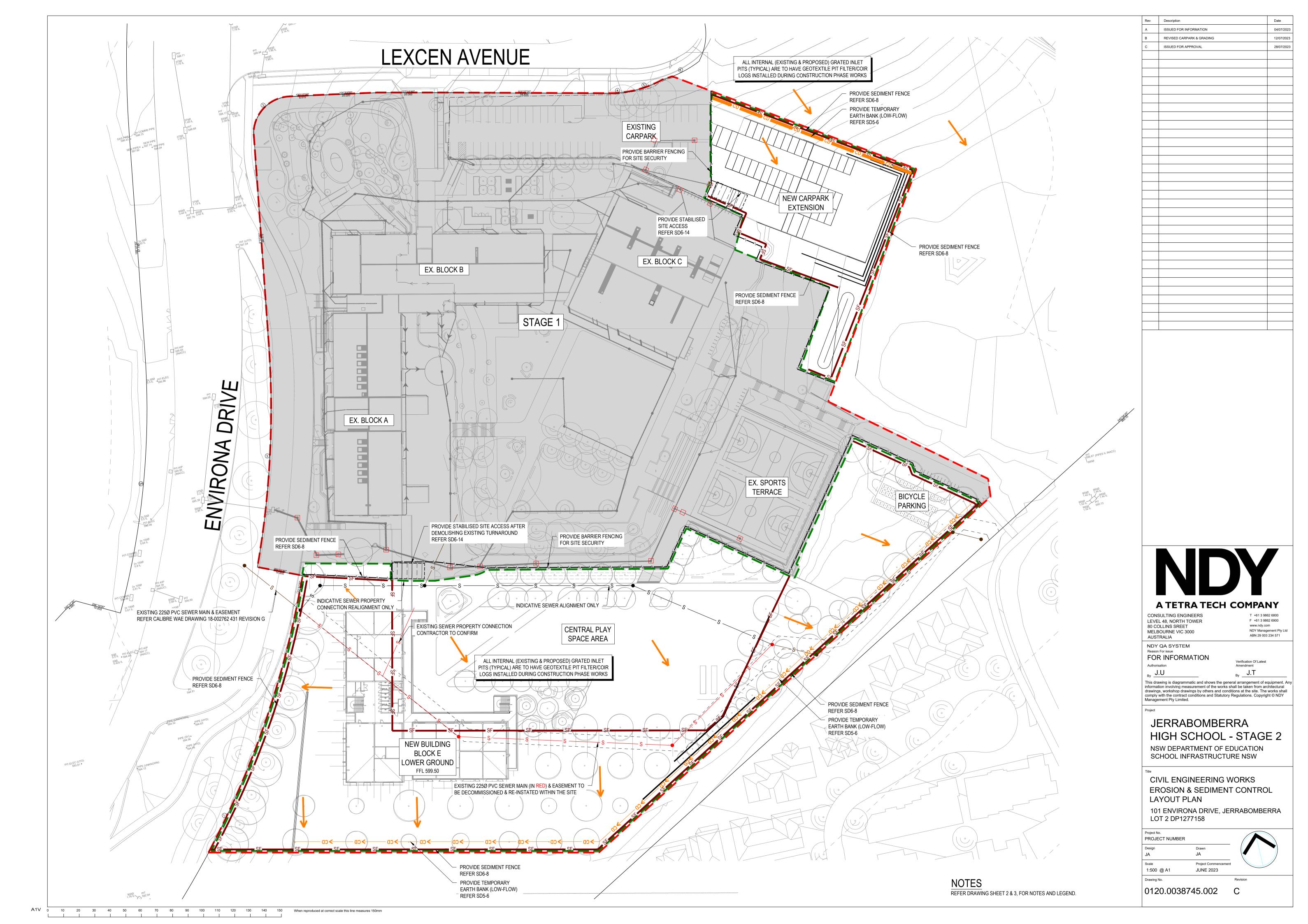
Authorisation

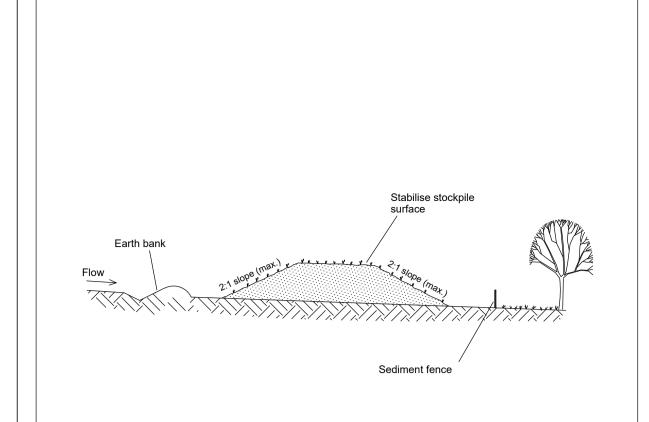
J.U

MELBOURNE VIC 3000

2023

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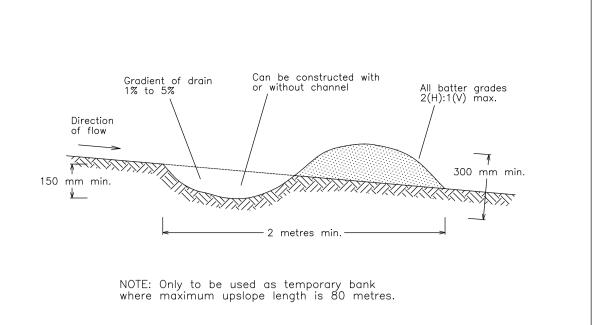




Construction Notes

- 1. Place stockpiles more than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
- 2. Construct on the contour as low, flat, elongated mounds.
- 3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height. 4. Where they are to be in place for more than 10 days, stabilise following the approved
- ESCP or SWMP to reduce the C-factor to less than 0.10. 5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

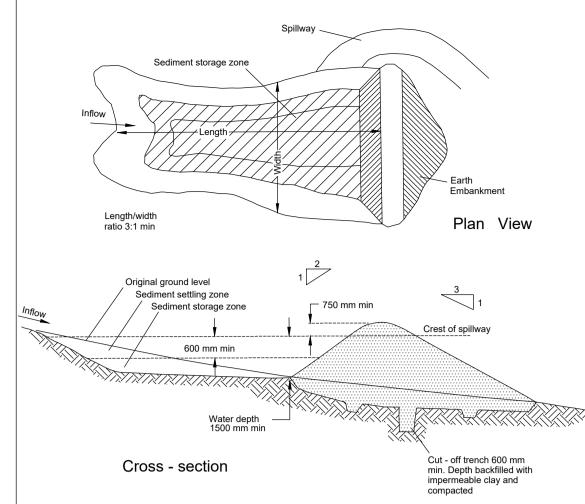
STOCKPILES SD 4-1



Construction Notes

- 1. Build with gradients between 1 percent and 5 percent.
- 2. Avoid removing trees and shrubs if possible work around them.
- 3. Ensure the structures are free of projections or other irregularities that could impede water flow.
- 4. Build the drains with circular, parabolic or trapezoidal cross sections, not V shaped.
- 5. Ensure the banks are properly compacted to prevent failure.
- 6. Complete permanent or temporary stabilisation within 10 days of construction.

EARTH BANK (LOW FLOW)



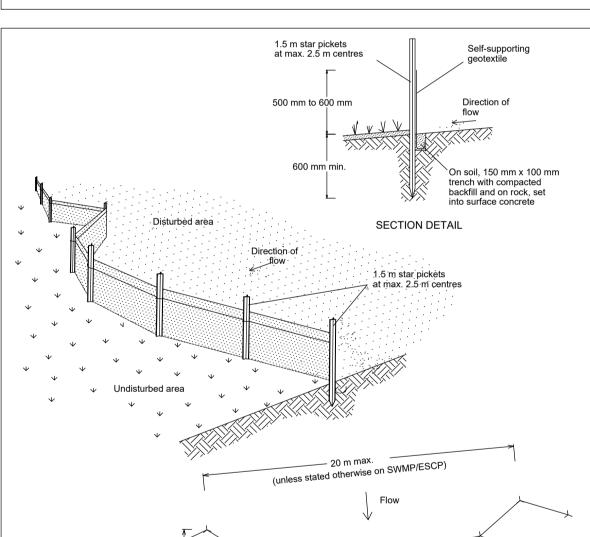
Construction Notes

- 1. Remove all vegetation and topsoil from under the dam wall and from within the storage area. 2. Construct a cut-off trench 500 mm deep and 1,200 mm wide along the centreline of the
- embankment extending to a point on the gully wall level with the riser crest. 3. Maintain the trench free of water and recompact the materials with equipment specified in the SWMP to 95 per cent Standard Proctor Density.
- 4. Select fill following the SWMP that is free of roots, wood, rock, large stone or foreign material.
- 5. Prepare the site under the embankment by ripping to at least 100 mm to help bond compacted
- fill to the existing substrate. 6. Spread the fill in 100 mm to 150 mm layers and compact it at optimum moisture content
- following the SWMP.
- 7. Construct the emergency spillway.
- 8. Rehabilitate the structure following the SWMP.

EARTH BASIN - WET (APPLIES TO 'TYPE D' AND 'TYPE F' SOILS ONLY)

SD 5-5

SD 6-4



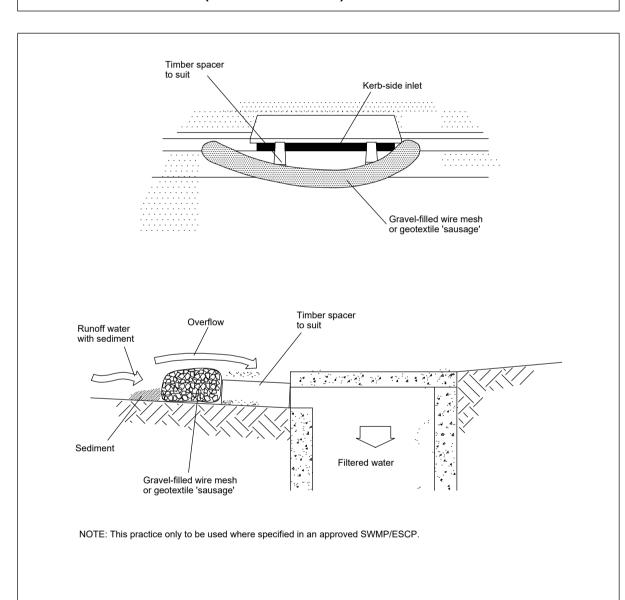
Construction Notes

- 1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to
- 50 litres per second in the design storm event, usually the 10-year event. 2. Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrenched.

Star pickets at maximum 2.5 m spacings

- 3. Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope
- edge of the trench. Ensure any star pickets are fitted with safety caps. 4. Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only
- use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory. 5. Join sections of fabric at a support post with a 150-mm overlap.
- 6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

SEDIMENT FENCE SD 6-8

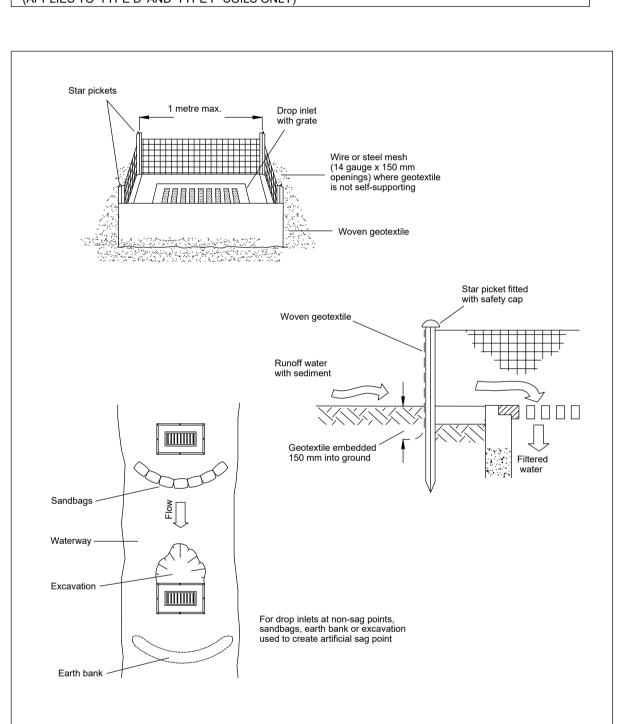


Construction Notes

- 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 25 mm to 50 mm gravel.
- 3. Form an elliptical cross-section about 150 mm high x 400 mm wide.
- 4. Place the filter at the opening leaving at least a 100-mm 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 FILTER

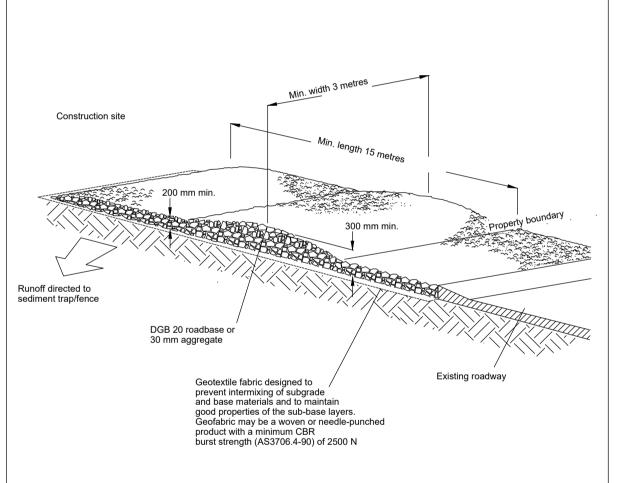
SD 6-11



Construction Notes

- 1. Fabricate a sediment barrier made from geotextile or straw bales.
- 2. Follow Standard Drawing 6-7 and 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 the inlet with geotextile unless the design is adequate to allow for all waters to bypass it.

GEOTEXTILE INLET FILTER



Construction Notes

- 1. Strip the topsoil, level the site and compact the subgrade.
- 2. Cover the area with needle-punched geotextile. 3. Construct a 200 mm thick pad over the geotextile using road base or 30 mm aggregate.
- 4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 metres
- 5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence

STABILISED SITE ACCESS



CONSULTING ENGINEERS LEVEL 48, NORTH TOWER 80 COLLINS SREET MELBOURNE VIC 3000 AUSTRALIA

Description

ISSUED FOR INFORMATION

REVISED CARPARK & GRADING ISSUED FOR APPROVAL

Date

04/07/2023

28/07/2023

NDY QA SYSTEM FOR INFORMATION

Verification Of Latest Amendment J.T

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Authorisation

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JERRABOMBERRA HIGH SCHOOL - STAGE 2 NSW DEPARTMENT OF EDUCATION

CIVIL ENGINEERING WORKS EROSION & SEDIMENT CONTROL

SCHOOL INFRASTRUCTURE NSW

DETAILS 101 ENVIRONA DRIVE, JERRABOMBERRA LOT 2 DP1277158

PROJECT NUMBER

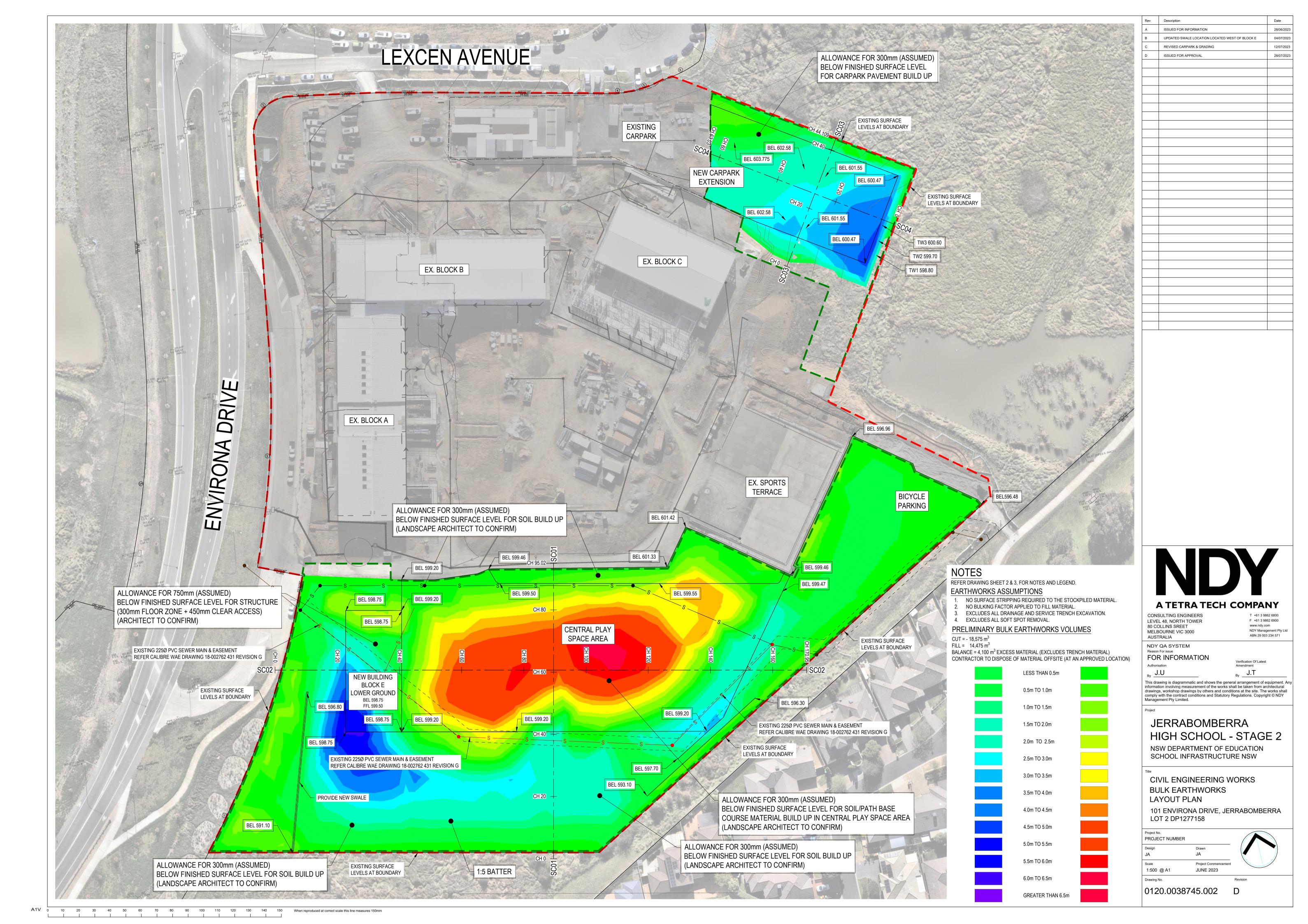
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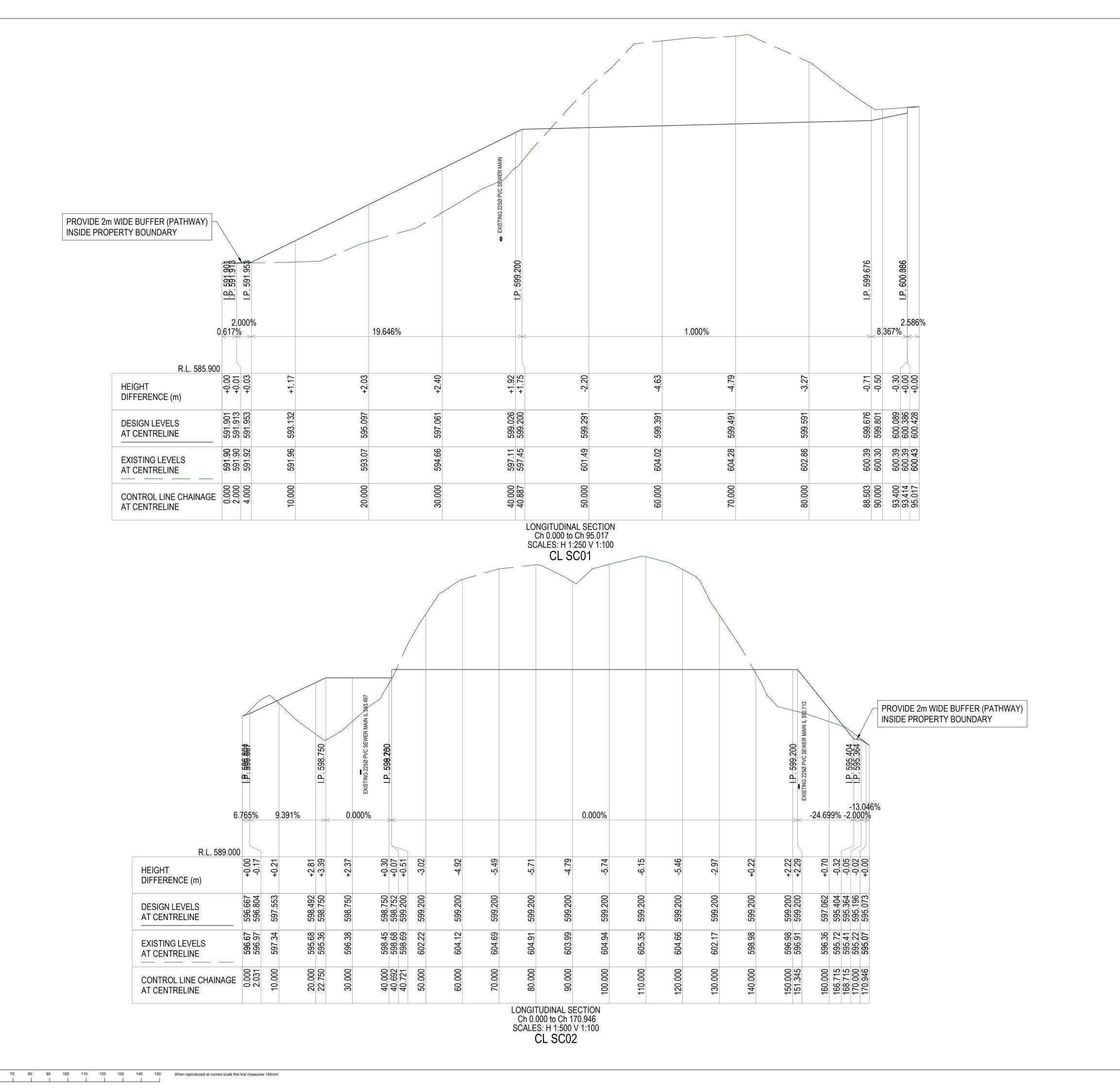
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When reproduced at correct scale this line measures 150mm

SD 6-12

SD 6-14





Description

ISSUED FOR INFORMATION

REVISED CARPARK & GRADING

ISSUED FOR APPROVAL

UPDATED SWALE LOCATION LOCATED WEST OF BLOCK E

Date

28/06/2023

12/07/2023

28/07/2023

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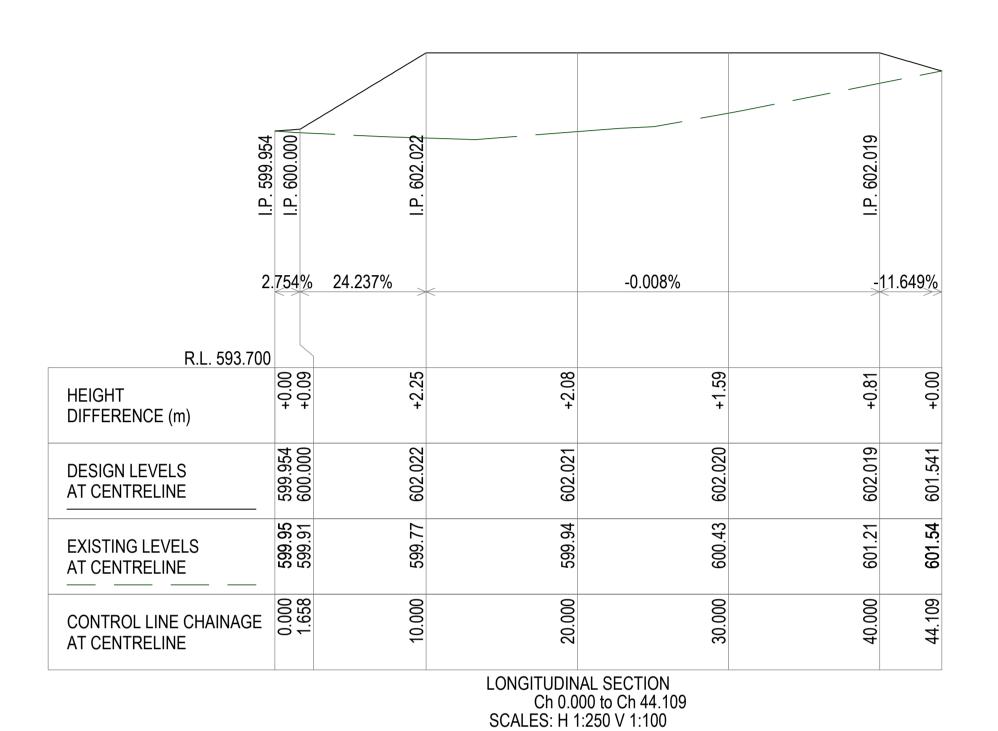
JERRABOMBERRA HIGH SCHOOL - STAGE 2

NSW DEPARTMENT OF EDUCATION SCHOOL INFRASTRUCTURE NSW

CIVIL ENGINEERING WORKS **BULK EARTHWORKS LONGITUDINAL SECTIONS - SHEET 1** 101 ENVIRONA DRIVE, JERRABOMBERRA LOT 2 DP1277158

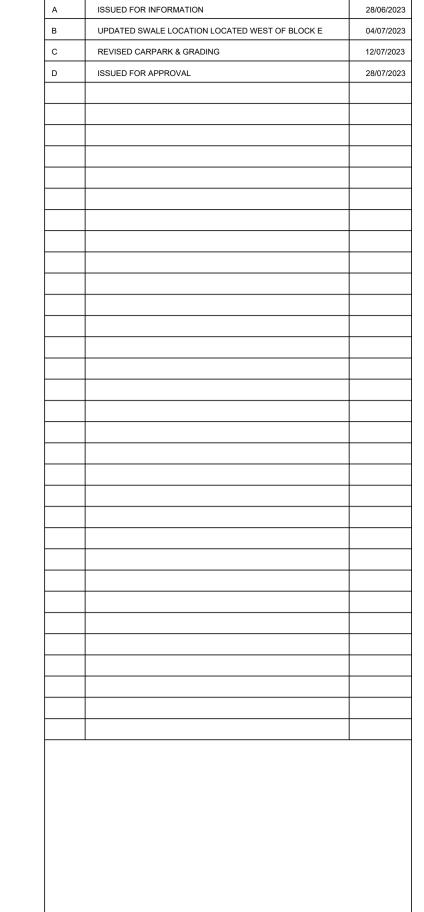
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Design JA	Drawn JA	
Scale 1:500 @ A1	Project Commencement JUNE 2023	

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> LONGITUDINAL SECTION Ch 0.000 to Ch 63.033 SCALES: H 1:250 V 1:100 CL SC04



Description

Date

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Project

JERRABOMBERRA HIGH SCHOOL - STAGE 2

NSW DEPARTMENT OF EDUCATION SCHOOL INFRASTRUCTURE NSW

CIVIL ENGINEERING WORKS
BULK EARTHWORKS
LONGITUDINAL SECTIONS - SHEET 2
101 ENVIRONA DRIVE, JERRABOMBERRA
LOT 2 DP1277158

Project No. PROJECT NUMBER	•		
Design JA	Drawn JA		
Scale 1:500 @ A1	Project Commencement JUNE 2023		

Drawing No. 0120.0038745.002

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