# DRIVEWAY PLAN

# PROPOSED DUAL OCCUPANCY 35 MOORE ROAD, FRESHWATER NSW 2096

DRAWING REGISTER									
DRAWING NO.	DRAWING TITLE								
V250445 - CW000	COVER SHEET								
V250445 - CW001	GENERAL NOTES								
V250445 - CW100	DRIVEWAY PLAN								
V250445 - CW110	DRIVEWAY LONG SECTIONS								

REVISION	REVISION DETAILS	DATE	DRAWN	DESIGN	CHECK	APPROVED	CIVIL ENGINEER		ARCHITECT	CLIENT	PROJECT MANAGER	SCALE	GRID	-	STATUS NOT	FOR APPR T TO BE USED FOR CONS		
Α	ISSUED FOR DA	18.05.2025	C.K.	C.K.	D.S.	D.S.	VANGUAF	GUARD   CONSULTING ENGINEERS				NOT TO SCALE	HEIGHT AHD		PROJECT			
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#### SITEWORKS NOTES

- 1. ORIGIN OF LEVELS:- REFER SURVEY NOTES
- 2. ALL WORKS TO BE CONSTRUCTED IN ACCORDANCE WITH THE LOCAL **GOVERNMENT AUTHORITIES ENGINEERING CONSTRUCTION** SPECIFICATION FOR CIVIL WORKS.
- PRIOR TO THE COMMENCEMENT OF THE WORKS THE CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO VANGUARD.
- PRIOR TO THE COMMENCEMENT OF THE WORKS, THE CONTRACTOR IS TO VERIFY THE ALIGNMENT AND LEVELS OF ALL EXISTING SERVICES AT ALL LOCATIONS WHERE THE PROPOSED SERVICES ARE TO CROSS. CONNECT TO OR ARE LOCATED IN CLOSE PROXIMITY TO THE EXISTING SERVICES. ANY DISCREPANCIES TO BE REPORTED TO VANGUARD.
- CONTRACTOR MUST MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.
- ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL. REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289.5.2.1 (OR A DENSITY INDEX OF NOT LESS THAN 75).
- PROVIDE 10mm WIDE ISOLATION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- ASPHALTIC CONCRETE SHALL CONFORM TO THE CURRENT TFNSW SPECIFICATION TS 03283.1 (R116) HEAVY DUTY DENSE GRADED ASPHALT
- 10. ALL BASECOURSE AND SUB-BASE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH THE CURRENT TENSW SPECIFICATION TS 03315.1 (3051) GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289
- FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m<sup>3</sup> OF SUB-BASE COURSE MATERIAL PLACED UNLESS OTHERWISED APPROVED BY VANGUARD.
- AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL (IN NOTE 10) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH THE CURRENT TFNSW SPECIFICATION TS 03315.1 (3051 GRANULAR BASE AND SUBBASE MATERIALS FOR SURFACED ROAD PAVEMENTS WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF VANGUARD.
- 12. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THE CONTRACTOR IS TO SEEK ACCEPTANCE OF THE PRODUCT FROM VANGUARD. THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 13. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS, (EG. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.
- 14. ALL WORKS CARRIED OUT ADJACENT TO AND WITHIN SERVICE EASEMENTS ARE TO COMPLY WITH THE RELEVANT SERVICE AUTHORITIES GUIDELINES AND REQUIREMENTS.

# EXISTING UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITIONS OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE. AT & L CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.

CONTRACTORS SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.

CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.

CONTRACTORS ARE TO UNDERTAKE A SERVICES SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULTS ARE TO BE KEPT ON SITE AT ALL TIMES.



BEFORE YOU DIG AUSTRALIA SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE TM: TRADE MARK OF THE ASSOCIATION OF DIAL BEFORE YOU DIG SERVICES LTD. USED UNDER LICENSE

### **CONCRETE NOTES**

- 1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600(2018) CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- 2. CONCRETE QUALITY ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	AS 3600 F'c MPa	SPECIFIED	NOMINAL		
	AT 28 DAYS	SLUMP	AGG. SIZE		
VEHICULAR BASE KERBS, PATHS, AND PITS	32 25	60 80	20 20		

- CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL - PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE

- WITH AS 1379. 3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY AT & L.
- 4. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED
- 5. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- 6. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS. COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.M.S. SPECIFICATION R83.
- 7. REINFORCEMENT SYMBOLS: N DENOTES GRADE 450 N BARS TO AS/NZS 4671 GRADE N
- R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS/NZS 4671 SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS/NZS 4671

NUMBER OF BARS IN GROUP, 17 N 20 250 NOMINAL BAR SIZE IN mm \_\_\_ SPACING IN mm

THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS/NZS 4671.

8. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:



#### **KERBING NOTES**

- ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF MPa 25 U.N.O IN REINFORCED CONCRETE NOTES.
- 2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).
- . EXPANSION JOINTS (E.J) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE 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 MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- 6. IN THE REPLACEMENT OF KERB AND GUTTER :- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB AND GUTTER WITH 100mm DIA HOLE. EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

### **SURVEY NOTES**

THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY VERIS, BEING REGISTERED SURVEYORS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. VANGUARD DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.

SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT VANGUARD CONSULTING ENGINEERS.

## STORMWATER DRAINAGE NOTES

GENERAL NOTES

- STORMWATER DESIGN CRITERIA: ANNUAL EXCEEDANCE PROBABILITY: MINOR STORM: 5% AEP 1% AEP MAJOR STORM:
- 2. PIPES LESS THAN 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
- ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN DN300.
- ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF THE CURRENT AS 3500 3.1 AND AS/NZS
- ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
- ALL DRAINAGE LINES TO PROVIDE A 3.0M LENGTH OF DN100 SUBSOIL DRAINAGE PIPE WRAPPED IN FABRIC SOCK, ON THE UPSTREAM SIDE OF EACH PIT. ALLOW FOR SECONDARY SUBSOIL FOR PIPES FOR PIPE GRATER THAN DN825.
- SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK SHALL BE PROVIDED BENEATH ALL KERBLINES WHERE NO DRAINAGE LINES ARE SHOWN ON THE DRAWINGS AND SHALL DISCHARGE INTO DOWNSTREAM
- PITS WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPES ARE TO BE USED CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES
- SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL FROM VANGUARD. 10. GRATES AND COVERS SHALL CONFORM TO THE CURRENT AS 3996 CLASS D COVER (MINIMUM) SHALL BE PROVIDED IN TRAFFICKED
- PAVEMENTS WITH CLASS B (MINIMUM) BEING PROVIDED IN NON-TRAFFICKED AREAS. 1. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, THE CONTRACTOR SHALL PROVIDE ADEQUATE SAFETY PROCEDURES TO
- PREVENT THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS. 12. ALL PITS AND PIPES TO BE FOUNDED ON SUITABLE MATERIAL WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPa UP TO 3.0m DEPTH TO INVERT AND 150KPa FROM 3.0m TO 6.0m DEPTH TO INVERT ONCE EXCAVATED. A CONCRETE BLINDING LAYER (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED) MAY BE PROVIDED. CONTRACTOR TO ENGAGE GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION.
- 13. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.
- 14. ALL STORMWATER PITS ARE TO BE CAST IN-SITU IN ACCORDANCE WITH THE STORMWATER DETAILS AND SPECIFICATIONS.
- 15. ALL PITS MUST BE BENCHED AND STREAMLINED TO DIRECT WATER FROM THE INLET PIPE TO THE OUTLET PIPE.
- 16. PITS DEEPER THAN 600mm MUST BE FITTED WITH DOUBLE STEP-IRONS IN ACCORDANCE WITH THE CURRENT AS1657. PLASTIC ENCAPSULATED MAY BE USED. STEP-IRONS TO BE PROVIDED ON A SINGLE FACE WHERE POSSIBLE. SHOULD STEP-IRONS REQUIRE TO CHANGE FACE THEN 3 OVERLAPPING STEP IRONS ARE TO BE LOCATED ON EACH FACE.
- 17. FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN 1 TEST PER 2 LAYERS PER 40 LINEAR METERS. RIGID & SEMI-RIGID PIPE NOTES
- 8. PIPES 300 DIA. AND LARGER TO BE STEEL REINFORCED CONCRETE CLASS '3' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O. ALL ROAD CROSSINGS TO BE CLASS '4' U.N.O. EQUIVALENT STRENGTH FIBRE REINFORCED CONCRETE PIPES MAY BE USED SUBJECT TO APPROVAL BY VANGUARD OR THE LOCAL
- GOVERNMENT AUTHORITY. 19. REINFORCED CONCRETE PIPES TO COMPLY WITH THE CURRENT AS/NZS FIBRE REINFORCED CONCRETE PIPES TO COMPLY WITH THE CURRENT AS 4139. PIPES TO BE INSTALLED WITH TYPE HS3 (ROAD) AND HS2 (LOTS) SUPPORT IN ACCORDANCE WITH THE CURRENT AS/NZS 3725. N ALL
- CASES BACKFILL EMBEDMENT ZONE WITH SELECT FILL (MINIMUM CBR 15%) TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289.5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).
- FLEXIBLE PIPE NOTES FLEXIBLE PIPES TO COMPLY WITH THE CURRENT AS/NZS 2566.1. PIPES TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT AS/NZS 2566.2. IN ALL CASES BACKFILL EMBEDMENT ZONE WITH GRAVEL OR SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE CURRENT AS 1289.5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)

#### PRECAST CONCRETE PIT NOTES

- 21. PRECAST PIT MAY BE USED WITH THE APPROVAL OF VANGUARD THE SUPERINTENDENT AND THE LOCAL GOVERNMENT AUTHORITY AND SHALL BE INSTALLED TO THE MANUFACTURERS RECOMENDATIONS.
- 22. ALL PRE-CAST PITS ARE TO BE STRUCTURALLY CERTIFIED TO MEET RELEVANT REQUIREMENTS OF THE CURRENT AS3600 AND AS3996 (2019). 23. PRE-CAST STORMWATER PITS ARE TO BE APPROVED FOR TENSW
- CONSTRUCTION (R11) AND ARE TO ARE TO BE DESIGNED AND CUSTOM MADE WITH OPENINGS UP TO A MAXIMUM +50mm OD OF THE STORMWATER PIPES. PITS ARE ALSO TO INCLUDE PENETRATIONS FOR SUBSOIL CONNECTIONS AND DOUBLE STEP-IRONS INSTALLED FOR PITS >0.6m DEEP. DEMOLITION SAWS MAY BE USED PROVIDING A NEAT FULL DEPTH CUT IS APPLIED AND ANY ADDITIONAL PENETRATIONS REQUIRED ARE TO BE CORE DRILLED.
- 24. SHOP DRAWINGS ARE TO BE PROVIDED FOR REVIEW AND ACCEPTANCE. IT SHOULD BE NOTED THAT THE CONTRACTOR IS TO ENSURE THAT THE STRUCTURAL COMPONENTS OF THE PITS ARE NOT COMPROMISED AND ONLY THE PIPE KNOCKOUTS ARE TO BE REMOVED FOR THE PIPE PENETRATIONS.

**ARCHITECT** 

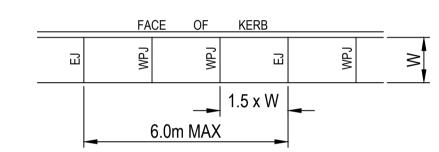
# STORMWATER DRAINAGE NOTES

- 1. ALL PRECAST PITS TO BE FOUNDED ON CONCRETE BLINDING LAYER (100mm ON AN EARTH FOUNDATION OR 150mm ON A ROCK FORMATION) WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 100KPa UP TO 3.0m DEPTH TO INVERT AND 150KPa FROM 3.0m TO 6.0m DEPTH TO INVERT (MINIMUM 100mm THICK 25MPa OR DEEPER TO ENSURE MINIMUM SPECIFIED BEARING CAPACITY IS ACHIEVED). CONTRACTOR TO ENGAGE GEOTECHNICAL ENGINEER TO PROVIDE WRITTEN CONFIRMATION. ALL PRE-CAST PIT PENETRATIONS SHALL BE CUT SO THAT IT IS FLUSH
- WITH THE INTERNAL WALL. ALL PIPE JOINTING, SPARGING, RENDERING, FILLING OF GAPS TO BE FILLED WITH A HIGH STRENGTH NON-SHRINK GROUT WITH A MINIMUM 40MPa COMPRESSIVE STRENGTH AT 28 DAYS. (LANKO DURABED 702 OR
- SINGLE UNITS PREFERRED BUT IF REQUIRED MINIMUM RISER DEPTH 600mm PIT INSTALLATION AND JOINTING BETWEEN UNITS SHALL BE UNDERTAKEN IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- ANY DAMAGE TO THE STRUCTURAL INTEGRITY OF THE PRE-CAST PIT WILL BE REPAIRED AND STRUCTURALLY CERTIFIED AT THE CONTRACTORS EXPENCE TO THE SATISFACTION OF THE VANGUARD, SUPERINTENDENT / LOCAL GOVERNMENT AUTHORITY.

## **JOINTING NOTES**

#### PEDESTRIAN PAVEMENT JOINTS

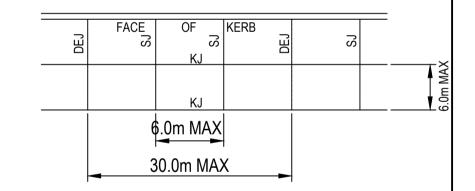
- 1. ALL PEDESTRIAN PAVEMENTS ARE TO BE JOINTED AS FOLLOWS. (U.N.O) 2. EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX. 6.0m CENTRES.
- 3. WEAKENED PLANE JOINTS ARE TO BE LOCATED AT A MAX. SPACING OF
- 1.5 x WIDTH OF THE PAVEMENT. 4. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING
- AND OR ADJACENT PAVEMENT JOINTS. 5. PEDESTRIAN PAVEMENT JOINT DETAIL.



NB: CHECK RELEVANT COUNCIL REQUIREMENTS IF IN PUBLIC ROAD.

#### **VEHICULAR PAVEMENT JOINTS**

- 6. ALL VEHICULAR PAVEMENTS TO BE JOINTED AS FOLLOWS. (U.N.O) 7. ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON
- DRAWINGS. 8. KEYED CONSTRUCTION JOINTS SHOULD GENERALLY BE LOCATED AT A MAX OF 6.0m CENTRES
- 9. SAWN JOINTS SHOULD GENERALLY BE LOCATED AT A MAX OF 6.0m CENTRES WITH DOWELED EXPANSION JOINTS AT MAX 30.0m CENTRES 10. VEHICULAR PAVEMENT JOINT DETAIL.



# **EROSION AND SEDIMENT CONTROL** NOTES

- THE SITE SUPERINTENDENT/ENGINEER WILL ENSURE THAT ALL SOIL
- AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
- a. LOCAL AUTHORITY REQUIREMENT b. EPA REQUIREMENTS
- c. LANDCOM MANUAL "MANAGING URBAN
- MARCH 2004.
- MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS. . CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL
- EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

#### LAND DISTURBANCE

- WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
- (A) INSTALL A WIND FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
- PLAN. REFER DETAIL. (C) CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
- (E) INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN. (F) UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO

#### **EROSION CONTROL**

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

- VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL FENCING.
- 10. 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.
- 1. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED
- 12. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

#### OTHER MATTERS

- 13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE
- MATERIALS AND LITTER. 14. 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
- FOLLOWING CONDITIONS ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE
- THE TRUNK, WHICH EVER IS THE GREATER II) A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS
- MILLIMETRES DEPTH (III) CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

PLACED UNDER ALL FILL LAYERS OF MORE THAN 300

### **GENERAL INSTRUCTIONS**

- STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION,
- WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF
- DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE

- (B) INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON
- (D) INSTALL SEDIMENT BASIN AS SHOWN ON PLAN
- THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

- CONTROL.

#### SEDIMENT CONTROL

- STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT
- CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY
- STRUCTURE.

- (C) PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE
- DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND

#### **CONSTRUCTION TOLERANCES**

NOTE: THESE CONSTRUCTION TOLERANCES ARE TO BE READ IN CONJUNCTION WITH THE RELEVANT AUTHORITY SPECIFICATIONS AND CONSTRUCTION TOLERANCE REQUIREMENTS.

WHERE DISCREPANCIES BETWEEN REQUIREMENTS OCCURS, THE AUTHORITY SPECIFICATIONS AND CONSTRUCTION TOLERANCES TAKE PRECEDENCE

l BULK EARTHWORKS

EARTHWORKS -10mm / +20mm OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)

#### -50mm / +100mm OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)

**BATTERS** 

**BASECOURSE** 

SEAL

**STORMWATER** WITHIN 10mm OF THE DESIGN INVERT LEVEL AT ANY POINT FOR THE ENTIRE **PIPES** PIPE LENGTH <50m

WITHIN 20mm OF THE DESIGN INVERT LEVEL AT ANY POINT FOR THE ENTIRE **PIPES** PIPE LENGTH >50m

**PIPES** -0.05% MINIMUM RESULTANT GRADE FROM DESIGNED GRADIENT

**PIPES** WITHIN 100mm OF THE PLAN POSITION SHOWN ON THE DRAWINGS OR

SPECIFIED AT ANY POINT **HEADWALLS** WITHIN 20mm OF THE DESIGN INVERT LEVEL AT ANY POINT

HEADWALLS WITHIN 100mm OF THE PLAN POSITION SHOWN ON THE DRAWINGS OR SPECIFIED AT ANY POINT

CHAMBERS WITHIN 20mm OF THE INVERT LEVEL SHOWN ON THE DRAWINGS

CHAMBERS WITHIN 200mm LONGITUDINALLY OF THE PLAN POSITION, WITH REFERENCE TO THE CONTROL LINE FOR THE ROAD SHOWN ON THE DRAWINGS

WITHIN 10mm OF THE FALL WITHIN THE CHAMBER BETWEEN THE INCOMING CHAMBERS PIPE AND THE OUTGOING PIPE (IE ABSOLUTE MINIMUM OF 20MM FALL WITHIN THE CHAMBER)

LINTELS AS PER THE TOLERANCES SPECIFIED FOR THE ADJOINING MATERIAL COVERS AS PER THE TOLERANCES SPECIFIED FOR THE ADJOINING MATERIAL **GRATES** AS PER THE TOLERANCES SPECIFIED FOR THE ADJOINING MATERIAL

OPEN DRAINS WITHIN 50mm OF THE DESIGN LEVEL AT ANY POINT PROVIDED THAT THERE IS A CONTINUOUS DOWNGRADE (WITHOUT PONDING) IN THE DIRECTION OF FLOW

### NOT LESS THAN 0.5% AT ANY POINT

PAVEMENT / TRACKS SUBBASE -10mm / +10mm OF PAVEMENT COURSE THICKNESS (AFTER COMPACTION &

TRIMMING) SUBBASE -10mm / +0mm OF FINISHED SURFACE LEVEL (AFTER COMPACTION AND

TRIMMING) SUBBASE -5mm / +5mm THE FINISHED SURFACE (LAID IN ANY DIRECTION) OVER A LENGTH OF 3 METRES

-0mm / +20mm OF PAVEMENT COURSE THICKNESS (AFTER COMPACTION &

-0mm / +10mm OF PAVEMENT FINISHED SURFACE LEVEL (AFTER ROLLING

TRIMMING) **BASECOURSE** -0mm / +10mmOF FINISHED SURFACE LEVEL (AFTER COMPACTION AND TRIMMING)

**BASECOURSE** -5mm / +5mm ALONG THE FINISHED SURFACE (LAID IN ANY DIRECTION) OVER A LENGTH OF 3 METRES

AGGREGATE) -5mm / +10mm ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH SEAL

AT THE DATE OF PRACTICAL COMPLETION SEAL SURFACE OF THE SEAL, INCLUDING LONGITUDINAL AND TRANSVERSE JOINTS, MUST NOT POND WATER.

**ASPHALT** -0mm / +10mm OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) **ASPHALT** -5mm / +5mm ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH

AT THE DATE OF PRACTICAL COMPLETION ASPHALT -8mm / +8mm ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH AT THE COMPLETION OF THE DEFECT LIABILITY PERIOD

**ASPHALT** SURFACE OF THE COURSE. INCLUDING LONGITUDINAL AND TRANSVERSE

JOINTS, MUST NOT POND WATER. CONCRETE KERB -5mm / +5mm ALONG THE TOP OF KERB OVER A LENGTH OF 5 METRES KERB -5mm / +5mm ALONG THE FACE OF KERB OVER A LENGTH OF 5 METRES

PATH -0mm / +10mm OF FOOTPATH/SHARED PATH FINISHED SURFACE LEVEL PATH SURFACE OF THE PATH, INCLUDING JOINTS, MUST NOT POND WATER. PAVEMENT SLAB -0mm / +10mm OF PAVEMENT FINISHED SURFACE LEVEL

PAVEMENT SLAB -5mm / +10mm ALONG THE FINISHED SURFACE OVER THE CARRIAGEWAY WIDTH PAVEMENT SLAB SURFACE OF THE CONCRETE, INCLUDING LONGITUDINAL AND TRANSVERSE

**VERGE** 

TURF

JOINTS, MUST NOT POND WATER. -10mm / +0mm OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION)

#### TO THE ADJOINING MATERIAL (FOOTPATHS, KERBS, ETC) -10mm / +0mm OF PAVEMENT FINISHED SURFACE LEVEL (AFTER COMPACTION) MULCH

TO THE ADJOINING MATERIAL (FOOTPATHS, KERBS, ETC) RETAINING / NOISE WALLS

-20mm / +20mm FROM ANY POINT ON THE WALL THE LEVEL MUST NOT DEVIATE FROM THAT SPECIFIED WALL -10mm / +10mm INCLINATION OF THE FACE OF THE COMPLETED WALL MUST NOT DEVIATE FROM THE SPECIFIED INCLINATION PER METER HEIGHT (BLOCK WALL)

MAXIMUM DEVIATION FROM A 4.5 M STRAIGHT EDGE

WALL -5mm/ +0mm INCLINATION OF THE FACE OF THE COMPLETED WALL MUST NOT DEVIATE FROM THE SPECIFIED INCLINATION PER METER HEIGHT (PANEL WALL) -20mm / +20mm FLATNESS OF THE FACE OF THE WALL MUST BE SUCH THAT THE WALL

NOT TO BE USED FOR CONSTRUCTION PURPOSES **PROJECT HEIGHT** AHD DATUM PROPOSED DUAL OCCUPANCY **ACTION PLANS** 35 MOORE ROAD, FRESHWATER NSW 2096 **DRAWING TITLE** m: 0426 957 518 E-MAIL: ADMIN@VCENG.COM.A e:operations@actionplans.com.au LGA: NORTHERN BEACHES COUNCIL w: www.actionplans.com.au **GENERAL NOTES** REVISION **DRAWING NUMBER** REFERENCE NUMBER

**SCALE** 

#### **CIVIL ENGINEER** DESIGN | CHECK | APPROVED **REVISION DETAILS** DATE | DRAWN REVISION ISSUED FOR DA 18.05.2025 C.K. D.S. D.S. C.K.

# VANGUARD | CONSULTING ENGINEERS

#### UNIT 1, 6 WELD STREET PRESTONS, NSW 2170 WEB: WWW.VCENG.COM.AU

TEL: (02) 9145 0253

CLIENT

**PROJECT MANAGER** 

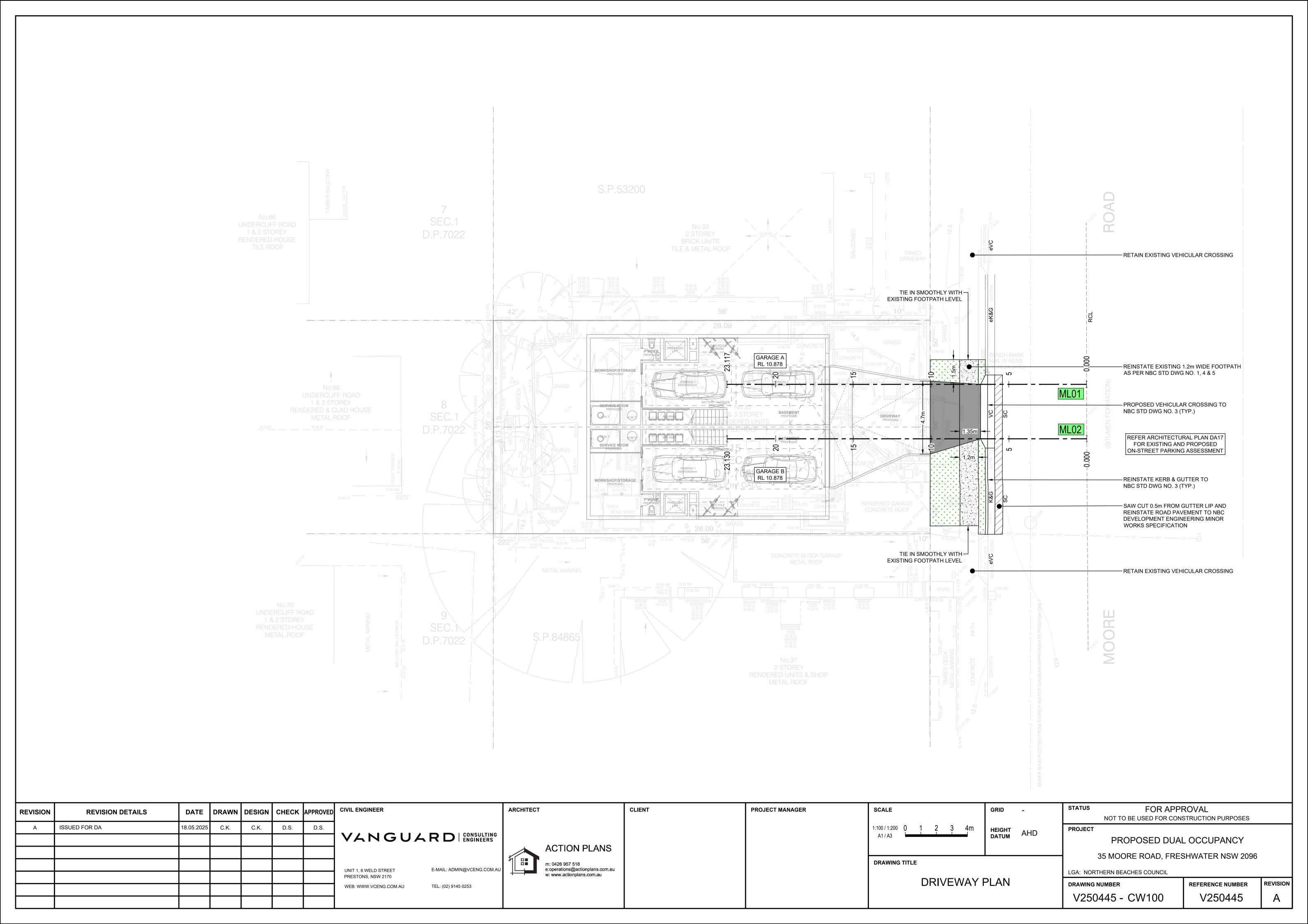
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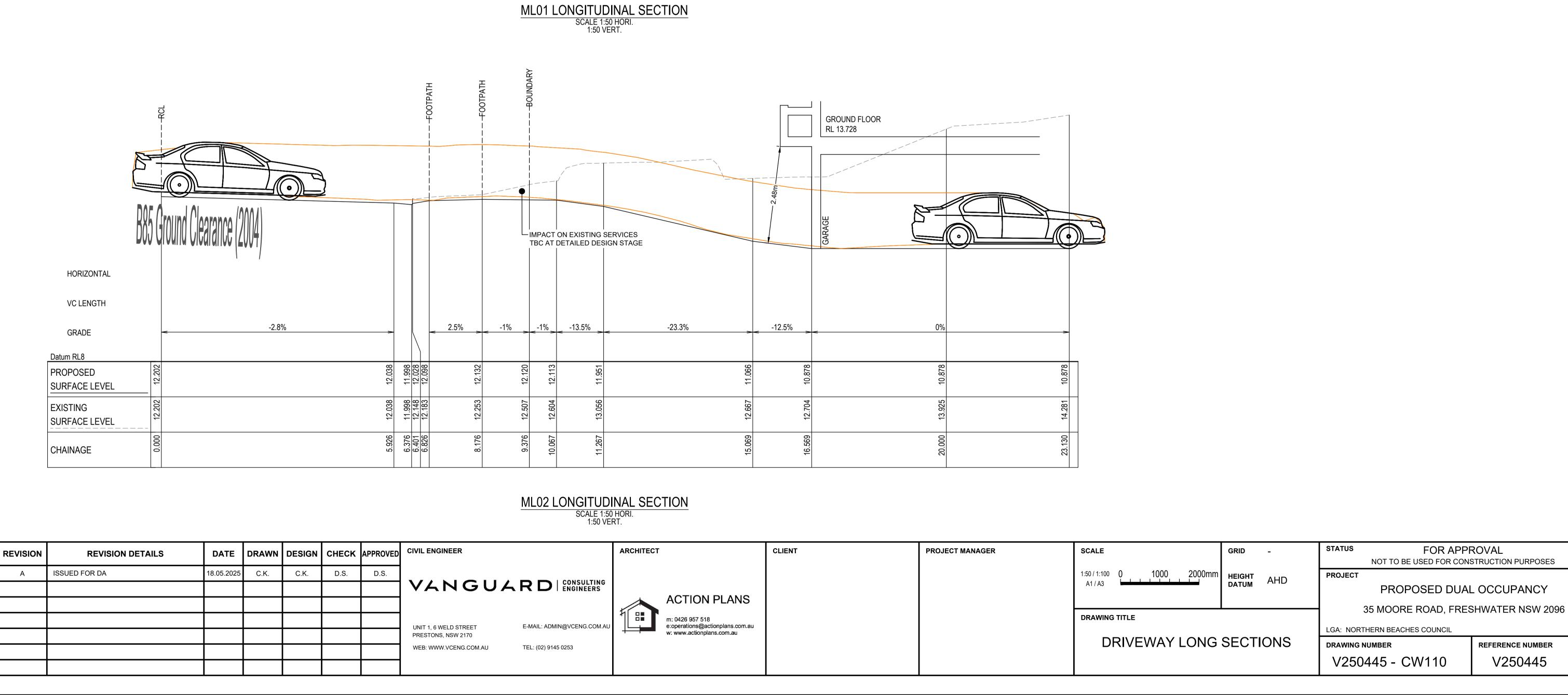
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V250445 - CW001

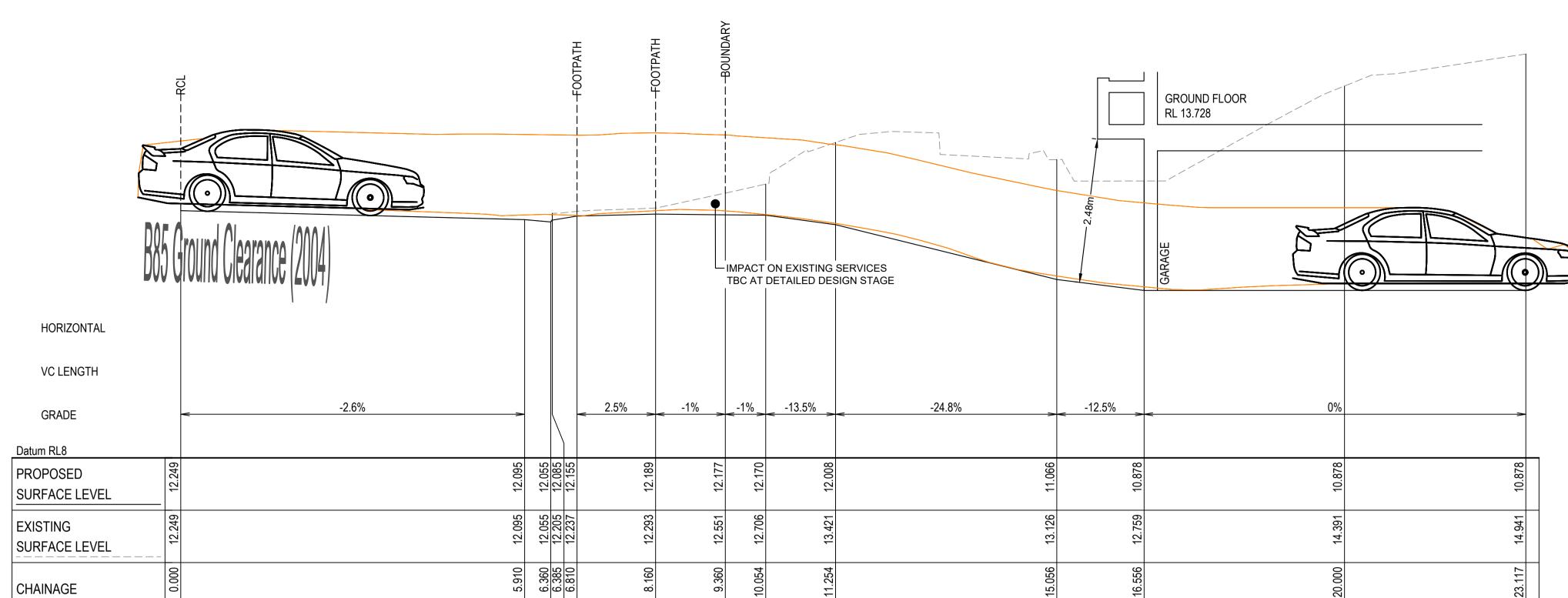
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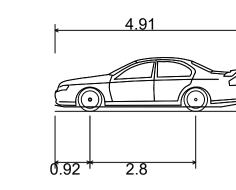
FOR APPROVAL











B85 Ground Clearance (2004)
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Curb to Curb Turning Radius

4.910m 1.870m 1.421m 0.120m 1.770m 4.00s 8.000m

REVISION