

UPGRADE OF ROAD AND DRAINAGE

MERTON STREET, DENMAN

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LOCATION PLAN

Version No.	Details	Date
A	ORIGINAL ISSUE	9.09.2022
B	REVIEW FROM COUNCIL COMMENT	24.01.2024
C	UPDATE BOX CULVERT	24.10.2023
D	UPDATE BOX CULVERT PAVEMENT	22.11.2023
E	UPDATE NOTES AND MERTON PAVEMENT	24.01.2024

GENERAL

CG1. THE INFORMATION CONTAINED ON THESE DRAWINGS IS FOR CIVIL ENGINEERING PURPOSES ONLY. ALL DISCREPANCIES WITH OTHER CONSULTANTS DOCUMENTATION THAT COULD RESULT IN CHANGES TO THE CIVIL ENGINEERING DETAILS SHALL BE REFERRED TO THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.

CG2. All works in Merton Street are to be carried out in accordance with AUSPEC DEVELOPMENT CONSTRUCTION SPECIFICATION. All works on Golden Highway to be carried out in accordance with Tfnsw Specification M209

CG3. SERVICES INFORMATION SHOWN ON THESE PLANS IS FOR INFORMATION PURPOSES ONLY AND SHALL NOT BE RELIED UPON BY ANY PERSONS USING THESE PLANS. IT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR OR ANY OTHER PERSONS TO LOCATE AND LEVEL ALL EXISTING SERVICES AND UTILITIES PRIOR TO COMMENCING ANY WORKS ON THE SITE AND TO PROTECT AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE AND/OR ADJUST IF NECESSARY.



CG4. CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE OWNER AND SUPERINTENDENT.

CG5. CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS, ETC. TO THE EXTENT SPECIFIED.

CG6. THE SITE SHALL BE KEPT CLEAN AND CLEAR OF RUBBISH AT ALL TIMES. RUBBISH STORAGE AREAS DISPOSAL AREAS SHALL BE KEPT CLEAR DRAINAGE PATHS

CG7. ALL SITE REGRADING AREAS SHALL BE FINALLY GRADED AND SEED AS SOON AS PRACTICABLE AFTER FORMATION TO THE SATISFACTION OF THE SUPERINTENDENT.

CG8. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE.

CG9. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.

CG10. ANY QUANTITIES GIVEN ARE FOR GUIDANCE ONLY.

CG11. ANCILLARY CONCRETE WORKS SHALL BE AS DETAILED ON THE DRAWINGS. FOR QUALITY OF CONCRETE AND CONCRETE WORK GENERALLY REFER TO LOCAL COUNCIL CONSTRUCTION SPECIFICATION AND THE RELEVANT AUSTRALIAN STANDARD.

SURVEY

SU1 COORDINATES MGA

SU2. DATUM AHD

SU3. ALL CHAINAGES ARE IN METRES

SU4. CONTRACTORS SHALL ARRANGE FOR WORKS SET OUT AND WORKS AS EXECUTED SURVEY AND PLANS TO BE CARRIED OUT BY A REGISTERED SURVEYOR.

SU6. ROAD CONSTRUCTION CONFORMANCE TOLERANCES
SUBGRADE: +0mm / -50mm
SUBBASE: +0mm / -20mm
BASE +20mm / -0mm
FINISH LEVEL +20mm / -0mm

SU7. EXISTING LEVEL AND DETAIL SURVEY DATA FROM NORTH POINT SURVEYORS

PAVEMENT SEALING SPECIFICATION 1144

1. PAVEMENT PREPARATION

a) THE EXISTING SURFACE TO BE SEALED SHALL BE DRY AND BROOMED BEFORE COMMENCEMENT OF WORK TO ENSURE COMPLETE REMOVAL OF ALL SUPERFICIAL FOREIGN MATTER.

b) ALL DEPRESSIONS OR UNEVEN AREAS ARE TO BE TACK-COATED AND HAVE A CORRECTION COARSE APPLIED TO THE GENERAL LEVEL OF PAVEMENT BEFORE PLACING THE FIRST COAT.

3.PRIMER SEAL WITH 10mm AGGREGATE

a) THE WHOLE OF THE AREA TO BE TREATED WITH A 30mm AC WEARING COURSE

4. COMPACTION

Uniformly compact asphalt to the standards specified in Density as soon as the asphalt has cooled sufficiently to support the rollers without undue displacement. Compaction to be achieved using suitable sized steel wheeled or vibratory rollers or combination of steel wheeled or vibratory rollers and pneumatic tyre rollers.

5. FINISHED PAVEMENT PROPERTIES

a) FINISHED SURFACES SHALL BE SMOOTH, DENSE AND TRUE TO SHAPE AND SHALL NOT DEVIATE FROM THE BOTTOM OF A 3m STRAIGHT EDGE LAID IN ANY DIRECTION BY MORE THAN 5mm.

DEMOLITION

1. ASBESTOS IF ANY SHALL BE REMOVED BY LICENSED CONTRACTOR TO AN APPROVED FACILITY AND HYGIENIST CLEARANCE CERTIFICATE PROVIDED PRIOR TO GENERAL SITE DEMOLITION.

2. DOCUMENTATION OF LEGAL DISPOSAL OF ASBESTOS SHALL BE PROVIDED TO THE SUPERINTENDENT

3. RECORDS OF LOCATION AND VOLUMES DISPOSAL OF ALL DEMOLITION MATERIALS ARE TO BE PROVIDED TO THE SUPERINTENDENT.

4. DEMOLITION MATERIALS SHALL BE SENT TO RECYCLE CENTER WHERE EVER POSSIBLE IN PREFERENCE TO LAND FILL.

EARTHWORKS

1. EROSION AND SEDIMENTATION CONTROL SHALL BE IN PLACE AND APPROVED PRIOR TO ANY SITE DISTURBANCE

2. OVER ENTIRE AREA OF EARTHWORKS, CLEAR VEGETATION, RUBBISH, SLABS, FENCES etc. AND REMOVE FROM SITE.

3. STRIP TOPSOIL AVERAGE 100mm THICK WHICH SHALL BE RETAINED ON SITE AND UTILISED EFFECTIVELY TO ENCOURAGE APPROPRIATE RE VEGETATION.

4. EXCESS FILL SHALL BE STOCKPILED ON SITE IN A LOCATION AS AGREED WITH SUPERINTENDENT FOR USE IN FUTURE STAGES.

5. ALL REGRADE FILL AREAS ON SITE ARE TO BE COMPACTED IN ACCORDANCE WITH GEOTECHNICAL REPORT RGS01761.1 - AB 28 MAY 2018 (SECTION 6.2)

6. EXCAVATE AND REMOVE ANY UNSUITABLE SOFT AREAS ENCOUNTERED DURING PROOF ROLLING AND REPLACE WITH APPROVED FILL COMPACTED IN LAYERS IN ACCORDANCE WITH SITE DIRECTION BY GEOTECHNICAL ENGINEER.

7. WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN.

8. SELECT FILL PLACED UNDER PAVEMENT SHALL COMPLY WITH WITH GEOTECHNICAL REPORT RGS01761.1 - AB 28 MAY 2018

9. FILLING IS TO BE OF SOUND CLEAN MATERIAL, REASONABLE STANDARD AND FREE FROM LARGE ROCKS, STUMPS, ORGANIC MATTER AND OTHER DEBRIS.

10. PLACING OF FILLING ON THE PREPARED AREAS SHALL NOT COMMENCE UNTIL THE AUTHORITY TO DO SO HAS BEEN OBTAINED FROM SUPERINTENDENT OR GEOTECHNICAL ENGINEER.

11. ALL VERGES ADJACENT TO ROADS AND ALL AREAS ARE TO BE DRESSED WITH 100mm CLEAN SANDY TOPSOIL AND TURFED,

12. TOPSOIL SHALL NOT BE PLACED OVER BULK EARTHWORKS PAD OR LOTS FOR FUTURE DWELLINGS.

13. ALL DETENTION BASINS TO BE TOPSOILED AND TURFED.

CARPARKING

1. CARPARKING PROVISION COMPLY WITH AS2890.1 & AS2890.6

SITE DRAINAGE

1. SITE DRAINAGE IS IN ACCORDANCE WITH THE DRAINAGE STRATEGY STAMPED 16-2013-790-2 APPROVED BY COUNCIL AND RETAINS THE 1% AEP RAINFALL EVENT.

CONCRETE NOTES

GENERAL

1. CARRY OUT ALL CONCRETE WORK IN ACCORDANCE WITH NATSPEC 0139 MINOR CONCRETE WORKS.

2. VERIFY ALL SETTING OUT DIMENSIONS - IF IN DOUBT ASK

3. DO NOT OBTAIN DIMENSIONS BY SCALING THE DRAWINGS.

4. MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 32MPa UNLESS OTHERWISE SHOWN

5. CEMENT SHALL BE GP PORTLAND CEMENT IN ACCORDANCE WITH AS3972 AND BLENDED CEMENTS. NO ADMIXTURES WILL BE USED WITHOUT APPROVAL

6. AGGREGATE AND SAND SHALL BE CLEAN, HARD AND DURABLE IN ACCORDANCE WITH AS 2758.1 CONCRETE AGGREGATES (100% PASSING THE 20mm SIEVE)

7. CLEAR COVER TO ANY REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 50mm.

CONCRETE BLOCK RETAINING WALL

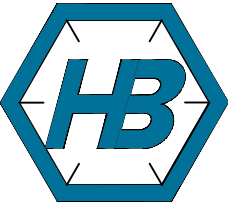
1. CONSTRUCTION OF CORE FILLED CONCRETE BLOCK RETAINING WALLS SHALL BE IN ACCORDANCE WITH NORTHROP STRUCTURAL DRAWINGS

GEOTEXTILE FABRIC

1. GEOTEXTILE (GEOFABRIC) SHALL BE IN ACCORDANCE WITH AS3706 .

ORIGINAL DRAWINGS ARE IN COLOUR

1. ONLY USE PLANS THAT ARE IN COLOUR.



H.SCALE 1:50 (A1)	DATUM AHD	LGA: MUSWELLBROOK	SHEET
VERT. SCALE 1:50 (A1)	CONTOUR INTERVAL	DRAWING REVISIONS	001
DATE 24.01.2024	FILE 211228_ENG_ST_D	A ORIGINAL ISSUE	JOB REF:
DESIGN: Michael Cole B. Eng Registered Land Surveyor		B REVISED ON COUNCIL COMMENTS	211228
		C UPDATE BOX CULVERT	
		D UPDATE BOX CULVERT PAVEMENT	
		E UPDATE NOTES AND MERTON PAVEMENT	

GENERAL INSTRUCTIONS

1. THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ENGINEERING PLANS, AND ANY OTHER PLANS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED AND RELATING TO DEVELOPMENT AT THE SUBJECT SITE.
2. THE SITE SUPERINTENDENT WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS INSTRUCTED IN THIS SPECIFICATION.
3. ALL BUILDERS AND SUB-CONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.

CONSTRUCTION SEQUENCE

4. THE SOIL EROSION POTENTIAL ON THIS SITE IS TO BE MINIMISED. HENCE WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE :-
- (A) INSTALL SEDIMENT FENCES
- (B) CONSTRUCT OPEN SWALES TO DIVERT WATER FROM SITE AS NECESSARY AND DIRECTED BY THE SITE SUPERINTENDENT.
- (C) CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT.
- (D) INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
- (E) UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

5. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
6. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

SEDIMENT CONTROL

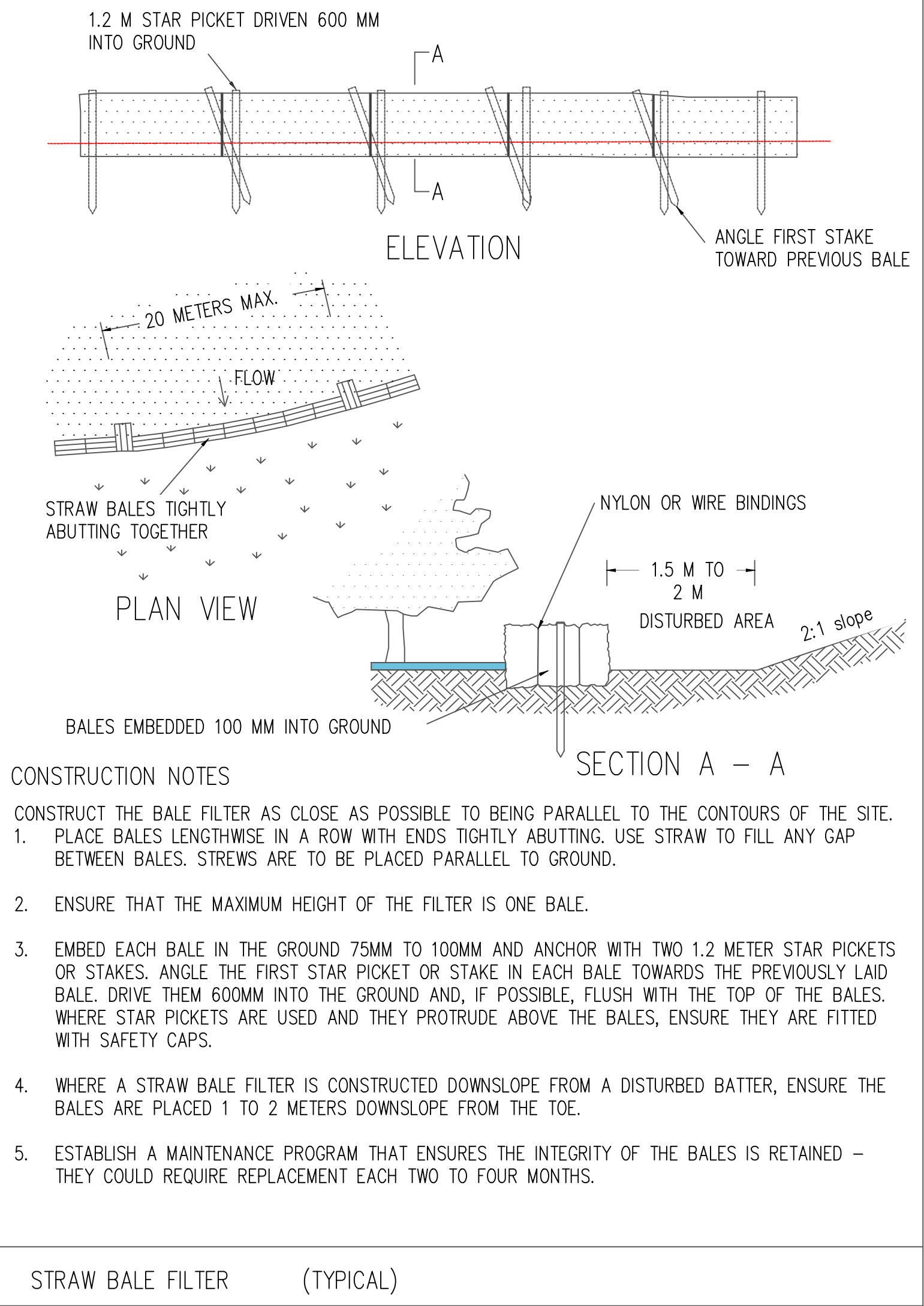
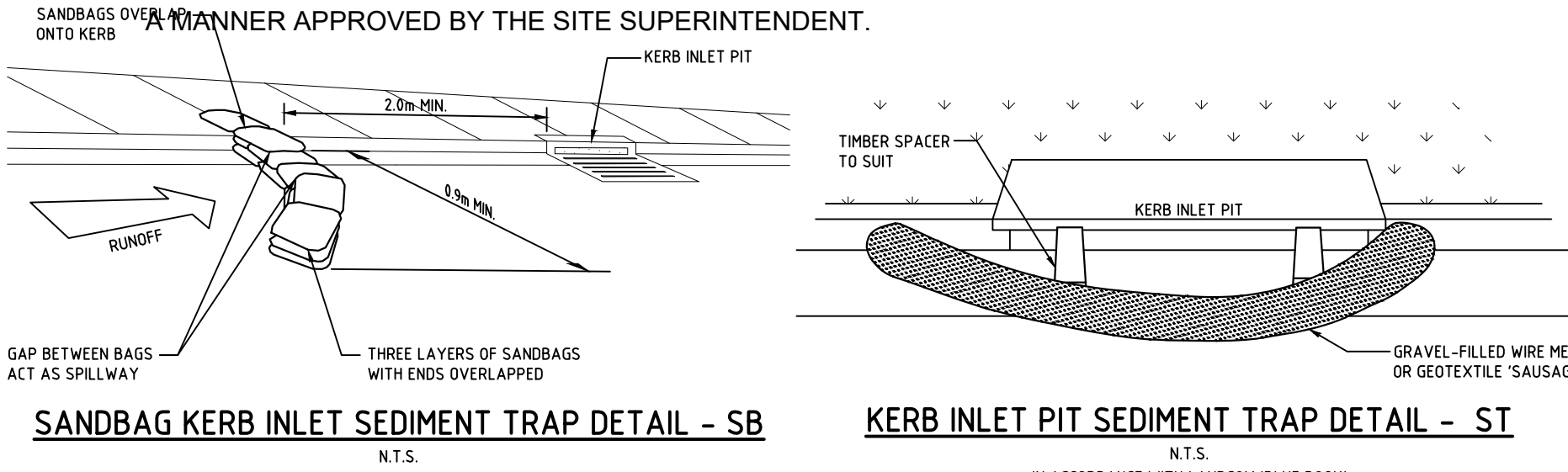
7. STOCKPILE SITE SHALL BE AGREE UPON WITH SUPERINTENDENT AND WILL NOT BE LOCATED NEAR HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. INSTALLATION OF SEDIMENT FENCING SHALL BE UNDERTAKEN ON THE DOWN HILL SIDE OF STOCKPILES .
8. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
9. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
10. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

11. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
12. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
- (A) PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE.
- (B) ENSURING THAT NOTHING IS NAILED TO THEM.
- (C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
- (I) ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICHEVER IS THE GREATER.
- (II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH.
- (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY AND NOT TO COMPACT THE SOIL AROUND THEM.

SITE INSPECTION & MAINTENANCE

13. 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.

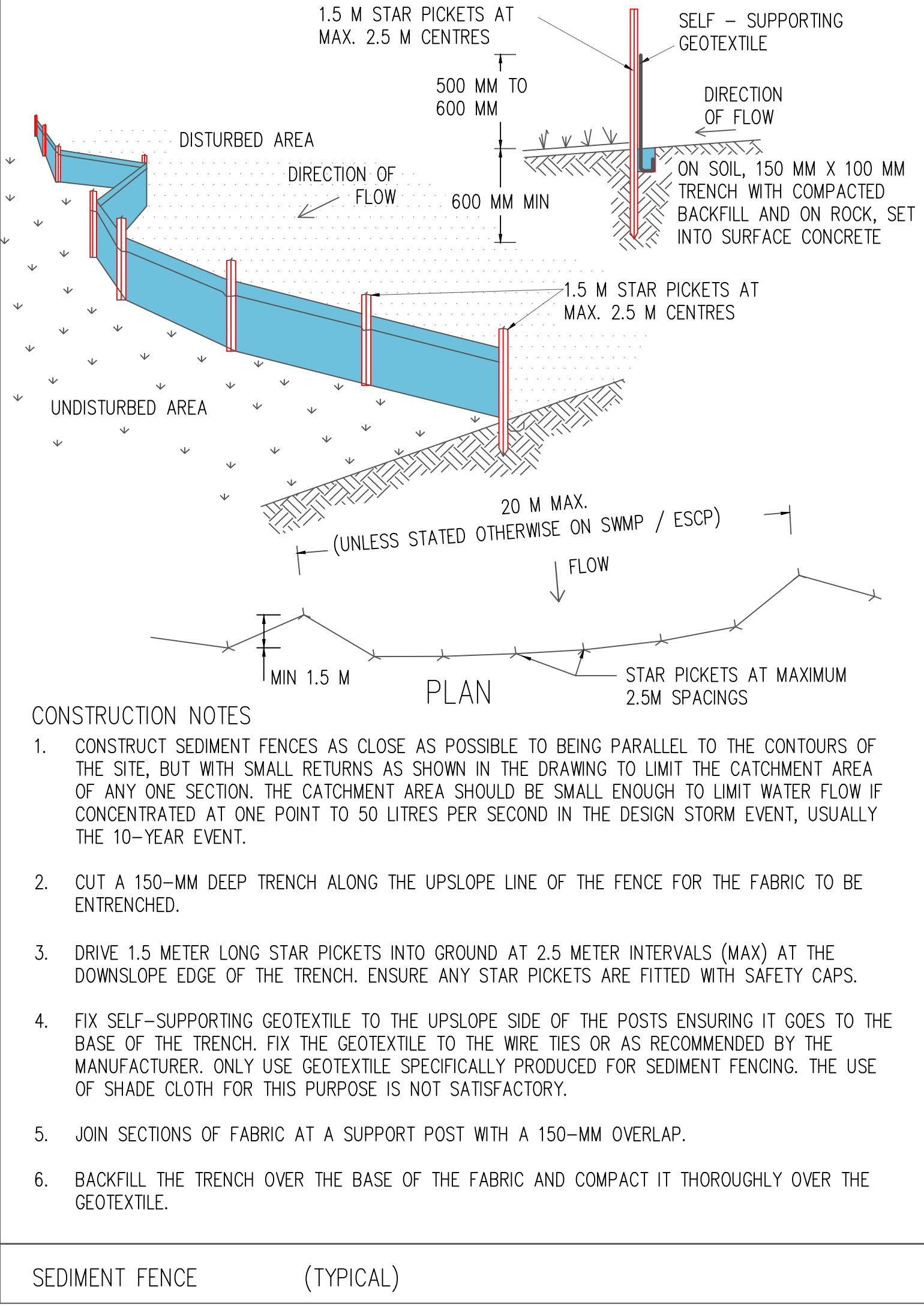


CONSTRUCTION NOTES

- CONSTRUCT THE BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
1. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAP BETWEEN BALES. STREWS ARE TO BE PLACED PARALLEL TO GROUND.
2. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
3. EMBED EACH BALE IN THE GROUND 75MM TO 100MM AND ANCHOR WITH TWO 1.2 METER STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600MM INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
4. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METERS DOWNSLOPE FROM THE TOE.
5. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED – THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

SEDIMENTATION AND EROSION CONTROL

- SE1. LAND DISTURBANCE SHALL BE LIMITED TO THAT NECESSARY FOR IMPLEMENTATION OF THE PLANS OF WORK AND LANDS NOT TO BE DISTURBED SHALL BE CLEARLY MARKED WITH BARRIER FENCES. SEDIMENT FENCING AND STRAW BALE FILTER SHALL BE PLACED AT REGULAR INTERVALS IMMEDIATELY DOWN SLOPE OF ALL UNPROTECTED DISTURBED LANDS
- SE2. INSTALL SEDIMENT FENCING AND STRAW BALE FILTER IN ACCORDANCE WITH DETAILS ABOVE AND LOCAL COUNCIL REQUIREMENTS.
- SE3. THE LOCATION OF "SILT" FENCES, SEDIMENT FENCES STRAW BALE FILTER AND OTHER DEVICES SHALL BE DETERMINED ON SITE IN CONJUNCTION WITH THE SUPERINTENDENT. VARIATIONS ARE PERMITTED TO BEST SUIT THE CIRCUMSTANCES
- SE4. INSTALL TEMPORARY CONSTRUCTION VEHICLE EXIT IN ACCORDANCE WITH TYPICAL DETAILS
- SE5. STRIP VEGETATION FROM ALL CUT AREAS AND DISPOSE OFF SITE
- SE6. STRIP TOPSOIL FROM ALL CUT AREAS AND STOCKPILE ON SITE
- SE7. EXCAVATE ALL CUT AREAS AND PLACE COMPACTED FILL WHERE REQUIRED.
- SE8. ALL ADJACENT LANDSCAPE AREAS ARE TO BE STABILISED AND VEGETATED WITHIN 20 DAYS OF COMPLETION.
- SE9. EXCAVATE, LAY AND BACKFILL DRAINAGE LINES. OPEN TRENCH LENGTHS ARE NOT TO EXCEED 25 METRES. WHERE TRENCHES ARE OPEN OVER NIGHT, DIVERT POTENTIAL SURFACE WATER TO A SAFE LOCATION.WITH CONTROL MEASURES.
- SE10. JUTE MESH TO TABLE DRAINS SHALL BE SECURED IN ACCORDANCE WITH MANUFACTURES SPECIFICATION,
- NOTE: WHEREVER SEDIMENT AND EROSION CONTROL DEVICES ARE REMOVED EARLIER IN THE CONSTRUCTION SEQUENCE THAN AS SPECIFIED ABOVE, ENSURE THAT THE DISTURBED GROUND IS RE-VEGETATED TO REDUCE THE LIKELIHOOD OF EROSION AND SEDIMENT TRANSPORT FROM THE SITE. ENSURE ALSO THAT SEDIMENT LADEN WATER CAN STILL REACH SEDIMENTATION BASINS FOR TREATMENT.

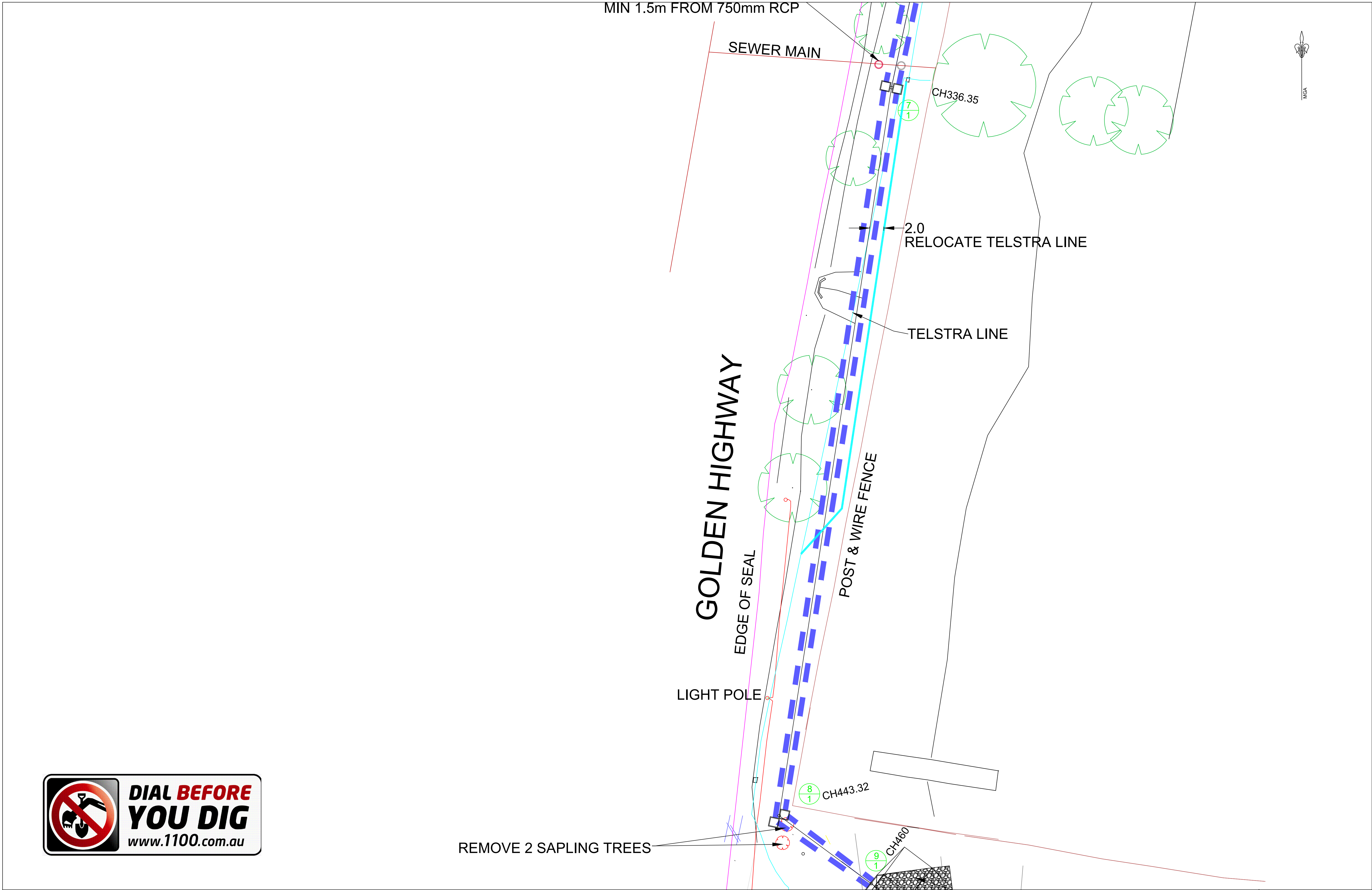


CONSTRUCTION NOTES

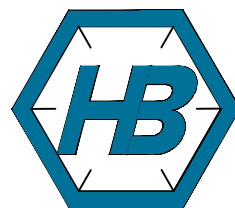
1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND 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 FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METER LONG STAR PICKETS INTO GROUND AT 2.5 METER 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 TO THE 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 RUN-OFF CONTROL

- RC1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL MEASURES GENERALLY IN ACCORDANCE WITH THE GUIDELINES OF THE N.S.W. DEPT. OF CONSERVATION AND LAND MANAGEMENT AS NECESSARY TO PREVENT RUN-OFF FROM SITE OF SEDIMENT RESULTING FROM THESE WORKS. SUCH MEASURES SHALL ALSO COMPLY WITH REQUIREMENTS OF COUNCIL.
- RC2. GRADE FINISHED SURFACE TO SHED WATER EVENLY WITHOUT CHANNELING



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REGISTERED SURVEYORS - TOWN PLANNING - CIVIL DESIGN
Surveying the Hunter since 1920



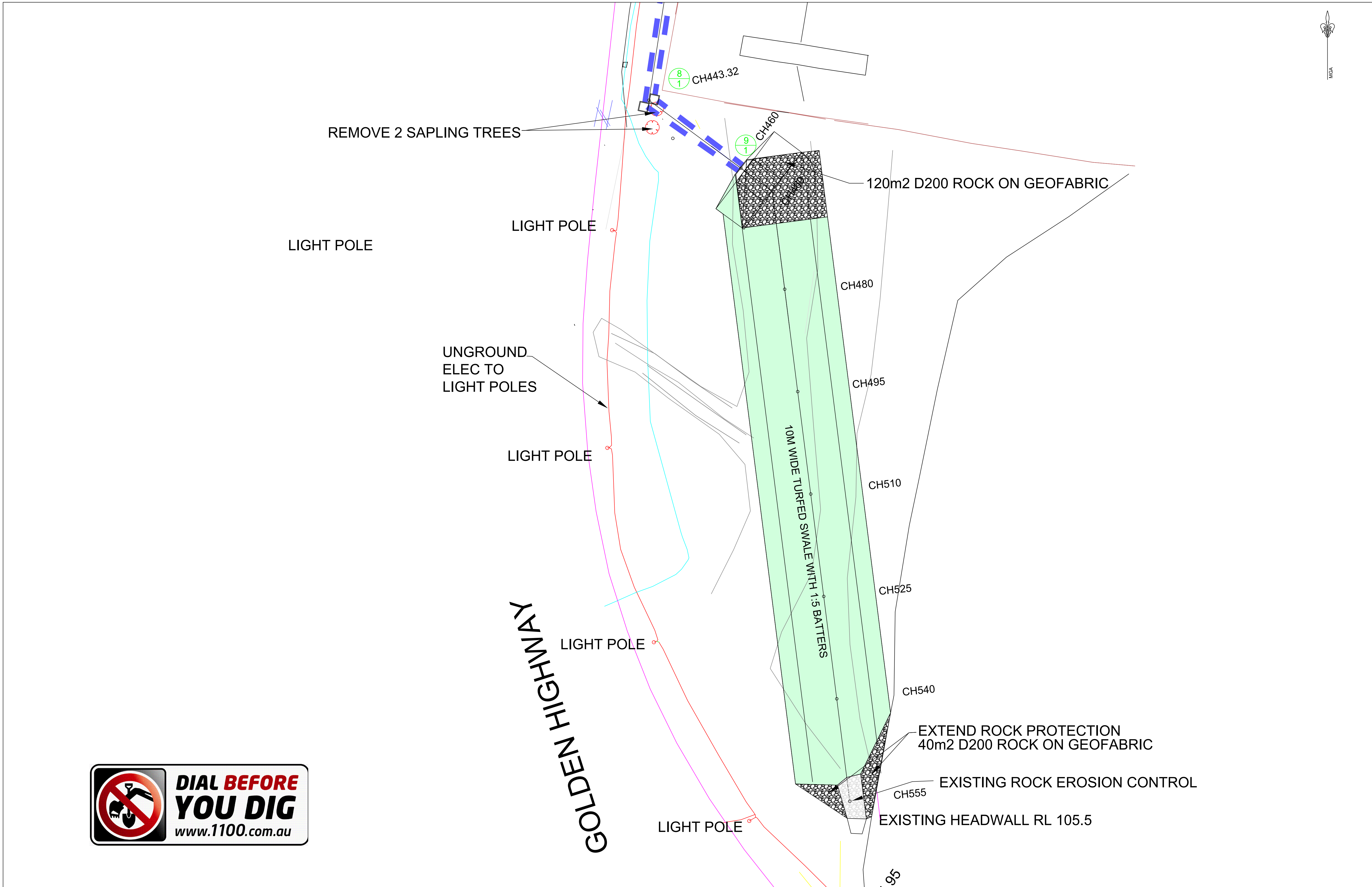
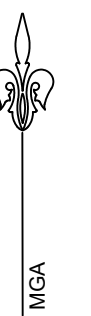
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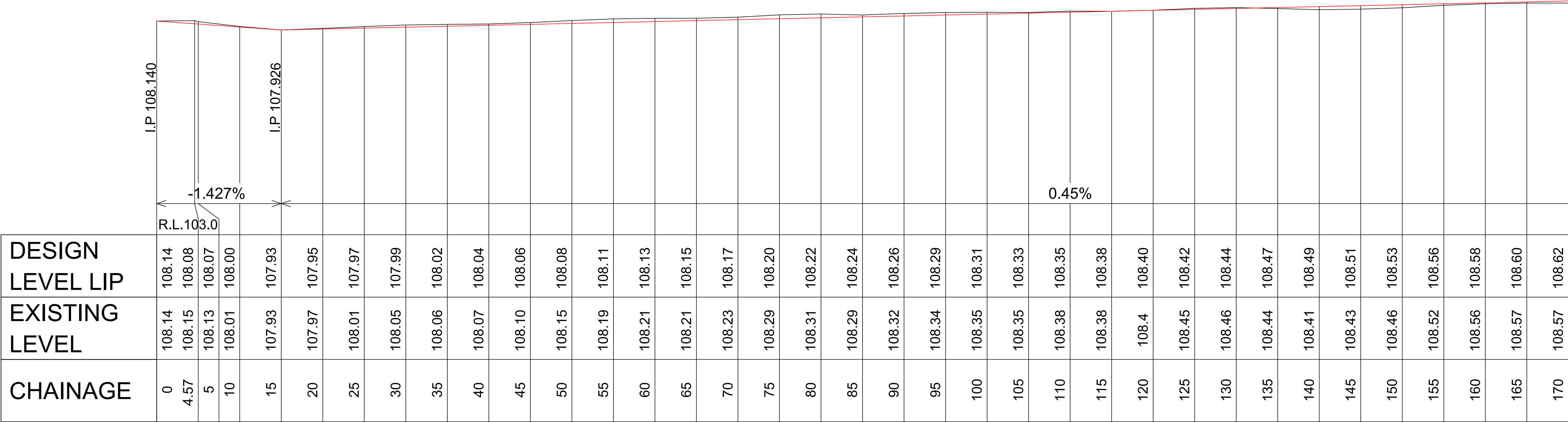
MERTON STREET, DENMAN
GENERAL ARRANGEMENT PLAN 3



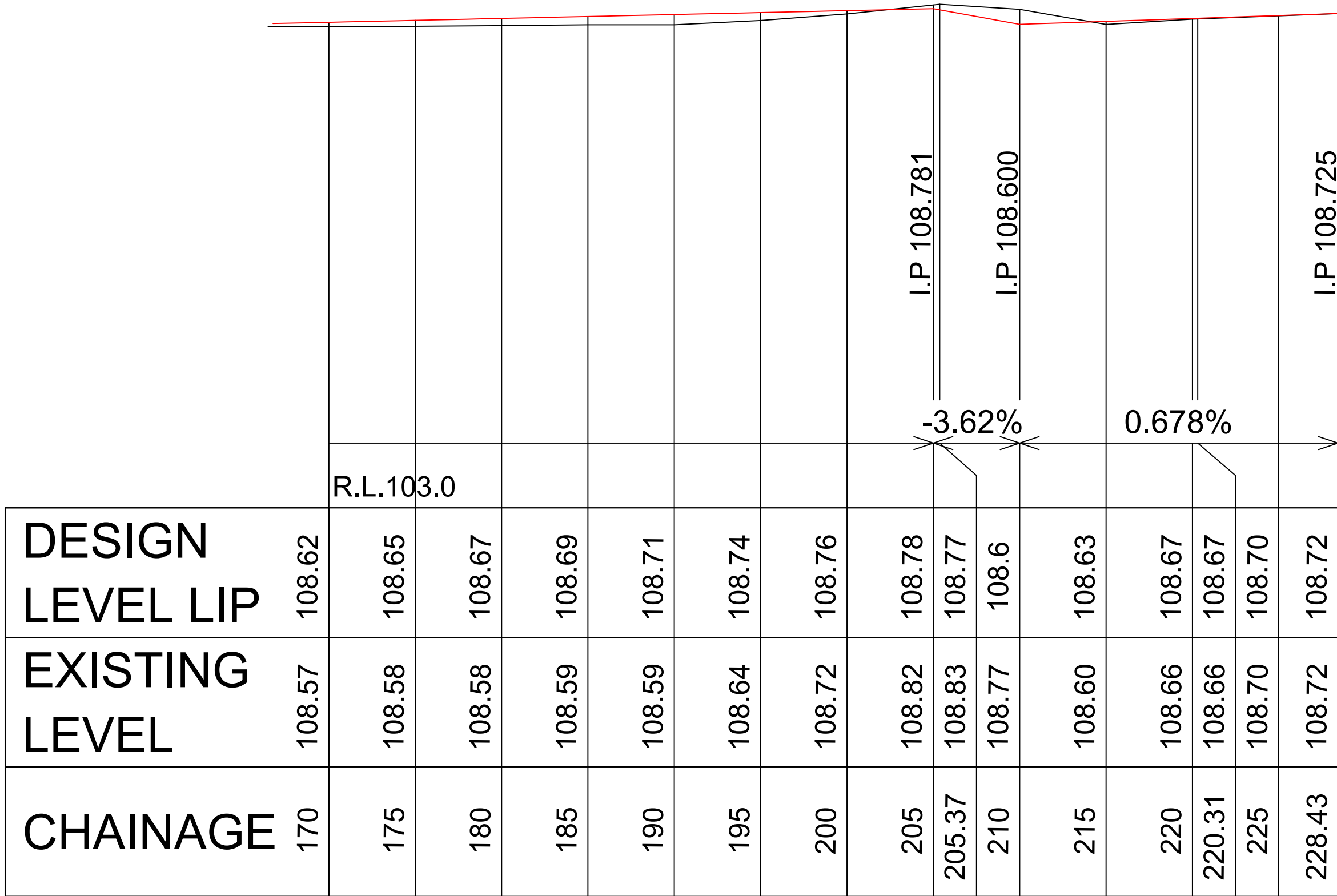
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H.SCALE 1:250 (A1)	DATUM AHD	LGA: MUSWELLBROOK	SHEET 006
VERT. SCALE	CONTOUR INTERVAL	DRAWING REVISIONS	JOB REF:
DATE 24.01.2024	FILE 211228_ENG_S1_D	A ORIGINAL ISSUE	211228
DESIGN: Michael Cole B. Eng Registered Land Surveyor		B REVISED ON COUNCIL COMMENTS	
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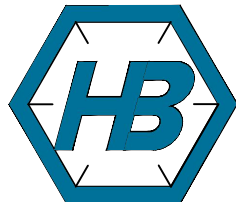


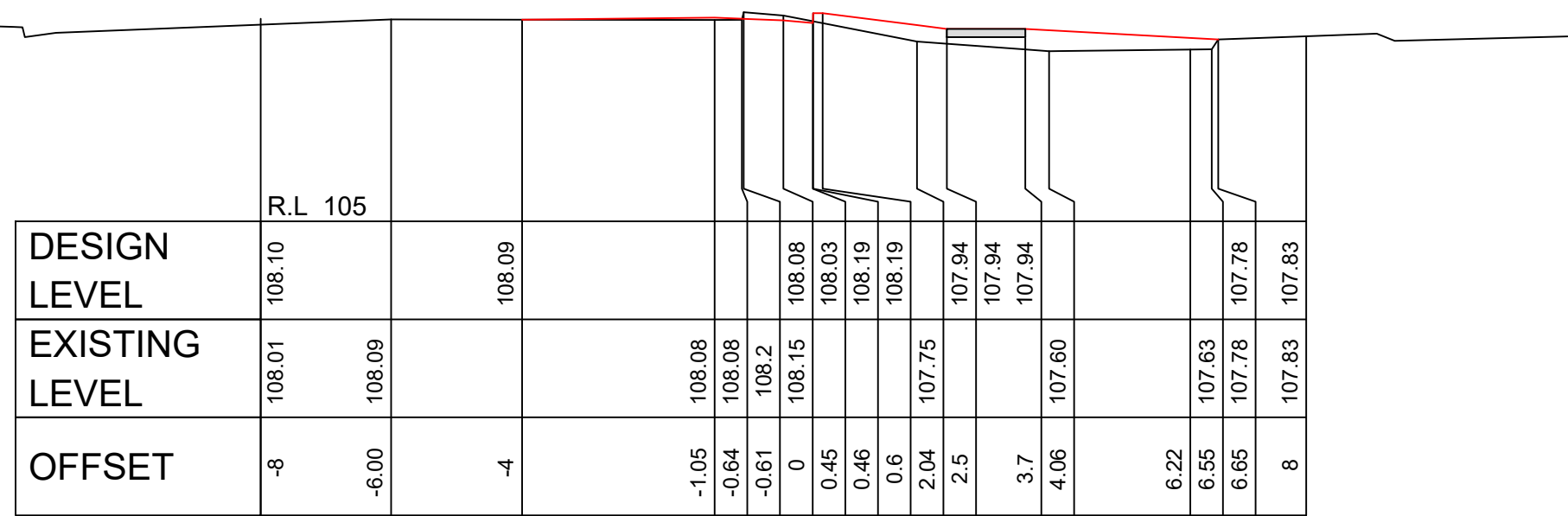


MERTON STREET
LIP LEVELS

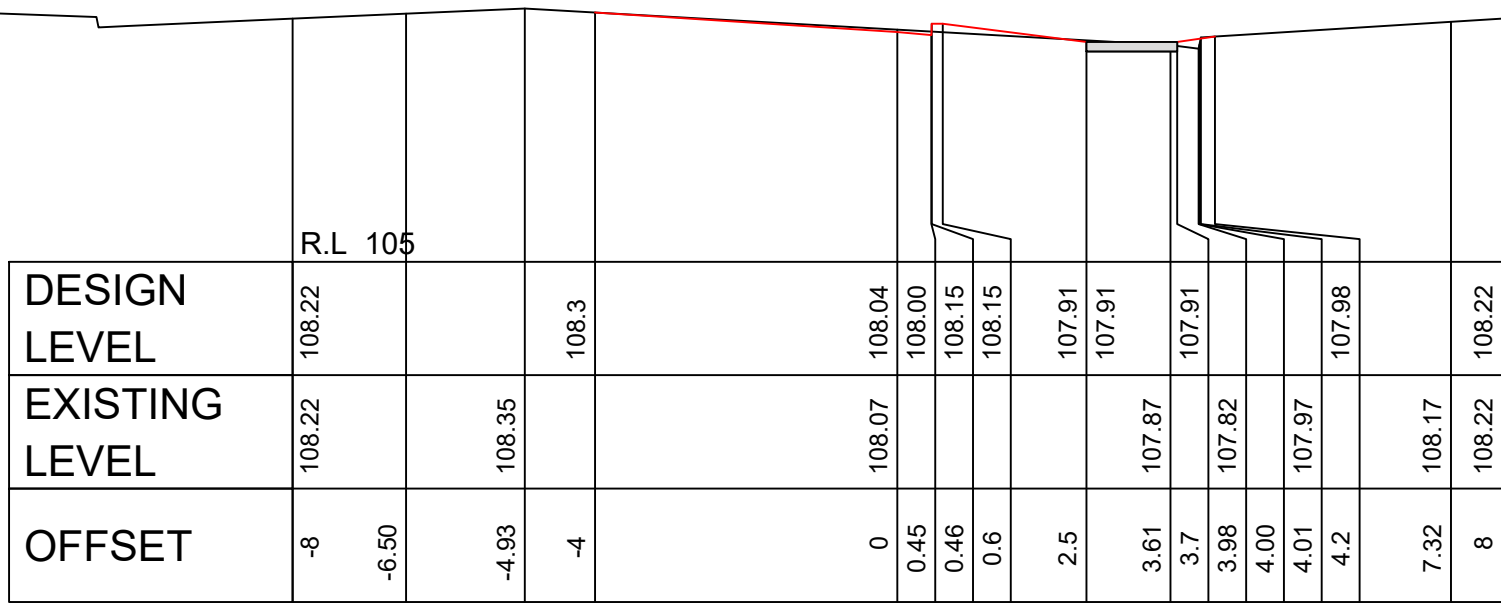


MERTON STREET
LIP LEVELS

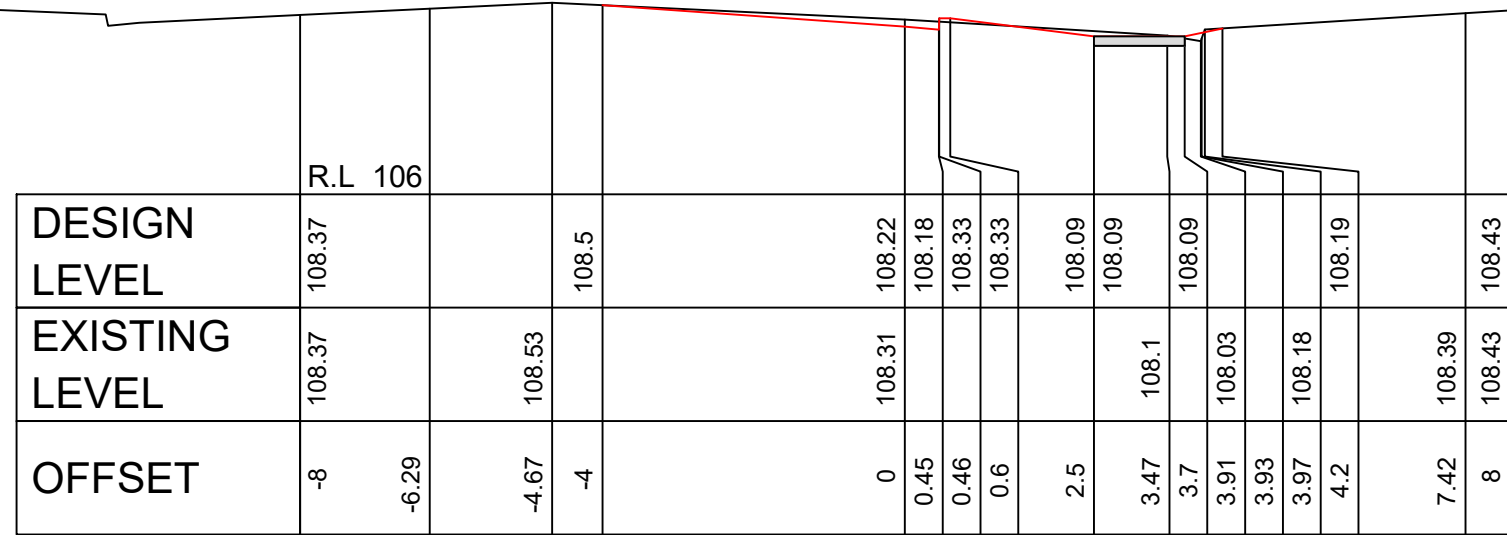




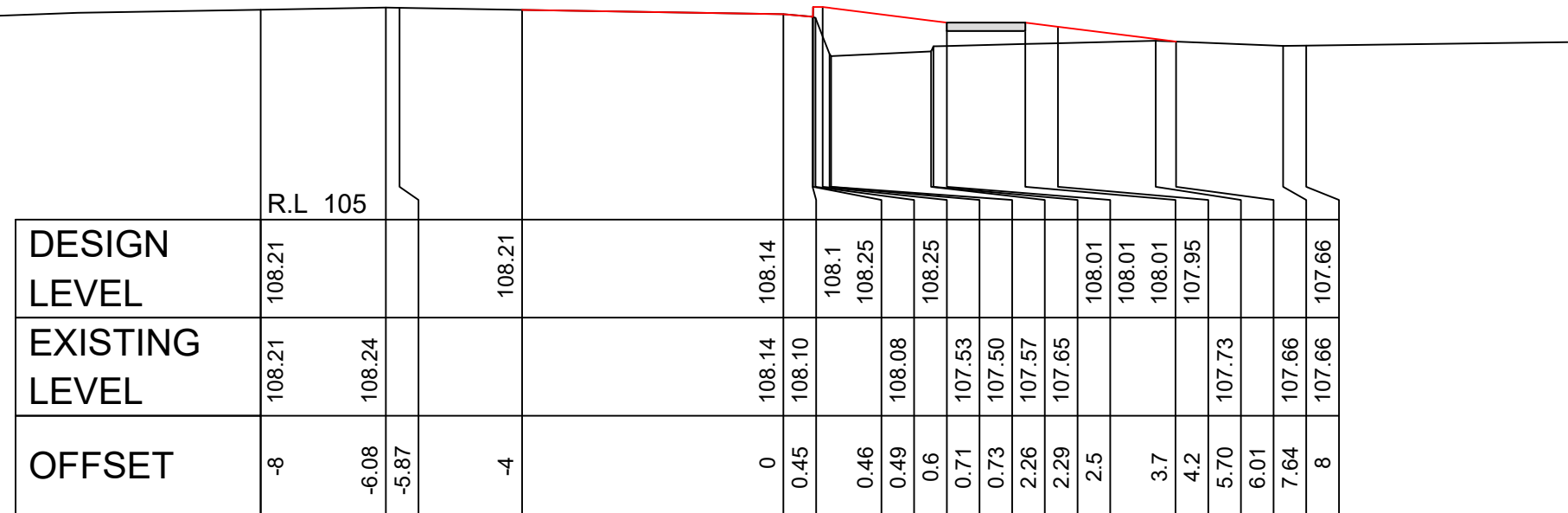
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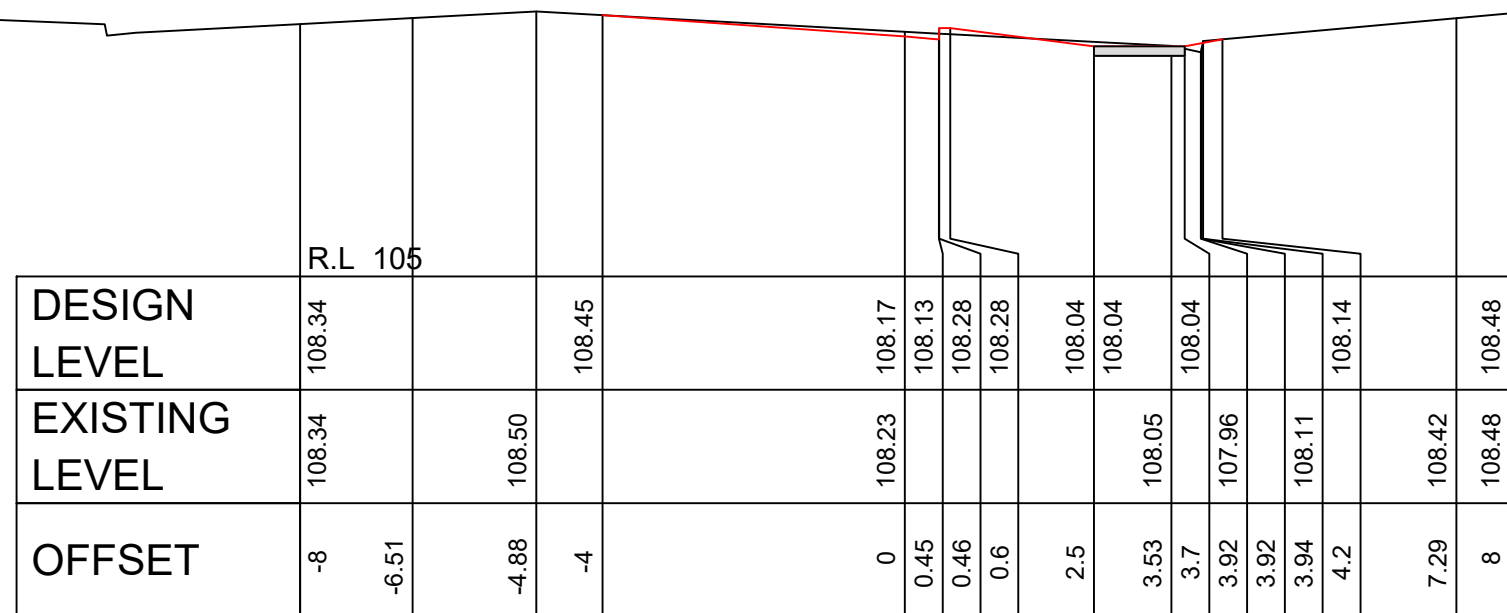
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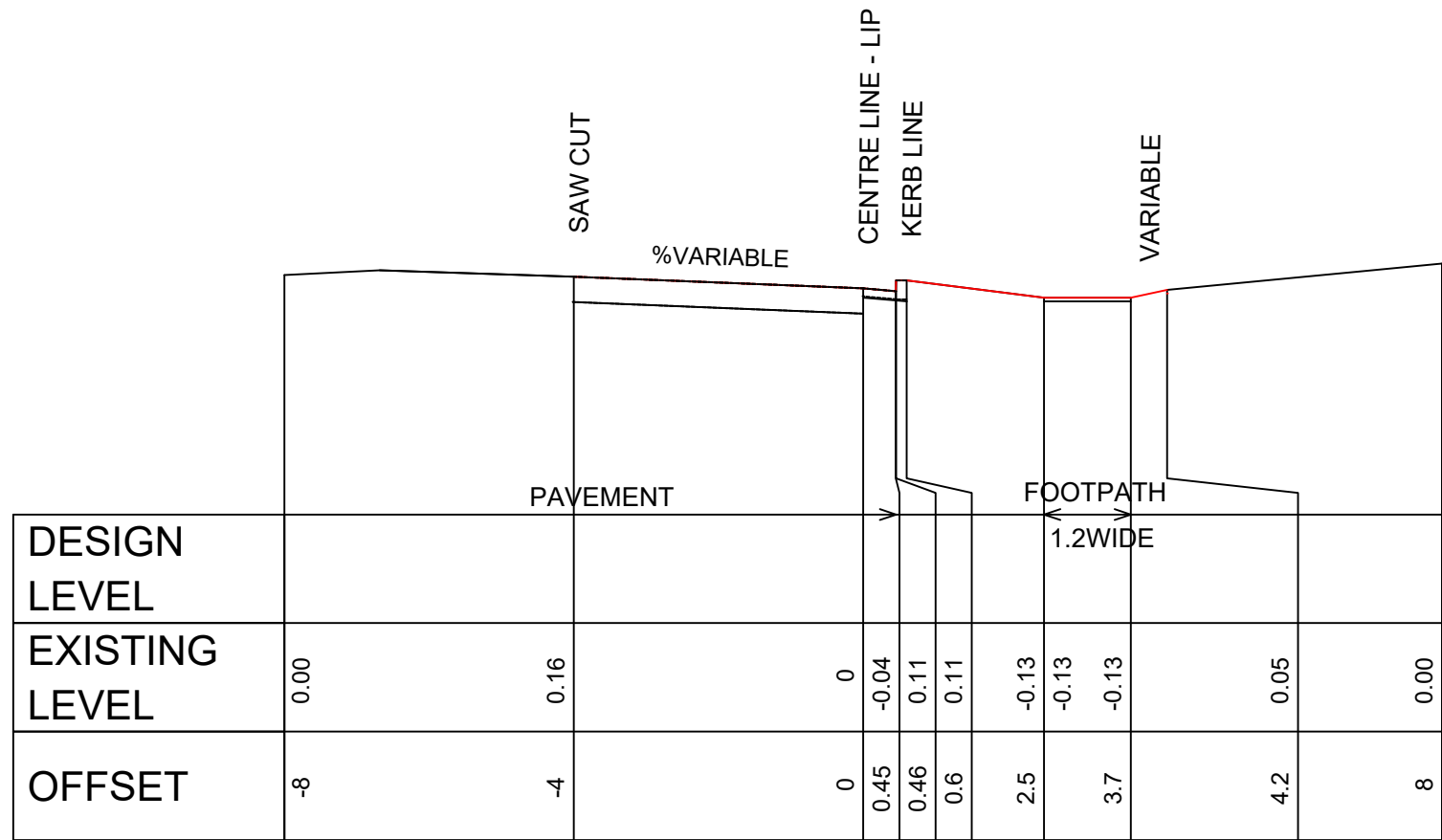
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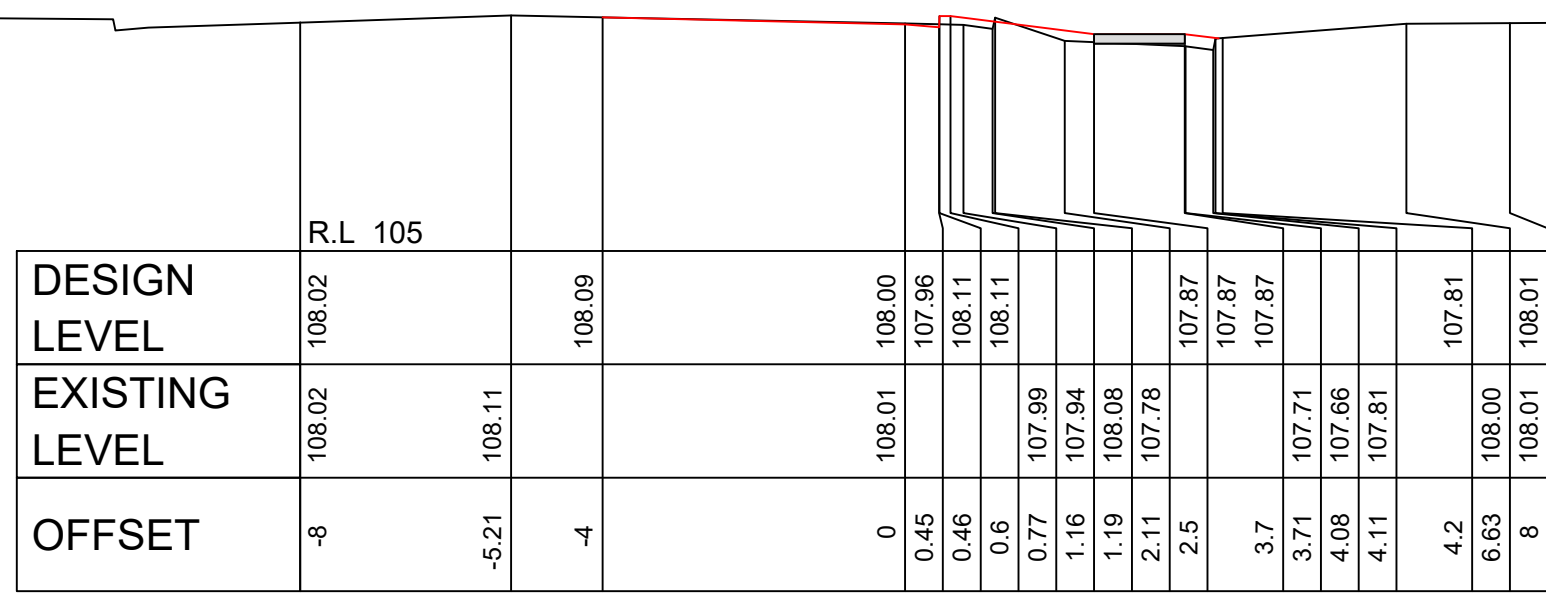
TYPICAL SECTION



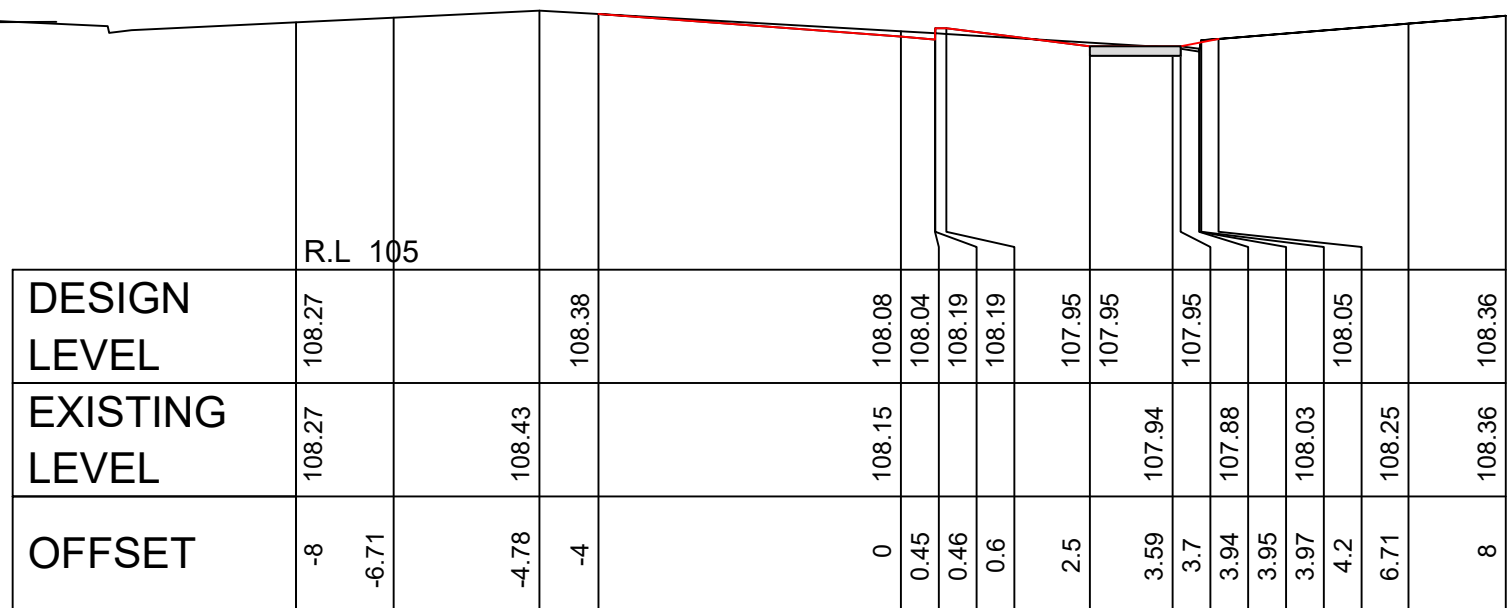
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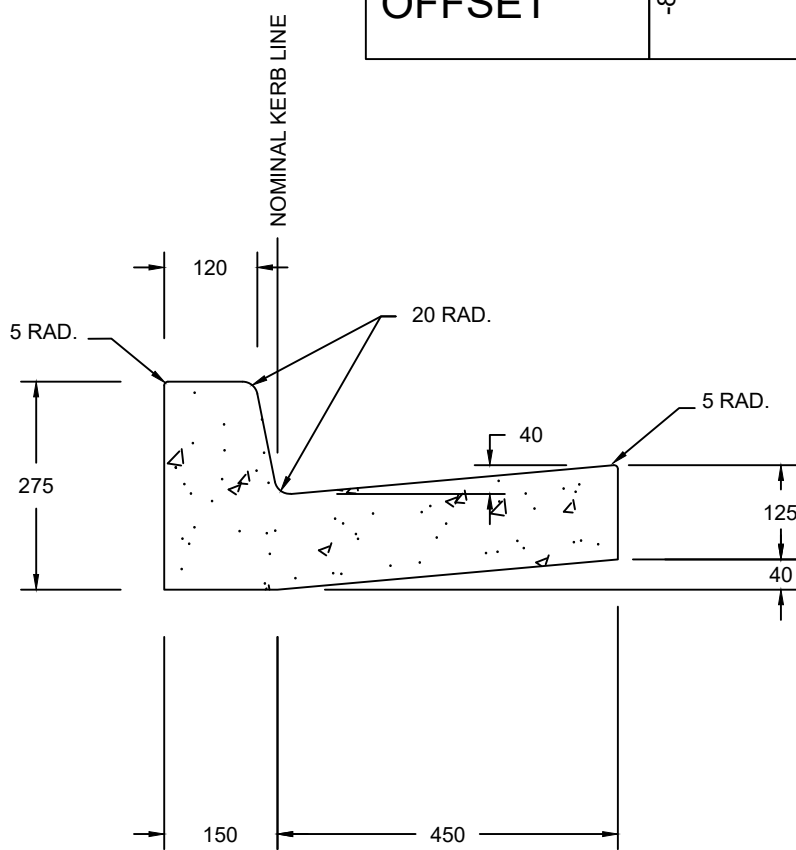
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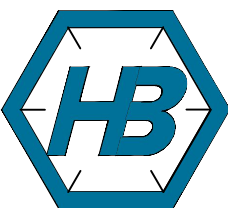
STANDARD KERB & GUTTER

SCALE 1:10

PAVEMENT DETAILS

1. REMOVE 150mm OF EXISTING PAVEMENT AND STOCKPILE FOR USE ITEM 3 BELOW
2. BOX OUT ADDITIONAL 200mm AND DISPOSE OF TO COUNCIL'S PREFERRED LOCATION (WITHIN 10KM)
3. PLACE 200MM OF PAVEMENT FROM ITEM 1 AND STABILISE 3% LIME (INSTU STABILISING)
4. SUPPLY AND PLACE 150mm DGB20 COMPACT 98% MODIFIED
5. SEAL 14-10 DOUBLE/DOUBLE BITUMEN SEAL

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REGISTERED SURVEYORS - TOWN PLANNING - CIVIL DESIGN
Surveying the Hunter since 1920



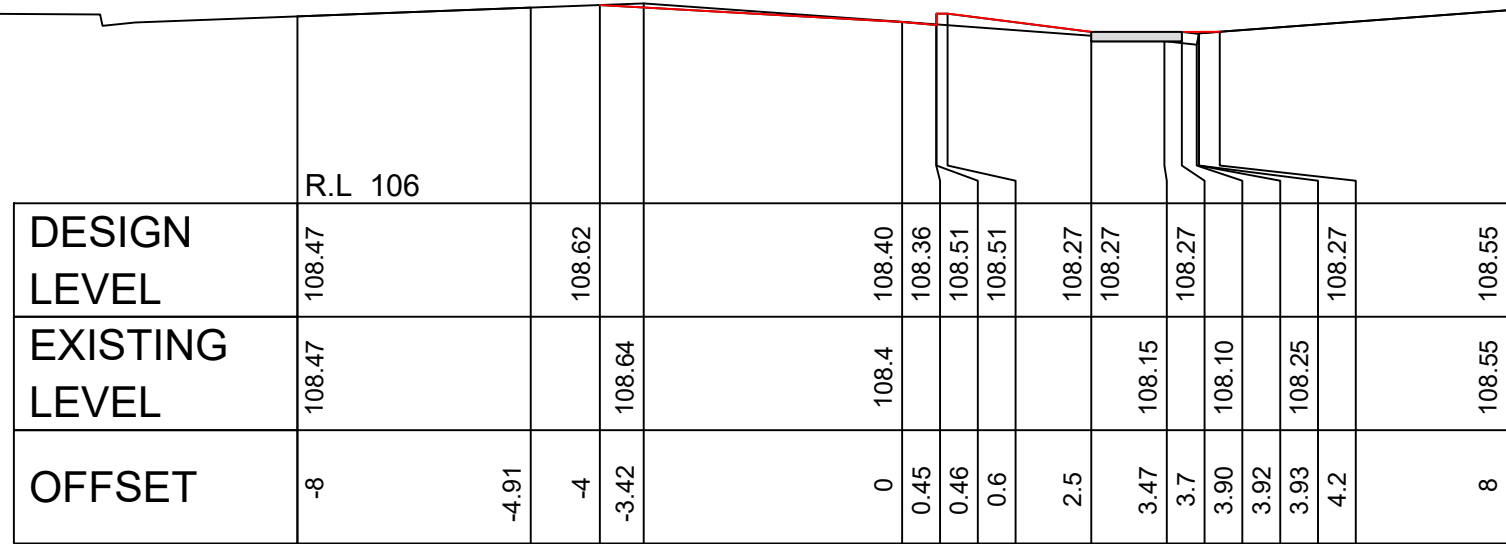
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PO Box 432, SCONE NSW 2337

MERTON STREET, DENMAN
MERTON STREET
TYPICAL SECTION
CROSS SECTIONS - CH0 TO CH80

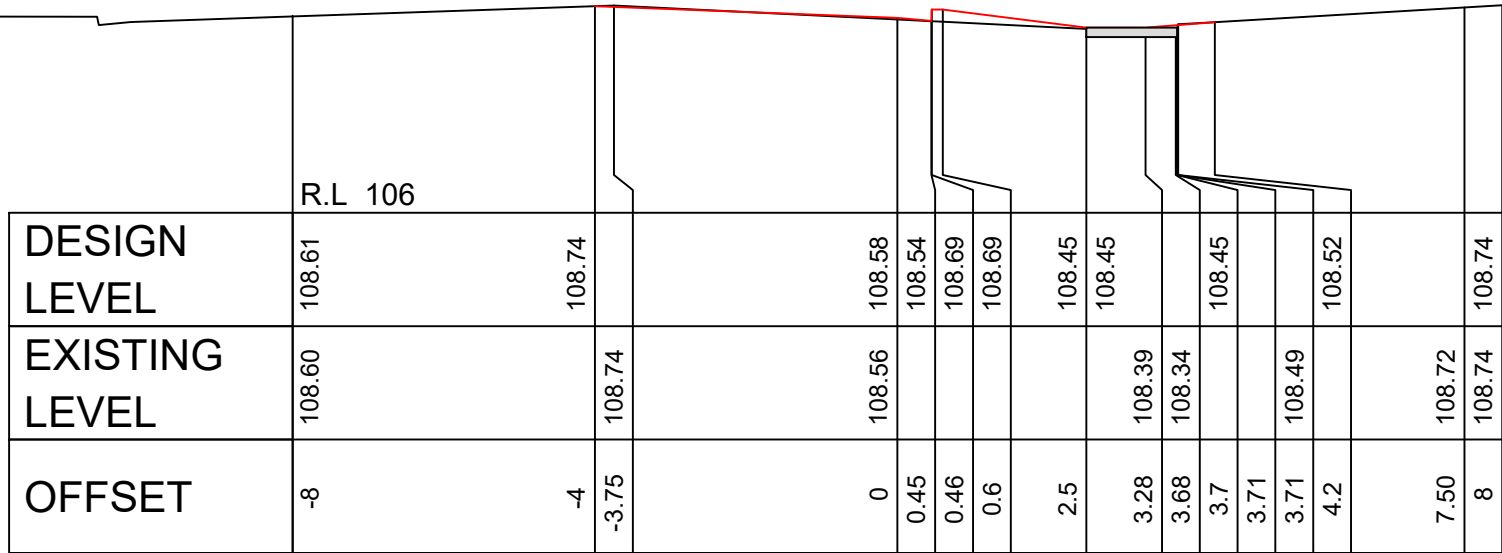


E

H. SCALE 1:100 (A1)	DATUM AHD	LGA: MUSWELLBROOK	SHEET
VERT. SCALE 1:100 (A1)	CONTOUR INTERVAL	DRAWING REVISIONS	009
DATE 24.01.2024	FILE 211228_ENG_S1_D	A ORIGINAL ISSUE	JOB REF:
DESIGN: Michael Cole B. Eng Registered Land Surveyor		B REVISED ON COUNCIL COMMENTS	211228
		C UPDATE BOX CULVERT	
		D UPDATE BOX CULVERT PAVEMENT	
		E UPDATE NOTES AND MERTON PAVEMENT	



120



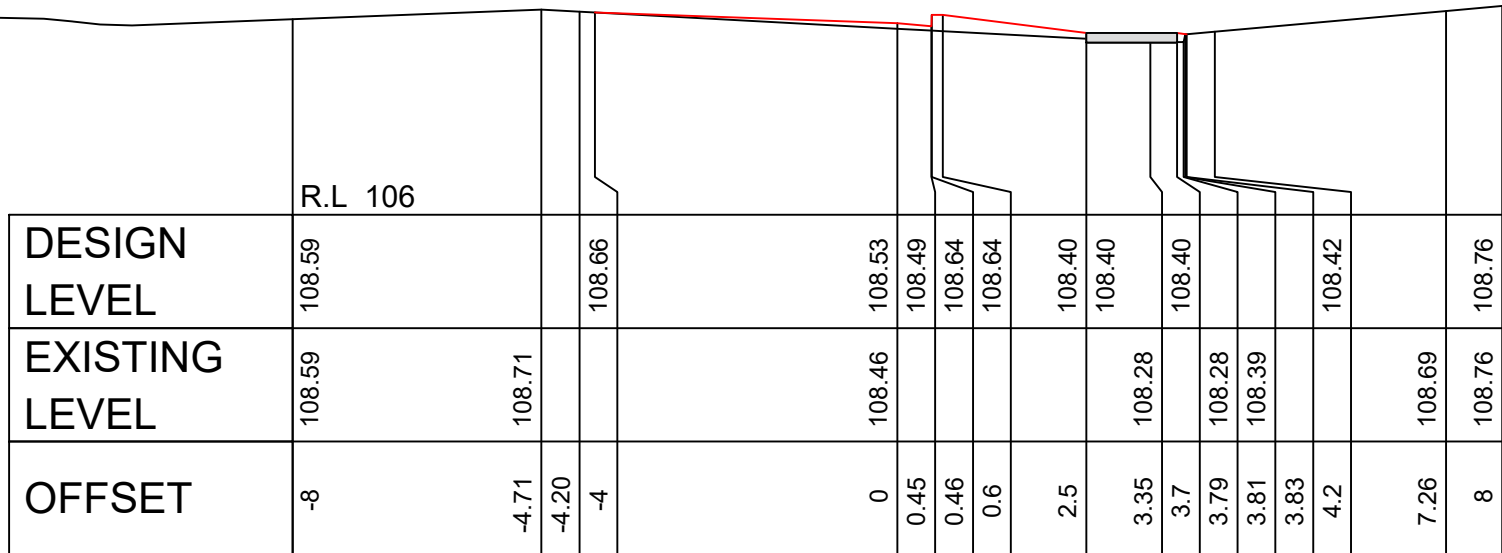
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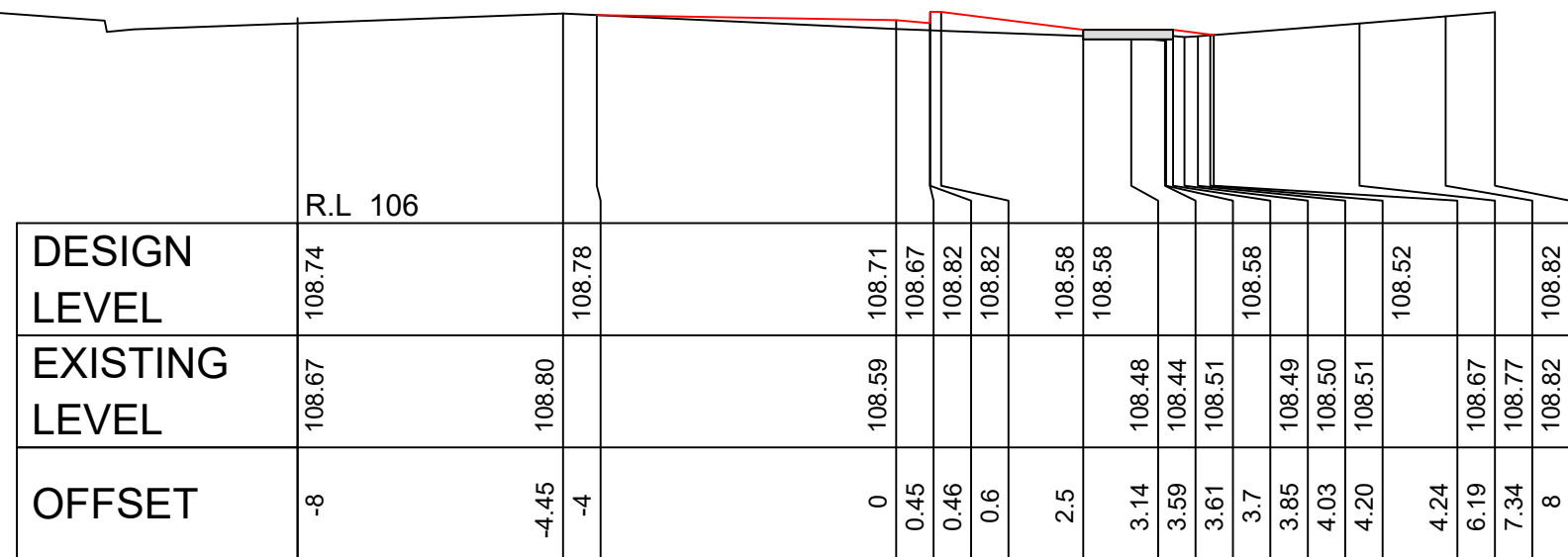
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110



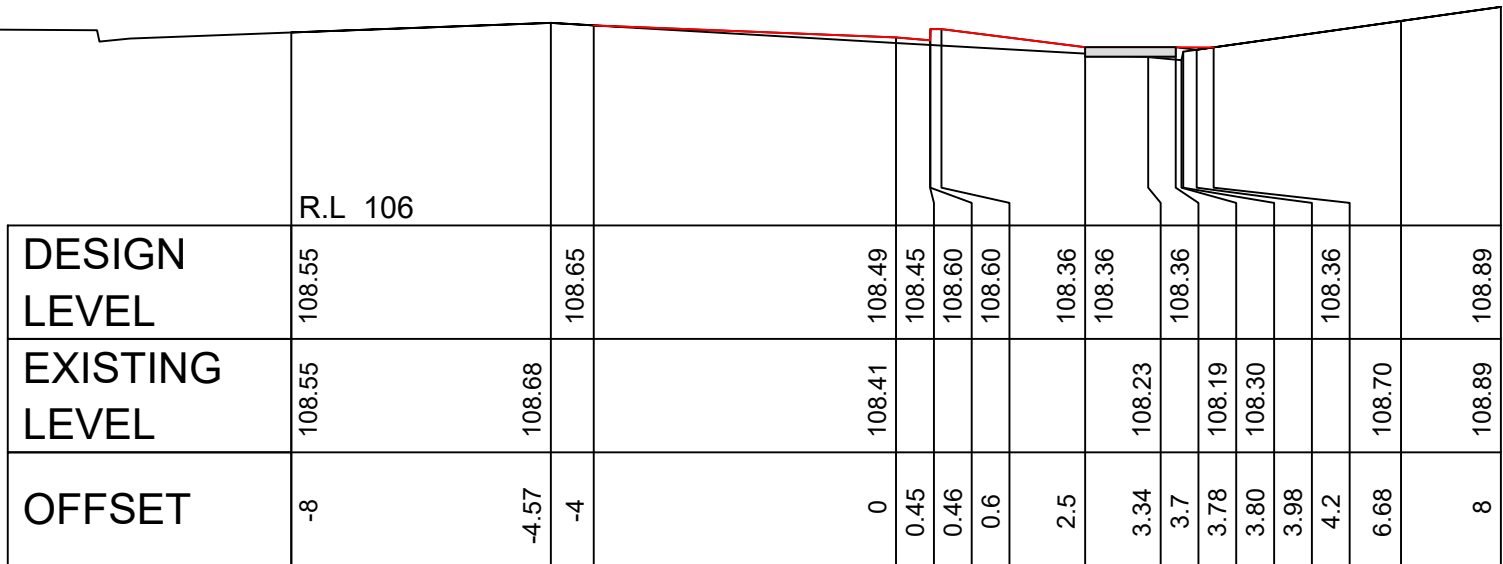
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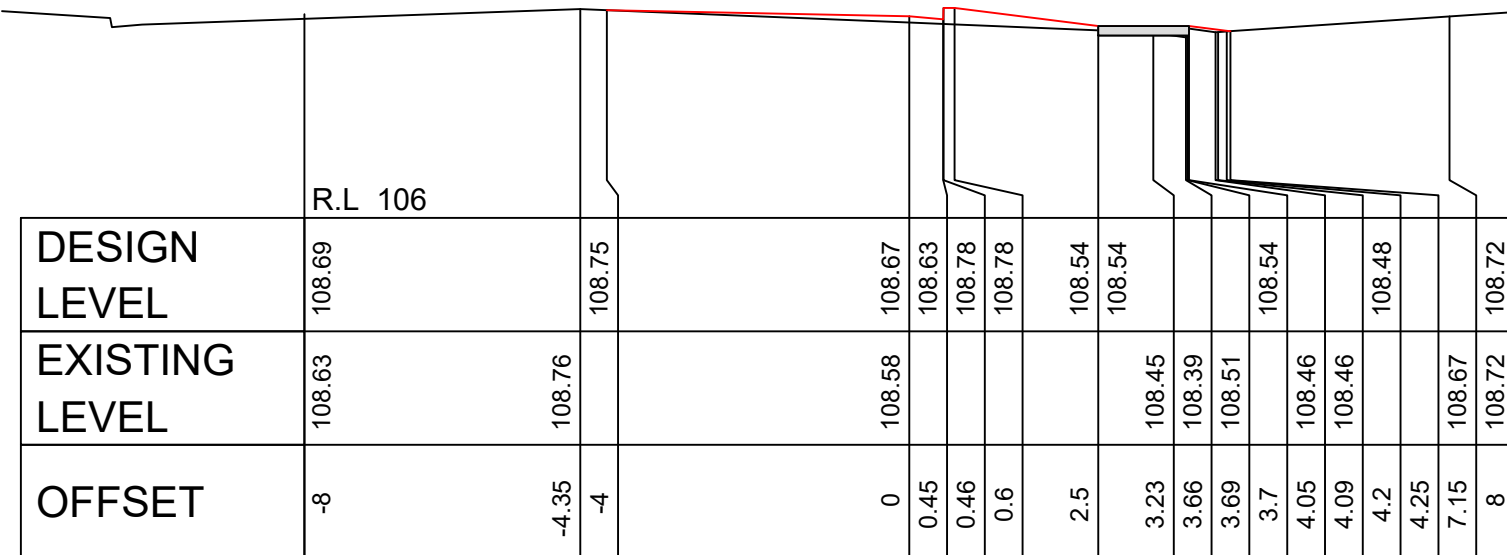
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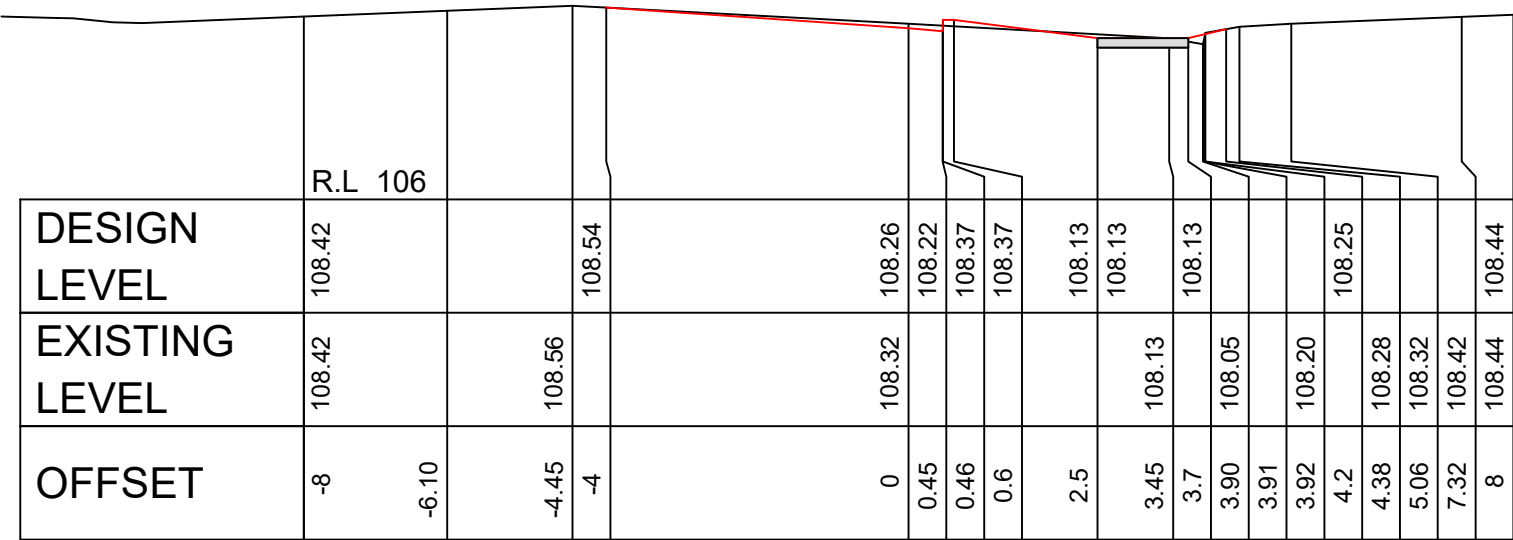
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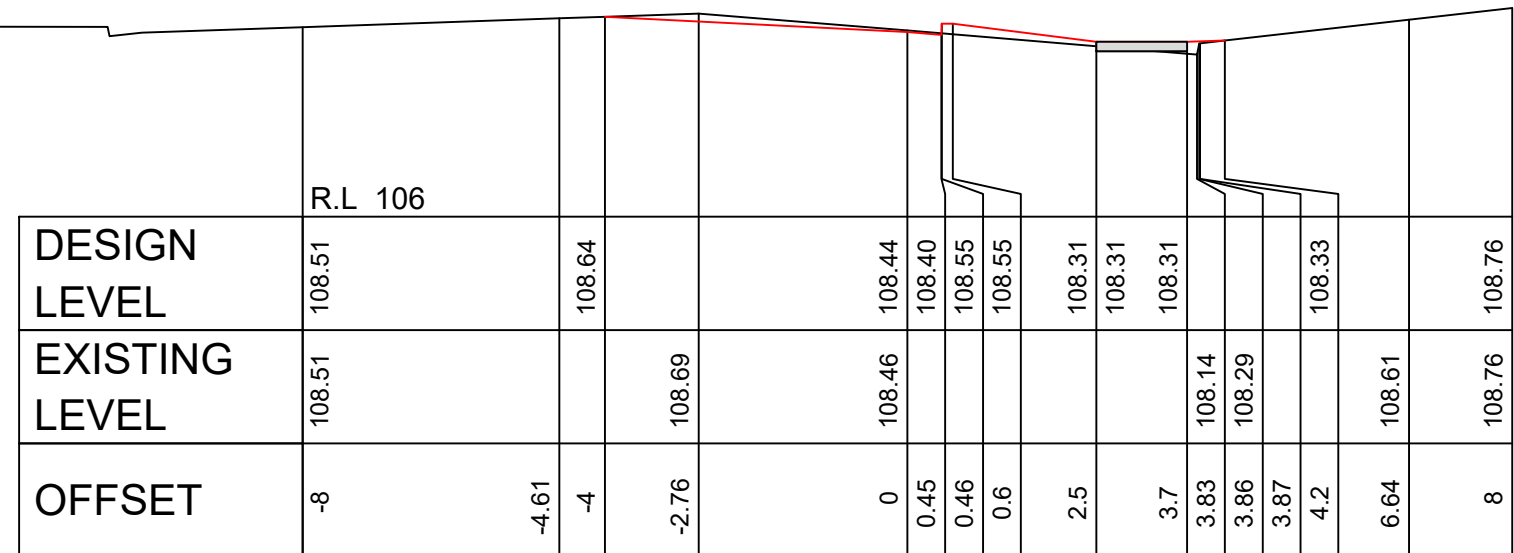
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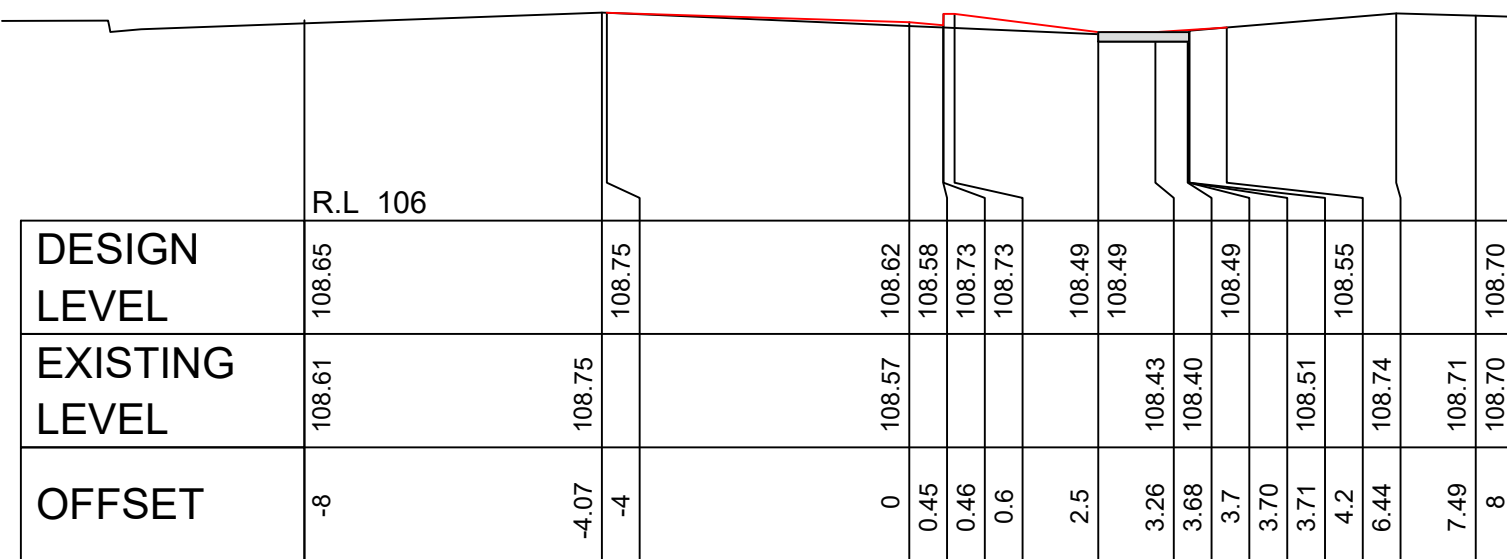
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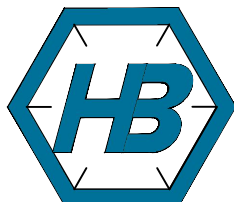
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130



170



E

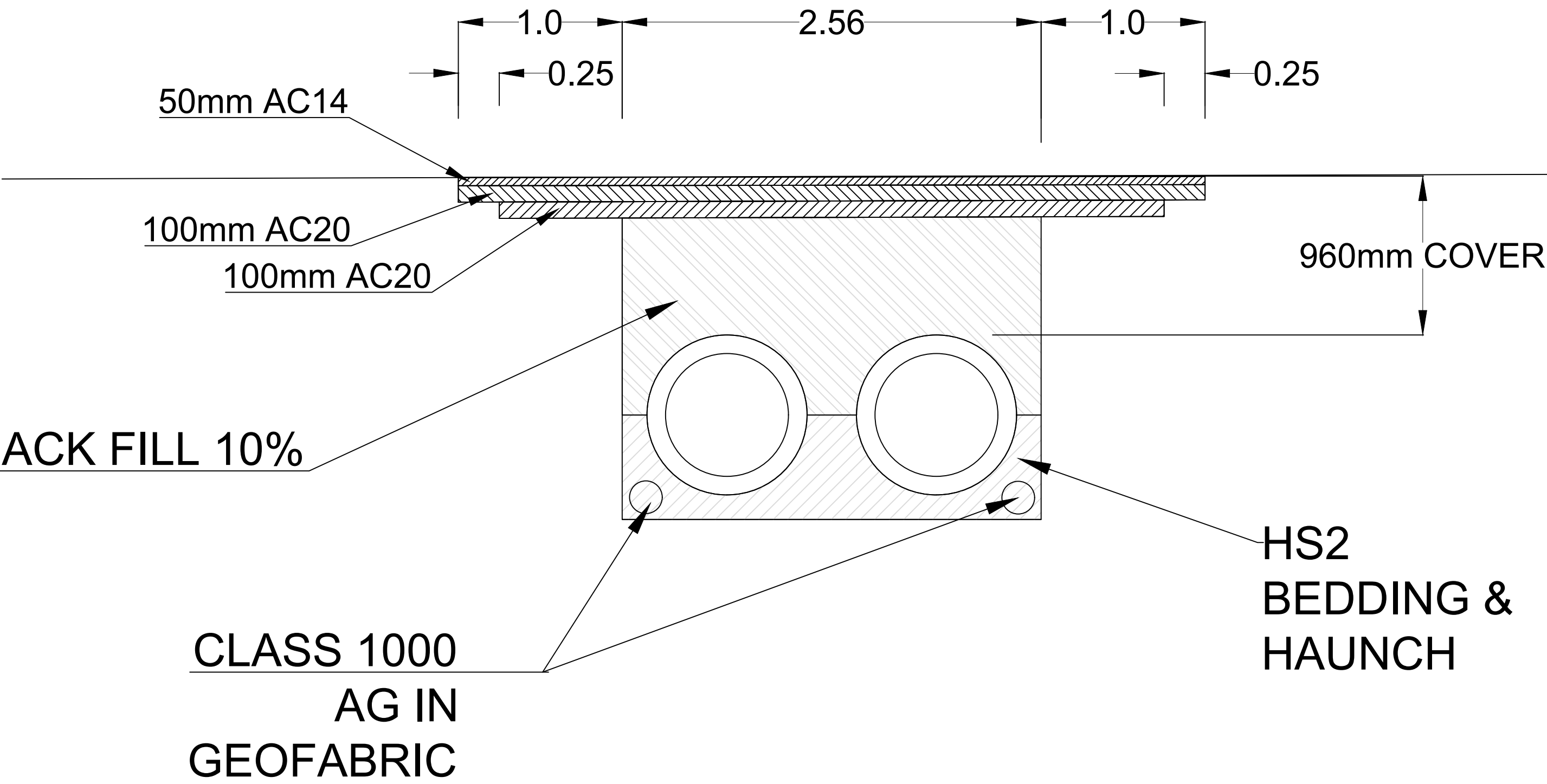
H.SCALE 1:100 (A1)	DATUM AHD	LGA: MUSWELLBROOK	SHEET
VERT. SCALE 1:100 (A1)	CONTOUR INTERVAL	DRAWING REVISIONS	010
DATE 24.01.2024	FILE 211228_ENG_S1_D	A ORIGINAL ISSUE	JOB REF:
DESIGN: Michael Cole B. Eng Registered Land Surveyor		B REVISED ON COUNCIL COMMENTS	211228
		C UPDATE BOX CULVERT	
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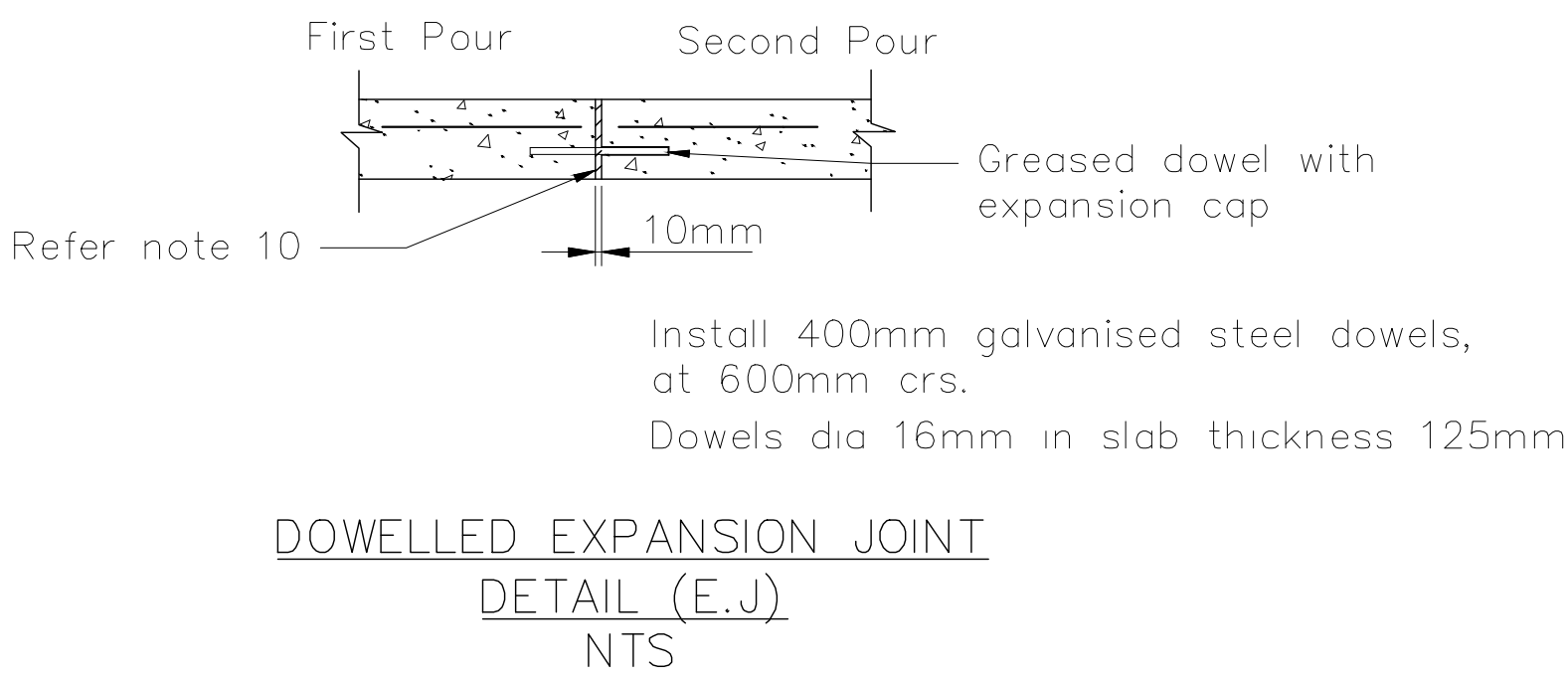
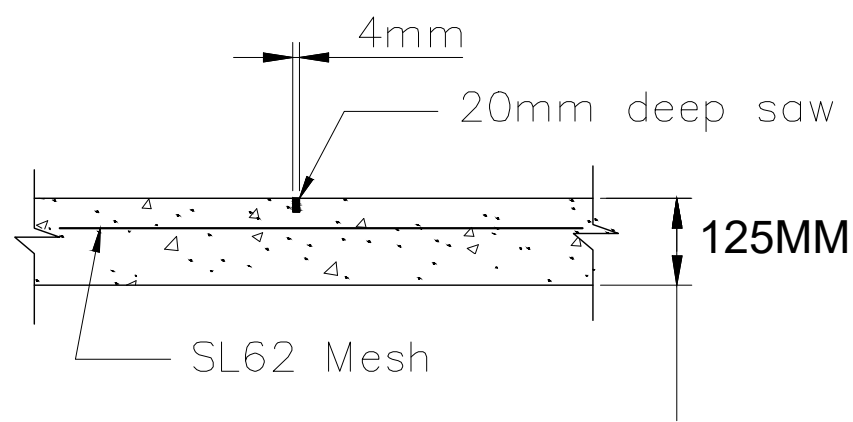
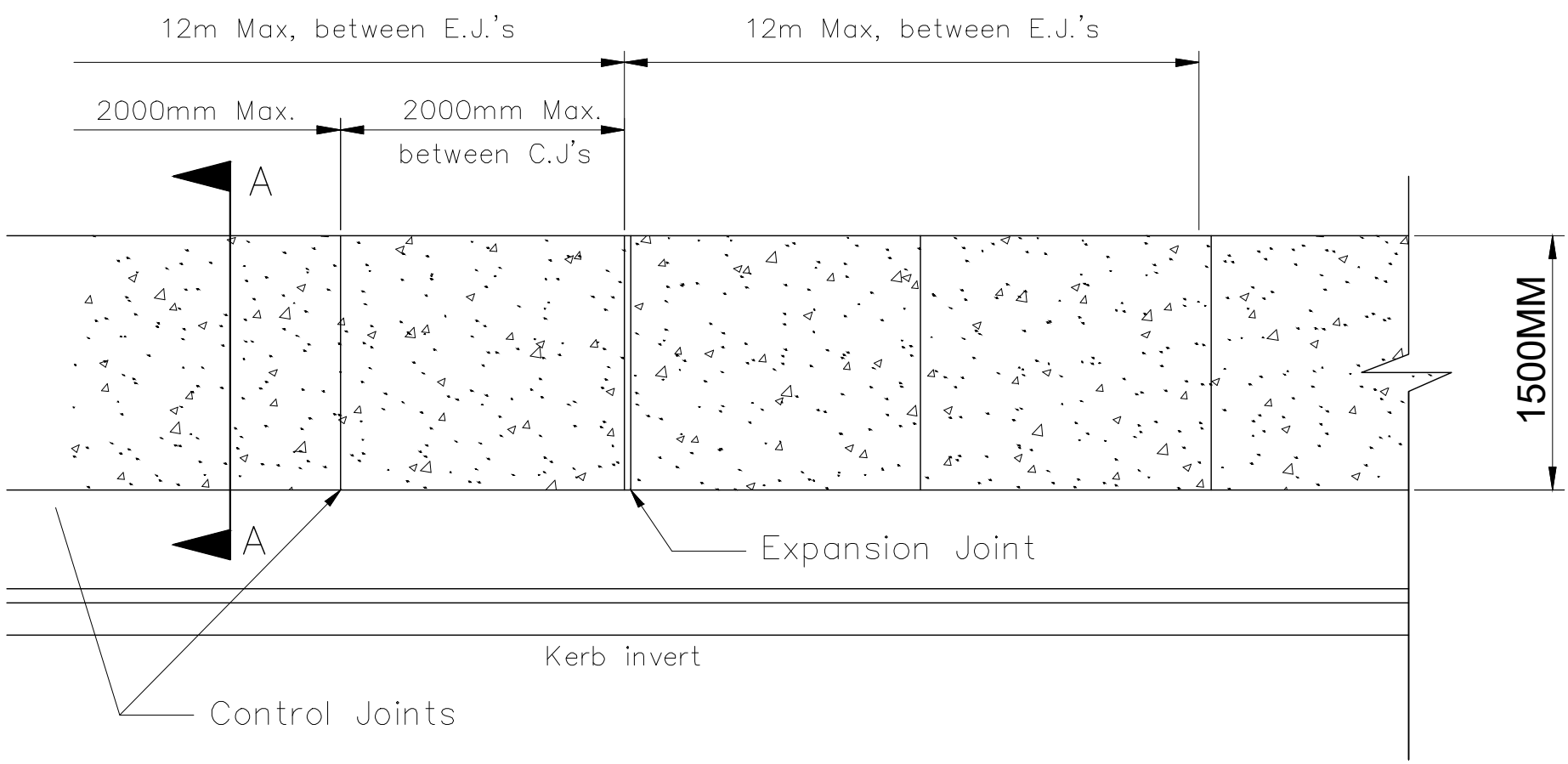
AC PAVEMENT

50mm AC14 HD C450 WEARING
100mm AC20 HD C450
100mm AC20 HD C450

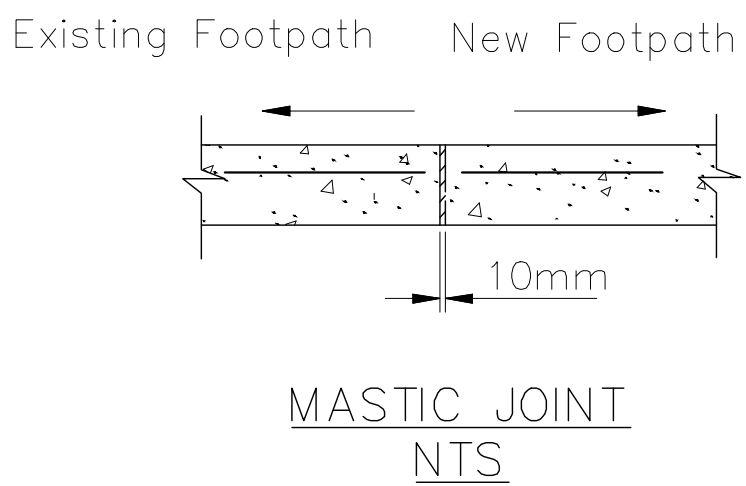
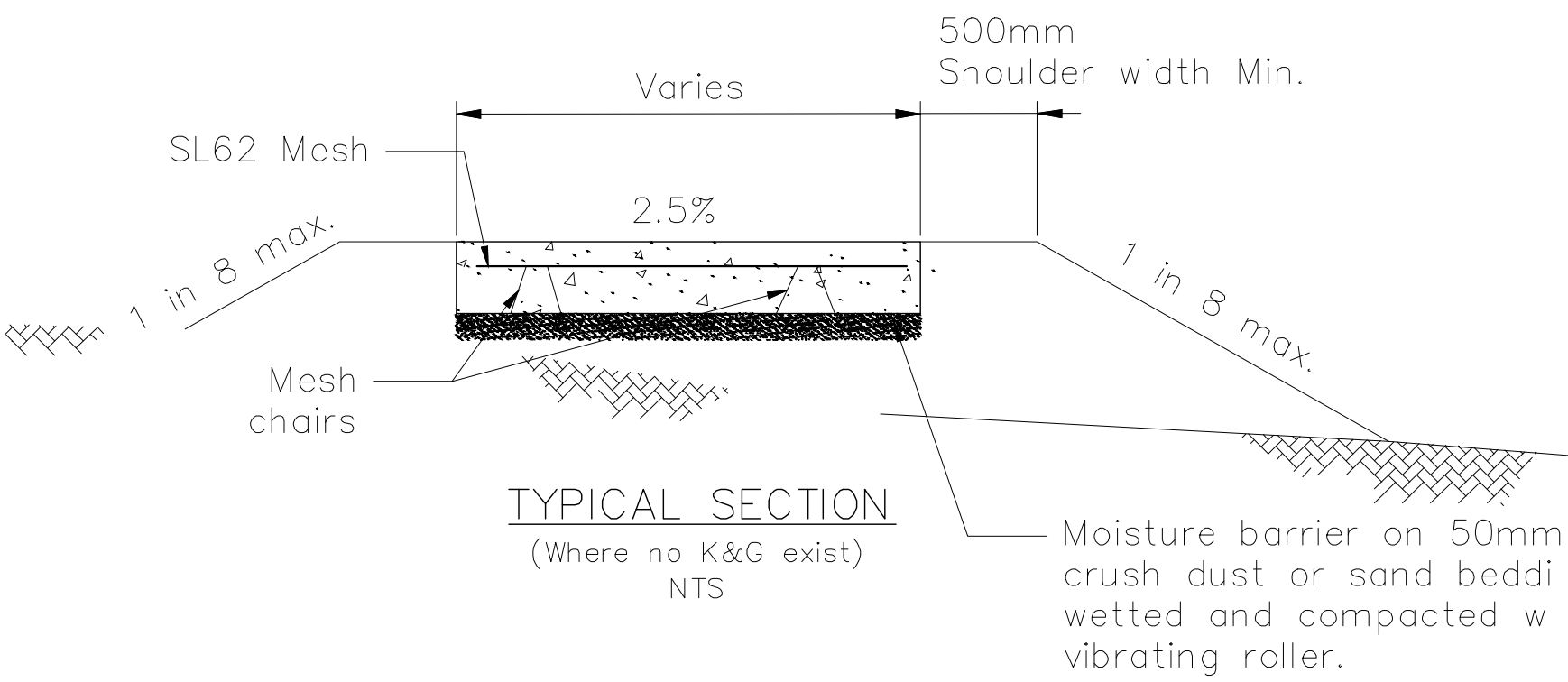
TOTAL 250mm AC



STABILISED SAND BACK FILL 10%

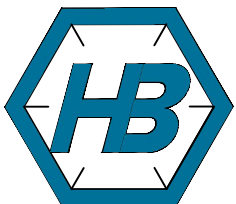


MSC TYPICAL FOOTPATH DETAILS



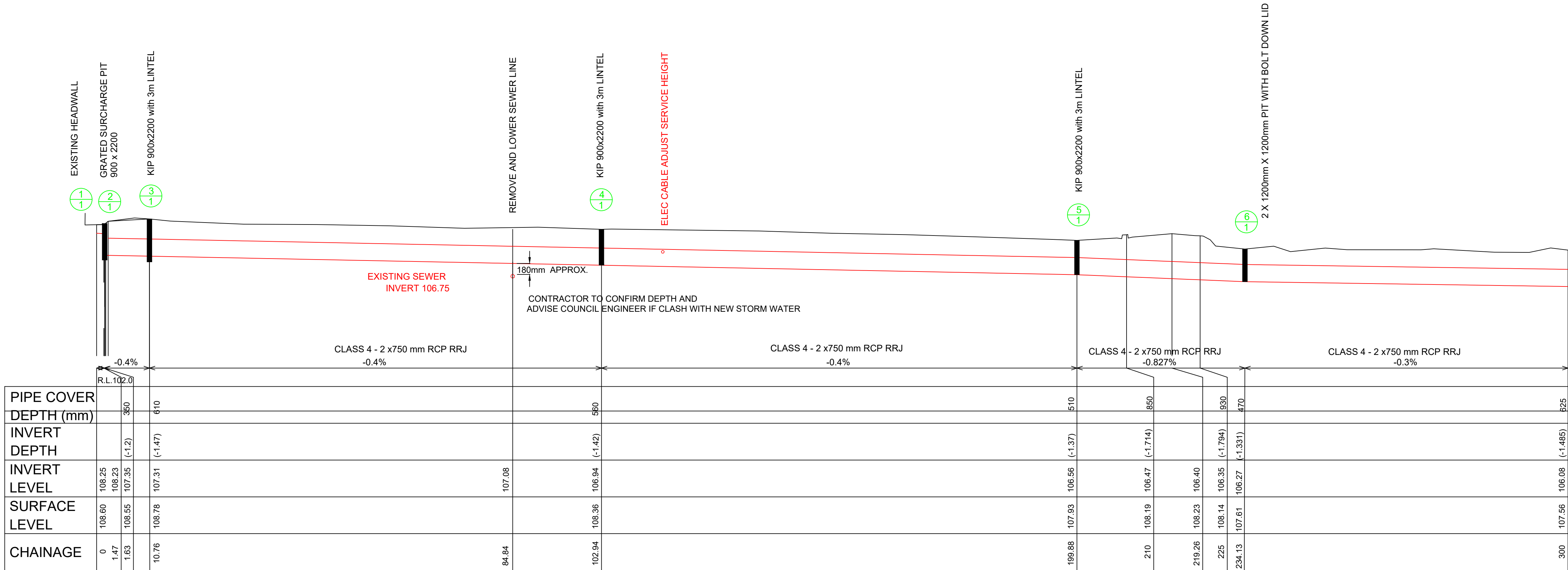
- GENERAL**
1. All dimension are in millimeters. Do not scale this drawing
 2. All discrepancies shall be reported immediately for decision before proceeding with the project.
 3. The construction site shall conform to the requirements of the Environmental Management Plan.
 4. All disturbed area should be topsoil and turf.
- CONCRETE**
5. Concrete to be Grade 25MPa AS1379 and AS3600
 6. Exposed edges of formed concrete elements shall have a 20mm chamfer unless otherwise noted.
 7. All concrete to be mechanically vibrated. Hand held vibrator must be held upright. Concrete must not be spread using vibrator.
 8. Cover to reinforcement shall be 40mm unless otherwise noted.
 9. Surface to be non-slip concrete finish (broom finished) to AS4586.

- JOINTS**
10. Expansion and control joints to be sealed with a low modulus self-priming sealant to the manufactures specification.
 11. Construction joints to be provided adjacent to all concreted property crossing and any significant change in width and direction.
 12. Saw cut joint shall be a wet cut within 24 hours of concrete pour.
- SERVICE**
14. All services to be located.
 15. Locate all property drain outlets in kerb and ensure they remain service when construction is complete.
 16. Where concrete path is to be constructed adjacent to existing street trees, an articulated join system may be used to minimize potential damage from tree roots. I J

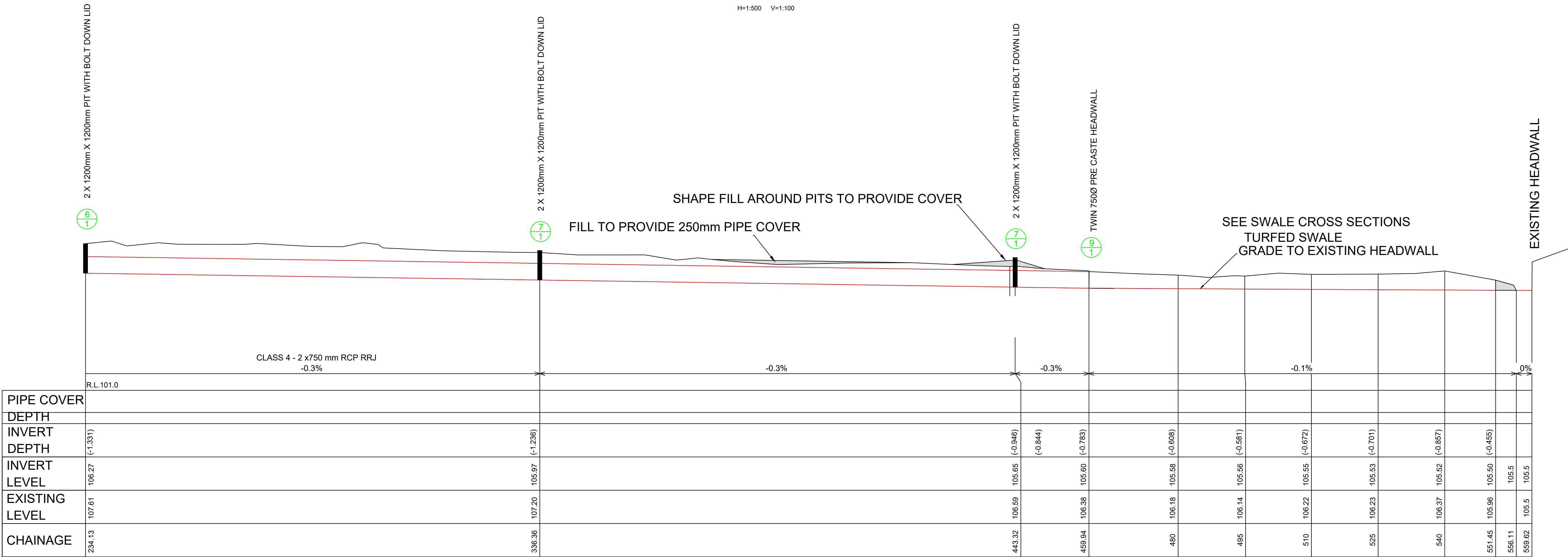


E

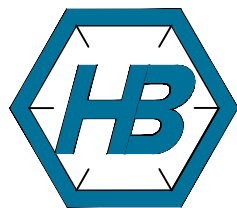
H.SCALE 1:50 (A1)		DATUM AHD		LGA: MUSWELLBROOK		
VERT. SCALE 1:50 (A1)		CONTOUR INTERVAL		DRAWING REVISIONS		
DATE 24.01.2024		FILE 211228_ENG_S1_D		A	ORIGINAL ISSUE	
DESIGN: Michael Cole B. Eng Registered Land Surveyor				B	REVISED ON COUNCIL COMMENTS	
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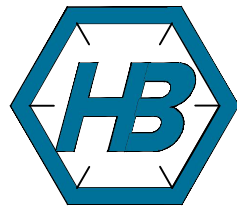
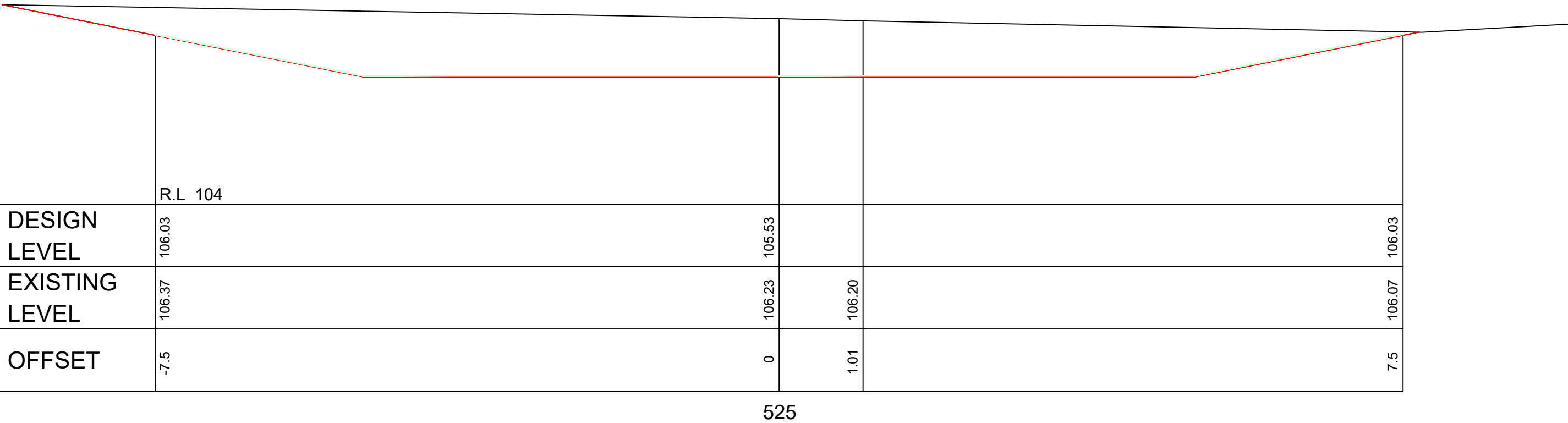
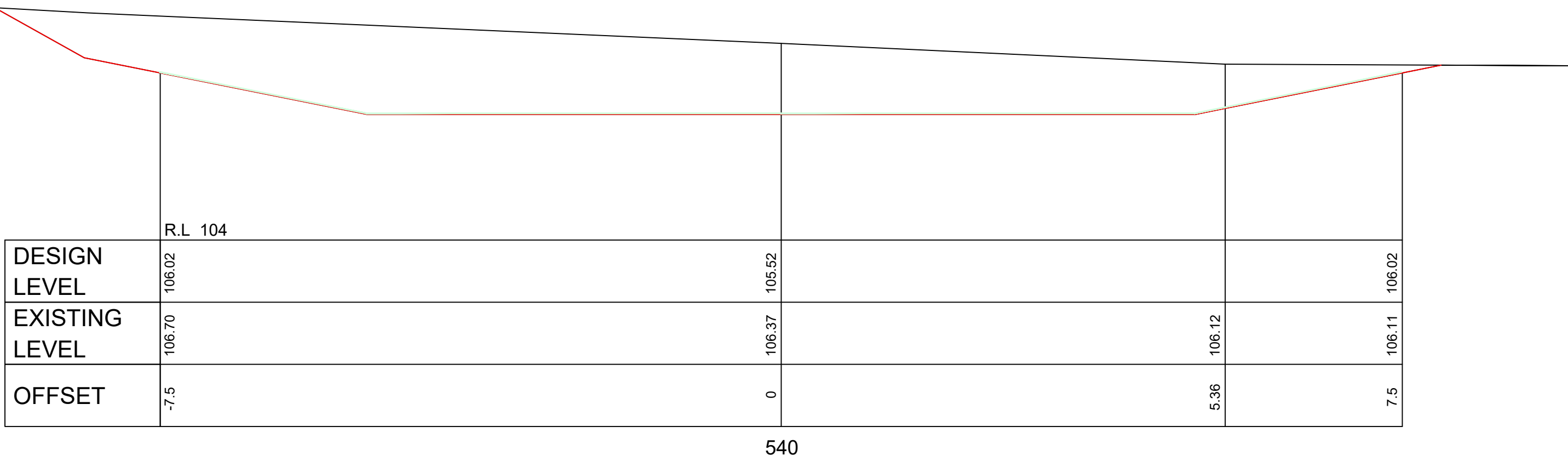
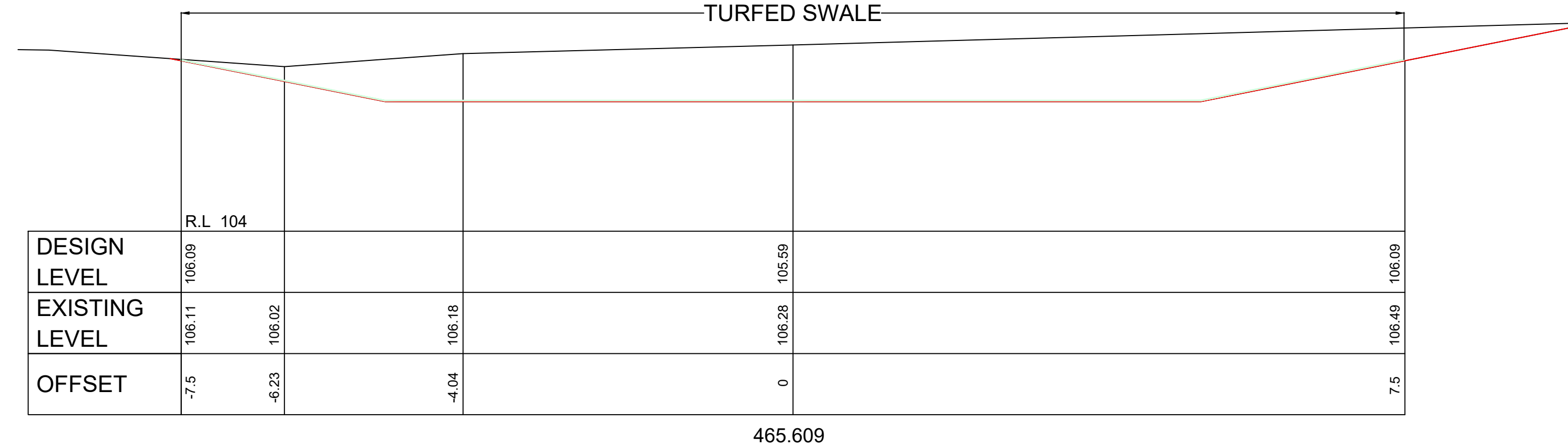
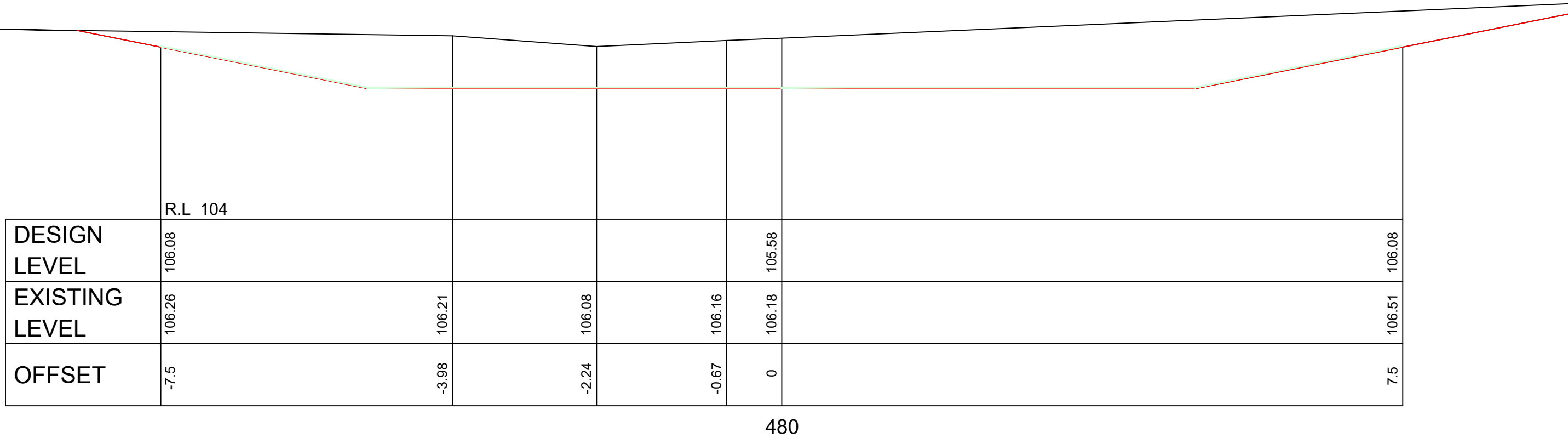
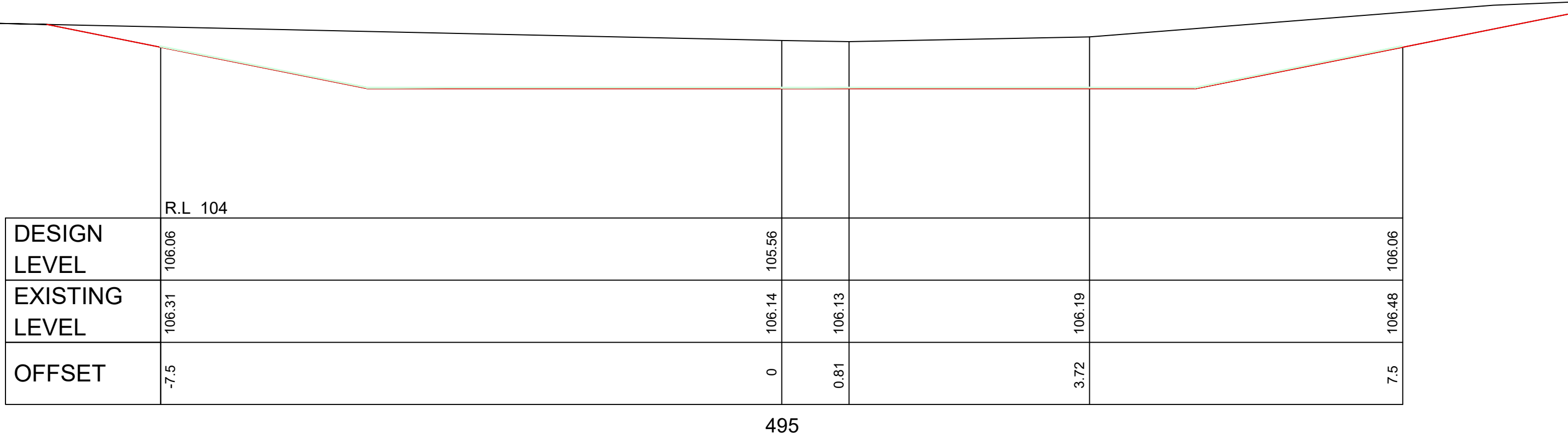
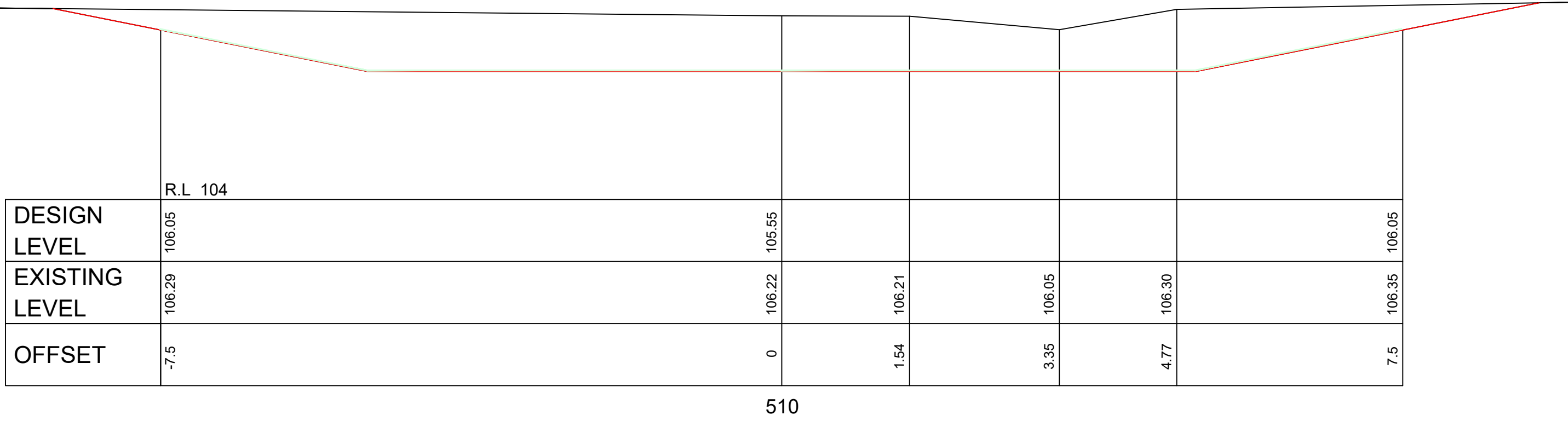


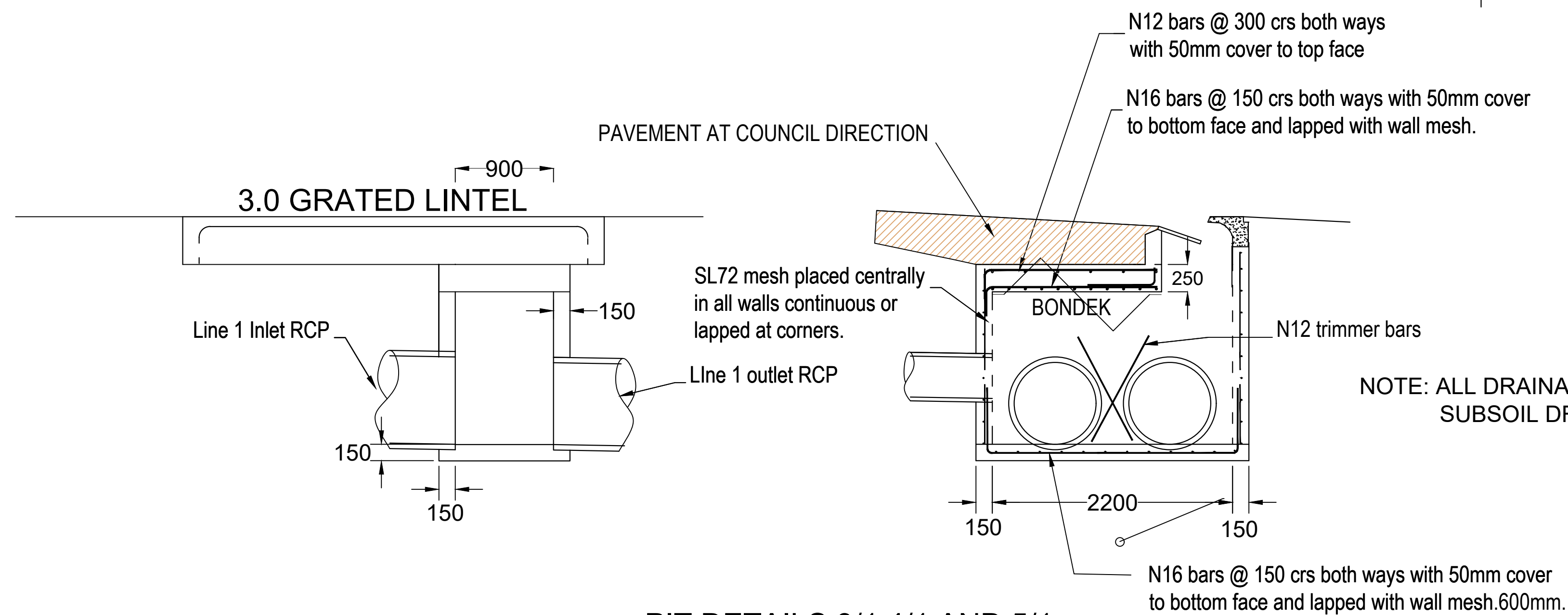
DRAINAGE LINE 1
H=1:500 V=1:100



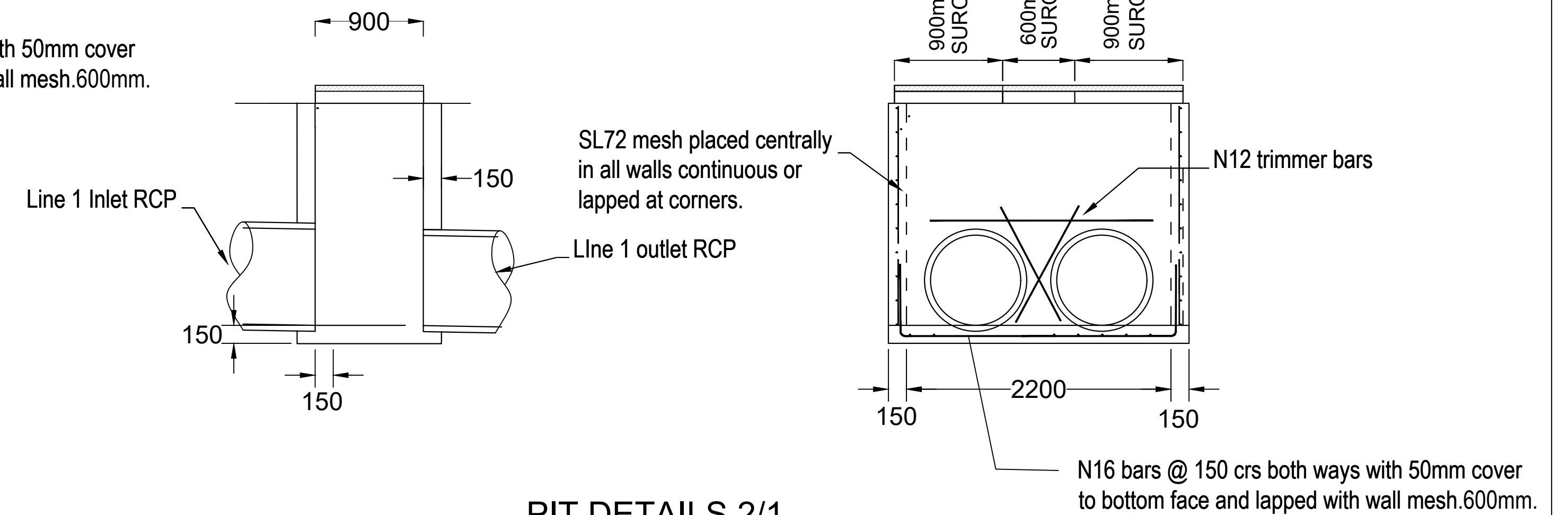
DRAINAGE LINE 1
H=1:500 V=1:100



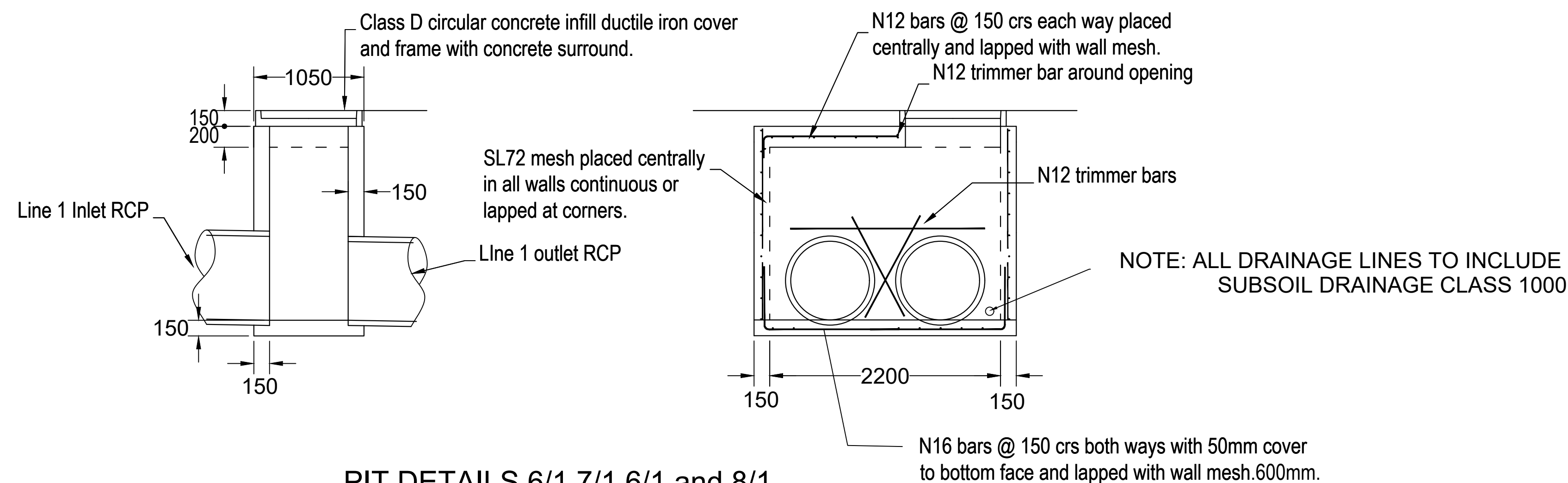




PIT DETAILS 3/1 4/1 AND 5/1
N.T.S



PIT DETAILS 2/1
N.T.S



PIT DETAILS 6/1 7/1 6/1 and 8/1
N.T.S

NOTES FOR COMBINED DRAINAGE AND SUB-SOIL DRAIN:

- Trench width shall be 1.4 times external diameter of pipe or ext Diameter plus 300, whichever is greater.
- Filter material shall be approved Type B filter material with a minimum coefficient of saturated permeability of 8mm/day of flow and shall conform with the following grading

Material passing AS sieve	% by mass
4.75mm	100
2.36mm	95-100
425um	20-80
300um	0-30
150um	0-2
75um	0-0.1

- Upstream end of the PVC pipe shall be built into the upstream pit wall at a level as high as possible.
- Filter material shall be compacted to a density index of 60.

NOTE: PITS ON GOLDEN HIGHWAY TO BE PRE CASTE 1200 X 1200 WITH BOLT DOWN LIDS

COMBINED DRAINAGE AND SUB-SOIL