

MAMBOURIN ESTATE STAGE 4

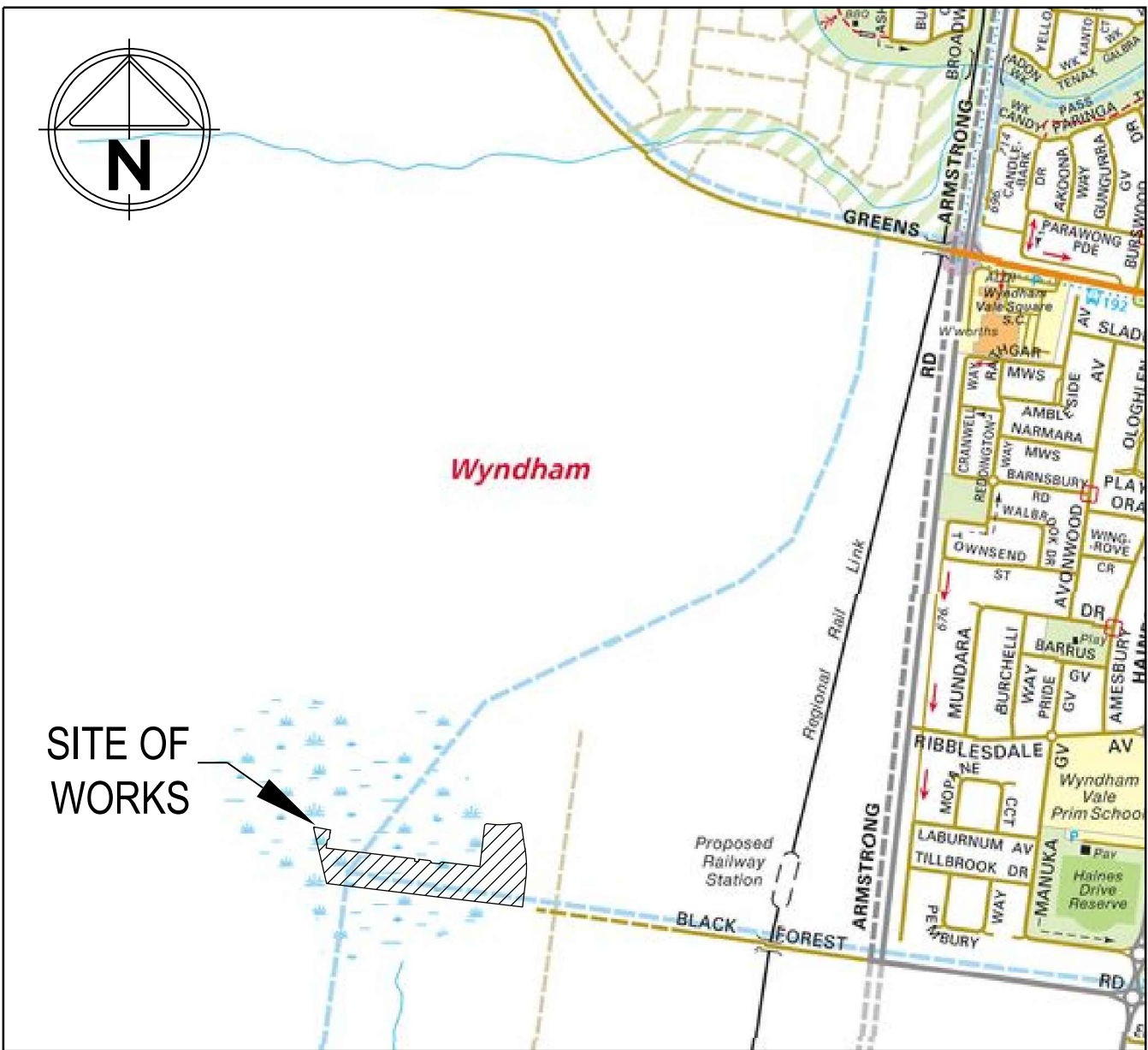
FRASERS PROPERTY AUSTRALIA

GENERAL NOTES:

- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM AND ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) ZONE 55
- 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
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS2124-1992 GENERAL CONDITIONS OF CONTRACT, THE ROAD & DRAINAGE SPECIFICATION, APPROVED METROPOLITAN PLANNING AUTHORITY OR MUNICIPALITY SPECIFICATIONS AND STANDARD DRAWINGS WHERE NOTED AND TO THE SATISFACTION OF THE SUPERINTENDENT AND THE MUNICIPAL ENGINEER OR HIS REPRESENTATIVE
- ROAD CHAINAGES REFER TO ROAD CENTRELINES. CHAINAGES FOR INTERSECTIONS AND CUL-DE-SACS REFER TO THE LIP OF KERB
- THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL LOCAL SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
- WHERE REQUIRED ANY BUILDINGS, TROUGHS, 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 EXCAVATED ROCK AND SURPLUS SPOIL TO BE REMOVED AND DISPOSED OFF SITE UNLESS NOTED OTHERWISE
- 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 AS 3798-2007. 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 MATERIAL IS TO BE IN ACCORDANCE WITH THE SPECIFICATION, AS 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
- TBM'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 TBM'S THEREAFTER
- AT LEAST 3 DAYS PRIOR TO COMMENCING WORK ON EXCAVATIONS IN EXCESS OF 150mm 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.
- ALL SERVICE TRENCHES UNDER DRIVEWAYS, FOOTPATHS AND PARKING BAYS TO BE BACKFILLED WITH CLASS 2 CRUSHED ROCK. SERVICE TRENCHES LESS THAN 750mm BEHIND KERB AND CHANNEL OR PAVED TRAFFIC AREAS ARE ALSO TO BE BACKFILLED WITH COMPACTED CLASS 2 CRUSHED ROCK
- WHERE REQUIRED, ALL EXISTING DAMS, DEPRESSIONS AND DRAINS ARE TO BE BREACHED, DRAINED, DESLUGGED AND SHALL BE EXCAVATED TO A CLEAN FIRM BASE. THE SURFACE SHALL BE INSPECTED, APPROVED AND LEVELED 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
- NO BLASTING TO BE CARRIED OUT WITHIN THE MUNICIPALITY WITHOUT OBTAINING COUNCIL'S PERMISSION
- GAS AND WATER CONDUITS ARE TO BE:
Ø50mm 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
- ALL SERVICE CONDUIT TRENCHES UNDER ROAD PAVEMENTS TO BE BACKFILLED IN ACCORDANCE WITH RELEVANT MUNICIPALITY OR ROAD AUTHORITY SPECIFICATION
- AG/SUBSOIL DRAIN TO BE LAID BEHIND KERB WHERE REQUIRED IN ACCORDANCE WITH THE METROPOLITAN PLANNING AUTHORITY STANDARD DRAWINGS AND CONNECTED TO UNDERGROUND DRAINAGE
- CENTRELINES 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
- WATER TAPPINGS TO BE LOCATED IN CENTRE OF ALLOTMENTS UNLESS OTHERWISE SHOWN
- 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 VEHICLE CROSSINGS ARE IN ACCORDANCE WITH COUNCIL STANDARD DRAWINGS.
- LINEMARKING AND SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH AS 1742-1 AND AS 1742-2 UNLESS NOTED OTHERWISE. STREET SIGNS ARE TO BE INSTALLED IN ACCORDANCE WITH METROPOLITAN PLANNING AUTHORITY STANDARDS.
- ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE SUPPLIED AND MAINTAINED IN ACCORDANCE WITH AS 1742-3.
- TACTILE GROUND SURFACE INDICATORS ARE TO BE INSTALLED IN ACCORDANCE WITH THE DISABILITY DISCRIMINATION ACT AND RELEVANT COUNCIL STANDARD DRAWINGS.
- CONTRACTOR TO PROVIDE AN ENVIRONMENTAL MANAGEMENT PLAN INCLUDING SILT AND SEDIMENT RUNOFF PROTECTION ETC. SEMP TO BE APPROVED BY COUNCIL PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN. IF ROAD AND DRAINAGE CONSTRUCTION NECESSITATES THEIR REMOVAL, WRITTEN PERMISSION MUST BE OBTAINED FROM THE SUPERINTENDENT.
- TREES NOT SPECIFIED FOR REMOVAL ARE TO BE PROTECTED WITH APPROPRIATE EXCLUSION FENCING PRIOR TO COMMENCEMENT OF ANY WORKS.
- 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.
- ALL PITS / MANHOLES IN CONCRETED AREAS TO BE CONSTRUCTED IN ACCORDANCE WITH WCC DETAIL SD2-5.
- ALL NATURESTRIPS, FROM BACK OF KERB TO EXISTING EDGE OF PATH OR PROPERTY BOUNDARY ARE TO BE FILLED TO A CLEAN, TIDY CONDITION, TOP DRESSED (50MM LOAMY TOP SOIL FREE OF CLUMPS, SODS AND CLAY LUMPS) AND HYDROSEEDED.
- 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 DIA ARE TO BE RUBBER RING JOINTED. INTERLOCKING / FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPE SIZES OVER 750mm DIA.
- CURVED PIPE ALIGNMENTS TO BE ACHIEVED USING SPLAY PIPES INSTALLED AS PER MANUFACTURES SPECIFICATION. RADIUS AND SPLAY LENGTHS PROVIDED FOR ORDERING PURPOSES.



DRAWING SCHEDULE

DRAWING	DESCRIPTION	SHEET No.	REVISION
305169R01	FACE SHEET	1	6
305169R02	DETAIL PLAN	2	4
305169R03	LONGITUDINAL SECTION - BLACKFOREST ROAD	3	2
305169R04	LONGITUDINAL SECTION - MERULA DRIVE & STEM CLOSE	4	1
305169R05	CROSS SECTIONS - STEM CLOSE	5	1
305169R06	CROSS SECTIONS - BLACK FOREST ROAD SHEET 1 OF 2	6	3
305169R07	CROSS SECTIONS - BLACK FOREST ROAD SHEET 2 OF 2 & MERULA DRIVE	7	3
305169R08	INTERSECTION DETAILS	8	2
305169R09	DRAINAGE LONG SECTION - SHEET 1 OF 3	9	2
305169R10	DRAINAGE LONG SECTION - SHEET 2 OF 3	10	1
305169R11	DRAINAGE LONG SECTION - SHEET 3 OF 3	11	3
305169R12	PIT SCHEDULE	12	0
305169R13	PAVEMENT & TYPICAL DETAILS	13	3
305169R14	SIGNAGE AND LINEMARKING PLAN	14	3
305169R15	RAISED PAVEMENT DETAILS	15	2

SERVICE OFFSETS AND LOCATION TABLE

ROAD NAME	POTABLE WATER		RECYCLED WATER		GAS		ELECTRICITY				TELECOM	
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	POLE	U/G CABLE			SIDE	OFFSET
MERULA DRIVE	N	2.95	N	2.50	N	2.10	S 0.80*	S 2.60			S	1.725
STEM CLOSE	W	2.95	W	2.50	W	2.10	E 0.80*	E 2.60			E	1.725
BLACKFOREST ROAD CH -26.94 TO 214.18	S	2.90	S	2.10	S	1.30	S 0.80*	N 2.60			N	1.725
BLACKFOREST ROAD CH 214.18 TO 306.74	S	5.95*	S	6.75*	S	7.55*	S 0.80*	N 2.60			N	1.725

- TELSTRA AND ELECTRICITY CABLES ARE TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICITY AUTHORITY STANDARD DRAWINGS.
- GAS AND WATER MAINS ARE TO BE CONSTRUCTED IN A COMMON TRENCH.
- * DENOTES OFFSET FROM BACK OF KERB.
- LIGHT POLES DIMENSIONED TO CENTRE OF POLE.

LEGEND

DESCRIPTION

- WATER MAIN, VALVE AND HYDRANT
WATER RECYCLED
UNDERGROUND ELECTRICITY
OVERHEAD ELECTRICITY & POLE
TELSTRA & SERVICE PIT
OPTIC FIBRE
OVERHEAD TELSTRA
GAS MAIN
BRANCH SEWER & MANHOLE
SEWER & MANHOLE
SEWER RISING MAIN
CENTRAL INVERT
COUNCIL STORMWATER DRAIN & PIT
STORMWATER DRAINAGE PROPERTY INLETS
COUNCIL STORMWATER PITS
HOUSE DRAIN
AG DRAIN AND FLUSHER
MWC STORMWATER DRAIN & PIT
MWC STORMWATER PITS

STORMWATER DRAINAGE PIT NUMBER

GAS & WATER CONDUITS

CONCRETE VEHICLE CROSSING

PAVEMENT SAWCUT LINE

RIDGE / CHANGE OF GRADE LINE

SURFACE CONTOUR MINOR

SURFACE CONTOUR MAJOR

SURFACE LEVEL

BATTER LEVEL (TOP / TOE)

EARTHWORKS GRADE

SIGN AND POST

LIGHT & POLE (BY OTHERS)

STREET SIGN

PERMANENT SURVEY MARK

TEMPORARY BENCH MARK

BOLLARD

ROAD CHAINAGES

LOT CHAINAGE

SETOUT POINT

LIMIT OF WORKS

BATTER

EXCAVATION GREATER THAN 0.20m

FILLING GREATER THAN 0.30m

FILL EXTENTS

ROCK BEACHING

PARKING BAY/PAVED AREA

RETAINING WALL - TIMBER

RETAINING WALL - CONCRETE

RETAINING WALL - ROCK/STONE

GRASSED MAINTENANCE ACCESS TRACK

GRAVEL MAINTENANCE ACCESS TRACK

FENCE - TREE PROTECTION

FENCE - VEHICLE EXCLUSION

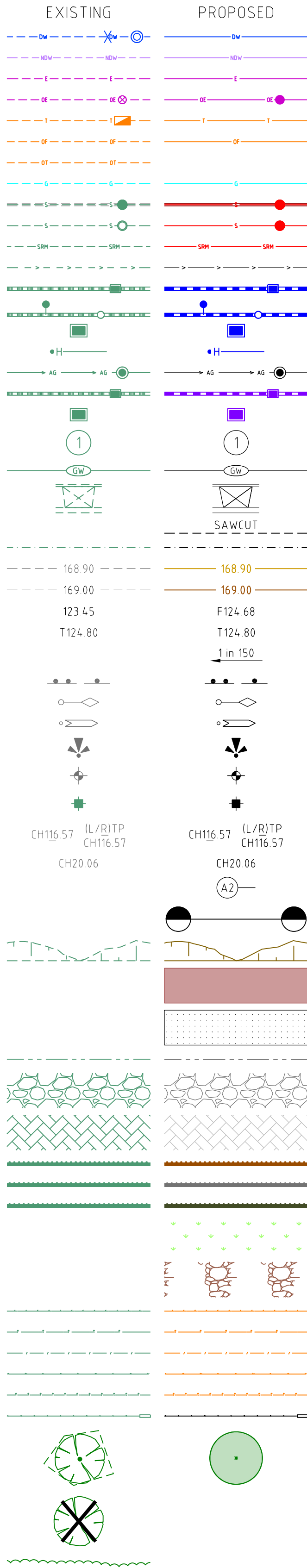
FENCES

GUARD RAIL

TREE (8 SURVEYED CANOPY) TO BE RETAINED

TREE TO BE REMOVED

VEGETATION LINE



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.

Rev	Amendments	Approved	Date
6	LOT LAYOUT UPDATED	M.L.	28/05/19
5	DRAWING INDEX UPDATED	M.L.	17/05/19
4	DRAWING INDEX UPDATED	M.L.	07/05/19
3	DRAWING INDEX UPDATED	M.L.	11/04/19
2	SERVICE OFFSETS UPDATED & SHEETS R01/R02/R06/R07/R08/R13 AMENDED	M.L.	29/03/19
1	SERVICE OFFSETS UPDATED & SHEETS R01/R02/R03/R06/R07/R11/R13/R14 AMENDED	M.L.	31/01/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18

AS/NZS ISO 9001
AS/NZS ISO 14001
AS/NZS ISO 45001
certified

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FRASERS PROPERTY

Designed
R. WEINBER

Authorised
M. LETSON

Checked
J. KOEHLER

Date
12/09/18

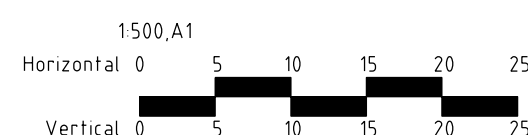
MAMBOURIN ESTATE STAGE 4 FACE SHEET

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No **305169R01** Rev **6**



4	LOT LAYOUT UPDATED	M.L.	28/05/19
3	WETLAND LAYOUT UPDATED.	M.L.	07/05/19
2	BFR FOOTPATH EXTENDED TO STEM CLOSE. RED CROSSING LINEMAKING ADDED AT STEM CLOSE INTERSECTION.	M.L.	29/03/19
1	BLACK FOREST RD RESERVE BOUNDARY UPDATED, RAISED PAYMENT REMOVED	M.L.	30/1/19
0	WEST STEM CLOSE. SHARED PATH CROSSING ADDED OPPOSITE FLOODWAY.		
0	CONSTRUCTION ISSUE	M.L.	13/11/18
Rev	Amendments	Approved	Date



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Designed
R. WEINBER

 Authorised
M. LETSON

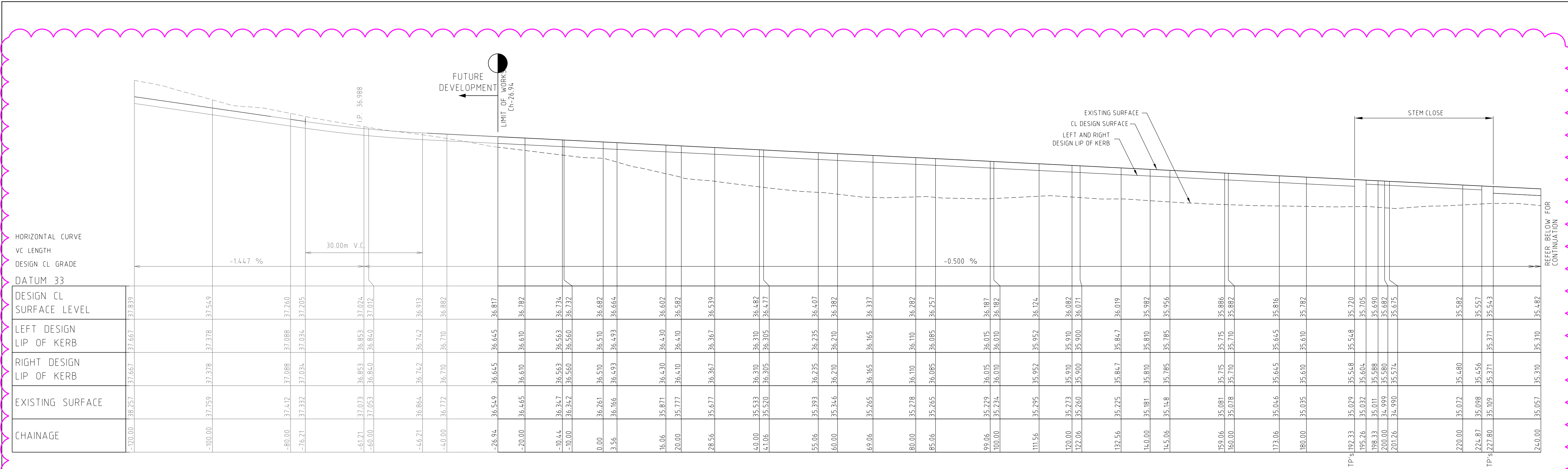
 Checked
J. KOEHLER

 Date
12/09/18

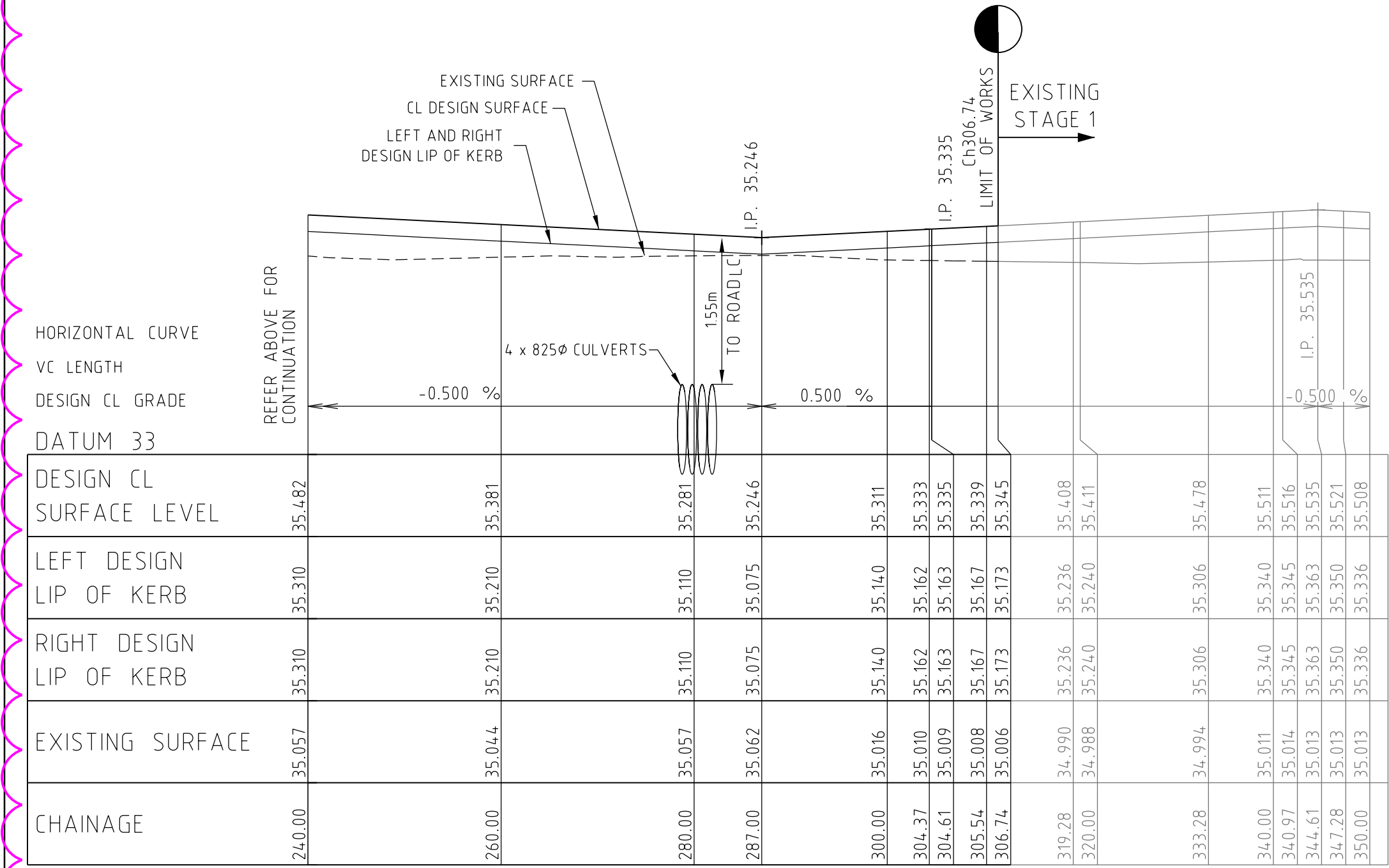
MAMBOURIN ESTATE
STAGE 4
DETAIL PLAN

 FRASER PROPERTY AUSTRALIA
 WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No **305169R02** Rev **4**

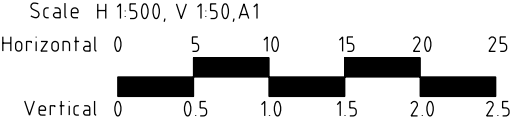


BLACK FOREST ROAD



BLACK FOREST ROAD

2	LOT LAYOUT UPDATED	M.L	28/05/19
1	LIMIT OF WORKS UPDATED WAS Ch304.37	M.L	31/01/19
0	CONSTRUCTION ISSUE	M.L	13/11/18
Rev	Amendments	Approved	Date



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Authorised
M. LETSON

Checked
J. KOEHLER

Date
12/09/18

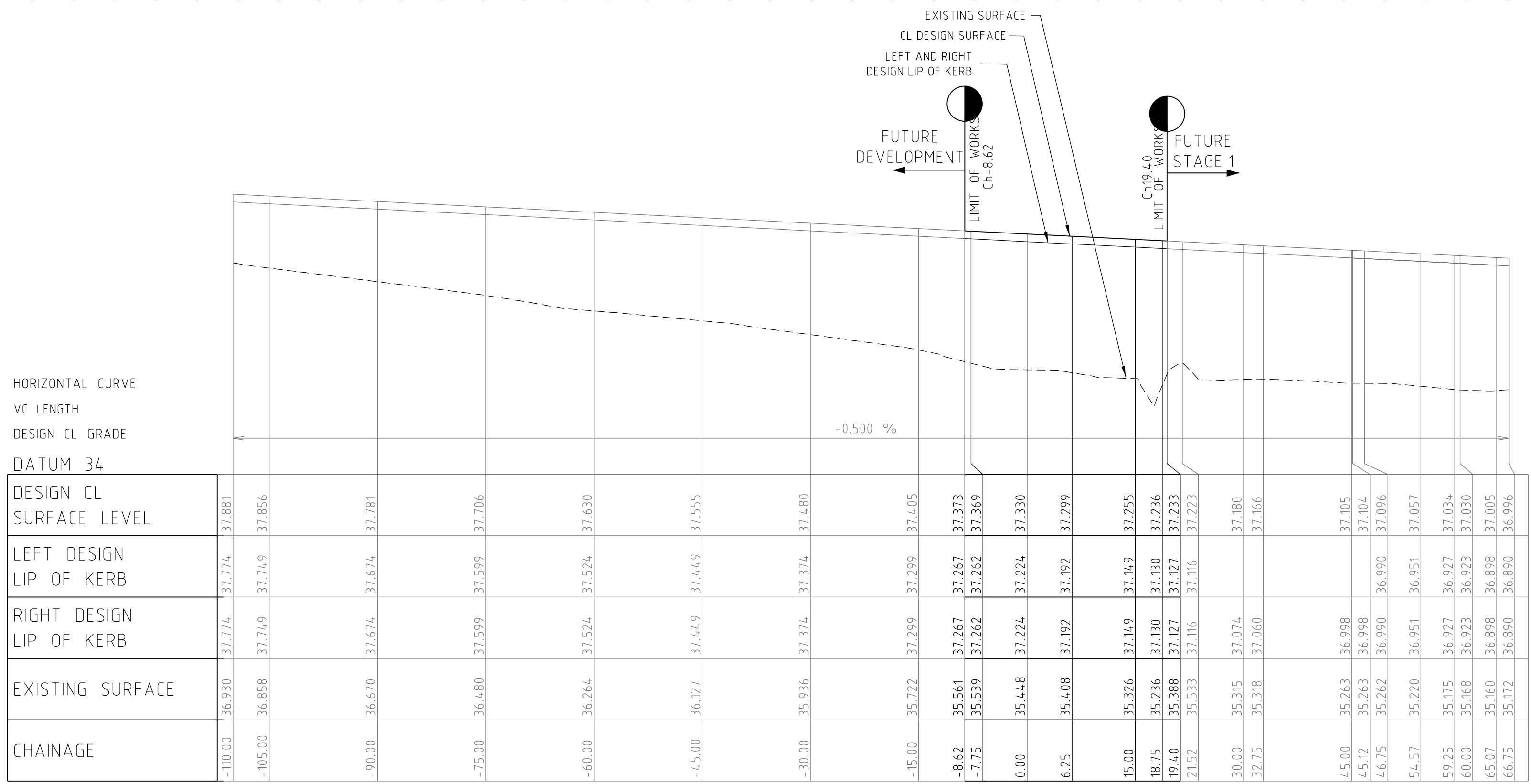
MAMBOURIN ESTATE
STAGE 4
LONGITUDINAL SECTION - BLACK FOREST ROAD

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

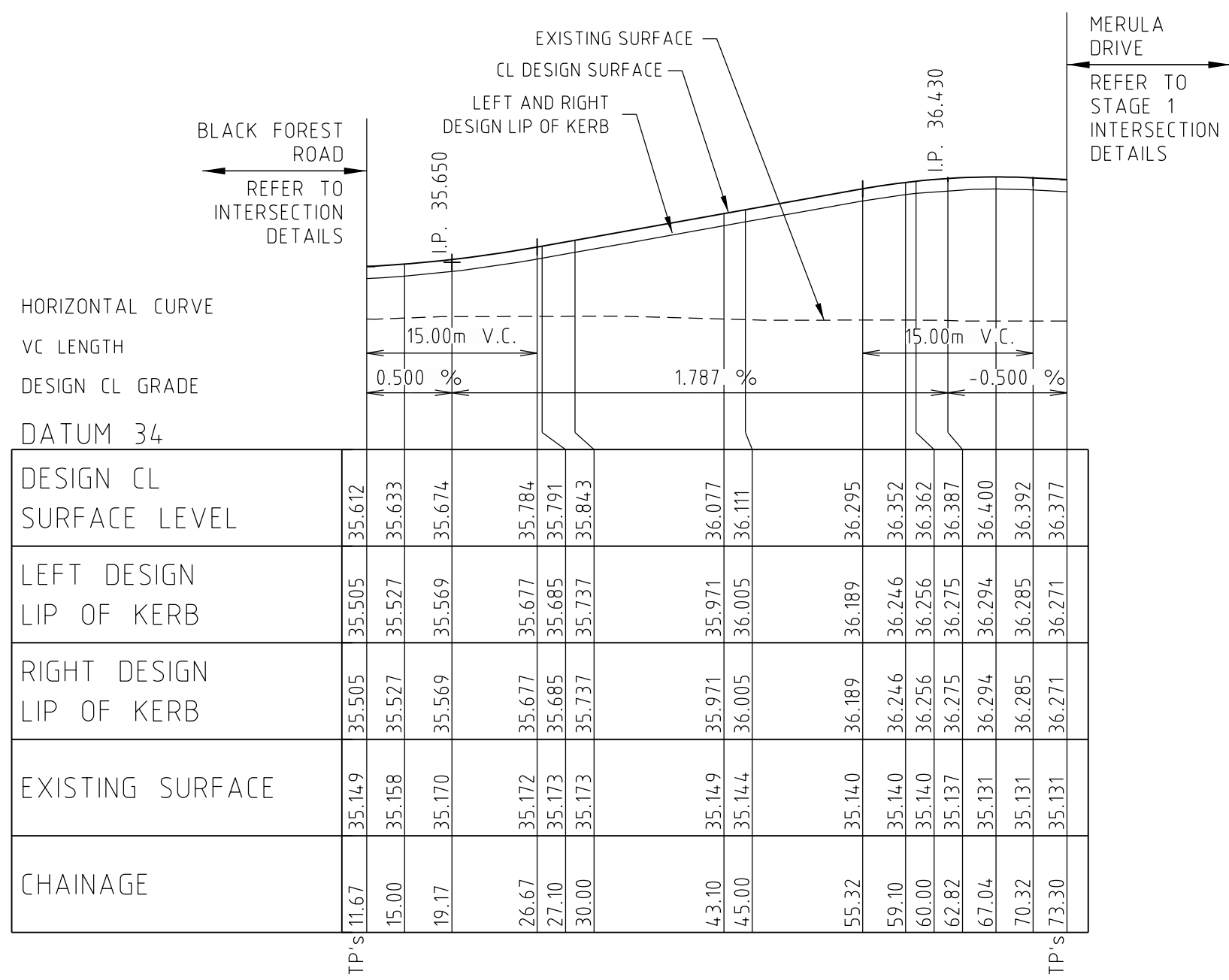
CONSTRUCTION

Drg No
305169R03

Rev
2



MERULA DRIVE



STEM CLOSE

Rev	Amendments	Approved	Date
1	LOT LAYOUT UPDATED	M.L	28/05/19
0	CONSTRUCTION ISSUE	M.L	13/11/18



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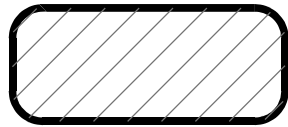
Designed
R. WEINBER
Authorised
M. LETSON

Checked
J. KOEHLER
Date
12/09/18

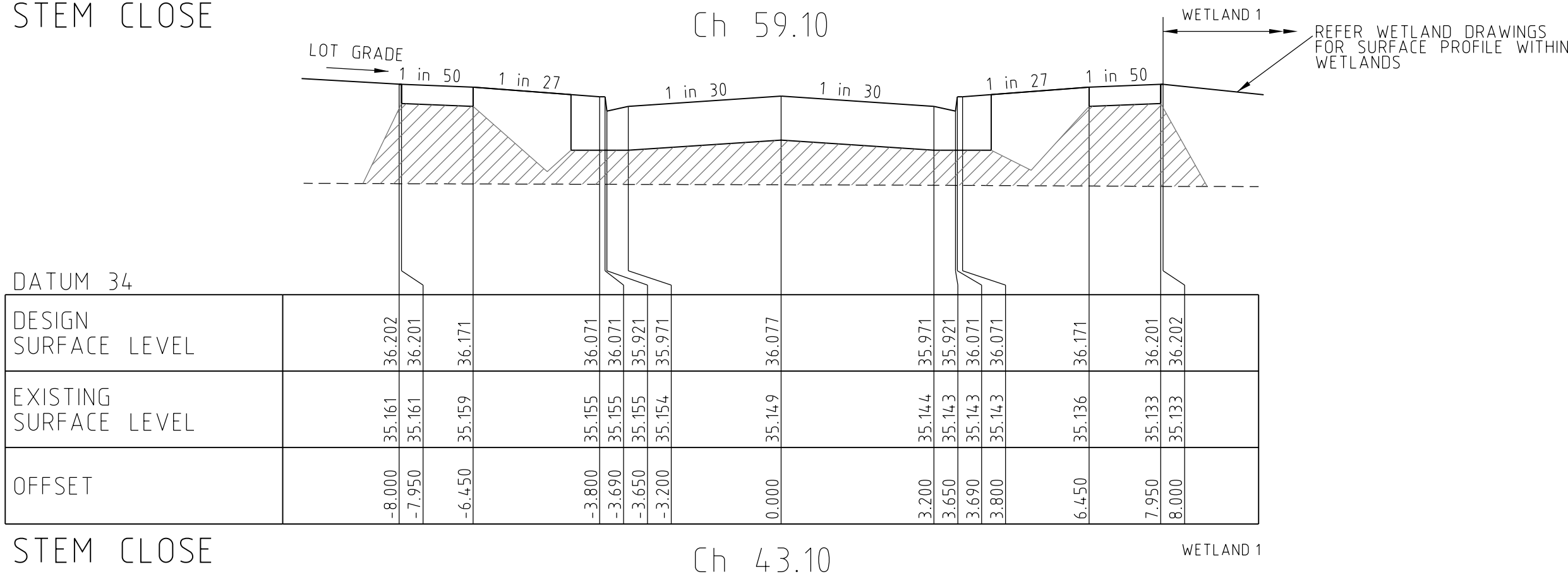
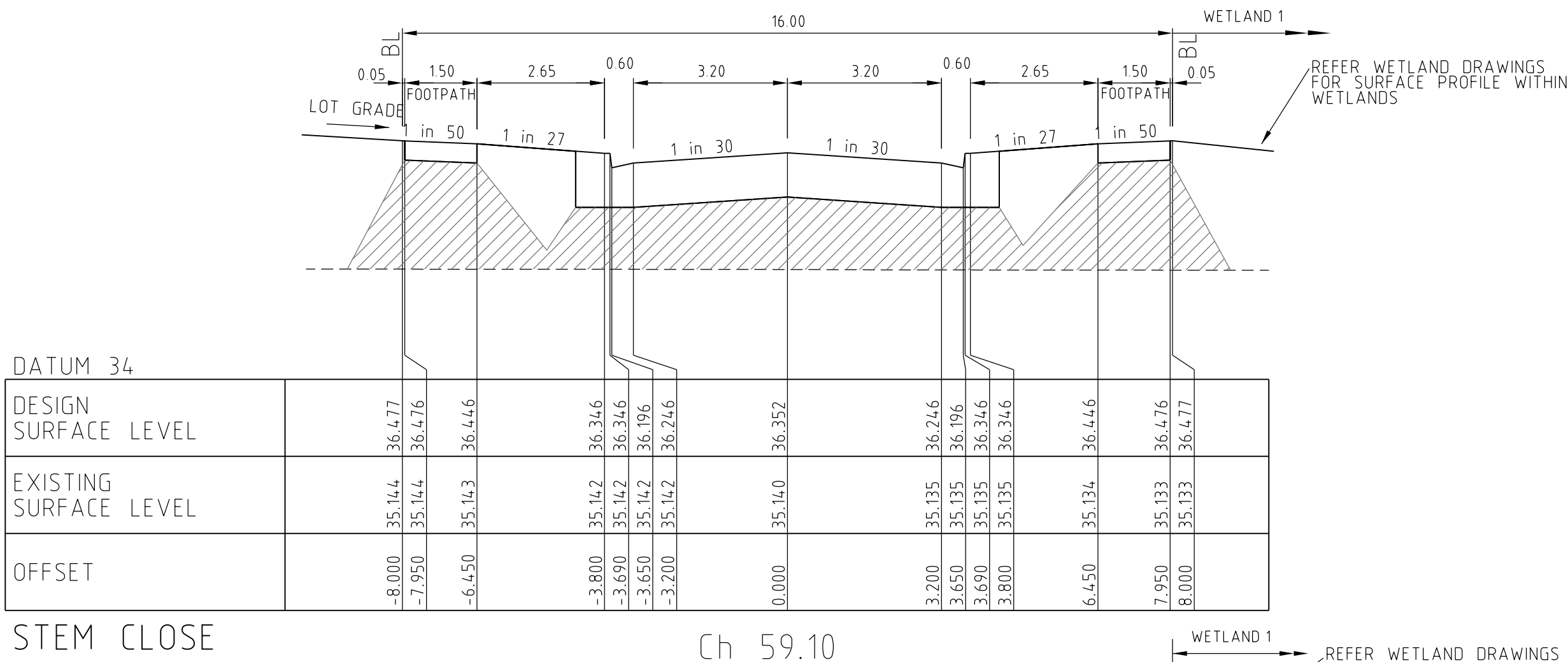
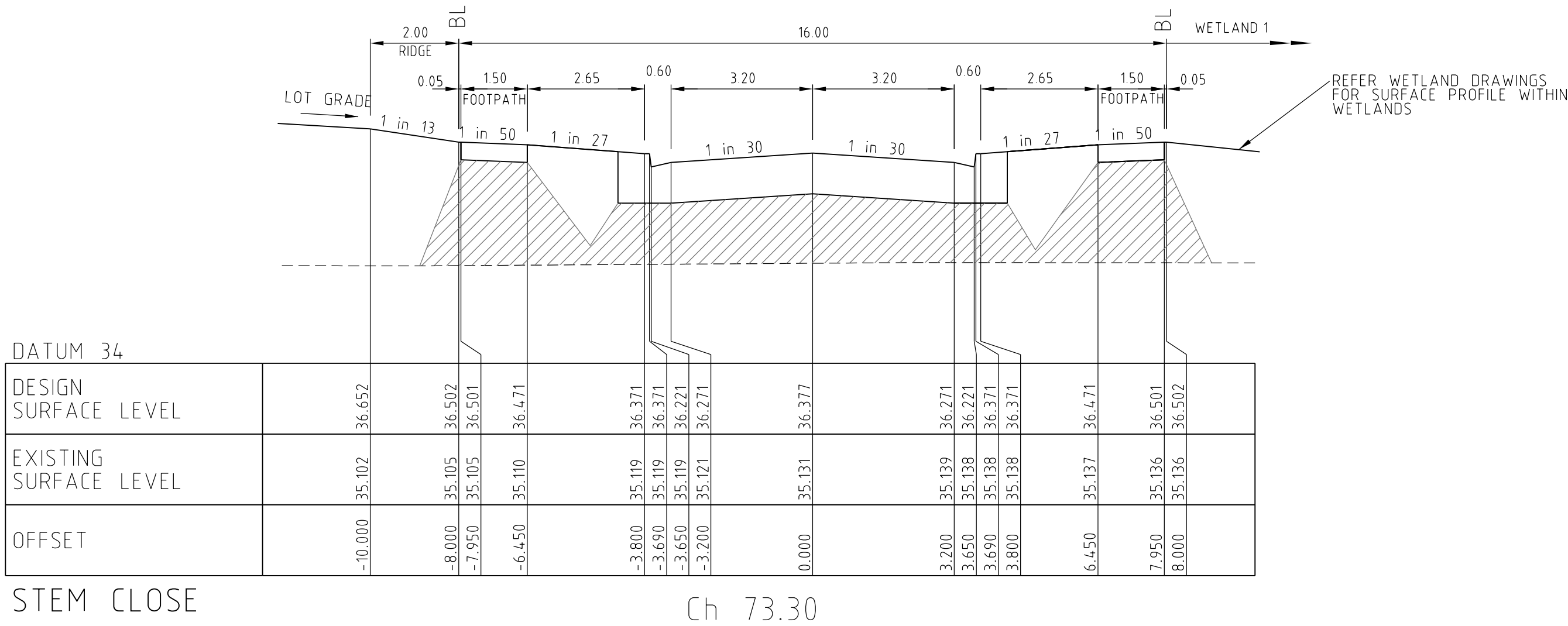
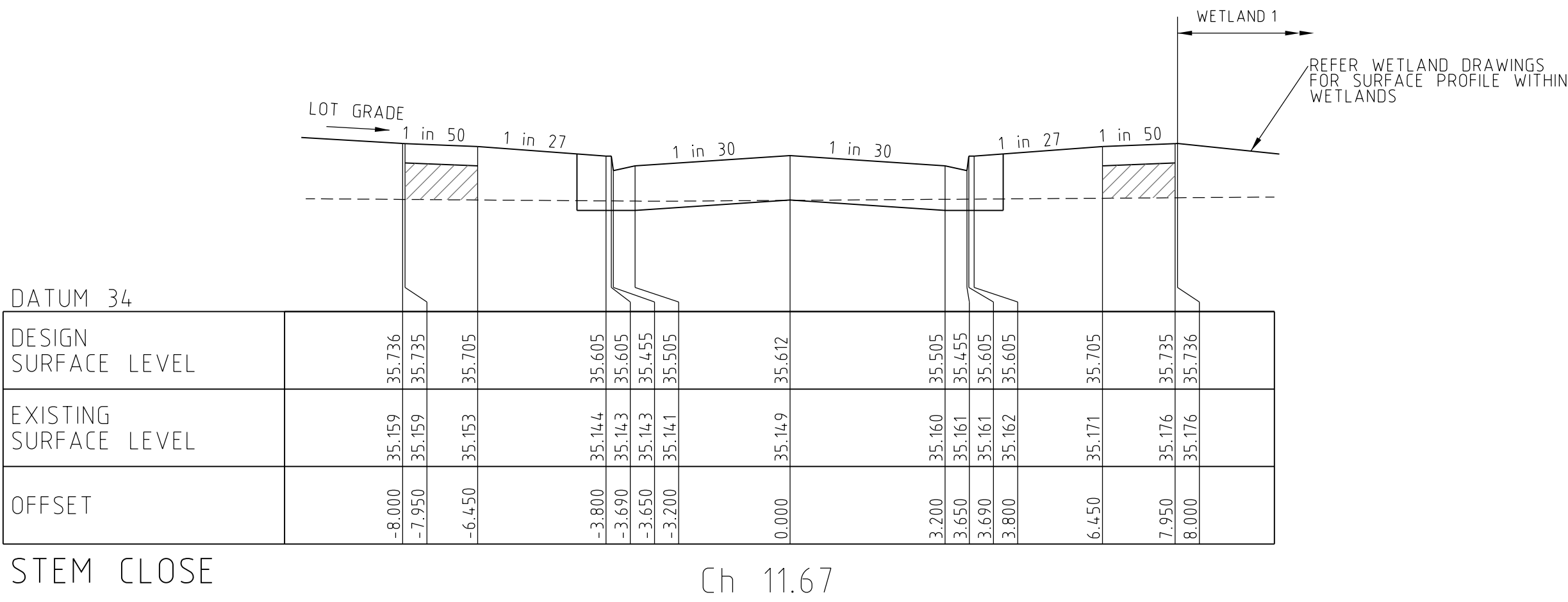
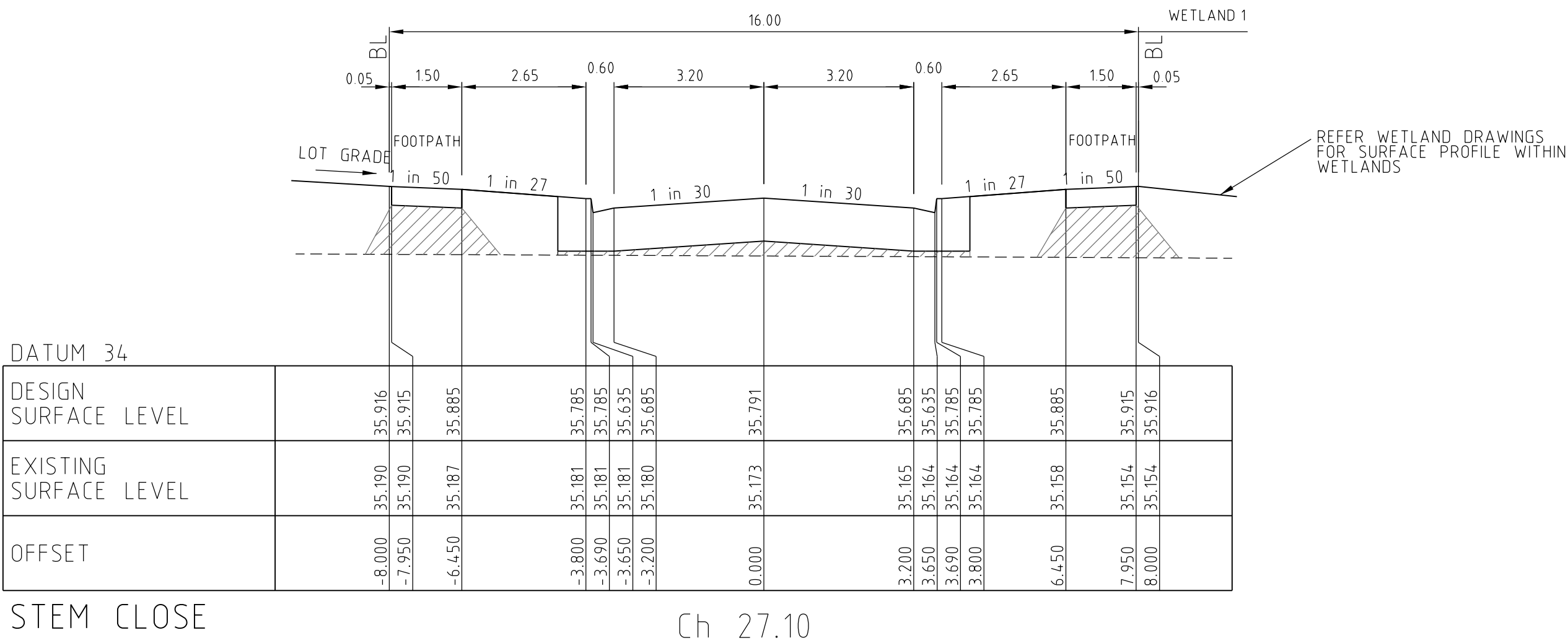
MAMBOURIN ESTATE
STAGE 4
LONGITUDINAL SECTION - MERULA DRIVE &
STEM CLOSE
FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No 305169R04

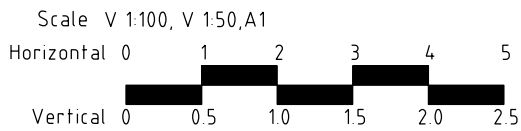
Rev 1



STRUCTURAL FILL



1	LOT LAYOUT UPDATED	M.L.	28/05/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18
Rev	Amendments	Approved	Date





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FRASERS
PROPERTY

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Authorised
M. LETSON

Checked
J. KOEHLER

Date
12/09/18

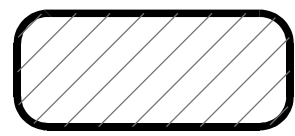
MAMBOURIN ESTATE
STAGE 4
CROSS SECTIONS - STEM CLOSE

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

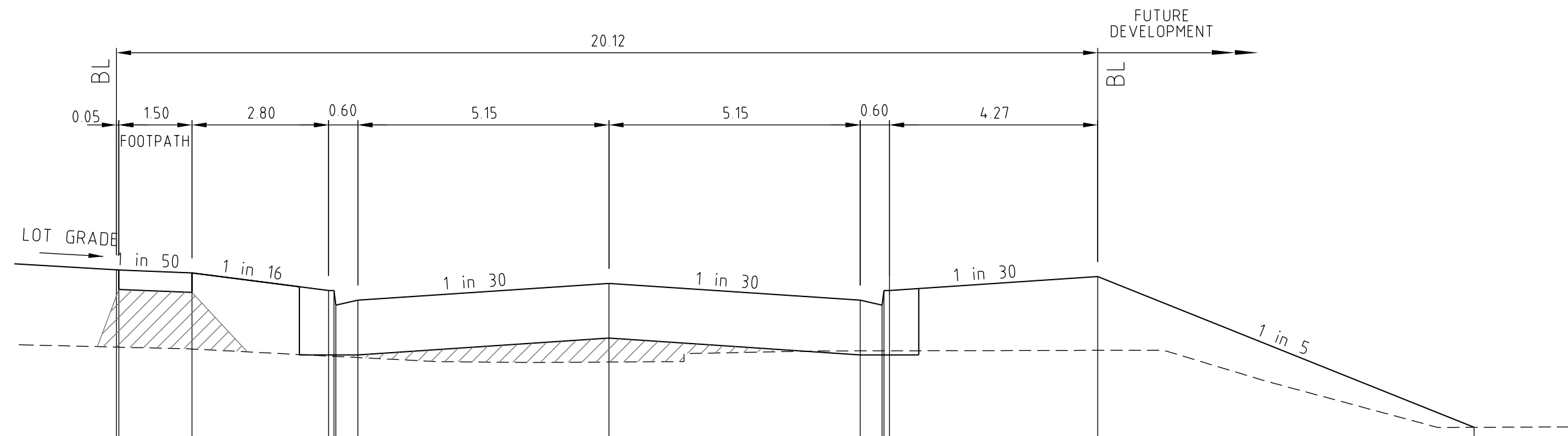
CONSTRUCTION

Drg No
305169R05

Rev
1



STRUCTURAL FILL

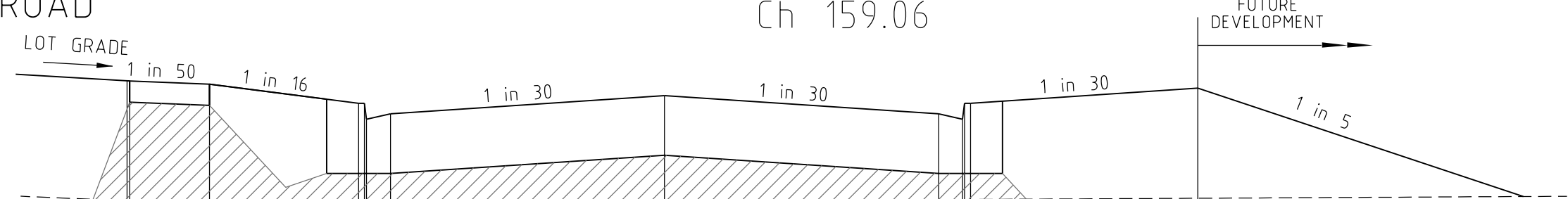


DATUM 34

DESIGN SURFACE LEVEL	36.026	36.025	35.995	35.815	35.665	35.815	35.886	35.957	34.413
EXISTING SURFACE LEVEL	35.235	35.234	35.215	35.143	35.140	35.196	35.081	35.201	34.413
OFFSET	-10.100	-10.050	-8.550	-5.750	-5.640	-5.600	0.000	10.020	17.740

BLACK FOREST ROAD

Ch 159.06

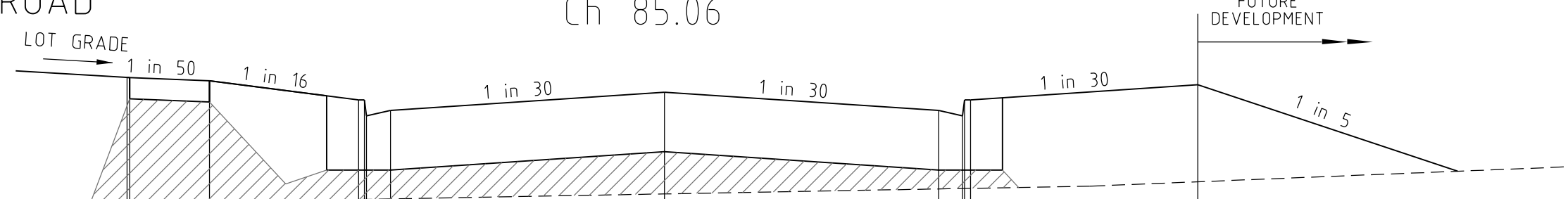


DATUM 34

DESIGN SURFACE LEVEL	36.396	36.395	36.365	36.185	36.035	36.085	36.257	36.327	
EXISTING SURFACE LEVEL	35.269	35.268	35.237	35.188	35.190	35.196	35.265	35.327	
OFFSET	-10.100	-10.050	-8.550	-5.750	-5.640	-5.150	0.000	10.020	

BLACK FOREST ROAD

Ch 85.06

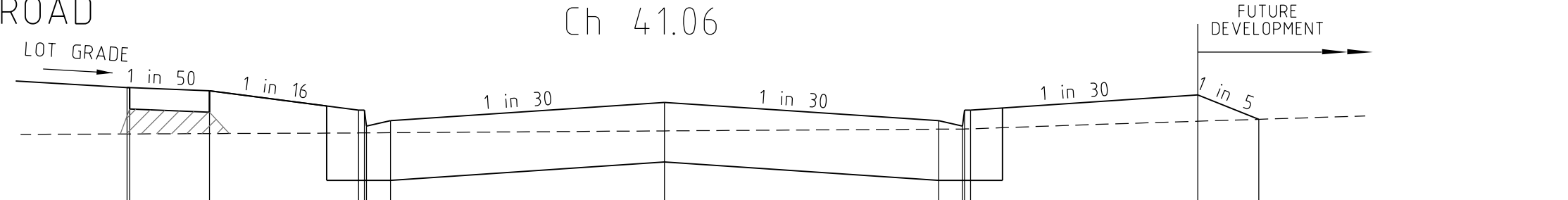


DATUM 35

DESIGN SURFACE LEVEL	36.616	36.615	36.595	36.405	36.255	36.405	36.477	36.547	
EXISTING SURFACE LEVEL	35.386	35.387	35.420	35.468	35.469	35.473	35.520	35.572	
OFFSET	-10.100	-10.050	-8.550	-5.750	-5.640	-5.150	0.000	10.020	

BLACK FOREST ROAD

Ch 41.06

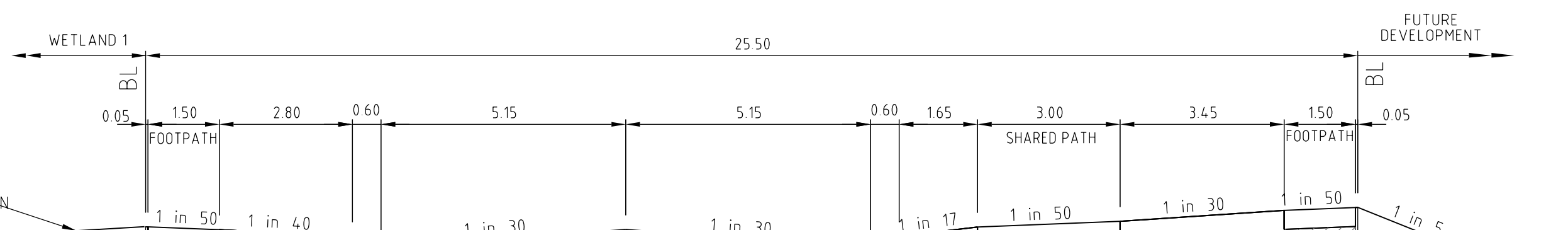


DATUM 35

DESIGN SURFACE LEVEL	36.956	36.955	36.925	36.745	36.595	36.745	36.817	36.887	36.658
EXISTING SURFACE LEVEL	36.521	36.521	36.524	36.530	36.530	36.532	36.549	36.640	36.658
OFFSET	-10.100	-10.050	-8.550	-5.750	-5.640	-5.150	0.000	10.020	11.167

BLACK FOREST ROAD

Ch -26.94



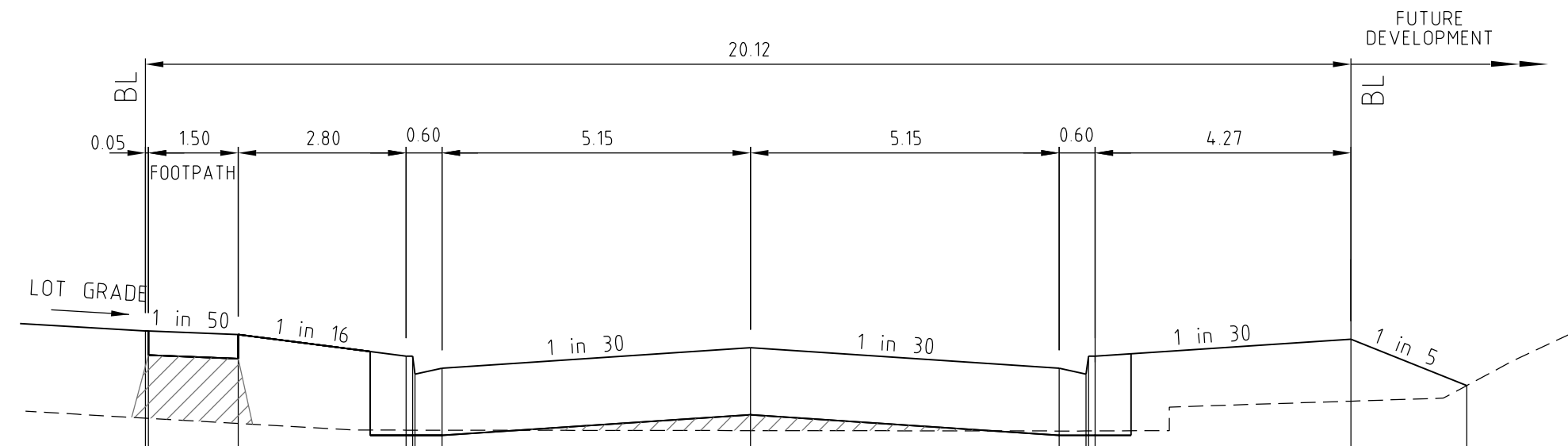
REFER WETLAND DRAWINGS FOR SURFACE PROFILE WITHIN WETLANDS

DATUM 34

DESIGN SURFACE LEVEL	35.572	35.571	35.541	35.471	35.471	35.371	35.543	35.630	35.745	35.775	35.776	35.251
EXISTING SURFACE LEVEL	35.170	35.170	35.159	35.139	35.138	35.136	35.109	35.136	35.192	35.078	35.085	35.251
OFFSET	-10.100	-10.050	-8.550	-5.750	-5.640	-5.150	0.000	10.400	13.850	15.350	15.400	18.025

BLACK FOREST ROAD

Ch 227.80



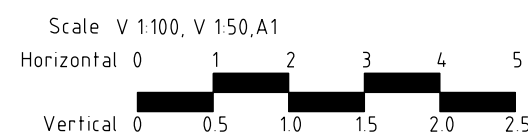
DATUM 34

DESIGN SURFACE LEVEL	35.859	35.858	35.828	35.648	35.498	35.548	35.720	35.791	35.404	35.404
EXISTING SURFACE LEVEL	35.132	35.131	35.088	35.032	35.032	35.025	35.029	35.274	35.404	35.404
OFFSET	-10.100	-10.050	-8.550	-5.750	-5.640	-5.150	0.000	10.020	11.954	11.954

BLACK FOREST ROAD

Ch 192.33

Rev	Amendments	Approved	Date
3	LOT LAYOUT UPDATED	M.L.	28/05/19
2	Ch 227.80 BLACK FOREST CROSS SECTION UPDATED	M.L.	29/03/19
1	BLACK FOREST CROSS SECTIONS UPDATED	M.L.	31/01/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18



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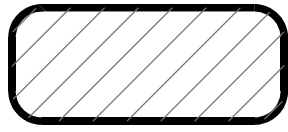
Designed
R. WEINBER
Authorised
M. LETSON

Checked
J. KOEHLER
Date
12/09/18

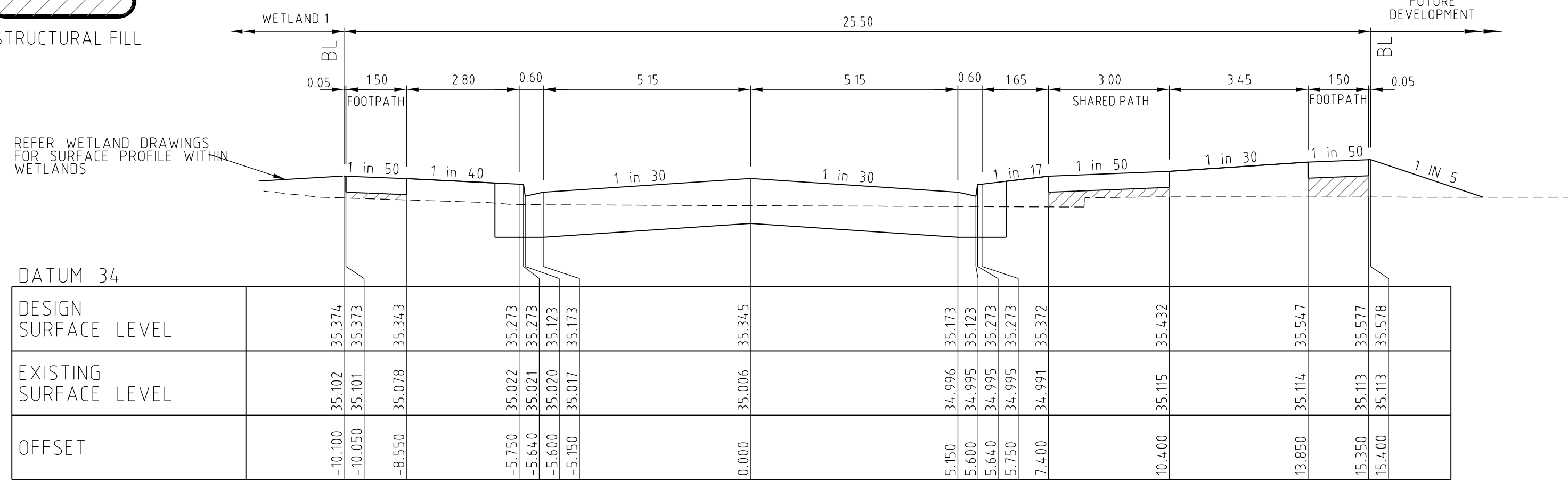
MAMBOURIN ESTATE
STAGE 4
CROSS SECTIONS - BLACK FOREST ROAD
SHEET 1 OF 2

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No 305169R06 Rev 3

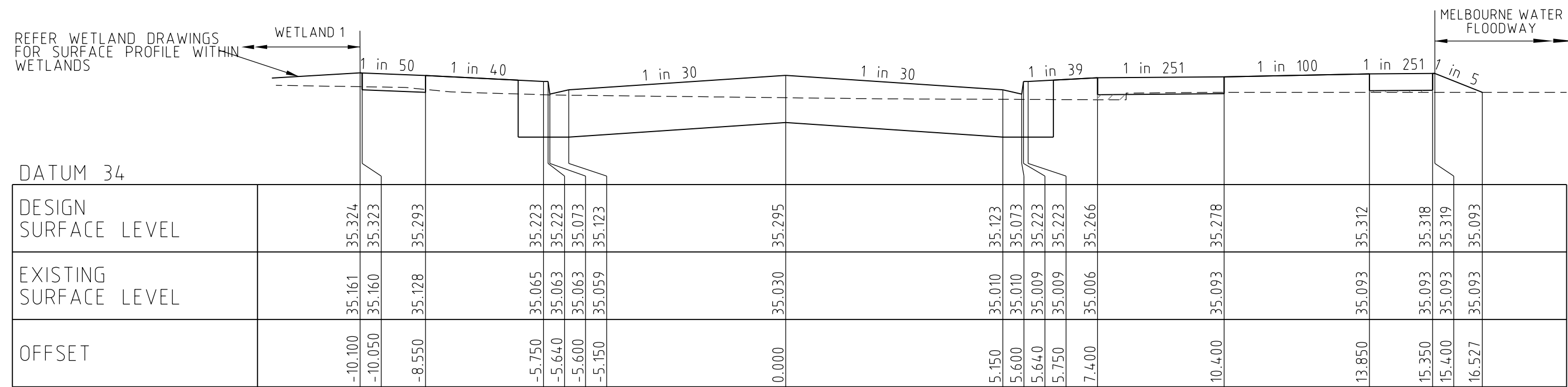


STRUCTURAL FILL



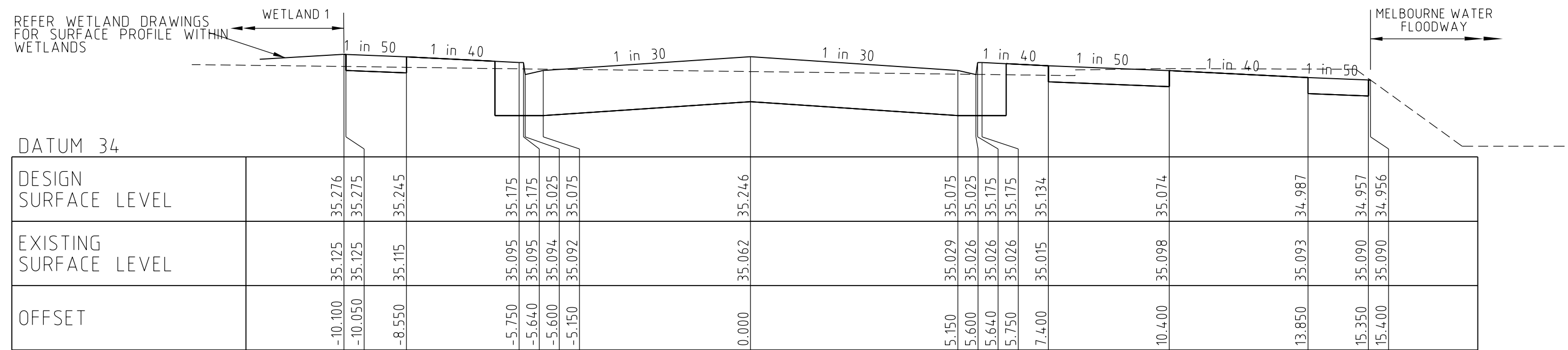
BLACK FOREST ROAD

Ch 306.74



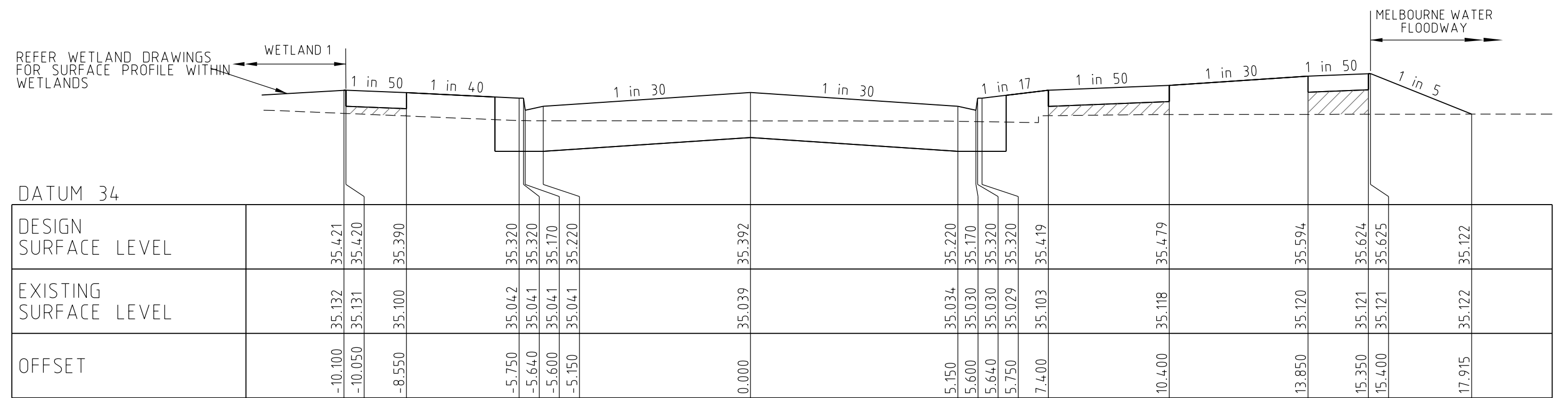
BLACK FOREST ROAD

Ch 296.68



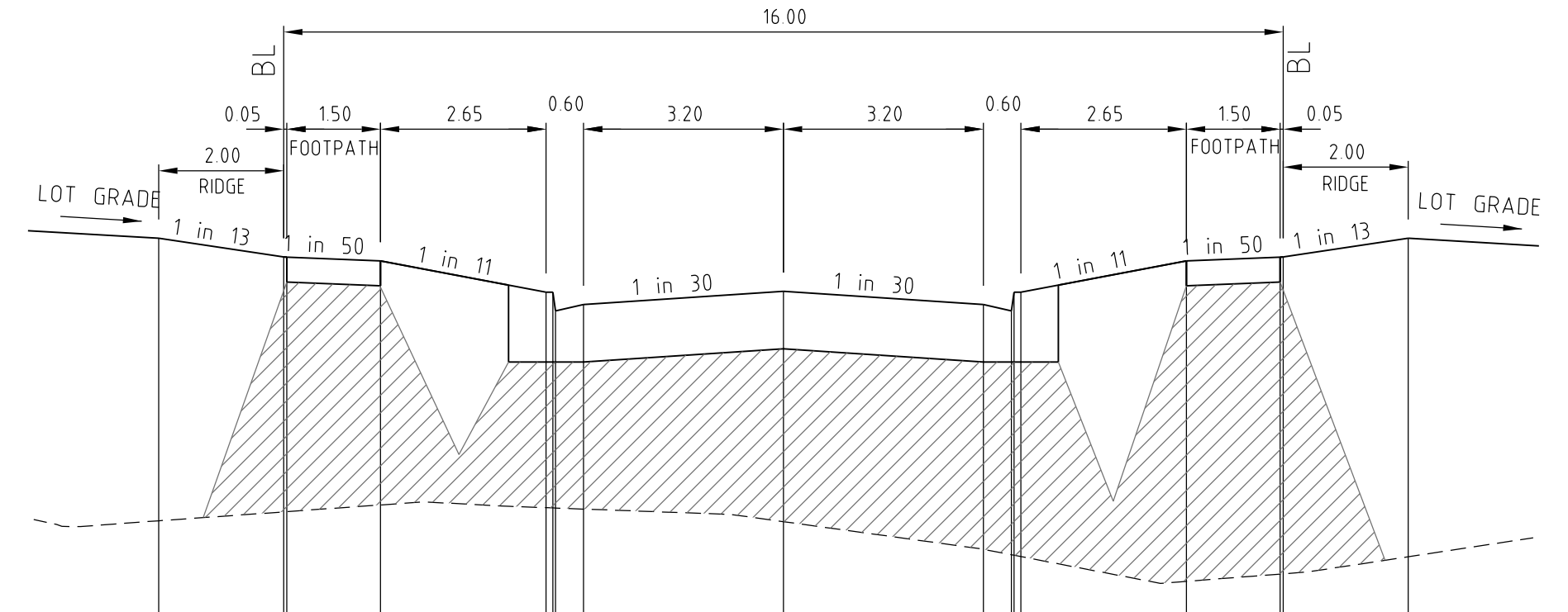
BLACK FOREST ROAD

Ch 287.00



BLACK FOREST ROAD

Ch 257.89

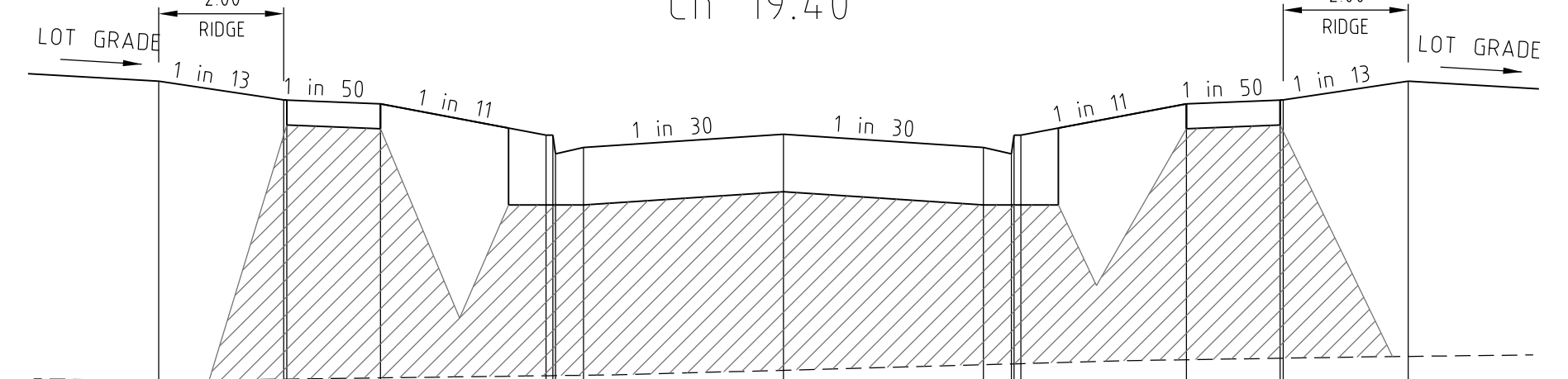


DATUM 34

DESIGN SURFACE LEVEL		37.658	37.508	37.507	37.477	37.227	37.227	37.077	37.227	37.477	37.507	37.508	37.658
EXISTING SURFACE LEVEL		35.395	35.466	35.468	35.522	35.500	35.498	35.497	35.497	35.466	35.468	35.468	35.395
OFFSET		-10.000	-8.000	-7.950	-6.450	-3.800	-3.690	-3.650	-3.200	0.000	3.200	3.650	10.000

MERULA DRIVE

Ch 19.40

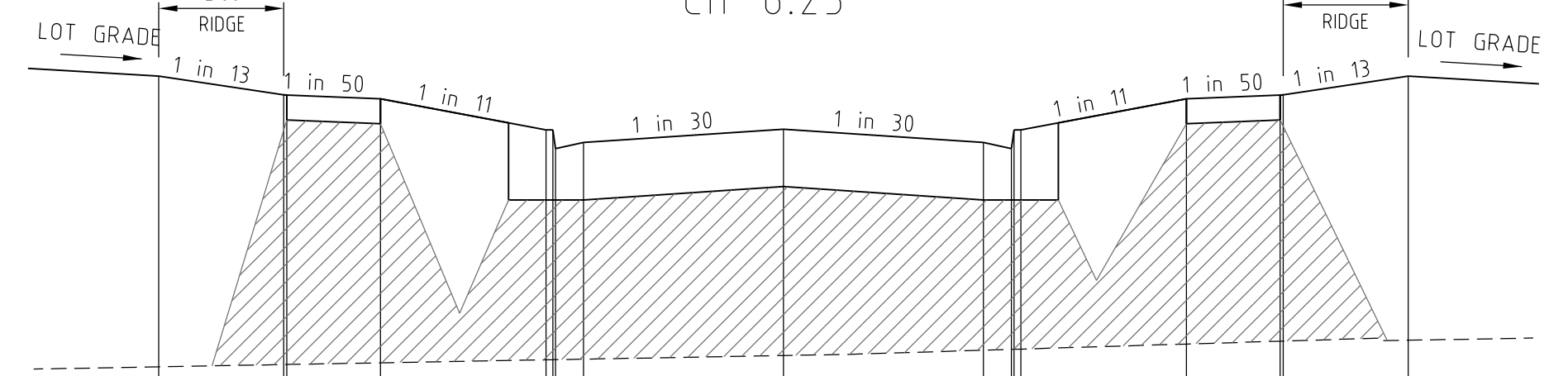


DATUM 35

DESIGN SURFACE LEVEL		37.723	37.573	37.572	37.542	37.292	37.292	37.142	37.292	37.542	37.572	37.723
EXISTING SURFACE LEVEL		35.329	35.337	35.338	35.347	35.364	35.365	35.365	35.365	35.329	35.337	35.329
OFFSET		-10.000	-8.000	-7.950	-6.450	-3.800	-3.690	-3.650	-3.200	0.000	3.200	10.000

MERULA DRIVE

Ch 6.25



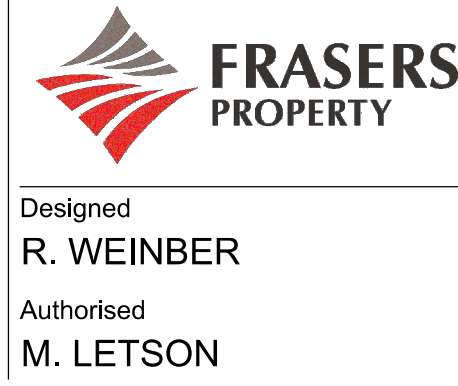
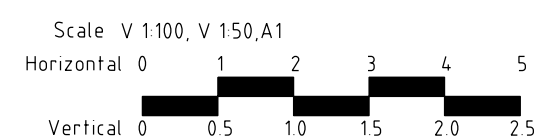
DATUM 35

DESIGN SURFACE LEVEL		37.798	37.648	37.647	37.617	37.367	37.367	37.217	37.267	37.617	37.647	37.798
EXISTING SURFACE LEVEL		35.471	35.489	35.489	35.503	35.526	35.527	35.528	35.532	35.471	35.489	35.471
OFFSET		-10.000	-8.000	-7.950	-6.450	-3.800	-3.690	-3.650	-3.200	0.000	3.200	10.000

MERULA DRIVE

Ch -8.62

Rev	Amendments	Approved	Date
3	LOT LAYOUT UPDATED	M.L.	28/05/19
2	Ch 257.89 ADDED Ch259.63 REMOVED	M.L.	29/03/19
1	BLACK FOREST CROSS SECTIONS UPDATED	M.L.	31/01/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18



Checked
J. KOEHLER
Date
12/09/18

MAMBOURIN ESTATE
STAGE 4
CROSS SECTIONS - BLACK FOREST ROAD
SHEET 2 OF 2 & MERULA DRIVE
FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL
CONSTRUCTION Drg No **305169R07** Rev **3**

FUTURE DEVELOPMENT

CUT OFF DRAINS TO BE DIRECTED INTO ENDPICES 27 & 29

ROCKWORK AND TEMPORARY SAND BAG ENDWALL

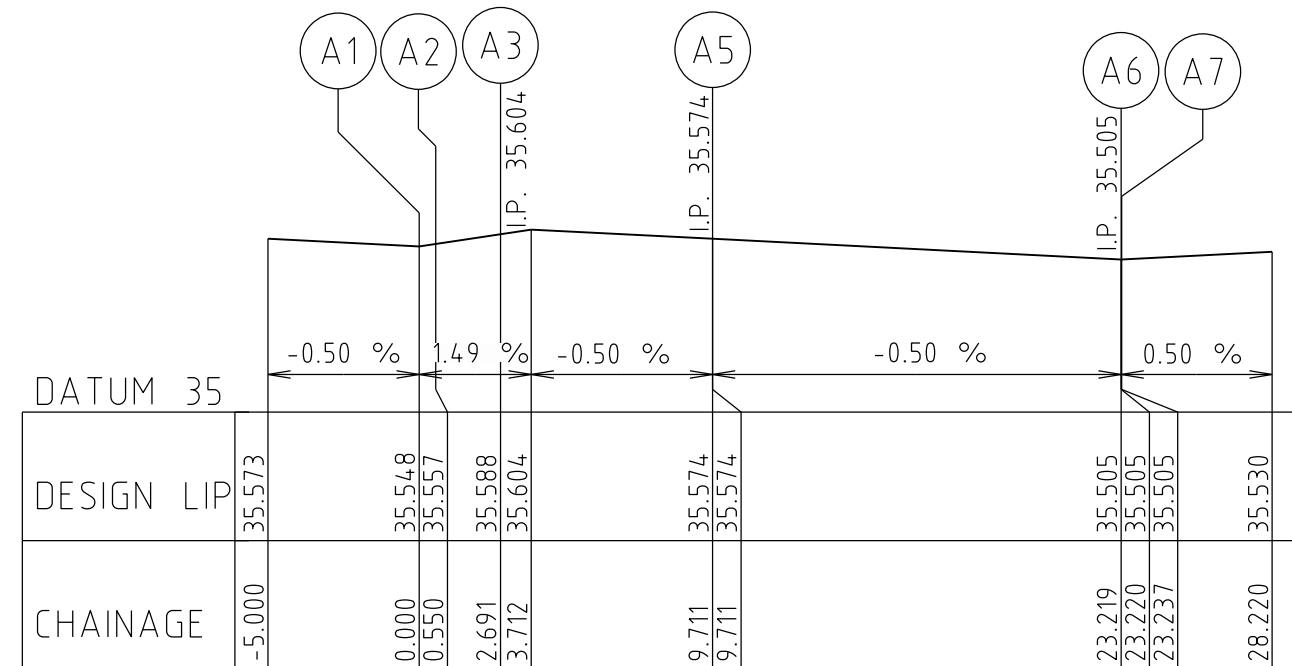
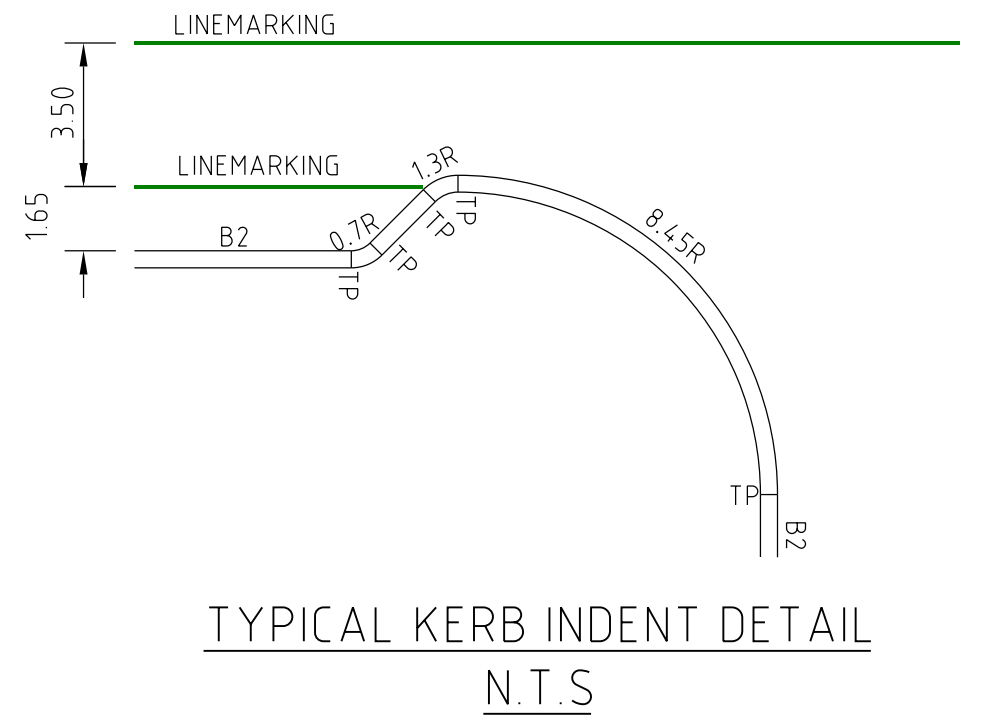
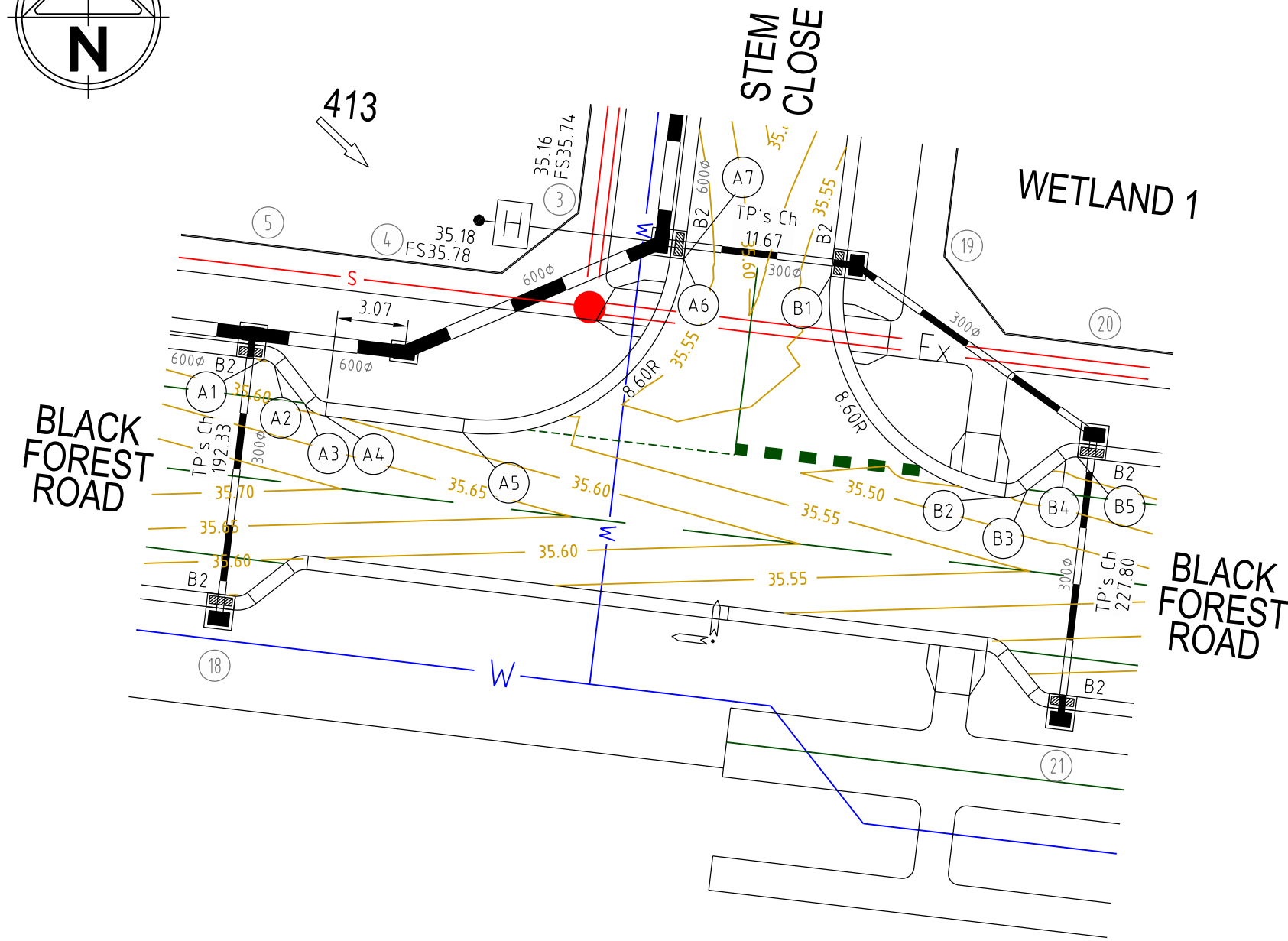
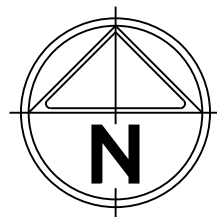
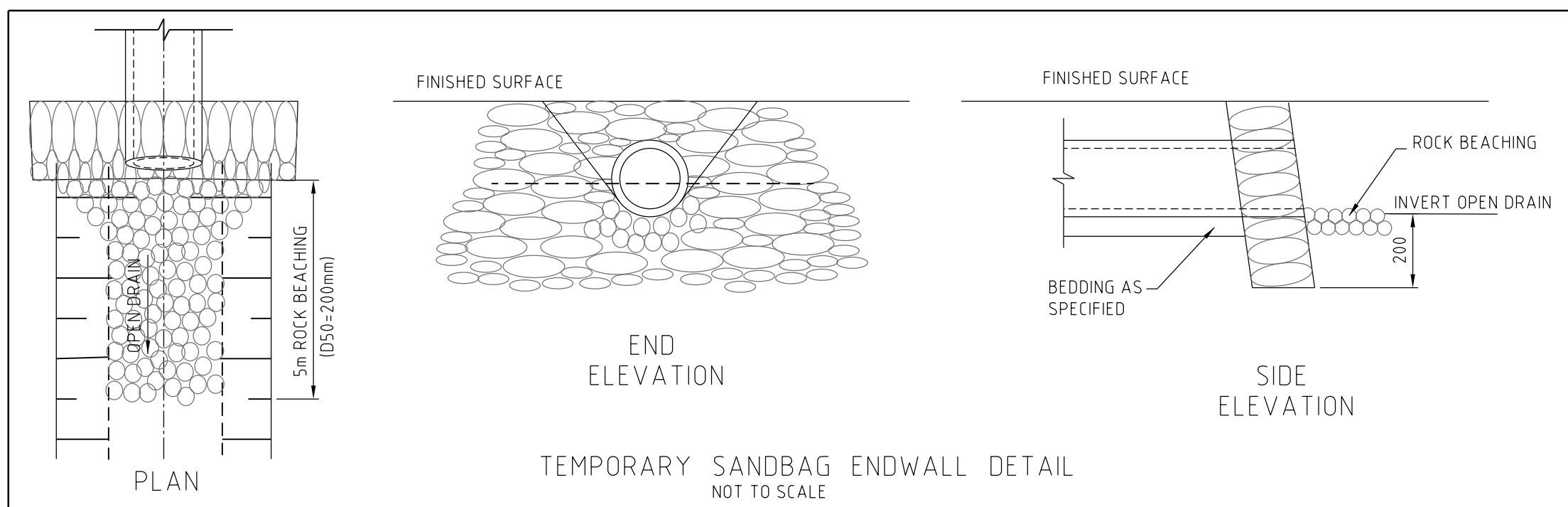
CUT OFF DRAINS TO BE DIRECTED INTO ENDPICES 29 & 27

PROVIDE STAR PICKET & 3 WIRE SAFETY FENCE 1.00m OFF EDGE OF BATTER STAR PICKETS AT MAX 2.30m SPACING.

PLAN DRAINAGE END PIPE CONNECTION

PROVIDE TEMPORARY STAR PICKET & 3 WIRE SAFETY FENCE AS SHOWN. STAR PICKETS AT MAX 2.30m SPACING WITH YELLOW SAFETY CAPS.

END ELEVATION A-A
NOT TO SCALE



ALIGNMENT A

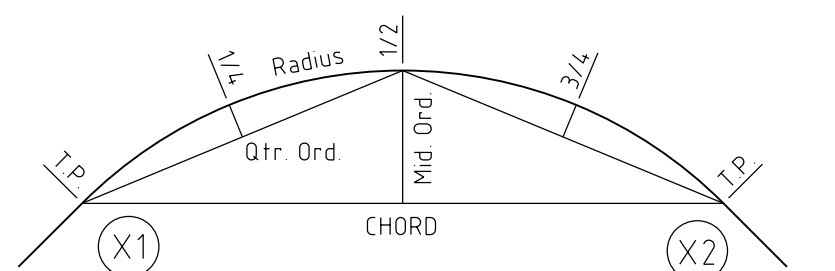
POINT NO	EASTING	NORTHING	RL
A1	288338.369	5802825.400	35.548
1/4	288338.503	5802825.370	35.550
1/2	288338.629	5802825.315	35.552
3/4	288338.741	5802825.236	35.554
A2	288338.836	5802825.137	35.557
A3	288340.159	5802823.453	35.588
1/4	288340.335	5802823.269	35.592
1/2	288340.544	5802823.123	35.596
3/4	288340.777	5802823.021	35.600
A4	288341.026	5802822.966	35.604
A5	288346.982	5802822.250	35.574
1/4	288350.328	5802822.508	35.557
1/2	288353.320	5802824.026	35.540
3/4	288355.504	5802826.573	35.522
A6	288356.546	5802829.763	35.505
A7	288356.548	5802829.780	35.505

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
A1-A2	0.700	0.550	0.536	0.053	0.013
A3-A4	1.300	1.021	0.995	0.099	-0.025
A5-A6	8.600	13.508	12.162	2.519	-0.655

ALIGNMENT B

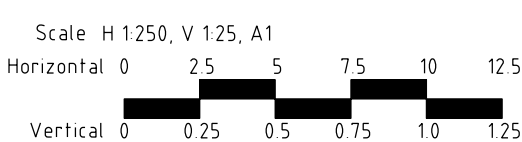
POINT NO	EASTING	NORTHING	RL
B1	288362.903	5802829.017	35.505
1/4	288363.161	5802825.668	35.522
1/2	288364.682	5802822.674	35.539
3/4	288367.233	5802820.490	35.531
B2	288370.427	5802819.451	35.456
1/4	288370.682	5802819.445	35.450
1/2	288370.932	5802819.490	35.444
3/4	288371.170	5802819.583	35.438
B3	288371.384	5802819.720	35.432
B4	288373.067	5802821.045	35.383
1/4	288373.182	5802821.119	35.380
1/2	288373.310	5802821.169	35.377
3/4	288373.445	5802821.193	35.374
B5	288373.582	5802821.190	35.371

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
B1-B2	8.600	13.521	12.171	2.523	-0.656
B2-B3	1.300	1.021	0.995	0.099	-0.025
B4-B5	0.700	0.550	0.536	0.053	0.013



KERB RETURN SETOUT DETAIL

Rev	Amendments	Approved	Date
2	LOT LAYOUT UPDATED	M.L.	28/05/19
1	BFR FOOTPATH EXTENDED TO STEM CLOSE. RED CROSSING LINEMARKING ADDED AT STEM CLOSE INTERSECTION.	M.L.	29/03/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18



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ABN 55 050 029 635



Designed
R. WEINBER
Authorised
M. LETSON

Checked
J. KOEHLER
Date
12/09/18

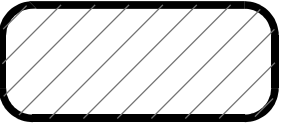
**MAMBOURIN ESTATE
STAGE 4
INTERSECTION DETAILS**

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No
305169R08

Rev
2

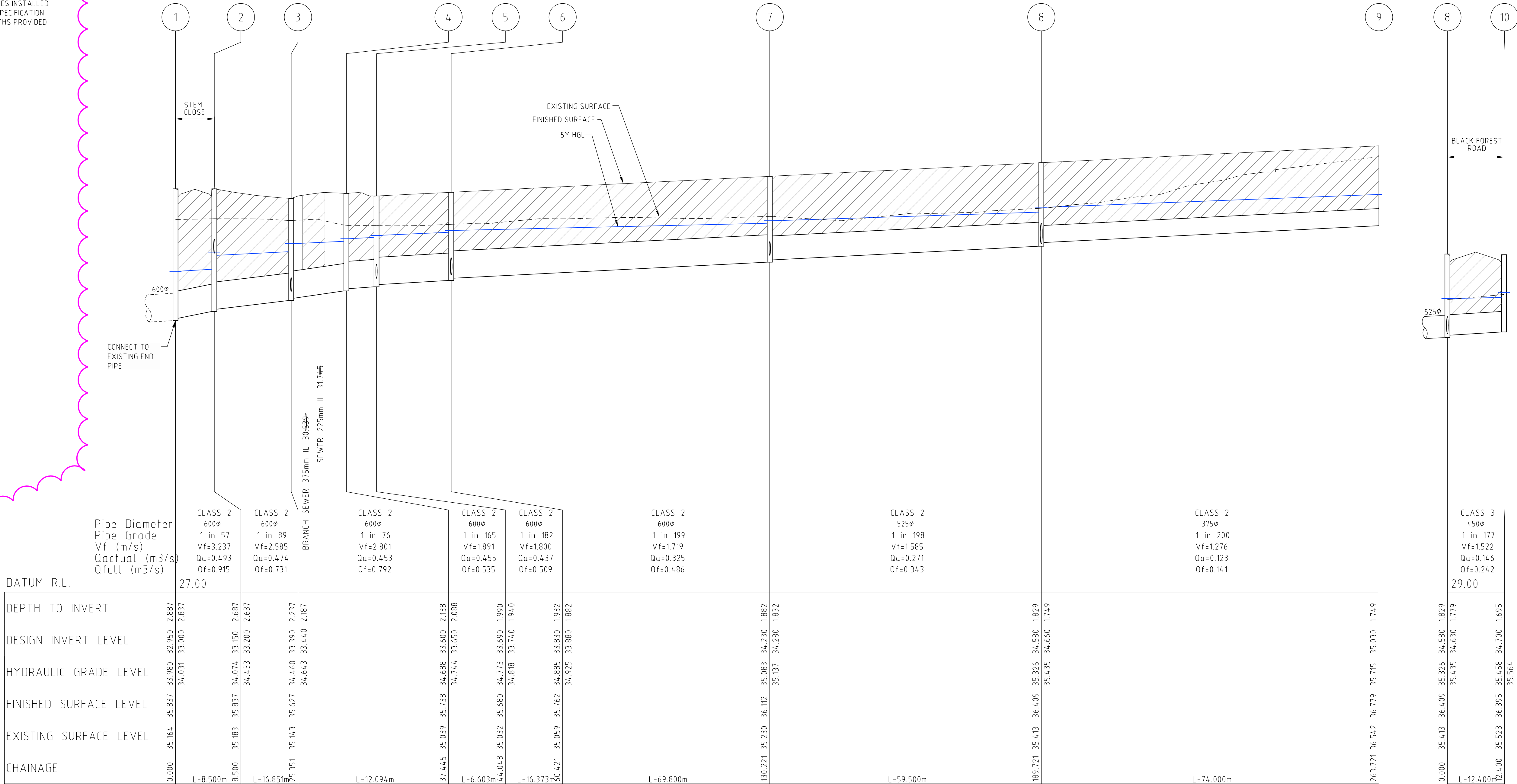
CRUSHED ROCK BACKFILL LEGEND



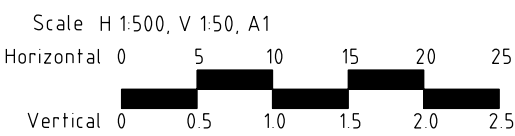
CLASS 2 CRUSHED ROCK

NOTE

- 1 ALL PIPES TO BE RRJ DENOTES RUBBER RING JOINTED UNLESS NOTED OTHERWISE
2 DRAINAGE PIPES GREATER THAN 750Ø ARE TO BE FLUSH JOINTED (FJ) WITH EXTERNAL SEALING BANDS
3 CCTV FOOTAGE IS TO BE PROVIDED TO WCC FOR REVIEW FOR ALL CLASS 4 RCP PIPES WITH THE ROAD RESERVE. CCTV SHALL BE UNDERTAKEN AFTER BACKFILLING AND PAVEMENT WORK
4 CURVED PIPE ALIGNMENTS TO BE ACHIVED USING SPLAY PIPES INSTALLED AS PER MANUFACTURES SPECIFICATION RADIUS AND SPLAY LENGTHS PROVIDED FOR ORDERING PURPOSES



2	LOT LAYOUT UPDATED	M.L.	28/05/19
1	Exp03 REMOVED	M.L.	07/05/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18
Rev	Amendments	Approved	Date



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Designed
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Authorised
M. LETSON

Checked
J. KOEHLER

Date
12/09/18

MAMBOURIN ESTATE
STAGE 4
DRAINAGE LONG SECTION
SHEET 1 OF 3

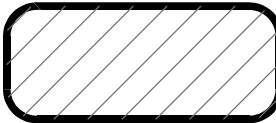
FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION

Drg No
305169R09

Rev
2

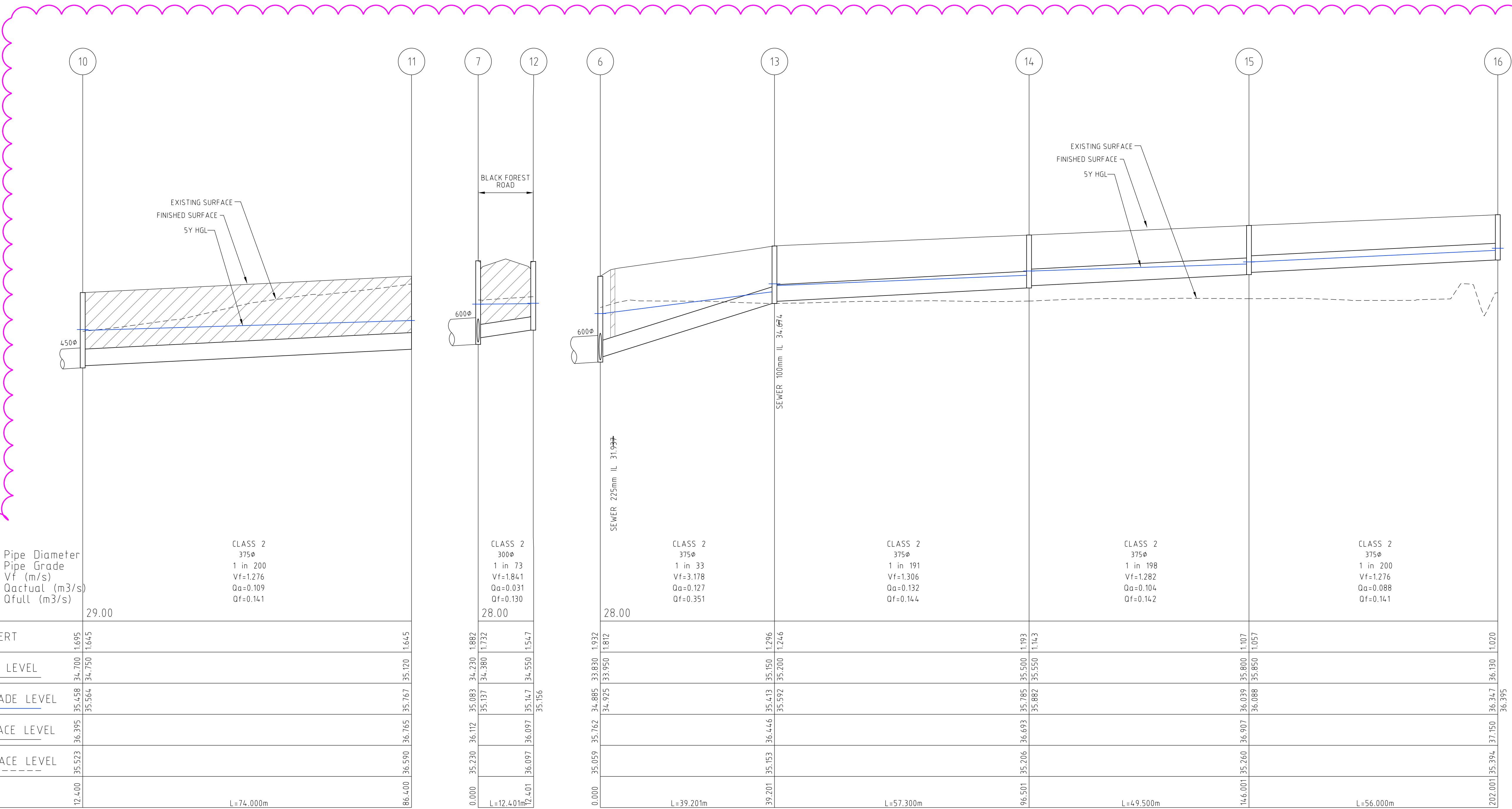
CRUSHED ROCK BACKFILL LEGEND



CLASS 2 CRUSHED ROCK

NOTE:

- 1 ALL PIPES TO BE RRJ DENOTES RUBBER RING JOINTED UNLESS NOTED OTHERWISE
- 2 DRAINAGE PIPES GREATER THAN 750Ø ARE TO BE FLUSH JOINTED (FJ) WITH EXTERNAL SEALING BANDS
- 3 CCTV FOOTAGE IS TO BE PROVIDED TO WCC FOR REVIEW FOR ALL CLASS 4 RCP PIPES WITH THE ROAD RESERVE. CCTV SHALL BE UNDERTAKEN AFTER BACKFILLING AND PAVEMENT WORK
- 4 CURVED PIPE ALIGNMENTS TO BE ACHIVED USING SPLAY PIPES INSTALLED AS PER MANUFACTURES SPECIFICATION RADIUS AND SPLAY LENGTHS PROVIDED FOR ORDERING PURPOSES



1	LOT LAYOUT UPDATED	M.L.	28/05/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18
Rev	Amendments	Approved	Date





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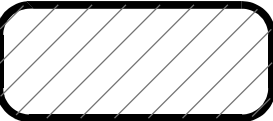
Designed
R. WEINBER
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Checked
J. KOEHLER
Date
12/09/18

MAMBOURIN ESTATE
STAGE 4
DRAINAGE LONG SECTION
SHEET 2 OF 3
FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No 305169R10 Rev 1

CRUSHED ROCK BACKFILL LEGEND



CLASS 2 CRUSHED ROCK

- NOTE:
- 1 ALL PIPES TO BE RRJ DENOTES RUBBER RING JOINTED UNLESS NOTED OTHERWISE
 - 2 DRAINAGE PIPES GREATER THAN 750Ø ARE TO BE FLUSH JOINTED (FJ) WITH EXTERNAL SEALING BANDS
 - 3 CCTV FOOTAGE IS TO BE PROVIDED TO WCC FOR REVIEW FOR ALL CLASS 4 RCP PIPES WITH THE ROAD RESERVE
 - 4 CURVED PIPE ALIGNMENTS TO BE ACHIEVED USING SPLAY PIPES INSTALLED AS PER MANUFACTURES SPECIFICATION RADIUS AND SPLAY LENGTHS PROVIDED FOR ORDERING PURPOSES

16

17

5

18

3

19

20

21

2

22

23

24

25

24

24A

24B

26

27

28

29

375Ø

600Ø

600Ø

600Ø

300Ø

1350Ø

1350Ø

Pipe Diameter
Pipe Grade
Vf (m/s)
5YR Qactual (m3/s)
Qfull (m3/s)
100YR Qactual (m3/s)

CLASS 2
300Ø
1 in 199
Vf=1.110
Qa=0.054
Qf=0.078

CLASS 3
1 in 52
Vf=2.190
Qa=0.011
Qf=0.155

CLASS 2
300Ø
1 in 170
Vf=1.201
Qa=0.013
Qf=0.085

CLASS 2
300Ø
1 in 180
Vf=1.166
Qa=0.005
Qf=0.082

CLASS 3
300Ø
1 in 95
Vf=1.608
Qa=0.005
Qf=0.114

CLASS 3
300Ø
1 in 91
Vf=1.643
Qa=0.017
Qf=0.116

CLASS 2
300Ø
1 in 80
Vf=1.753
Qa=0.030
Qf=0.124

CLASS 3
300Ø
1 in 95
Vf=1.608
Qa=0.010
Qf=0.114

CLASS 2
300Ø
1 in 191
Vf=1.131
Qa=0.010
Qf=0.080

CLASS 2
300Ø
1 in 155
Vf=1.259
Qa=0.005
Qf=0.089

CLASS 2
1350Ø (FJ)
1 in 200
Vf=2.838
Qa=1.599
Qf=4.062
Qa=3.750

CLASS 2
1350Ø (FJ)
1 in 200
Vf=2.838
Qa=1.642
Qf=4.062
Qa=3.750

DATUM R.L.	30.00
DEPTH TO INVERT	1.020
DESIGN INVERT LEVEL	36.347 36.130 36.180 36.567 36.384 0.942
Q5 HYDRAULIC GRADE LEVE	36.395 36.180 36.970
Q100 HYDRAULIC GRADE LEVEL	
FINISHED SURFACE LEVEL	37.150 37.326
EXISTING SURFACE LEVEL	35.394 36.161
CHAINAGE	202.001 35.394 37.150 242.501 36.161 37.326

L=40.500m

0.000	34.773	33.690	1.990
	34.818	33.880	1.800
	34.820	34.120	1.546
	34.821		

L=12.400m

0.000	34.460	33.390	2.237
	34.643	33.590	2.037
	34.637	33.640	1.985
	34.640	33.690	1.935

L=8.500m

0.000	35.143	35.627
	35.163	35.625
	35.141	35.479
	35.034	35.495

L=12.400m

0.000	35.183	35.837
	34.433	34.430
	34.940	34.840
	34.943	

L=37.500m

0.000	35.183	35.837	34.074	33.150	2.687
-------	--------	--------	--------	--------	-------

L=10.454m

0.000	35.089	35.117
	33.717	33.640
	33.718	

L=12.400m

0.000	35.023	35.164
	34.995	35.298
	35.036	35.282

L=19.140m

0.000	35.477	37.345	36.284
	34.663	35.342	34.663
	34.663	36.284	34.764
	35.432	36.284	34.785

L=20.277m

0.000	35.392	37.345	36.399
	34.684	35.362	34.684
	34.684	36.284	34.785
	35.463	36.284	34.785

L=20.277m

0.000	35.477	37.345	36.284
	34.663	35.342	34.663
	34.663	36.284	34.764
	35.432	36.284	34.785

L=20.277m

0.000	35.477	37.345	36.284
	34.663	35.342	34.663
	34.663	36.284	34.764
	35.432	36.284	34.785

L=20.277m

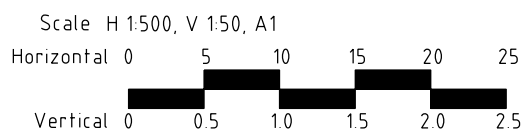
0.000	35.392	37.345	36.399
	34.684	35.362	34.684
	34.684	36.284	34.785
	35.463	36.284	34.785

L=20.277m

0.000	35.392	37.345	36.399
	34.684	35.362	34.684
	34.684	36.284	34.785
	35.463	36.284	34.785

L=20.277m

3	LOT LAYOUT UPDATED	M.L.	28/05/19
2	PIT 1, PIT SCHEDULE UPDATED	M.L.	31/01/19
1	PITS 24A, 24B ADDED AND PIT SCHEDULE UPDATED	M.L.	31/01/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18
Rev	Amendments	Approved	Date



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Date
12/09/18

MAMBOURIN ESTATE
STAGE 4
DRAINAGE LONG SECTION
SHEET 3 OF 3
FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No 305169R11 Rev 3

DRAINAGE PIT SCHEDULE

PIT		INTERNAL		INLET		OUTLET		PIT		REMARKS
NAME	TYPE	LENGTH	WIDTH	DIA	INV LEVEL	DIA	INV LEVEL	FS LEVEL	DEPTH	
1	JUNCTION PIT	900	600	600	33.000	600	32.950	35.837	2.887	REFER DRAWING - EDCM 605 CONSTRUCT PIT OVER EXISTING END PIPE PROVIDED WITH WETLAND WORKS
2	JUNCTION PIT	900	900	600	33.200	600	33.150	35.837	2.687	REFER DRAWING - EDCM 605 (PROVIDE HAUNCHING UNDER KERB)
				300	34.430					
3	SIDE ENTRY PIT GRATED	900	900	600	33.440	600	33.390	35.627	2.237	REFER DRAWING - EDCM 601 (PROVIDE HAUNCHING UNDER KERB)
				300	33.590					
4	JUNCTION PIT	900	900	600	33.650	600	33.600	35.738	2.138	REFER DRAWING - EDCM 605 (PROVIDE HAUNCHING)
5	SIDE ENTRY PIT GRATED	900	900	600	33.740	600	33.690	35.680	1.990	REFER DRAWING - EDCM 601 (PROVIDE HAUNCHING UNDER KERB)
				300	33.880					
6	JUNCTION PIT	900	900	600	33.880	600	33.830	35.762	1.932	REFER DRAWING - EDCM 605 (PROVIDE HAUNCHING UNDER KERB)
				375	33.950					
7	SIDE ENTRY PIT GRATED	900	900	525	34.280	600	34.230	36.112	1.882	REFER DRAWING - EDCM 601 (PROVIDE HAUNCHING UNDER KERB)
				300	34.380					
8	SIDE ENTRY PIT GRATED	900	900	375	34.660	525	34.580	36.409	1.829	REFER DRAWING - EDCM 601 (PROVIDE HAUNCHING UNDER KERB)
				450	34.630					
9	END PIPE					375	35.030	36.779	1.749	BLANK END WITH MARINE PLY
10	SIDE ENTRY PIT GRATED	900	600	375	34.750	450	34.700	36.395	1.695	REFER DRAWING - EDCM 601
11	END PIPE					375	35.120	36.765	1.645	BLANK END WITH MARINE PLY
12	SIDE ENTRY PIT GRATED	900	600			300	34.550	36.097	1.547	REFER DRAWING - EDCM 601
13	JUNCTION PIT	900	600	375	35.200	375	35.150	36.446	1.296	REFER DRAWING - EDCM 605
14	JUNCTION PIT	900	600	375	35.550	375	35.500	36.693	1.193	REFER DRAWING - EDCM 605
15	JUNCTION PIT	900	600	375	35.850	375	35.800	36.907	1.107	REFER DRAWING - EDCM 605
16	JUNCTION PIT	900	600	300	36.180	375	36.130	37.150	1.020	REFER DRAWING - EDCM 605
17	END PIPE					300	36.384	37.326	0.942	BLANK END WITH MARINE PLY
18	SIDE ENTRY PIT GRATED	900	600			300	34.120	35.666	1.546	REFER DRAWING - EDCM 601
19	SIDE ENTRY PIT GRATED	900	600	300	33.690	300	33.640	35.625	1.985	REFER DRAWING - EDCM 601
20	SIDE ENTRY PIT GRATED	900	600	300	33.810	300	33.760	35.479	1.719	REFER DRAWING - EDCM 601
21	SIDE ENTRY PIT GRATED	900	600			300	33.940	35.495	1.555	REFER DRAWING - EDCM 601
22	JUNCTION PIT	900	600			300	34.840	36.410	1.570	REFER DRAWING - EDCM 605
23	END PIPE			300	33.330			35.117	2.307	CONNECT INTO CULVERT WING WALL
24	DOUBLE SIDE ENTRY PIT GRATED	900	600	300	33.510	300	33.460	35.164	1.704	REFER DRAWING - EDCM 602
				300	33.510					
25	DOUBLE SIDE ENTRY PIT GRATED	900	600			300	33.640	35.186	1.546	REFER DRAWING - EDCM 602
24A	SIDE ENTRY PIT GRATED	900	600	300	33.660	300	33.610	35.298	1.688	REFER DRAWING - EDCM 601
24B	SIDE ENTRY PIT GRATED	900	600			300	33.740	35.282	1.542	REFER DRAWING - EDCM 601
26	EX END PIPE			1350	34.663			37.345	2.682	CONNECT TO EXISTING MW END PIPE CONSTRUCTED WITH STAGE 1 WORKS
27	END PIPE					1350	34.764	36.243	1.478	OPEN END FOR CATCH DRAIN CONNECTION (REFER SHEET 8 FOR DETAILS)
28	EX END PIPE			1350	34.684			37.345	2.661	CONNECT TO EXISTING MW END PIPE CONSTRUCTED WITH STAGE 1 WORKS
29	END PIPE					1350	34.785	36.251	1.465	OPEN END FOR CATCH DRAIN CONNECTION (REFER SHEET 8 FOR DETAILS)

0	LOT LAYOUT UPDATED	M.L	28/05/19
Rev	Amendments	Approved	Date





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Designed
R. WEINBER

Checked
J. KOEHLER

Authorised
M. LETSON

Date
12/09/18

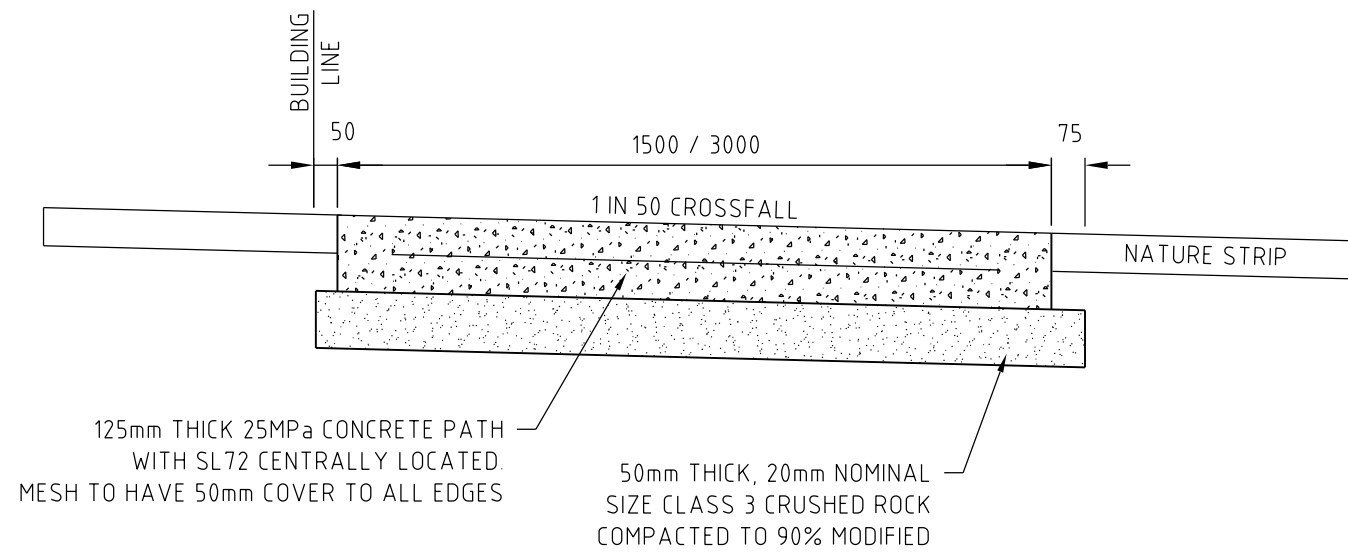
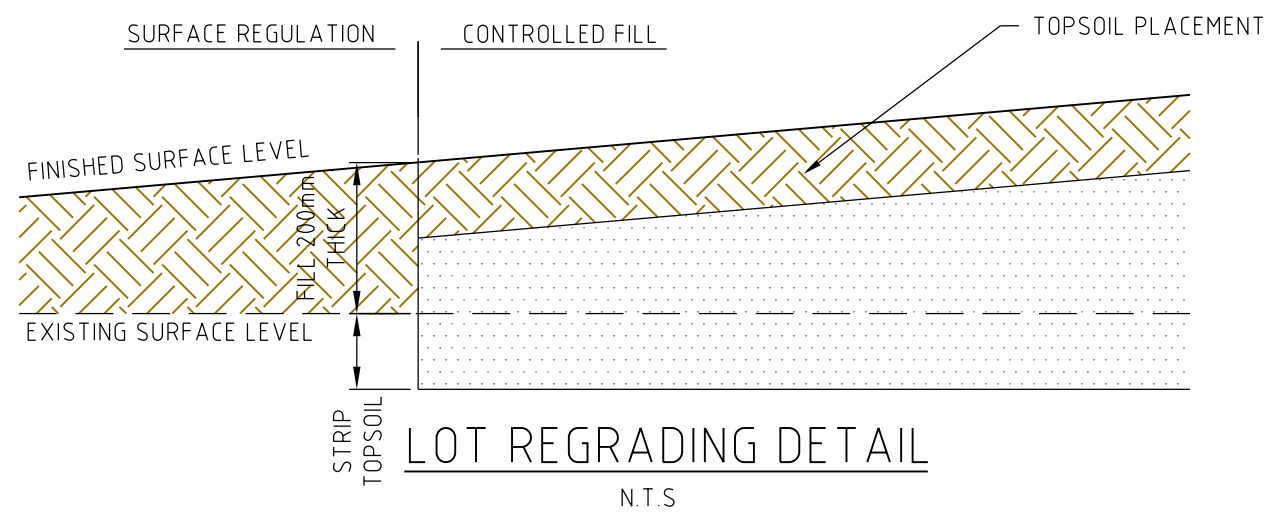
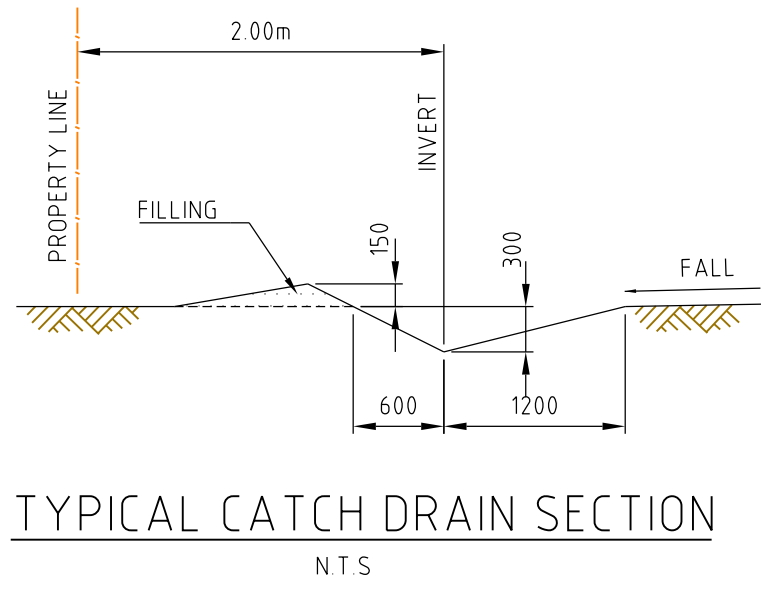
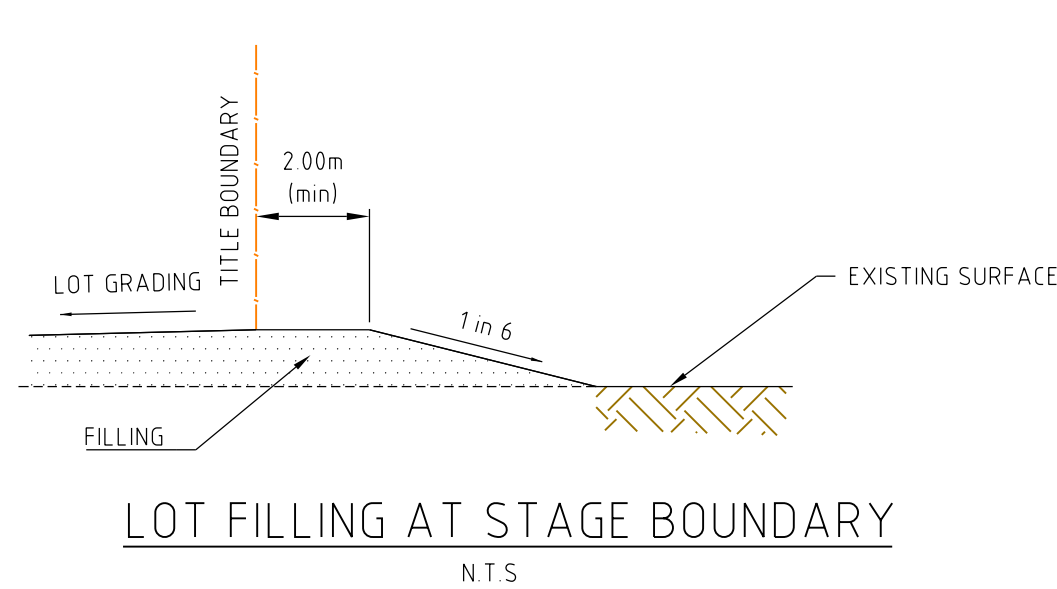
MAMBOURIN ESTATE
STAGE 4
PIT SCHEDULE

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION

Drg No
305169R12

Rev
0



DESIGN PAVEMENT PROFILE FOR CONNECTOR STREET

	PAVEMENT LAYER	DESCRIPTION	DEPTH (mm)
			CONNECTOR STREET
A	ASPHALT WEARING COURSE	Size 14 Type N Asphalt	40
B	ASPHALT STRUCTURAL COURSE	Size 20 Type SI Asphalt	60
D	BASE	Size 20 Type SI Asphalt	90
		UPPER PAVEMENT TOTAL	190
E	UPPER SUBBASE	20mm 3% Cement Treated Crushed Rock (E=500MPa)	120
F	LOWER SUBBASE	Class 3 Crushed Rock (size 20mm). Compacted in 2 layers	100
G	CAPPING LAYER	Type A - Working platform achieving CBR > 5%, Properties: CBR >15.0%, Swell <15 %, Permeability < 1E-9 m/s (thickness to be confirmed during construction)	305
		TOTAL PAVEMENT DEPTH	715

NOTE:
REFER TO SITE GEOTECHNICAL PTY LTD REPORT TITLED "GEOTECHNICAL INVESTIGATION INCLUDING PAVEMENT DESIGN, FILL SPECIFICATION AND RECOMMENDATIONS FOR SEWERS, RETAINING WALLS AND WETLANDS" FOR COMPACTION DETAILS.
BASED UPON A CONTROLLED FILL CBR OF 2%.

ROAD TYPE DESIGNATIONS

ROAD NAME	ROAD PAVEMENT TYPE
BLACK FOREST ROAD	CONNECTOR STREET
MERULA DRIVE	ACCESS STREET LVL 1
STEM CLOSE	ACCESS STREET LVL 1

PAVEMENT DETAILS

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

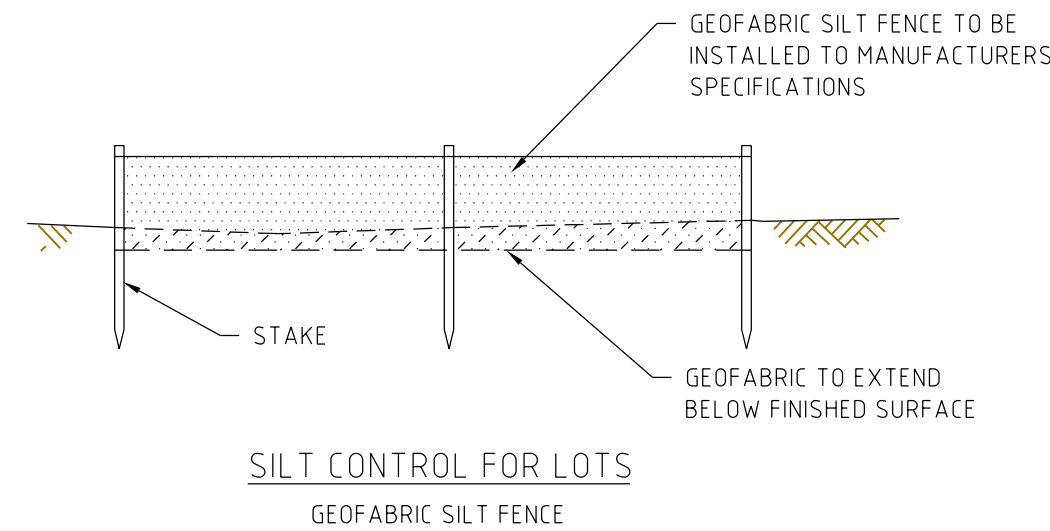
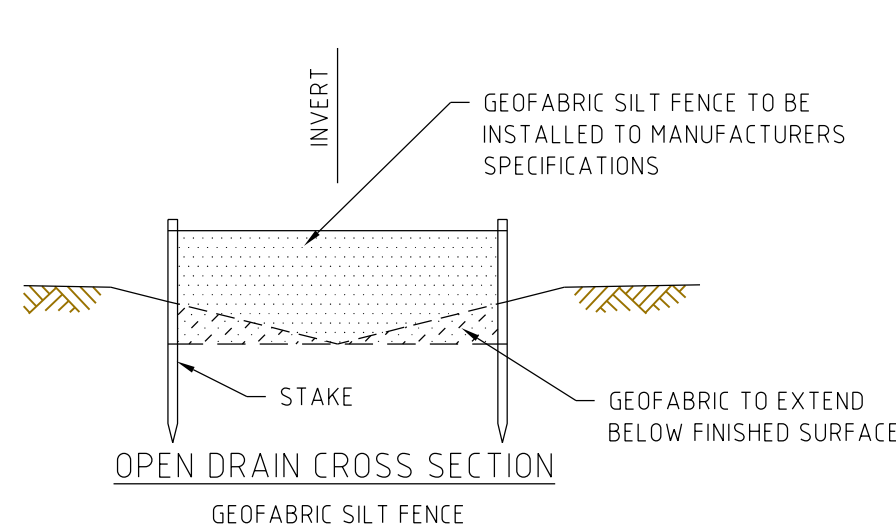
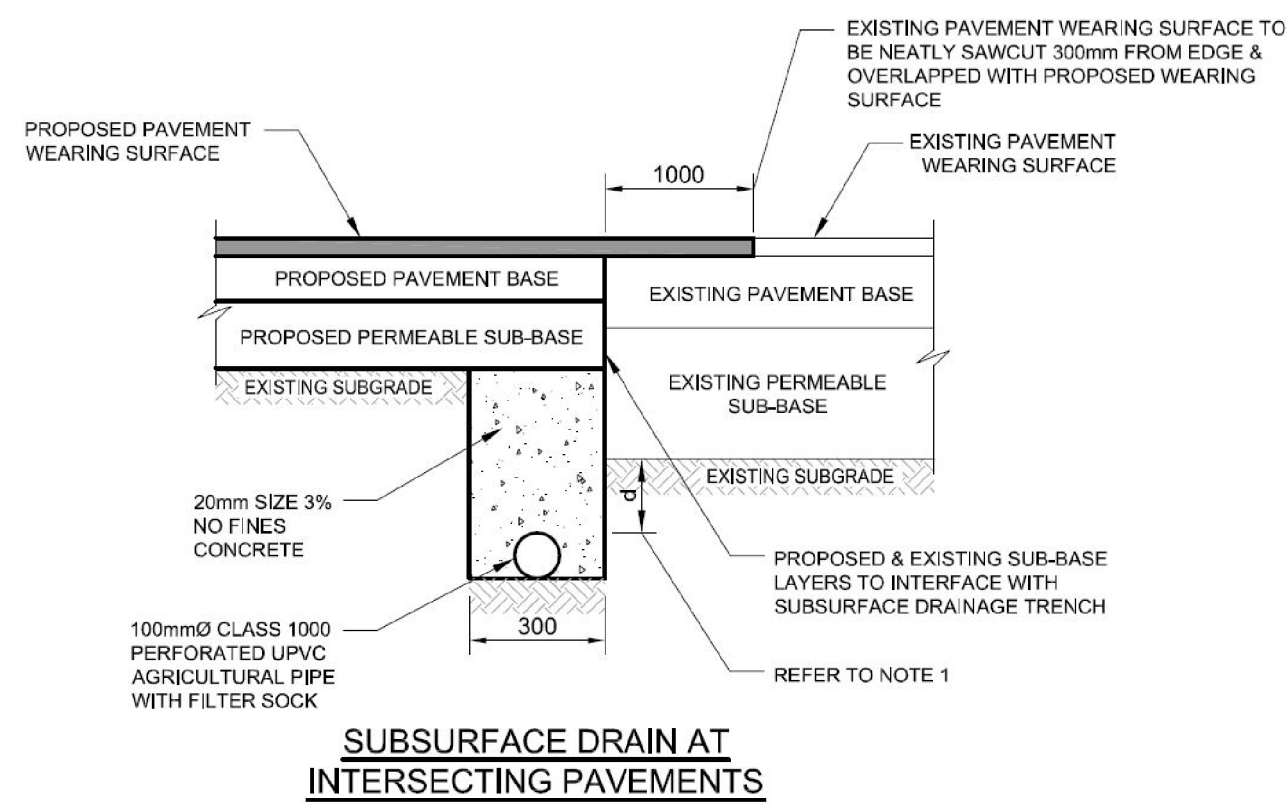
THE DESIGN HAS BEEN EXTRACTED FROM THE SITE GEOTECHNICAL PTY LTD REPORT TITLED "GEOTECHNICAL INVESTIGATION INCLUDING PAVEMENT DESIGN, FILL SPECIFICATION AND RECOMMENDATIONS FOR SEWERS, RETAINING WALLS AND WETLANDS" THIS DOCUMENT SHOULD BE REVIEWED TO ENSURE THAT THE DESIGN HAS BEEN ACCURATELY REPRODUCED. A COPY OF THE DOCUMENT WILL BE PROVIDED TO YOU ON REQUEST.

SPIIRE DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY, ADEQUACY OR APPROPRIATENESS OF THE GEOTECHNICAL WORK AND PAVEMENT DESIGNS.
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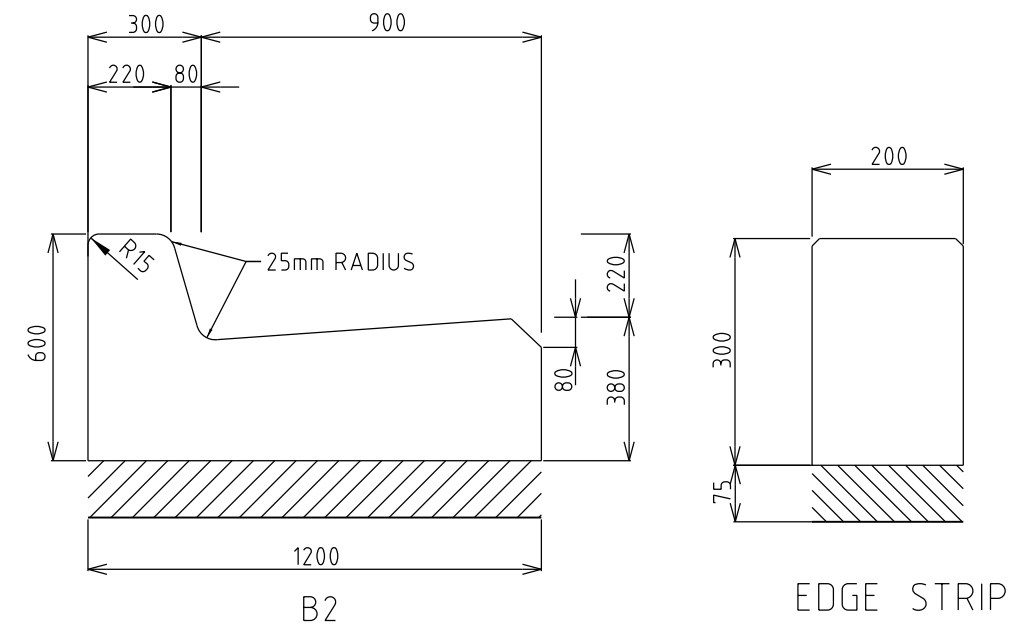
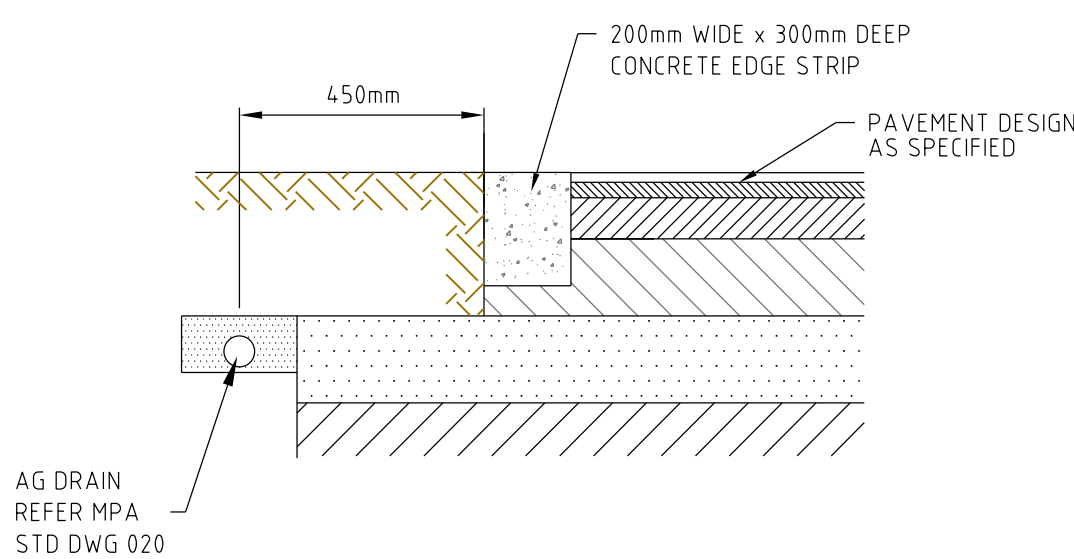
DESIGN PAVEMENT PROFILE FOR ACCESS STREET LEVEL 1

	PAVEMENT LAYER	DESCRIPTION	DEPTH (mm)
			ACCESS STREET LVL 1
A	ASPHALT WEARING COURSE	Size 10mm Type N Asphalt	30
B	ASPHALT STRUCTURAL COURSE	Size 10mm Type N Asphalt	30
C		Prime Coat and SAMI treatment (size 10 S18RF)	0
		approximately 10mm thick	
D	BASE	Class 2 Crushed Rock (size 20mm)	130
		UPPER PAVEMENT TOTAL	190
E	UPPER SUBBASE	Class 2 Crushed Rock (size 20mm)	100
F	LOWER SUBBASE	Class 3 Crushed Rock (size 20mm). Compacted in 2 layers	150
G	CAPPING LAYER	Type A - Working platform achieving CBR > 5%, Properties: CBR >15.0%, Swell <15 %, Permeability < 1E-9 m/s (thickness to be confirmed during construction)	160
		TOTAL PAVEMENT DEPTH	600

NOTE:
REFER TO SITE GEOTECHNICAL PTY LTD REPORT TITLED "GEOTECHNICAL INVESTIGATION INCLUDING PAVEMENT DESIGN, FILL SPECIFICATION AND RECOMMENDATIONS FOR SEWERS, RETAINING WALLS AND WETLANDS" FOR COMPACTION DETAILS.
BASED UPON A CONTROLLED FILL CBR OF 2%.



SILT CONTROL OPTIONS



- NOTES:
1. ALL KERBS AND KERB & CHANNEL TO BE REINFORCED IN ACCORDANCE WITH MUNICIPALITY STD DRAWINGS
 2. ALL KERBS AND KERB & CHANNEL TO HAVE 190mm DEPTH OF CONCRETE BELOW TOP OF PAVEMENT LEVEL

Rev	Amendments	Approved	Date
3	LOT LAYOUT UPDATED	M.L.	28/05/19
2	CONNECTOR STREET UPPER SUBBASE UPDATED	M.L.	17/05/19
1	NEW CONSTRUCTION PAVEMENT DETAIL UPDATED.	M.L.	07/05/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18

NOT TO SCALE



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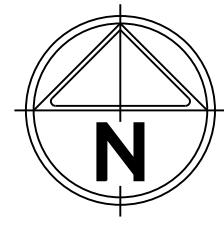
Checked
J. KOEHLER
Date
12/09/18

MAMBOURIN ESTATE STAGE 4 PAVEMENT & TYPICAL DETAILS

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No
305169R13

Rev
3



LEGEND

S1

STREET NAME PLATES TO BE IN ACCORDANCE WITH WCC SD812, INCLUDING "NO THROUGH ROAD" NOMINATION WHERE APPLICABLE

S2

R1-2A

S3

S4

ROAD HUMP SIGN (BLACK & YELLOW)

S4

ADVISORY SPEED SIGN (BLACK & YELLOW)

S5

G9-20

S6

D4-5

S7

W3-4A ROAD HUMP SIGN (BLACK & YELLOW)

S8

D4-2-1

BIKE PATH CONTRASTING SURFACE COLOUR:
FOR ENHANCED VISIBILITY AT ALL ROAD CROSSINGS AND DRIVEWAY CROSSINGS AS SHOWN
USE GREEN EPOXY MODIFIED ACRYLIC COATING WITH A NON SLIP SURFACE

TGSi KERB RAMP

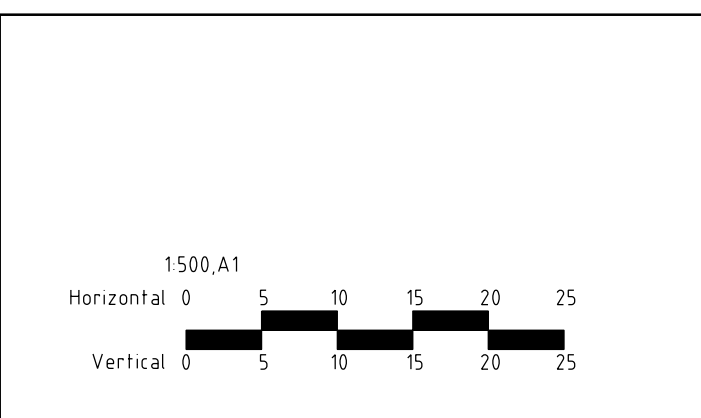
TGSi DIRECTIONAL

1-WAY RRPM (5m SPACING)

HAZARD / DIRECTIONAL TGSi'S
SHOW INDICATIVELY
FOOTPATH RAMP'S SHALL BE
CONSTRUCTED IN ACCORDANCE WITH
EDCM 403
TGSi'S SHALL CONFORM TO AS1428.4

NOTE:
1. 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.

Rev	Amendments	Approved	Date
3	LOT LAYOUT UPDATED	M.L.	28/05/19
2	BFR FOOTPATH EXTENDED TO STEM CLOSE. RED CROSSING LINEMAKING ADDED AT STEM CLOSE INTERSECTION.	M.L.	29/03/19
1	SIGNAGE ADJUSTED AS PER RAISED PAVEMENT AND BIKE PATH ADDED	M.L.	31/01/19
0	CONSTRUCTION ISSUE	M.L.	13/11/18



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Designed
R. WEINBER

Authorised
M. LETSON

Checked
J. KOEHLER

Date
12/09/18

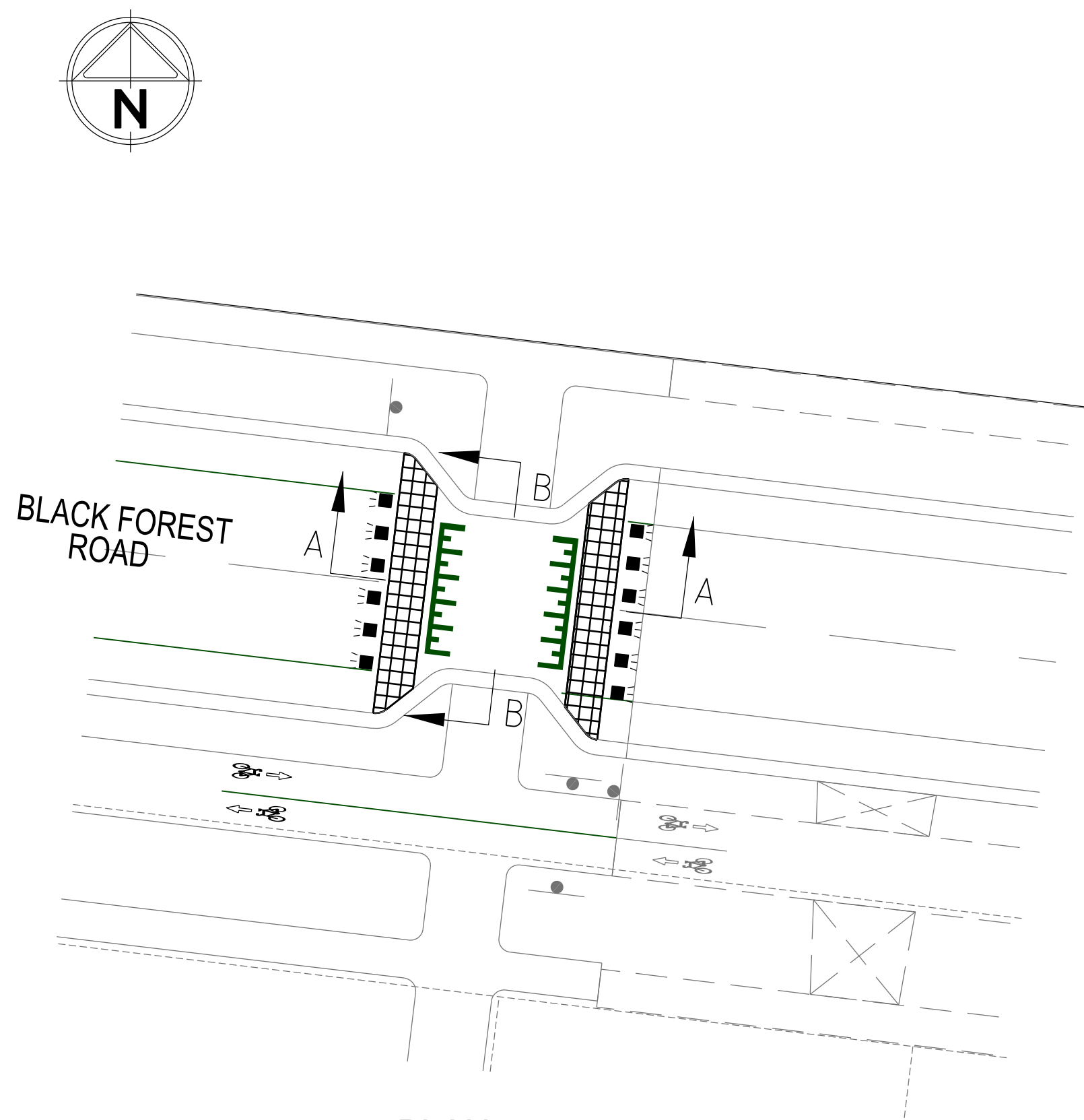
MAMBOURIN ESTATE
STAGE 4
SIGNAGE & LINEMARKING

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

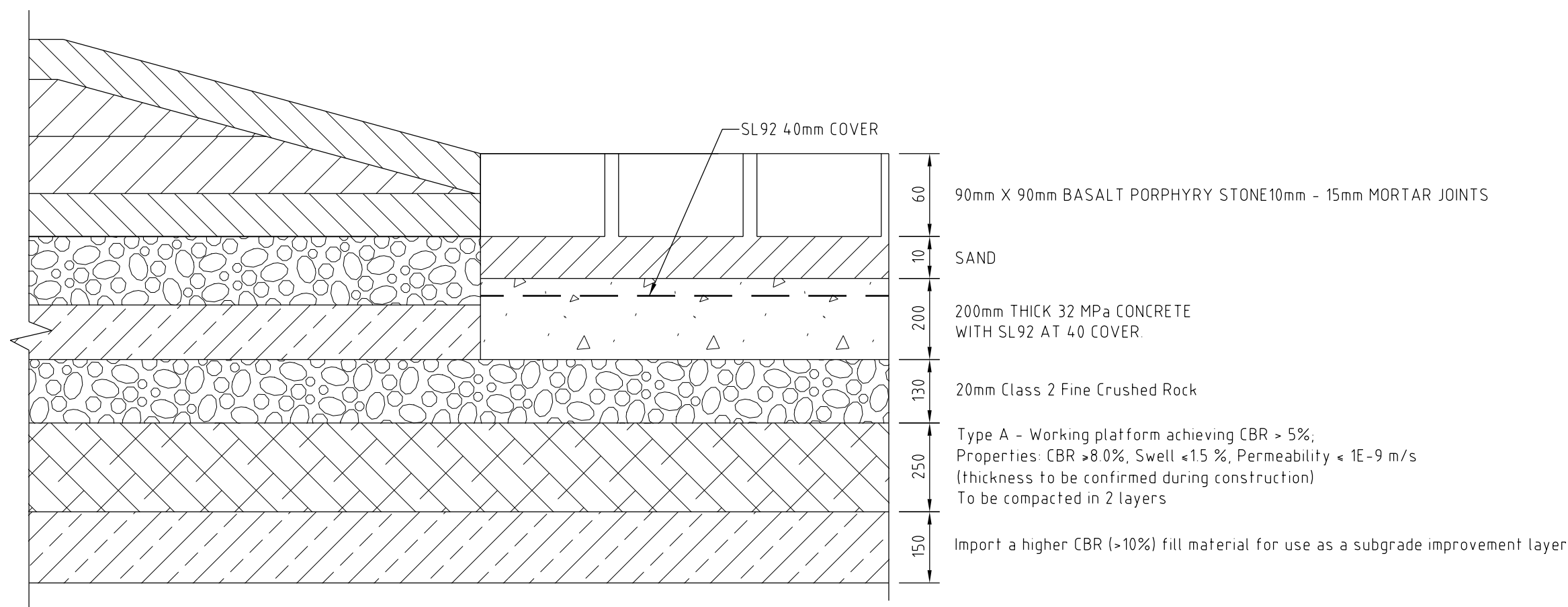
CONSTRUCTION

Drg No
305169R14

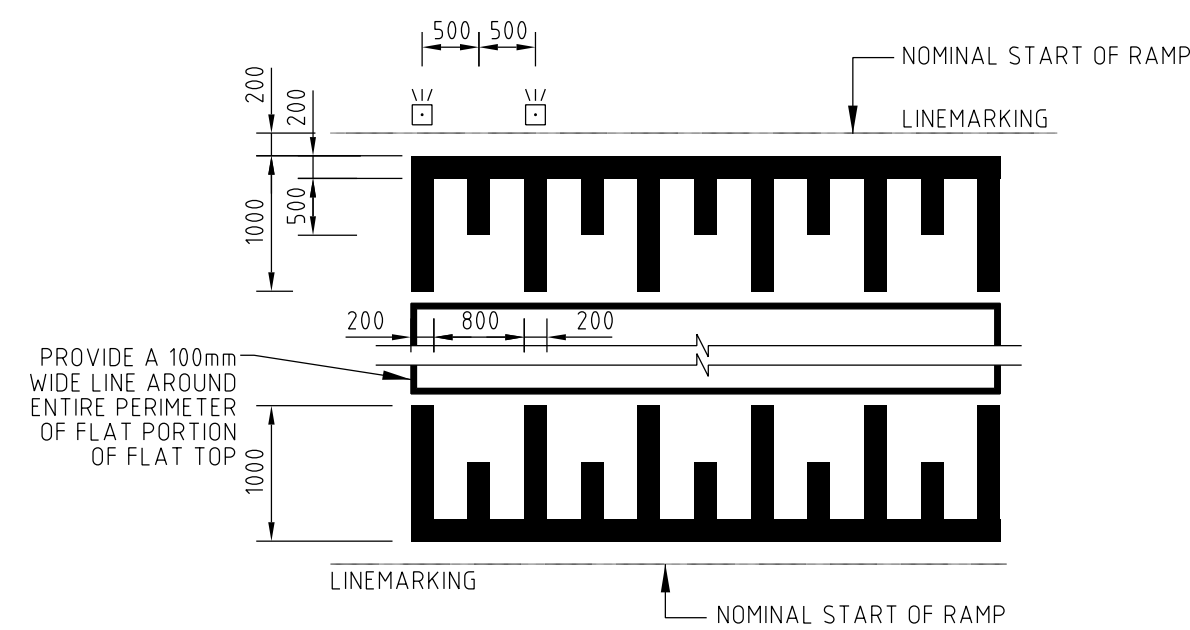
Rev
3



PLAN
FLAT TOP ROAD HUMPH
(BLACK FOREST ROAD)



PORPHYRY STONE THRESHOLD DETAILS
NOT TO SCALE

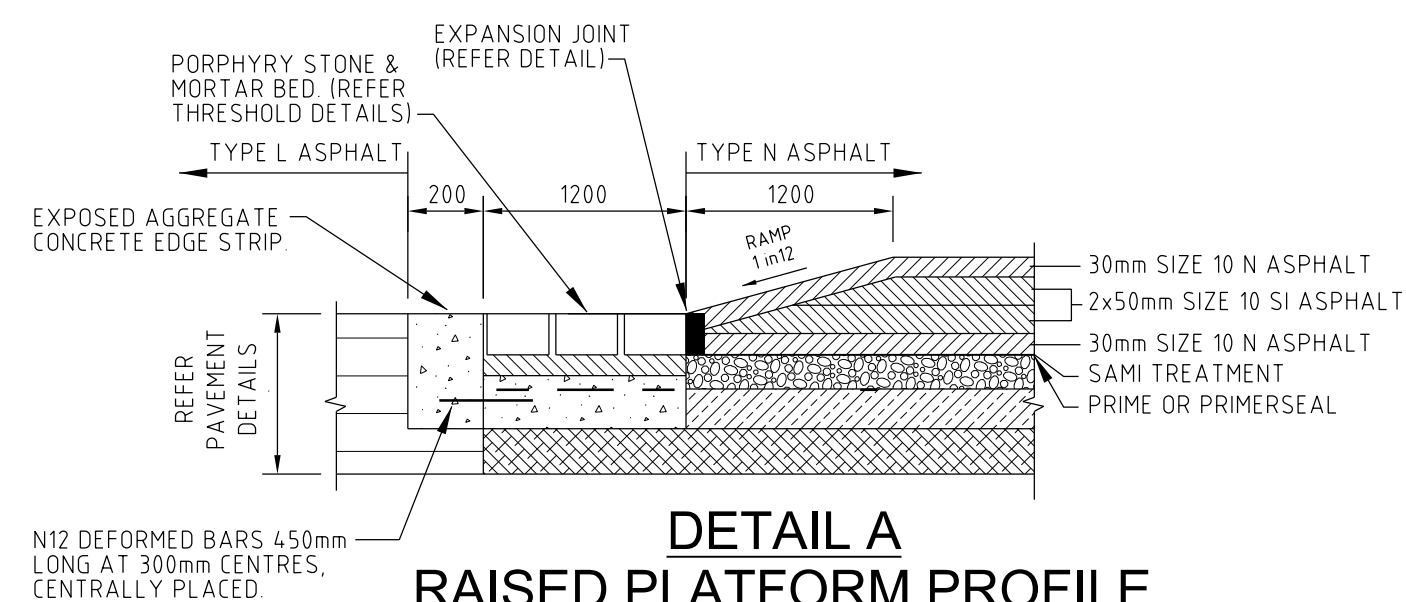


LINEMARKING DETAILS
NOT TO SCALE

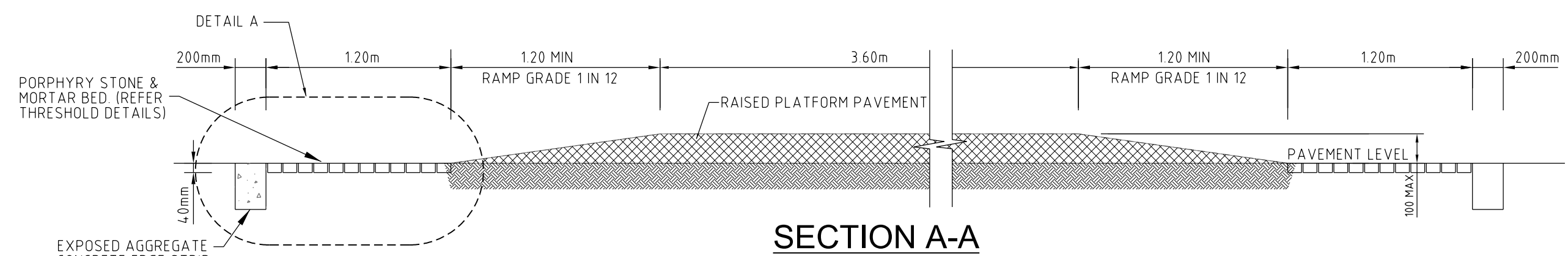


BASALT PORPHYRY STONE
(90X90mm WITH 10-15mm MORTAR GAP)

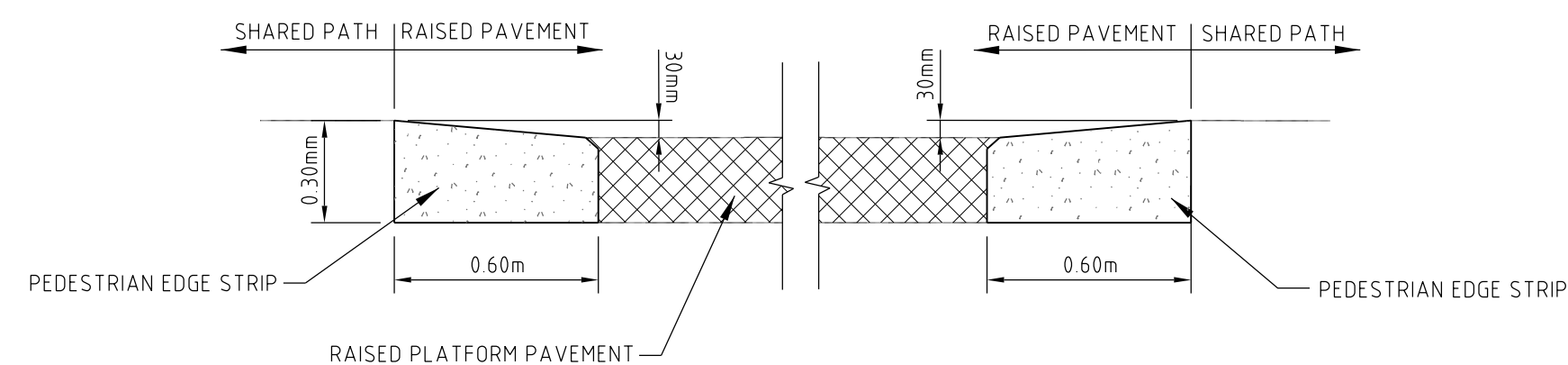
NOTE:
CONTRACTOR TO PROVIDE 1m SQUARE SAMPLE OF BOTH SURFACES TO SUPER INTENDENT FOR APPROVAL BEFORE CONSTRUCTION WORK CAN COMMENCE



DETAIL A
RAISED PLATFORM PROFILE
NOT TO SCALE

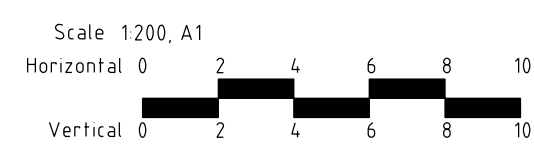


SECTION A-A
FLAT TOP RAISED PAVEMENT
NOT TO SCALE



SECTION B-B
NOT TO SCALE

Rev	Amendments	Approved	Date
2	LOT LAYOUT UPDATED	M.L	28/05/19
1	RAISED PAVEMENT ADJUSTED AND PORPHYRY STONE ADDED	M.L	31/01/19
0	CONSTRUCTION ISSUE	M.L	13/11/18



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Checked
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Date
12/09/18

**MAMBOURIN ESTATE
STAGE 4
RAISE PAVEMENT DETAILS**

FRASER PROPERTY AUSTRALIA
WYNDHAM CITY COUNCIL

CONSTRUCTION Drg No
305169R15

Rev
2