

REDSTONE ESTATE STAGE 21B VILLAWOOD PROPERTIES

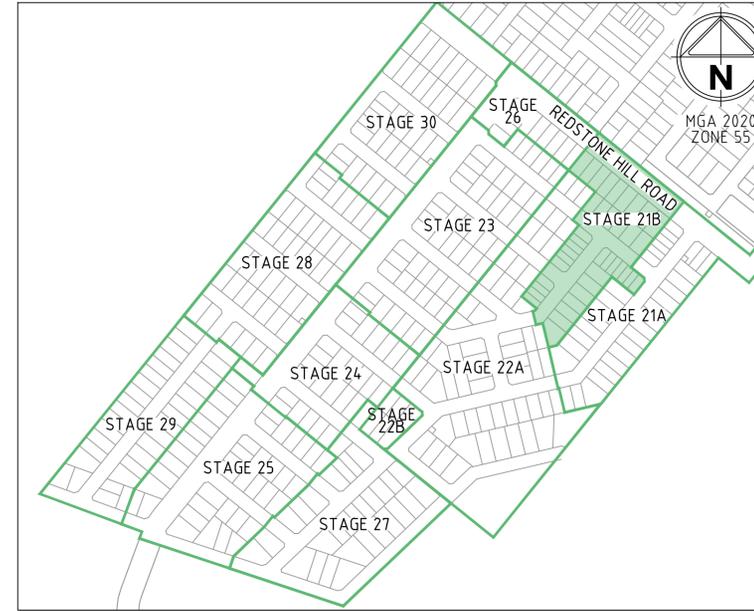
HUME CITY COUNCIL GENERAL NOTES:

- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH V.P.A. AND HUME CITY COUNCIL STANDARD DRAWINGS, SPECIFICATIONS, APPROVED PLANS AND TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- COUNCIL TO BE NOTIFIED SEVEN (7) CLEAR WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORKS WITH A PRE-COMMENCEMENT MEETING BEING HELD BETWEEN HUME CITY COUNCIL, THE CONSULTANT AND THE CONTRACTOR BEFORE WORKS COMMENCE. A SITE MANAGEMENT PLAN IS TO BE SUBMITTED PRIOR TO COMMENCEMENT OF WORKS AND PRIOR TO AN ONSITE PRE-COMMENCEMENT MEETING.
- PRIOR TO COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION:
 - SOURCE OF QUARRY MATERIAL.
 - N.A.T.A. APPROVED TESTS RESULTS FOR THE F.C.R. THAT IS TO BE USED.
 - IF THE SOURCE OF THE QUARRY MATERIAL IS CHANGED DURING THE COURSE OF THE WORKS, THEN NEW TEST RESULTS SHALL BE PROVIDED.
- PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004 AND O.H.S. REGULATIONS 2007 HAVE BEEN AND WILL BE COMPLIED WITH.
- ON COMMENCEMENT OF CONSTRUCTION WORKS, THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL." APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS.
- THE DISPOSAL SITE FOR SPOIL REMOVAL FROM SITE AND TRUCK ROUTE IS TO BE SUBMITTED TO AND APPROVED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE IN WRITING PRIOR TO THE COMMENCEMENT OF ANY WORKS.
- WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND EXPOSED/PROVED PRIOR TO COMMENCEMENT OF WORKS, AND THE RELEVANT AUTHORITIES NOTIFIED SEVEN (7) CLEAR DAYS PRIOR TO THE COMMENCEMENT OF THE WORKS.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (A.H.D.).
- ALL CO-ORDINATES ARE TO MAP GRID OF AUSTRALIA - MGA 2020 ZONE 55.
- THE CONTRACTOR MUST ARRANGE THE REQUISITE INSPECTIONS OF THE WORKS WITH THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE AS PER THE HOLD POINTS IN THE V.P.A. MANUAL AND HUME CITY COUNCIL SPECIFICATIONS.
- FILL AREAS TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLAN. FILLING IS TO BE CLEAN CLAY COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.11-2003.
- FILLING TO COMPLY WITH A.S.3798-2007, LEVEL 1 UNLESS SPECIFIED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION NO 448 (SEPT '95) AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL IF REQUIRED PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- WHERE, AS A CONDITION OF THE PLANNING PERMIT OR AS A RESULT OF THE PRE-CONSTRUCTION MEETING, FENCING OF AREAS CONTAINING TREES, NATIVE GRASSES AND SHRUBS IS REQUIRED, A THREE STRAND STAR PICKET AND WIRE FENCE SHALL BE CONSTRUCTED.
- NO TREE OR NATIVE VEGETATION IS TO BE DISTURBED OR REMOVED WITHOUT PRIOR APPROVAL FROM COUNCIL'S SUSTAINABLE ENVIRONMENT DEPARTMENT. ANY TREES REMOVED, VEGETATION OR OTHER MATERIALS ARE NOT TO BE BURNT ON SITE.
- BEFORE COMMENCING WORK ON TRENCHES IN EXCESS OF 1.5m DEEP, NOTICE OF SUCH PROPOSAL IS TO BE FORWARDED BY THE CONTRACTOR TO WORKSAFE VICTORIA.
- THE CONTRACTOR IS TO OBTAIN A BUILDING PERMIT FOR ANY STRUCTURES / FENCES AND FOR ANY RETAINING WALLS OVER 1.0m IN HEIGHT.
- ANY INFRASTRUCTURE DAMAGE DURING THE DEFECTS LIABILITY PERIOD IS THE RESPONSIBILITY OF THE DEVELOPER OR HIS REPRESENTATIVE AND IS TO BE REINSTATED TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER OR HIS REPRESENTATIVE.
- PRIOR TO STATEMENT OF COMPLIANCE ALL DISTURBED AREAS (INCLUDING NATURE STRIPS, BATTERS, ALLOTMENTS WITH GRADES OF 1:5 AND GREATER, AND RESERVES) ARE TO BE REINSTATED TO A CLEAN, TIDY CONDITION, TOP DRESSED (100MM LOAMY TOP SOIL FREE OF RUBBISH, DEBRIS, CLUMPS, SODS AND CLAY LUMPS), LIGHTLY COMPACTED AND HYDRO MULCHED. HYDROMULCH AND SEED MIX TO BE:
 - 40KG/HA KIKUYU
 - 200KG/HA TURF TYPE PERENNIAL RYE
 - 100KG/HA CREEPING RED FESCUE
 - 1500KG/HA OF CELLULOSE FIBRE
 - SOIL BINDER, SPECIFICALLY MANUFACTURED FOR HYDROMULCHING, USED AT MANUFACTURERS RECOMMENDED RATES. (E.G. ORGANIC GAUR TACKIFIERS @ 20 - 30 KG/HA, BASED ON SITE CONDITIONS).
 GRASS IS TO BE ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE PERIOD, UNLESS OTHERWISE AGREED IN WRITING.
- FOOTPATHS ARE TO BE 50mm OFFSET FROM TITLE BOUNDARIES UNLESS NOTED OTHERWISE. VEHICLE CROSSING ALIGNMENTS ARE GENERALLY TO BE PARALLEL TO THE SIDE BOUNDARY.
- ALL NEW CONCRETE WORKS SHALL BE JOINED INTO ABUTTING EXISTING CONCRETE WITH 450mm LONG Y20 DOWEL BARS @ 600 CENTRES, UNLESS OTHERWISE SPECIFIED.
- ANY EXPOSED AGGREGATE CONCRETE WORKS TO BE ACHIEVED BY SAND-BLASTING ONLY. WASHING AGGREGATE OFF WITH WATER IS NOT PERMITTED.
- ALL SERVICE CONDUITS TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH 20mm 3% CEMENT TREATED CLASS 3 CRUSHED ROCK COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.21-2003. ALL SERVICE CONDUITS TRENCHES UNDER FOOTPATH, VEHICULAR CROSSINGS, PARKING BAYS AND WITHIN 750MM OF PARKING BAYS TO BE BACKFILLED WITH CLASS 3 CRUSHED ROCK.
- ALL STORMWATER DRAINS ARE TO BE CLASS 2 R.C. OR RIGID F.R.C. PIPES WITH ADCOL FLEXIBLE COLLARS UNLESS NOTED OTHERWISE. ALL PIPES UP TO AND INCLUDING 750mm DIAMETER ARE TO BE RUBBER RING JOINTED, INTERLOCKING / FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPE SIZES OVER 750mm DIAMETER.
- WHERE NEW ASPHALT, CONCRETE KERB & CHANNEL, PATHS AND DRIVEWAYS MATCH INTO EXISTING, THE EXISTING SURFACE IS TO BE SAW CUT AND MATCHED NEATLY.
- ALL REDUNDANT ASSETS ARE TO BE REMOVED AND DISPOSED OFF SITE.
- ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN OR DIRECTED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- AT THE COMPLETION OF ALL WORKS, ALL RUBBISH, DEBRIS AND SURPLUS SPOIL SHALL BE REMOVED AND THE SITE SHALL BE CLEARED TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- ALL DRAINS BEHIND KERB AND CHANNEL SHALL BE BACKFILLED TO MATCH PAVEMENT SUBGRADE LEVEL WITH 20mm CLASS 3 F.C.R. COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.21-2003. ALL DRAINS, SEWERS, GAS & WATER MAINS LAID THROUGH THE ROAD PAVEMENT (EXCEPT CONDUITS) ARE TO BE BACKFILLED WITH 20mm CLASS 2 FCR COMPACTED TO 98% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.21-2003.
- PAVEMENT DEPTH SPECIFIED IS A MINIMUM DEPTH AND MAY BE VARIED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE. SOFT SPOTS SHALL BE EXCAVATED TO A PROOF ROLLED BASE AND BACKFILLED WITH APPROVED MATERIAL COMPACTED IN 150mm LAYERS TO ACHIEVE TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH A.S.1289.5.11-2003.

- ALL EXISTING ASSETS AFFECTED BY THE WORKS, E.G. SIGNS, VEHICLE CROSSINGS, FOOTPATHS, KERB AND LINEMARKING SHALL BE REINSTATED BY THE CONTRACTOR PRIOR TO THE COMPLETION OF THE WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- PRIOR TO THE COMPLETION OF THE WORKS ALL FIRE HYDRANTS ARE TO BE MARKED IN ACCORDANCE WITH "IDENTIFICATION OF STREET HYDRANTS FOR FIREFIGHTING PURPOSES" PUBLICATION (DEVELOPED BY C.F.A. M.F.B. & E.S.B). MARKINGS TO BE VIA BLUE PAVEMENT MARKER AND A (RED TOPPED) WHITE POST.
- AGRICULTURAL DRAINS ARE TO BE PLACED BEHIND ALL KERB AND CHANNEL, KERB ONLY AND EDGE STRIPS IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SD202.
- ALL TABLE DRAINS AND VERGES ARE TO BE REINSTATED UPON COMPLETION OF WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- ALL TRAFFIC CONTROL MEASURES, SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH A.S.1742 - 1, 2 & 3. STREET NAME SIGNS ARE TO BE IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SD408.
- ALL LINEMARKING PAINT SHALL BE LONG LIFE TYPE IN ACCORDANCE WITH SECTION 95C OF THE HUME CITY COUNCIL SPECIFICATIONS. LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC TROWELLED INTO PLACE (MATERIAL DEGADUR PLASTELINE) AND LONGITUDINAL LINES BEING EXTRUDED THERMOPLASTIC MATERIAL.
- ALL SIGNS TO BE CLASS 1 HIGH INTENSITY TYPE AND TO COMPLY WITH THE REQUIREMENTS OF A.S.1743 -2001.
- HOUSE DRAIN CONNECTIONS TO 150mm DIAMETER PIPES TO BE VIA A MANUFACTURED JUNCTION PIECE. 150mm DIAMETER STORMWATER PIPES ARE TO BE HEAVY DUTY SEWER GRADE. PVC PIPES SHALL BE BACKFILLED WITH 10mm MINUS F.C.R. TO 150mm ABOVE TOP OF PIPE IN ALL LOCATIONS.
- 100mm HOUSE DRAIN CONNECTIONS TO BE LAID AT AN OFFSET OF 5.5m FROM THE LOW SIDE TITLE BOUNDARY AND PROPERTY INLETS 1.0m FROM THE LOW SIDE OF TITLE BOUNDARY REAR EASEMENTS UNLESS OTHERWISE SHOWN.
- BLASTING GENERALLY IS NOT ENCOURAGED, HOWEVER BLASTING MAY BE REQUIRED AS A LAST RESORT DEPENDING ON GROUND CONDITIONS. COUNCIL IS TO BE NOTIFIED IN WRITING IF ANY BLASTING IS NECESSARY. RESIDENTS LIKELY TO BE AFFECTED BY THE BLASTING AND ALL SERVICE AUTHORITIES SHALL BE NOTIFIED IN WRITING PRIOR TO WORKS COMMENCING. COPIES OF THESE NOTIFICATIONS ARE TO BE SUBMITTED TO COUNCIL. RESIDENT NOTIFICATION LETTER IS TO INCLUDE BLASTING GUIDELINES, FIRING AND MISFIRE PROCEDURES AND CONTRACTOR AND CONSULTANT CONTACT NAMES AND PHONE NUMBERS. ALL BLASTING IS TO BE WITHIN THE LIMITS FOR AIR AND GROUND VIBRATION LEVELS AS SET DOWN IN A.S.2187.2-1993. ALL BLASTS SHALL BE MONITORED FOR AIR AND NOISE VIBRATION AT POTENTIALLY AFFECTED RESIDENCES. "FORM A" FROM A.S. 2187.2-1993, AND WAVE TRACE COPIES ARE TO BE SUBMITTED TO COUNCIL FOR EACH BLAST. BLASTING IS TO BE RESTRICTED TO BETWEEN 9.00am AND 3.30pm. BLASTING IS NOT TO OCCUR ON WEEKENDS OR PUBLIC HOLIDAYS. BLASTING AREA SIGNS ARE TO BE PLACED AT ALL ENTRANCES TO THE SITE.
- FENCING TO BE PROVIDED ALONG LOT BOUNDARIES ABUTTING RESERVES TO THE SATISFACTION OF THE RESPONSIBLE AUTHORITY.
- WHERE SODIC SOILS ARE ENCOUNTERED, SODIC SOIL INVESTIGATIONS SHOULD BE CARRIED OUT BY A QUALIFIED SOIL SCIENTIST AND THE RECOMMENDATIONS OF THE REPORT SHOULD BE APPLIED DURING ROAD & DRAINAGE DESIGN AND CONSTRUCTION.

SPIIRE GENERAL NOTES:

- ALL EXISTING SURFACE LEVELS SHOWN ON THE ENGINEERING DRAWINGS HAVE BEEN INTERPOLATED FROM A DIGITAL TERRAIN MODEL. THESE LEVELS HAVE BEEN USED AS THE BASIS FOR ALL ENGINEERING DESIGN AND DETERMINATION OF QUANTITIES AND ARE ACCURATE TO WITHIN ±0.05m.
- ANY EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
- WHERE REQUIRED ANY BUILDINGS, TRENCHES, FENCES AND OTHER STRUCTURES ON SITE ARE TO BE REMOVED AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL IS TO BE INCLUDED IN THE OVERALL EARTHWORKS FIGURE UNLESS A SPECIFIC ITEM FOR REMOVAL IS DENOTED IN THE SCHEDULE.
- ALL FILLING ON LOTS AND WITHIN ROAD RESERVES GREATER THAN 200mm IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH A.S.3798-2007. FILLING MATERIAL IS TO BE IN ACCORDANCE WITH THE SPECIFICATION, A.S.3798-2007 & TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT.
- ALL BATTERS SHALL BE 1 IN 6, UNLESS OTHERWISE SHOWN.
- NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE FOR PUBLIC OPEN SPACE UNLESS OTHERWISE DIRECTED OR APPROVED BY THE SUPERINTENDENT.
- T.B.M.'S TO BE RE-ESTABLISHED BY THE LICENSED SURVEYOR IF FOUND TO BE MISSING AT THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARE AND MAINTENANCE OF T.B.M.'S THEREAFTER.
- AT LEAST THREE (3) DAYS PRIOR TO COMMENCING WORK ON EXCAVATIONS IN EXCESS OF 1.50m DEEP, A NOTIFICATION FORM MUST BE SENT TO WORKSAFE. THE CONTRACTOR IS TO COMPLY WITH WORKSAFE, THE MINES (TRENCHES) REGULATION 1982, THE MINES ACT 1958 AND OCCUPATIONAL HEALTH AND SAFETY ACT 1985, 2004.
- WHERE REQUIRED, ALL EXISTING DAMS, DEPRESSIONS AND DRAINS ARE TO BE BREACHED, DRAINED, DE-SLUDGED AND SHALL BE EXCAVATED TO A CLEAN FIRM BASE. THE SURFACE SHALL BE INSPECTED, APPROVED AND LEVELLED BY THE ENGINEER PRIOR TO COMMENCEMENT OF FILLING. THE FILL SHALL BE APPROVED SELECTED ON SITE MATERIAL OR APPROVED IMPORTED MATERIAL. THE FILL SHALL BE PLACED UNDER CONTROLLED MOISTURE CONDITIONS IN ACCORDANCE WITH THE SPECIFICATION.
- GAS AND WATER CONDUITS SIZES ARE AS FOLLOWS:
850mm CLASS 12 P.V.C. - SINGLE SERVICE
Ø100mm CLASS 12 P.V.C. - DUAL SERVICE (DRINKING AND NON DRINKING WATER)
WITH THE FOLLOWING MINIMUM COVER TO FINISHED SURFACE LEVELS.
ROAD PAVEMENT - 0.80m
VERGE & FOOTPATHS - 0.45m
- A.G. / SUBSOIL DRAIN TO BE LAID BEHIND KERB & CHANNEL. KERB ONLY AND EDGE STRIPS WHERE REQUIRED IN ACCORDANCE WITH THE HUME CITY COUNCIL STANDARD DRAWING SD282 AND CONNECTED TO UNDERGROUND DRAINAGE.
- CENTRE LINES OF ALL EASEMENT DRAINS ARE OFFSET 1.0m OR 2.2m (WHERE OUTSIDE OF SEWER) FROM THE PROPERTY LINE UNLESS SHOWN OTHERWISE.
- WHERE CURVED PIPE ALIGNMENTS ARE SHOWN ON THE FACE PLANS THEY ARE TO BE LAID PARALLEL TO THE BACK OF KERB, EXCEPT WHERE A RADIUS HAS BEEN SPECIFICALLY NOMINATED. CURVED PIPES ARE TO BE APPROVED BY COUNCIL AND IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS2124-1992 GENERAL CONDITIONS OF CONTRACT.
- TELSTRA IS TO BE NOTIFIED 7 DAYS PRIOR TO PLACEMENT OF CONCRETE WORKS.
- PAVEMENT DEPTHS MAY BE MODIFIED AS DIRECTED BY THE SUPERINTENDENT. PAVEMENT TO BE BOXED OUT TO MINIMUM DEPTH DENOTED, INSPECTED AND IF SUBGRADE IS IN QUESTION, FURTHER TESTING CARRIED OUT TO DETERMINE FINAL PAVEMENT DEPTH.
- WHERE PAVEMENT IS CONSTRUCTED ON FILLING, FILL MATERIAL IS TO BE APPROVED BY THE SUPERINTENDENT AND COUNCIL. FILLING TO BE CONSTRUCTED IN LAYERS 150mm THICK WITH COMPACTION ACHIEVING 95% AUSTRALIAN STANDARD DENSITY.
- WHEN PAVEMENT EXCAVATION IS IN ROCK, ALL LOOSE MATERIAL (INCLUDING ROCKS AND CLAY) MUST BE REMOVED. THE SUB-GRADE MUST THEN BE REGULATED WITH COUNCIL APPROVED MATERIAL.
- ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE SUPPLIED AND MAINTAINED IN ACCORDANCE WITH A.S.1742-3.
- THE CONTRACTOR IS REQUIRED TO OBTAIN A "PERMIT TO WORK" FROM MELBOURNE WATER'S SURVEILLANCE OFFICER AT THE PRE-COMMENCEMENT MEETING. THE CONTRACTOR IS REQUIRED TO ENSURE THAT THE "PERMIT TO WORK" IS KEPT UP TO DATE FOR THE DURATION OF THE CONTRACT.
- CONTRACTOR TO ENSURE SEWER MANHOLES ARE WHOLLY LOCATED IN PROPOSED FOOTPATHS.



DRAWING SCHEDULE

DRAWING	DESCRIPTION	SHEET No.	REVISION
CR100	FACE SHEET	1	3
CR200	FACE PLAN - SHEET 1	2	3
CR201	SERVICES PLAN - SHEET 2	3	3
CR202	TREE REMOVAL PLAN - SHEET 3	4	3
CR300	ROAD LONG SECTIONS - SHEET 1	5	2
CR301	ROAD LONG SECTIONS - SHEET 2	6	1
CR302	ROAD LONG SECTIONS - SHEET 3	7	1
CR400	ROAD CROSS SECTIONS - SHEET 1	8	1
CR401	ROAD CROSS SECTIONS - SHEET 2	9	2
CR402	ROAD CROSS SECTIONS - SHEET 3	10	1
CR403	ROAD CROSS SECTIONS - SHEET 4	11	1
CR404	ROAD CROSS SECTIONS - SHEET 5	12	1
CR500	INTERSECTION DETAILS - SHEET 1	13	1
CR501	INTERSECTION DETAILS - SHEET 2	14	2
CR600	DRAINAGE LONG SECTIONS - SHEET 1	15	1
CR601	DRAINAGE LONG SECTIONS - SHEET 2	16	1
CR602	DRAINAGE LONG SECTIONS & PIT SCHEDULE - SHEET 3	17	3
CR700	PAVEMENT AND TYPICAL DETAILS	18	2
CR701	SODIC SOIL RECOMMENDATIONS	19	1
CR800	SIGNAGE AND LINEMARKING	20	2
CR900	RETAINING WALLS - SHEET 1	21	2
CR901	RETAINING WALLS - SHEET 2	22	1

LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN, VALVE AND HYDRANT		
UNDERGROUND ELECTRICITY		
OVERHEAD ELECTRICITY & POLE		
TELECOMMUNICATIONS & SERVICE PIT		
OPTIC FIBRE		
SEWER & MAINTENANCE STRUCTURE		
CENTRAL INVERT		
COUNCIL STORMWATER DRAIN AND PIT		
STORM WATER DRAINAGE PROPERTY INLETS		
COUNCIL STORM WATER PITS		
HOUSE DRAIN		
AG DRAIN AND FLUSHER		
STORM WATER DRAINAGE PIT NUMBER		
WATER CONDUITS		
CONCRETE VEHICLE CROSSING		
NON-STANDARD CONCRETE VEHICLE CROSSING - 6.0m FOOTPATH X 7.2m KERB LENGTH (DOUBLE)		
- 3.0m FOOTPATH X 4.2m KERB LENGTH (SINGLE)		
NON-STANDARD CONCRETE VEHICLE CROSSING - REFER TO CR700		
RIDGE / CHANGE OF GRADE LINE		
SURFACE CONTOUR MINOR		
SURFACE CONTOUR MAJOR		
SURFACE LEVEL		
BATTER LEVEL (TOP / TOE)		
RETAINING WALL LEVEL (TOP/BOTTOM)		
EARTHWORKS GRADE		
SIGN AND POST		
LIGHT & POLE (BY OTHERS)		
STREET SIGN		
PERMANENT SURVEY MARK		
TEMPORARY BENCH MARK		
ROAD CHAINAGES		
LOT CHAINAGES		
SETOUT POINT		
LIMIT OF WORKS		
BATTER		
EXCAVATION GREATER THAN 0.20m		
FILLING GREATER THAN 0.20m		
SLEEPER RETAINING WALL		
ROCK RETAINING WALL		
FENCES		
TREE (& SURVEYED CANOPY) TO BE RETAINED		
TREE TO BE REMOVED		
VEGETATION LINE		
FOOTPATH		
KERB TRANSITION		
STREET TREES		

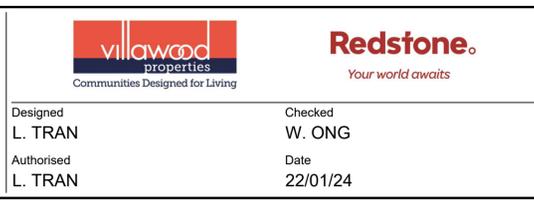


WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

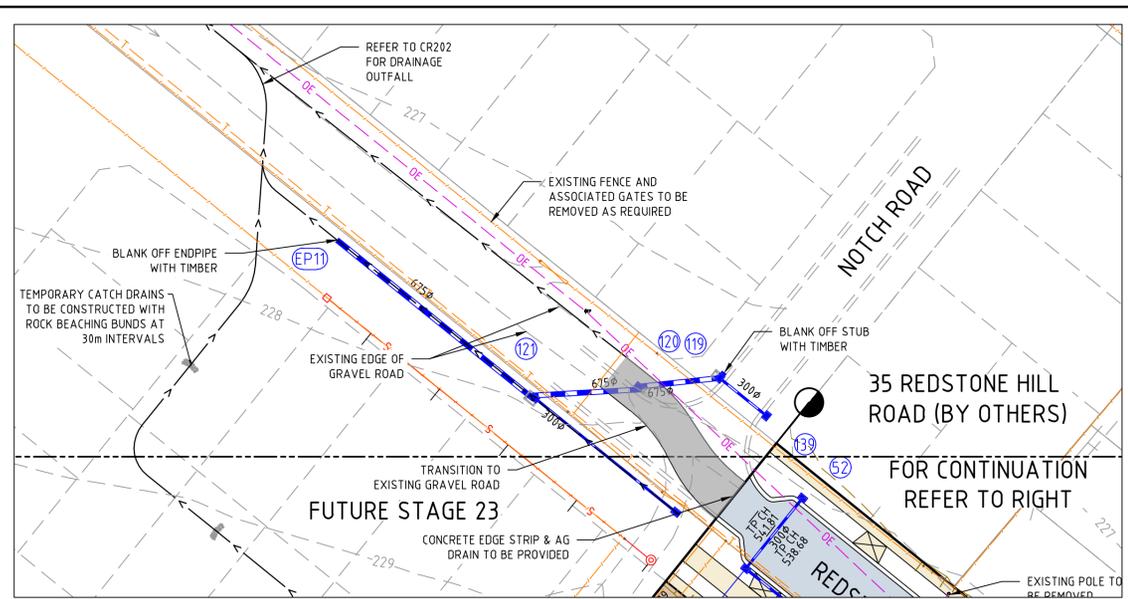
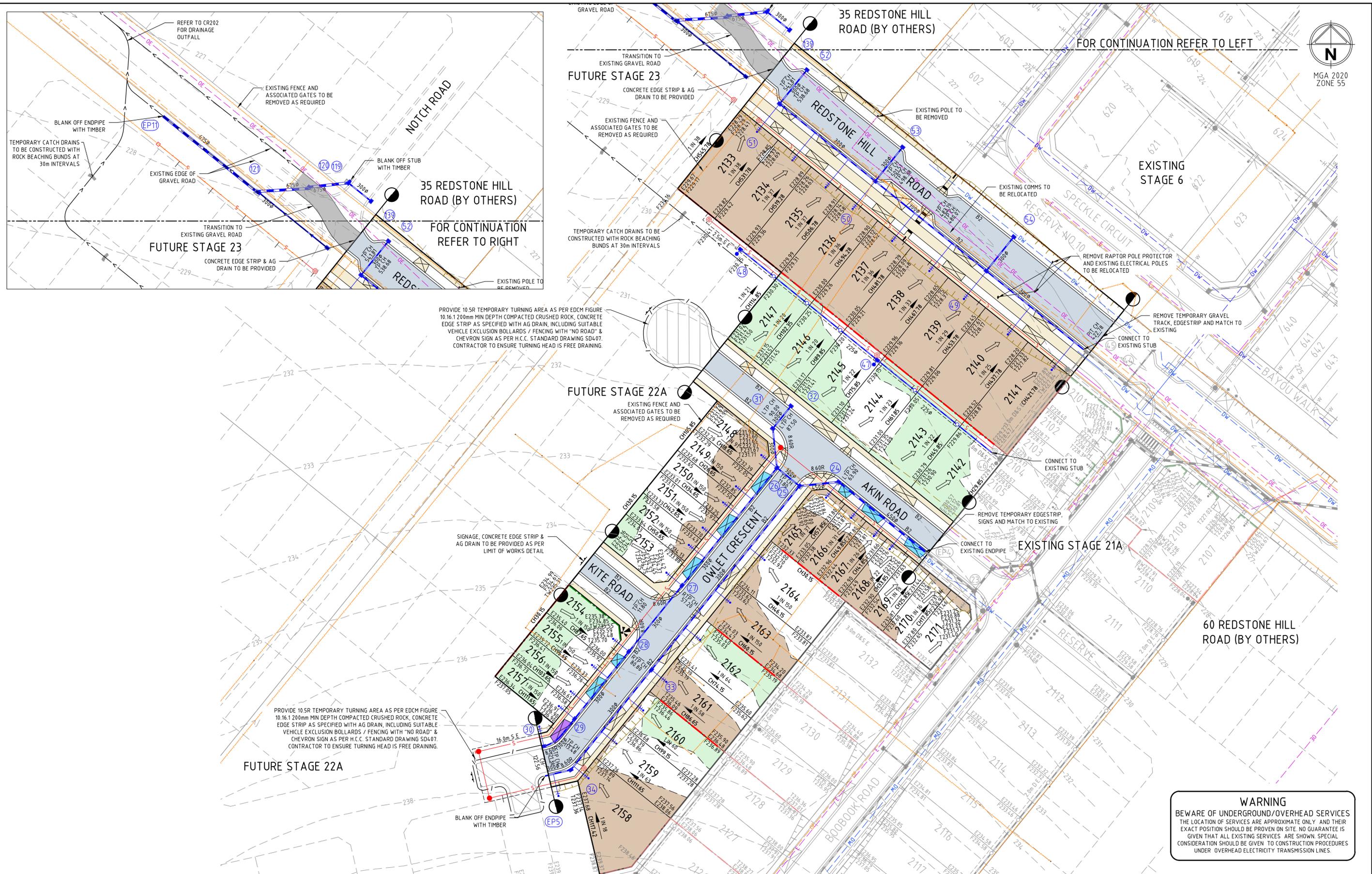
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Rev	Amendments	Approved	Date
3	AS CONSTRUCTED	L.T	24/02/26
2	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T	19/11/25
1	DRIVEWAY & CATCH DRAIN ADDED	L.T	01/08/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
H	SERVICE LOCATION TABLE AMENDED	L.T	04/04/25
G	SERVICE LOCATION TABLE AMENDED	L.T	03/02/25
F	REDSTONE HILL ROAD LIMIT OF WORKS EXTENDED	L.T	02/11/24
E	AMENDED AS PER COUNCIL COMMENTS	L.T	05/09/24

Scale	Date



Designed L. TRAN	Checked W. ONG	REDSTONE ESTATE STAGE 21B ROAD AND DRAINAGE FACE SHEET HUME CITY COUNCIL VILLAWOOD PROPERTIES AS CONSTRUCTED	Drg No 310827-001CR100	Rev 3
Authorised L. TRAN	Date 22/01/24			



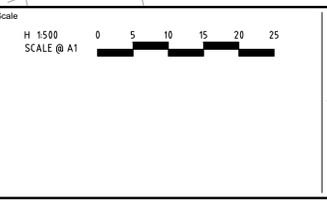
PROVIDE 10.5R TEMPORARY TURNING AREA AS PER EDM FIGURE 10.16.1 200mm MIN DEPTH COMPACTED CRUSHED ROCK, CONCRETE EDGE STRIP AS SPECIFIED WITH AG DRAIN, INCLUDING SUITABLE VEHICLE EXCLUSION BOLLARDS / FENCING WITH "NO ROAD" & CHEVRON SIGN AS PER H.C.C. STANDARD DRAWING SD4.07. CONTRACTOR TO ENSURE TURNING HEAD IS FREE DRAINING.

PROVIDE 10.5R TEMPORARY TURNING AREA AS PER EDM FIGURE 10.16.1 200mm MIN DEPTH COMPACTED CRUSHED ROCK, CONCRETE EDGE STRIP AS SPECIFIED WITH AG DRAIN, INCLUDING SUITABLE VEHICLE EXCLUSION BOLLARDS / FENCING WITH "NO ROAD" & CHEVRON SIGN AS PER H.C.C. STANDARD DRAWING SD4.07. CONTRACTOR TO ENSURE TURNING HEAD IS FREE DRAINING.

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3	AS CONSTRUCTED	L.T	24/02/26
2	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T	19/11/25
1	DRIVEWAY & CATCH DRAIN ADDED	L.T	01/08/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
E	REDSTONE HILL ROAD LIMIT OF WORKS EXTENDED	L.T	02/11/24
D	REDSTONE HILL ROAD FOOTPATH AMENDED	L.T	05/09/24
C	LOT 2134/2135 & 2138/2139 DRIVEWAY & DRAINAGE PIT 29 AMENDED	M.R	13/05/24
B	TGSIS AND CATCH DRAIN ADDED	M.R	15/04/24
Rev	Amendments	Approved	Date



System Certified

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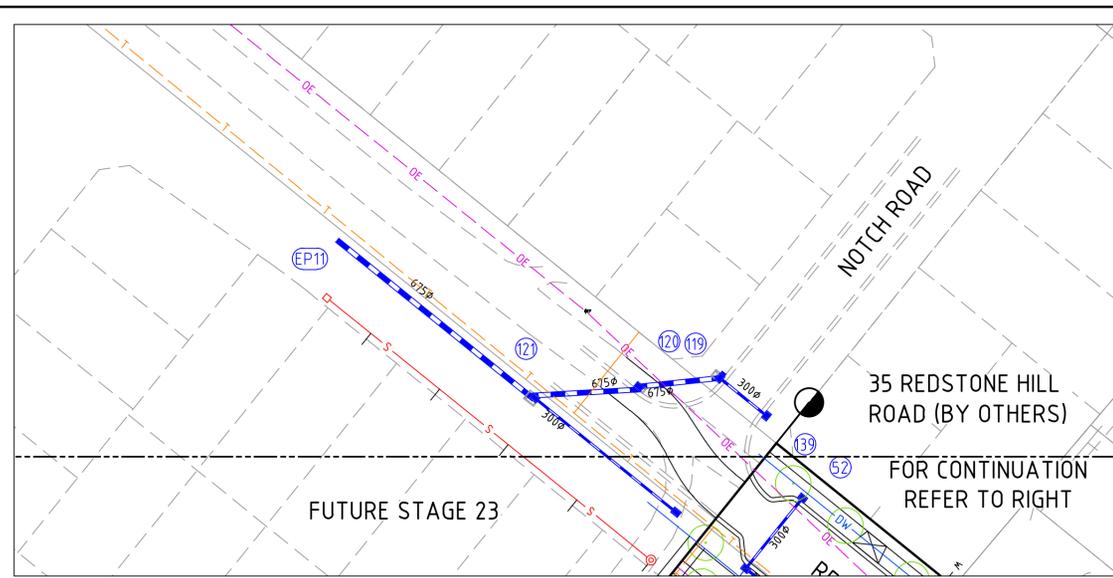
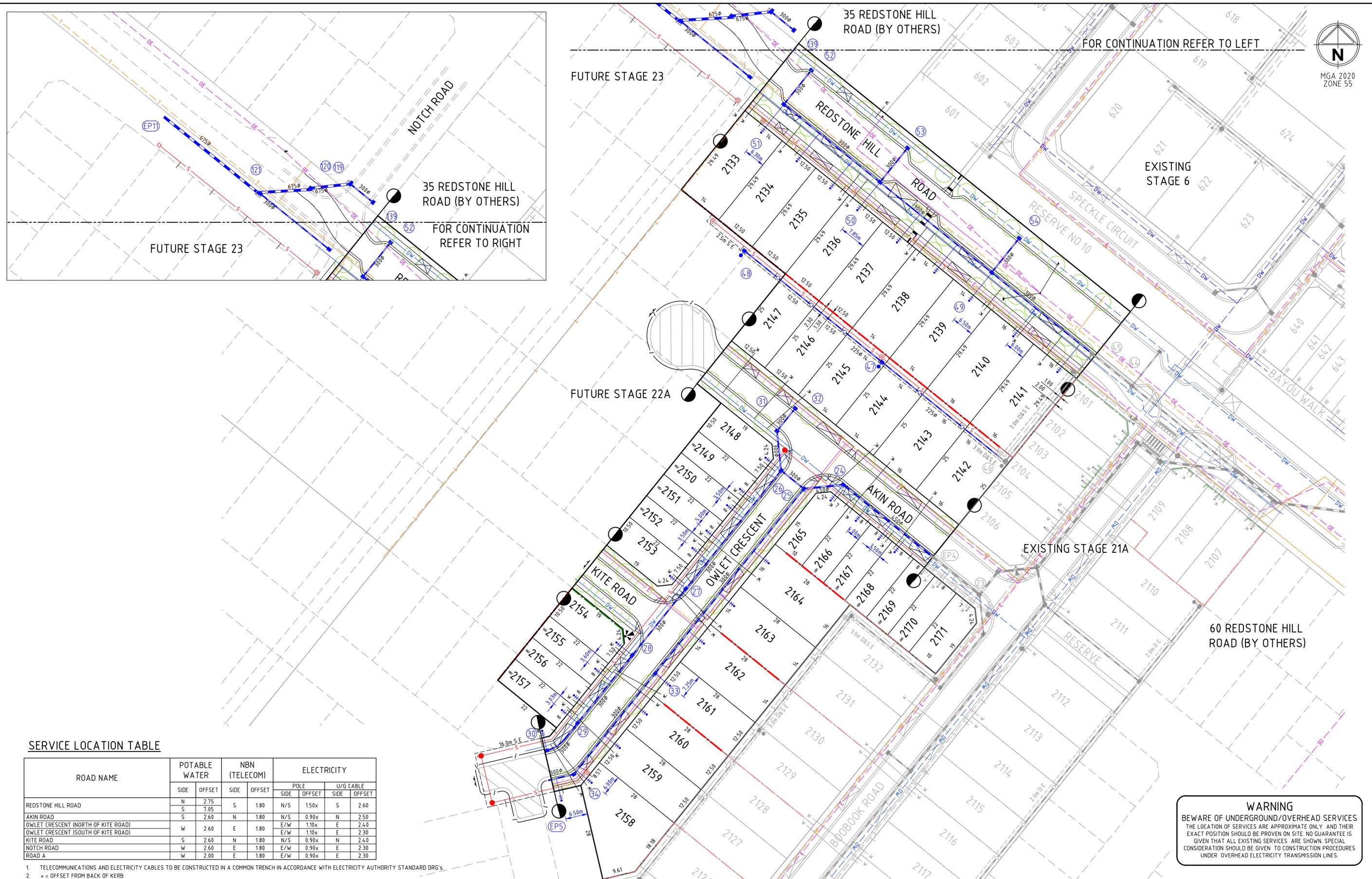
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REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
FACE PLAN - SHEET 1
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

Drg No 310827-001CR200 Rev 3

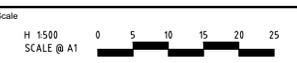


SERVICE LOCATION TABLE

ROAD NAME	POTABLE WATER		NBN (TELECOM)		ELECTRICITY	
	SIDE	OFFSET	SIDE	OFFSET	POLE SIDE	U/G CABLE OFFSET
REDSTONE HILL ROAD	N	2.75	S	1.80	N/S 150x	S 2.60
AKIN ROAD	S	7.05	N	1.80	N/S 0.90x	N 2.50
OWLET CRESCENT (NORTH OF KITE ROAD)					E/W 1.10x	E 2.40
OWLET CRESCENT (SOUTH OF KITE ROAD)	W	2.60	E	1.80	E/W 1.10x	E 2.30
KITE ROAD	S	2.60	N	1.80	N/S 0.90x	N 2.40
NOTCH ROAD	W	2.60	E	1.80	E/W 0.90x	E 2.30
ROAD A	W	2.00	E	1.80	E/W 0.90x	E 2.30

1. TELECOMMUNICATIONS AND ELECTRICITY CABLES TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICITY AUTHORITY STANDARD DRG'S.
 2. * = OFFSET FROM BACK OF KERB

Rev	Description	Approved	Date
3	AS CONSTRUCTED	L.T.	24/02/26
2	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T.	19/11/25
0	ISSUED FOR CONSTRUCTION	L.T.	29/04/25
G	SERVICE LOCATION TABLE AMENDED	L.T.	03/02/25
F	REDSTONE HILL ROAD LIMIT OF WORKS EXTENDED	L.T.	02/11/24
E	REDSTONE HILL ROAD FOOTPATH AMENDED	L.T.	05/09/24
D	REDSTONE HILL ROAD SERVICES AMENDED	L.T.	01/08/24
C	LOT 2134/2135 & 2138/2139 DRIVEWAY & DRAINAGE PIT 29 AMENDED	M.R.	13/05/24



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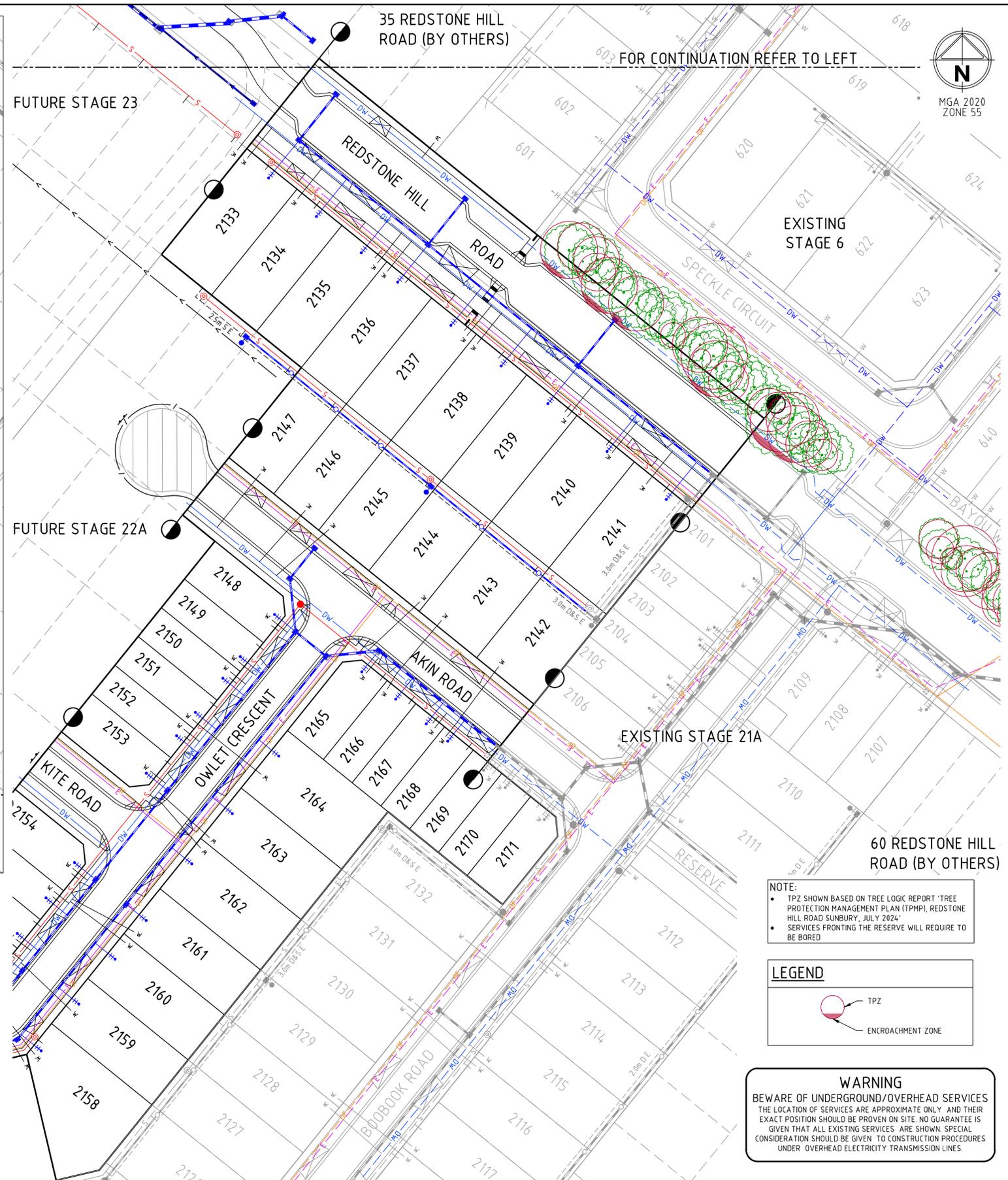
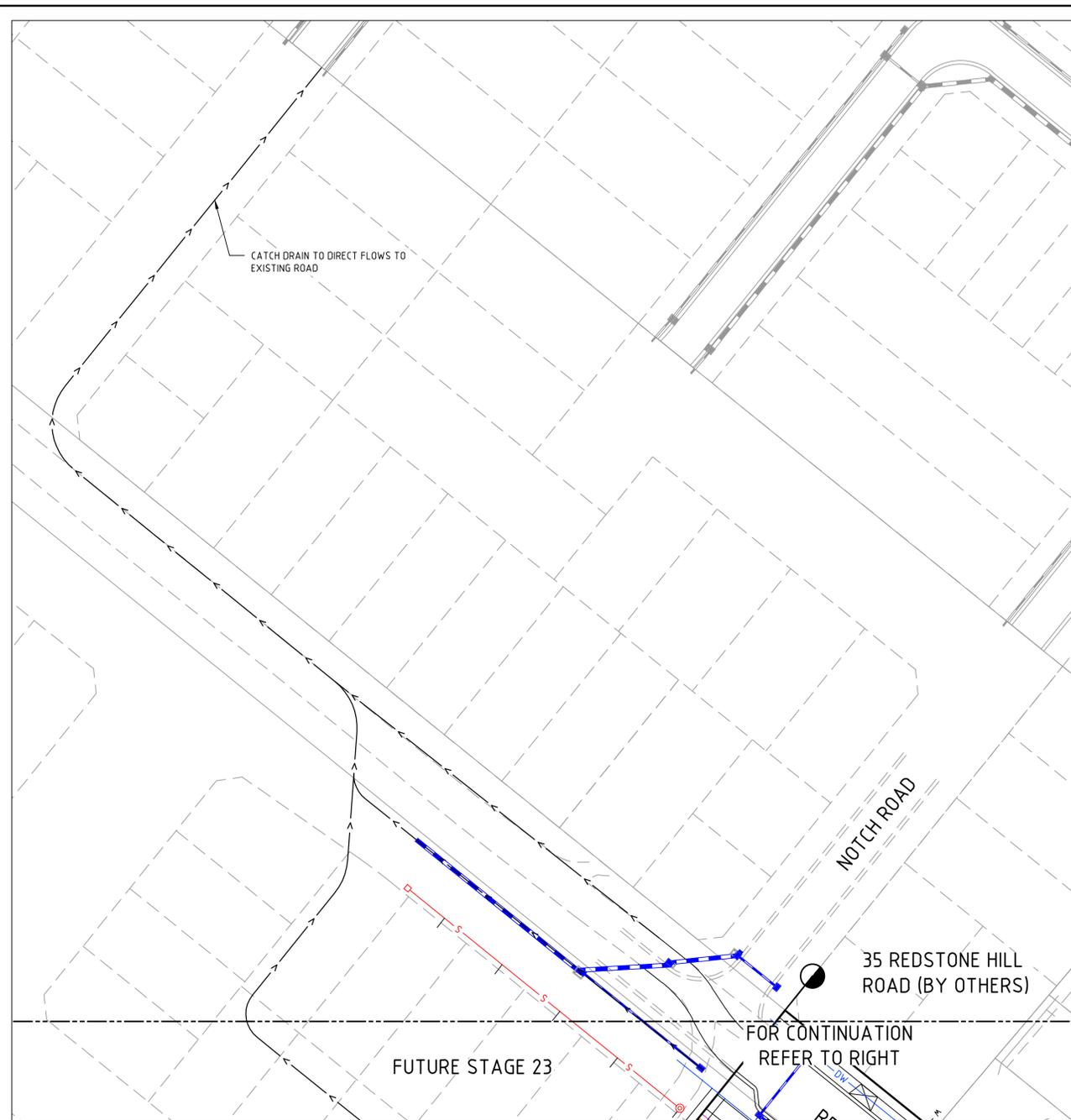
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 Date 22/01/24

**REDSTONE ESTATE
 STAGE 21B
 ROAD AND DRAINAGE
 SERVICES PLAN - SHEET 2
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES**

AS CONSTRUCTED Drg No 310827-001CR201 Rev 3

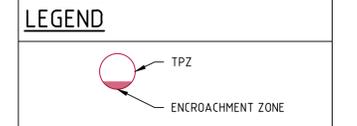
WARNING
 BEWARE OF UNDERGROUND/OVERHEAD SERVICES
 THE LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

file name: 310827-001CR201.dwg; layout name: CP201; plotted by: Liana Tran; plot location: G:\310827\001CR201\ACAD\plot.dwg; date: 24/02/2026 2:58 PM; Sheet: 3 of 22 Sheets



NOTE:

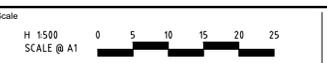
- TPZ SHOWN BASED ON TREE LOGIC REPORT 'TREE PROTECTION MANAGEMENT PLAN (TPMP), REDSTONE HILL ROAD SUNBURY, JULY 2024'
- SERVICES FRONTING THE RESERVE WILL REQUIRE TO BE BORED



WARNING
 BEWARE OF UNDERGROUND/OVERHEAD SERVICES
 THE LOCATION OF SERVICES ARE APPROXIMATE ONLY, AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

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Rev	Description	Approved	Date
3	AS CONSTRUCTED	L.T	24/02/26
2	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T	19/11/25
1	CATCH DRAIN ADDED	L.T	01/08/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
D	REDSTONE HILL ROAD LIMIT OF WORKS EXTENDED	L.T	02/11/24
C	REDSTONE HILL ROAD FOOTPATH AMENDED	L.T	05/09/24
B	TPZ ADDED AND SERVICES AMENDED	L.T	01/08/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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L. TRAN

Authorised
L. TRAN

Checked
W. ONG

Date
22/01/24

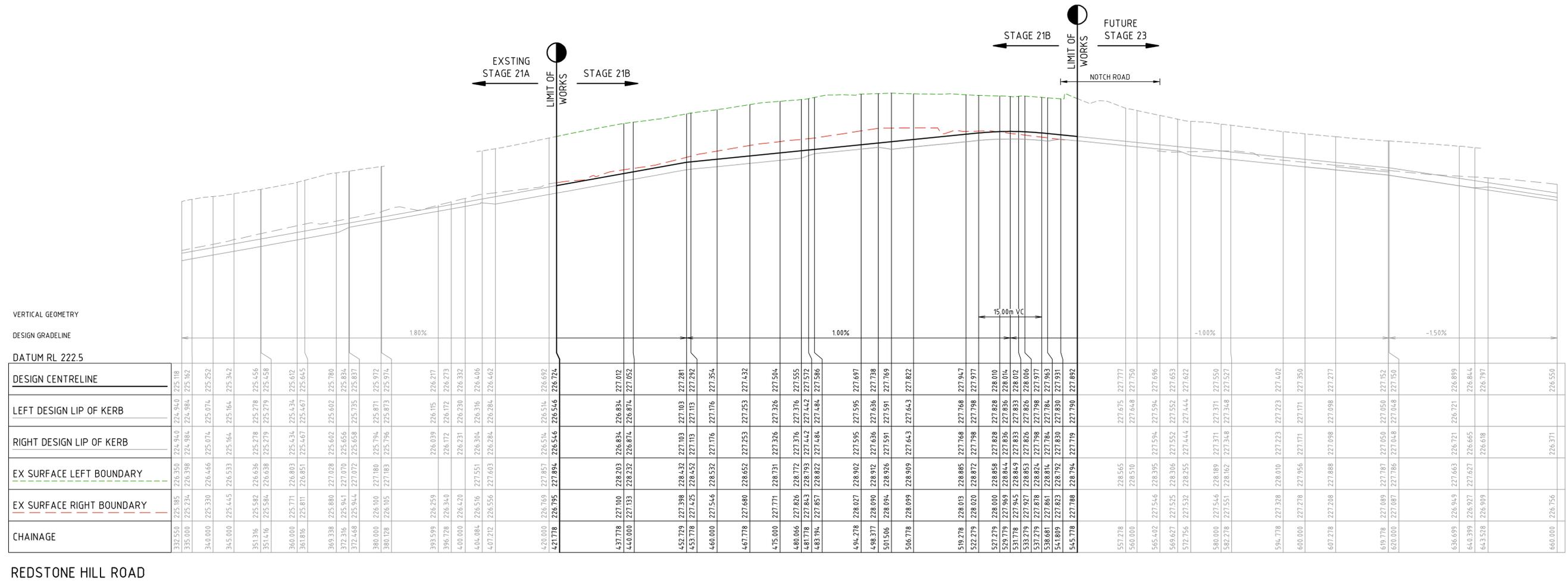
**REDSTONE ESTATE
 STAGE 21B
 ROAD AND DRAINAGE
 TREE REMOVAL PLAN - SHEET 3**

HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

Dwg No: 310827-001CR202 Rev: 3

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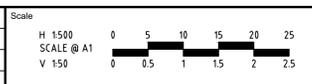


VERTICAL GEOMETRY
 DESIGN GRADELINE
 DATUM RL 222.5

CHAINAGE	EX SURFACE RIGHT BOUNDARY	EX SURFACE LEFT BOUNDARY	RIGHT DESIGN LIP OF KERB	LEFT DESIGN LIP OF KERB	DESIGN CENTRELINE
332.550	225.185	226.350	224.940	224.940	225.188
335.000	225.234	226.398	224.984	224.984	225.162
340.000	225.330	226.466	225.074	225.074	225.252
345.000	225.445	226.533	225.164	225.164	225.342
351.316	225.582	226.636	225.278	225.278	225.456
3514.16	225.584	226.638	225.279	225.279	225.458
360.000	225.771	226.803	225.434	225.434	225.612
3618.16	225.811	226.851	225.467	225.467	225.645
369.338	225.880	227.028	225.602	225.602	225.780
372.316	225.941	227.070	225.656	225.656	225.834
372.448	225.944	227.072	225.658	225.658	225.837
380.000	226.100	227.180	225.794	225.794	225.972
380.128	226.105	227.183	225.796	225.796	225.974
393.599	226.259		226.039	226.115	226.217
396.778	226.340		226.172	226.172	226.273
400.000	226.420		226.231	226.230	226.332
404.084	226.516	227.551	226.304	226.316	226.406
407.212	226.556	227.603	226.284	226.284	226.442
420.000	226.769	227.857	226.514	226.514	226.692
427.178	226.795	227.894	226.546	226.546	226.724
437.778	227.100	228.203	226.834	226.834	227.012
440.000	227.133	228.232	226.874	226.874	227.052
452.729	227.398	228.432	227.103	227.103	227.281
453.778	227.425	228.452	227.113	227.113	227.292
460.000	227.546	228.532	227.176	227.176	227.354
467.778	227.680	228.652	227.253	227.253	227.432
475.000	227.771	228.731	227.326	227.326	227.504
480.066	227.826	228.772	227.376	227.376	227.555
481.778	227.843	228.793	227.442	227.442	227.572
483.194	227.857	228.822	227.484	227.484	227.586
494.278	228.027	228.902	227.595	227.595	227.697
498.377	228.090	228.912	227.636	227.636	227.738
5015.06	228.094	228.926	227.591	227.591	227.769
506.778	228.099	228.909	227.643	227.643	227.822
519.278	228.013	228.885	227.768	227.768	227.947
522.279	228.020	228.872	227.798	227.798	227.977
527.279	228.000	228.858	227.828	227.828	228.010
529.779	227.969	228.844	227.836	227.836	228.014
531.778	227.945	228.849	227.833	227.833	228.012
533.279	227.927	228.853	227.826	227.826	228.006
537.279	227.918	228.824	227.798	227.798	227.977
538.681	227.861	228.814	227.784	227.784	227.963
541.809	227.823	228.792	227.830	227.830	227.931
545.778	227.788	228.794	227.719	227.719	227.892
551.278		228.565		227.615	227.777
560.000		228.510		227.648	227.750
565.402	227.546	228.395	227.594	227.594	227.696
569.627	227.525	228.306	227.552	227.552	227.653
572.756	227.532	228.255	227.444	227.444	227.622
580.000	227.546	228.189	227.371	227.371	227.550
582.278	227.551	228.162	227.348	227.348	227.527
594.778	227.328	228.010	227.223	227.223	227.442
600.000	227.278	227.956	227.171	227.171	227.350
607.278	227.208	227.888	227.098	227.098	227.277
619.778	227.089	227.787	227.050	227.050	227.152
620.000	227.087	227.786	227.048	227.048	227.150
636.699	226.949	227.663	226.721	226.721	226.899
640.399	226.927	227.627	226.665	226.665	226.844
643.528	226.909		226.618	226.618	226.797
660.000	226.756		226.371	226.371	226.550

REDSTONE HILL ROAD

Rev	Amendments	Approved	Date
2	AS CONSTRUCTED	L.T	24/02/26
1	LONG SECTION LIMIT OF WORKS AMENDED	L.T	19/11/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
C	LONG SECTION AMENDED	L.T	02/11/24
B	LONG SECTION AMENDED	L.T	01/08/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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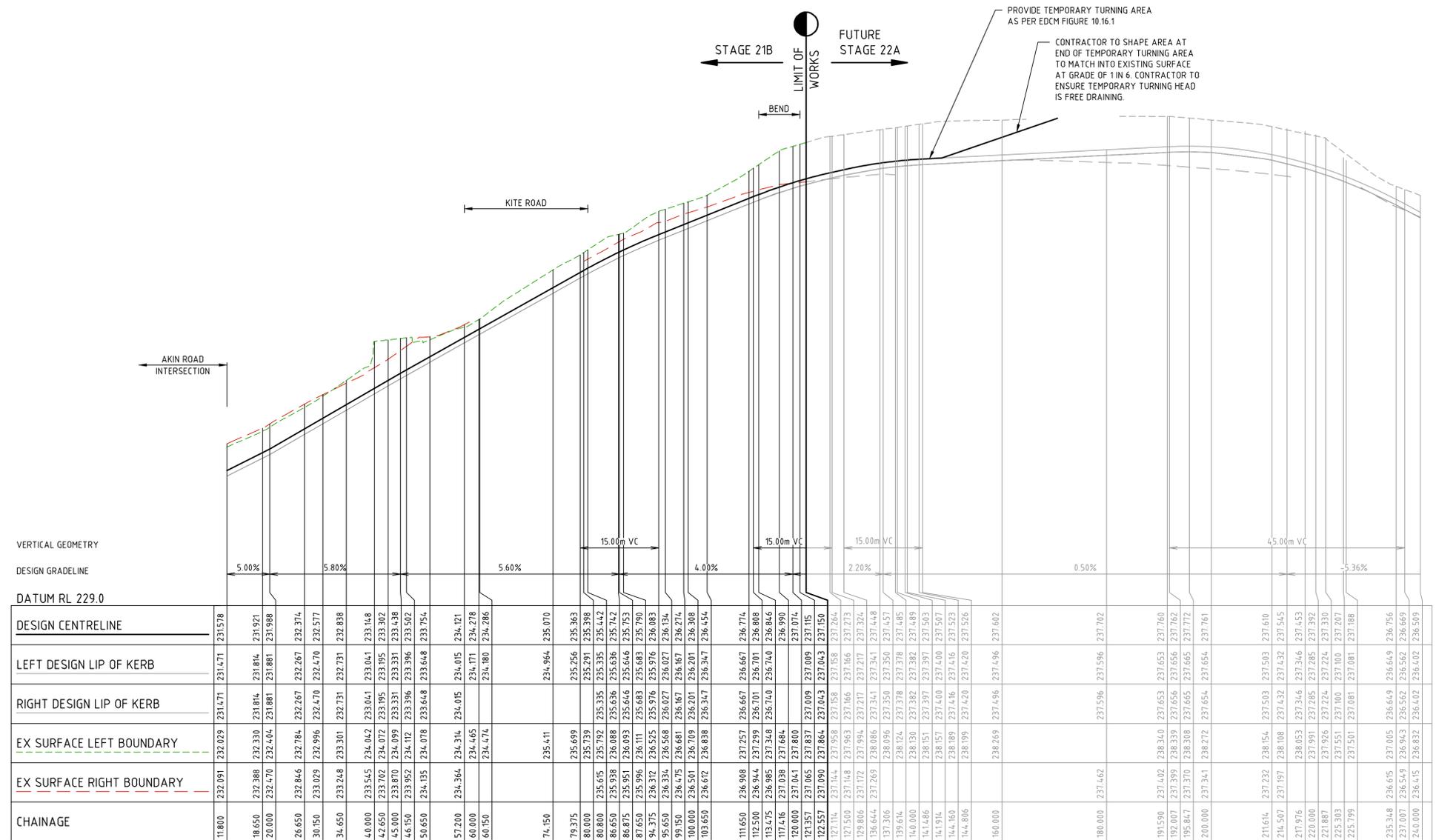
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REDSTONE ESTATE
STAGE 21B
 ROAD AND DRAINAGE
 ROAD LONG SECTIONS - SHEET 1
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES
AS CONSTRUCTED

Drg No 310827-001CR300 Rev 2

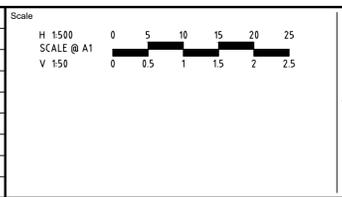
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CHAINAGE	EX SURFACE RIGHT BOUNDARY	EX SURFACE LEFT BOUNDARY	RIGHT DESIGN LIP OF KERB	LEFT DESIGN LIP OF KERB	DESIGN CENTRELINE
11.800	232.091	232.029	231.471	231.471	231.518
18.650	232.388	232.330	231.814	231.814	231.921
20.000	232.470	232.404	231.881	231.881	231.988
26.650	232.846	232.784	232.267	232.267	232.374
30.150	233.029	232.996	232.470	232.470	232.577
34.650	233.248	233.301	232.731	232.731	232.838
40.000	233.545	234.042	233.041	233.041	233.148
42.650	233.702	234.072	233.195	233.195	233.302
45.000	233.870	234.099	233.331	233.331	233.438
46.150	233.952	234.112	233.396	233.396	233.502
50.650	234.135	234.078	233.648	233.648	233.754
57.200	234.364	234.314	234.015	234.015	234.121
60.000	234.465	234.465	234.171	234.171	234.278
60.150	234.474	234.474	234.180	234.180	234.286
74.150	235.411	235.411	234.964	234.964	235.070
79.375	235.699	235.699	235.256	235.256	235.363
80.000	235.759	235.759	235.291	235.291	235.398
80.800	235.615	235.792	235.335	235.335	235.442
86.650	235.938	236.088	235.636	235.636	235.742
86.875	235.951	236.093	235.646	235.646	235.753
87.650	235.996	236.111	235.683	235.683	235.790
94.375	236.312	236.525	236.976	236.976	236.083
95.650	236.334	236.568	237.027	237.027	236.134
99.150	236.475	236.681	237.167	237.167	236.274
100.000	236.501	236.709	237.201	237.201	236.308
103.650	236.612	236.838	237.347	237.347	236.454
111.650	236.908	237.257	237.667	237.667	236.774
112.500	236.944	237.299	237.701	237.701	236.808
113.475	236.985	237.348	237.740	237.740	236.846
117.416	237.038	237.684	237.990	237.990	237.074
120.000	237.041	237.800	238.009	238.009	237.115
121.357	237.065	237.837	238.013	238.013	237.150
122.557	237.090	237.864	238.013	238.013	237.150
127.116	237.144	237.938	238.158	238.158	237.204
127.500	237.148	237.963	238.166	238.166	237.213
129.806	237.172	237.994	238.217	238.217	237.324
136.644	237.269	238.086	238.341	238.341	237.448
137.386	238.096	237.350	237.350	237.350	237.457
139.614	238.124	237.378	237.378	237.378	237.485
140.000	238.130	237.382	237.382	237.382	237.489
141.486	238.151	237.397	237.397	237.397	237.503
141.974	238.157	237.400	237.400	237.400	237.507
144.160	238.189	237.416	237.416	237.416	237.523
144.806	238.199	237.420	237.420	237.420	237.526
160.000	238.269	237.496	237.496	237.496	237.602
180.000	237.462	237.596	237.596	237.596	237.702
191.590	237.402	238.340	237.653	237.653	237.760
192.007	237.399	238.339	237.656	237.656	237.762
195.847	237.370	238.308	237.665	237.665	237.772
200.000	237.341	238.272	237.654	237.654	237.761
211.614	237.232	238.154	237.503	237.503	237.610
214.507	237.197	238.108	237.432	237.432	237.545
217.976	237.053	237.346	237.346	237.346	237.453
220.000	237.191	237.285	237.285	237.285	237.392
221.887	237.192	237.224	237.224	237.224	237.330
225.303	237.100	237.100	237.100	237.100	237.207
225.799	237.101	237.081	237.081	237.081	237.188
235.348	236.615	237.005	236.649	236.649	236.756
237.007	236.549	236.913	236.562	236.562	236.669
240.000	236.415	236.832	236.402	236.402	236.509

OWLET CRESCENT

Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
A	ISSUED TO COUNCIL	L.T	22/01/24



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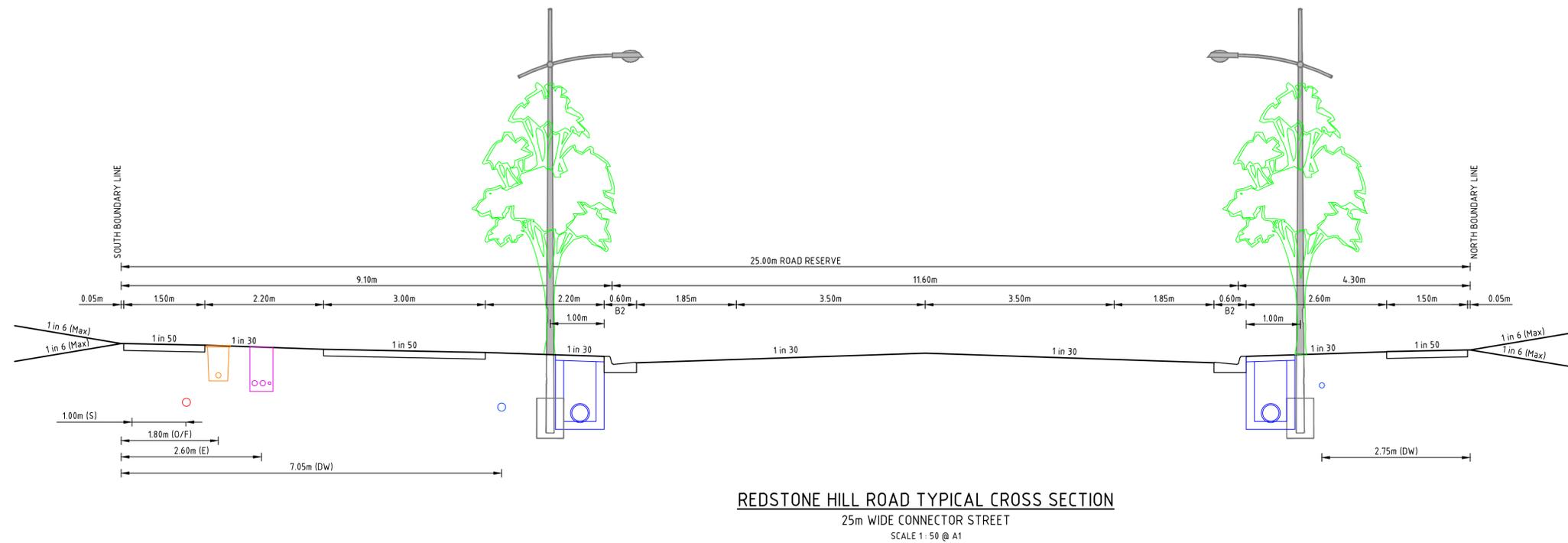
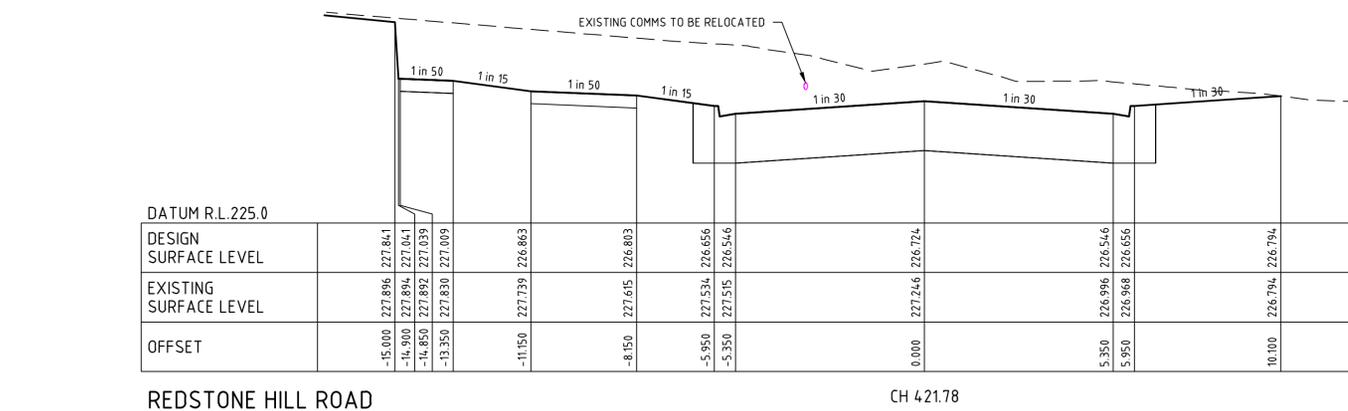
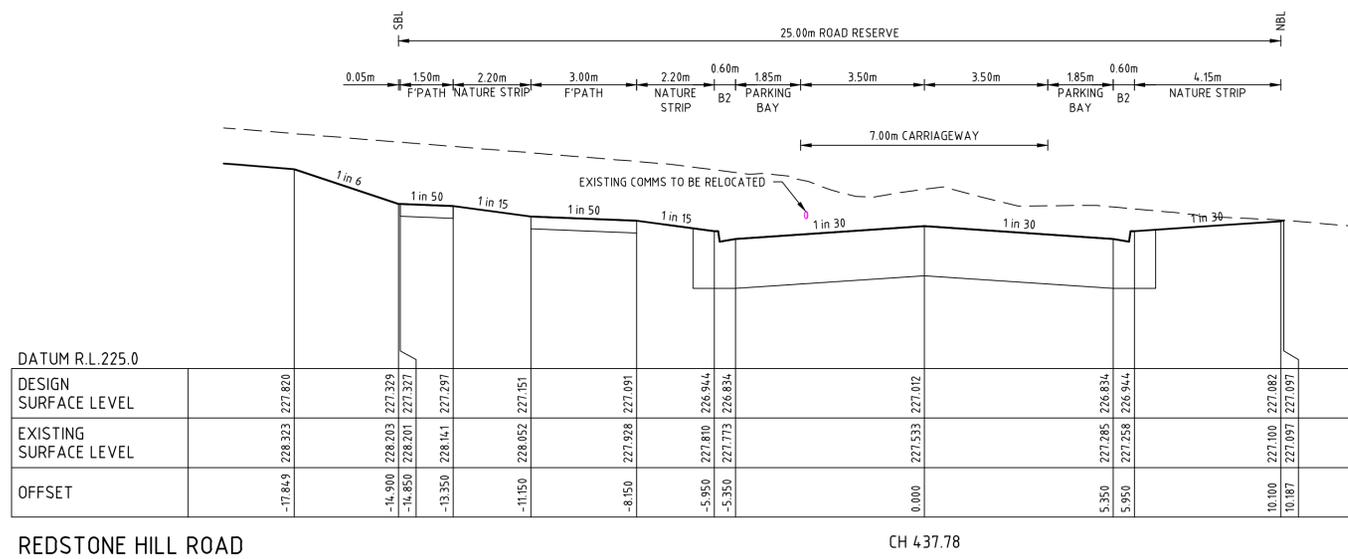
Checked W. ONG
 Date 22/01/24

REDSTONE ESTATE
STAGE 21B
 ROAD AND DRAINAGE
ROAD LONG SECTIONS - SHEET 3
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

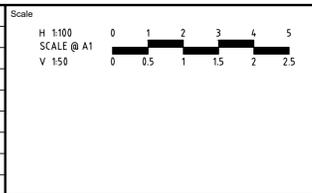
Drg No 310827-001CR302 Rev 1

FILLING NOTE
 ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS. FILLING UNDERNEATH FOOTPATH TO BE CLASS 3 CRUSHED ROCK IN ACCORDANCE WITH COUNCIL STANDARDS.



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Rev	Description	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
E	ELECTRICAL OFFSET AMENDED	L.T	04/04/25
D	FOOTPAH REMOVED	L.T	05/09/24
C	TYPICAL CROSS SECTION AMENDED	L.T	01/08/24
B	CROSS SECTIONS AMENDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24
Rev	Amendments	Approved	Date



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Designed
 L. TRAN

Authorised
 L. TRAN

Checked
 W. ONG

Date
 22/01/24

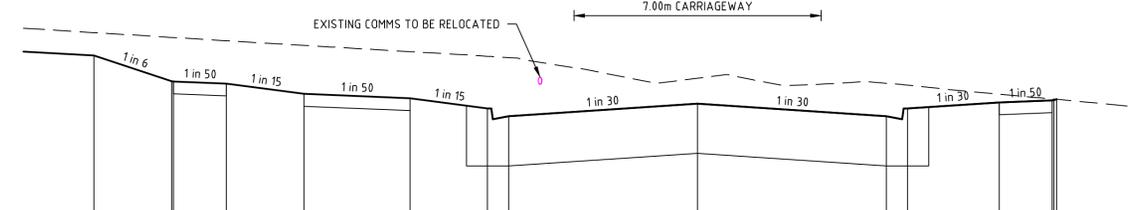
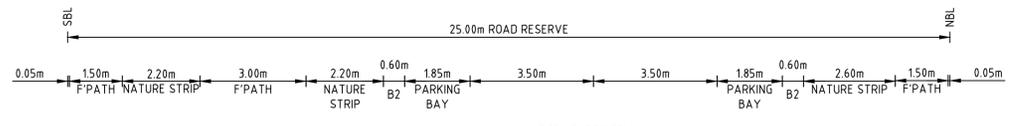
REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 1
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

Drg No
310827-001CR400

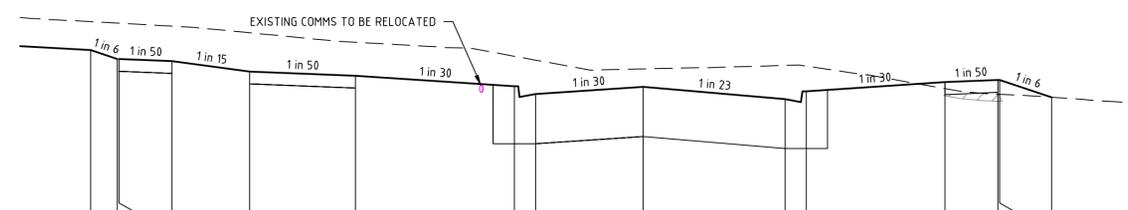
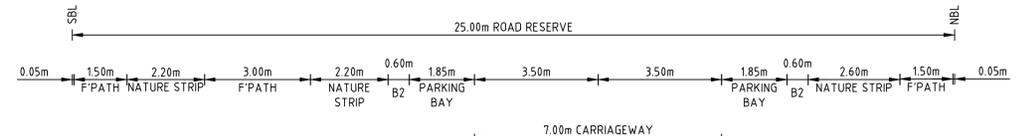
Rev
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FILLING NOTE
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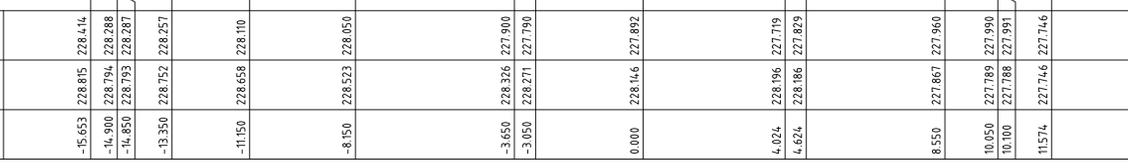
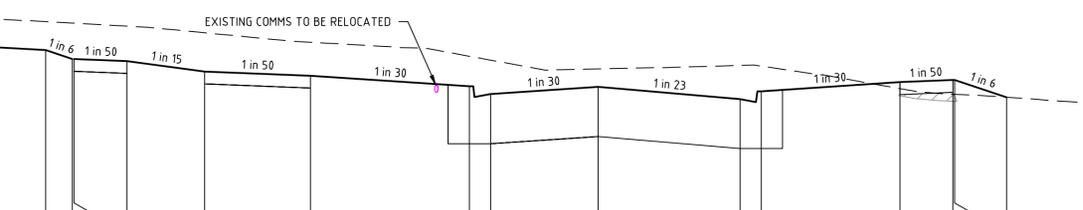
DATUM R.L. 226.0	
DESIGN SURFACE LEVEL	228.630
EXISTING SURFACE LEVEL	228.953
OFFSET	-17.102

REDSTONE HILL ROAD CH 519.28



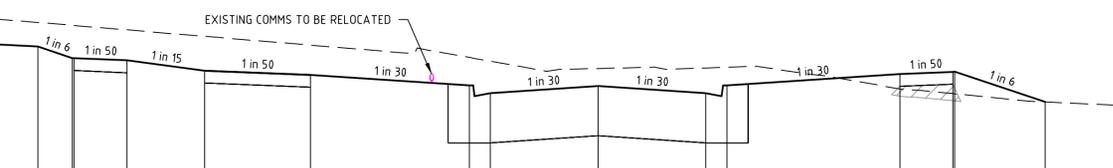
DATUM R.L. 226.0	
DESIGN SURFACE LEVEL	228.523
EXISTING SURFACE LEVEL	228.990
OFFSET	-17.477

REDSTONE HILL ROAD CH 494.28



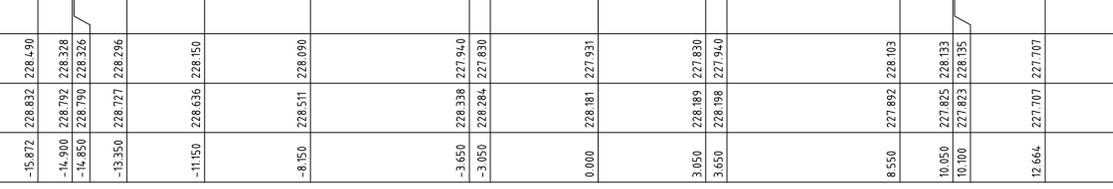
DATUM R.L. 226.0	
DESIGN SURFACE LEVEL	228.414
EXISTING SURFACE LEVEL	228.815
OFFSET	-15.653

REDSTONE HILL ROAD CH 545.78



DATUM R.L. 226.0	
DESIGN SURFACE LEVEL	228.367
EXISTING SURFACE LEVEL	228.818
OFFSET	-18.610

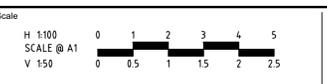
REDSTONE HILL ROAD CH 467.78



DATUM R.L. 226.0	
DESIGN SURFACE LEVEL	228.490
EXISTING SURFACE LEVEL	228.832
OFFSET	-15.872

REDSTONE HILL ROAD CH 541.81

Rev	Description	By	Date	Approved
2	AS CONSTRUCTED	L.T	24/02/26	
1	CROSS SECTIONS AMENDED	L.T	19/11/25	
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25	
E	CROSS SECTIONS ADDED	L.T	02/11/24	
D	FOOTPAH REMOVED	L.T	05/09/24	
C	CROSS SECTION AMENDED	L.T	01/08/24	
B	CROSS SECTIONS AMENDED	M.R	15/04/24	
A	ISSUED TO COUNCIL	L.T	22/01/24	



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 L. TRAN

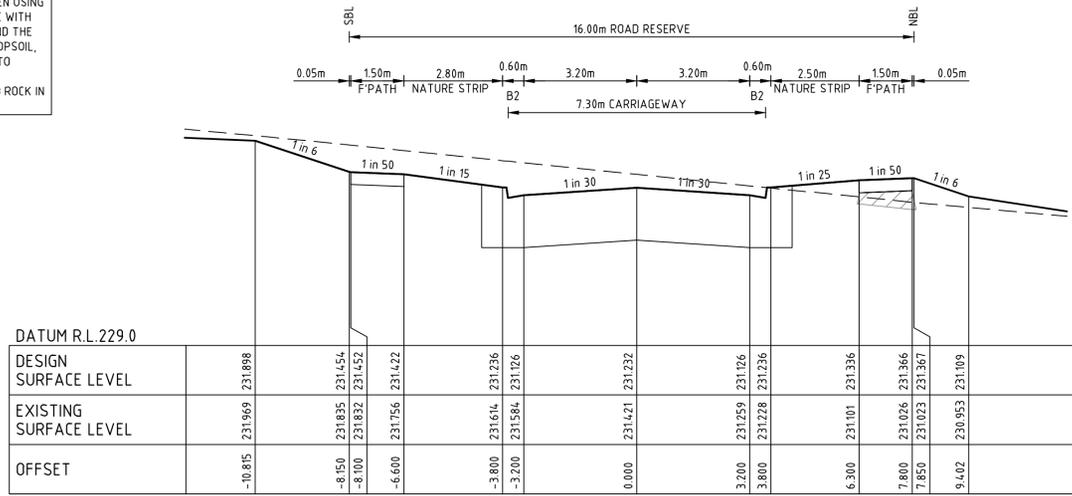
Checked
 W. ONG
 Date
 22/01/24

**REDSTONE ESTATE
 STAGE 21B
 ROAD AND DRAINAGE
 ROAD CROSS SECTIONS - SHEET 2**
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED Drg No 310827-001CR401 Rev 2

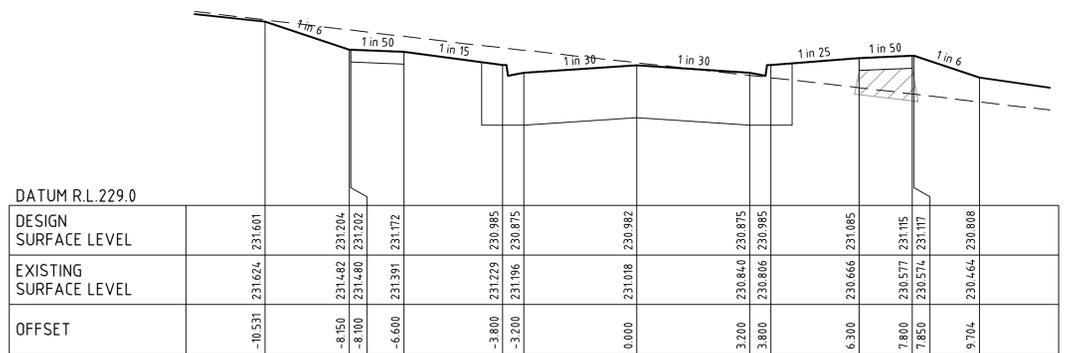
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FILLING NOTE
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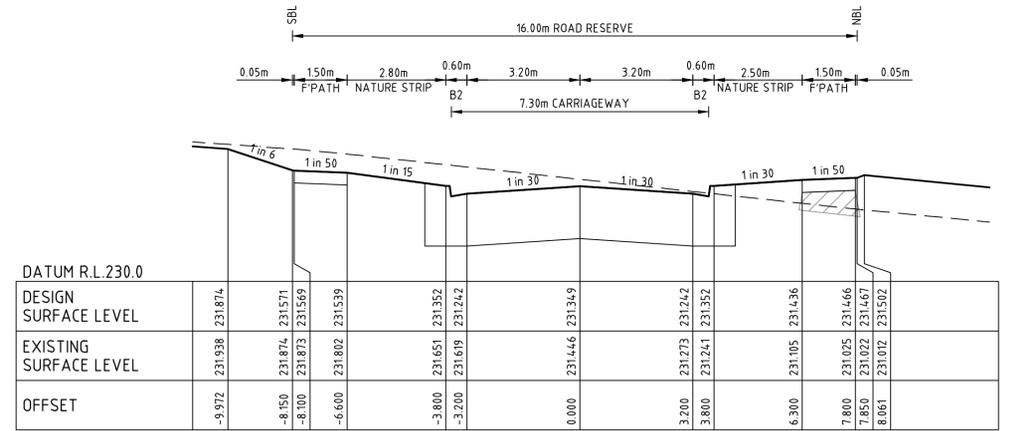
AKIN ROAD

CH 63.90



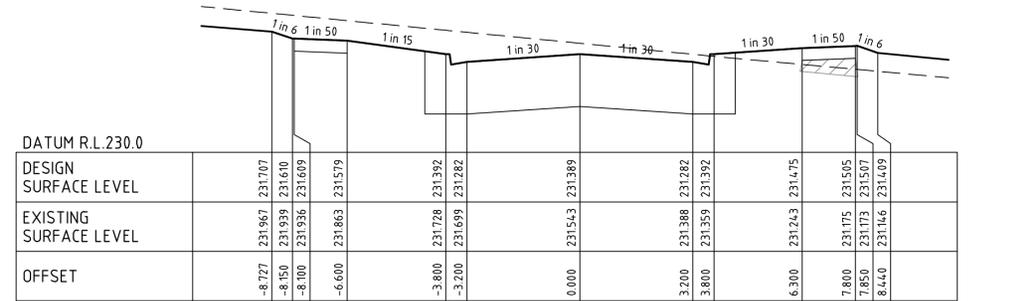
AKIN ROAD

CH 29.85



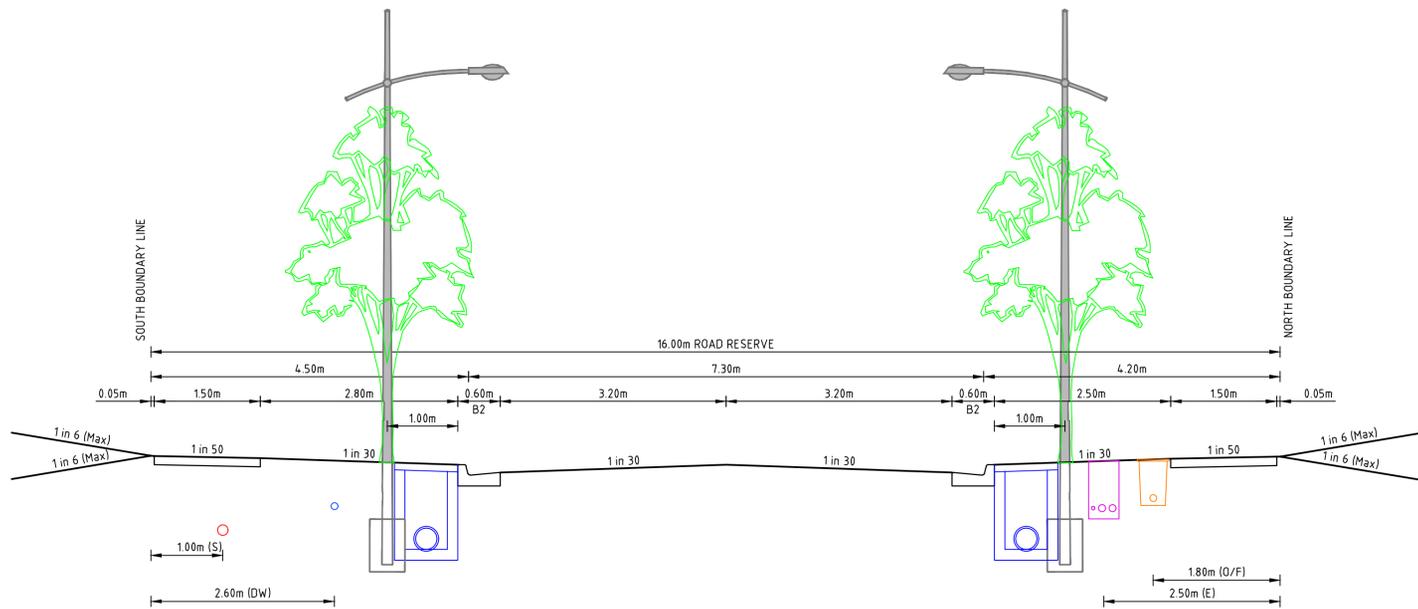
AKIN ROAD

CH 114.85



AKIN ROAD

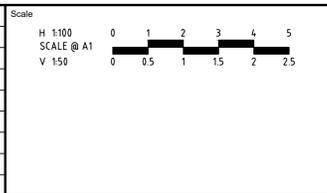
CH 90.00



AKIN ROAD TYPICAL CROSS SECTION
 16m WIDE ACCESS STREET
 SCALE 1:50 @ A1

file name: 310827_001CR402.dwg, layout name: C5002, plotted by: Lillian Tran, file location: G:\310827\001CR402\A1.dwg, ACAD plot date: 2/22/2024 2:59 PM, Sheet: 10 of 22 Sheets

Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
C	TYPICAL CROSS SECTION AMENDED	L.T	03/02/25
B	FILLING NOTE AMENDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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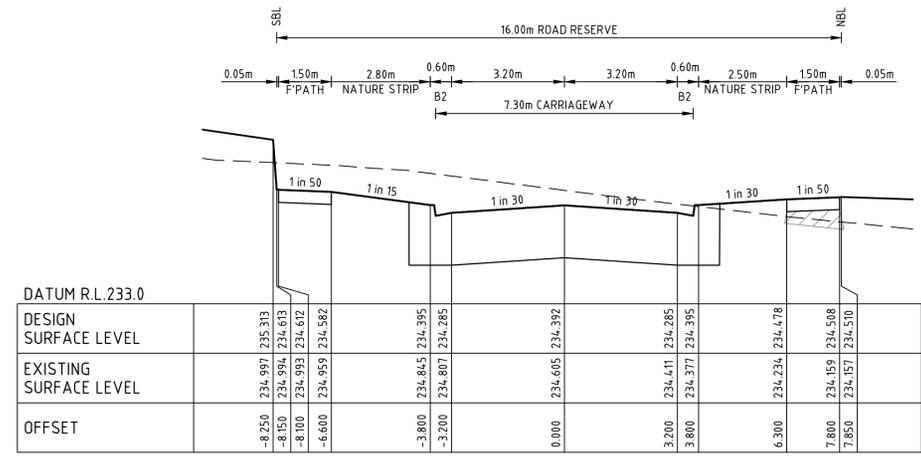
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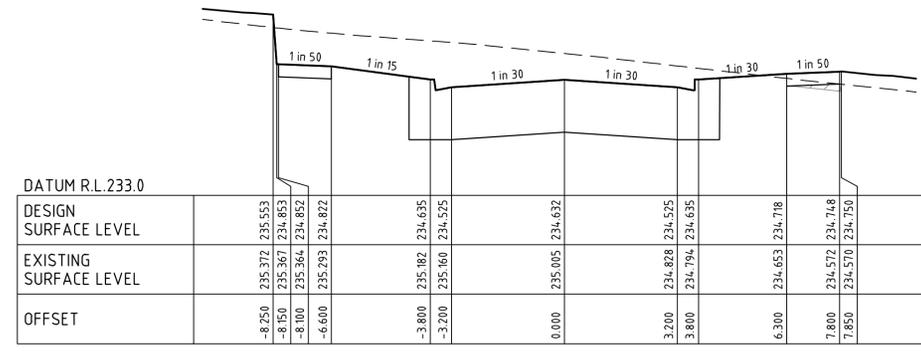
REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 3
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES
AS CONSTRUCTED

Drg No 310827-001CR402
 Rev 1

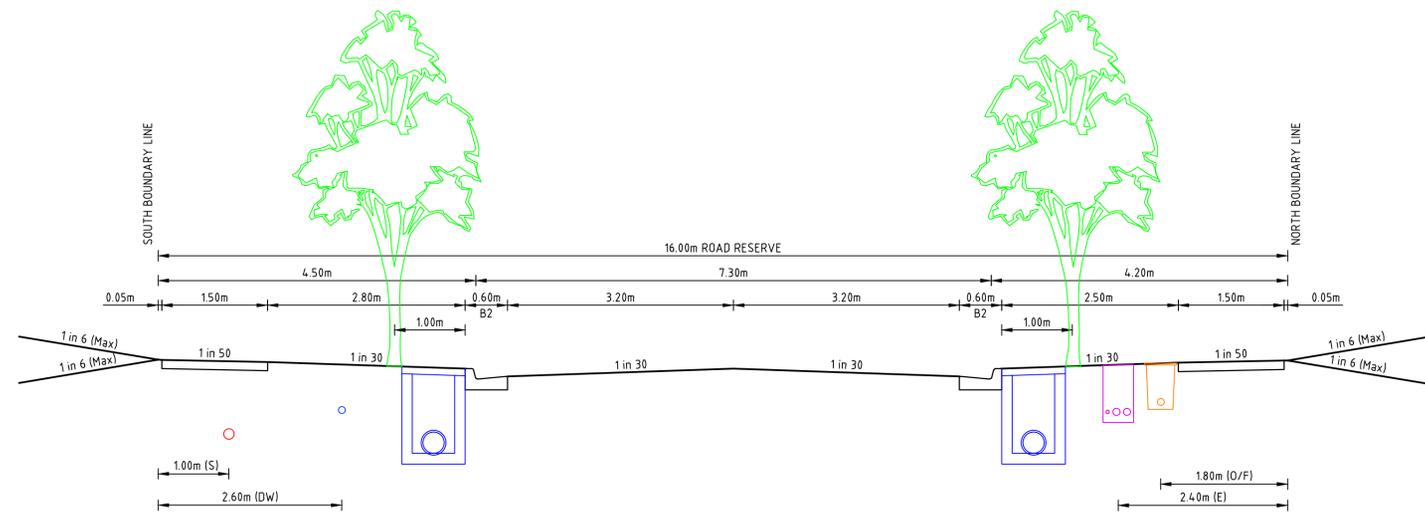
FILLING NOTE
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KITE ROAD CH 30.15



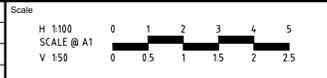
KITE ROAD CH 11.80



KITE ROAD TYPICAL CROSS SECTION
 16m WIDE ACCESS STREET
 SCALE 1:50 @ A1

file name: 310827_001CR403.dwg; layout name: C5103; plotted by: Lillian Tran; file location: G:\310827\001CR403\A1.dwg; plot date: 22/01/24 2:59 PM; Sheet: 11 of 22 Sheets

Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
C	TYPICAL CROSS SECTION AMENDED	L.T	03/02/25
B	FILLING NOTE AMENDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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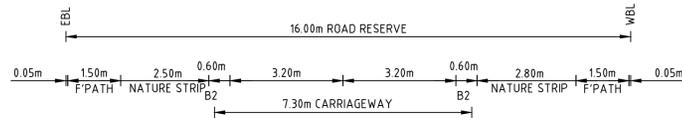
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 Date 22/01/24

REDSTONE ESTATE
STAGE 21B
 ROAD AND DRAINAGE
 ROAD CROSS SECTIONS - SHEET 4
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES
AS CONSTRUCTED

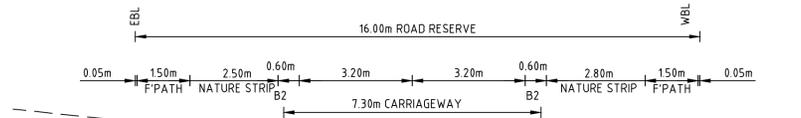
Drg No 310827-001CR403 Rev 1

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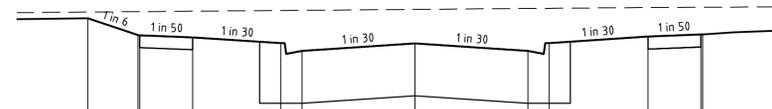
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EXISTING SURFACE LEVEL	233.285 233.301 233.301 233.307 233.307 233.324 233.330 233.364 233.364 233.372 233.372 233.263 233.248 232.966
OFFSET	-8.818 -7.850 -7.800 -6.300 -3.800 -3.200 0.000 3.200 3.800 6.600 8.100 8.150

OWLET CRESCENT CH 34.65



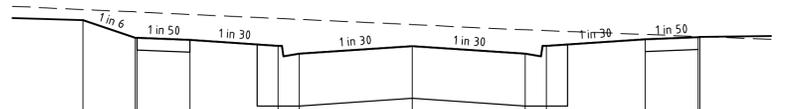
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DESIGN SURFACE LEVEL	237.509 237.668 237.668 237.236 237.153 237.153 237.150 237.448 237.153 237.448 237.446 237.276 237.278 237.082
EXISTING SURFACE LEVEL	237.941 237.864 237.862 237.782 237.650 237.618 237.618 237.448 237.270 237.153 237.154 237.092 237.090 237.041
OFFSET	-9.295 -7.850 -7.800 -6.300 -3.800 -3.200 0.000 3.200 3.800 6.600 8.100 8.150 9.228

OWLET CRESCENT CH 122.56



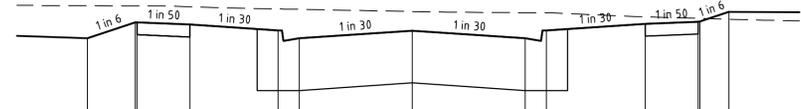
DATUM R.L. 230.0	
DESIGN SURFACE LEVEL	232.023 231.933 231.696 231.695 231.665 231.581 231.471 231.578 231.471 231.581 231.675 231.705 231.706
EXISTING SURFACE LEVEL	232.023 232.029 232.029 232.035 232.045 232.047 232.061 232.061 232.076 232.076 232.087 232.091 232.091
OFFSET	-9.270 -7.850 -7.800 -6.300 -3.800 -3.200 0.000 3.200 3.800 6.600 8.100 8.150

OWLET CRESCENT CH 111.65



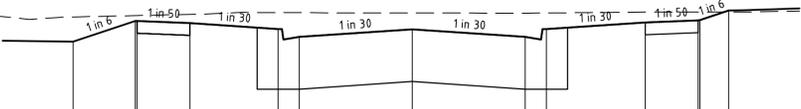
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DESIGN SURFACE LEVEL	237.139 237.257 236.892 236.891 236.861 236.777 236.667 236.774 236.667 236.777 236.871 236.901 236.902
EXISTING SURFACE LEVEL	237.291 237.257 237.256 237.222 237.165 237.151 237.079 237.004 236.993 236.938 236.908 236.908 236.871
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OWLET CRESCENT CH 111.65



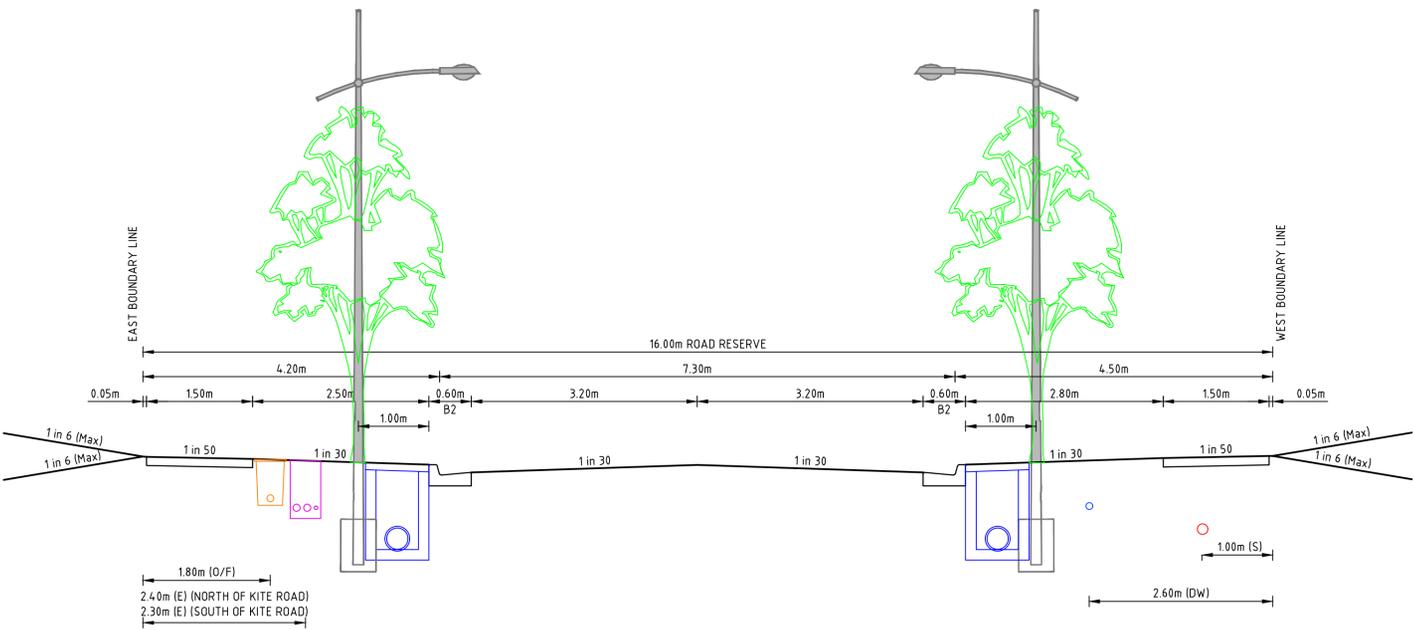
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DESIGN SURFACE LEVEL	235.334 235.560 235.558 235.528 235.445 235.335 235.442 235.335 235.445 235.538 235.568 235.570 235.570
EXISTING SURFACE LEVEL	235.795 235.792 235.792 235.780 235.748 235.742 235.712 235.695 235.693 235.637 235.615 235.615 235.603
OFFSET	-9.205 -7.850 -7.800 -6.300 -3.800 -3.200 0.000 3.200 3.800 6.600 8.100 8.150 8.969

OWLET CRESCENT CH 80.80



DATUM R.L. 232.0	
DESIGN SURFACE LEVEL	234.946 234.240 234.238 234.208 234.125 234.015 234.121 234.015 234.125 234.218 234.248 234.250 234.385
EXISTING SURFACE LEVEL	234.294 234.316 234.315 234.332 234.356 234.355 234.352 234.352 234.363 234.364 234.364 234.365 234.385
OFFSET	-9.614 -7.850 -7.800 -6.300 -3.800 -3.200 0.000 3.200 3.800 6.600 8.100 8.150 8.965

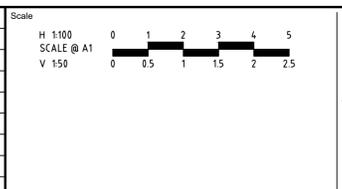
OWLET CRESCENT CH 57.20



OWLET CRESCENT TYPICAL CROSS SECTION
 16m WIDE ACCESS STREET
 SCALE 1:50 @ A1

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Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
C	TYPICAL CROSS SECTION AMENDED	L.T	03/02/25
B	FILLING NOTE AMENDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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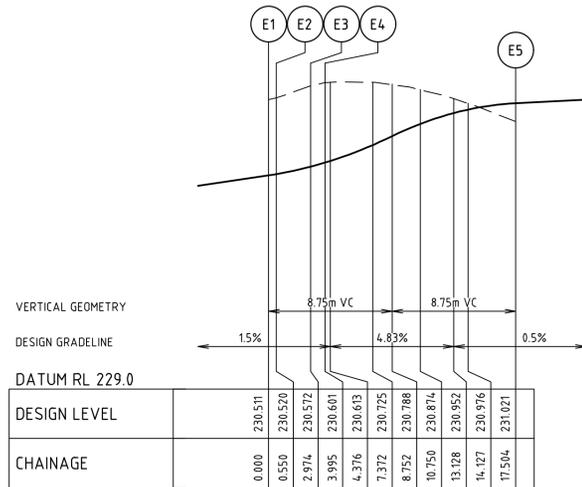
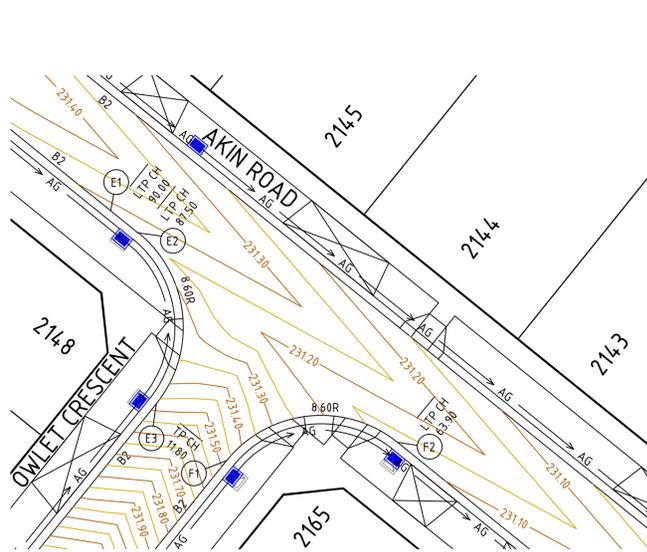
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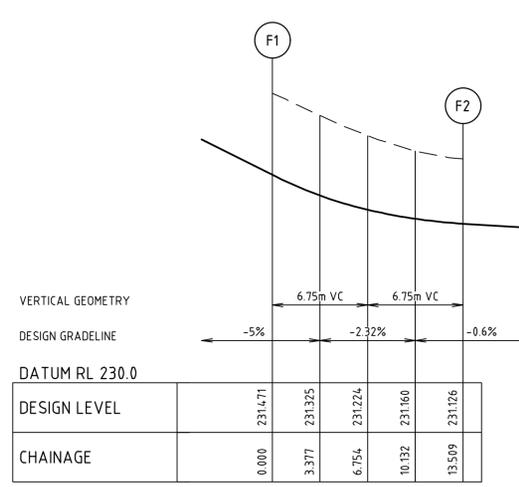
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REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 5
HUME CITY COUNCIL
VILLAWOOD PROPERTIES
AS CONSTRUCTED

Drg No 310827-001CR404 Rev 1



ALIGNMENT E



ALIGNMENT F

ALIGNMENT E

POINT NO	EASTING	NORTHING	RL
E1	301792.279	5835861.718	231.282
E2	301794.225	5835860.148	231.275
1/4	301796.375	5835857.572	231.291
1/2	301797.375	5835854.369	231.316
3/4	301797.073	5835851.027	231.351
E3	301795.516	5835848.054	231.471

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
E2-E3	8.600	13.509	12.162	2.519	0.655

ALIGNMENT F

POINT NO	EASTING	NORTHING	RL
F1	301800.496	5835844.035	231.471
1/4	301803.073	5835846.185	231.325
1/2	301806.276	5835847.185	231.224
3/4	301809.618	5835846.884	231.160
F2	301812.590	5835845.326	231.126

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
F1-F2	8.600	13.509	12.162	2.519	0.655

ALIGNMENT G

POINT NO	EASTING	NORTHING	RL
G1	301767.003	5835812.725	234.015
1/4	301764.427	5835810.575	234.201
1/2	301761.224	5835809.575	234.381
3/4	301757.882	5835809.876	234.506
G2	301754.909	5835811.434	234.525

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
G1-G2	8.600	13.509	12.162	2.519	0.655

ALIGNMENT H

POINT NO	EASTING	NORTHING	RL
H1	301750.890	5835806.453	234.525
1/4	301753.040	5835803.877	234.641
1/2	301754.040	5835800.674	234.855
3/4	301753.739	5835797.332	235.106
H2	301752.181	5835794.360	235.335

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
H1-H2	8.600	13.509	12.162	2.519	0.655

ALIGNMENT Q

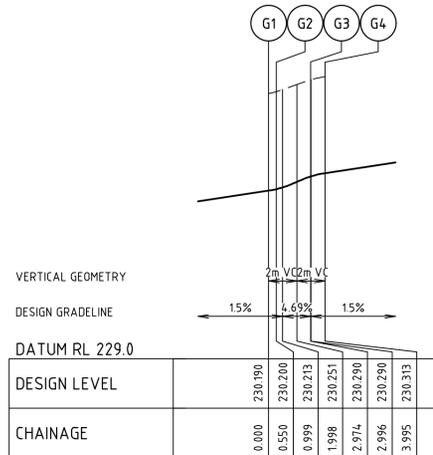
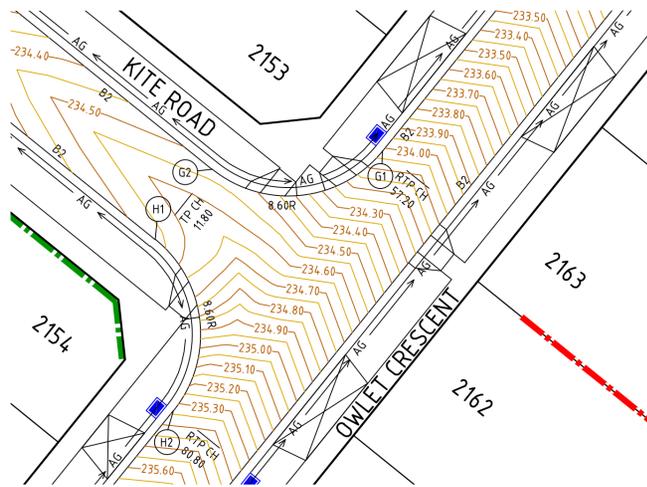
POINT NO	EASTING	NORTHING	RL
Q1	301731.660	5835768.933	236.740
1/4	301730.680	5835767.905	236.803
1/2	301729.549	5835767.053	236.881
3/4	301728.284	5835766.399	236.956
Q2	301726.934	5835765.962	237.009

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
Q1-Q2	8.600	5.686	5.583	0.466	0.117

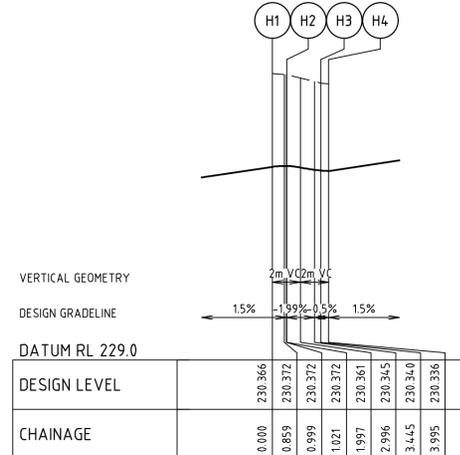
ALIGNMENT R

POINT NO	EASTING	NORTHING	RL
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R2	301735.261	5835763.204	236.803
1/4	301734.281	5835762.177	236.840
1/2	301733.146	5835761.325	236.877
3/4	301731.885	5835760.671	236.914
R3	301730.535	5835760.233	236.951
R4	301728.397	5835759.731	237.009

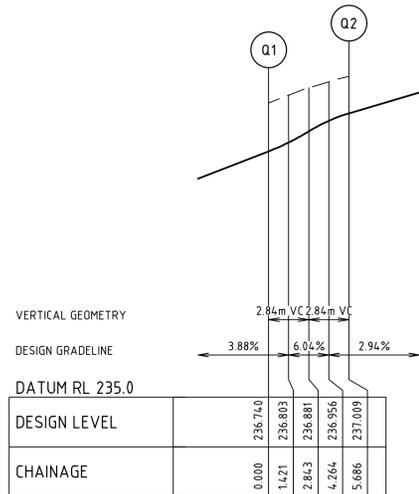
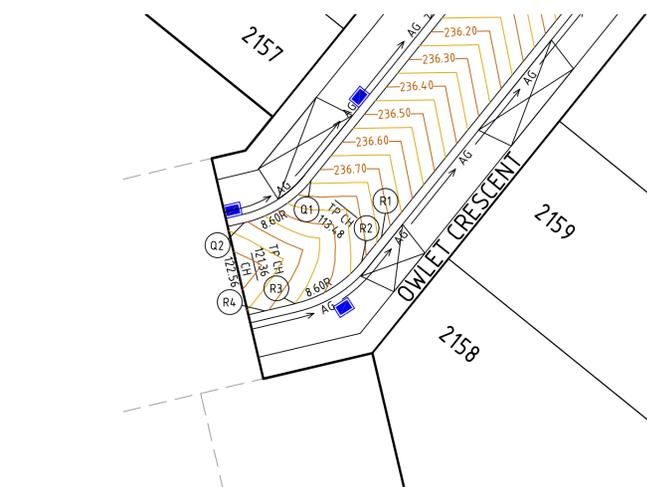
CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
R2-R3	8.600	5.686	5.583	0.466	0.117



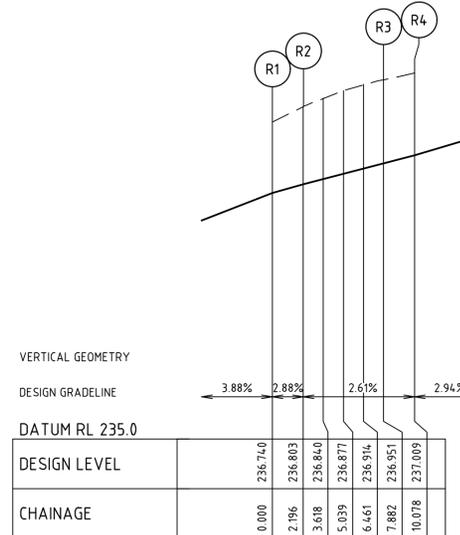
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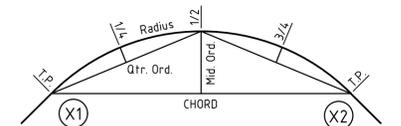
ALIGNMENT H



ALIGNMENT Q



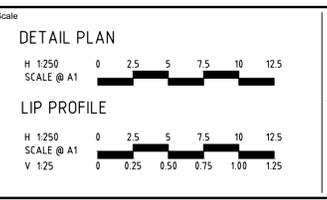
ALIGNMENT R



KERB RETURN SETOUT DETAIL

file name: 310827_001CR500_Acc_Layout Plans_CRS500.dwg, plotted by: Lillian Tran, file location: G:\310827\001CR500\ACAD\Plot date: 2/02/2024 3:00 PM, Sheet: 13 of 22, Sheets

Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
A	ISSUED TO COUNCIL	L.T	22/01/24



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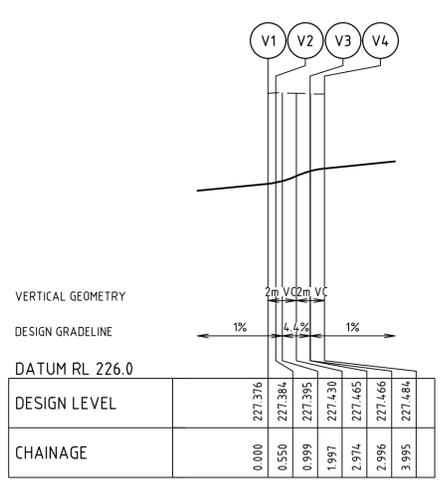
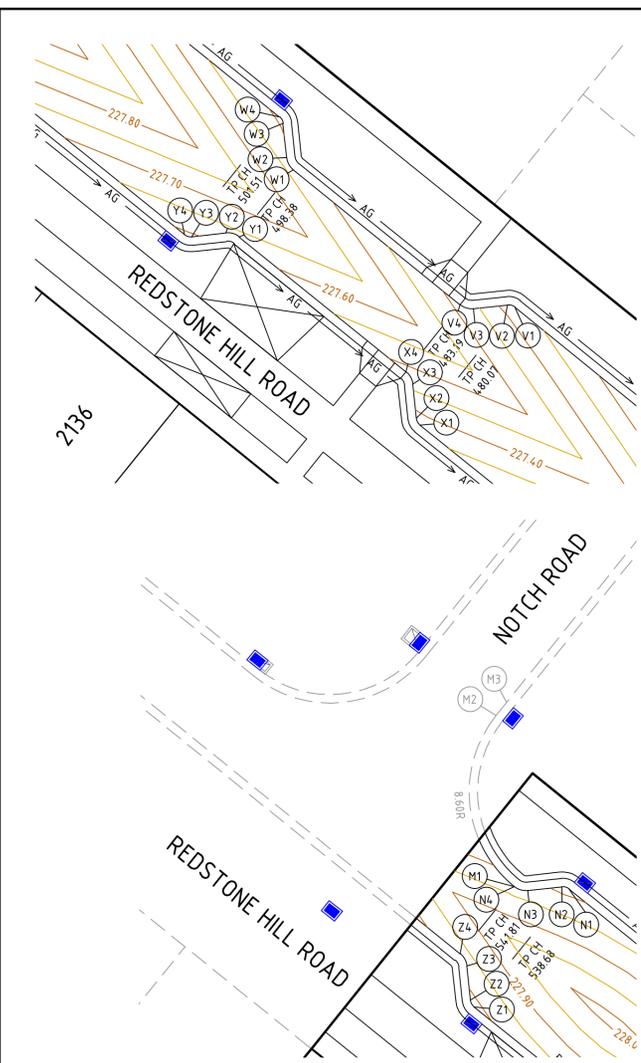
Checked
W. ONG

Authorised
L. TRAN

Date
22/01/24

**REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
INTERSECTION DETAILS - SHEET 1**
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

AS CONSTRUCTED Drg No **310827-001CR500** Rev **1**

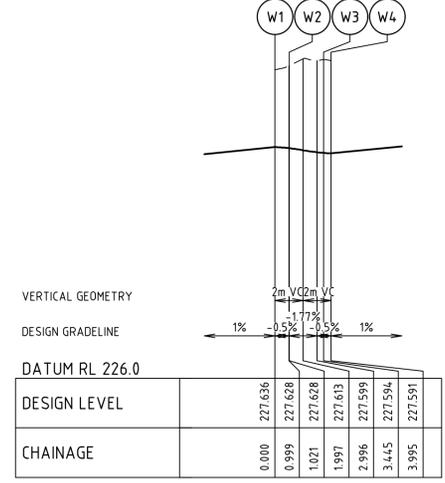


ALIGNMENT V

ALIGNMENT V

POINT NO	EASTING	NORTHING	RL
V1	301847.606	5835927.307	227.376
V2	301847.092	5835927.458	227.384
V3	301844.681	5835927.201	227.465
V4	301843.727	5835927.482	227.484

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
V1-V2	0.700	0.550	0.536	0.053	-0.013
V3-V4	1.300	1.021	0.995	0.099	0.025

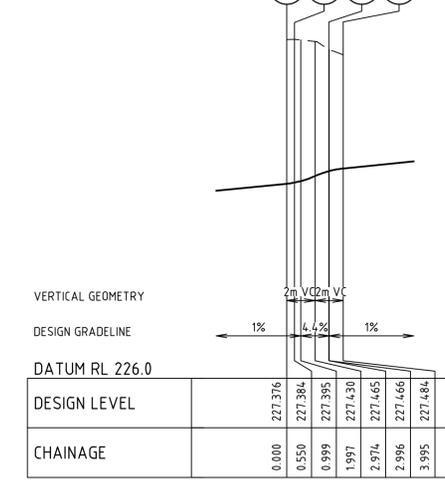


ALIGNMENT W

ALIGNMENT W

POINT NO	EASTING	NORTHING	RL
W1	301831.911	5835937.017	227.636
W2	301831.435	5835937.891	227.628
W3	301831.178	5835940.302	227.594
W4	301830.922	5835940.772	227.591

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
W1-W2	1.300	1.021	0.995	0.099	0.025
W3-W4	0.700	0.550	0.536	0.053	-0.013

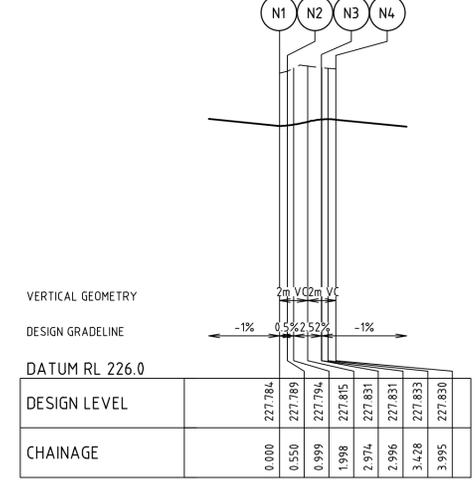


ALIGNMENT X

ALIGNMENT X

POINT NO	EASTING	NORTHING	RL
X1	301840.886	5835918.980	227.376
X2	301840.629	5835919.451	227.384
X3	301840.372	5835921.861	227.465
X4	301839.896	5835922.735	227.484

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
X1-X2	0.700	0.550	0.536	0.053	0.013
X3-X4	1.300	1.021	0.995	0.099	-0.025

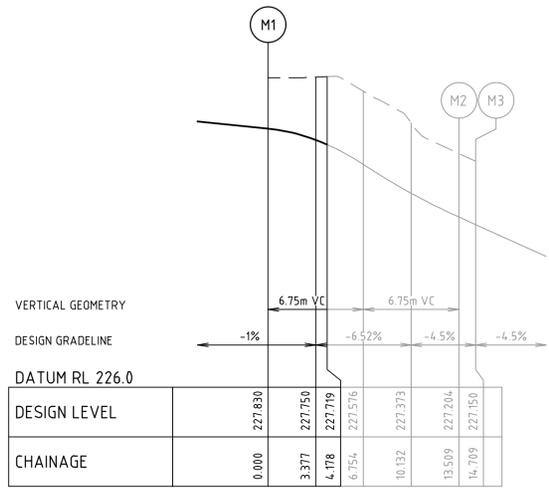


ALIGNMENT N

ALIGNMENT N

POINT NO	EASTING	NORTHING	RL
N1	301801.993	5835964.119	227.784
N2	301801.479	5835964.271	227.789
N3	301799.068	5835964.013	227.831
N4	301798.114	5835964.294	227.830

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
N1-N2	0.700	0.550	0.536	0.053	-0.013
N3-N4	1.300	1.021	0.995	0.099	0.025

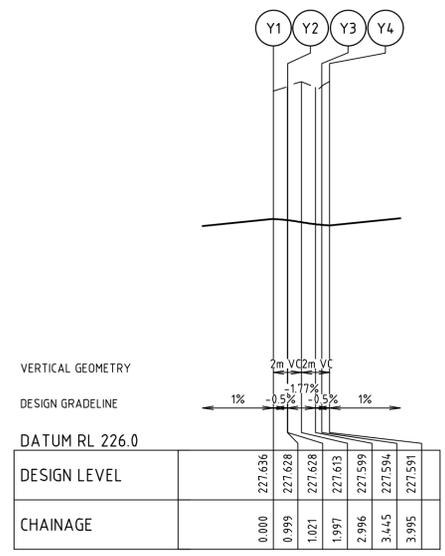


ALIGNMENT M

ALIGNMENT M

POINT NO	EASTING	NORTHING	RL
M1	301798.119	5835964.290	227.830
M2	301794.969	5835970.069	227.576
M3	301795.270	5835973.411	227.373
M4	301796.828	5835976.384	227.204
M5	301797.581	5835977.317	227.150

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
M1-M2	8.600	13.509	12.162	2.519	0.655

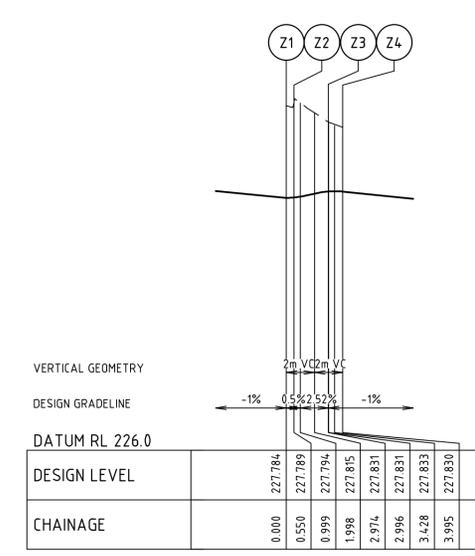


ALIGNMENT Y

ALIGNMENT Y

POINT NO	EASTING	NORTHING	RL
Y1	301828.080	5835932.271	227.636
Y2	301827.126	5835932.552	227.628
Y3	301824.716	5835932.294	227.594
Y4	301824.202	5835932.445	227.591

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
Y1-Y2	1.300	1.021	0.995	0.099	-0.025
Y3-Y4	0.700	0.550	0.536	0.053	0.013

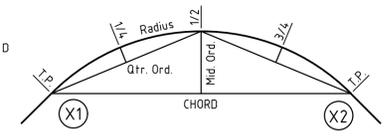


ALIGNMENT Z

ALIGNMENT Z

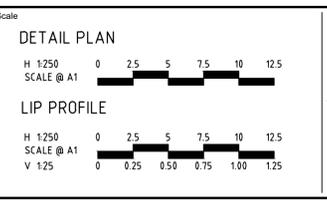
POINT NO	EASTING	NORTHING	RL
Z1	301795.273	5835955.793	227.784
Z2	301795.016	5835956.263	227.789
Z3	301794.759	5835958.673	227.831
Z4	301794.283	5835959.547	227.830

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
Z1-Z2	0.700	0.550	0.536	0.053	0.013
Z3-Z4	1.300	1.021	0.995	0.099	-0.025



file name: 310827_001CR500_Acc_Layout - Area_CES01.dwg; plot by: Lilia Tran; file location: G:\310827\001CR500\ACAD\Plot date: 24/02/2024 3:00 PM; Sheet: 1k of 22 Sheets

Rev	Description	Approved	Date
2	AS CONSTRUCTED	L.T	24/02/26
1	ALIGNMENT M AMENDED	L.T	19/11/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
C	ALIGNMENT S, T & U ADDED	L.T	02/11/24
B	ALIGNMENT M ADDED	L.T	01/08/24
A	ISSUED TO COUNCIL	L.T	22/01/24
Rev	Amendments	Approved	Date



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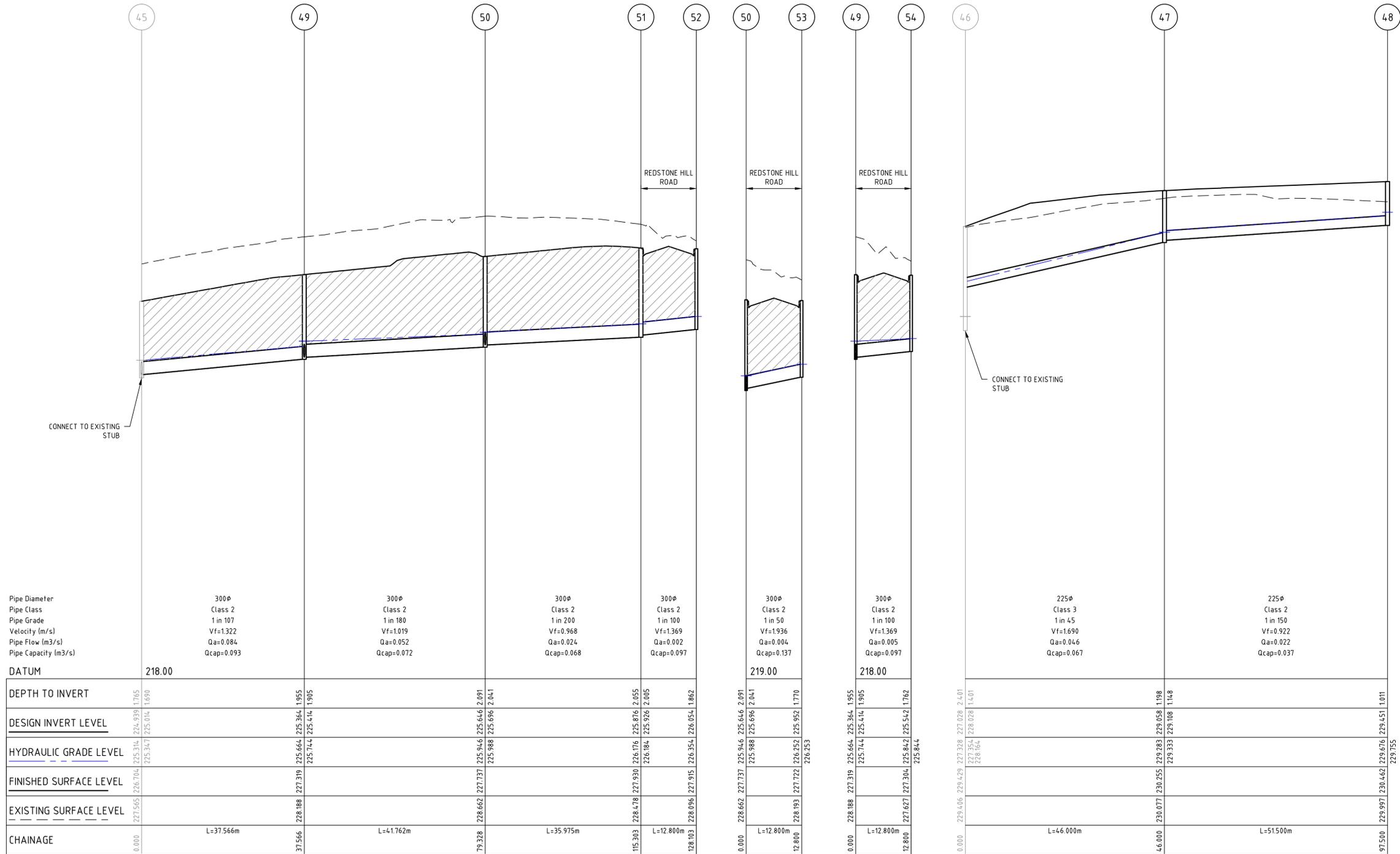
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Checked: W. ONG
Authorised: L. TRAN
Date: 22/01/24

**REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
INTERSECTION DETAILS - SHEET 2**
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

AS CONSTRUCTED Drg No: 310827-001CR501 Rev: 2

 CLASS 2 CRUSHED ROCK BACKFILL

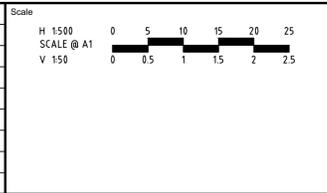


PIPE DIAMETER	PIPE CLASS	PIPE GRADE	VELOCITY (M/S)	PIPE FLOW (M ³ /S)	PIPE CAPACITY (M ³ /S)
300Ø	Class 2	1 in 107	Vf=1.322	Qa=0.084	Qcap=0.093
300Ø	Class 2	1 in 180	Vf=1.019	Qa=0.052	Qcap=0.072
300Ø	Class 2	1 in 200	Vf=0.968	Qa=0.024	Qcap=0.068
300Ø	Class 2	1 in 100	Vf=1.369	Qa=0.002	Qcap=0.097
300Ø	Class 2	1 in 50	Vf=1.936	Qa=0.004	Qcap=0.137
300Ø	Class 2	1 in 100	Vf=1.369	Qa=0.005	Qcap=0.097
225Ø	Class 3	1 in 45	Vf=1.690	Qa=0.046	Qcap=0.067
225Ø	Class 2	1 in 150	Vf=0.922	Qa=0.022	Qcap=0.037

DATUM	218.00
DEPTH TO INVERT	0.000 227.565 226.704 225.314 224.939 1.765 1.690
DESIGN INVERT LEVEL	225.347 225.014 1.690
HYDRAULIC GRADE LEVEL	225.347 225.014 1.905
FINISHED SURFACE LEVEL	227.565 226.704 225.314 224.939 1.765 1.690
EXISTING SURFACE LEVEL	228.188 227.319 225.664 225.364 1.955 1.905
CHAINAGE	0.000 L=37.566m L=4.1762m L=35.975m L=12.800m L=12.800m L=46.000m L=12.800m L=51.500m

file name: 310827_001CR600_A01.dwg; layout name: CR600; file location: G:\310827\001CR600\ACAD\plot date: 24/02/2026 3:00 PM; Sheet: 15 of 22 Sheets

Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
A	ISSUED TO COUNCIL	L.T	22/01/24





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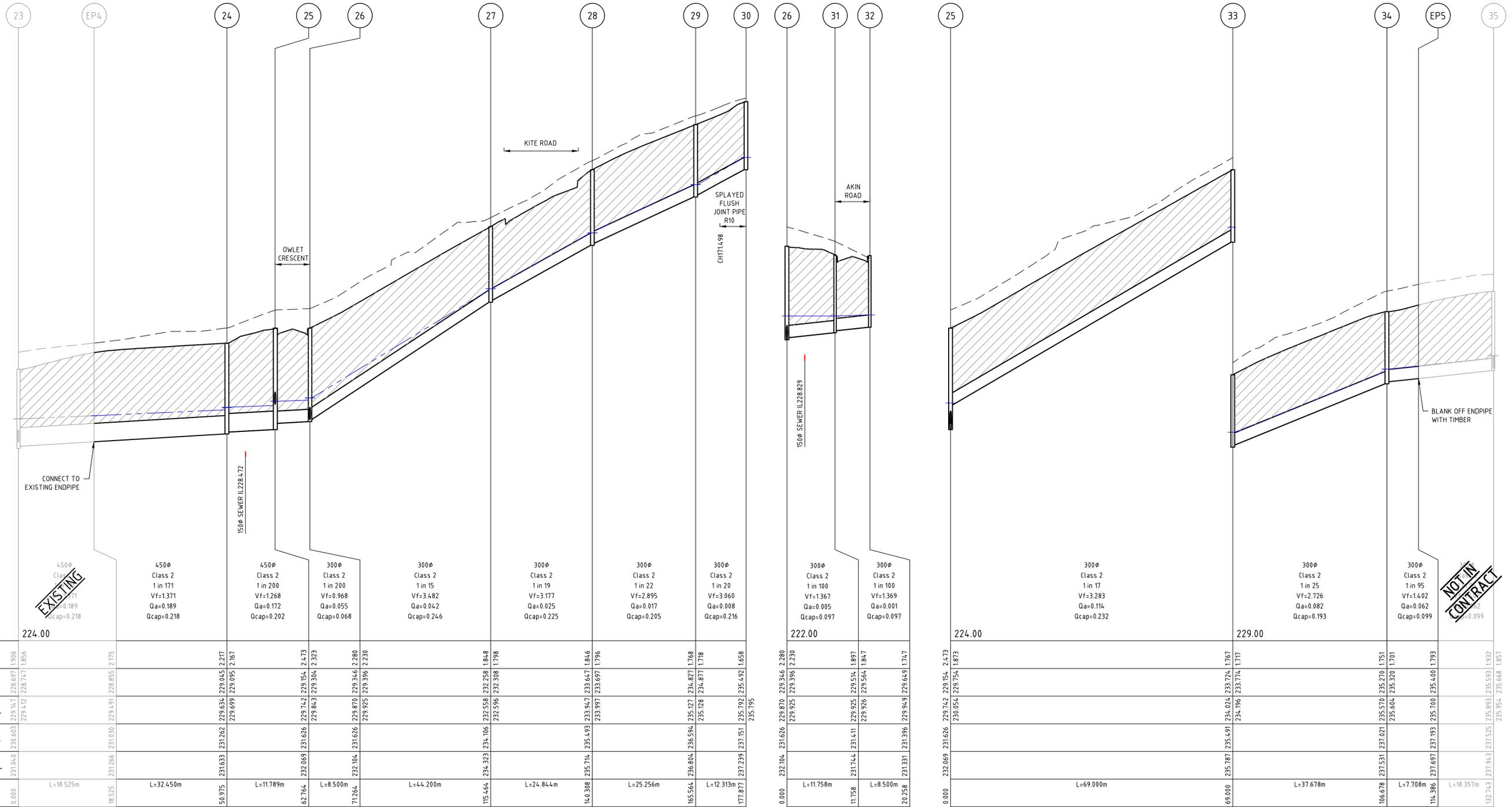
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REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 1
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

Dwg No 310827-001CR600 Rev 1

 CLASS 2 CRUSHED ROCK BACKFILL

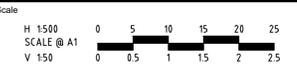


Station	Pipe Diameter	Pipe Class	Pipe Grade	Velocity (m/s)	Pipe Flow (m³/s)	Pipe Capacity (m³/s)
23	450	Class 2	1 in 171	1.171	0.189	0.218
24	450	Class 2	1 in 171	1.171	0.189	0.218
25	450	Class 2	1 in 200	1.268	0.172	0.202
26	300	Class 2	1 in 200	0.968	0.055	0.068
27	300	Class 2	1 in 15	3.482	0.042	0.246
28	300	Class 2	1 in 19	3.177	0.025	0.225
29	300	Class 2	1 in 22	2.895	0.017	0.205
30	300	Class 2	1 in 20	3.060	0.008	0.216
31	300	Class 2	1 in 100	1.367	0.005	0.097
32	300	Class 2	1 in 100	1.369	0.001	0.097
33	300	Class 2	1 in 17	1.402	0.114	0.232
34	300	Class 2	1 in 25	2.726	0.082	0.193
35	300	Class 2	1 in 95	1.402	0.062	0.099

Station	DATUM	DEPTH TO INVERT	DESIGN INVERT LEVEL	HYDRAULIC GRADE LEVEL	FINISHED SURFACE LEVEL	EXISTING SURFACE LEVEL	CHAINAGE
23	224.00	1.906	222.094	222.094	231.000	231.000	0.000
24	224.00	2.175	221.825	221.825	231.266	231.266	18.525
25	224.00	2.167	221.833	221.833	231.633	231.633	50.975
26	224.00	2.230	221.770	221.770	231.626	231.626	62.764
27	224.00	1.848	222.152	222.152	232.069	232.069	71.264
28	224.00	1.798	222.202	222.202	232.323	232.323	84.400
29	224.00	1.796	222.204	222.204	232.597	232.597	100.000
30	224.00	1.658	222.342	222.342	232.871	232.871	115.464
31	222.00	2.230	220.770	220.770	233.004	233.004	130.000
32	222.00	1.747	220.253	220.253	233.647	233.647	147.500
33	224.00	1.767	222.233	222.233	234.004	234.004	165.564
34	229.00	1.701	227.300	227.300	234.871	234.871	183.000
35	229.00	1.932	227.068	227.068	235.125	235.125	200.000

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Rev	Amendments	Approved	Date
1	AS CONSTRUCTED	L.T	24/02/26
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
B	DRAINAGE PIT 29 & 30 AMENDED	M.R	13/05/24
A	ISSUED TO COUNCIL	L.T	22/01/24




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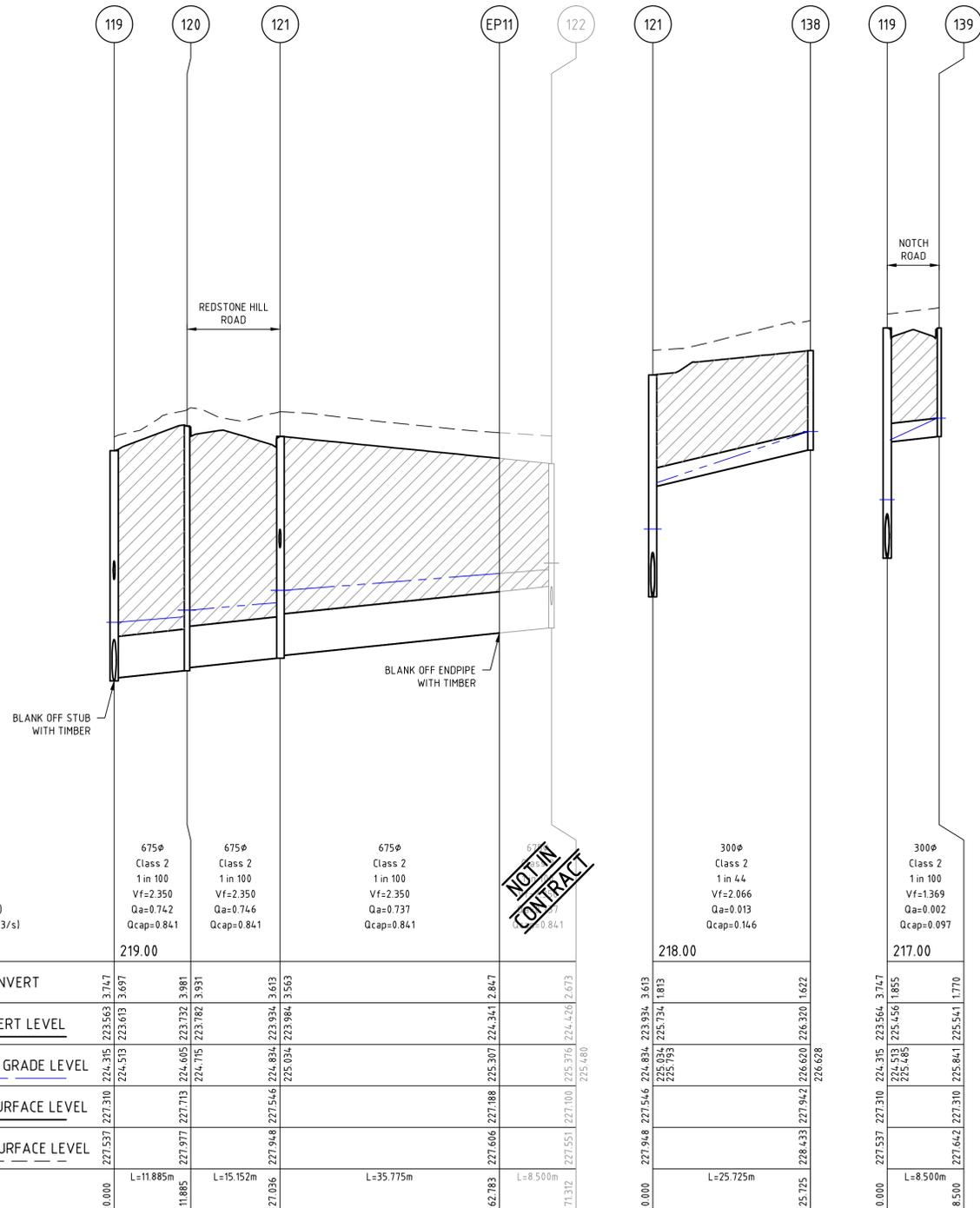

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ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 2
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES
AS CONSTRUCTED Drg No **310827-001CR601** Rev **1**

 CLASS 2 CRUSHED ROCK BACKFILL



Pipe Diameter	675Ø	675Ø	675Ø
Pipe Class	Class 2	Class 2	Class 2
Pipe Grade	1 in 100	1 in 100	1 in 100
Velocity (m/s)	Vf=2.350	Vf=2.350	Vf=2.350
Pipe Flow (m3/s)	Qa=0.742	Qa=0.746	Qa=0.737
Pipe Capacity (m3/s)	Qcap=0.841	Qcap=0.841	Qcap=0.841

DATUM	219.00			
DEPTH TO INVERT	0.000	11.885	15.152m	35.775m
DESIGN INVERT LEVEL	227.537	227.917	227.948	227.551
HYDRAULIC GRADE LEVEL	227.310	227.713	227.546	227.100
FINISHED SURFACE LEVEL	224.315	224.605	224.834	224.426
EXISTING SURFACE LEVEL	225.563	225.782	225.984	225.480
CHAINAGE	0.000	11.885	27.036	71.312

Pipe Diameter	300Ø
Pipe Class	Class 2
Pipe Grade	1 in 4.4
Velocity (m/s)	Vf=2.066
Pipe Flow (m3/s)	Qa=0.013
Pipe Capacity (m3/s)	Qcap=0.146

DATUM	218.00	
DEPTH TO INVERT	0.000	8.500m
DESIGN INVERT LEVEL	227.537	227.642
HYDRAULIC GRADE LEVEL	227.310	227.310
FINISHED SURFACE LEVEL	224.315	224.426
EXISTING SURFACE LEVEL	225.563	225.480
CHAINAGE	0.000	8.500m

DRAINAGE PIT SCHEDULE

PIT NAME	TYPE	INTERNAL		INLET		OUTLET		PIT		REMARKS
		WIDTH	LENGTH	DIA	INV LEVEL	DIA	INV LEVEL	FS LEVEL	DEPTH	
EP4	ENDPIPE					450	228.855	231.030	2.175	CONNECT TO EXISTING ENDS
24	GRATED SIDE ENTRY PIT	1050	900	450	229.095	450	229.045	231.262	2.217	REFER TO EDCM STD FIG 601 & 607. PROVIDE HEAVY DUTY COVER.
25	GRATED SIDE ENTRY PIT	1050	900	300	229.304	450	229.154	231.626	2.473	REFER TO EDCM STD FIG 601 & 607
26	GRATED SIDE ENTRY PIT	900	900	300	229.396	300	229.346	231.626	2.280	REFER TO EDCM STD FIG 601 & 607
27	GRATED SIDE ENTRY PIT	600	900	300	232.308	300	232.258	234.106	1.848	REFER TO EDCM STD FIG 601 & 605
28	GRATED SIDE ENTRY PIT	600	900	300	233.697	300	233.647	235.493	1.846	REFER TO EDCM STD FIG 601 & 605
29	JUNCTION PIT	600	900	300	234.877	300	234.827	236.594	1.768	REFER TO EDCM STD FIG 605
30	GRATED SIDE ENTRY PIT	600	900			300	235.492	237.151	1.658	REFER TO EDCM STD FIG 601 & 605
31	GRATED SIDE ENTRY PIT	750	900	300	229.564	300	229.514	231.411	1.897	REFER TO EDCM STD FIG 601 & 607
32	GRATED SIDE ENTRY PIT	600	900			300	229.649	231.396	1.747	REFER TO EDCM STD FIG 601 & 605
33	GRATED SIDE ENTRY PIT	600	900	300	233.774	300	233.724	235.491	1.767	REFER TO EDCM STD FIG 601 & 605
34	JUNCTION PIT	600	900	300	235.320	300	235.270	237.021	1.751	REFER TO EDCM STD FIG 605
EP5	ENDPIPE					300	235.400	237.193	1.793	BLANK OFF ENDS WITH TIMBER
45	JUNCTION PIT	600	900	300	225.014	375	224.939	226.704	1.765	CONNECT TO EXISTING STUB
46	JUNCTION PIT	900	900	225	228.028	300	227.028	229.429	2.401	CONNECT TO EXISTING STUB
47	JUNCTION PIT	600	900	225	229.108	225	229.058	230.255	1.198	REFER TO EDCM STD FIG 605
48	JUNCTION PIT	600	900	225	229.108	225	229.451	230.462	1.011	REFER TO EDCM STD FIG 605
49	GRATED SIDE ENTRY PIT	600	900	300	225.414	300	225.364	227.319	1.955	REFER TO EDCM STD FIG 601 & 605
50	GRATED SIDE ENTRY PIT	900	900	300	225.696	300	225.646	227.737	2.091	REFER TO EDCM STD FIG 601 & 607
51	GRATED SIDE ENTRY PIT	900	900	300	225.926	300	225.876	227.930	2.055	REFER TO EDCM STD FIG 601 & 607
52	GRATED SIDE ENTRY PIT	600	900			300	226.054	227.915	1.862	REFER TO EDCM STD FIG 601 & 605
53	GRATED SIDE ENTRY PIT	600	900			300	225.952	227.722	1.770	REFER TO EDCM STD FIG 601 & 605
54	GRATED SIDE ENTRY PIT	600	900			300	225.542	227.304	1.762	REFER TO EDCM STD FIG 601 & 605
119	JUNCTION PIT	1350	900	675	223.613	675	223.563	227.310	3.747	REFER TO EDCM STD FIG 605. TO BE CONVERTED TO GSEP IN FUTURE STAGE. BLANK OFF STUB WITH TIMBER
120	JUNCTION PIT	900	1350	675	223.782	675	223.732	227.713	3.981	REFER TO EDCM STD FIG 607. PROVIDE HEAVY DUTY COVER.
121	JUNCTION PIT	1190	1570	675	223.984	675	223.934	227.546	3.613	REFER TO STRUCTURAL DRAWINGS. PROVIDE HEAVY DUTY COVER. TO BE CONVERTED TO GSEP IN FUTURE STAGE.
EP11	ENDPIPE					675	224.341	227.188	2.847	BLANK OFF ENDS WITH TIMBER
138	JUNCTION PIT	600	900			300	226.320	227.942	1.622	REFER TO EDCM STD FIG 605
139	JUNCTION PIT	600	900			300	225.541	227.310	1.770	REFER TO EDCM STD FIG 605. TO BE CONVERTED TO GSEP IN FUTURE STAGE.

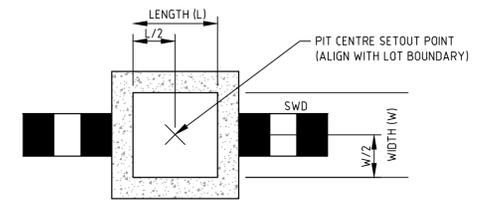
NOTE: PROVIDE DEFLECTION IN DRAINAGE PIT FLOOR WHEN DRAINAGE PIPE DEFLECTION THROUGH PIT IS BETWEEN 50° TO 90° FOR PIPE DIAMETERS LESS THAN 675mm.

PIT SETOUT CO-ORDINATES

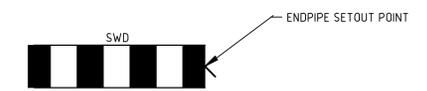
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34	B	301733.999	5835759.968
48	B	301783.632	5835912.067
EP5	C	301726.495	5835758.206
EP11	C	301737.200	5836001.022

DRAINAGE PIPES AND PITS IN FUTURE STAGES NOTES

- PITS LIDS AND CRUSHED ROCK BACKFILL ARE TO BE CONSTRUCTED TO EXISTING OR 300mm BELOW FINISHED SURFACE LEVEL, WHICHEVER LEVEL IS LOWER.
- ADDITIONAL FILL REQUIRED ON DRAINAGE PIPES ABOVE CRUSHED ROCK LEVEL TO MATCH BACK INTO EXISTING SURFACE LEVEL OR PROPOSED FINISHED SURFACE LEVEL TO BE ORDINARY FILL COMPACTED TO HUME CITY COUNCIL STANDARDS & SPECIFICATIONS.
- PITS LIDS CONSTRUCTED BELOW EXISTING SURFACE LEVEL ARE TO HAVE BATTERS GRADED AT 1 IN 6 BACK TO EXISTING SURFACE LEVEL WITH SILT PREVENTION MEASURES IN PLACE TO MINIMIZE SILT INFILTRATION INTO DRAINAGE NETWORK.
- DRAINAGE PIT LEVELS SHOWN INDICATE ULTIMATE DRAINAGE DESIGN.



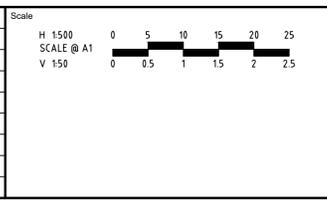
TYPICAL DRAINAGE PIT SETOUT POINT 'B'
JUNCTION PIT / EASEMENT PIT
NOT TO SCALE



TYPICAL DRAINAGE SETOUT POINT 'C'
ENDPIPE
NOT TO SCALE

file name: 310827_001CR602.dwg; layout name: CR602; plotted by: Lilian Tran; file location: G:\310827\001CR602\ACAD\plot.dwg; 24/02/2026 3:00 PM; Sheet: 17 of 22 Sheets

Rev	Amendments	Approved	Date
3	AS CONSTRUCTED	L.T	24/02/26
2	PIT SCHEDULE AMENDED	L.T	19/11/25
1	PIT SCHEDULE AMENDED	L.T	01/08/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
C	DRAINAGE ADDED AND PIT SCHEDULE AMENDED	L.T	02/11/24
B	PIT SCHEDULE AMENDED	M.R	13/05/24
A	ISSUED TO COUNCIL	L.T	22/01/24





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 Checked: W. ONG
 Date: 22/01/24

REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS & PIT SCHEDULE - SHEET 3
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED
Drg No: 310827-001CR602 Rev: 3

DESIGN PAVEMENT PROFILE

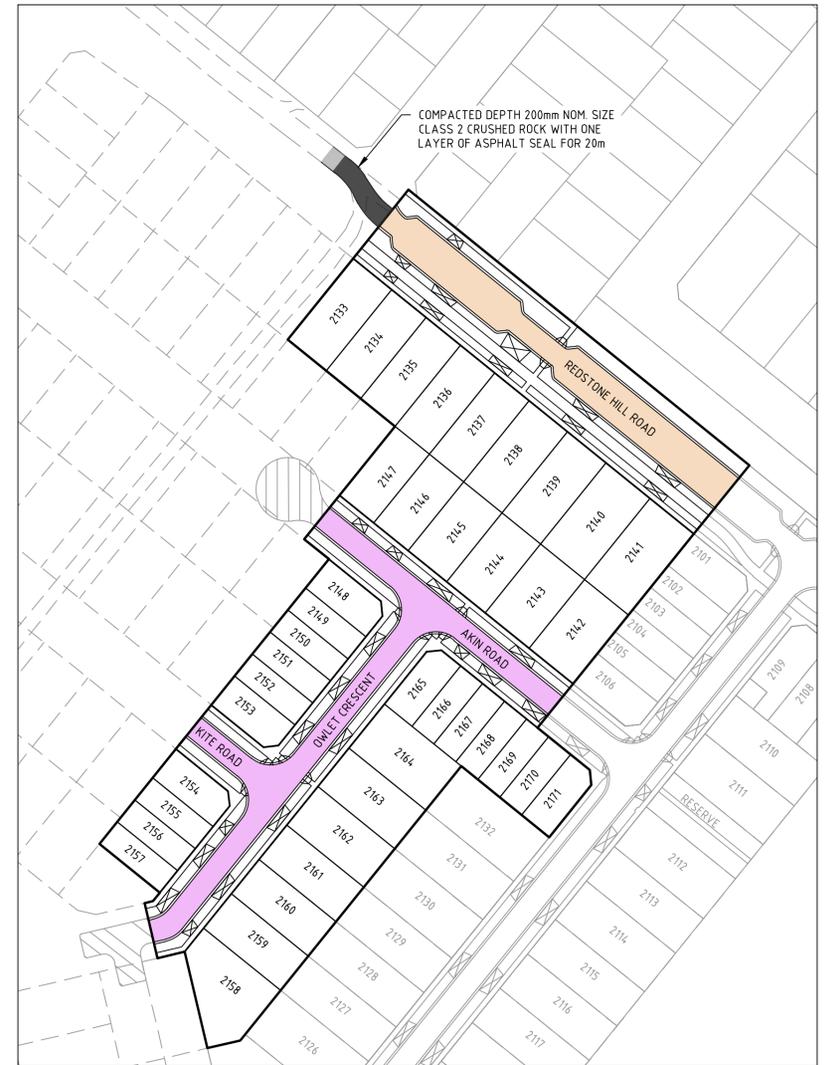
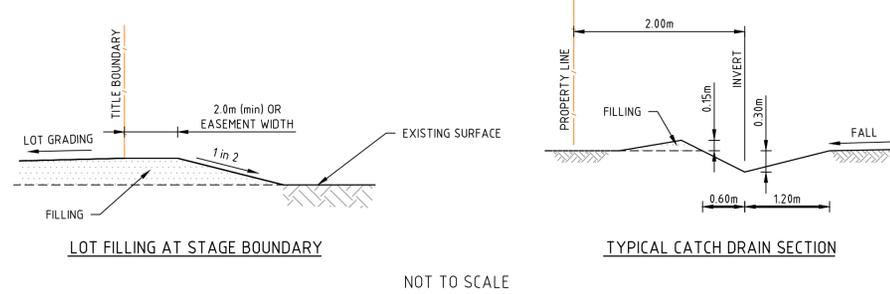
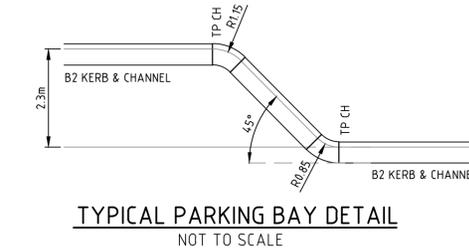
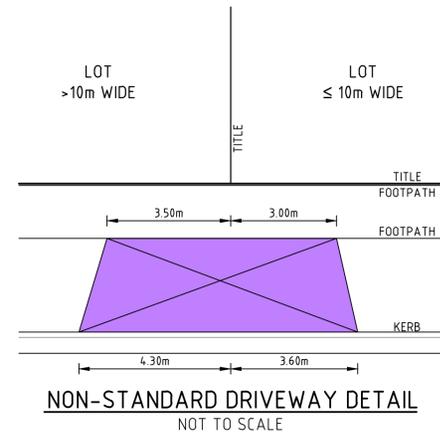
PAVEMENT LAYER	DESCRIPTION	DEPTH (mm)	
		TYPE A	TYPE C
ASPHALT WEARING COURSE	SIZE 10 TYPE N CLASS 320 BINDER	30	40
ASPHALT INTERMEDIATE COURSE	SIZE 14 TYPE H CLASS 320 BINDER		75
ASPHALT BASE COURSE	SIZE 20 TYPE SI CLASS 320 BINDER	30	75
	SIZE 10 TYPE N CLASS 320 BINDER		75
	SIZE 20 TYPE SF CLASS 320 BINDER	10	
	SIZE 10 SAMI SEAL CLASS S18RF		
	BITUMINOUS PRIMECOAT	Y	Y
BASE COURSE	VICROADS 20mm CLASS 2 FCR	130	
	VICROADS 20mm 3% CEMENT TREATED CLASS 3 FCR		110
UPPER SUBBASE COURSE	VICROADS 20mm CLASS 3 FCR	140	
LOWER SUBBASE COURSE	VICROADS 20mm CLASS 4 FCR	100	100
CAPPING LAYER	VICROADS TYPE A CAPPING LAYER (CBR OF ≥8%, SWELL<15%, K<5 x 10 ⁻⁹ m/s)	150	150
CONSTRUCTION LAYER	VICROADS TYPE A CAPPING LAYER (CBR OF ≥8%, SWELL<15%, K<5 x 10 ⁻⁹ m/s)	150	150
	TOTAL PAVEMENT DEPTH	740	700

* REFER PAVEMENT PLAN FOR LOCATION OF PAVEMENT TYPES
 * TO ACCOMMODATE THE ASPHALT LAYERS, SAMI AND BASE COURSE SHOWN, THE DIMENSION OF THE KERB AND CHANNEL AT THE LIP, AS SHOWN ON THE STANDARD KERB PROFILE AS 190mm, MUST BE INCREASED TO 200mm FROM THE LIP OF THE TRAY TO THE UNDERSIDE OF THE KERB (OR TOP OF SUBBASE)

TARGET COMPACTION LEVELS FOR PAVEMENT MATERIALS:

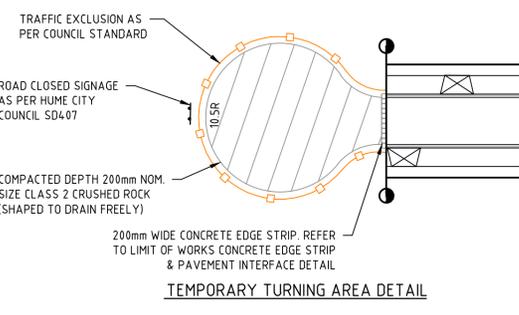
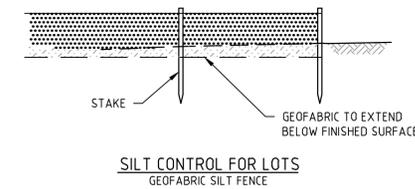
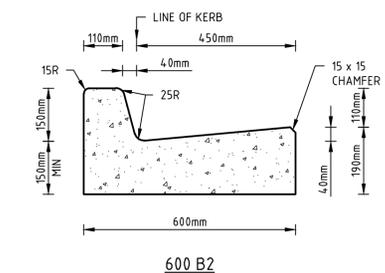
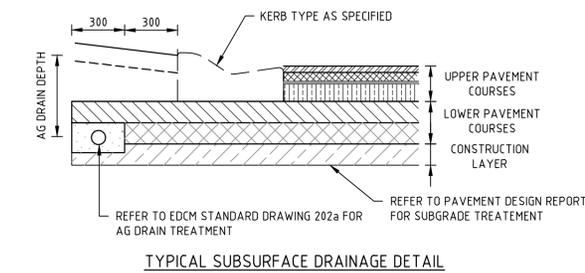
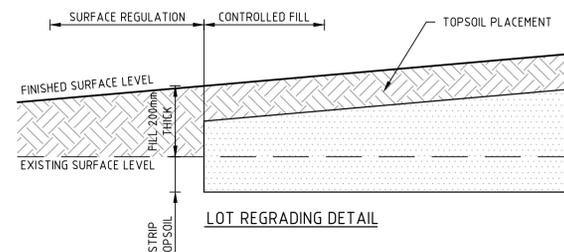
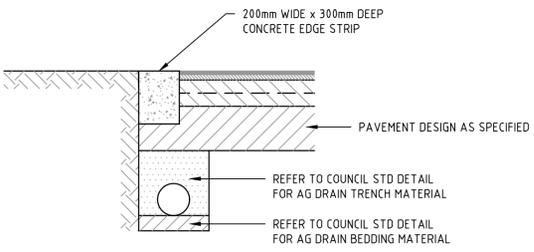
LAYER	TARGET DENSITY RATIO	MOISTURE RATIO
PAVEMENT BASE	100% MODIFIED COMPACTION	+/- 1% OF OMC
PAVEMENT SUBBASE	98% MODIFIED COMPACTION	+/- 1% OF OMC
SUBGRADE LAYER PROTECTION	98% STANDARD OR 95% MODIFIED COMPACTION	+/- 3% OF OMC
SUBGRADE (COHESIVE) TOP 300mm	98% MODIFIED COMPACTION	+/- 3% OF OMC
SUBGRADE (COHESIVE) - 300mm	95% MODIFIED COMPACTION	+/- 3% OF OMC

ROAD NAME	TYPE
AKIN ROAD	A
OWLET CRESCENT	A
KITE ROAD	A
REDSTONE HILL ROAD	C



CONCRETE PAVEMENT NOTES:

- ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS AND CCAA LITERATURE; OR VIC ROADS STANDARDS FOR NON RESIDENTIAL STREETS.
- ALL CONCRETE TO BE MINIMUM 32MPa COMPRESSIVE STRENGTH
- CONCRETE TO BE THOROUGHLY COMPACTED USING EITHER SURFACE AND/OR IMMERSION VIBRATORS, PARTICULARLY AROUND REINFORCEMENT AND IN CORNERS OF FORMS.
- PRIOR TO CASTING, THE UNBOUND GRANULAR SUBBASE MUST BE DAMP TO ENSURE NO EARLY "DRYING OUT" OF THE CONCRETE.
- CURING OF CONCRETE IS ESSENTIAL - IDEALLY BY MAINTAINING WET HESSIAN OR SEALING WITH PLASTIC SHEETING.
- SAW CUTTING OF CONCRETE SHOULD BE COMMENCED AS SOON AS CONCRETE PERMITS BY EXPERIENCED CONTRACTORS, BUT NO LATER THAN 12 HOURS AFTER POUR.
- ALL DOWELS TO BE GRADE 250R STEEL BARS, 450mm LONG AND PLACED AT 300mm CENTRES. REFER CCAA- "CONCRETE PAVEMENT DESIGN FOR RESIDENTIAL STREETS" FOR DOWEL DIAMETERS. DOWELS MUST BE ACCURATELY PLACED TO ENSURE THE JOINT DOES NOT "LOCK". INSERTION OF DOWELS DURING THE PLACING OF CONCRETE IS NOT ACCEPTABLE. DOWELS MUST BE SAWN AND NOT CROPPED.
- ALL JOINTS TO BE APPROPRIATELY SEALED TO RESIST THE INTRUSION OF SAND AND GRAVEL AND TO MINIMISE THE INGRESS OF WATER.



PAVEMENT DETAILS

THE PAVEMENT DESIGNS SHOWN HERE HAVE BEEN DESIGNED/PROVIDED BY GROUND SCIENCE PTY LTD WHO ARE RESPONSIBLE FOR THE GEOTECHNICAL WORK ON THIS PROJECT. SPIIRE IS NOT RESPONSIBLE FOR THE WORK OF GROUND SCIENCE PTY LTD.

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Rev	Description	Approved	Date
2	AS CONSTRUCTED	L.T	24/02/26
1	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T	19/11/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
D	REDSTONE HILL ROAD LIMIT OF WORKS EXTENDED	L.T	02/11/24
C	TEMPORARY TURNING AREA DETAIL NOTE AMENDED	M.R	13/05/24
B	NON STANDARD DRIVEWAY DETAIL ADDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24

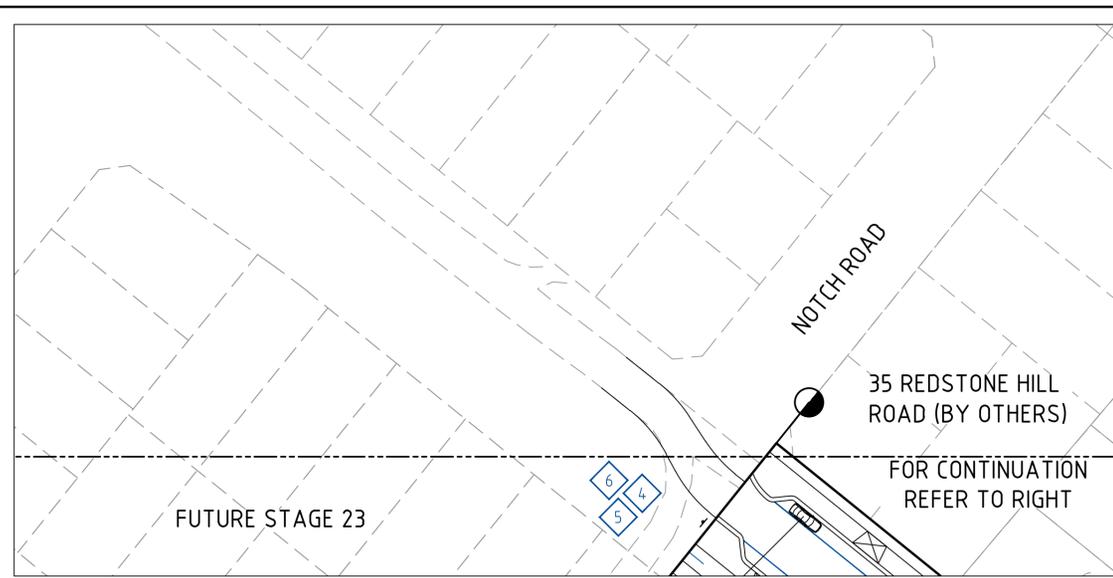
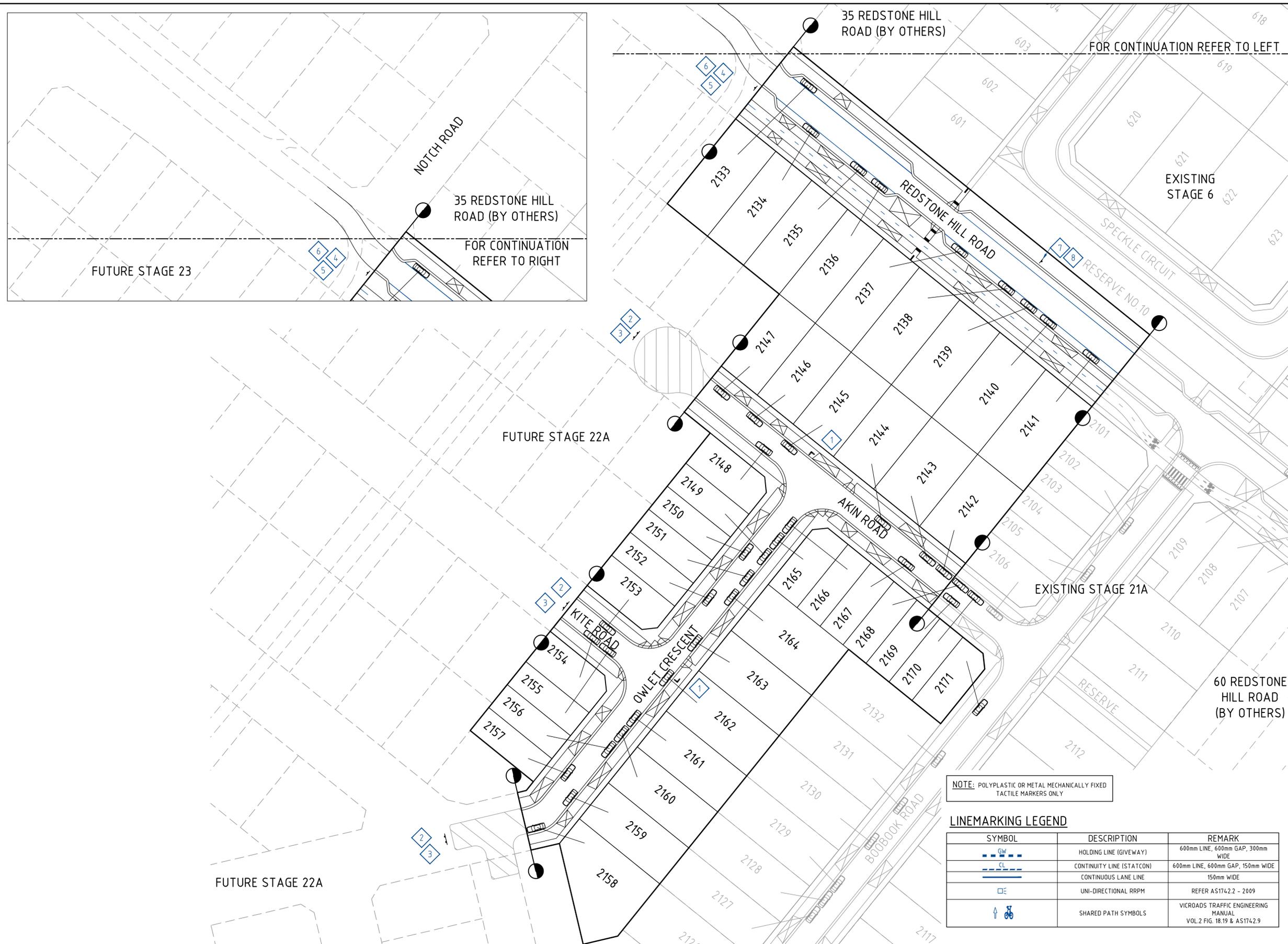
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 Authorised: L. TRAN

Checked: W. ONG
 Date: 22/01/24

REDSTONE ESTATE STAGE 21B
 ROAD AND DRAINAGE PAVEMENT AND TYPICAL DETAILS
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED Drg No: 310827-001CR700 Rev: 2



FOR CONTINUATION REFER TO LEFT

FOR CONTINUATION REFER TO RIGHT

SIGNAGE SCHEDULE

REFERENCE	SIGN
1	
2	
3	
4	
5	
6	
7	
8	

NOTE: STREET SIGNS ARE TO BE MOUNTED ON LIGHT POLES, WITH A COUNCIL APPROVED BRACKET, IN LIEU OF SIGN POLES WHERE THE TWO POLES ARE IN CLOSE PROXIMITY AND WHERE THE STREET SIGN WOULD NOT BE COMPROMISED IN ITS PURPOSE BY THE RELOCATION.

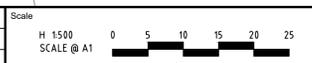
NOTE: POLYPLASTIC OR METAL MECHANICALLY FIXED TACTILE MARKERS ONLY

LINEMARKING LEGEND

SYMBOL	DESCRIPTION	REMARK
	HOLDING LINE (GIVEWAY)	600mm LINE, 600mm GAP, 300mm WIDE
	CONTINUITY LINE (STATCON)	600mm LINE, 600mm GAP, 150mm WIDE
	CONTINUOUS LANE LINE	150mm WIDE
	UNI-DIRECTIONAL RRPM	REFER AS1742.2 - 2009
	SHARED PATH SYMBOLS	VICROADS TRAFFIC ENGINEERING MANUAL VOL.2 FIG. 18.19 & AS1742.9

file name: 310827_001CR800_Acc_Layout.mxd; user: C8800; plot by: Lillian Tran; file location: G:\310827_001CR800\ACAD\Plot\date: 2/02/2026 3:02 PM; Sheet: 20 of 22 Sheets

Rev	Amendments	Approved	Date
2	AS CONSTRUCTED	L.T	24/02/26
1	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T	19/11/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
D	REDSTONE HILL ROAD LIMIT OF WORKS EXTENDED	L.T	02/11/24
C	LOT 2134, 2135, 2138 & 2139 DRIVEWAYS AMENDED	M.R	13/05/24
B	NOTE ADDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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REDSTONE ESTATE

STAGE 21B

ROAD AND DRAINAGE

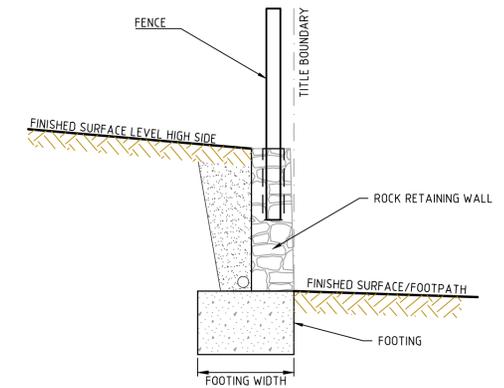
SIGNAGE AND LINEMARKING

 HUME CITY COUNCIL

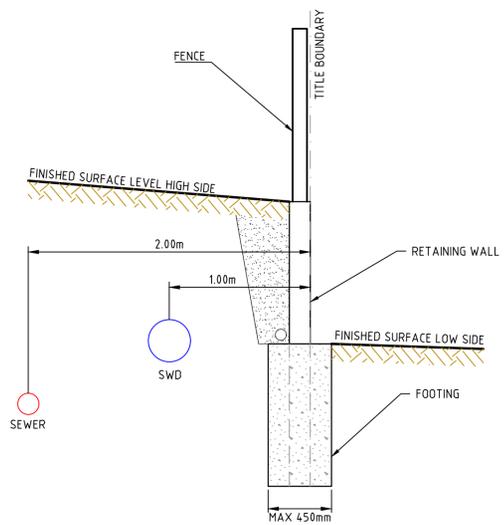
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

 Drg No 310827-001CR800 Rev 2



ROCK RETAINING WALL TYPICAL DETAIL
NOT TO SCALE



SLEEPER RETAINING WALL TYPICAL DETAIL
NOT TO SCALE

- NOTES:**
1. DRAIN AND SEWER DEPTH VARIES ACROSS SITE
 2. DEPTH OF SERVICE MUST BE ABOVE ANGLE OF REPOSE OF RETAINING WALL FOOTING
 3. MINIMUM COVER TO SERVICES IS 450mm
 4. AG DRAINS TO CONNECT TO STORMWATER SYSTEM

NOTE:
THE RETAINING WALL PLAN IS NOT PART OF THE SUBDIVISIONAL WORKS OR APPROVAL. IT IS SUBJECT TO SEPARATE APPROVAL. THIS SHEET IS SUPPLEMENTARY TO THE ENGINEERING DRAWINGS.

NOTE:
FOR LEVELS OF RETAINING WALLS FRONTING STREETS, REFER TO RELEVANT ROAD/STREET LONGITUDINAL SECTIONS

- LEGEND**
- EXISTING CONCRETE SLEEPER RETAINING WALL
 - EXISTING ROCK RETAINING WALL
 - CONCRETE SLEEPER RETAINING WALL
 - ROCK RETAINING WALL

Rev	Amendments	Approved	Date
2	AS CONSTRUCTED	L.T	24/02/26
1	REDSTONE HILL ROAD LIMIT OF WORKS AMENDED	L.T	19/11/25
0	ISSUED FOR CONSTRUCTION	L.T	29/04/25
B	TYPICAL DETAILS AMENDED	M.R	15/04/24
A	ISSUED TO COUNCIL	L.T	22/01/24



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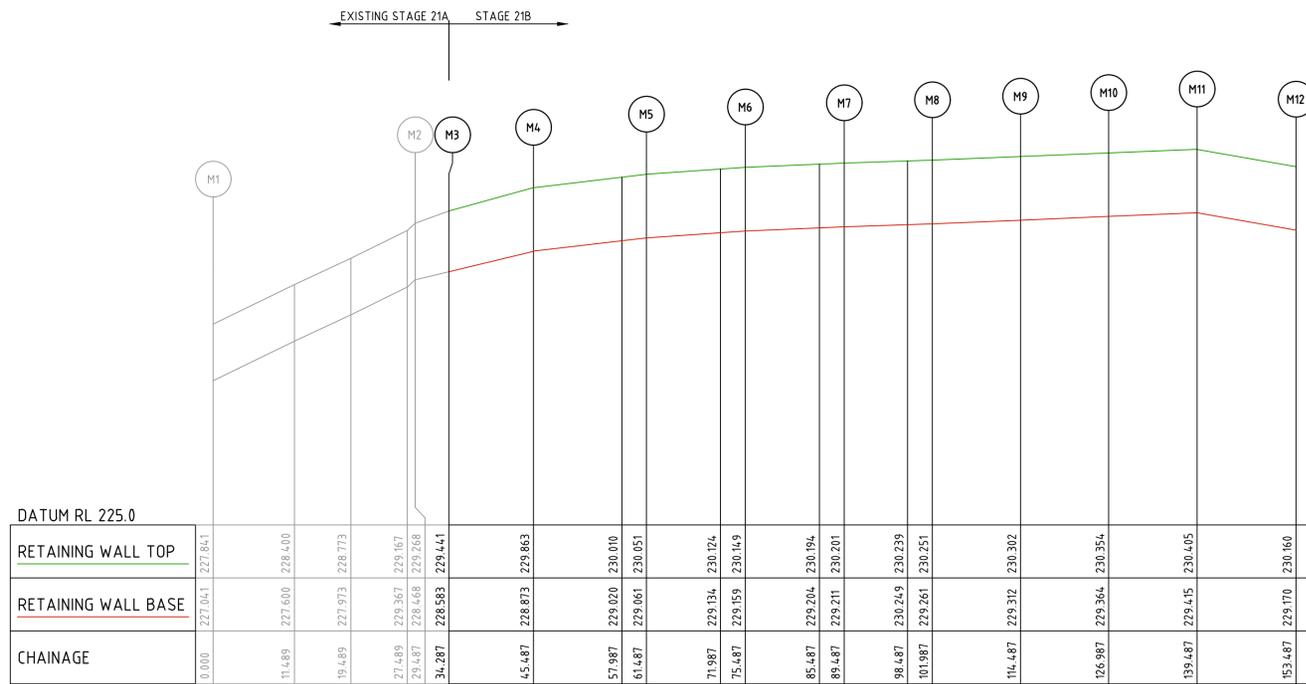


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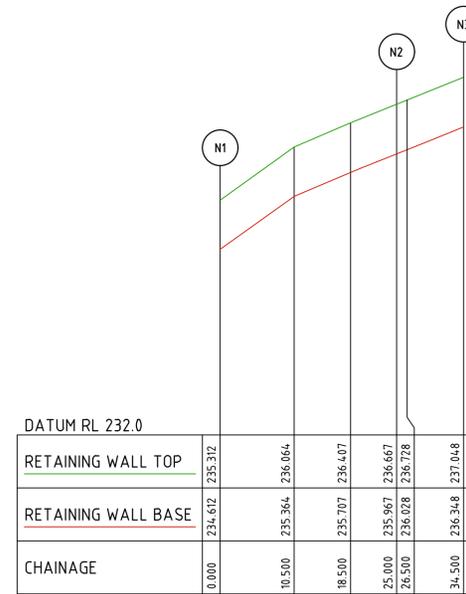
**REDSTONE ESTATE
STAGE 21B
ROAD AND DRAINAGE
RETAINING WALLS - SHEET 1**
HUME CITY COUNCIL
VILLAWOOD PROPERTIES

AS CONSTRUCTED Drg No 310827-001CR900 Rev 2

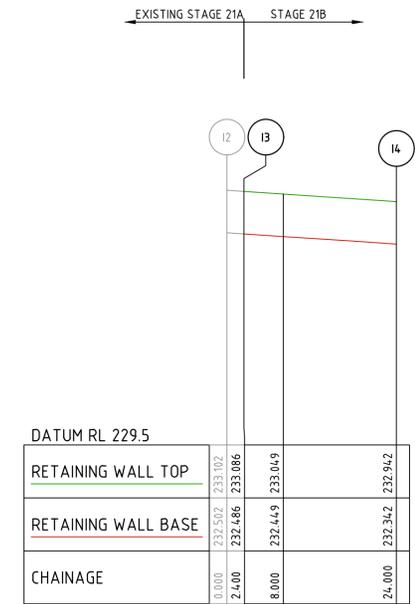
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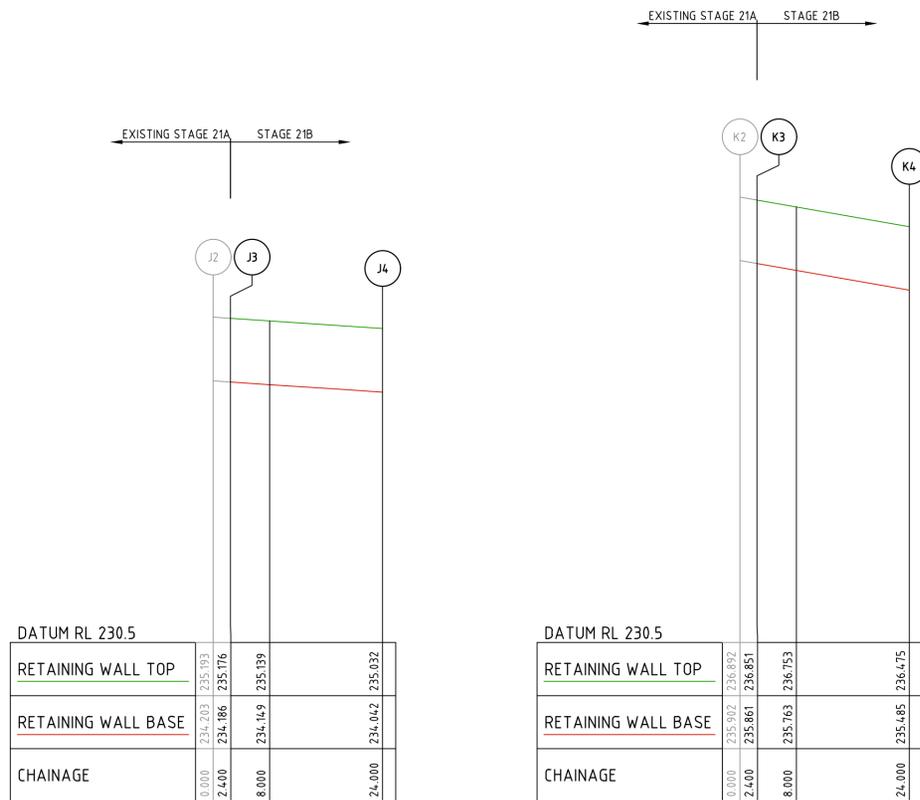
RETAINING WALL M



RETAINING WALL N



RETAINING WALL I

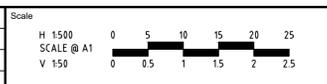


RETAINING WALL J

RETAINING WALL K

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1	AS CONSTRUCTED	L.T	24/02/26
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**REDSTONE ESTATE
 STAGE 21B
 ROAD AND DRAINAGE
 RETAINING WALLS - SHEET 2**
 HUME CITY COUNCIL
 VILLAWOOD PROPERTIES

AS CONSTRUCTED

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Rev
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