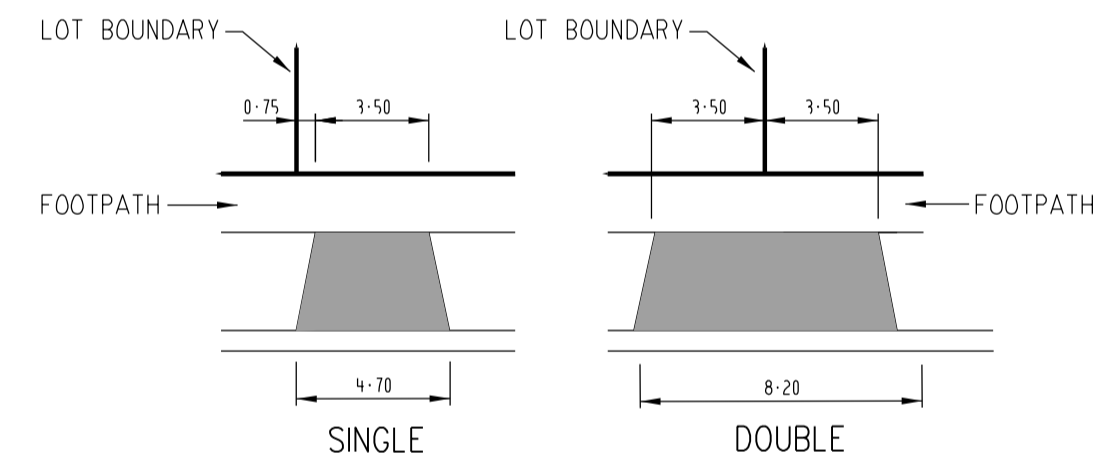


LOCALITY PLAN
NTS

SHEET INDEX

SHT No.	VER	DESCRIPTION
1	E	DETAIL PLAN, SHEET INDEX, SERVICES SCHEDULE & LOCALITY PLAN
2	B	TYPICAL CROSS SECTIONS, PAVEMENT DETAIL & INTERSECTION PLAN - 1
3	C	INTERSECTION PLAN - 2
4	B	LONGITUDINAL SECTION - WHITELEAF DRIVE & LATTERIDGE WAY
5	C	LONGITUDINAL SECTION - THORNABY DRIVE & ALEXO ROAD
6	A	CROSS SECTIONS - WHITELEAF DRIVE
7	A	CROSS SECTIONS - LATTERIDGE WAY
8	A	CROSS SECTIONS - THORNABY DRIVE
9	C	CROSS SECTIONS - ALEXO ROAD
10	B	DRAINAGE LONGITUDINAL SECTIONS-1
11	B	DRAINAGE LONGITUDINAL SECTIONS-2
12	B	DRAINAGE LONGITUDINAL SECTIONS-3
13	B	DRAINAGE LONGITUDINAL SECTIONS-4 & PIT SCHEDULE
14	C	PARKING PLAN



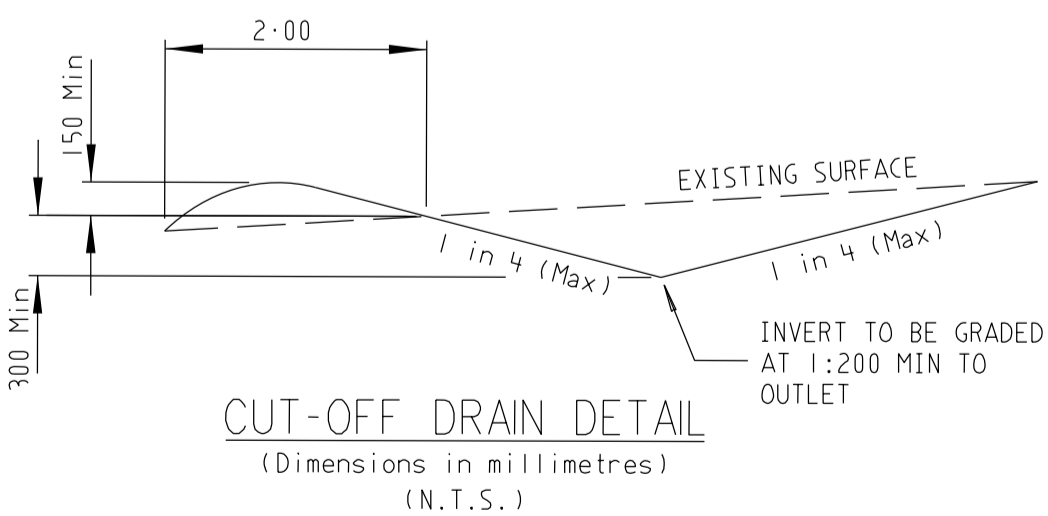
DRIVEWAY PLAN
NOT TO SCALE

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

TREE TO BE REMOVED

ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
- Where concrete works abut a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.



SERVICES OFFSETS AND LOCATIONS

STREET/LOT NAME	Rd.RESERVE	WATER		GAS	ELECTRICITY		NBN			BR. OF KERB	JOINT TRENCHING
		DW	NDW		CABLES	POLES	NBN CABLES	NBN PITS	NBN		
ALEXO ROAD	25-00	3-35 N	2-75 N	2-25 N	2-50 S	1-00 BOK	1-85 S	1-85 S	1-85 N	4-85 S 4-85 N	G DW NDW & E NBN
THORNABY DRIVE	16-00	3-20 W	2-70 W	2-25 W	2-50 E	1-00 BOK	1-85 E	1-85 W	1-85 W	3-90 E 4-20 W	G DW NDW & E NBN
LATTERIDGE WAY	16-00	3-20 W	2-70 W	2-25 W	2-50 E	1-00 BOK	1-85 E	1-85 W	1-85 W	3-90 E 4-20 W	G DW NDW & E NBN
WHITELEAF DRIVE	16-00	2-75 W	2-30 W	1-85 W	2-50 E	1-00 BOK	1-85 E	1-85 W	1-85 W	3-90 E 4-20 W	G DW NDW & E NBN

SYMBOL LEGEND

Prop	Exist	Ex/Natural/FS Level
Drains	— S —	— 28.47 —
Sewer <300	— S —	FS @ Building Line
Sewer >300	— S —	Top/Toe of Batter
Water	— W —	Top Ret. Wall Level
House Drain	— H —	100yr Flood Level
Property Inlet	— P —	Fill Prop/Ex
Street Sign	— S —	Cut Prop/Ex
PSM	— P —	Fill Prop/Ex >500mm
Retaining Wall	— R —	
Conduits 50mm	— G —	
Conduits 100mm	— G —	
Ex Gas/Elect/Tel	— G —	

AMENDMENTS	DATE	REMARKS	CHECKED
E	20-07-17	GAS & WATER CONDUIT LOCATION TO LOT 440 AMENDED	
D	23-03-17	KERB ON EAST OF ALEXO ROAD UPDATED	
C	08-12-16	ROAD NAME UPDATED	
B	08-11-16	SERVICES OFFSET SCHEDULE UPDATED	
A	21-09-16	ISSUED FOR CONSTRUCTION	

breese pitt dixon pty. ltd.
land surveyors civil engineers

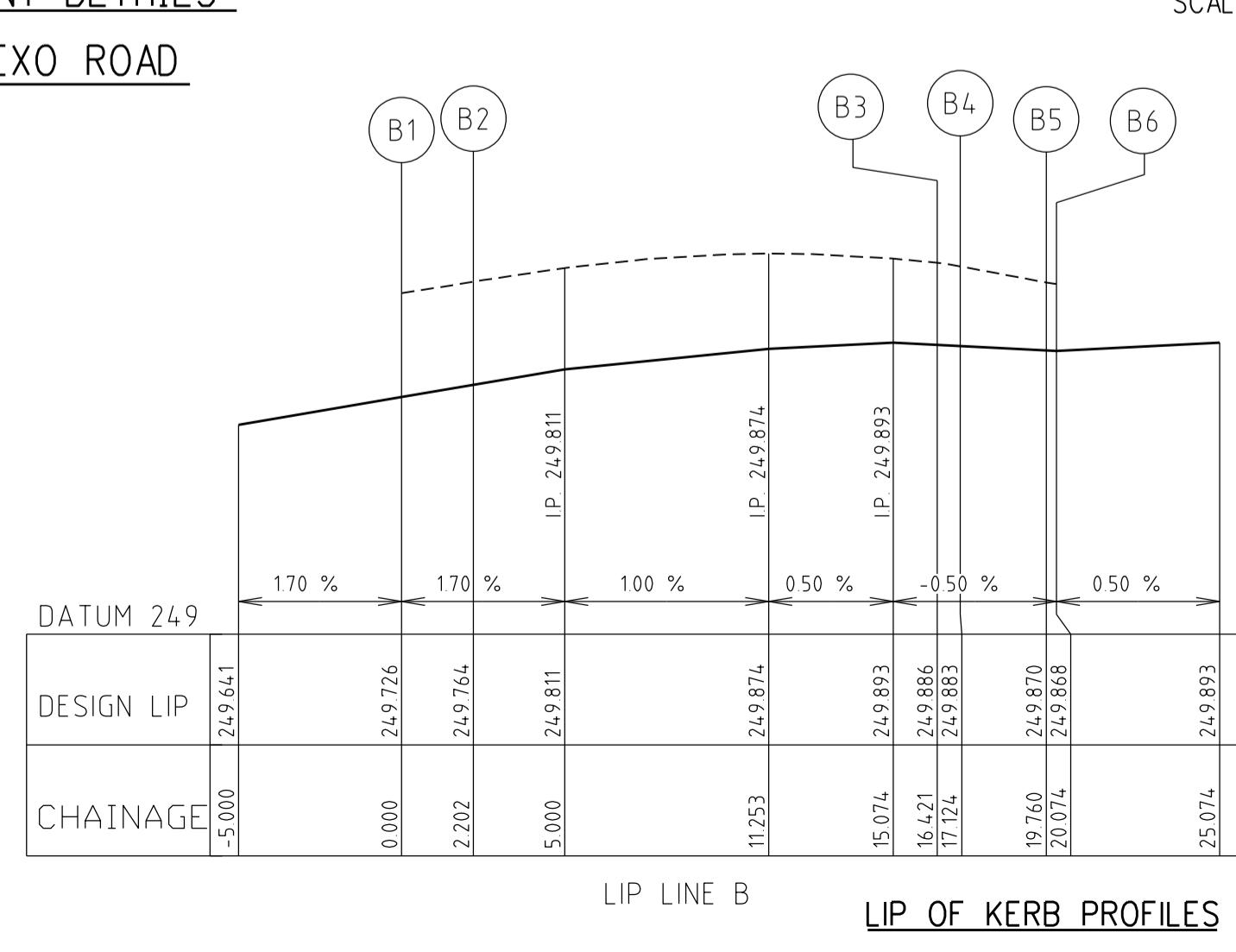
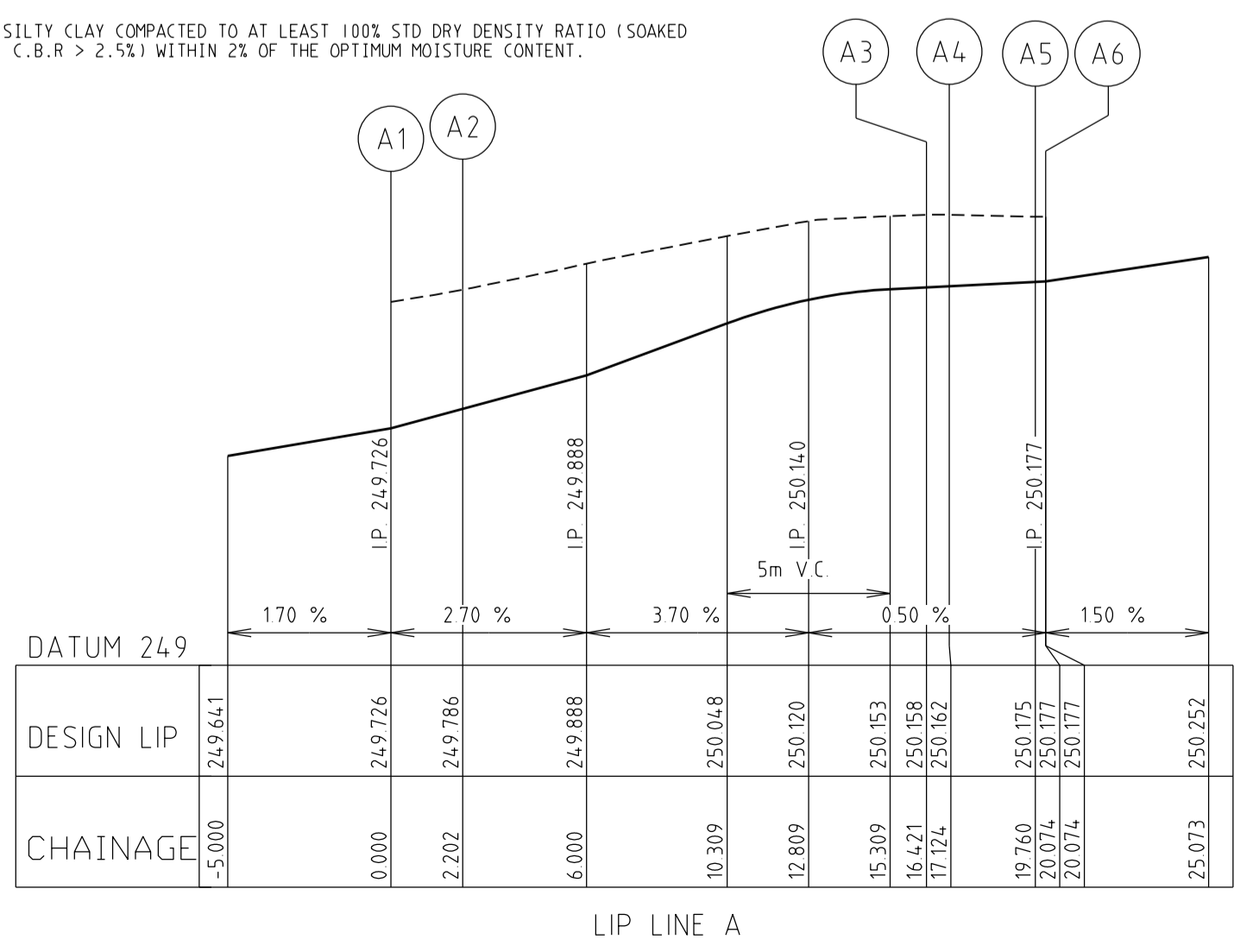
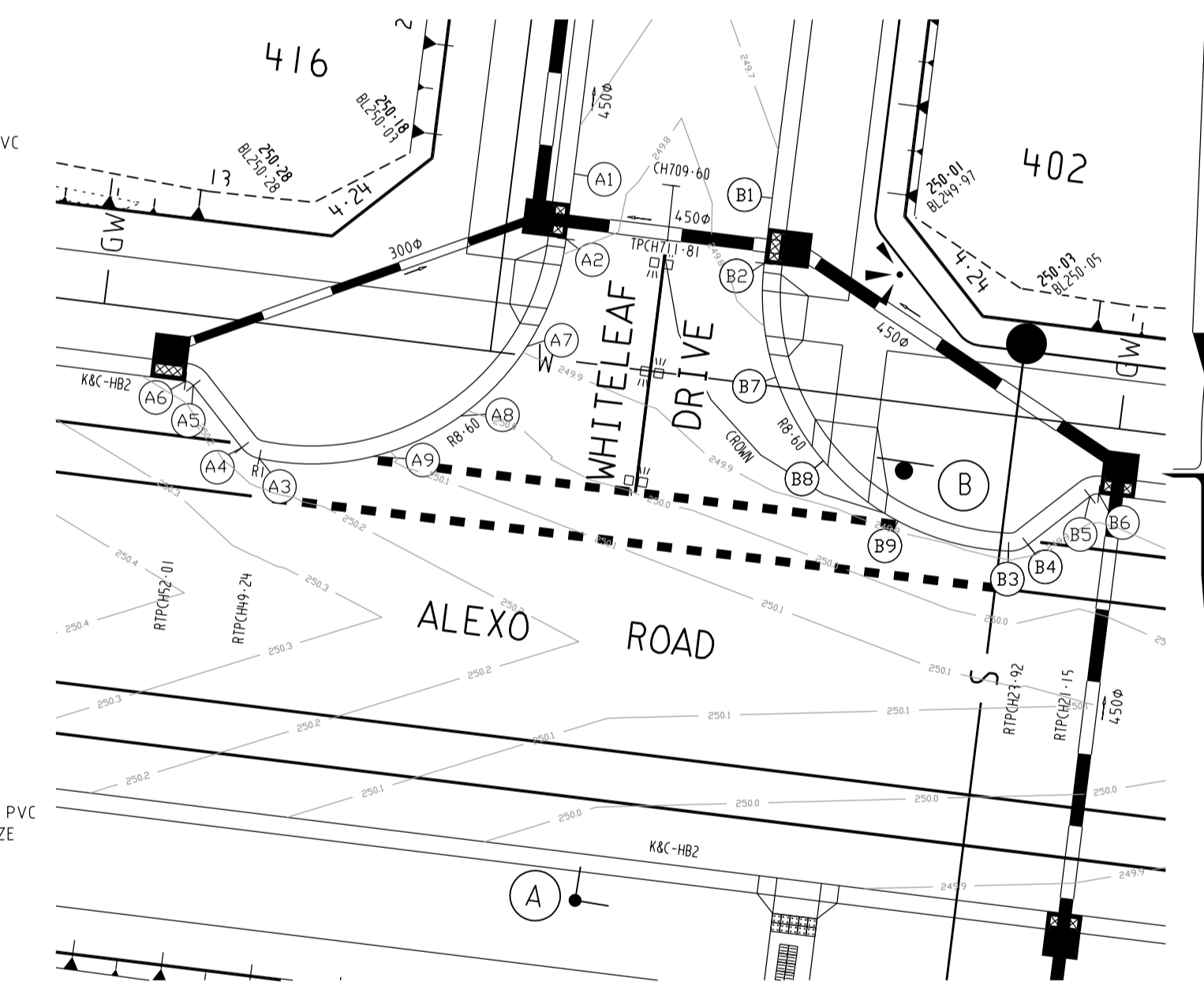
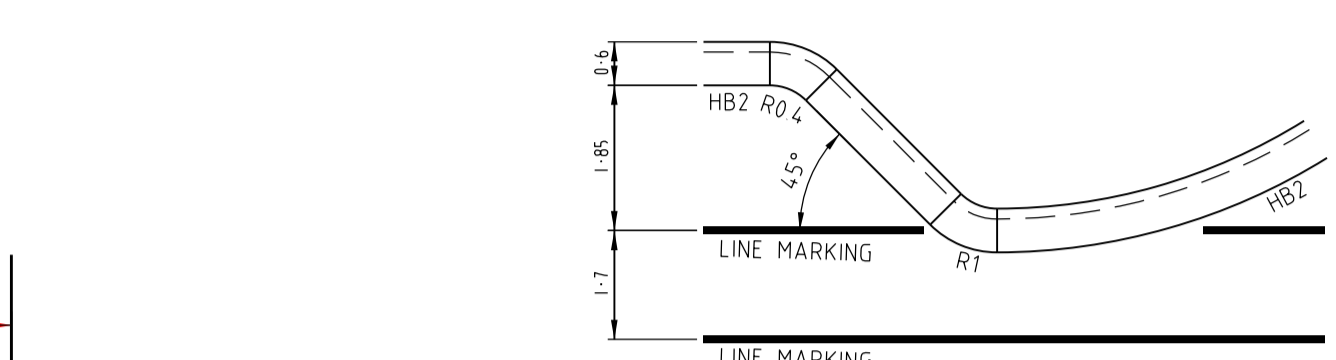
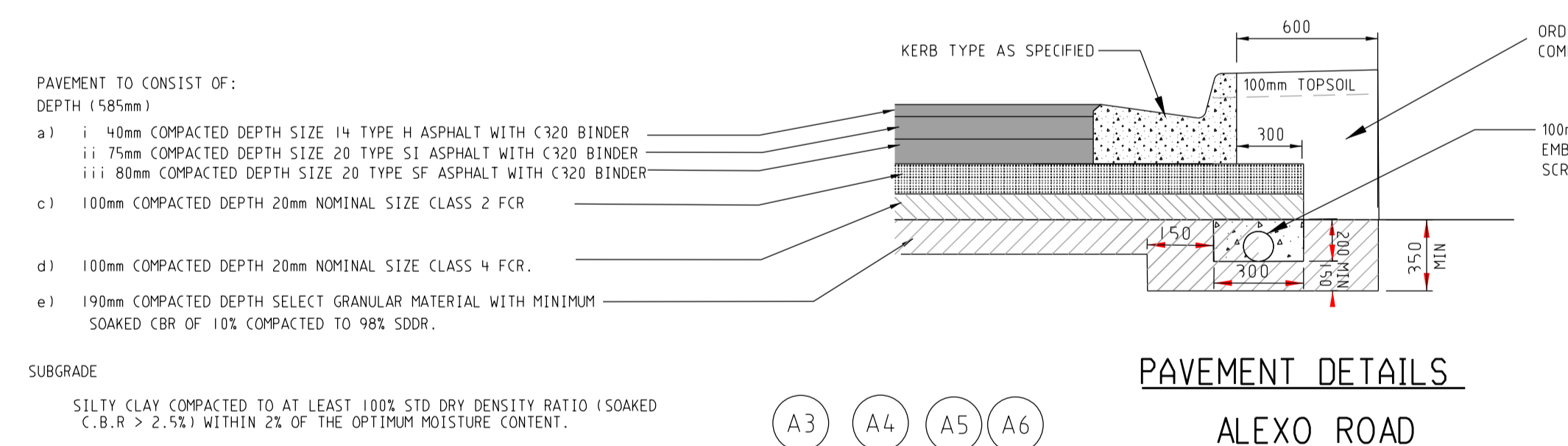
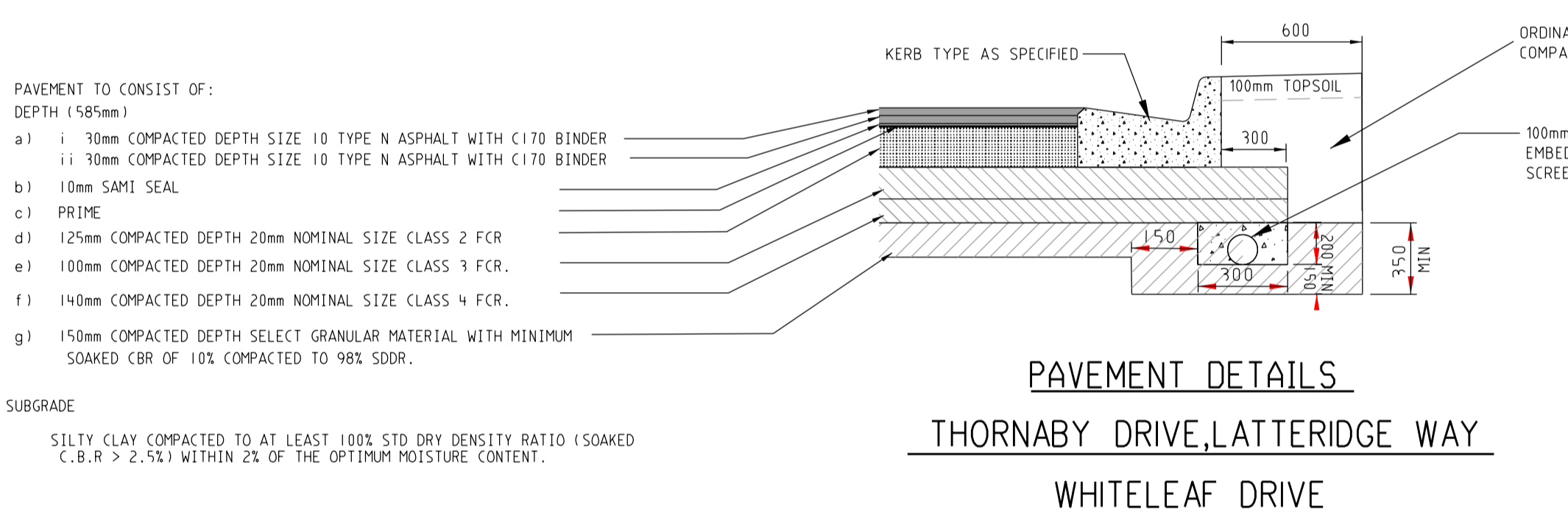
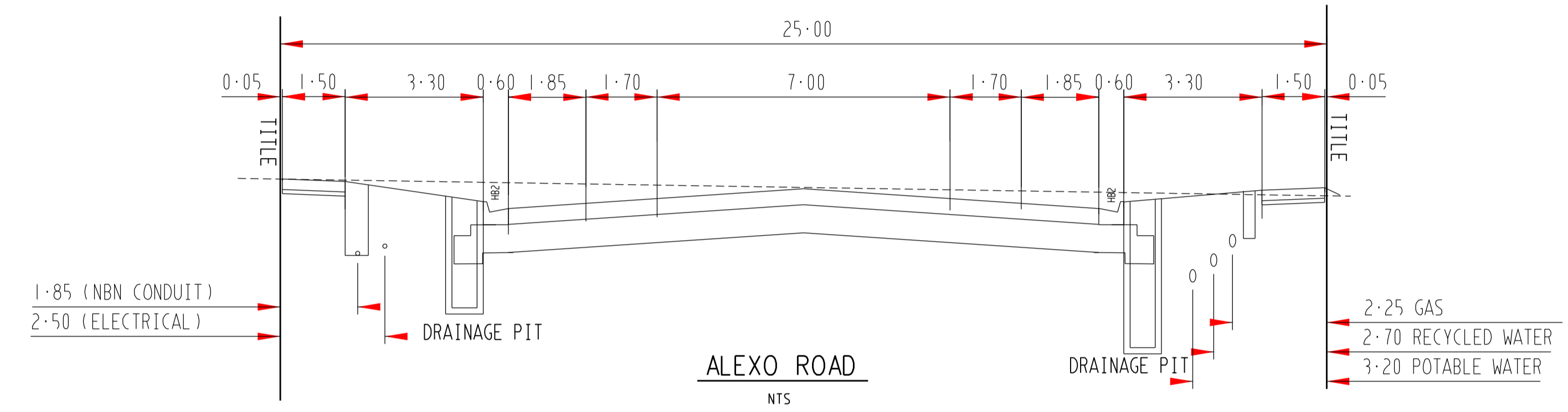
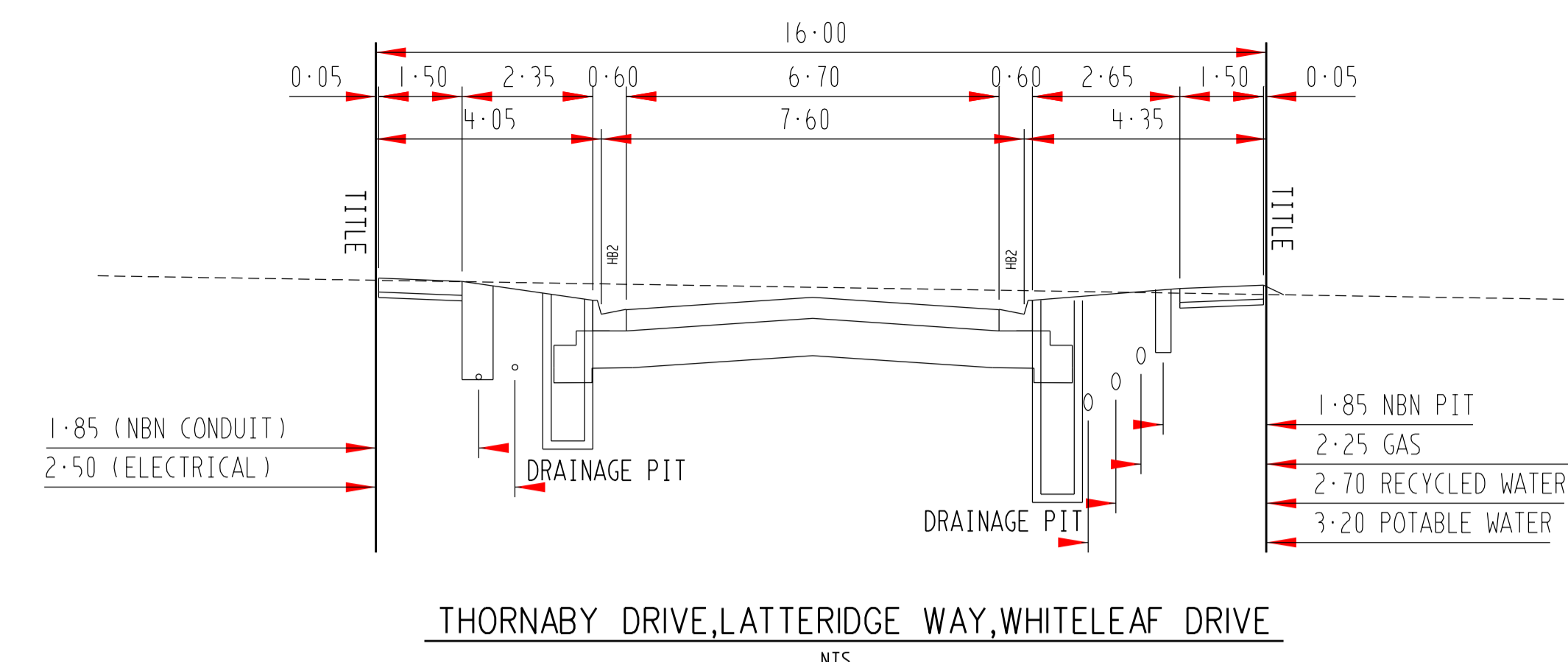
1/19 calo street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

WARATAH ESTATE STAGE 4

MUNICIPALITY
HUME

REFERENCE
8711 E/4

SCALE AS SHOWN DATUM AHD DATE MAY '16 SHEET 1 OF 14 E



Alignment A				Alignment B			
Point no	Easting	Northing	RL	Point no	Easting	Northing	RL
A 1	315221.365	5893127.667	249.726	B 1	315210.015	5893126.845	249.726
A 2	315221.694	5893125.481	249.786	B 2	315229.794	5893124.440	249.786
A 3	315212.806	5893118.116	250.158	B 3	315237.933	5893115.012	249.886
A 4	315212.221	5893118.488	250.162	B 4	315238.588	5893115.273	249.881
A 5	315218.688	5893120.559	250.175	B 5	315240.867	5893116.845	249.878
A 6	315218.333	5893120.709	250.177	B 6	315240.962	5893116.926	249.868
A 7	315221.787	5893121.874	249.891	B 7	315238.136	5893120.842	249.822
A 8	315218.568	5893119.642	250.011	B 8	315231.723	5893118.840	249.894
A 9	315218.642	5893118.191	250.115	B 9	315234.210	5893116.019	249.880

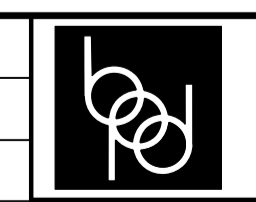
Curve no	Radius	Chord	Mid Ord	Qtr Ord	Mid Ord RL
A 2 3	8.400	12.454	2.775	2.172	250.011
A 3 4	1.000	0.688	0.061	0.046	250.160
A 5 6	-0.400	0.106	0.010	0.021	250.176

NOTES

- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH MPA & 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 ON-SITE 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 TEST 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 OHS REGULATIONS 2007 HAVE BEEN AND WILL BE COMPLIED WITH.
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR MUST SUBMIT A SMP TO THE CONSULTANT FOR APPROVAL. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION NO.275 "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 AND .
- ALL CO-ORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA).
- 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 MPA 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.1289.5.2.1-2003.
- FILLING TO COMPLY WITH A.S.1798-2007, 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 STAIN PILESET 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.
- ALL DISTURBED AREAS, I.E. NATURE STRIPS, BATTERS, ALLOTMENTS & RESERVES, ARE TO BE REINSTATED TO A CLEAN, TIDY CONDITION, TOP DRESSED (100MM LOAMY TOP SOIL FREE OF CLUMPS, SOOTS AND CLAY LUMPS) AND SOWN WITH GRASS SEED. SEED IS TO BE A DROUGHT TOLERANT COUGH/FESCUE MIX UNLESS OTHERWISE DETAILED. BLEND IS GENERALLY AS FOLLOWS:

90% DROUGHT TOLERANT PERENNIAL RYE
10% KIKUYU
- NOTE: GRASS IS TO BE ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE PERIOD OR UNLESS OTHERWISE AGREED.
- 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.
- SERVICE CONDUITS TRENCHES UNDER DRIVEWAYS AND FOOTPATHS ARE TO BE 50MM P.V.C. LAYED 450mm DEEP AND EXTENDING 250mm EACH SIDE OF DRIVEWAYS/FOOTPATHS. ALL SERVICE CONDUITS TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH 20mm 3% CRUSHED 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.1289.5.2.1-2003. 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 TO BE CLASS 2 R.C. OR RIGID F.R.C. WITH ADJCL. FLEXIBLE COLLARS UNLESS OTHERWISE ALL PIPES UP TO AND INCLUDING 750mm DIA. ARE TO BE RUBBER RING JOINTED INTERLOCKING/FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPES OVER 750mm DIA.
- WHERE NEW ASPHALT, CONCRETE K & C, 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.

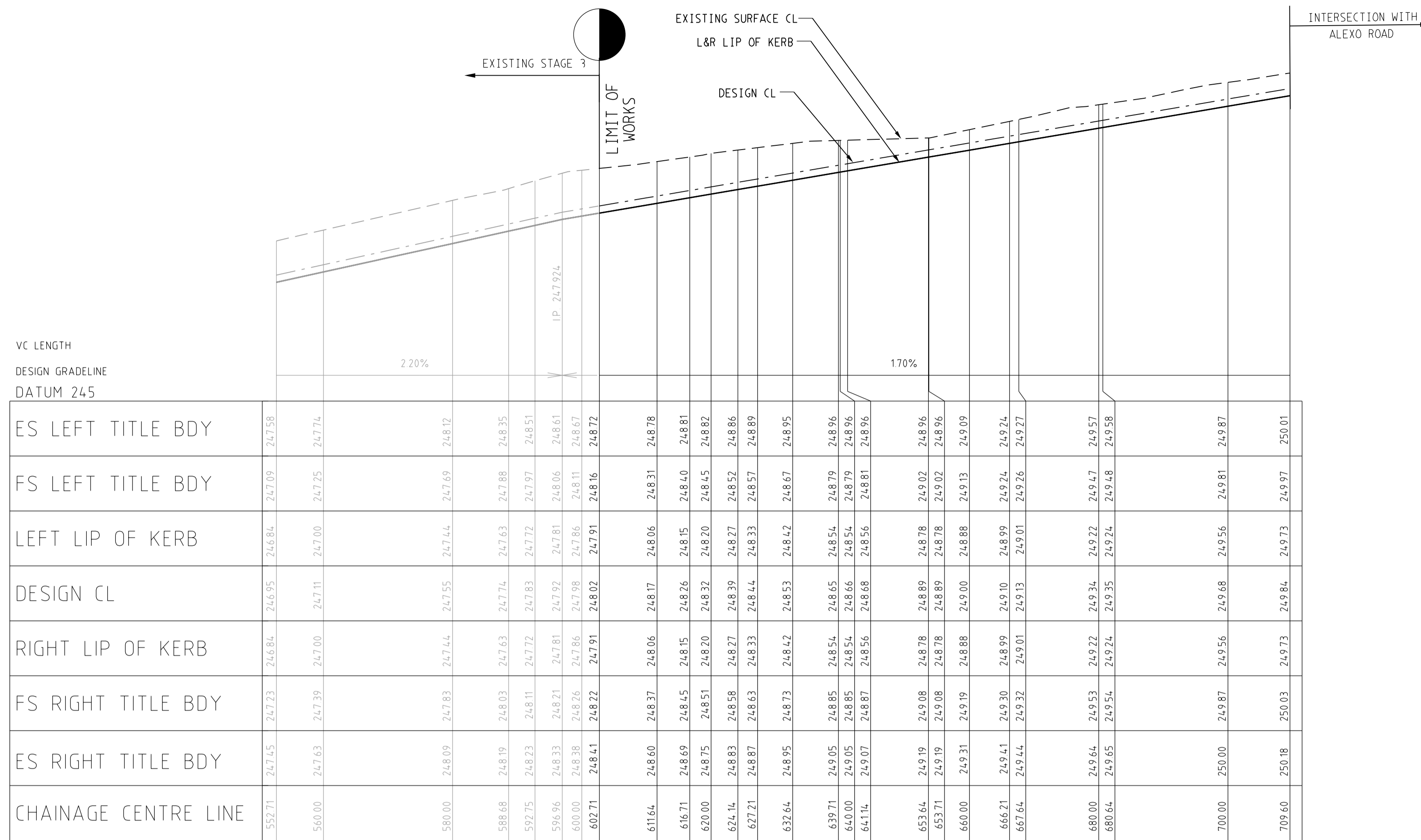
SIGN SCHEDULE



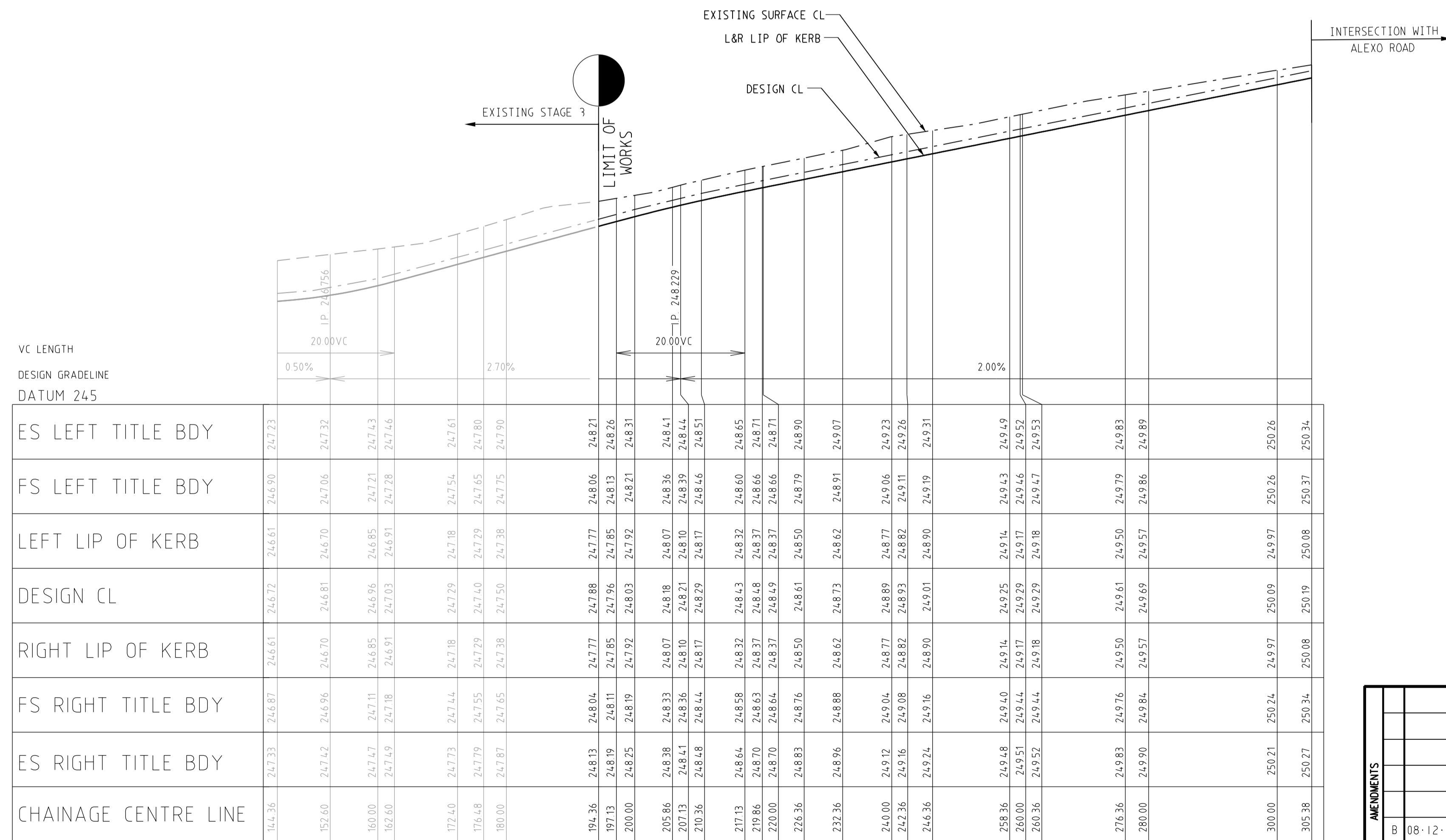
breese pitt dixon pty. ltd.
land surveyors civil engineers

1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	766-E-5
SURVEY	BJ
DESIGN	SBS
DRAWN	SBS
SCALE	AS SHOWN
DATUM	AHD
DATE	MAY '16
SHEET	2 OF 14
MUNICIPALITY	HUME
REFERENCE	8711 E/4



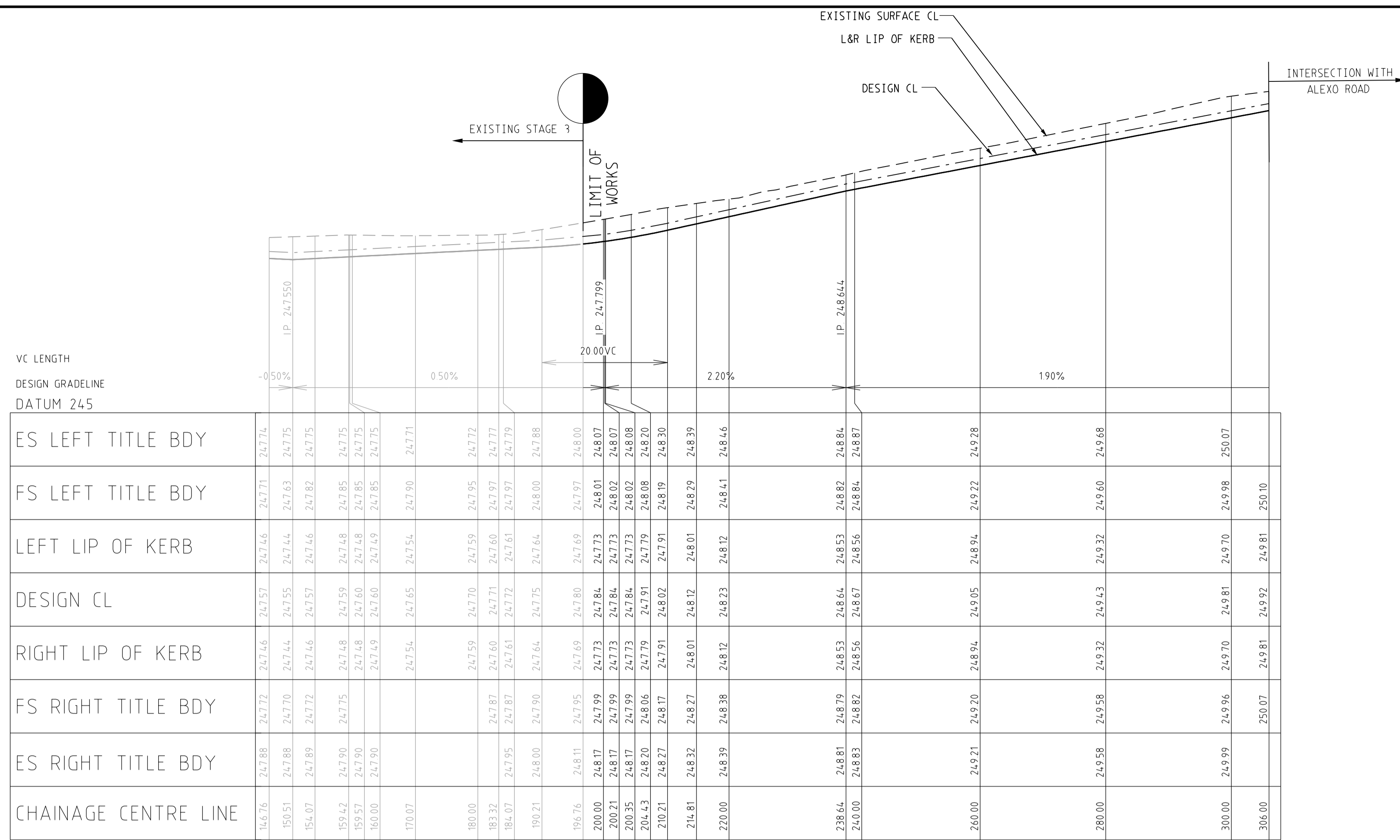
WHITELEAF DRIVE



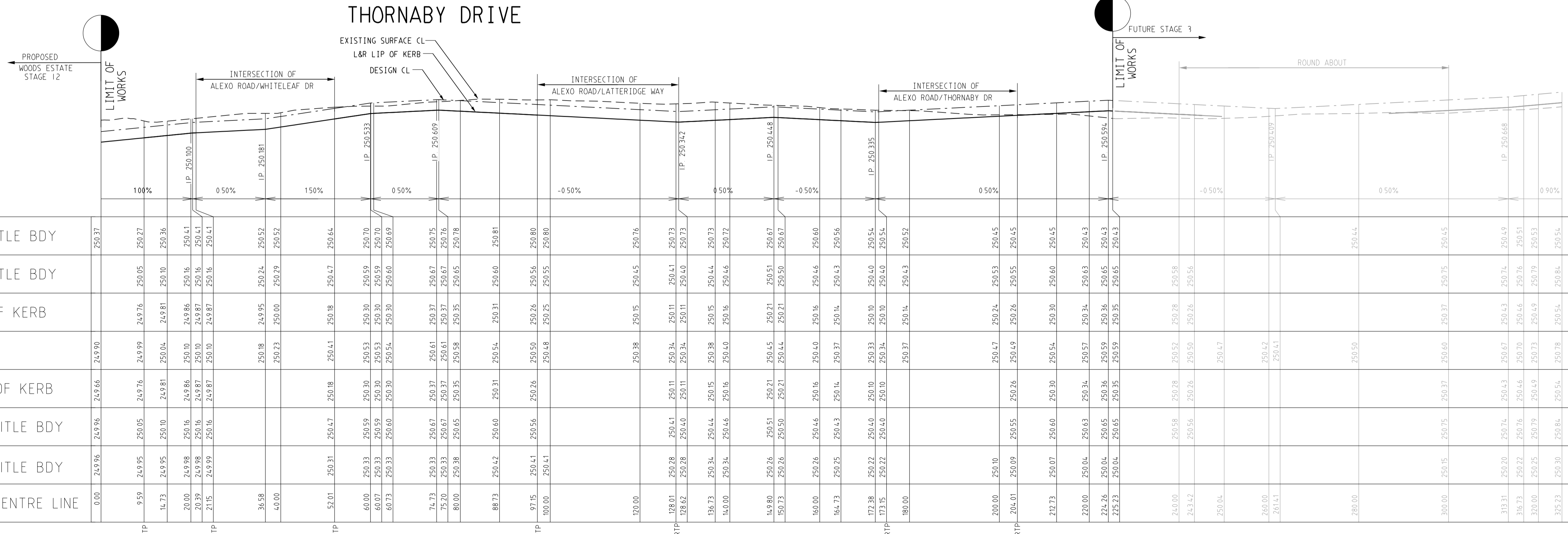
LATTERIDGE WAY

LONGITUDINAL SECTION
SCALE HORIZONTAL 1:500
VERTICAL 1:50

		breese pitt dixon Pty. Ltd.		1/19 cato street	
		land surveyors		hawthorn east, 3123	
WARATAH ESTATE STAGE 4		MELWAY REF. 366-E-5		MUNICIPALITY	
		SURVEY BJ		HUME	
AMENDMENTS B 08-12-16 ROAD NAME UPDATED A 21-09-16 ISSUED FOR CONSTRUCTION		DESIGN SBS		REFERENCE	
		DRAWN SBS		8711 E/4	
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE MAY '16	SHEET 4 OF 14



VC LENGTH	DESIGN GRADELINE	DATUM 245
ES LEFT TITLE BDY	146.76	247.71
FS LEFT TITLE BDY	150.51	247.63
LEFT LIP OF KERB	154.07	247.82
DESIGN CL	159.42	247.59
RIGHT LIP OF KERB	159.57	247.60
FS RIGHT TITLE BDY	160.00	247.75
ES RIGHT TITLE BDY	170.07	247.90
CHAINAGE CENTRE LINE	180.00	247.72
	183.32	247.71
	184.07	247.72
	190.21	247.75
	196.76	247.80
	200.00	247.81
	200.71	247.84
	200.95	247.84
	200.43	247.79
	210.21	248.02
	214.81	248.12
	220.00	248.23
	238.64	248.53
	240.00	248.67
	260.00	249.05
	280.00	249.32
	300.00	249.81
	306.00	249.92



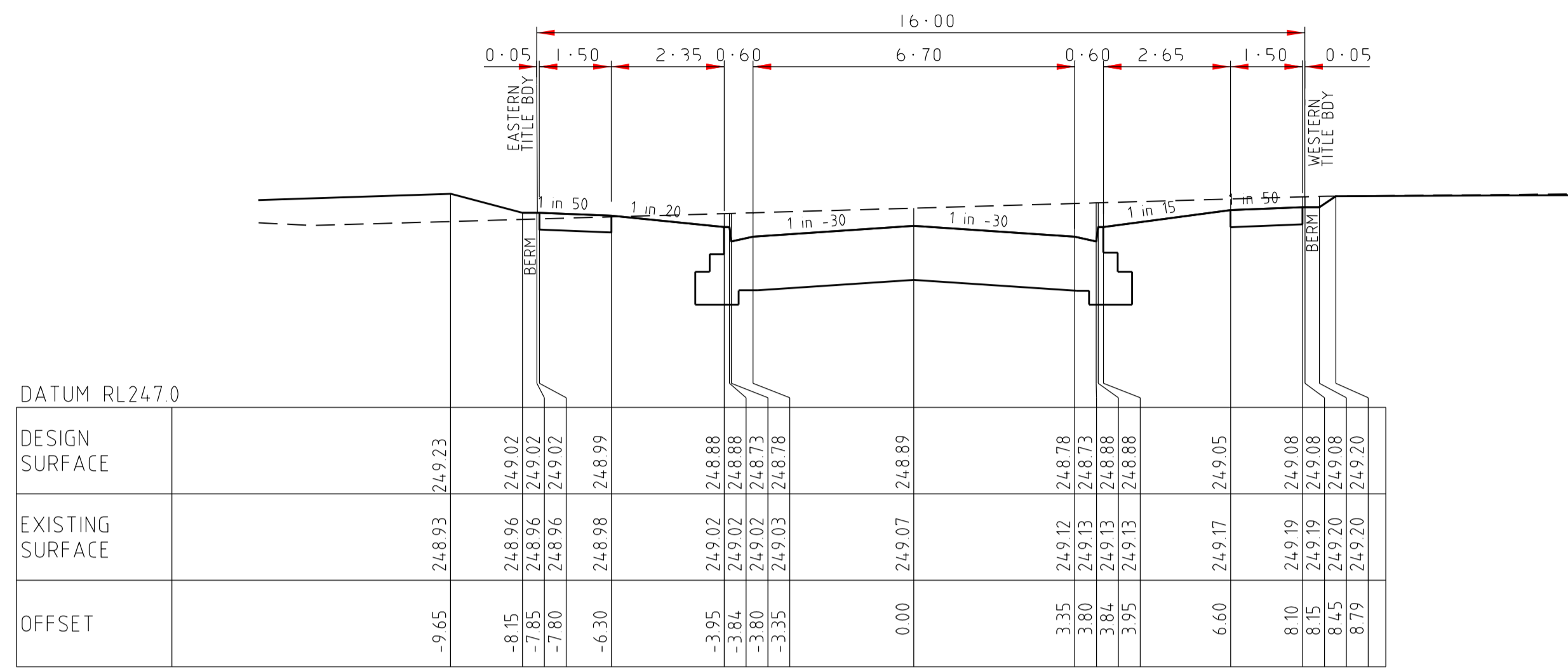
VC LENGTH	DESIGN GRADELINE	DATUM 248
ES LEFT TITLE BDY	250.37	250.27
FS LEFT TITLE BDY	250.05	250.36
LEFT LIP OF KERB	249.76	249.81
DESIGN CL	249.99	250.04
RIGHT LIP OF KERB	249.86	249.86
FS RIGHT TITLE BDY	249.96	249.87
ES RIGHT TITLE BDY	249.96	249.87
CHAINAGE CENTRE LINE	0.00	250.41
	9.59	250.18
	14.73	250.23
	20.00	250.41
	20.39	250.16
	21.15	250.16
	36.58	250.52
	40.00	250.29
	52.01	250.47
	60.00	250.33
	60.07	250.59
	60.73	250.60
	74.73	250.67
	75.20	250.67
	80.00	250.65
	88.73	250.60
	97.15	250.56
	100.00	250.41
	120.00	250.76
	128.01	250.34
	128.62	250.40
	136.73	250.44
	140.00	250.46
	149.80	250.51
	150.73	250.50
	160.00	250.46
	164.73	250.43
	172.38	250.40
	173.15	250.22
	180.00	250.37
	200.00	250.10
	204.01	250.55
	212.73	250.60
	220.00	250.63
	224.26	250.65
	225.23	250.65
	240.00	250.58
	243.42	250.56
	250.04	250.47
	260.00	250.42
	261.11	250.41
	280.00	250.50
	300.00	250.75
	313.31	250.74
	316.73	250.76
	320.00	250.79
	325.23	250.84

ALEXO ROAD

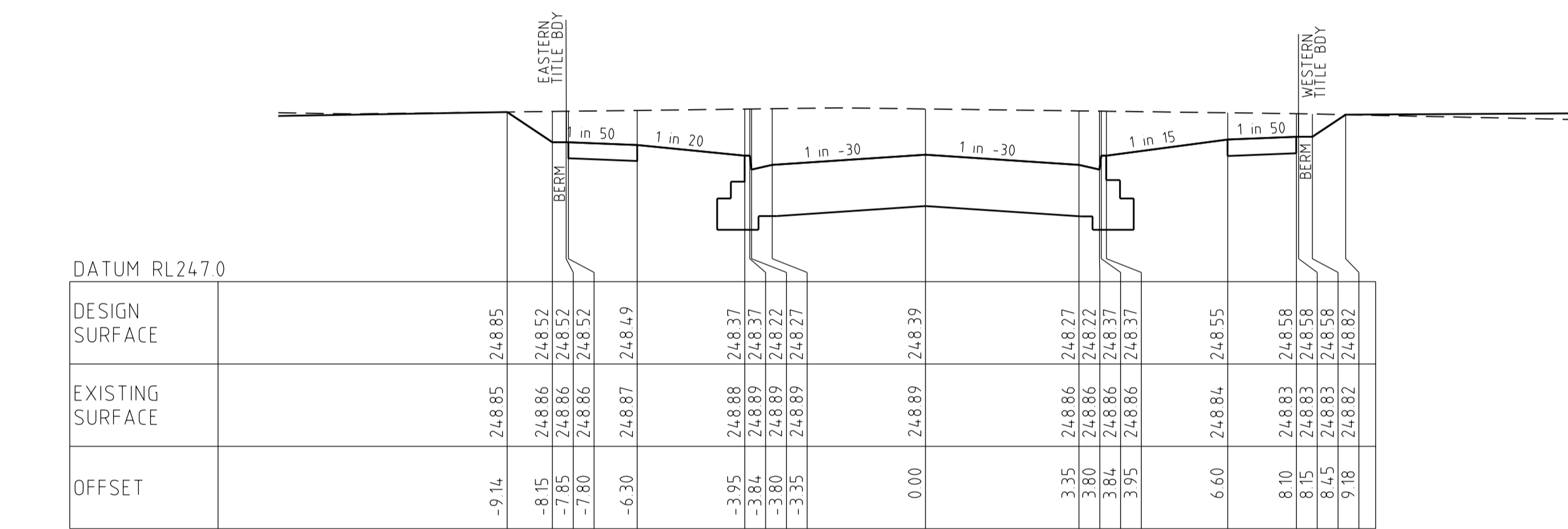
LONGITUDINAL SECTION
SCALE HORIZONTAL 1:500
VERTICAL 1:50

		breese pitt dixon Pty. Ltd. land surveyors civil engineers		1/19 coto street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
MELWAY REF. 366-E-5		SURVEY BJ		MUNICIPALITY HUME	
C 23-03-17 ALEXO ROAD LS UPDATED		DESIGN SBS		REFERENCE 8711 E/4	
B 08-12-16 ROAD NAME UPDATED		DRAWN SBS		SHEET 5 OF 14 C	
A 21-09-16 ISSUED FOR CONSTRUCTION		CHECKED		SCALE AS SHOWN DATUM AHD DATE MAY '16	
VER	DATE	REMARKS		SCALE	DATUM

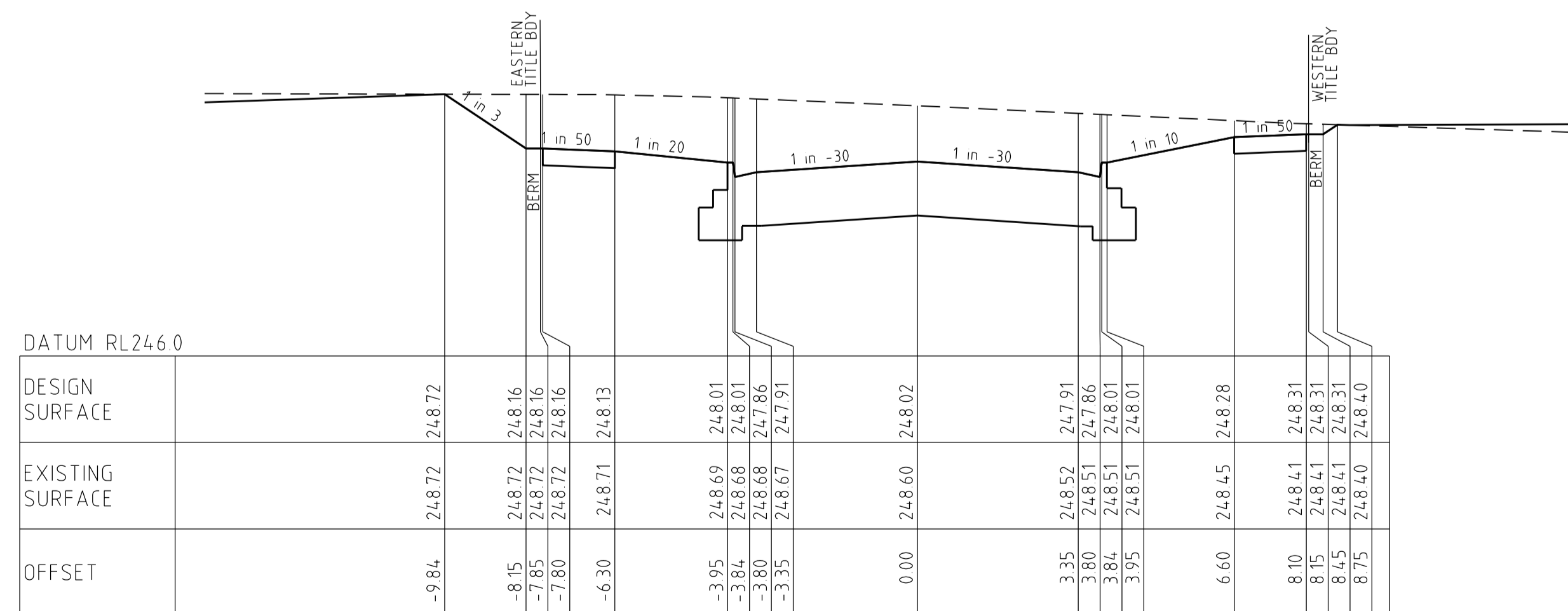
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653.71



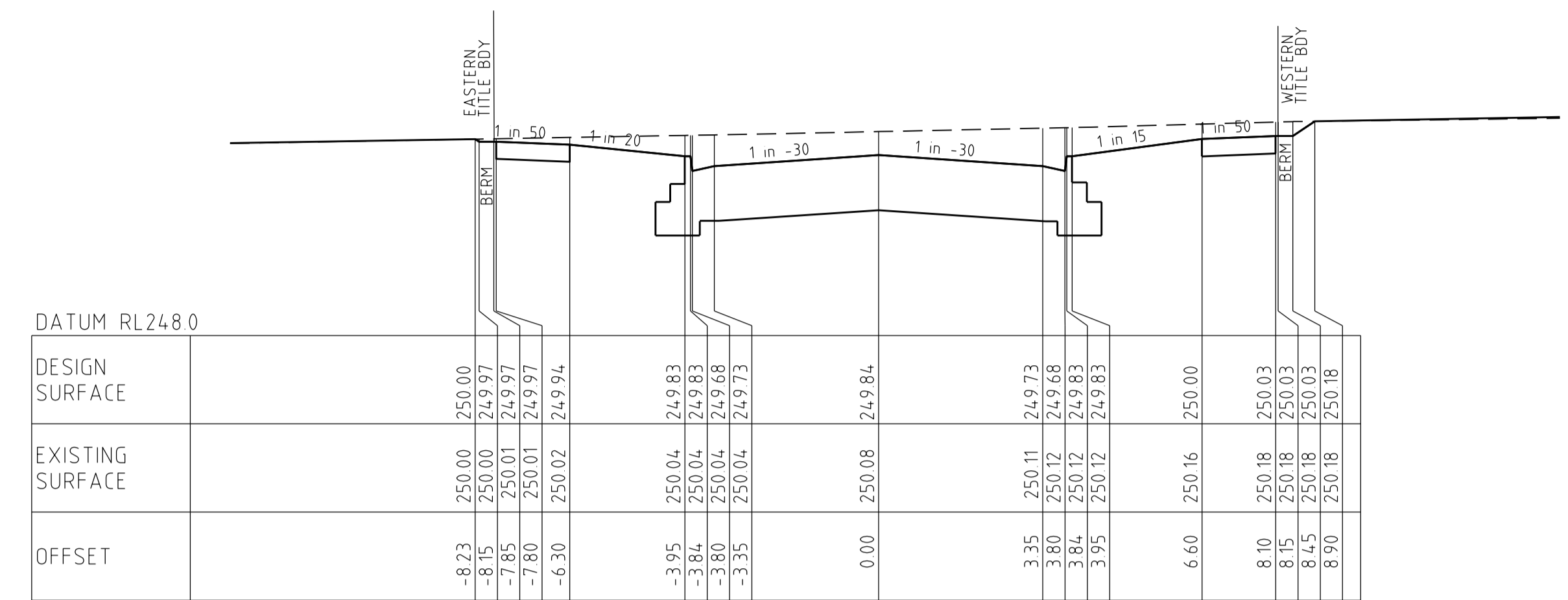
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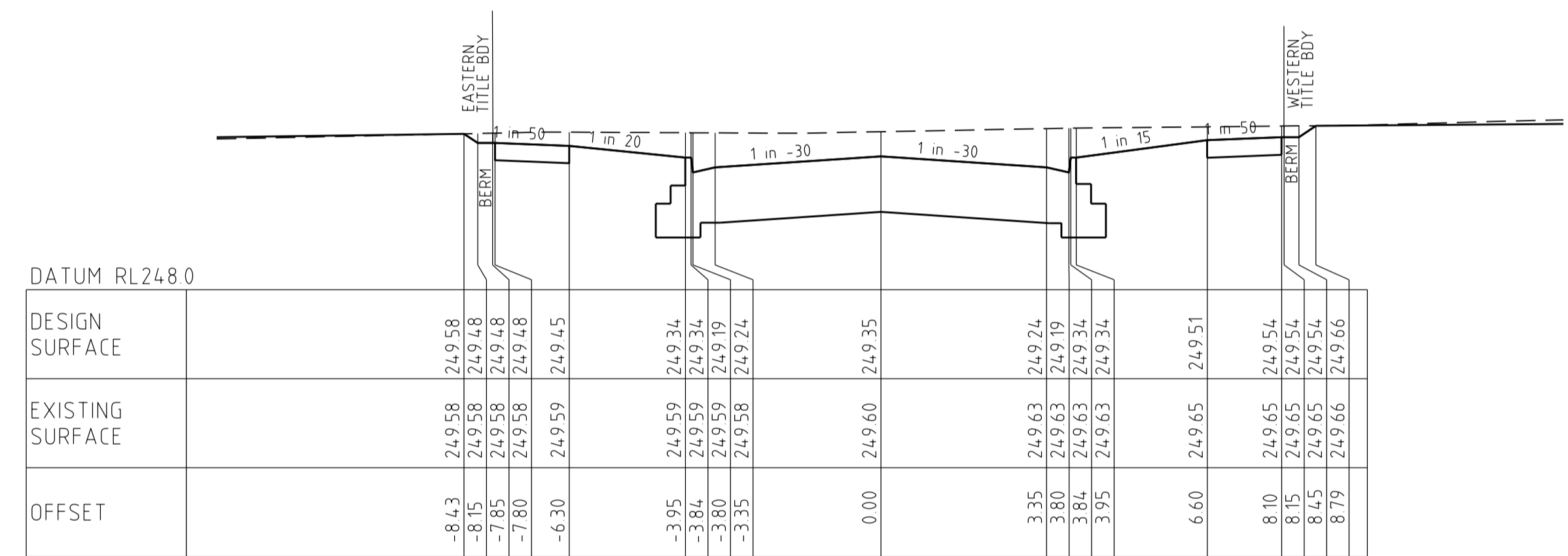
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WHITELEAF DRIVE

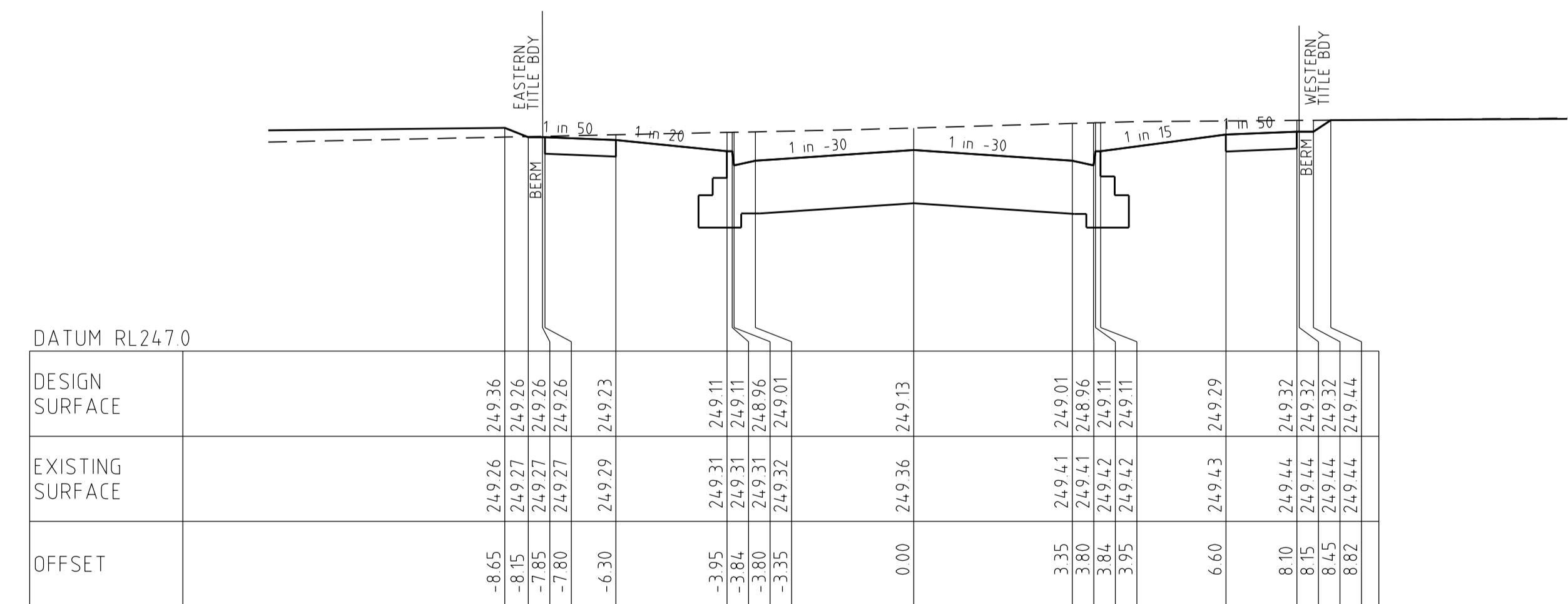
CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50



709.60

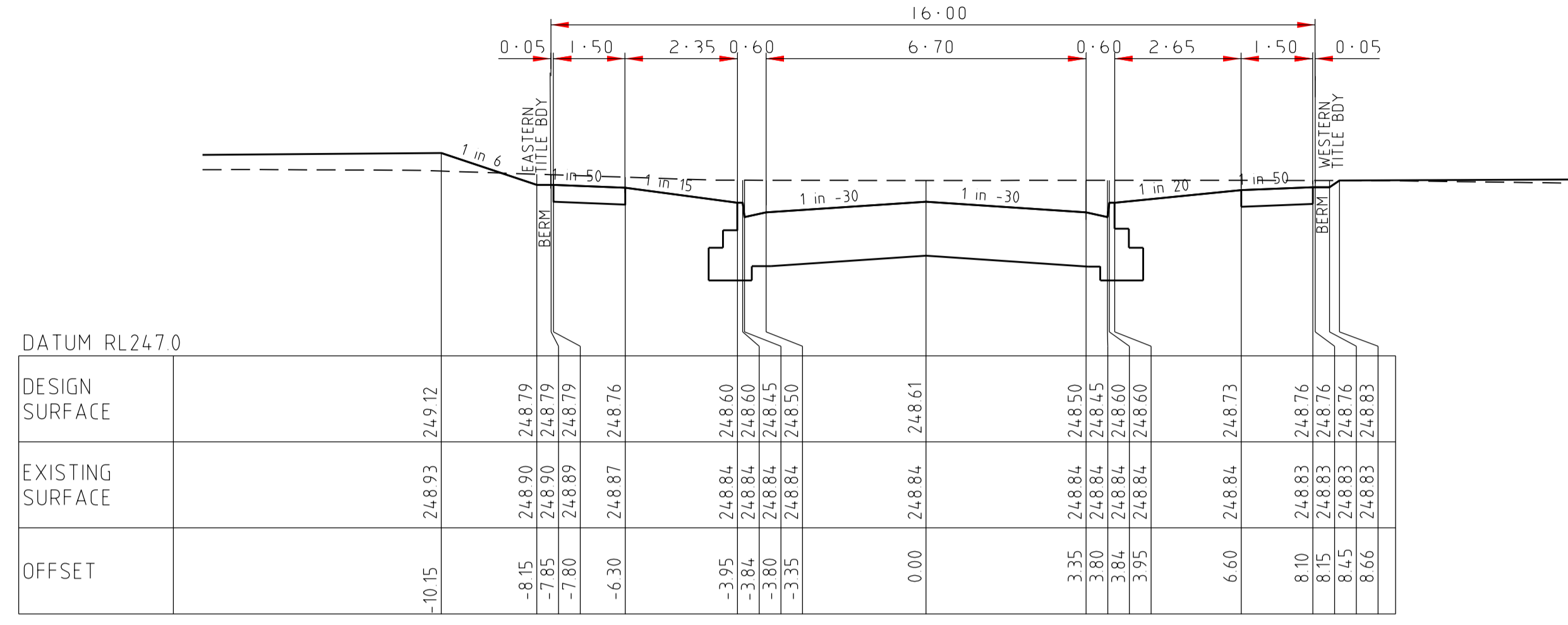


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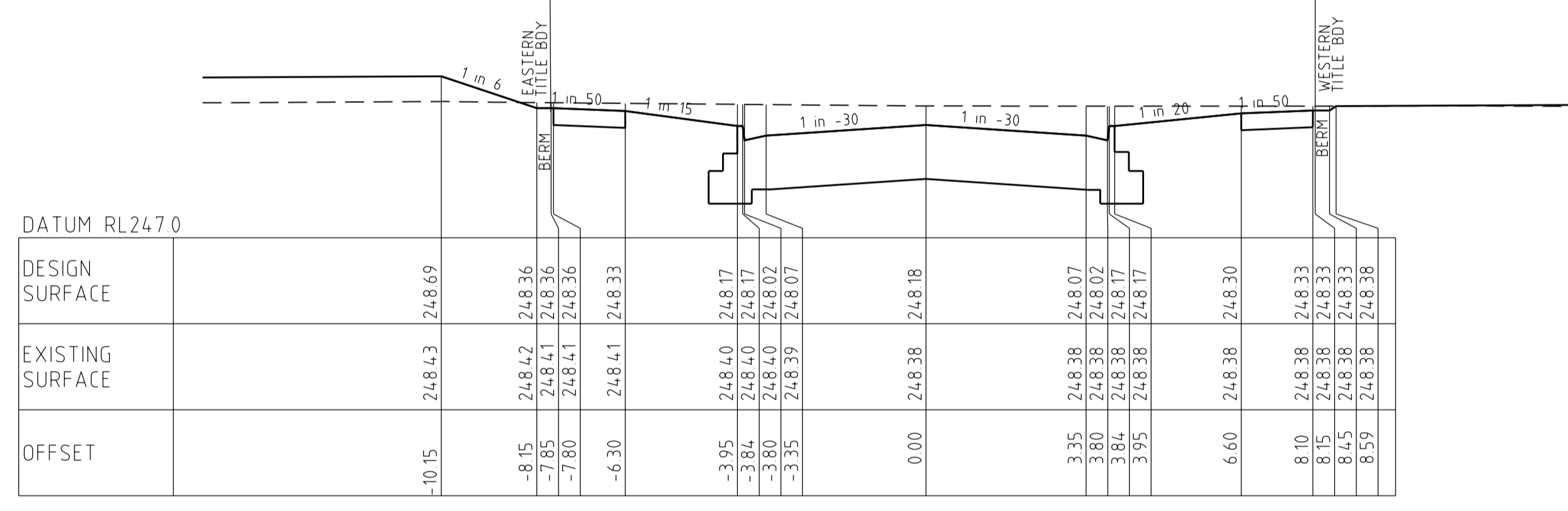


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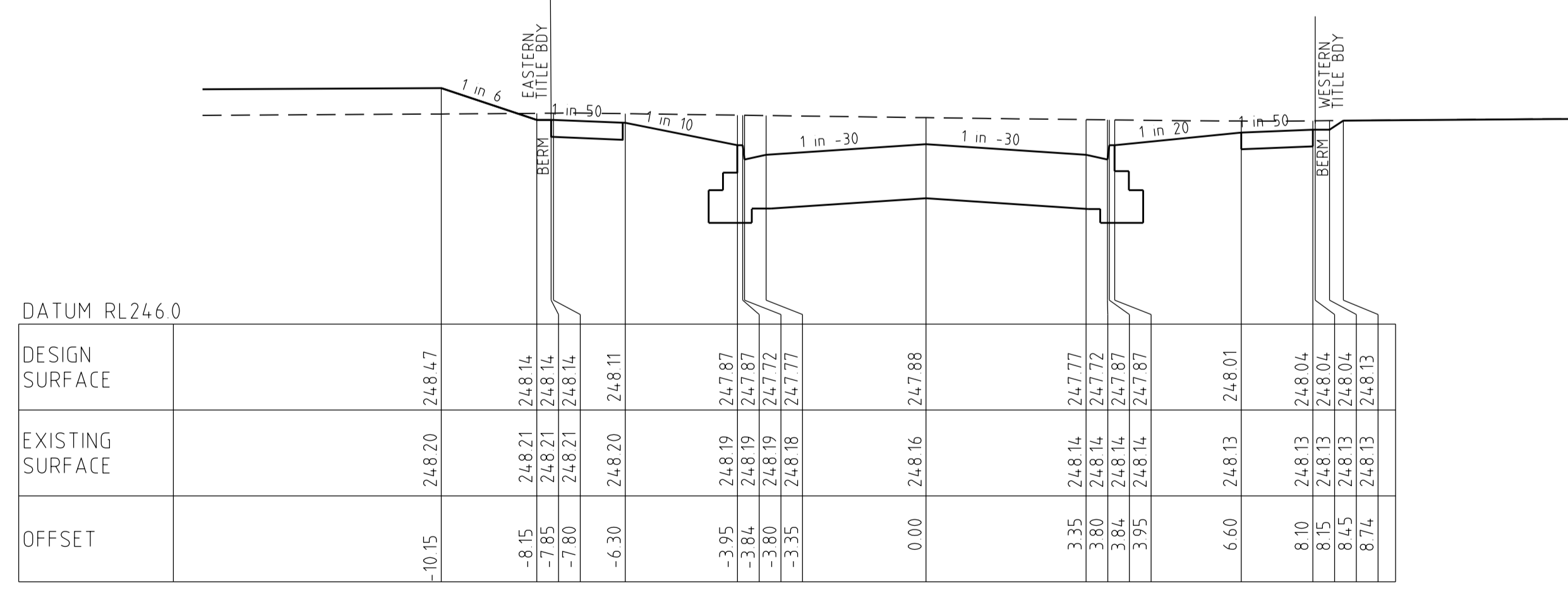
AMENDMENTS				breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
MELWAY REF. 366-E-6		SURVEY BJ		DESIGN SBS		DRAWN SBS	
WARATAH ESTATE STAGE 4				MUNICIPALITY HUME		REFERENCE 8711 E/4	
A 21-09-16 ISSUED FOR CONSTRUCTION		CHECKED		SCALE AS SHOWN DATUM AHD		DATE MAY '16 SHEET 6 OF 14	



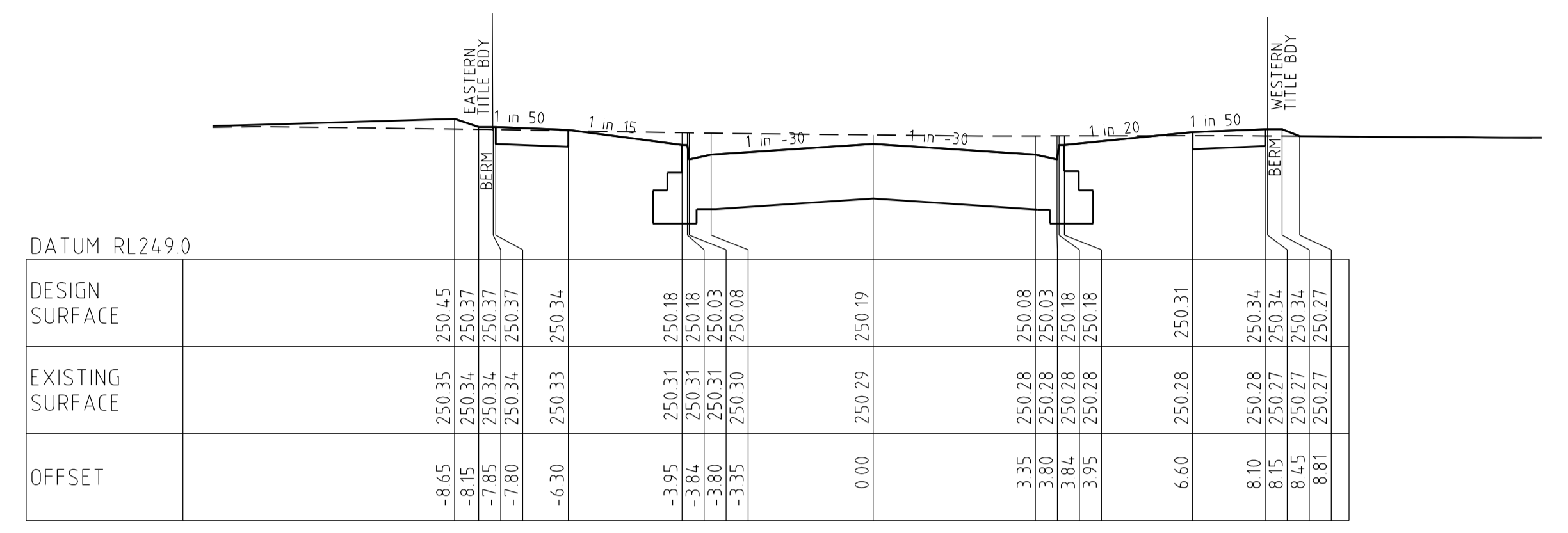
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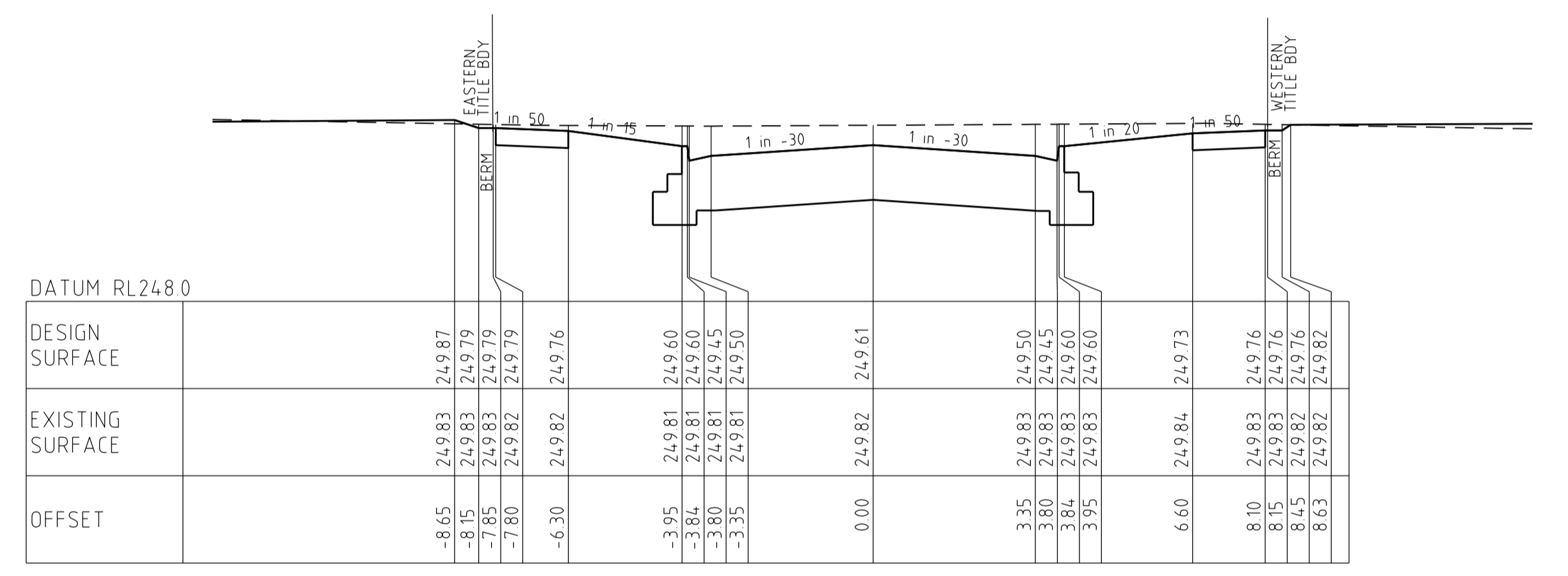
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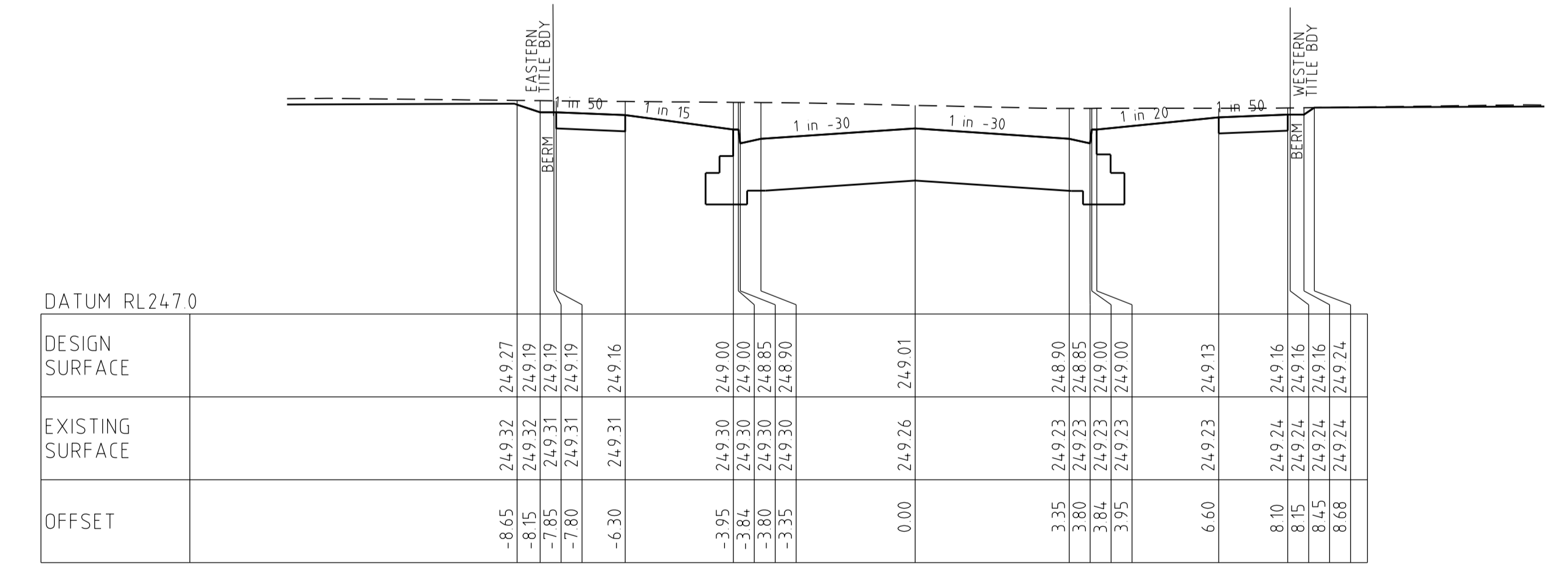
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305.38



276.37

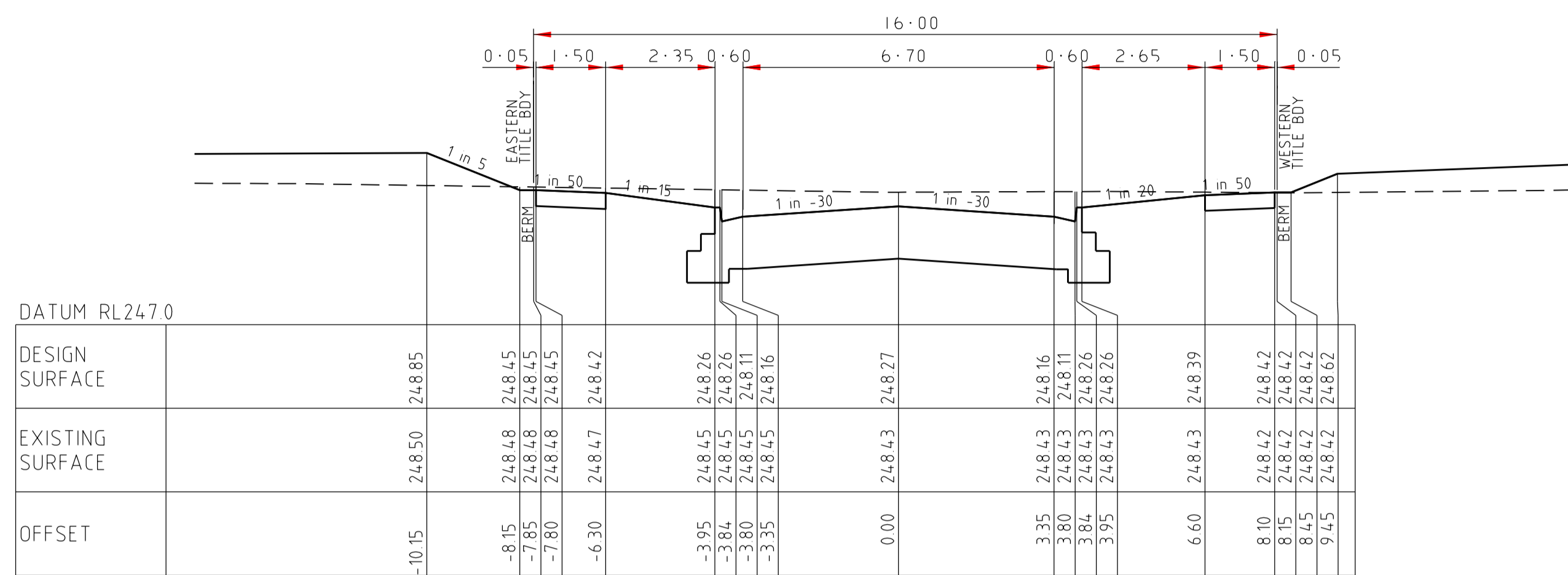


246.37

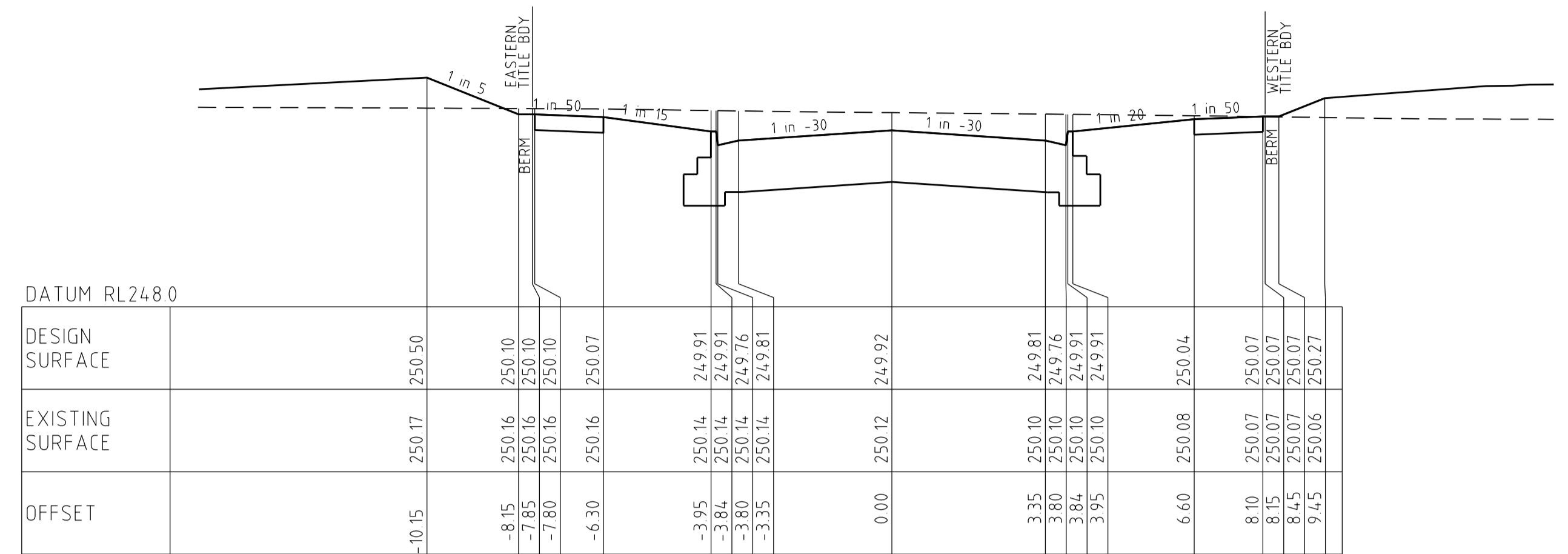
LATTERIDGE WAY

CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50

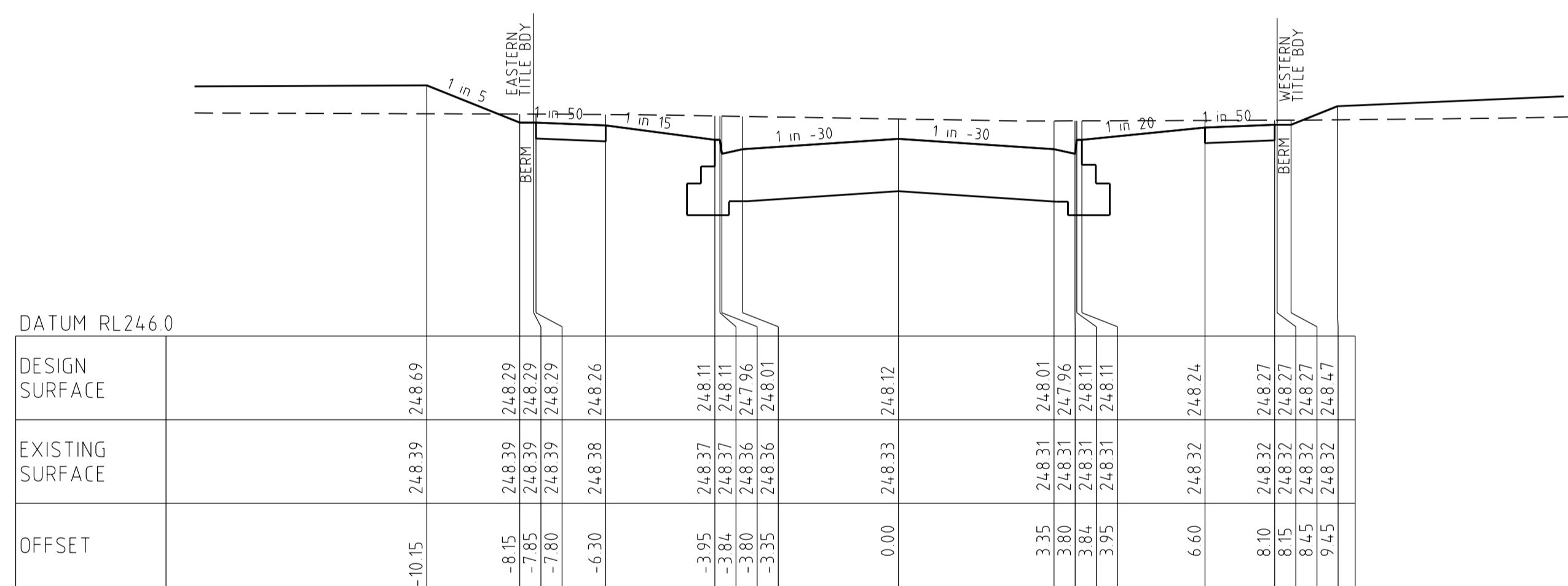
		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
AMENDMENTS A 21-09-16 ISSUED FOR CONSTRUCTION		MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS		WARATAH ESTATE STAGE 4	
VER DATE REMARKS		CHECKED		MUNICIPALITY HUME REFERENCE 8711 E/4	
SCALE AS SHOWN		DATUM AHD		DATE MAY'16	
SHEET 7 OF 14		A		FILE: 21/09/2016	



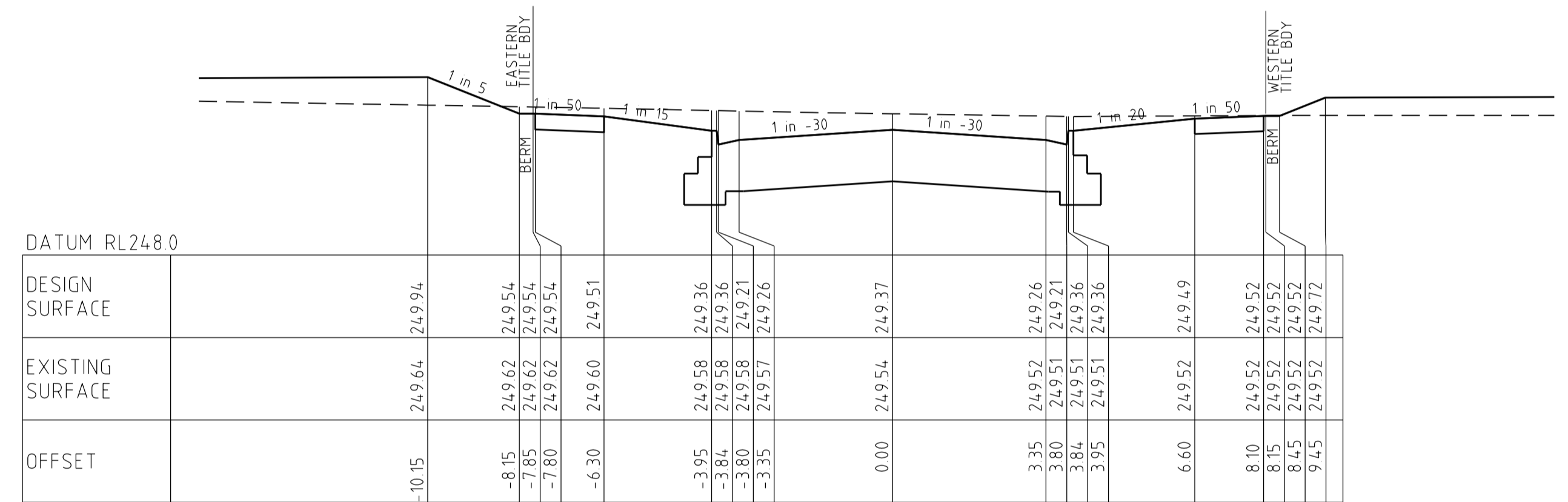
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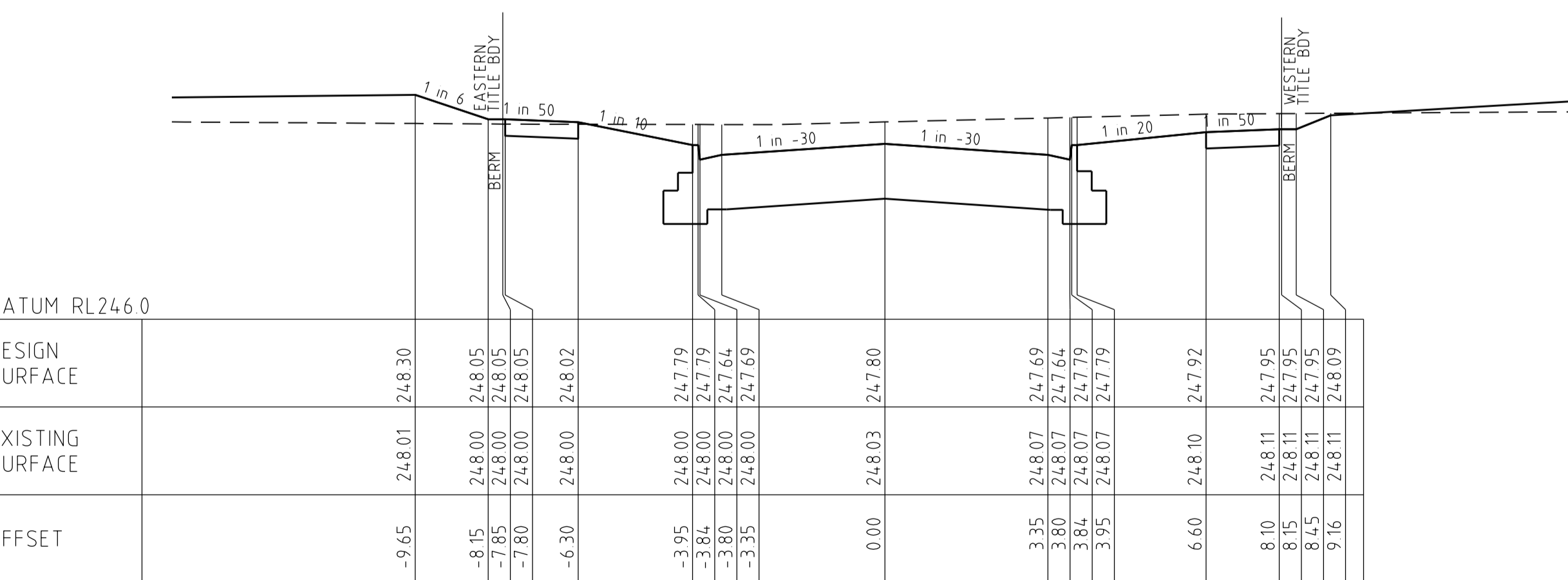
306.00



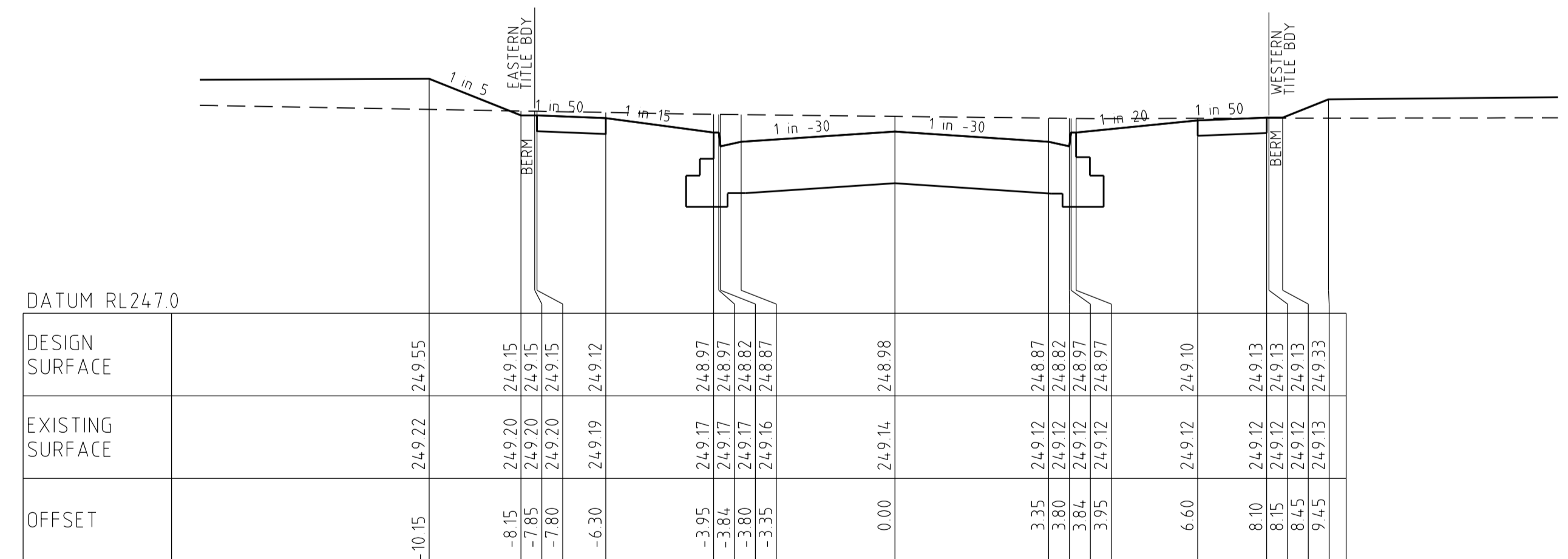
214.81



276.77



196.76

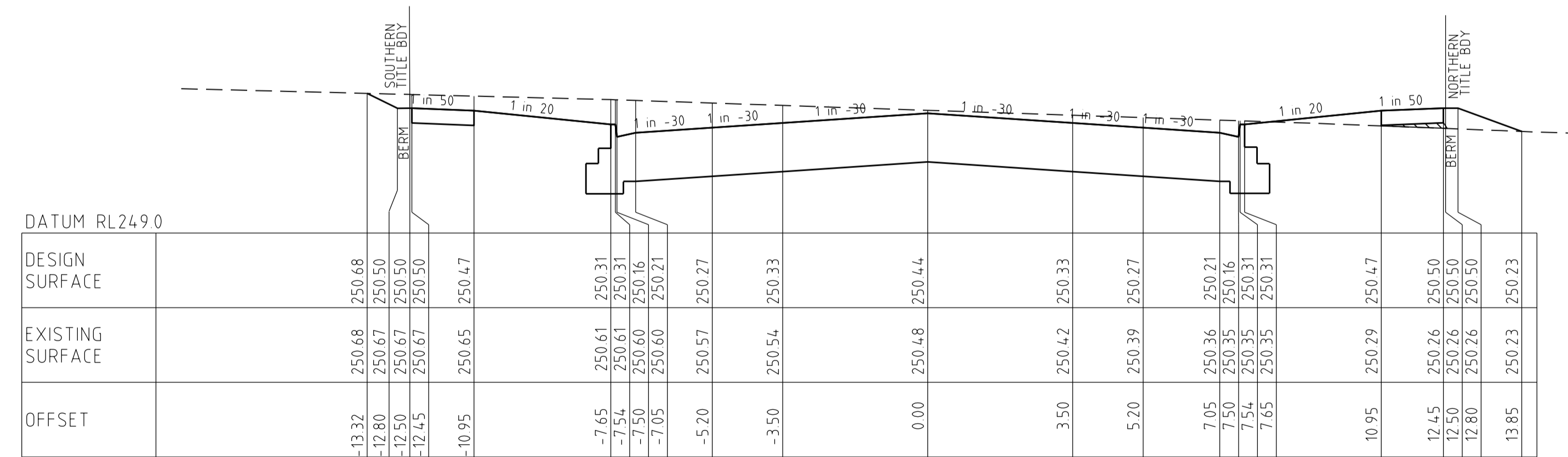
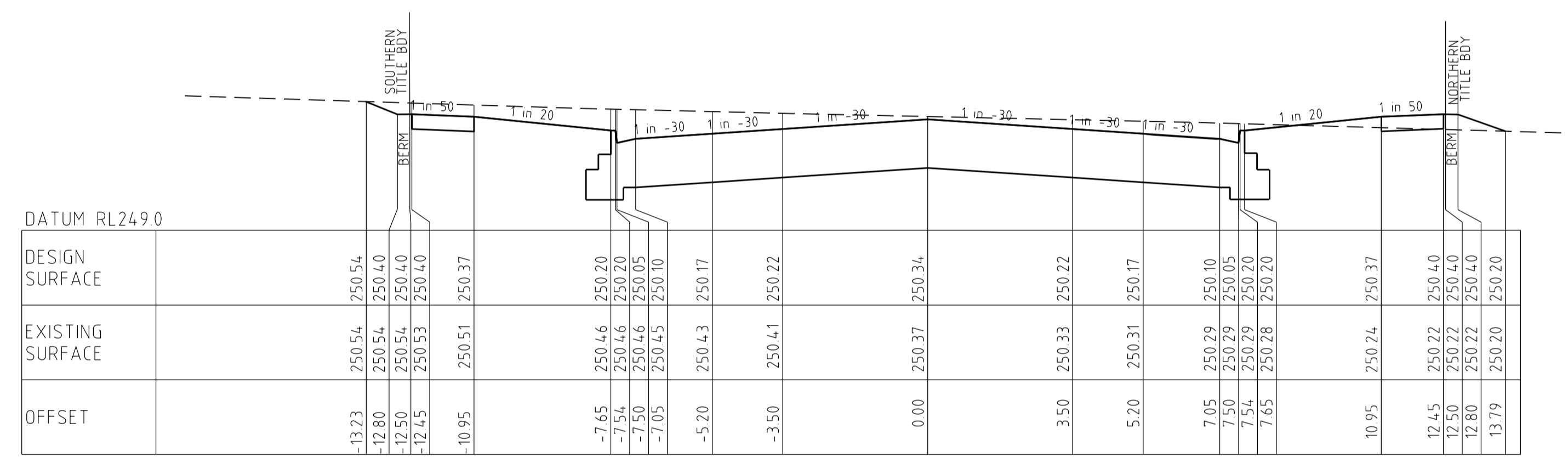
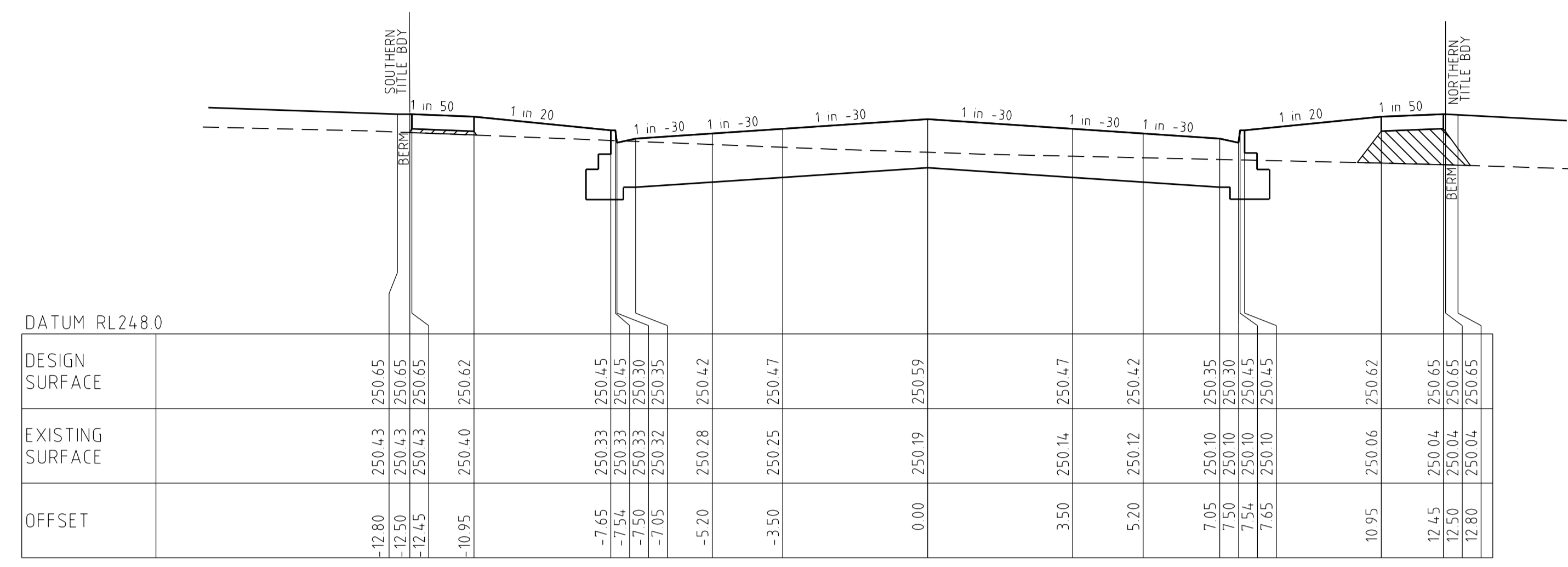
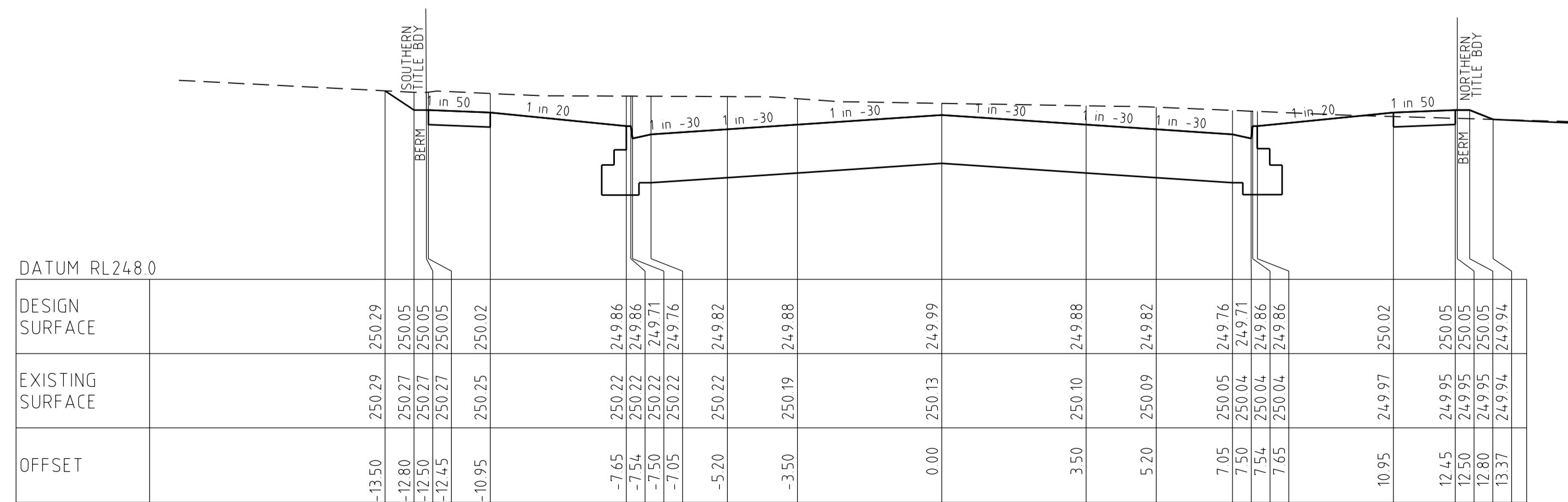
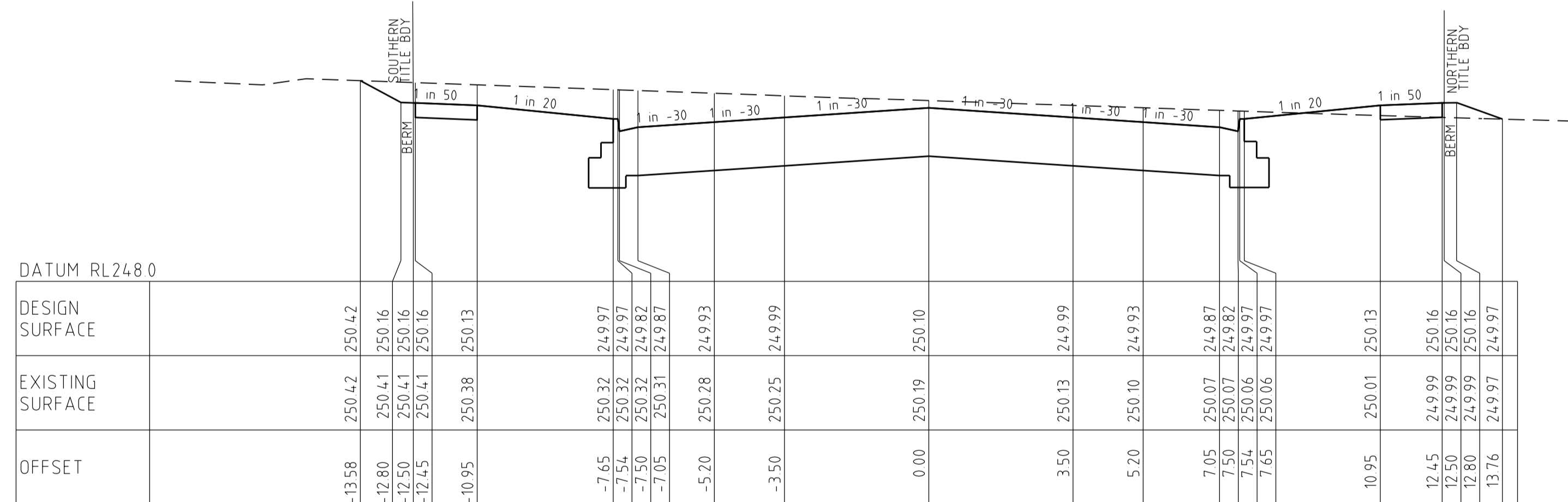
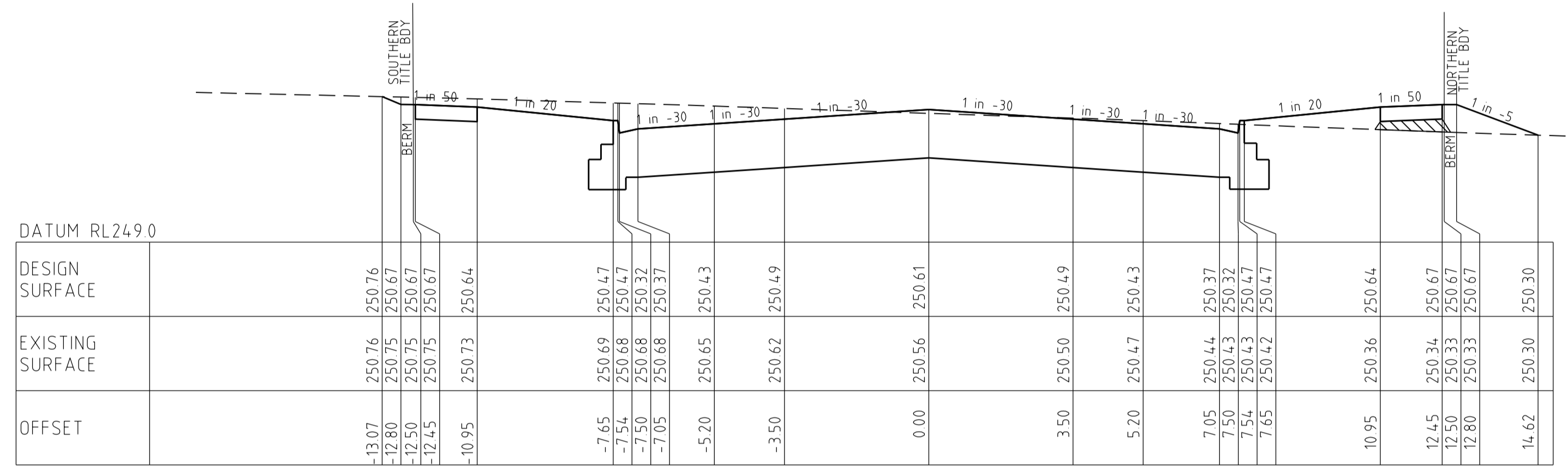
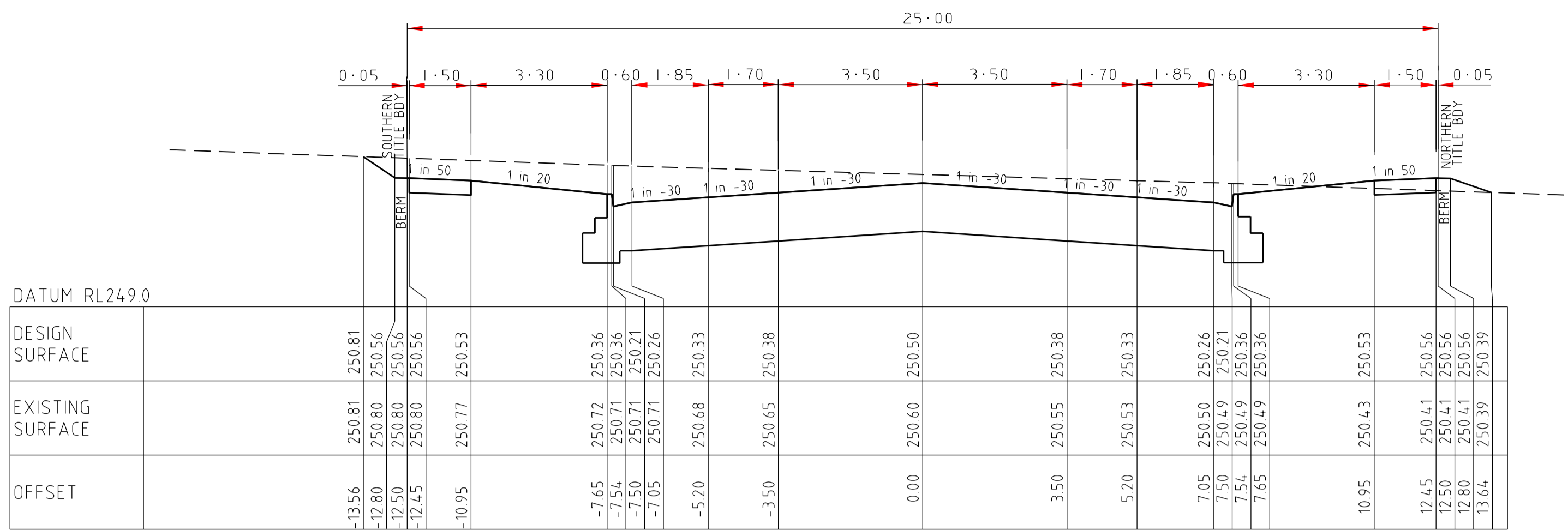


256.27

THORNABY DRIVE

CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50

		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
AMENDMENTS A 21-09-16 ISSUED FOR CONSTRUCTION		MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS		WARATAH ESTATE STAGE 4	
VER DATE REMARKS		CHECKED		MUNICIPALITY HUME REFERENCE 8711 E/4	
SCALE AS SHOWN DATUM AHD DATE MAY '16		SHEET 8 OF 14		FILE: 21/09/2016	

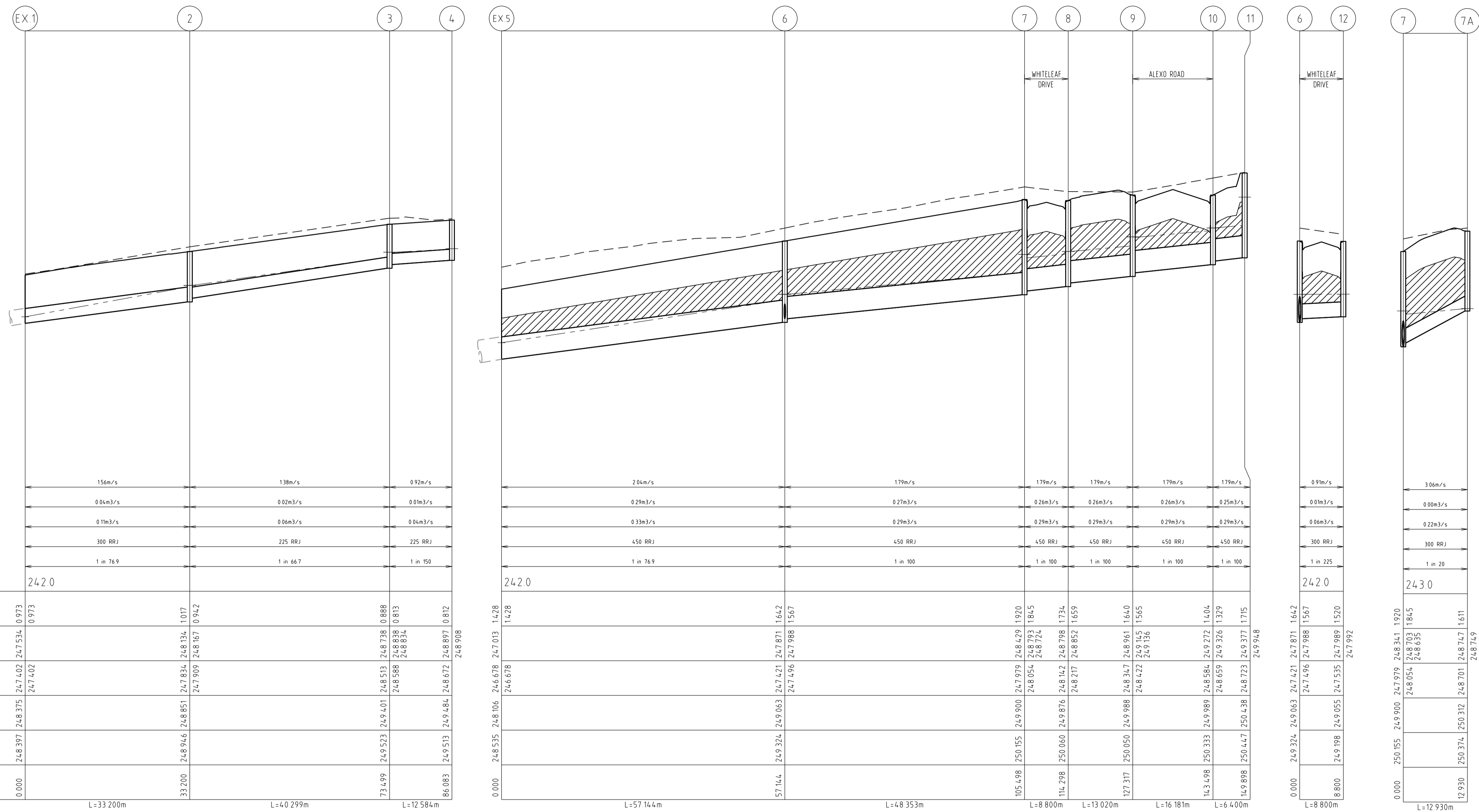


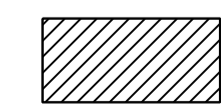
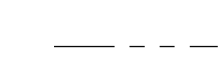
INDICATES CRUSHED ROCK BACKFILL

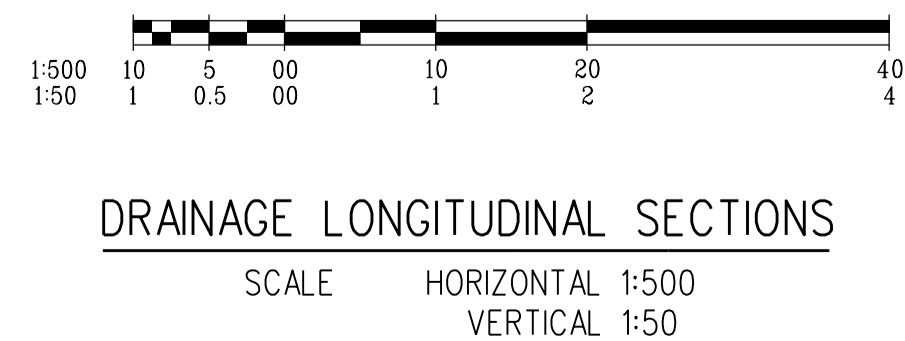
CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50

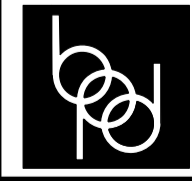
		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 coto street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
WARATAH ESTATE STAGE 4		MUNICIPALITY HUME		REFERENCE 8711 E/4	
AMENDMENTS C 23-03-17 CROSS SECTIONS UPDATED B 08-12-16 ROAD NAME UPDATED A 21-09-16 ISSUED FOR CONSTRUCTION	MELWAY REF. 366-E-5 SURVEY BJ DESIGN SBS DRAWN SBS	CHECKED SCALE AS SHOWN DATUM AHD DATE MAY '16	SHEET 9 OF 14	C	

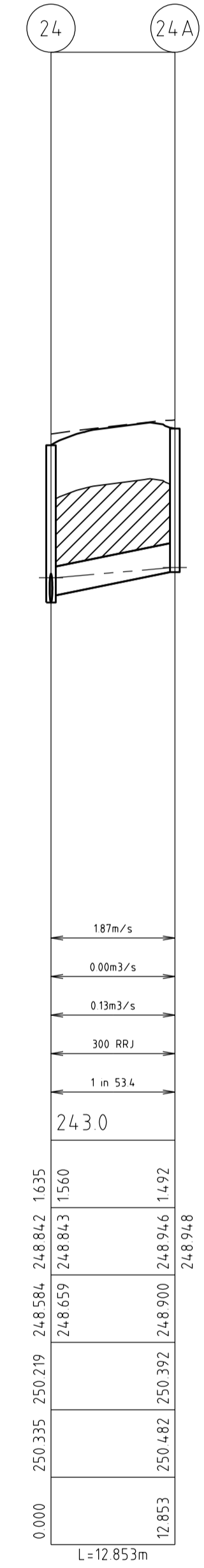
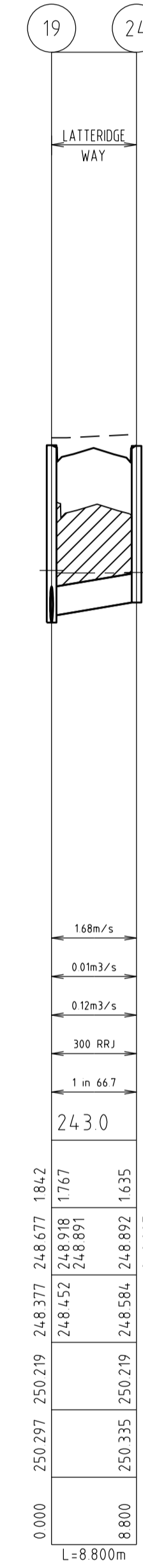
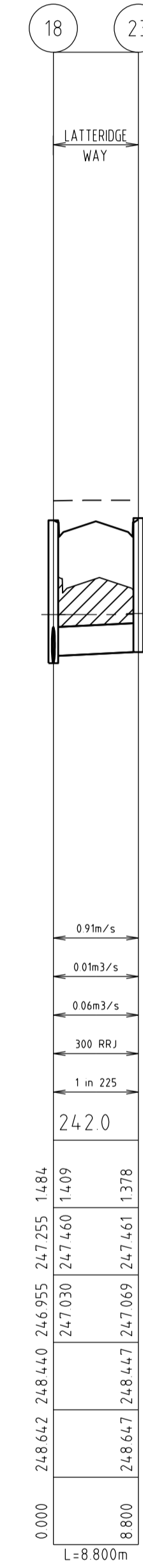
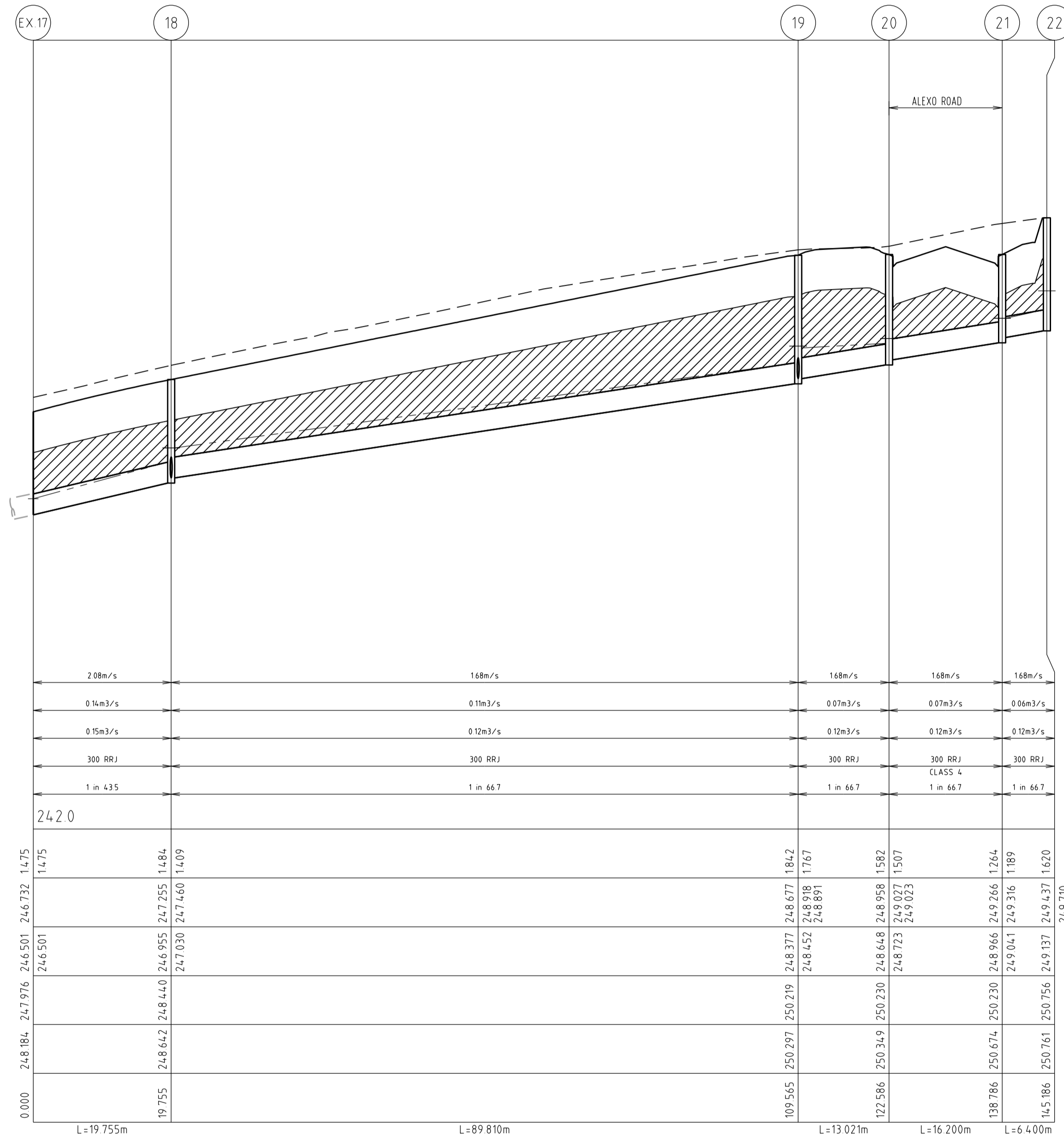
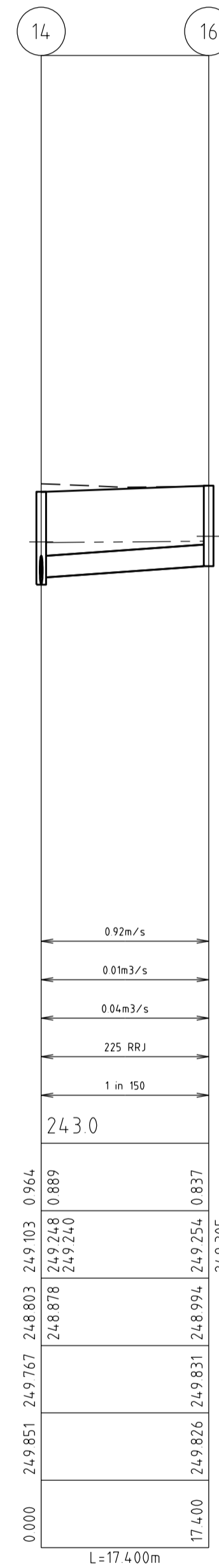
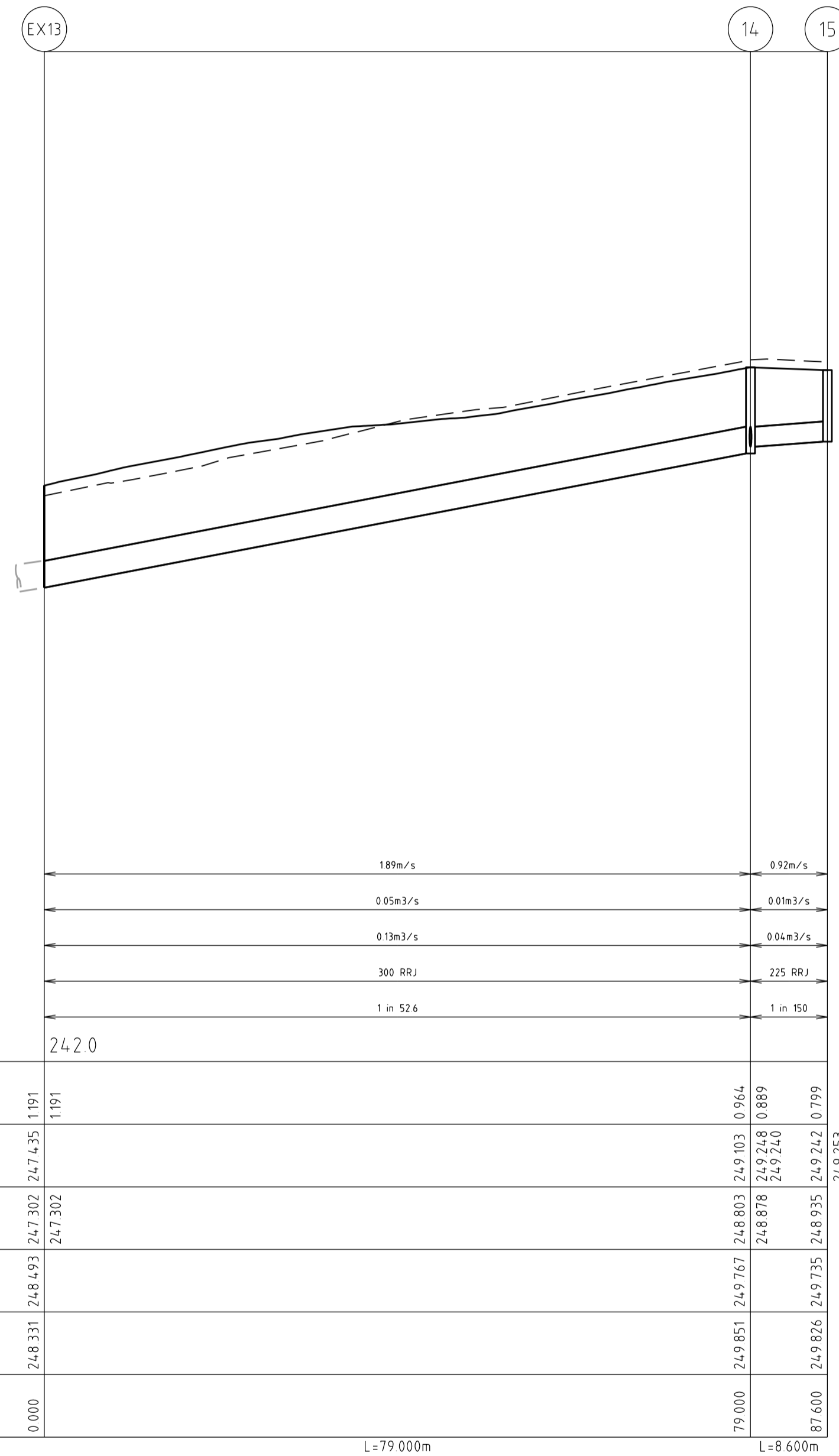
Printed: 26/02/2017



 INDICATES CRUSHED ROCK BACKFILL
 INDICATES 5YR HGL



		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
WARATAH ESTATE STAGE 4		MUNICIPALITY HUME		REFERENCE 8711 E/4	
AMENDMENTS B 08-12-16 ROAD NAME UPDATED A 21-09-16 ISSUED FOR CONSTRUCTION	MELWAY REF. 366-E-5 SURVEY BJ DESIGN SBS DRAWN SBS	SCALE AS SHOWN DATUM AHD DATE MAY '16	SHEET 10 OF 14 B	VER DATE REMARKS CHECKED	



VELOCITY (m/sec)	189m/s	0.92m/s
DESIGN (m3/s)	0.05m3/s	0.01m3/s
CAPACITY (m3/s)	0.13m3/s	0.04m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ	225 RRJ
GRADE	1 in 52.6	1 in 150
DATUM RL	242.0	
DEPTH FS TO INVERT	1.91	0.964
HGL LEVEL	247.302	249.253
INVERT	247.302	249.253
FINISHED SURFACE	248.493	249.767
NATURAL SURFACE	248.331	249.826
CHAINAGE	0.000	87.600

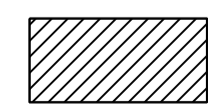
VELOCITY (m/sec)	0.92m/s
DESIGN (m3/s)	0.01m3/s
CAPACITY (m3/s)	0.04m3/s
DIAMETER AND TYPE (CLASS 2)	225 RRJ
GRADE	1 in 150
DATUM RL	243.0
DEPTH FS TO INVERT	0.964
HGL LEVEL	249.253
INVERT	249.253
FINISHED SURFACE	248.878
NATURAL SURFACE	248.878
CHAINAGE	0.000

VELOCITY (m/sec)	2.08m/s	1.68m/s	1.68m/s	1.68m/s
DESIGN (m3/s)	0.14m3/s	0.11m3/s	0.07m3/s	0.06m3/s
CAPACITY (m3/s)	0.15m3/s	0.12m3/s	0.12m3/s	0.12m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ	300 RRJ	300 RRJ	300 RRJ
GRADE	1 in 43.5	1 in 66.7	1 in 66.7	1 in 66.7
DATUM RL	242.0			
DEPTH FS TO INVERT	14.75	18.42	17.67	16.20
HGL LEVEL	246.501	248.677	248.891	249.437
INVERT	246.501	248.677	248.891	249.437
FINISHED SURFACE	247.976	248.377	248.648	249.137
NATURAL SURFACE	248.184	248.440	248.648	249.041
CHAINAGE	0.000	109.565	122.586	145.186

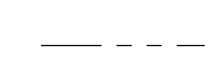
VELOCITY (m/sec)	0.91m/s
DESIGN (m3/s)	0.01m3/s
CAPACITY (m3/s)	0.04m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ
GRADE	1 in 225
DATUM RL	242.0
DEPTH FS TO INVERT	14.84
HGL LEVEL	247.461
INVERT	247.461
FINISHED SURFACE	248.440
NATURAL SURFACE	248.440
CHAINAGE	0.000

VELOCITY (m/sec)	1.68m/s
DESIGN (m3/s)	0.01m3/s
CAPACITY (m3/s)	0.12m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ
GRADE	1 in 66.7
DATUM RL	243.0
DEPTH FS TO INVERT	17.67
HGL LEVEL	248.891
INVERT	248.891
FINISHED SURFACE	248.452
NATURAL SURFACE	248.452
CHAINAGE	0.000

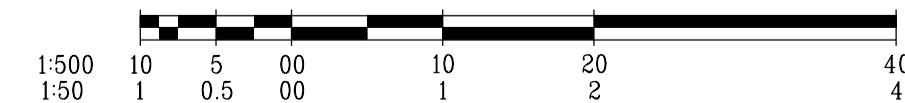
VELOCITY (m/sec)	1.87m/s
DESIGN (m3/s)	0.00m3/s
CAPACITY (m3/s)	0.13m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ
GRADE	1 in 53.4
DATUM RL	243.0
DEPTH FS TO INVERT	16.35
HGL LEVEL	248.948
INVERT	248.948
FINISHED SURFACE	248.659
NATURAL SURFACE	248.659
CHAINAGE	0.000



INDICATES CRUSHED ROCK BACKFILL



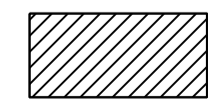
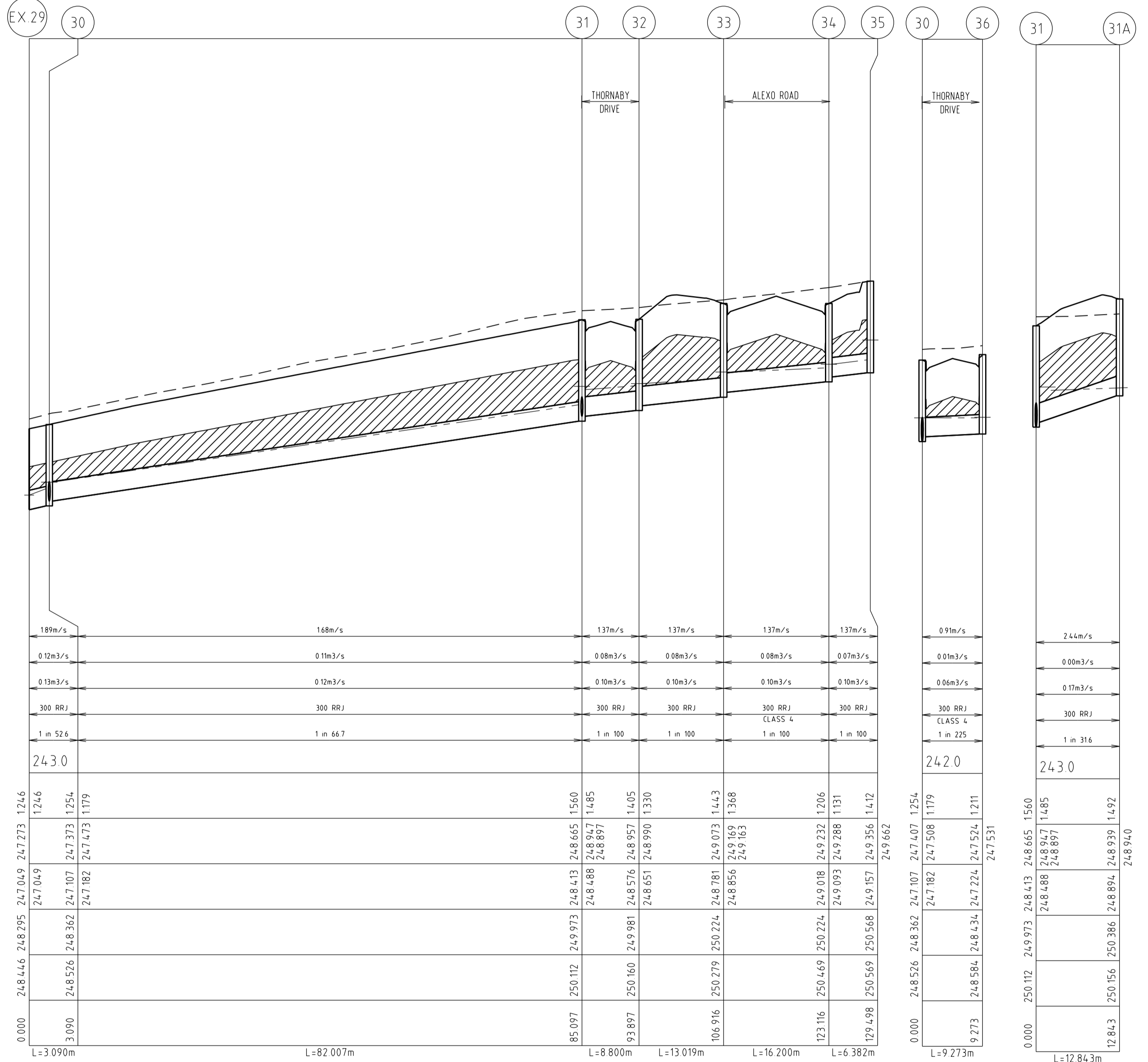
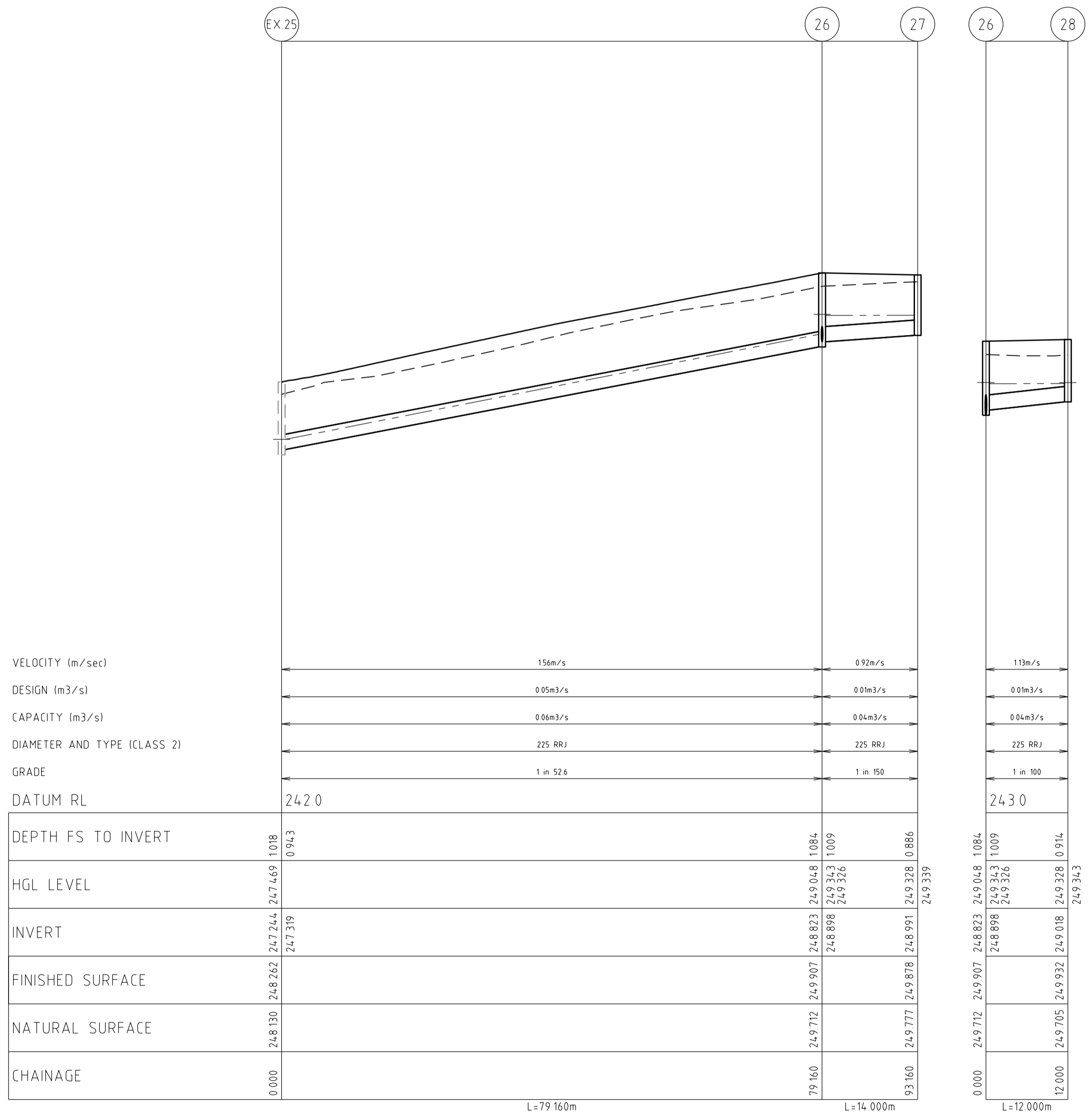
INDICATES 5YR HGL



DRAINAGE LONGITUDINAL SECTIONS

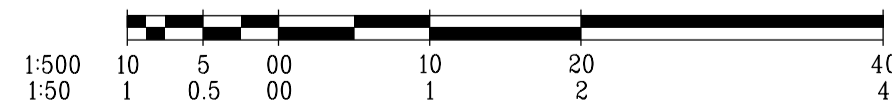
SCALE HORIZONTAL 1:500
VERTICAL 1:50

		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
WARATAH ESTATE STAGE 4		MUNICIPALITY HUME		REFERENCE 8711 E/4	
AMENDMENTS B 08-12-16 ROAD NAME UPDATED A 21-09-16 ISSUED FOR CONSTRUCTION	MELWAY REF. 366-E-5 SURVEY BJ DESIGN SBS DRAWN SBS	CHECKED SCALE AS SHOWN DATUM AHD DATE MAY '16	SHEET 11 OF 14	B	FILE: 8711 E/4/22/2016



INDICATES CRUSHED ROCK BACKFILL

INDICATES 5YR HGL

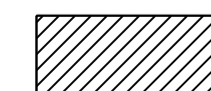
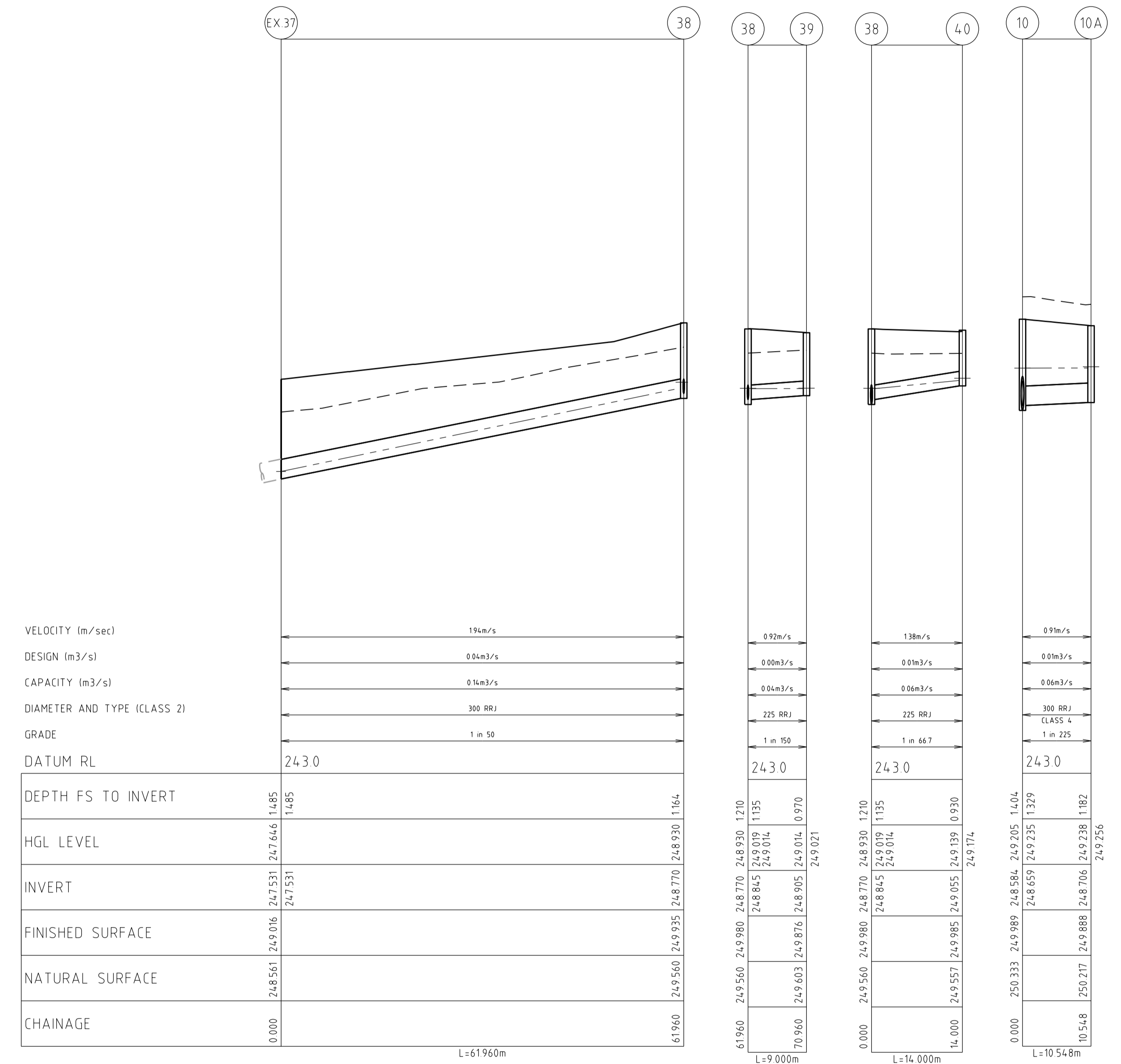


DRAINAGE LONGITUDINAL SECTIONS

SCALE HORIZONTAL 1:500
VERTICAL 1:50

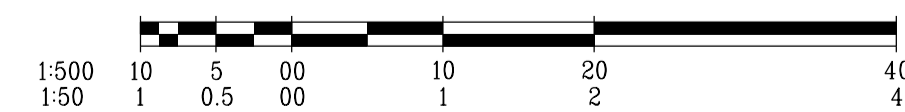
		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
WARATAH ESTATE STAGE 4		MUNICIPALITY HUME		REFERENCE 8711 E/4	
AMENDMENTS B 08-12-16 ROAD NAME UPDATED A 21-09-16 ISSUED FOR CONSTRUCTION	MELWAY REF. 366-E-5 SURVEY BJ DESIGN SBS DRAWN SBS	CHECKED SCALE AS SHOWN DATUM AHD DATE MAY '16	SHEET 12 OF 14	B	1:\8711\ENG\ST04\LEV_R12.DL51.B.dgn

PIT SCHEDULE											
Pit No.	TYPE	INTERNAL		INLET		OUTLET		PIT		SD DRAWINGS	REMARKS
		WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH		
Ex.1	ENDPIPE			300	247.402						CONNECT TO EXISTING END PIPE
2	JUNCTION PIT	600	900	225	247.909	300	247.834	248.851	1.017	MPA EDCM STD DWG 605	
3	JUNCTION PIT	600	900	225	248.588	225	248.513	249.401	0.888	MPA EDCM STD DWG 605	
4	JUNCTION PIT	600	900			225	248.672	249.486	0.812	MPA EDCM STD DWG 605	
Ex.5	ENDPIPE			450	246.678						CONNECT TO EXISTING END PIPE
6	GRATED ENTRY PIT(HB2)	600	900	450	247.496	450	247.421	249.063	1.642	MPA EDCM STD DWG 601	
7	GRATED ENTRY PIT(HB2)	600	900	450	248.054	450	247.979	249.900	1.920	MPA EDCM STD DWG 601	
7A	GRATED ENTRY PIT(HB2)	600	900			300	248.701	250.312	1.611	MPA EDCM STD DWG 601	
8	GRATED ENTRY PIT(HB2)	600	900	450	248.217	450	248.142	249.876	1.734	MPA EDCM STD DWG 601	
9	GRATED ENTRY PIT(HB2)	600	900	450	248.422	450	248.347	249.988	1.640	MPA EDCM STD DWG 601	
10	JUNCTION PIT			450	248.659	450	248.584	249.989	1.404	MPA EDCM STD DWG 605	
10A	GRATED ENTRY PIT(HB2)	600	900			300	248.706	249.888	1.182	MPA EDCM STD DWG 601	
11	GRATED PIT	600	900			450	248.723	250.435	1.715	MPA EDCM STD DWG 605	PROVIDE GRATED COVER
12	GRATED ENTRY PIT(HB2)	600	900			300	247.535	249.055	1.520	MPA EDCM STD DWG 601	
Ex.13	ENDPIPE			300	247.302						CONNECT TO EXISTING END PIPE
14	JUNCTION PIT	600	900	225	248.878	300	248.803	249.768	0.964	MPA EDCM STD DWG 605	
15	JUNCTION PIT	600	900			225	248.935	249.736	0.799	MPA EDCM STD DWG 605	
16	JUNCTION PIT	600	900			225	248.994	249.832	0.837	MPA EDCM STD DWG 605	
Ex.17	ENDPIPE			300	246.501						CONNECT TO EXISTING END PIPE
18	GRATED ENTRY PIT(HB2)	600	900	300	247.030	300	246.955	248.440	1.484	MPA EDCM STD DWG 601	
19	GRATED ENTRY PIT(HB2)	600	900	300	248.452	300	248.377	250.219	1.842	MPA EDCM STD DWG 601	
20	GRATED ENTRY PIT(HB2)	600	900	300	248.723	300	248.648	250.230	1.582	MPA EDCM STD DWG 601	
21	GRATED ENTRY PIT(HB2)	600	900	300	249.041	300	248.966	250.230	1.264	MPA EDCM STD DWG 601	
22	GRATED PIT	600	900			300	249.137	250.755	1.620	MPA EDCM STD DWG 605	PROVIDE GRATED COVER.
23	GRATED ENTRY PIT(HB2)	600	900			300	247.069	248.447	1.378	MPA EDCM STD DWG 601	
24	GRATED ENTRY PIT(HB2)	600	900			300	248.584	250.219	1.635	MPA EDCM STD DWG 601	
24A	GRATED ENTRY PIT(HB2)	600	900			300	248.659				
Ex.25	Ex. JUNCTION PIT	600	900	225	247.319	300	247.244	248.262	1.018		CONNECT TO EXISTING BLOCKOUT
26	JUNCTION PIT	600	900	225	248.898	225	248.823	249.907	1.084	MPA EDCM STD DWG 605	
27	JUNCTION PIT	600	900			225	248.991	249.878	0.886	MPA EDCM STD DWG 605	
28	JUNCTION PIT	600	900			225	249.018	249.932	0.914	MPA EDCM STD DWG 605	
Ex.29	ENDPIPE			300	247.049						CONNECT TO EXISTING END PIPE
30	GRATED ENTRY PIT(HB2)	600	900	300	247.182	300	247.107	248.362	1.254	MPA EDCM STD DWG 601	
31	GRATED ENTRY PIT(HB2)	600	900	300	248.488	300	248.413	249.973	1.560	MPA EDCM STD DWG 601	
31A	GRATED ENTRY PIT(HB2)	600	900			300	248.488				
32	GRATED ENTRY PIT(HB2)	600	900	300	248.651	300	248.576	249.981	1.405	MPA EDCM STD DWG 601	
33	GRATED ENTRY PIT(HB2)	600	900	300	248.856	300	248.781	250.224	1.443	MPA EDCM STD DWG 601	
34	GRATED ENTRY PIT(HB2)	600	900	300	249.093	300	249.018	250.224	1.206	MPA EDCM STD DWG 601	
35	GRATED PIT	600	900			300	249.157	250.568	1.412	MPA EDCM STD DWG 605	PROVIDE GRATED COVER.
36	GRATED ENTRY PIT(HB2)	600	900			300	247.224	248.434	1.211	MPA EDCM STD DWG 601	
Ex.37	ENDPIPE			300	247.531						CONNECT TO EXISTING END PIPE
38	JUNCTION PIT	600	900	225	248.845	300	248.770	249.980	1.210	MPA EDCM STD DWG 605	
39	JUNCTION PIT	600	900			225	248.905	249.874	0.970	MPA EDCM STD DWG 605	
40	JUNCTION PIT	600	900			225	249.055	249.985	0.930	MPA EDCM STD DWG 605	



INDICATES CRUSHED ROCK BACKFILL

INDICATES 5YR HGL




DRAINAGE LONGITUDINAL SECTIONS

SCALE HORIZONTAL 1:500
VERTICAL 1:50

		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 coto street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
MELWAY REF. 366-E-5 SURVEY BJ		WARATAH ESTATE STAGE 4		MUNICIPALITY HUME	
B 23-10-17 PIT SCHEDULE UPDATED, DLS 10-10A ADDED DESIGN SBS		A 21-09-16 ISSUED FOR CONSTRUCTION DRAWN SBS		REFERENCE 8711 E/4	
VER. DATE A 21-09-16	REMARKS ISSUED FOR CONSTRUCTION	CHECKED	SCALE AS SHOWN	DATUM AHD	DATE MAY '16
			SHEET 13 OF 14	B	



PARKING PLAN
SCALE 1:500

				 breese pitt dixon pty. ltd. land surveyors civil engineers 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310		MUNICIPALITY	
						HUME	
				WARATAH ESTATE STAGE 4		REFERENCE	
						8711 E/4	
AMENDMENTS		MELWAY REF.	366-E-5	SCALE	AS SHOWN	DATUM	AHD
C	23-03-17	PARKING PLAN UPDATED		DATE	MAY '16	SHEET	14 OF 14
B	08-12-16	ROAD NAME UPDATED		CHECKED			
A	21-09-16	ISSUED FOR CONSTRUCTION					
VER	DATE	REMARKS	CHECKED				