

ARMSTRONG

STAGE 45

CITY OF GREATER GEELONG

GENERAL NOTES:

- THE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT INFRASTRUCTURE DESIGN MANUAL STANDARD DRAWINGS AND GREATER GEELONG CITY COUNCIL STANDARD DRAWINGS AND SPECIFICATIONS. WORKS TO BE CARRIED OUT TO THE SATISFACTION OF COUNCIL'S SUPERVISING OFFICER.
- THE CONTRACTOR IS RESPONSIBLE FOR SAFETY OF WORK ON SITE IN ACCORDANCE WITH APPROPRIATE LEGISLATION. THEY SHALL ERECT AND MAINTAIN ALL SHORING, PLANKING AND STRUTTING, DEWATERING DEVICES, BARRICADES, SIGNS, LIGHTS, ETC. NECESSARY TO KEEP WORKS IN A SAFE AND STABLE CONDITION, AND TO PROTECT THE PUBLIC FROM HAZARDS ASSOCIATED WITH THE WORKS.
- THE CONTRACTOR SHALL:
 - COMPLY WITH THE "SAFETY PRECAUTIONS IN TRENCHING OPERATIONS" (CODE OF PRACTICE No.8, 1998)
 - NOTIFY WORK SAFE OF HIS INTENTION TO COMMENCE TRENCHING OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER.
 - ENSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULATIONS IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN PROGRESS.
- THE CONTRACTOR IS TO NOTIFY COUNCIL AND ALL SERVICE AUTHORITIES SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL RELEVANT SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
- REDGUM TREES MARKED ON THE APPROVED PLANS FOR REMOVAL MUST BE REMOVED IN ACCORDANCE WITH COUNCIL'S PLANNING PERMIT. NO EXCAVATION SHALL BE CARRIED OUT WITHIN THE TREE PROTECTION ZONE OF ANY EXISTING TREE WITHOUT WRITTEN APPROVAL FROM COUNCIL'S SUPERVISING OFFICER.
- ALL ROAD CHAINAGES ARE MEASURED ALONG THE ROAD CENTRELINE EXCEPT KERB RETURNS AND COURTHEADS, WHERE LIP OF KERB CHAINAGES ARE SPECIFIED. ALL DIMENSIONS AND RADII ARE GIVEN TO THE LIP OF KERB. DO NOT SCALE OFF THESE DRAWINGS, WRITTEN DIMENSIONS ONLY SHALL BE USED.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM.
- ALL EXCAVATED OR FILLED AREAS OUTSIDE THE ROAD RESERVES TO BE STRIPPED OF TOPSOIL AND STOCKPILED PRIOR TO EARTHWORKS COMMENCING. THESE AREAS SHALL BE RESURFACED WITH A 150mm LAYER OF TOPSOIL AS SPECIFIED.
- NO TOPSOIL TO BE REMOVED FROM SITE.
- NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE UNLESS DIRECTED BY THE SUPERINTENDENT.
- FILLING ON ALLOTMENTS AND UNDER ROAD PAVEMENTS TO HAVE LEVEL 1 SUPERVISION IN ACCORDANCE WITH AS3798-1996. INDIVIDUAL LOT CERTIFICATES ARE TO BE PROVIDED TO THE SUPERINTENDENT.
- FILLING UNDER DRIVEWAYS AND FOOTPATH IS TO BE APPROVED BY THE SUPERINTENDENT AND CONSTRUCTED IN LAYERS 150mm DEPTH. COMPACTION ACHIEVING A MINIMUM DENSITY RATIO OF 98% (STANDARD) IN ACCORDANCE WITH AS1289 CLAUSE 5.1.1.
- CUT AND FILL BATTER SLOPES ARE NOT TO EXCEED 1 IN 6 UNLESS SHOWN OTHERWISE.
- ALL DRAINAGE PIPES ARE TO BE SPIGOT-SOCKET RUBBER RING JOINTED UNLESS STATED OTHERWISE.
- ALL DRAINAGE TRENCHES UNDER PARKING BAYS, DRIVEWAYS, FOOTPATHS AND BEHIND KERB & CHANNEL, SHALL BE BACKFILLED WITH CRUSHED ROCK AS SPECIFIED.
- ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILIZED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOM. SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
- PROPERTY INLETS AS PER INFRASTRUCTURE DESIGN MANUAL (IDM) STANDARD DRAWING SD 520 ARE TO BE LOCATED 1.0m FROM LOW SIDE BOUNDARY UNLESS SHOWN OTHERWISE.
- ALL HOUSE DRAIN CONNECTIONS ARE TO BE LOCATED NO CLOSER THAN 6.0m FROM THE SIDE BOUNDARY OR FROM EASEMENT ALONG THE SIDE BOUNDARY UNLESS NOTED OTHERWISE AND CONNECTED DIRECTLY TO UNDERGROUND DRAIN OR PIT. HOUSE DRAIN LOCATION TO BE MARKED (50mm STAMPED IMPRESSION) ON THE TOP OF THE KERB.
- SUBSOIL DRAINS SHALL BE INSTALLED BEHIND OR BELOW ALL KERBS AND CHANNEL.
- CONDUIT LOCATIONS ARE SUBJECT TO AMENDMENT AND CONDUITS SHALL NOT BE LAID UNTIL WRITTEN APPROVAL IS GIVEN BY THE SUPERINTENDENT. CONDUITS TO BE EXTENDED TO PROPERTY LINE AND ARE REQUIRED WHEN CONNECTIONS EXTEND UNDER ROAD PAVEMENT, FOOTPATH OR OTHER INFRASTRUCTURE. BOTH KERBS ARE TO BE MARKED (50mm STAMPED IMPRESSION) WITH THE LETTERS E (ELECTRICAL), G (GAS), T (TELEPHONE), W (WATER) AND C (COUNCIL COMMUNICATION) ABOVE CONDUIT LOCATION.
- ALL SERVICING TRENCHES UNDER ROADS, DRIVEWAYS, FOOTPATHS ETC. ARE TO BE BACKFILLED & COMPACTED WITH F.C.R. IN THE CASE OF TRENCHES UNDER ROADS WHERE BACKFILLING HAS NOT ACHIEVED THE SPECIFIED COMPACTION OR SHOWS EXCESSIVE MOVEMENT UNDER PROOF ROLLING, THE BACKFILLING SHALL BE REMOVED AND REPLACED WITH 2% STABILISED COMPACTED F.C.R.
- NO COMMUNICATION PITS ARE TO BE LOCATED IN THE FOOTPATH.
- VEHICULAR CROSSINGS TO BE LOCATED CLEAR OF DRAINAGE PITS, SEWER MAINTENANCE HOLES AND EXISTING TREES. VEHICLE CROSSINGS TO BE 1m FROM PROPERTY BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN. VEHICULAR CROSSINGS TO BE CONSTRUCTED AS PER CITY OF GREATER GEELONG "DESIGN NOTES No.4" DATED AUGUST 2012 & IDM STANDARD DRAWINGS SD205 to SD265.
- ALL PEDESTRIAN CROSSINGS TO BE IN ACCORDANCE WITH INFRASTRUCTURE DESIGN MANUAL SD200.
- ALL STREET SIGNS TO BE IN ACCORDANCE WITH INFRASTRUCTURE DESIGN MANUAL STANDARD DRAWINGS. STREET SIGNS TO BE ATTACHED TO LIGHT POLES USING 'SINGLE DIRECTION COLLAR' OR '90° RIGHT ANGLE COLLAR' UNLESS SHOWN OTHERWISE.
- ALL PAVEMENT MARKINGS AND TRAFFIC SIGNS SHOULD BE TO AS1742.2 AND AS1742.1 STANDARD RESPECTIVELY. TEMPORARY LINEMARKING TO BE PLACED DURING MAINTENANCE PERIOD PRIOR TO PLACEMENT OF WEARING COURSE. FINAL LINEMARKING TO BE LONG LIFE ROAD MARKING WITH LONGITUDINAL LINES IN THERMOPLASTIC AND TRANSVERSE MARKINGS IN COLD APPLIED.
- UPON COMPLETION OF CONSTRUCTION THE WHOLE SITE SHALL BE CLEANED, GRADED, ALL RUBBISH REMOVED AND LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT.
- ALL AREAS OF SUBDIVISION EXPOSED OF VEGETATION, INCLUDING NATURE STRIPS, LOTS AND RESERVES ARE TO BE FULLY GRASSED BY HYDRO MULCHING, WATERED AND MAINTAINED, UNTIL THE END OF MAINTENANCE PERIOD.
- ALL SUMPS IN PRECAST CONCRETE PITS ARE TO BE INFILLED WITH CONCRETE FLUSH TO THE INVERT LEVEL OF THE OUTLET PIPE, UNLESS APPROVED OTHERWISE BY THE COUNCIL WORKS INSPECTOR.
- CITY OF GREATER GEELONG REQUIRES CCTV OF ALL DRAINAGE PIPES AND PITS, PRIOR TO THE ISSUE OF THE STATEMENT OF COMPLIANCE



LOCALITY PLAN



NOTE:
 THE SITE OF WORKS IS SUBJECT TO THE PROVISIONS OF CULTURAL HERITAGE MANAGEMENT PLAN 12748.
 ALL WORKS AND PERSONNEL MUST OBSERVE THE REQUIREMENTS OF THE MANAGEMENT PLAN AT ALL TIMES.

DRAWING INDEX

Drawing No.	Drawing Title	Revision
R100	COVER SHEET	0
R200	LAYOUT PLAN	0
R201	TYPICAL SECTIONS	0
R300	INTERSECTION DETAIL PLAN - 1	0
R301	INTERSECTION DETAIL PLAN - 2	0
R302	INTERSECTION DETAIL PLAN - 3	0
R400	ROAD LONGITUDINAL SECTIONS & CENTRELINE SETOUT - 1	0
R401	ROAD LONGITUDINAL SECTIONS & CENTRELINE SETOUT - 2	0
R402	ROAD LONGITUDINAL SECTIONS & CENTRELINE SETOUT - 3	0
R500	ROAD CROSS SECTIONS - 1	0
R501	ROAD CROSS SECTIONS - 2	0
R502	ROAD CROSS SECTIONS - 3	0
R503	ROAD CROSS SECTIONS - 4	0
R504	ROAD CROSS SECTIONS - 5	0
R505	ROAD CROSS SECTIONS - 6	0
R506	ROAD CROSS SECTIONS - 7	0
R507	ROAD CROSS SECTIONS - 8	0
R600	DRAINAGE LONG SECTIONS - 1	0
R601	DRAINAGE LONG SECTIONS - 2	0
R602	DRAINAGE LONG SECTIONS - 3	0
R603	DRAINAGE LONG SECTIONS - 4	0
R604	DRAINAGE LONG SECTIONS - 5	0
R605	DRAINAGE PIT SCHEDULE	0
R700	TYPICAL DETAILS	0
R800	SIGNAGE & LINEMARKING PLAN	0
R900	DRAINAGE LAYOUT PLAN	0

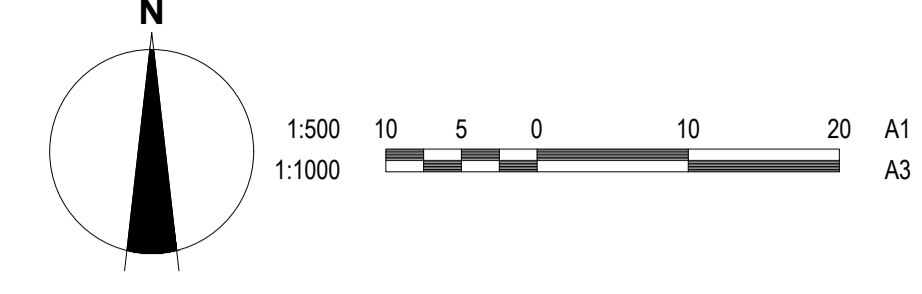
WARNING
BEWARE OF UNDERGROUND & OVERHEAD SERVICES
 THE LOCATIONS OF UNDERGROUND & OVERHEAD SERVICES ARE APPROXIMATE ONLY & THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. LOCATE ALL UNDERGROUND SERVICES BEFORE COMMENCEMENT OF WORKS
DIAL 1100 BEFORE YOU DIG
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P:\2018\18016 - VILAWOOD ARMSTRONG\18016\18016-45-ENCL2 DRAWING\CAD\18016-45-R100 - COVER SHEET.DWG

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED	CLIENT	PROJECT	DRAWING TITLE	STATUS	SCALE AT A1	DRAWN	DESIGNED
									ARMSTRONG - STAGE 45 COVER SHEET	ISSUED FOR CONSTRUCTION	M.TROUNCE	M.TROUNCE
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.							
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.							
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.							
										PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
										T.PALIOS	T.PALIOS	MARCH 2019
										PROJECT No.	DRAWING No.	REVISION
										180016.45	R100	0

LEGEND - LAYOUT PLAN

- S STORMWATER DRAIN, PIT & PROPERTY INLET
- SW SWALE DRAIN
- S SEWER & MAINTENANCE STRUCTURES
- H HOUSE DRAIN
- GW SERVICE CONDUITS
- T TACTILE PAVERS
- E-E EXISTING ELECTRICITY (UNDERGROUND)
- O-E EXISTING ELECTRICITY (OVERHEAD)
- G EXISTING GAS
- O EXISTING OPTIC FIBRE
- T EXISTING TELSTRA
- W EXISTING WATER
- RW EXISTING RECYCLED WATER
- D EXISTING STORMWATER DRAIN
- S EXISTING SEWER
- H EXISTING HOUSE DRAIN
- CH EXISTING CATCH DRAIN
- SL EXISTING SURFACE LEVEL
- RL FINISHED BUILDING LINE LEVEL
- RL FINISHED RIDGE LINE LEVEL
- RL TOP OF RETAINING WALL
- RL BOTTOM OF RETAINING WALL
- RW RETAINING WALL
- B BUILDING ENVELOPE
- P PAVEMENT TREATMENT
- S STRUCTURAL FILL > 200mm DEEP
- EX EX STRUCTURAL FILL > 200mm DEEP
- D DIRECTION OF FALL
- OF OVERLAND FLOW
- * ALLOTMENT TO BE GRADED EVENLY IN DIRECTION OF FALL TO LEVELS INDICATED
- C CONCRETE EDGE STRIP WITH SUBSOL DRAIN
- "NO ROAD" SIGN & BARRIER
- X EXISTING TREE TO BE REMOVED
- P PERMANENT SURVEY MARK
- T TEMPORARY BENCH MARK
- D PROPOSED DRIVEWAY



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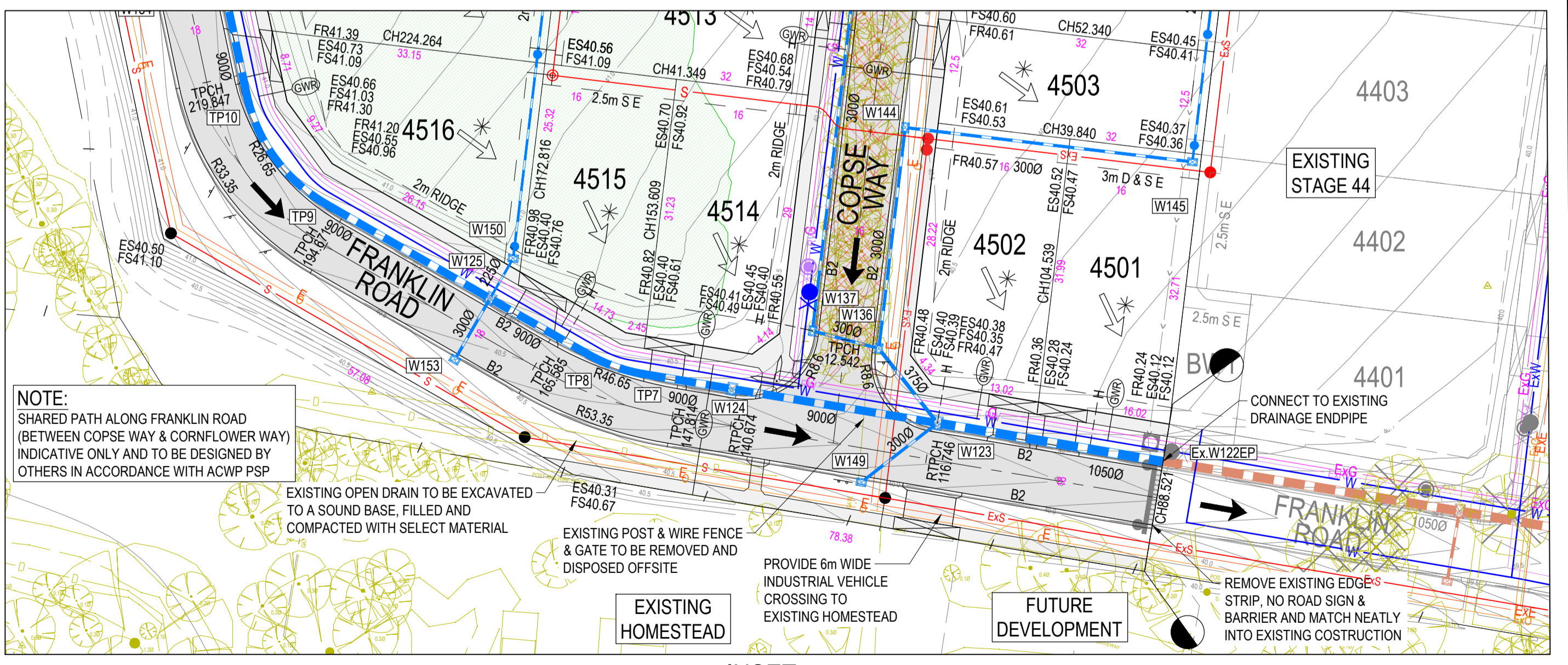
NOTE:
 TREES MARKED ON PLANS FOR REMOVAL MUST BE REMOVED IN ACCORDANCE WITH COUNCIL'S PLANNING PERMIT. TREES THAT ARE NOT MARKED FOR REMOVAL ARE TO BE RETAINED. CONTRACTOR TO ESTABLISH TPZ's AND PROVIDE TEMPORARY FENCING TO THE SATISFACTION OF COUNCIL ENGINEER.

NOTE:
 ALL TREE REMOVALS ARE IN ACCORDANCE WITH FIGURE 1.2 (PAGE 47) OF THE "ARMSTRONG CREEK WEST PRECINCT NATIVE VEGETATION PRECINCT PLAN" - PREPARED BY WSP & DATED 29/11/2012.

- NOTES:**
- ALL VEHICLE AND PRAM CROSSING LAYBACKS, TO BE MINIMUM OF 1.0m FROM PITS.
 - ALL PRAM CROSSINGS TO BE A MINIMUM 2.0m FROM VEHICLE CROSSINGS.
 - ALL PRAM CROSSINGS TO BE DDA COMPLIANT.
 - VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF LANDSCAPE WORKS.
 - THE USE OF DIRECTIONAL AND HAZARD TACTILE PAVERS MUST ACCORD WITH SECTION 2.2.3.1 OF AS/NZS 1428.4:2002
 - SEWER MAINTENANCE HOLE CONVERTER SLAB OR CONE, TO BE ROTATED TO ENSURE COVER POSITION IS CENTRALLY LOCATED WITHIN FOOTPATH
 - CHAINAGES FOR SETOUT OF PROPERTY INLET POINTS, SERVICING FUTURE LOTS, ARE MEASURED FROM THE DOWNSTREAM PIT
 - CONTRACTOR TO LOCATE ALL EXISTING ASSETS PRIOR TO COMMENCEMENT OF WORKS. ANY DAMAGE TO EXISTING ASSETS TO BE RECTIFIED AT CONTRACTORS EXPENSE.
 - CONTRACTOR TO VERIFY DEPTH OF EXISTING SERVICES, PRIOR TO COMMENCEMENT OF CONSTRUCTION

SERVICES OFFSET SCHEDULE

ROAD NAME	GAS		RECYCLED WATER		POTABLE WATER		OPTIC FIBRE		ELECTRICITY	
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
FRANKLIN ROAD	N/E	2.10	N/E	2.60	N/E	3.20	S/W	1.80	S/W	2.60
CORNFLOWER WAY	E	2.10	E	2.60	E	3.20	W	2.80	W	3.60
COPE WAY	W	2.10	W	2.50	W	3.00	E	1.80	E	2.60
ABUNDANT DRIVE	N	2.10	N	2.50	N	3.00	S	1.80	S	2.60
DOGWOOD STREET	N	2.10	N	2.50	N	3.00	S	1.80	S	2.60



NOTE:
 SHARED PATH ALONG FRANKLIN ROAD (BETWEEN COPE WAY & CORNFLOWER WAY) INDICATIVE ONLY AND TO BE DESIGNED BY OTHERS IN ACCORDANCE WITH ACWIP PSP

INSET

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 SHARED PATH ALONG FRANKLIN ROAD (BETWEEN COPE WAY & CORNFLOWER WAY) INDICATIVE ONLY AND TO BE DESIGNED BY OTHERS IN ACCORDANCE WITH ACWIP PSP

FOR CONTINUATION - REFER INSET

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	CHECKED	APPROVED	CLIENT
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.	 Communities Designed for Living
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.	
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.	

Communities Designed for Living

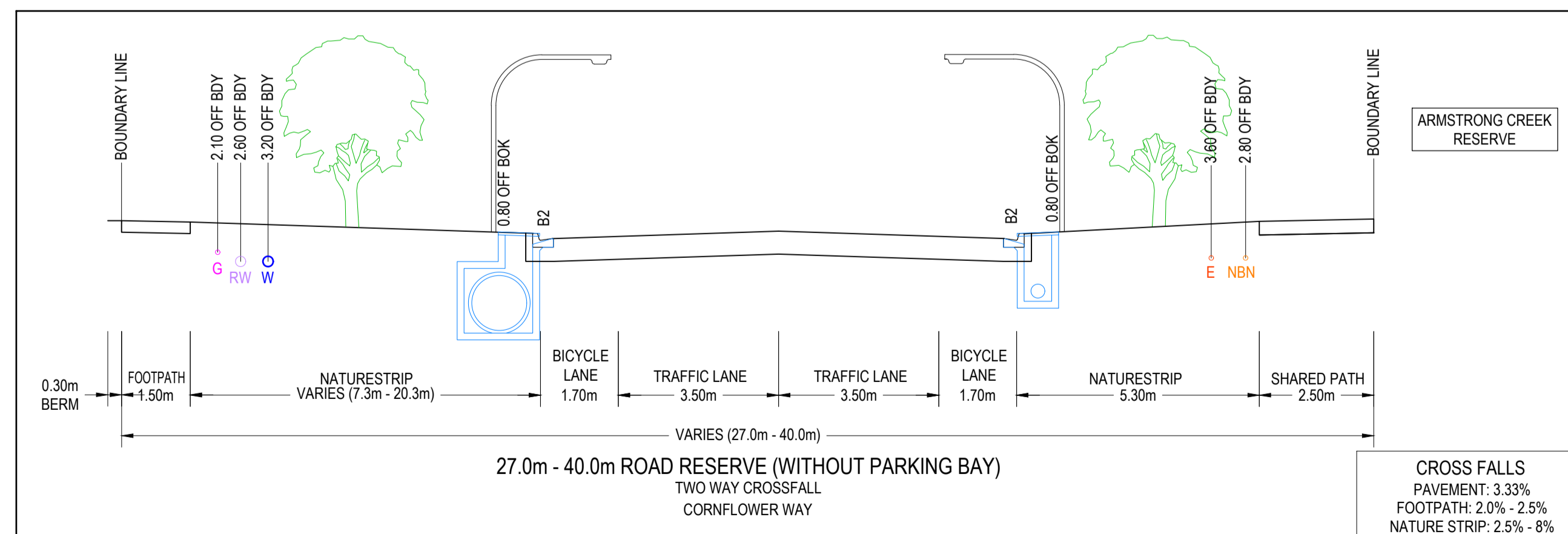
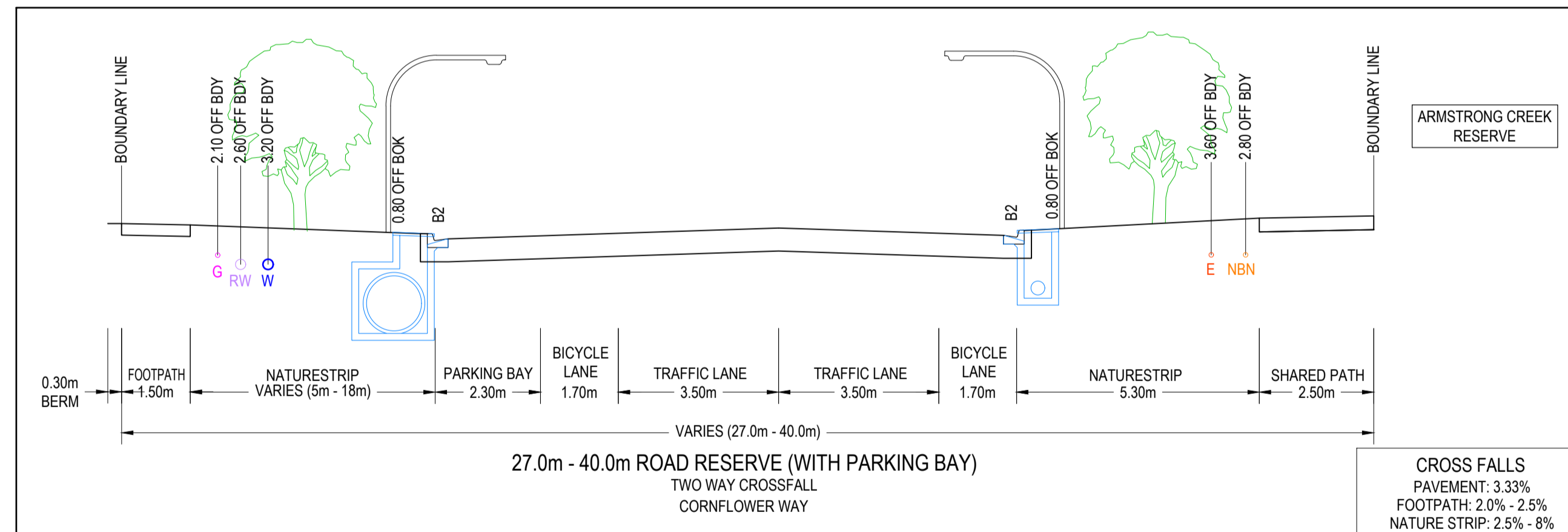
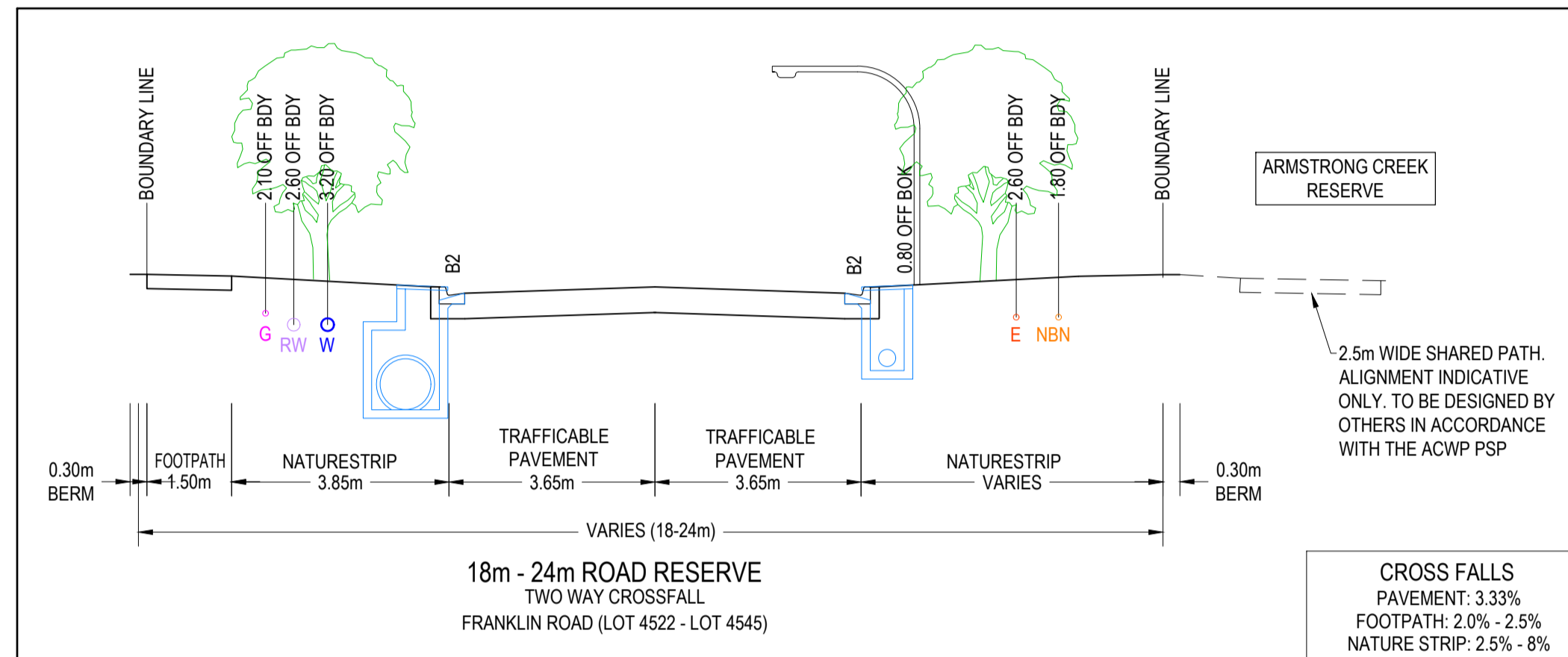
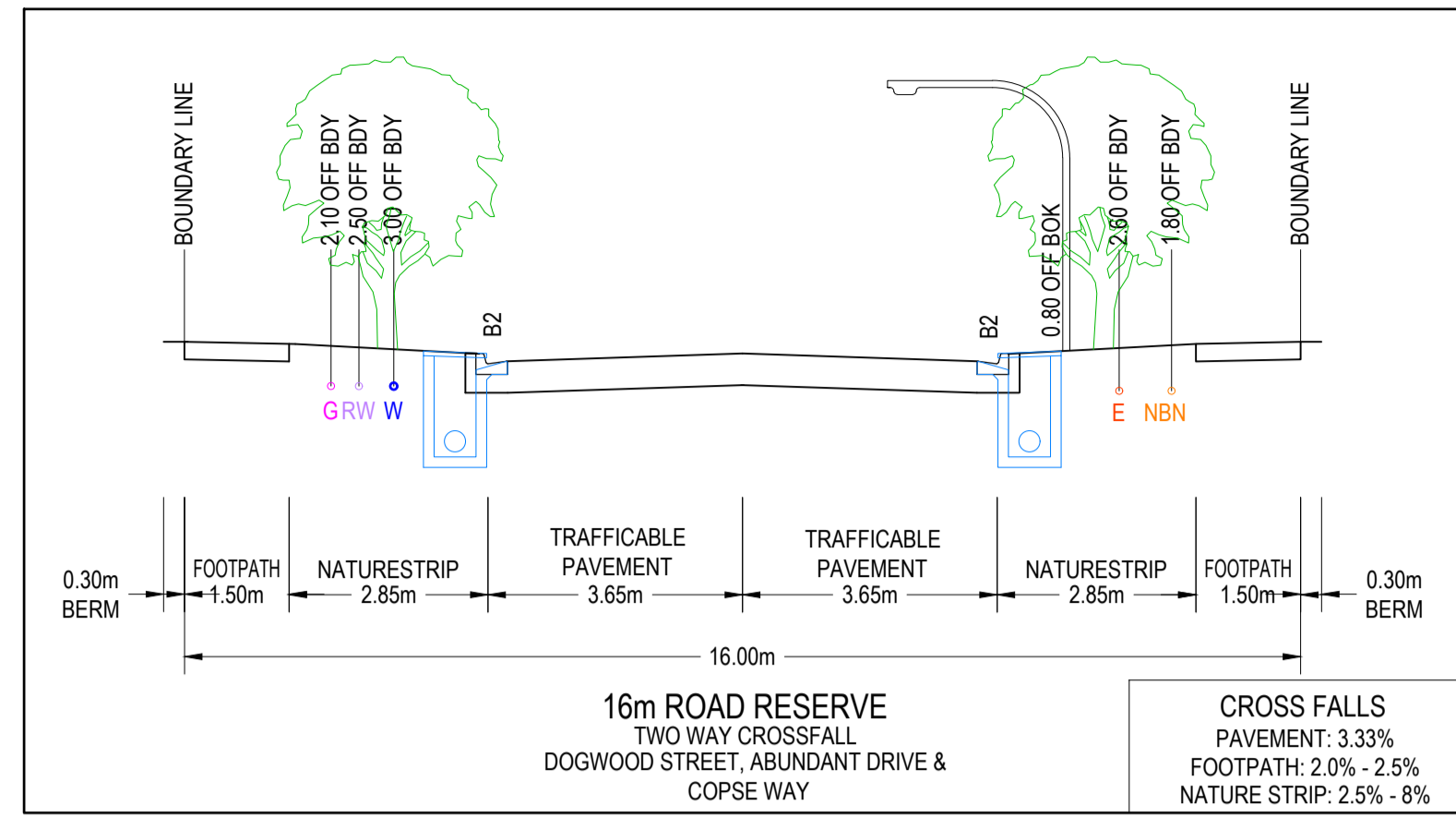
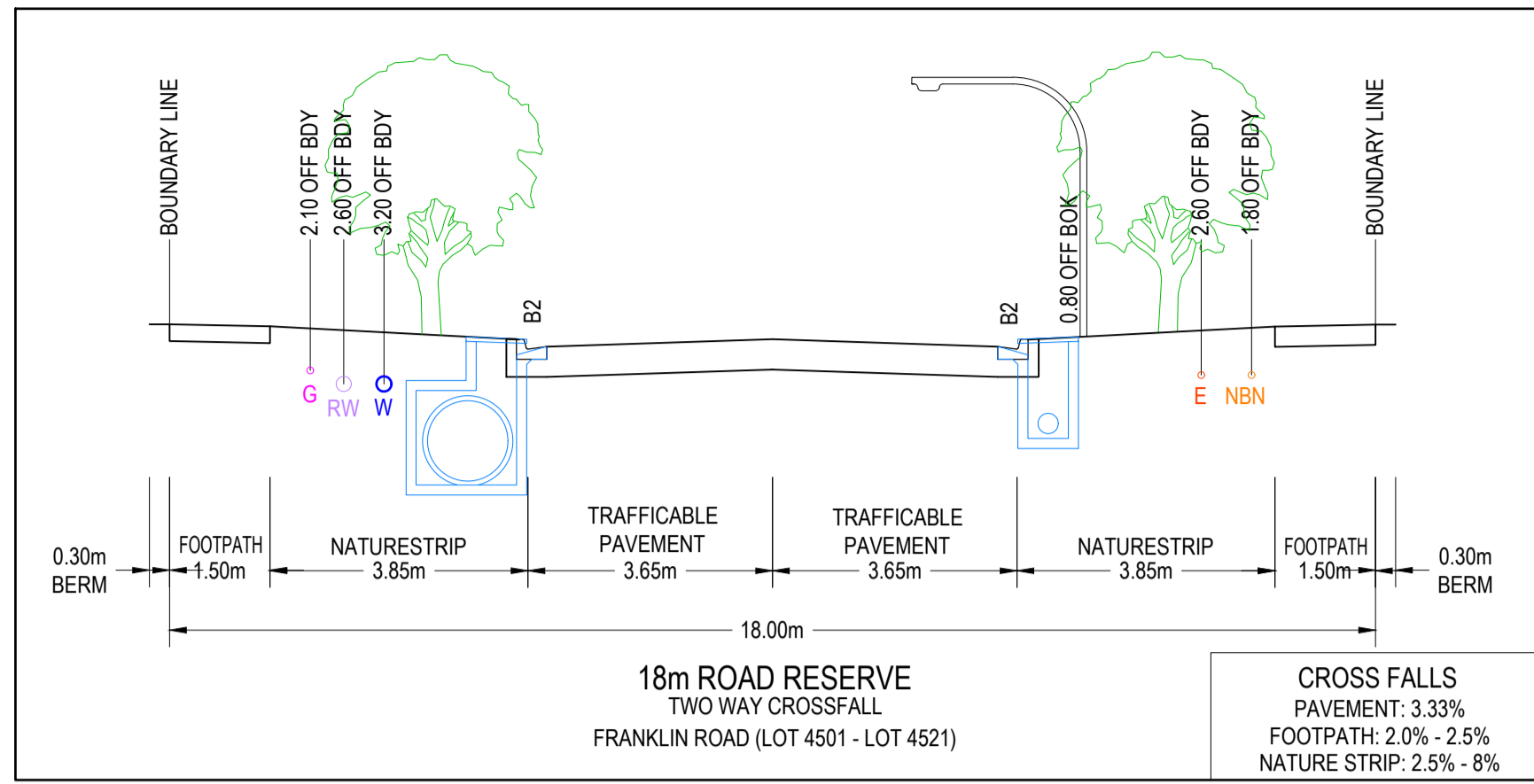
Level 7, 176 Wellington Parade
 East Melbourne, VIC, Australia 3002

PROJECT: **ARMSTRONG - STAGE 45 LAYOUT PLAN**

DRAWING TITLE: **ARMSTRONG - STAGE 45 LAYOUT PLAN**

STATUS: **ISSUED FOR CONSTRUCTION**

SCALE AT A1: 1:500 @ A1	DRAWN: M.TROUNCE	DESIGNED: M.TROUNCE
PROJECT ENGINEER: T.PALIOS	PROJECT MANAGER: T.PALIOS	DATE FIRST ISSUE: MARCH 2019
PROJECT No: 180016.45	DRAWING No: R200	REVISION: 0



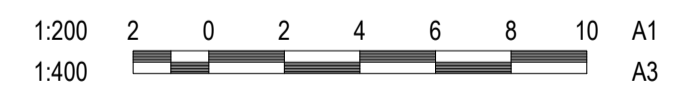
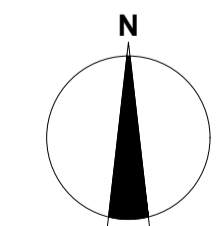
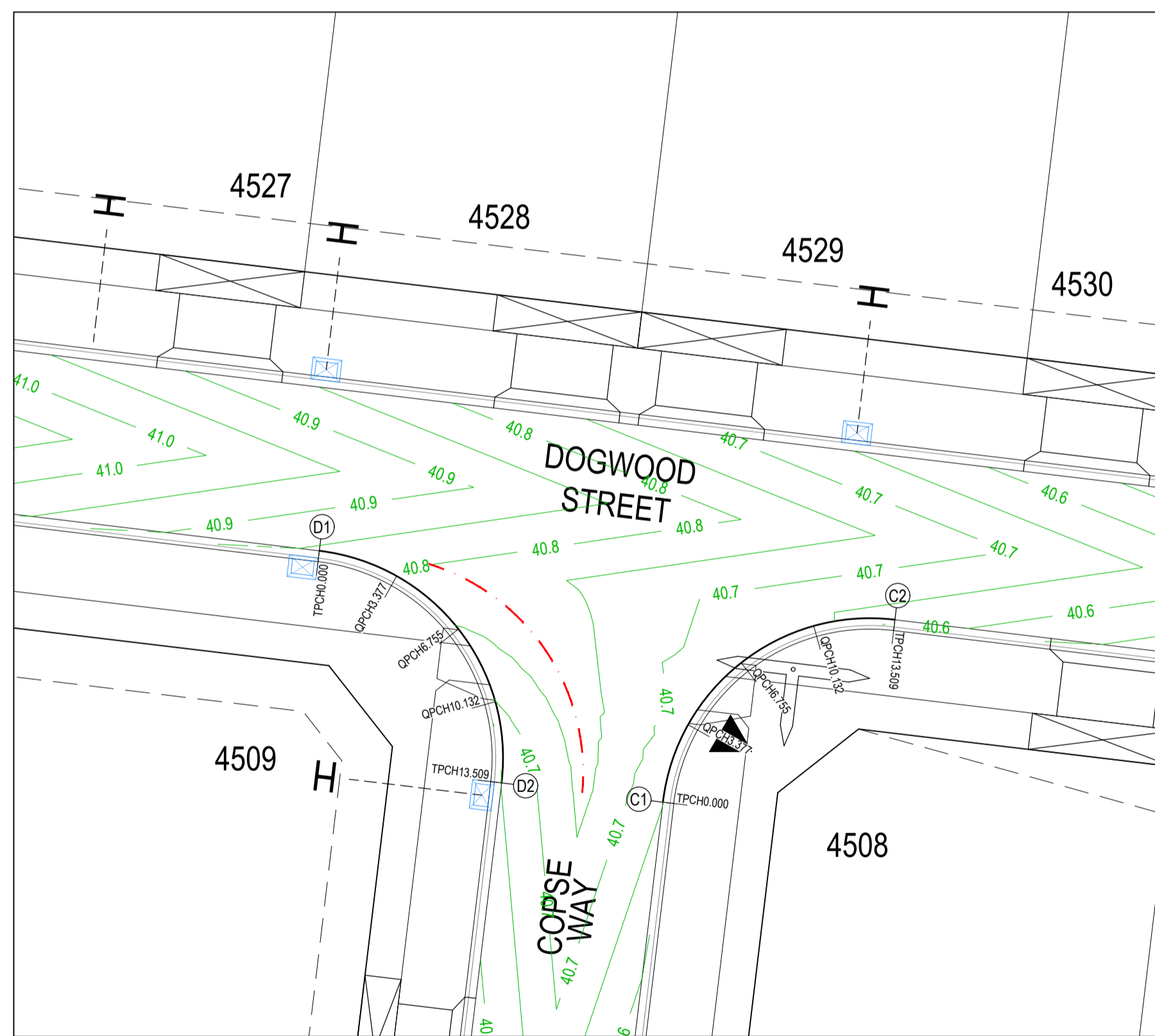
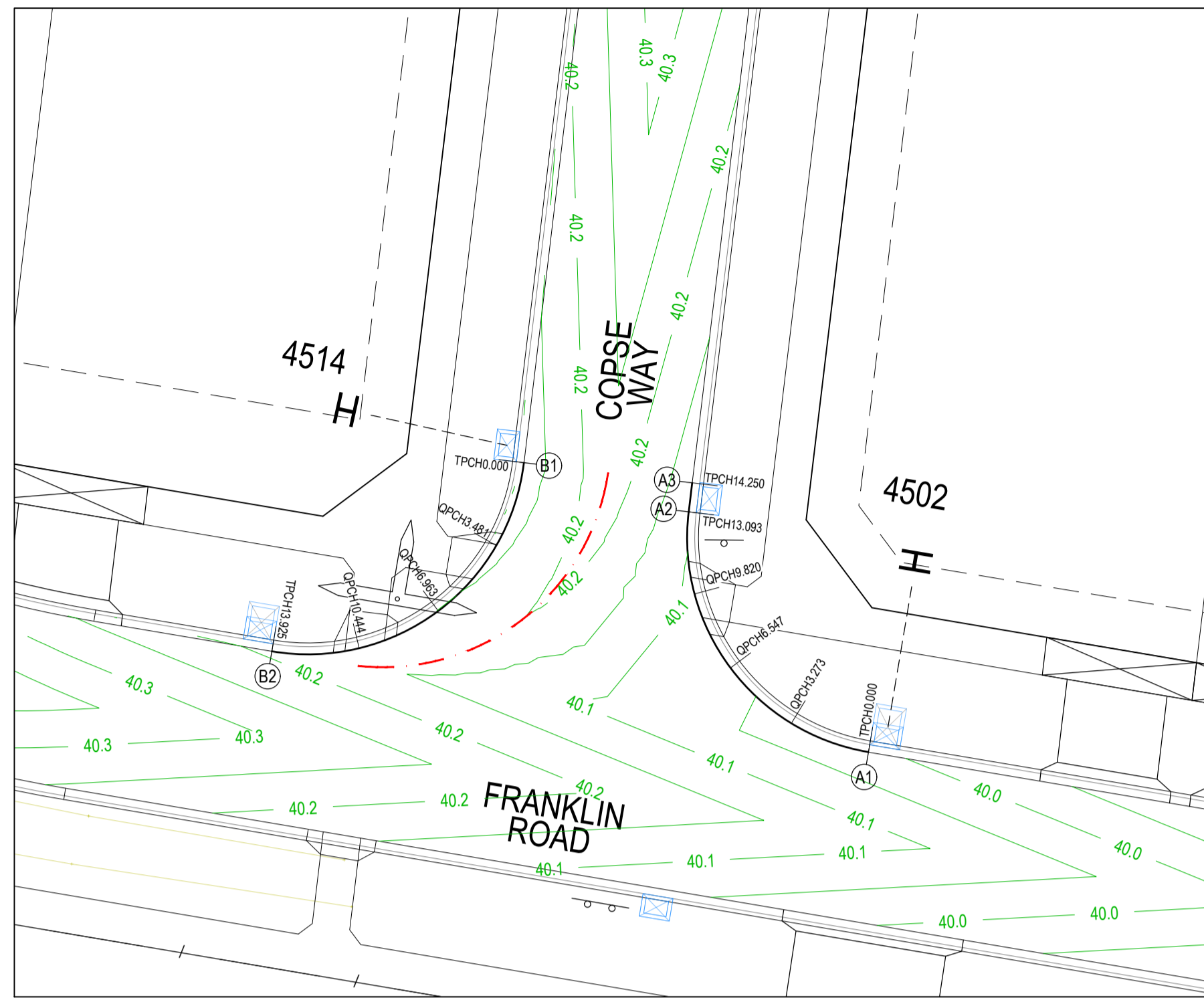
REVISION	DATE	ISSUE DESCRIPTION	DRAWN	CHECKED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



PROJECT
ARMSTRONG - STAGE 45
 TYPICAL SECTIONS

STATUS
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
1:500 @ A1	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R201	0



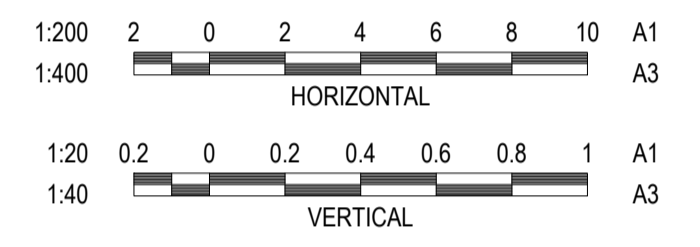
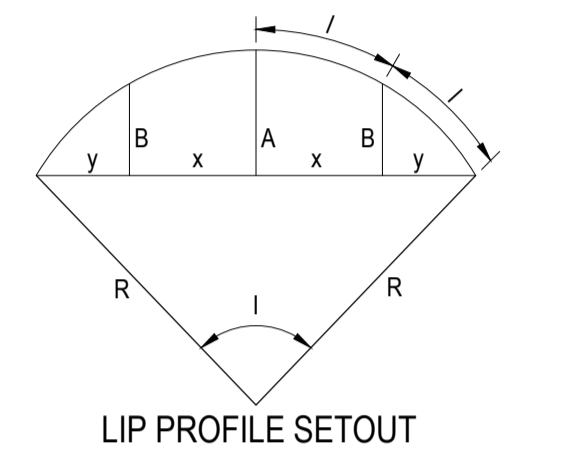
NOTE:
REFER SHEET R800 FOR
SIGNAGE & LINEMARKING PLAN

LEGEND - INTERSECTION DETAIL PLAN

- STORMWATER DRAIN, PIT & PROPERTY INLET
- SWALE DRAIN
- SEWER & MAINTENANCE STRUCTURES
- HOUSE DRAIN
- TACTILE PAVERS
- EXISTING HOUSE DRAIN
- RETAINING WALL
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LEGEND - LIP PROFILES

- EXISTING SURFACE
- DESIGN LINE

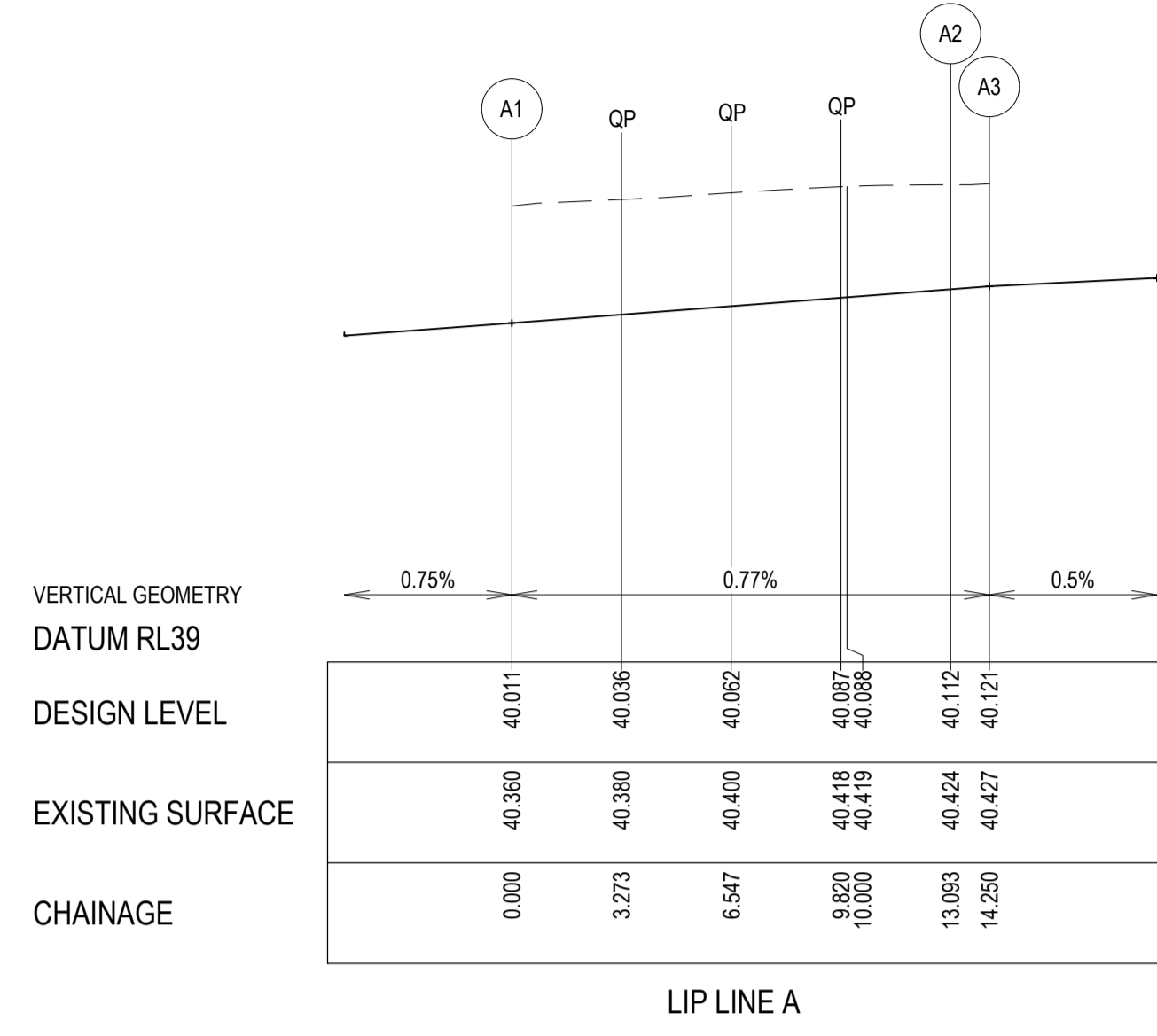


GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan referred to in Permit No: 496-2012-H
Sheet: 4 of 26, Cont 13852
Endorsed Engineering Plan

Signed: [Signature] Date: 27/06/2019
For and on behalf of the Greater Geelong City Council as the Responsible Authority

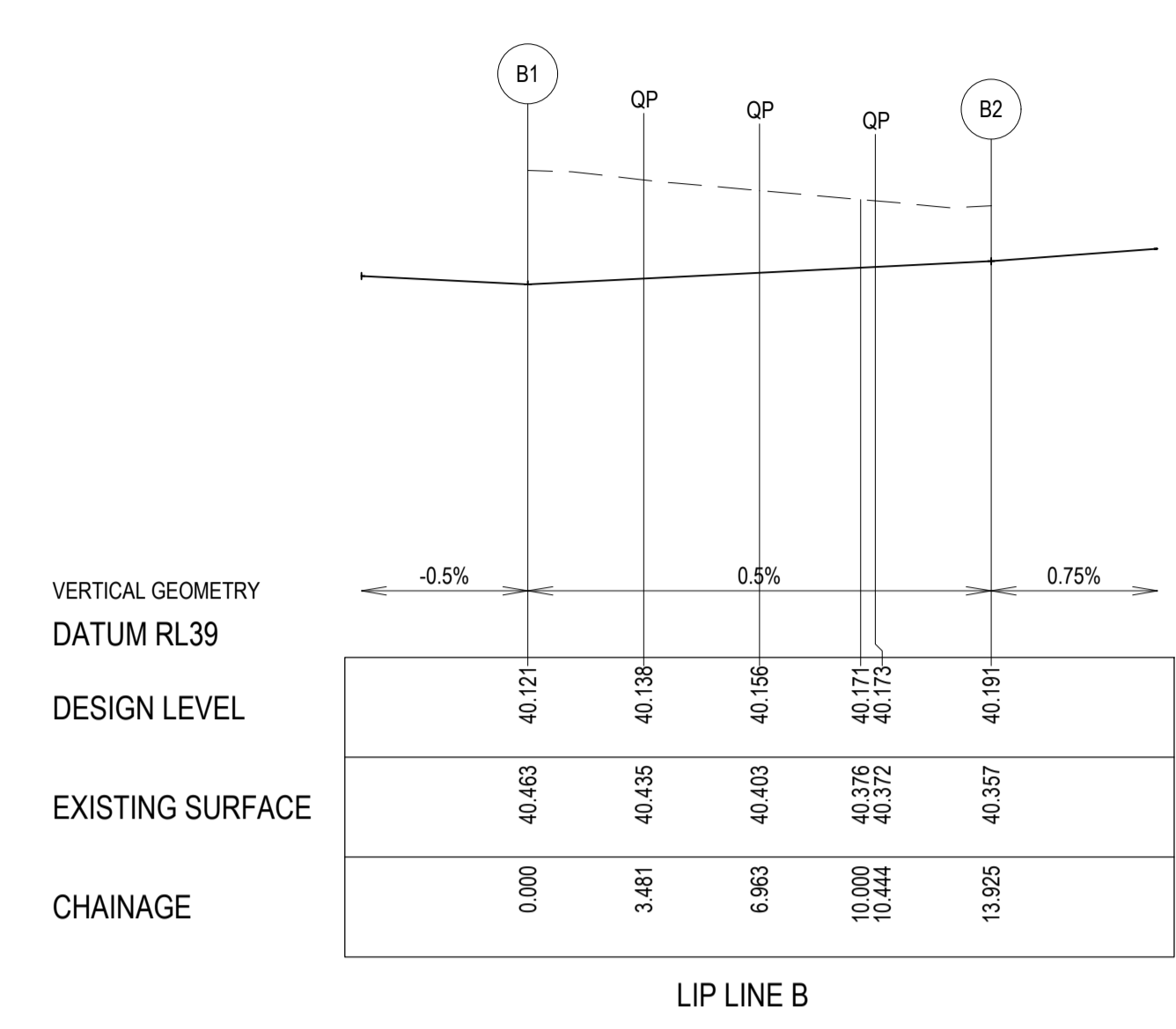
NOTE: THIS IS NOT A BUILDING APPROVAL



SETOUT INFORMATION - LIP LINE A

PT NO	EASTING	NORTHING	RL
A1	265175.825	5766128.662	40.011
A2	265168.719	5766138.163	40.112
A3	265168.856	5766139.311	40.121

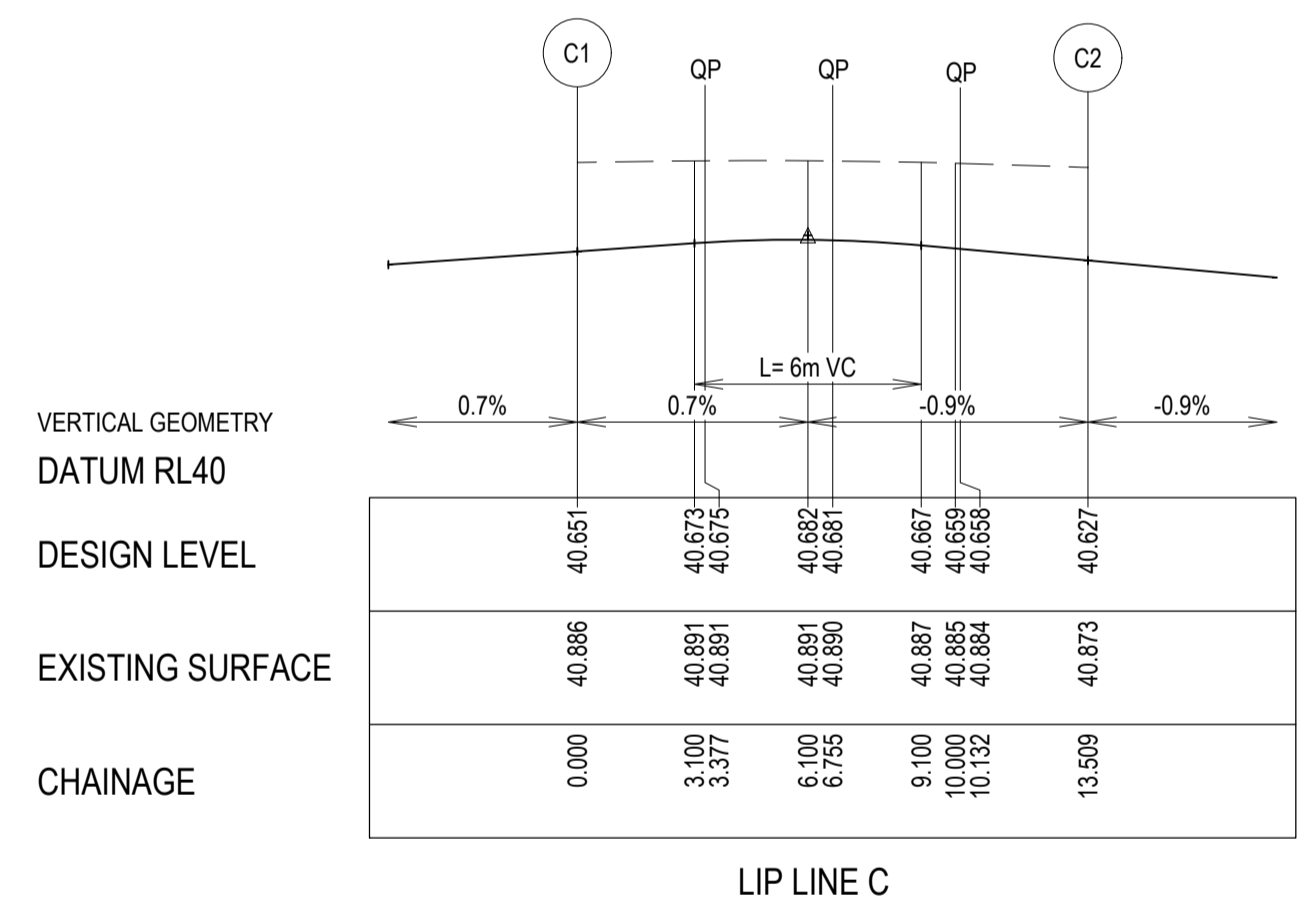
CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
A1 - A2	87.229	8.6	13.093	2.374	1.758	3.195	2.738	3.273	40.062



SETOUT INFORMATION - LIP LINE B

PT NO	EASTING	NORTHING	RL
B1	265162.203	5766140.107	40.121
B2	265152.232	5766132.648	40.191

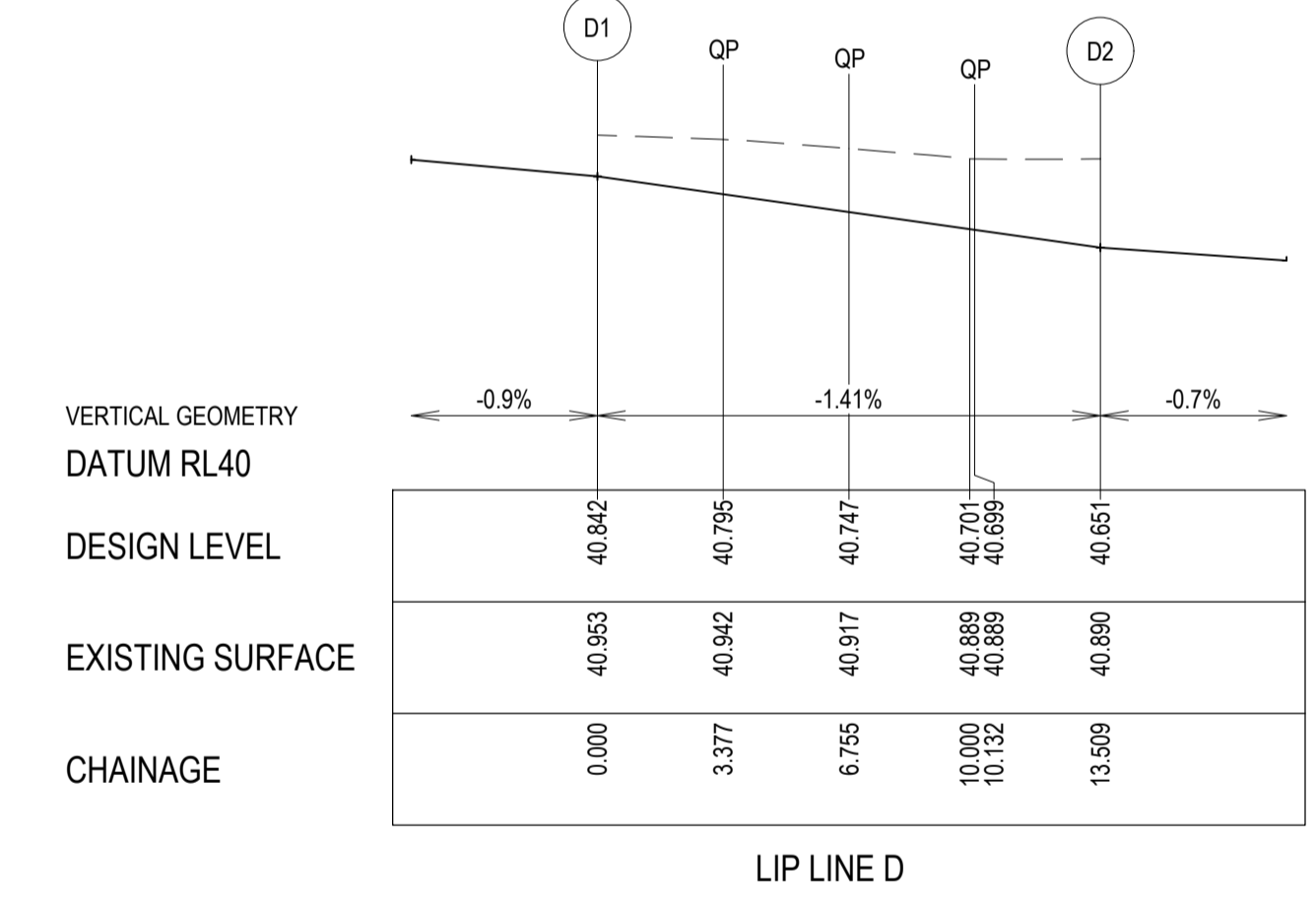
CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
B1 - B2	92.771	8.6	13.925	2.668	1.973	3.387	2.839	3.481	40.156



SETOUT INFORMATION - LIP LINE C

PT NO	EASTING	NORTHING	RL
C1	265180.891	5766239.941	40.651
C2	265190.451	5766247.459	40.627

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
C1 - C2	90	8.6	13.509	2.519	1.864	3.291	2.79	3.377	40.681



SETOUT INFORMATION - LIP LINE D

PT NO	EASTING	NORTHING	RL
D1	265166.72	5766250.297	40.842
D2	265174.238	5766240.737	40.651

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
D1 - D2	90	8.6	13.509	2.519	1.864	3.291	2.79	3.377	40.747

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villawood properties
Communities Designed for Living

creo CONSULTANTS
Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

ARMSTRONG
MT DUNEED

ARMSTRONG - STAGE 45
INTERSECTION DETAIL PLAN - 1

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R300	0

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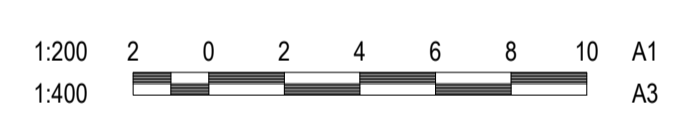
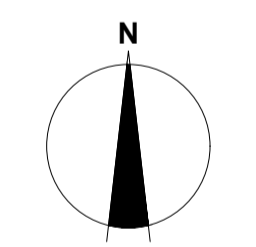
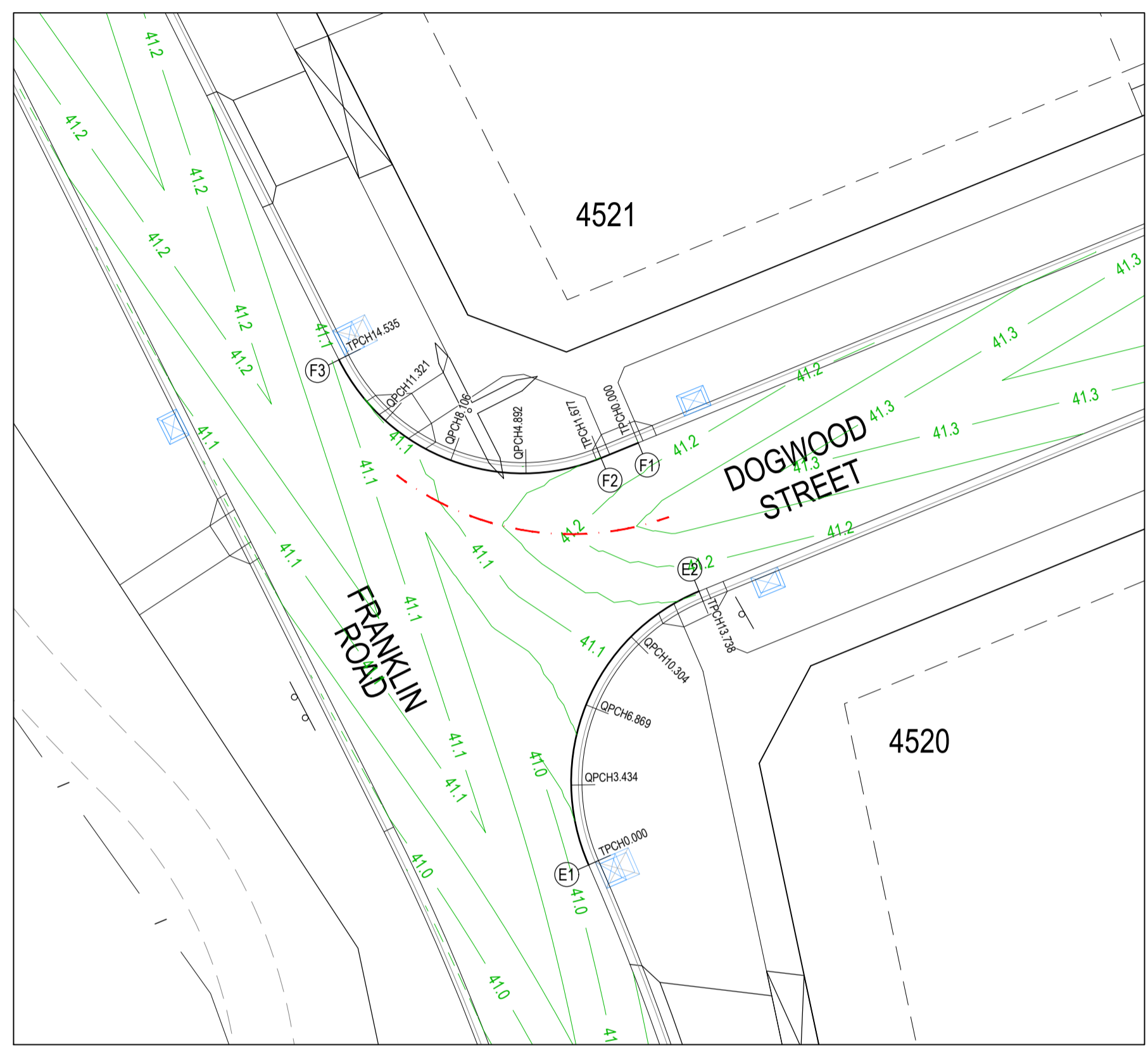
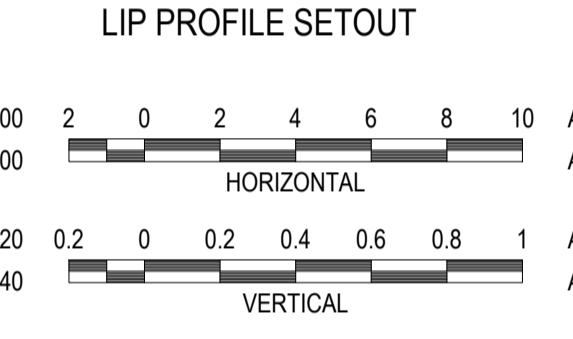
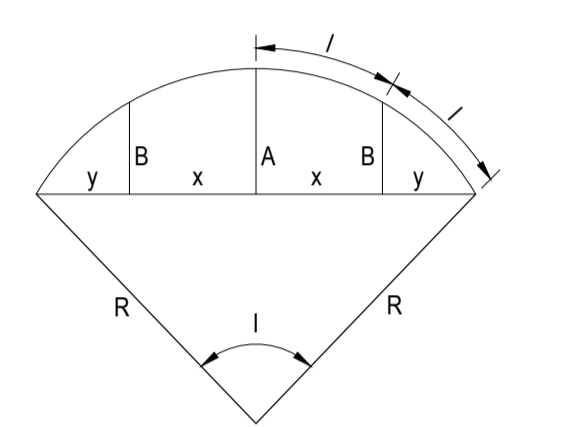
Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 5 of 26 Cert 13852
 Endorsed Engineering Plan

Signed *[Signature]* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority

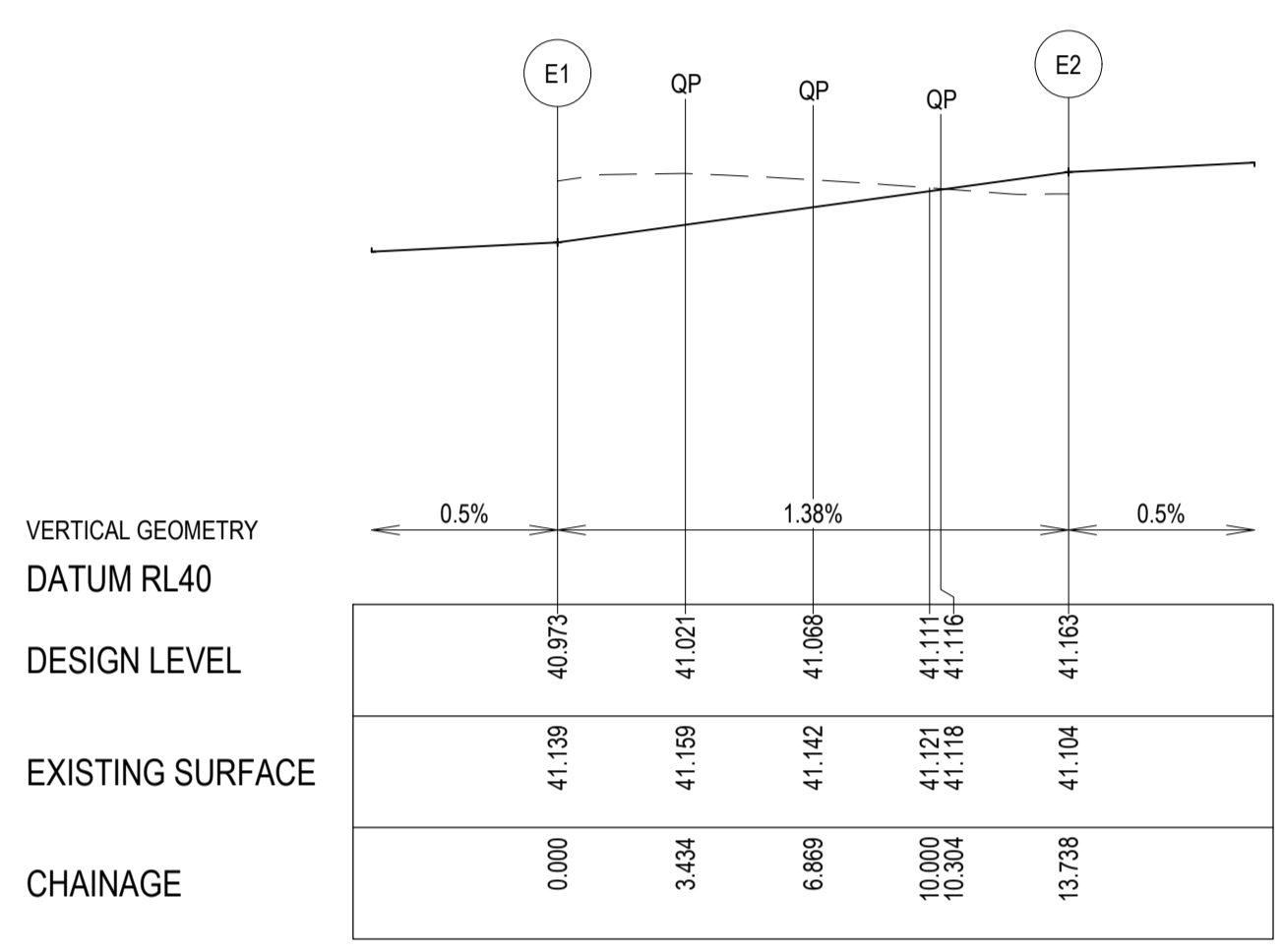
NOTE: THIS IS NOT A BUILDING APPROVAL

- LEGEND - INTERSECTION DETAIL PLAN**
- STORMWATER DRAIN, PIT & PROPERTY INLET
 - SWALE DRAIN
 - SEWER & MAINTENANCE STRUCTURES
 - HOUSE DRAIN
 - TACTILE PAVERS
 - EXISTING HOUSE DRAIN
 - RETAINING WALL
 - PAVEMENT TREATMENT
 - CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
 - LIMIT OF WORKS
 - EXISTING TREE TO BE REMOVED
 - PERMANENT SURVEY MARK
 - TEMPORARY BENCH MARK
 - PROPOSED DRIVEWAY
 - CROWN LINE

- LEGEND - LIP PROFILES**
- EXISTING SURFACE
 - DESIGN LINE



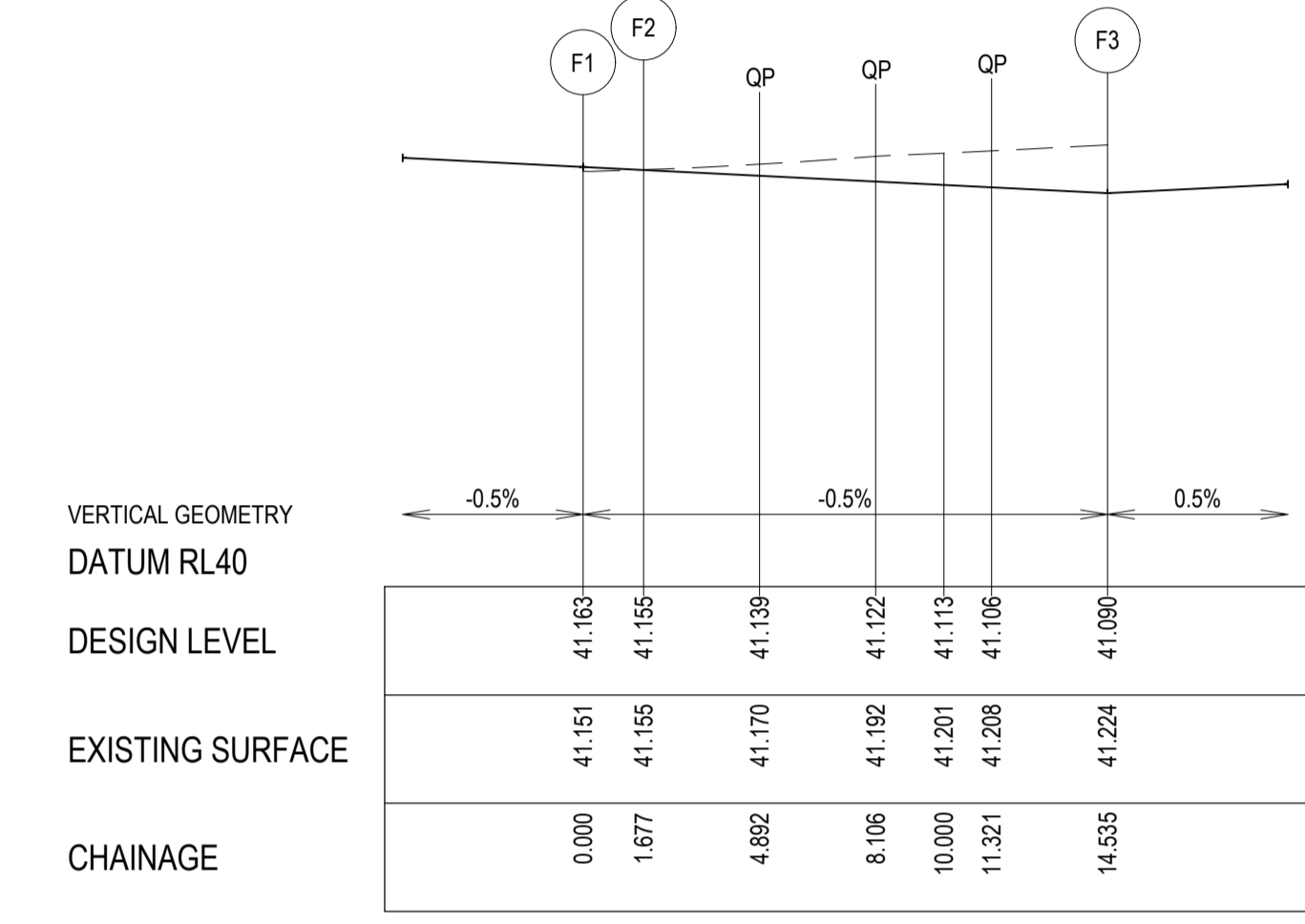
NOTE:
 REFER SHEET R800 FOR
 SIGNAGE & LINEMARKING PLAN



SETOUT INFORMATION - LIP LINE E

PT NO	EASTING	NORTHING	RL
E1	265079.873	5766216.753	40.973
E2	265084.482	5766228.182	41.163

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
E1 - E2	91.527	8.6	13.738	2.6	1.924	3.344	2.818	3.435	41.068



SETOUT INFORMATION - LIP LINE F

PT NO	EASTING	NORTHING	RL
F1	265081.942	5766234.382	41.163
F2	265080.39	5766233.746	41.155
F3	265069.441	5766237.852	41.09

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
F2 - F3	85.664	8.6	12.858	2.293	1.699	3.14	2.707	3.214	41.122

WARNING
BEWARE OF UNDERGROUND & OVERHEAD SERVICES
 The locations of underground & overhead services are approximate only & their exact position should be proven on site. No guarantee is given that all existing services are shown. Locate all underground services before commencement of works
DIAL 1100 BEFORE YOU DIG
www.1100.com.au

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT

Communities Designed for Living

creo CONSULTANTS

Level 7, 176 Wellington Parade
 East Melbourne, VIC, Australia 3002

PROJECT

MT DUNDEE

DRAWING TITLE

ARMSTRONG - STAGE 45
INTERSECTION DETAIL PLAN - 2

STATUS

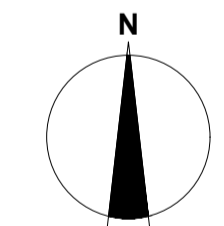
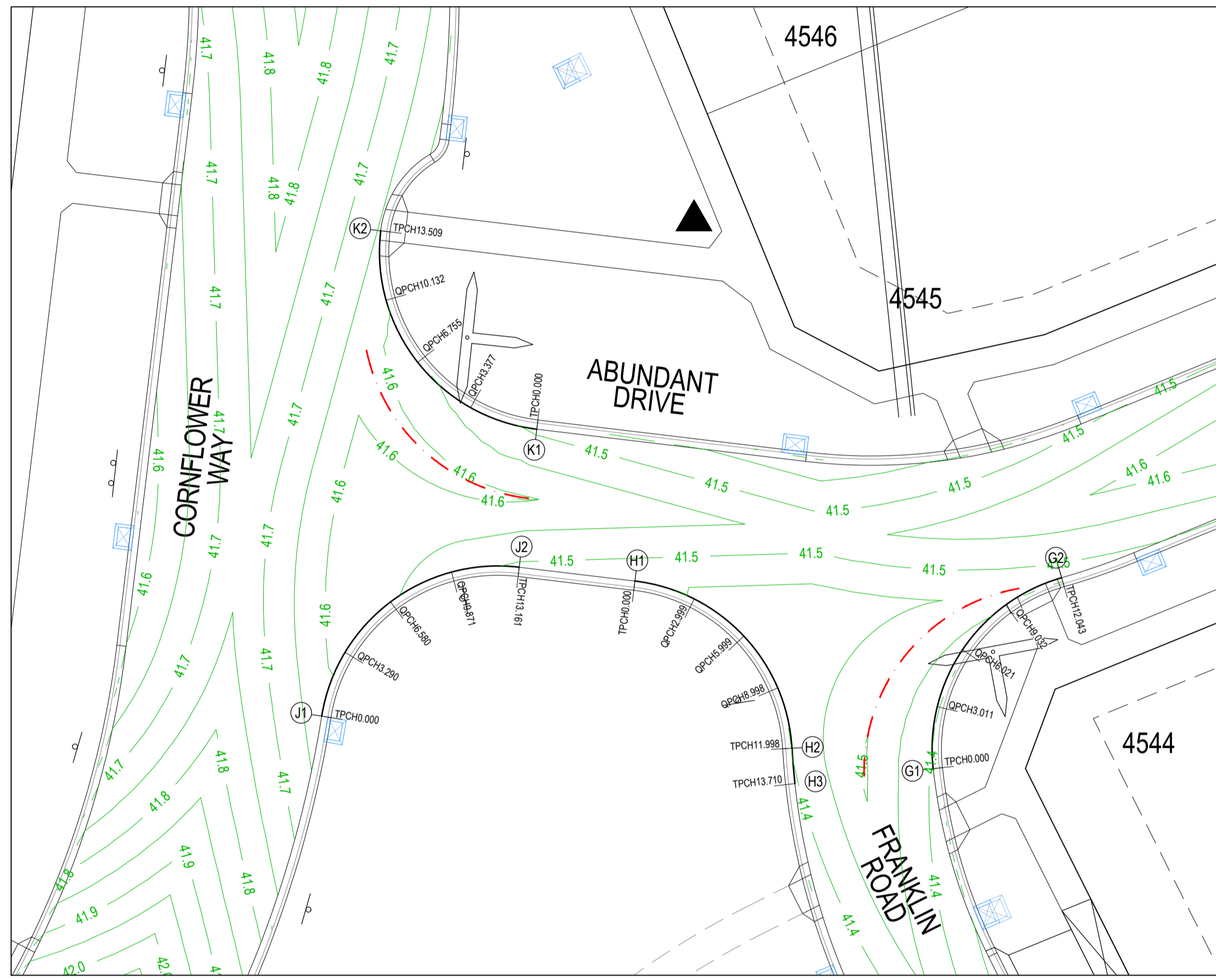
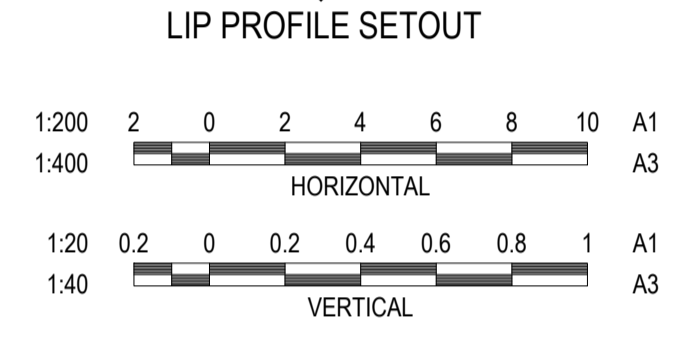
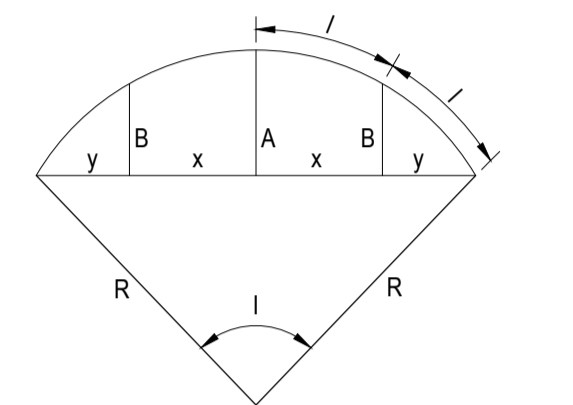
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R301	0

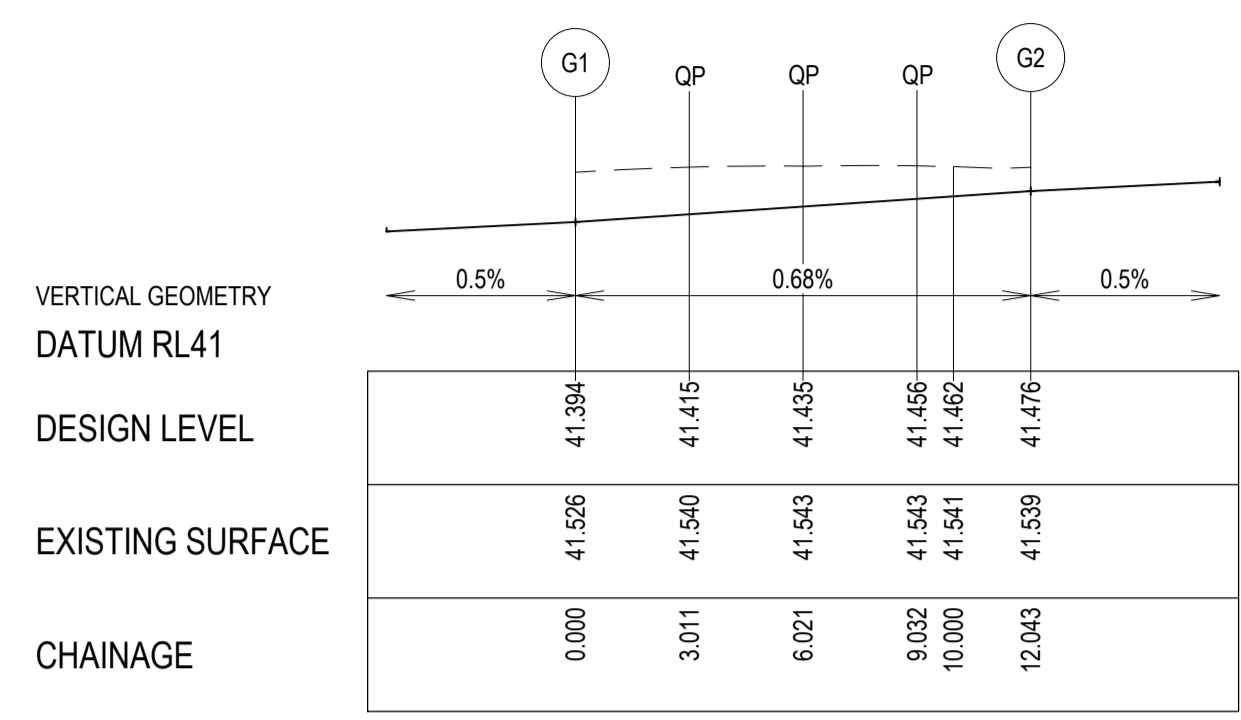
GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
 Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 6 of 26 Cert 13852
 Endorsed Engineering Plan
 Signed *Adrian J. [Signature]* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL

- LEGEND - INTERSECTION DETAIL PLAN**
- STORMWATER DRAIN, PIT & PROPERTY INLET
 - SEWER & MAINTENANCE STRUCTURES
 - HOUSE DRAIN
 - TACTILE PAVERS
 - EXISTING HOUSE DRAIN
 - RETAINING WALL
 - PAVEMENT TREATMENT
 - CONCRETE EDGE STRIP WITH SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
 - LIMIT OF WORKS
 - EXISTING TREE TO BE REMOVED
 - PERMANENT SURVEY MARK
 - TEMPORARY BENCH MARK
 - PROPOSED DRIVEWAY

- LEGEND - LIP PROFILES**
- EXISTING SURFACE
 - DESIGN LINE



NOTE:
 REFER SHEET R800 FOR
 SIGNAGE & LINEMARKING PLAN

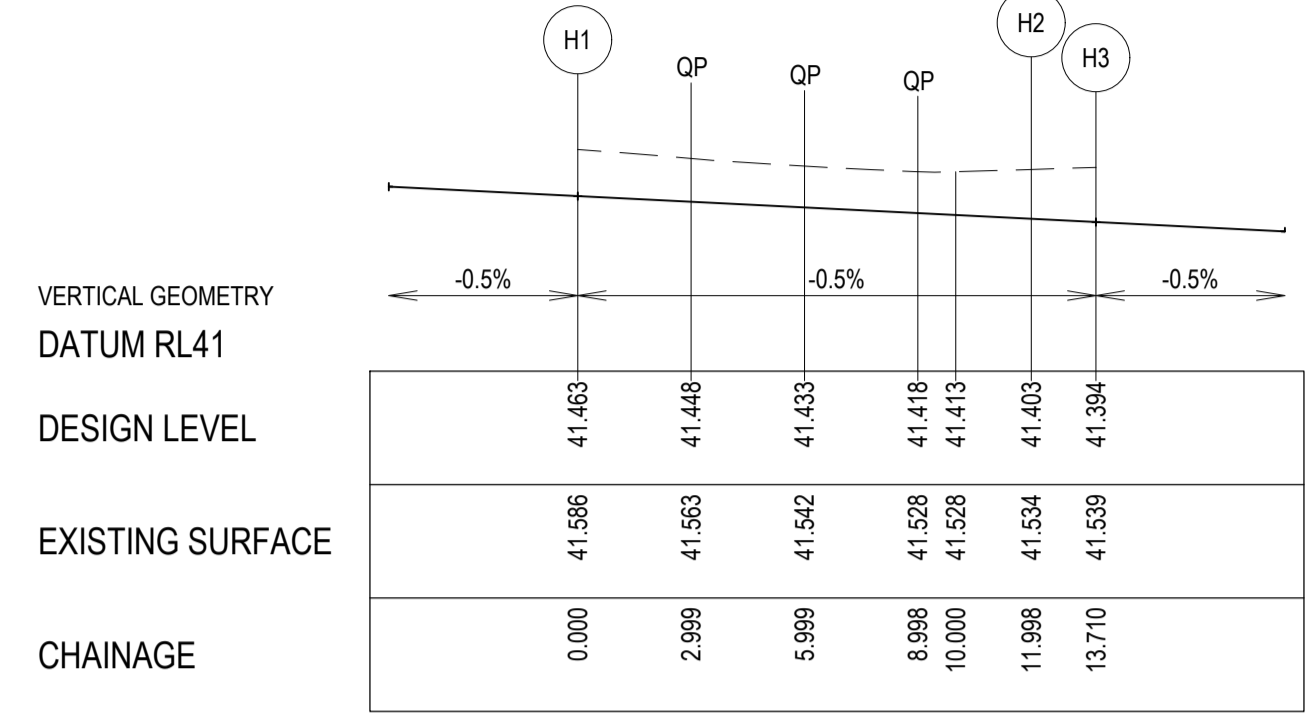


0.000	3.011	6.021	9.032	10.000	12.043
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SETOUT INFORMATION - LIP LINE G

PT NO	EASTING	NORTHING	RL
G1	265044.318	5766291.739	41.394
G2	265050.504	5766300.935	41.476

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
G1 - G2	80.237	8.6	12.043	2.023	1.502	2.95	2.592	3.011	41.435

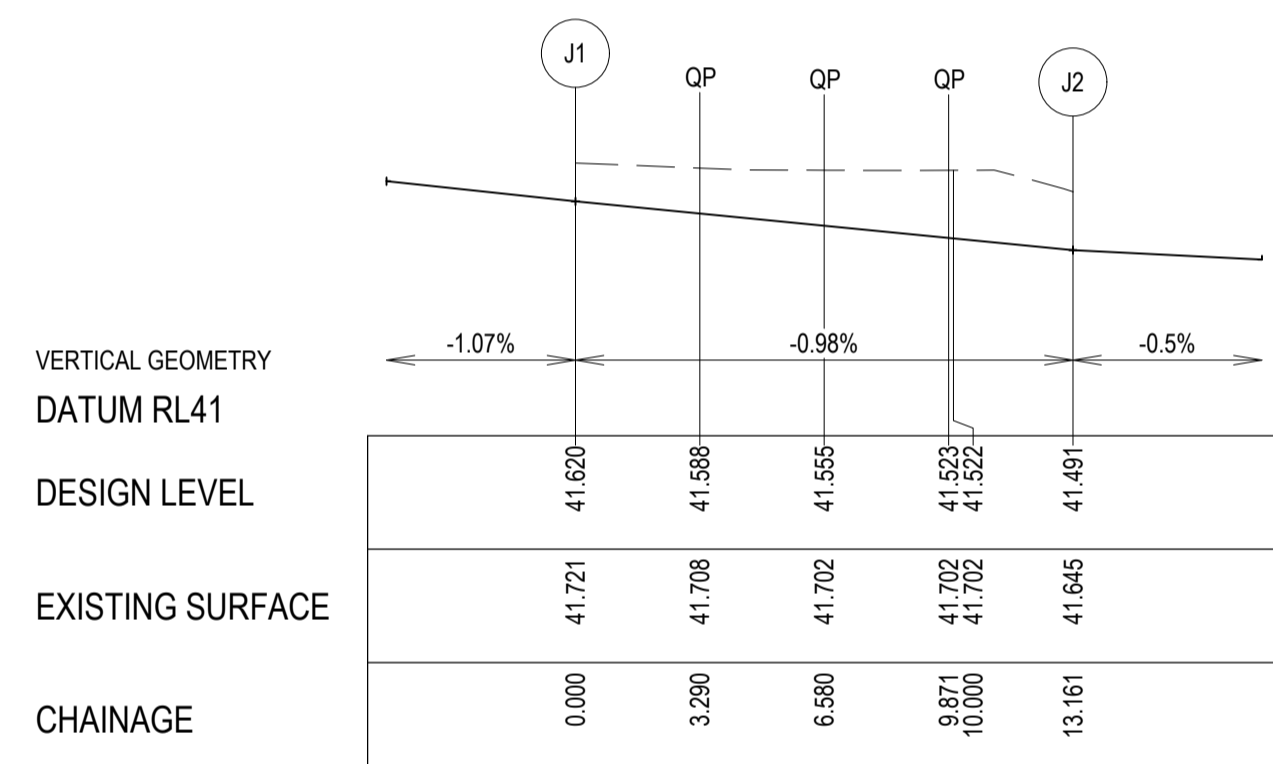


0.000	2.999	5.999	8.998	10.000	11.999	13.710
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SETOUT INFORMATION - LIP LINE H

PT NO	EASTING	NORTHING	RL
H1	265029.951	5766300.775	41.463
H2	265037.516	5766292.723	41.403
H3	265037.657	5766291.017	41.394

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
H1 - H2	79.934	8.6	11.998	2.009	1.491	2.939	2.585	2.999	41.433
H2 - H3	2.942	33.35	1.712	0.011	0.008	0.428	0.428	0.428	41.399

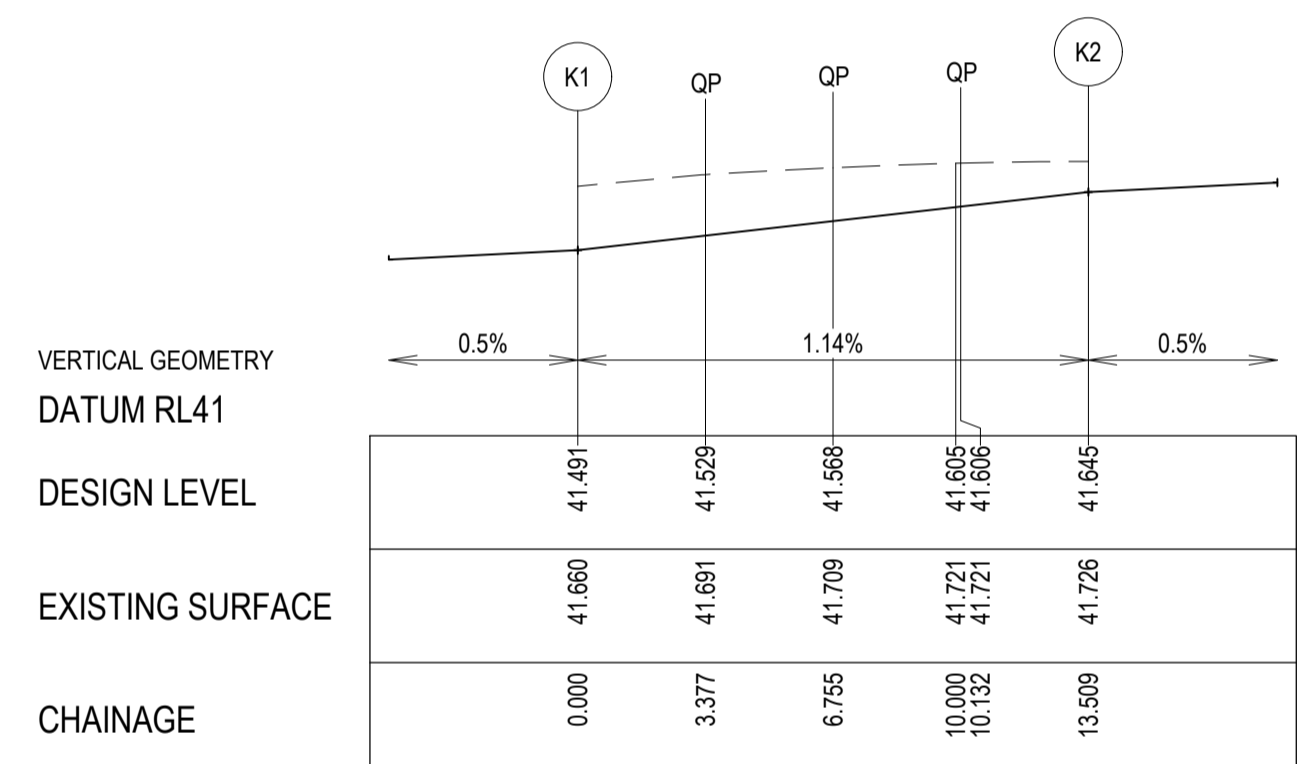


0.000	3.290	6.580	9.871	10.000	13.161
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SETOUT INFORMATION - LIP LINE J

PT NO	EASTING	NORTHING	RL
J1	265014.867	5766294.268	41.62
J2	265024.379	5766301.442	41.491

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
J1 - J2	87.683	8.6	13.161	2.397	1.775	3.211	2.746	3.29	41.555



0.000	3.377	6.755	10.000	10.132	13.509
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SETOUT INFORMATION - LIP LINE K

PT NO	EASTING	NORTHING	RL
K1	265025.226	5766308.088	41.491
K2	265017.708	5766317.648	41.645

CURVE NO	I	RAD.	ARC	A	B	X	Y	I	MID POINT RL
K1 - K2	90	8.6	13.509	2.519	1.864	3.291	2.79	3.377	41.568

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



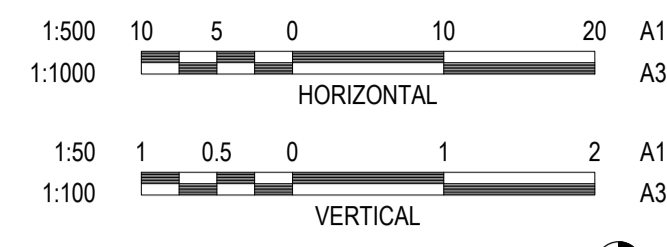
ARMSTRONG - STAGE 45
INTERSECTION DETAIL PLAN - 3

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R302	0

WARNING
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DIAL 1100 BEFORE YOU DIG
www.1100.com.au

LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	FUTURE DESIGN LINE
	LEFT BACK OF KERB
	RIGHT BACK OF KERB



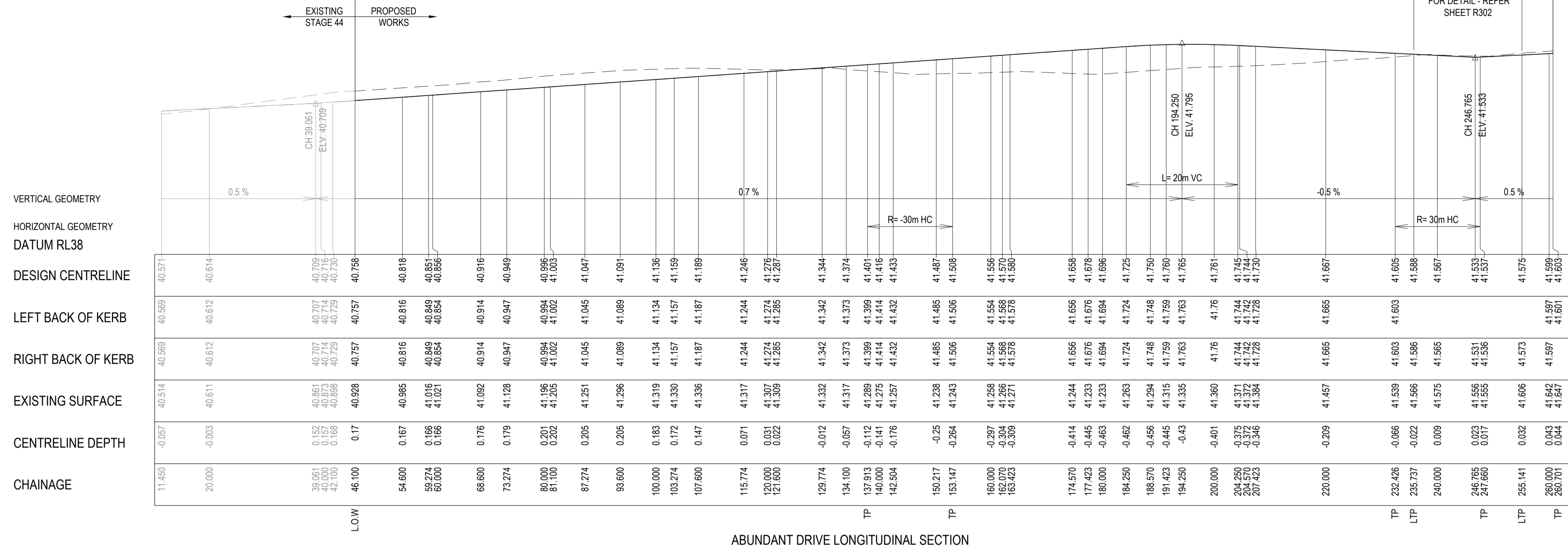
GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 7 of 26 - Cell 15852
 Endorsed Engineering Plan

Signed *[Signature]* Date 27/06/2019

For and on behalf of the Greater Geelong City Council as the Responsible Authority

NOTE: THIS IS NOT A BUILDING APPROVAL



ABUNDANT DRIVE DESIGN LINE

CHAINAGE	EASTING	NORTHING	BEARING
46.100	265232.172	5766326.414	276°49'11" IP
100.000	265178.653	5766332.814	276°49'11" IP
137.913	265141.008	5766337.316	276°49'11" IP
139.130	265139.797	5766337.436	274°29'41" CT
141.304	265137.625	5766337.528	270°20'34" CT
143.478	265135.453	5766337.462	266°11'28" CT
145.652	265133.291	5766337.239	262°02'21" CT
147.826	265131.151	5766336.960	257°52'14" CT
150.000	265129.044	5766336.328	253°44'08" CT
152.174	265126.981	5766335.644	249°35'01" CT
153.147	265126.075	5766335.290	247°43'33" CT
200.000	265082.717	5766317.530	247°43'33" CT
232.426	265052.711	5766305.240	247°43'33" CT
232.609	265052.542	5766305.171	248°04'27" CT
234.783	265050.498	5766304.433	252°13'33" CT
236.957	265048.405	5766303.845	256°22'40" CT
239.130	265046.276	5766303.410	260°31'47" CT
241.304	265044.120	5766303.130	264°40'54" CT
243.478	265041.950	5766303.007	268°50'00" CT
245.652	265039.777	5766303.042	272°59'07" CT
246.765	265038.667	5766303.120	275°06'41" CT
247.660	265037.777	5766303.213	276°49'11" IP
260.701	265024.829	5766304.762	276°49'11" IP

--- IP DETAILS ---

IP 1
 COORDINATE = 265232.1717 5766326.4136
 CHAINAGE = 46.1000

IP 2
 COORDINATE = 265133.2785 5766338.2405
 CENTRE = 265137.4458 5766307.5283
 RADIUS = -30.0000
 LENGTH = 15.2336
 INTERSECT ANGLE = 29°05'38"

START TANGENT
 COORDINATE = 265141.0082 5766337.3161
 LENGTH = 7.7848
 CHAINAGE = 137.9131
 BEARING = 276°49'11"

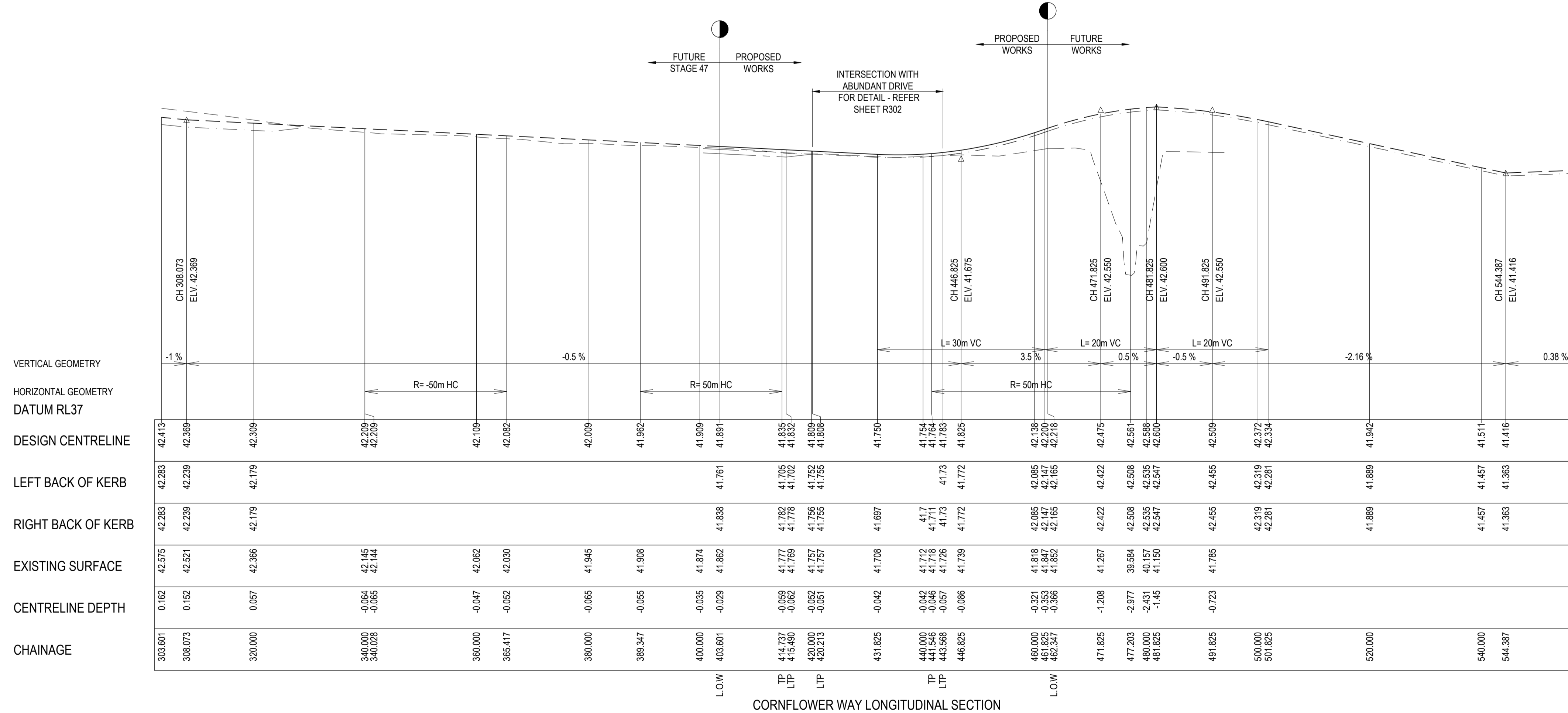
END TANGENT
 COORDINATE = 265126.0746 5766335.2897
 LENGTH = 7.7848
 CHAINAGE = 153.1467
 BEARING = 247°43'33"

IP 3
 COORDINATE = 265045.5069 5766302.2888
 CENTRE = 265041.3396 5766333.0010
 RADIUS = 30.0000
 LENGTH = 15.2336
 INTERSECT ANGLE = 29°05'38"

START TANGENT
 COORDINATE = 265052.7108 5766305.2395
 LENGTH = 7.7848
 CHAINAGE = 232.4263
 BEARING = 247°43'33"

END TANGENT
 COORDINATE = 265037.7772 5766303.2132
 LENGTH = 7.7848
 CHAINAGE = 247.6599
 BEARING = 276°49'11"

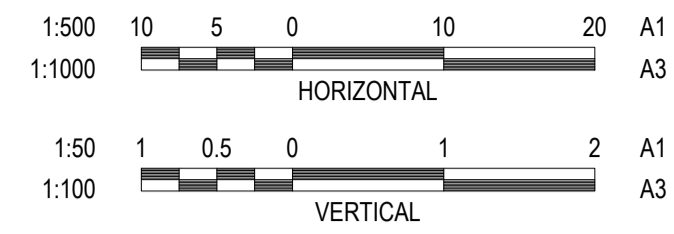
IP 4
 COORDINATE = 265024.8286 5766304.7618
 CHAINAGE = 260.7008



CORNFLOWER WAY DESIGN LINE

CHAINAGE	EASTING	NORTHING	BEARING
403.601	265013.579	5766334.780	174°03'33" IP
403.601	265013.579	5766334.780	174°03'33" IP
405.556	265013.743	5766332.833	176°17'56" IP
408.333	265013.845	5766330.057	179°28'55" IP
411.111	265013.793	5766327.280	182°39'54" IP
413.889	265013.587	5766324.511	185°50'53" IP
414.737	265013.493	5766323.668	186°49'11" CT
441.546	265010.310	5766297.049	186°49'11" CT
441.667	265010.295	5766296.929	186°57'29" CT
444.444	265009.883		

LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	FUTURE DESIGN LINE
	LEFT BACK OF KERB
	RIGHT BACK OF KERB



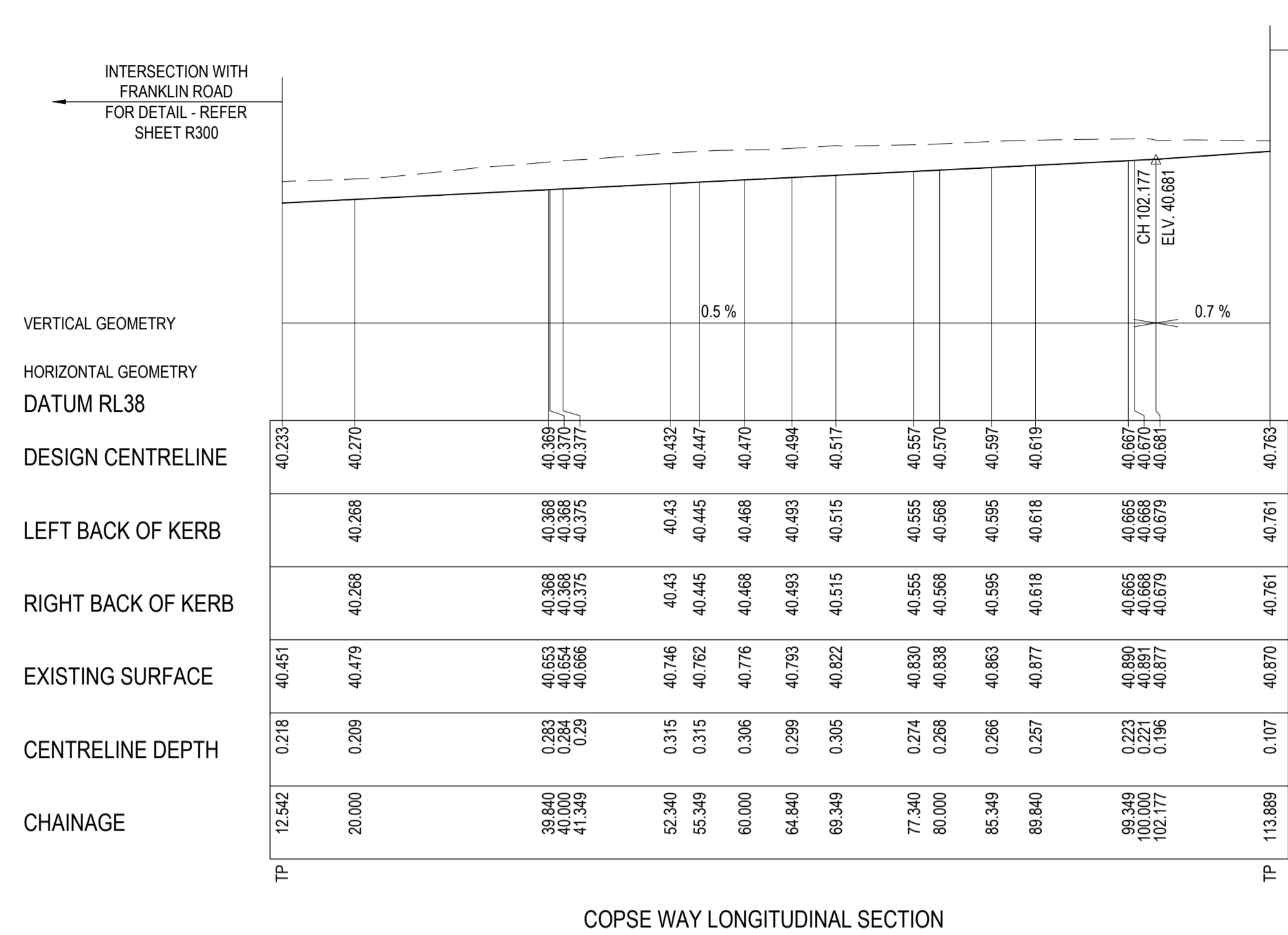
GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan referred to in Permit No: 496-2012-H
Sheet 9 of 26 Cert 13852
Endorsed Engineering Plan

Signed Date 27/06/2019

For and on behalf of the Greater Geelong City Council as the Responsible Authority

NOTE: THIS IS NOT A BUILDING APPROVAL



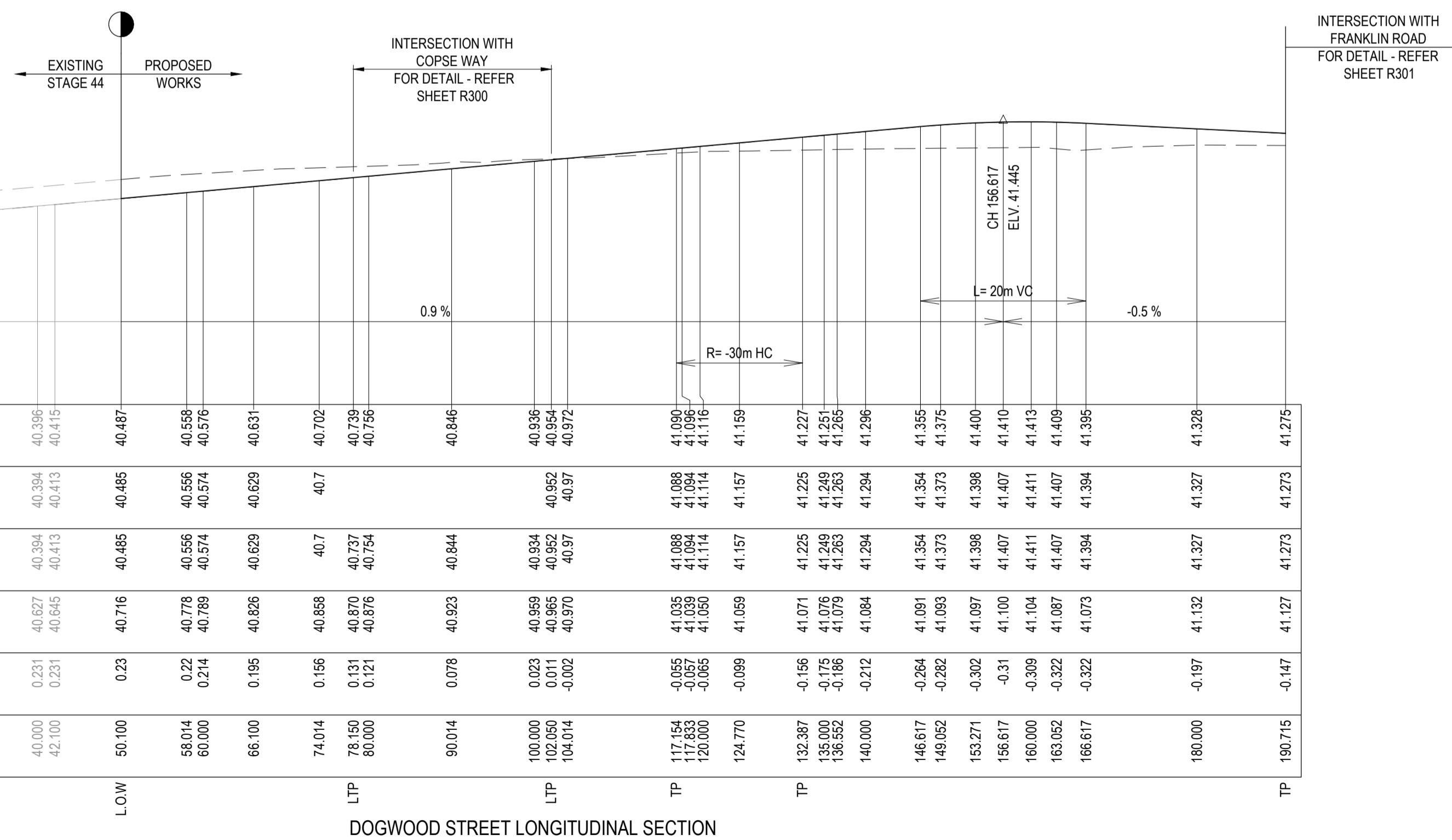
COPSE WAY DESIGN LINE

CHAINAGE	EASTING	NORTHING	BEARING
12.542	265165.530	5766139.709	6°49'11" IP
100.000	265175.915	5766226.548	6°49'11" IP
102.177	265176.174	5766228.709	6°49'11" IP
113.890	265177.564	5766240.339	6°49'11" IP

-- IP DETAILS --

IP 1
COORDINATE = 265165.5297 5766139.7089
CHAINAGE = 12.5423

IP 2
COORDINATE = 265177.5643 5766240.3390
CHAINAGE = 113.8895



DOGWOOD STREET DESIGN LINE

CHAINAGE	EASTING	NORTHING	BEARING
50.100	265218.700	5766247.455	276°49'11" IP
100.000	265169.153	5766253.380	276°49'11" IP
117.154	265152.121	5766255.417	276°49'11" TC
117.391	265151.885	5766255.444	276°21'57"
119.565	265149.718	5766255.607	272°12'51"
121.739	265147.544	5766255.612	268°03'44"
123.913	265145.376	5766255.460	263°54'37"
126.087	265143.225	5766255.151	259°45'31"
128.261	265141.101	5766254.688	255°36'24"
130.435	265139.017	5766254.071	251°27'17"
132.387	265137.187	5766253.391	247°43'33" CT
190.715	265083.212	5766231.282	247°43'33" IP

-- IP DETAILS --

IP 1
COORDINATE = 265218.7003 5766247.4546
CHAINAGE = 50.1000

IP 2
COORDINATE = 265144.3913 5766256.3414
CENTRE = 265148.5587 5766225.6293
RADIUS = -30.0000
LENGTH = 15.2336
INTERSECT ANGLE = 29°05'38"

START TANGENT
COORDINATE = 265152.1210 5766255.4170
LENGTH = 7.7848
CHAINAGE = 117.1537
BEARING = 276°49'11"

END TANGENT
COORDINATE = 265137.1875 5766253.3907
LENGTH = 7.7848
CHAINAGE = 132.3873
BEARING = 247°43'33"

IP 3
COORDINATE = 265083.2117 5766231.2820
CHAINAGE = 190.7154

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT

Communities Designed for Living

creo CONSULTANTS

Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

PROJECT

DRAWING TITLE

ARMSTRONG - STAGE 45
ROAD LONGITUDINAL SECTIONS &
CENTRELINE SETOUT - 2

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R401	0

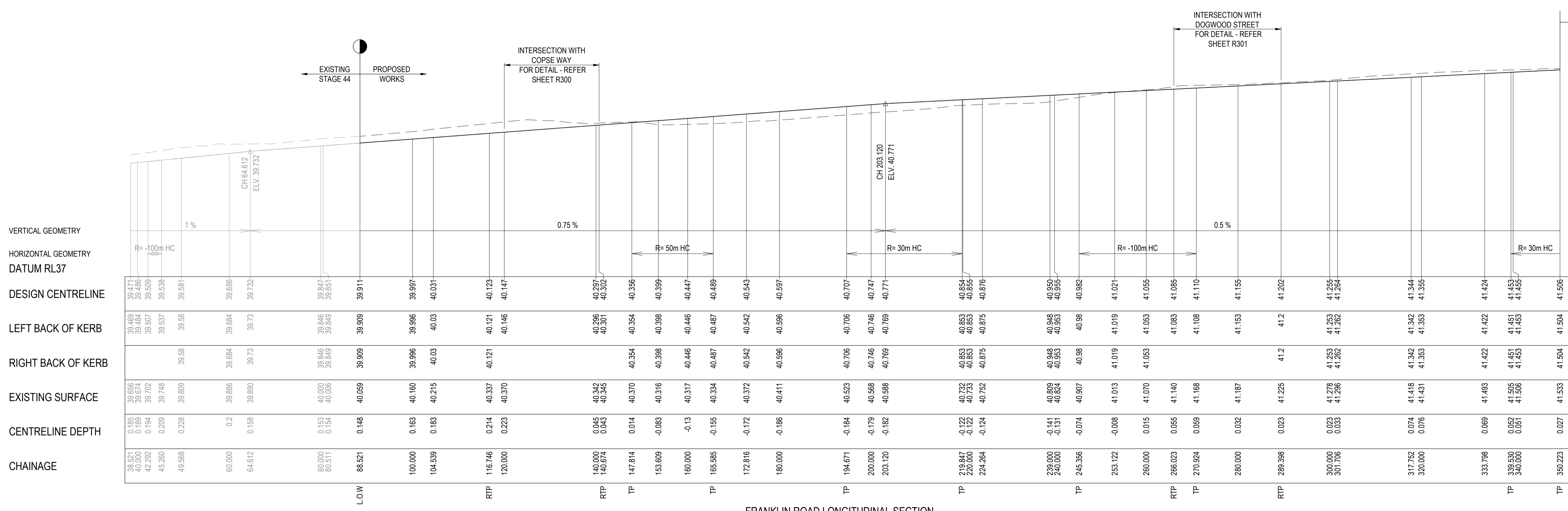
FRANKLIN ROAD DESIGN LINE

CHAINAGE	EASTING	NORTHING	BEARING	IP
88.521	265203.098	5766120.656	279°35'25"	IP
100.000	265191.779	5766122.569	279°35'25"	
147.814	265144.634	5766130.534	279°35'25"	TC
150.000	265142.487	5766130.946	282°05'44"	
152.778	265139.788	5766131.603	285°16'43"	
155.556	265137.130	5766132.409	288°27'42"	
158.333	265134.521	5766133.361	291°38'42"	
161.111	265131.969	5766134.457	294°49'41"	
163.889	265129.482	5766135.693	298°00'40"	
165.585	265127.998	5766136.515	299°57'18"	CT
194.671	265102.798	5766151.038	299°57'18"	TC
195.652	265101.955	5766151.542	301°49'47"	
197.826	265100.152	5766152.754	305°58'54"	
200.000	265098.440	5766154.094	310°08'01"	
202.174	265096.830	5766155.554	314°17'07"	
203.120	265096.163	5766156.225	316°05'34"	
204.348	265095.330	5766157.127	318°26'14"	
206.522	265093.948	5766158.804	322°35'21"	
208.696	265092.691	5766160.577	326°44'28"	
210.870	265091.566	5766162.437	330°53'34"	
213.043	265090.578	5766164.373	335°02'41"	
215.217	265089.733	5766166.375	339°11'48"	
217.391	265089.035	5766168.434	343°20'54"	
219.565	265088.488	5766170.537	347°30'01"	
219.847	265088.429	5766170.813	348°02'21"	CT
245.356	265083.142	5766195.768	348°02'21"	TC
248.000	265082.560	5766198.347	346°31'27"	
252.000	265081.550	5766202.217	344°13'57"	
256.000	265080.387	5766206.044	341°56'26"	
260.000	265079.071	5766209.821	339°38'56"	
264.000	265077.605	5766213.542	337°21'25"	
268.000	265075.992	5766219.202	335°03'54"	
270.924	265074.720	5766219.835	333°23'22"	CT
300.000	265061.697	5766245.831	333°23'22"	
339.530	265043.990	5766281.174	333°23'22"	TC
341.304	265043.243	5766282.763	336°46'41"	
343.478	265042.459	5766284.810	340°55'48"	
345.652	265041.824	5766286.888	345°04'55"	
347.826	265041.341	5766289.008	349°14'02"	
350.000	265041.012	5766291.156	353°23'08"	
350.223	265040.987	5766291.378	353°48'44"	CT

-- IP DETAILS --

IP	COORDINATE	EASTING	NORTHING
IP 1	265203.0977	5766120.6561	
IP 2	265135.7786	5766132.0305	
IP 3	265091.2023	5766157.7200	
IP 4	265080.4781	5766208.3429	
IP 5	265041.5698	5766286.0055	
IP 6	265040.9874	5766291.3781	

IP	COORDINATE	EASTING	NORTHING	CENTRE	RADIUS	LENGTH	INTERSECT ANGLE	START TANGENT	END TANGENT
IP 1	265203.0977	5766120.6561							
IP 2	265135.7786	5766132.0305							
IP 3	265091.2023	5766157.7200							
IP 4	265080.4781	5766208.3429							
IP 5	265041.5698	5766286.0055							
IP 6	265040.9874	5766291.3781							



REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT

Communities Designed for Living

PROJECT

Level 7, 176 Wellington Parade
 East Melbourne, VIC, Australia 3002

DRAWING TITLE

ARMSTRONG - STAGE 45
ROAD LONGITUDINAL SECTIONS &
CENTRELINE SETOUT - 3

DRAWING TITLE

ARMSTRONG - STAGE 45
ROAD LONGITUDINAL SECTIONS &
CENTRELINE SETOUT - 3

STATUS

ISSUED FOR CONSTRUCTION

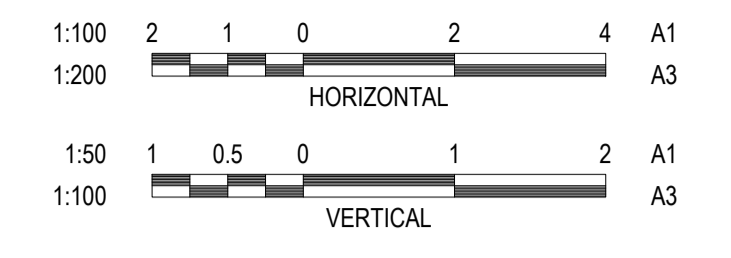
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AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R402	0

GREATER GEELONG CITY COUNCIL
 PLANNING & ENVIRONMENT ACT 1987
 GREATER GEELONG PLANNING SCHEME

Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 10 of 26 Cont 13852
 Endorsed Engineering Plan

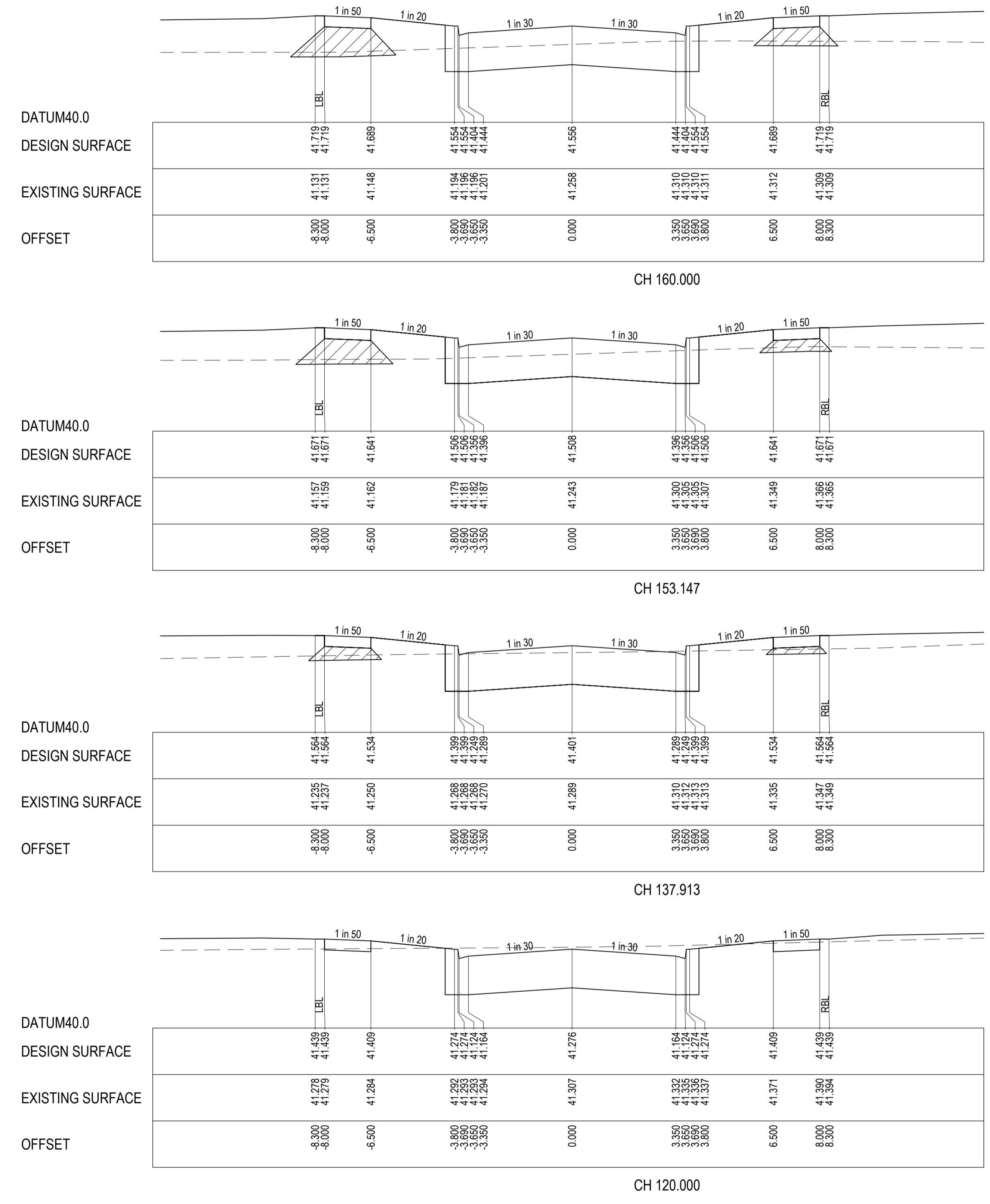
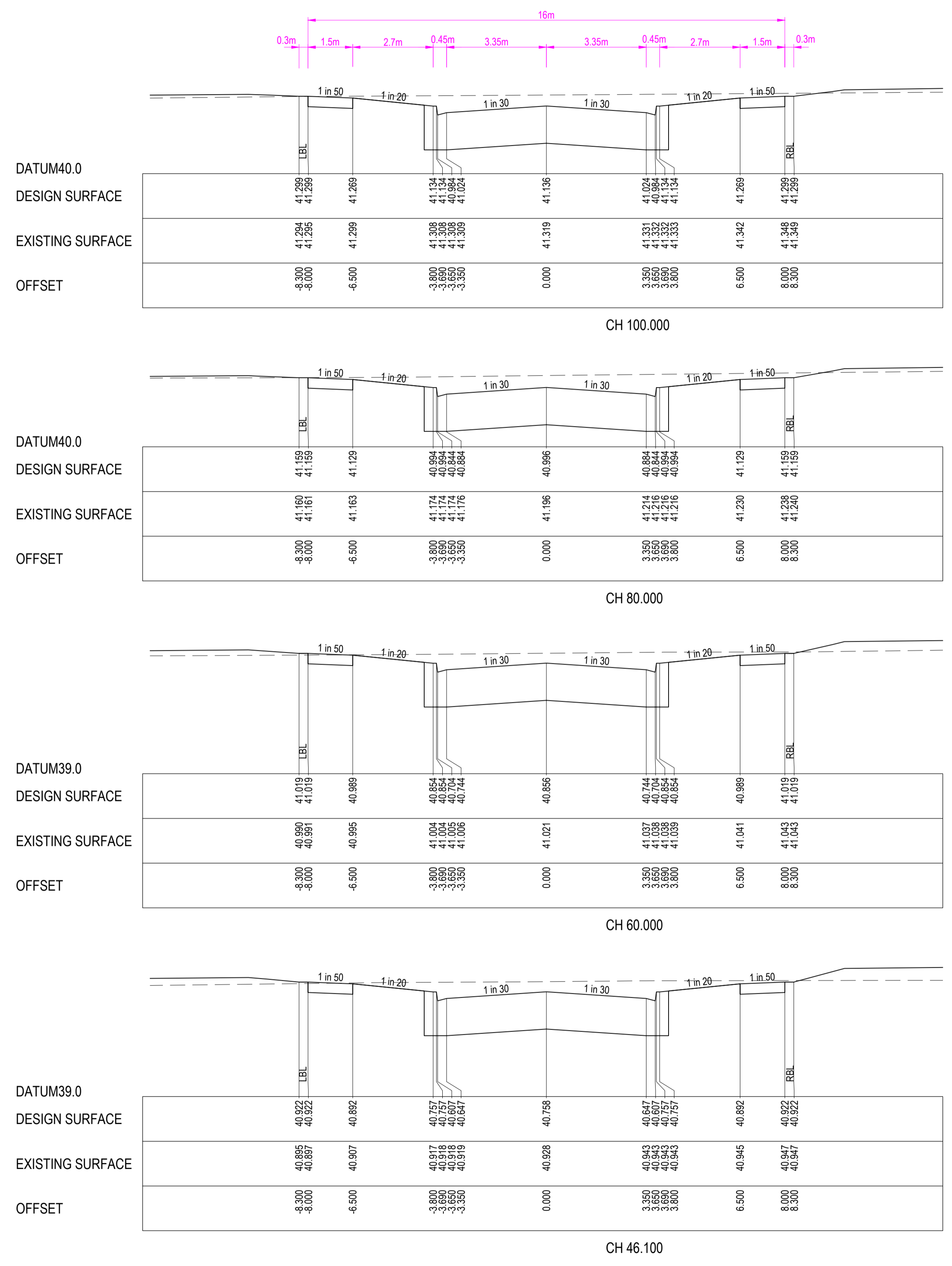
Signed *ADJF* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority

NOTE: THIS IS NOT A BUILDING APPROVAL



LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	SELECT FILL

NOTE
 SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE



REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

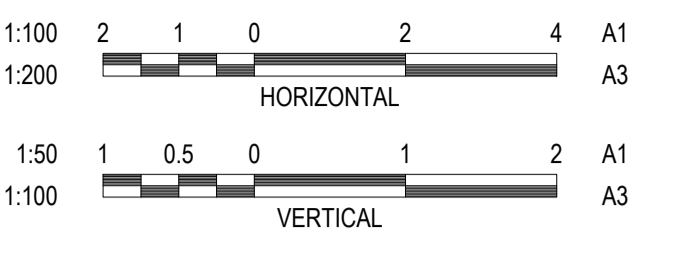


PROJECT
ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 1
ABUNDANT DRIVE - SHEET 1

STATUS
ISSUED FOR CONSTRUCTION

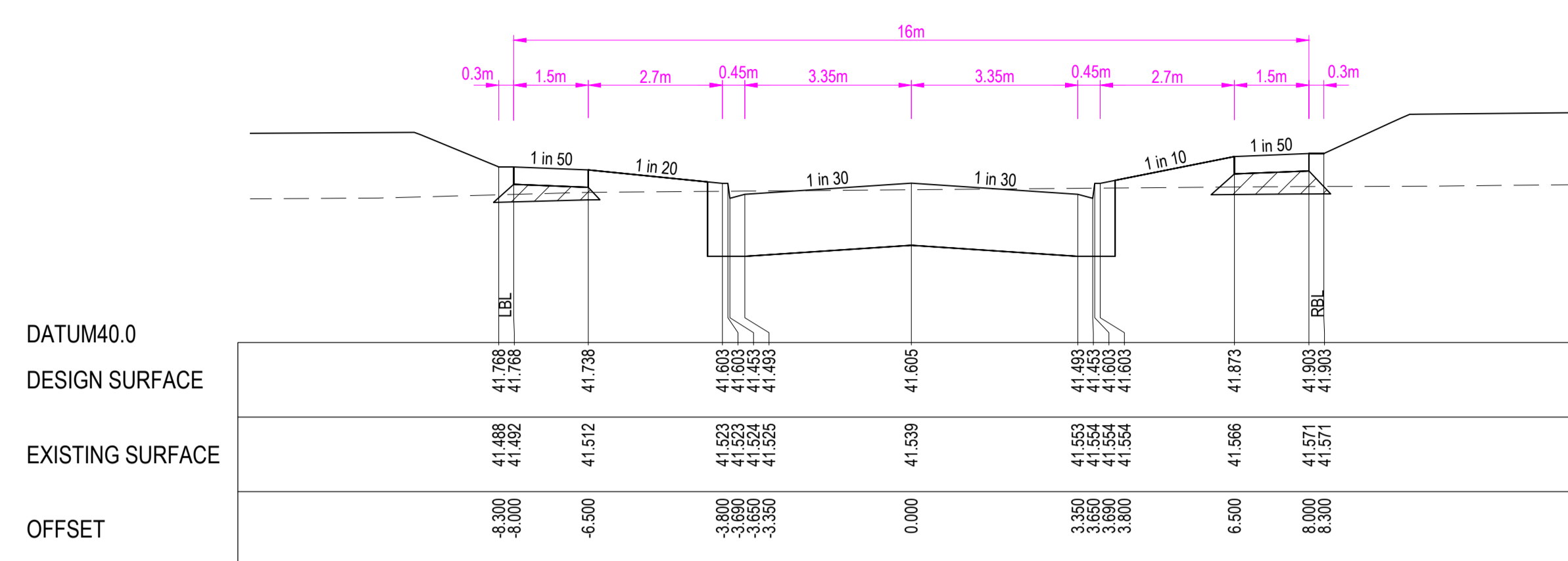
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R500	0

GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
 Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 11 of 26 - Cdn13852
 Endorsed Engineering Plan
 Signed *Adrian* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL

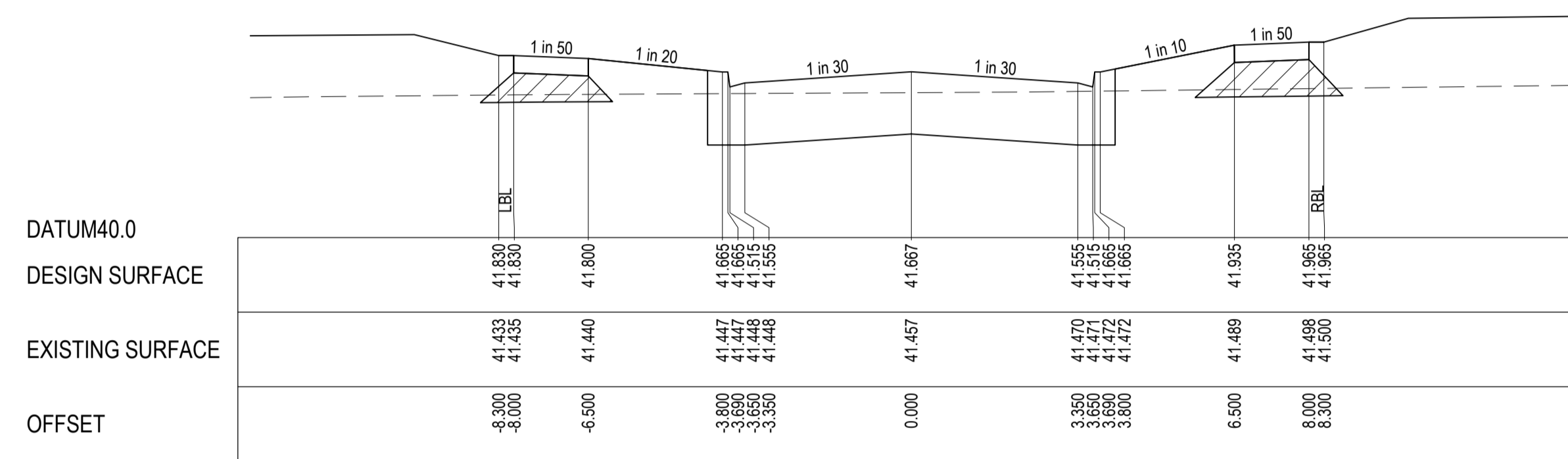


LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	SELECT FILL

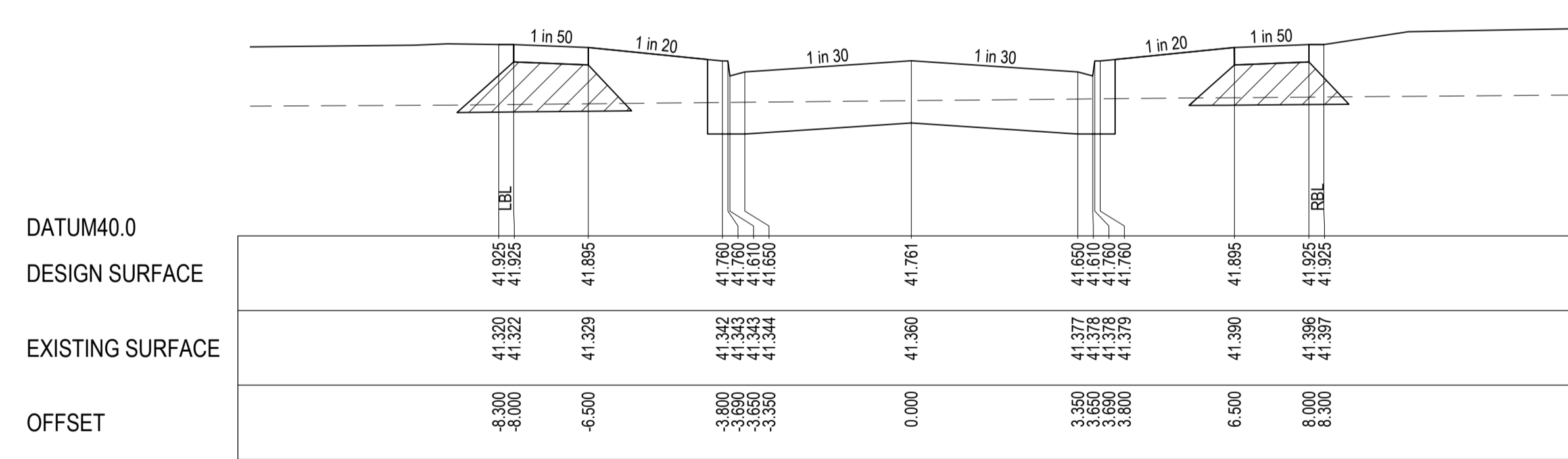
NOTE
 SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE



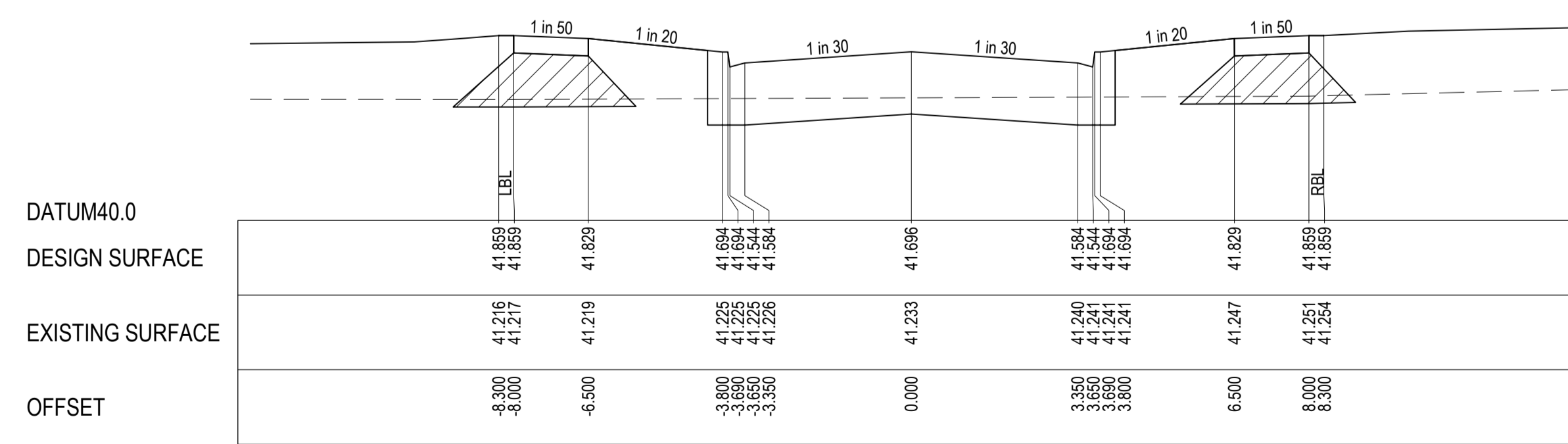
CH 232.426



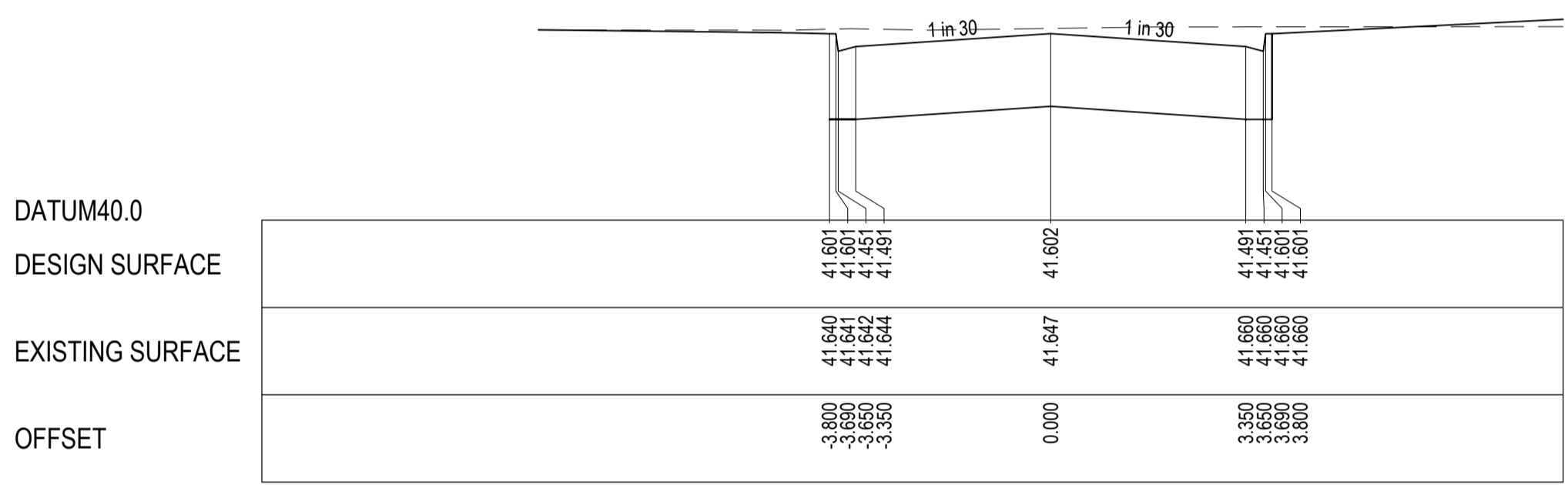
CH 220.000



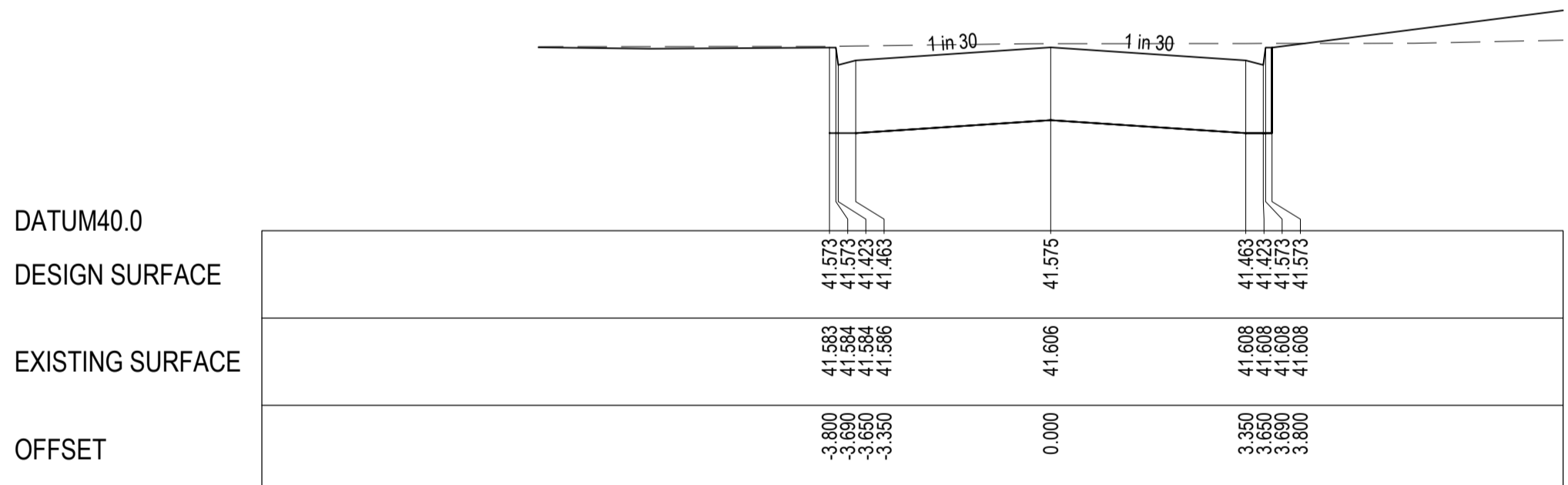
CH 200.000



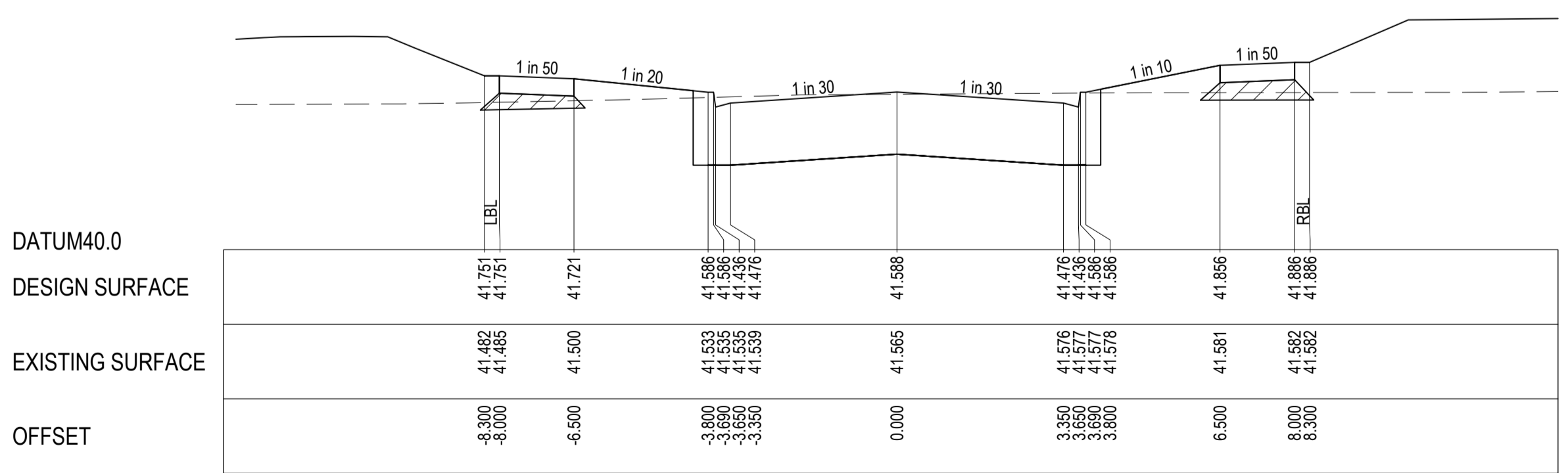
CH 180.000



CH 260.701



CH 255.141



CH 235.737

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
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B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

villawood properties
 Communities Designed for Living

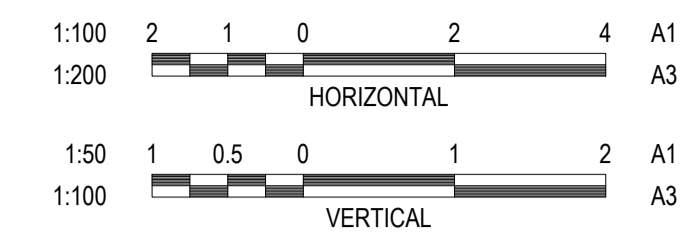
creo CONSULTANTS
 Level 7, 176 Wellington Parade
 East Melbourne, VIC, Australia 3002

ARMSTRONG
 MT DUNNEE

ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 2
ABUNDANT DRIVE - SHEET 2

ISSUED FOR CONSTRUCTION

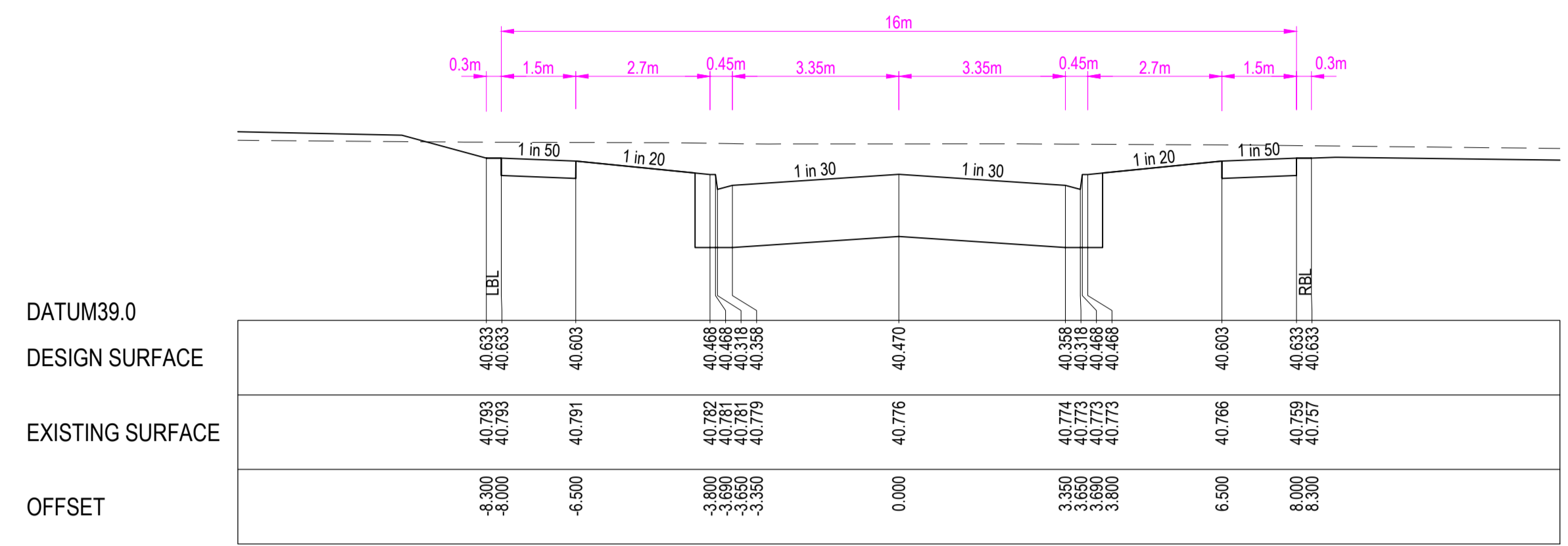
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R501	0



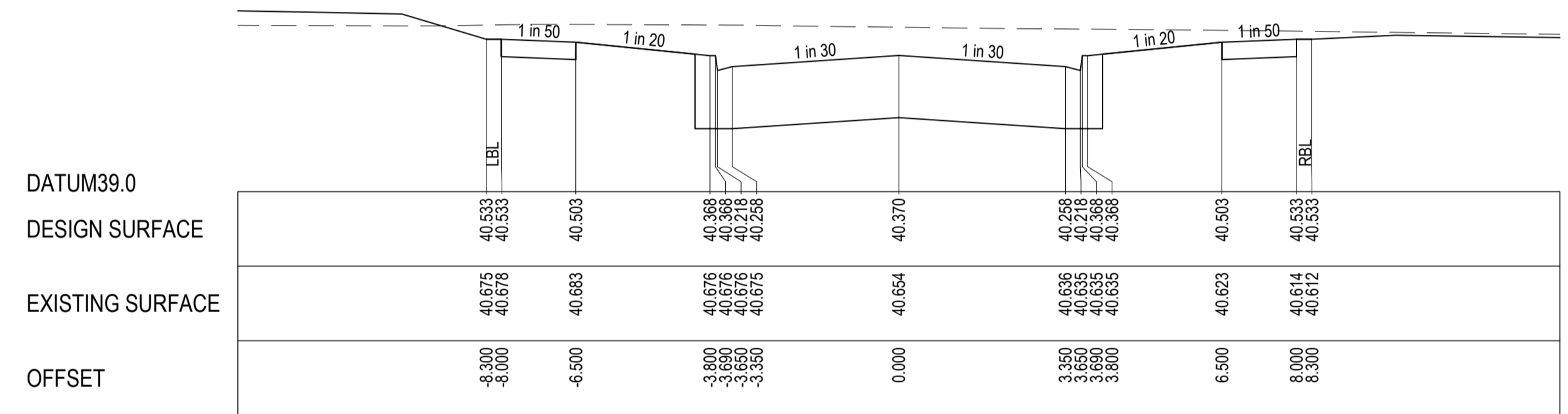
LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	SELECT FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT
AND FOOTPATHS WHERE CONSTRUCTED
ABOVE NATURAL SURFACE

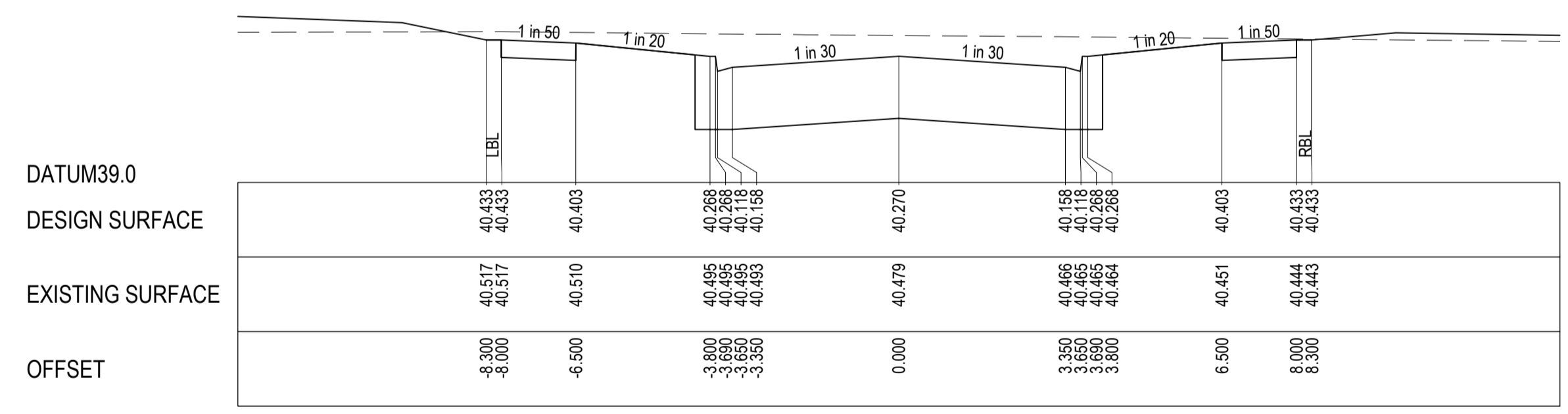
GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
Endorsed Plan referred to in Permit No: 496-2012-H
Sheet 13 of 26 - Cent 13882
Endorsed Engineering Plan
Signed *[Signature]* Date 27/06/2019
For and on behalf of the Greater Geelong City Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL



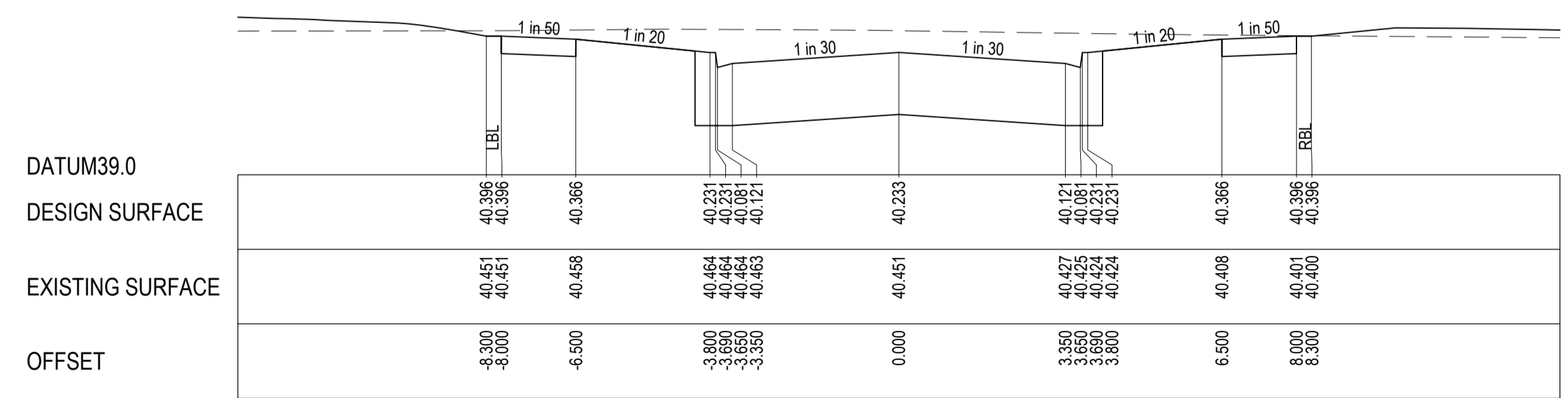
CH 60.000



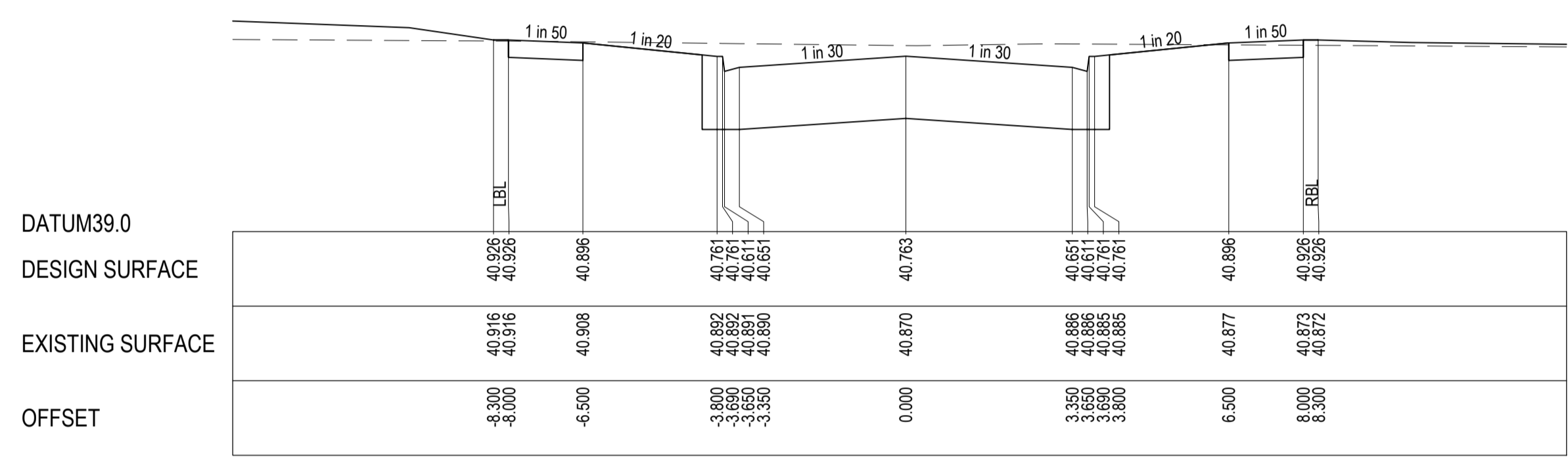
CH 40.000



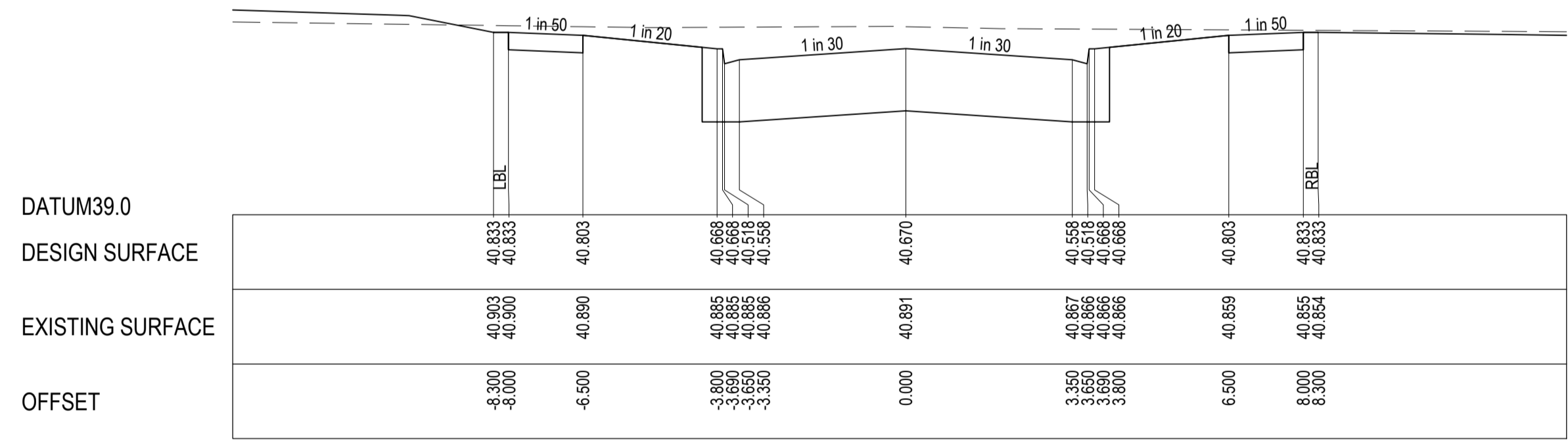
CH 20.000



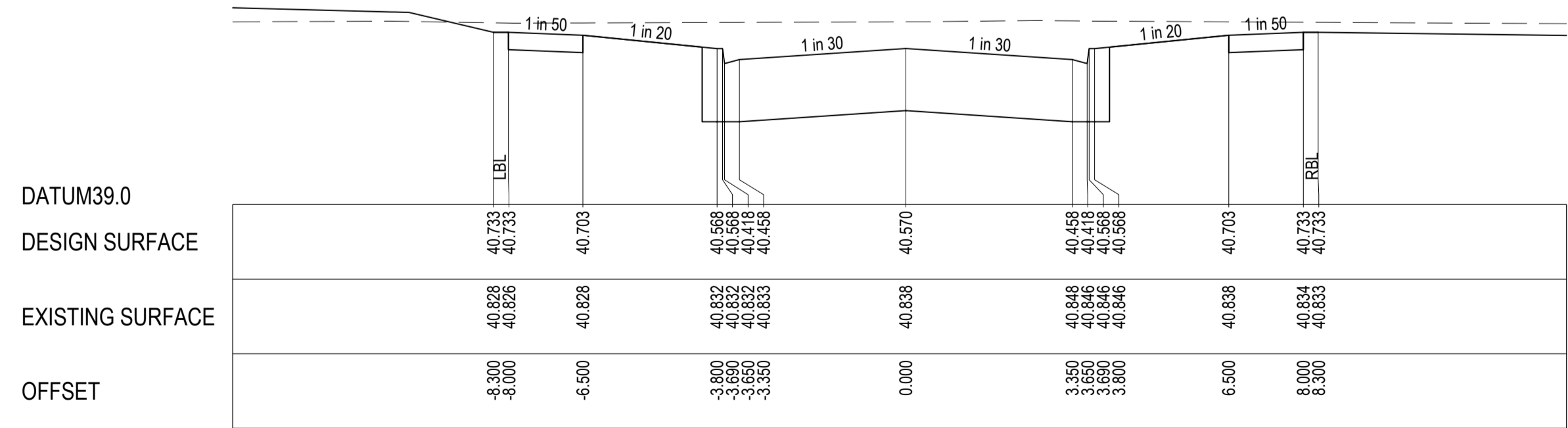
CH 12.542



CH 113.889



CH 100.000



CH 80.000

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

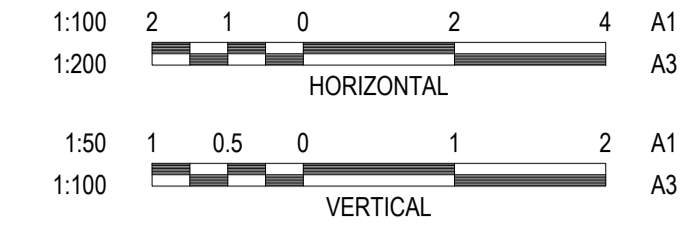


PROJECT
**ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 4
COPSE WAY**

STATUS
**ISSUED FOR
CONSTRUCTION**

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R503	0

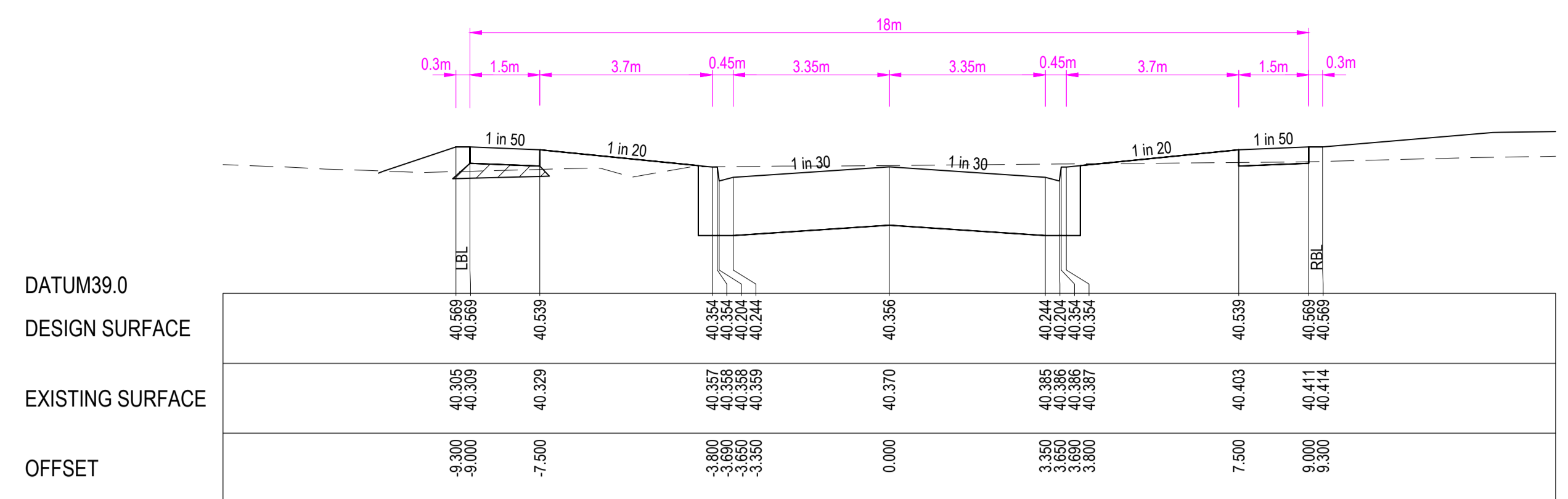
GREATER GEELONG CITY COUNCIL
 PLANNING & ENVIRONMENT ACT 1987
 GREATER GEELONG PLANNING SCHEME
 Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 14 of 26 Cert 13852
 Endorsed Engineering Plan
 Signed *Abi J* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority
 NOTE: THIS IS NOT A BUILDING APPROVAL



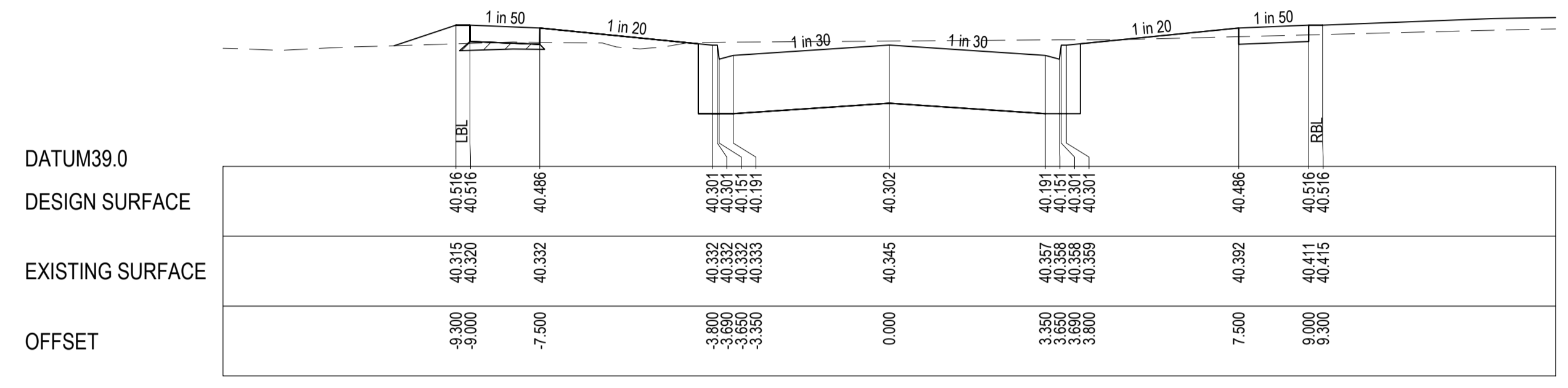
LEGEND

- EXISTING SURFACE
- DESIGN LINE
- ▨ SELECT FILL

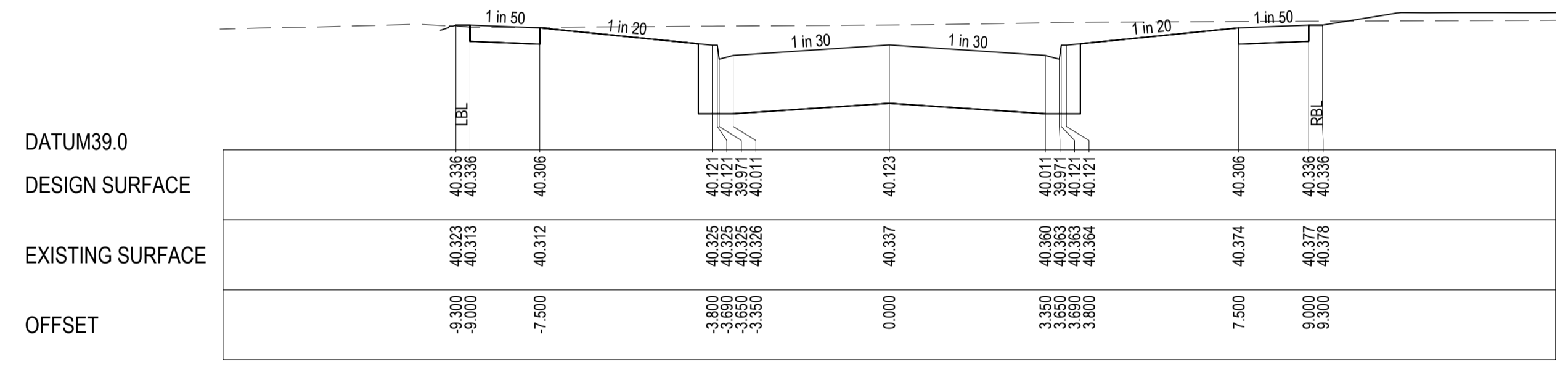
NOTE
 SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE



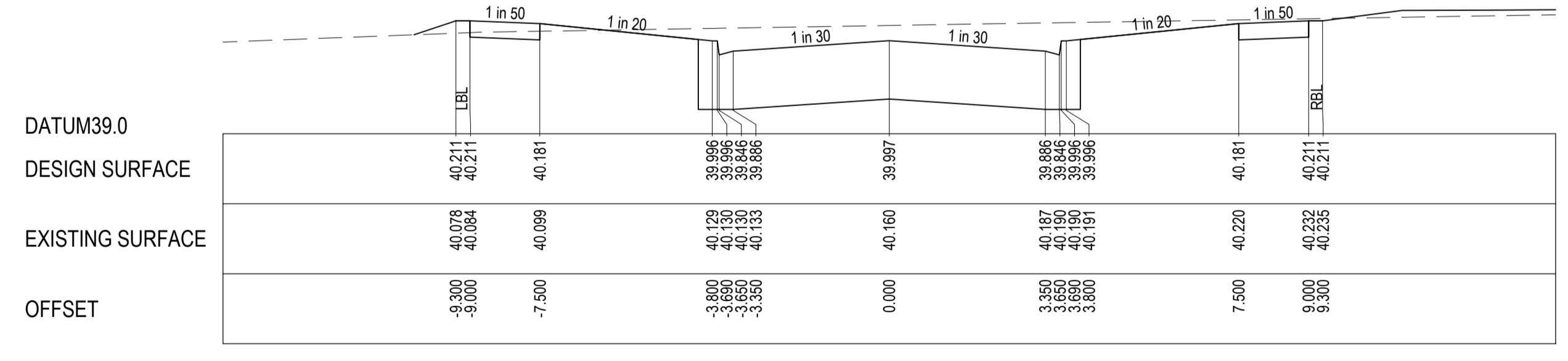
CH 147.814



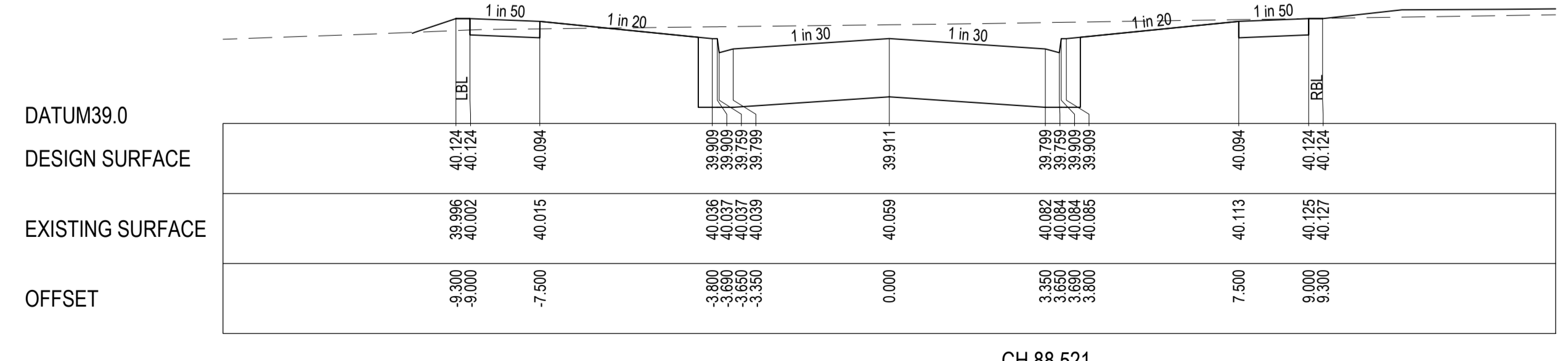
CH 140.674



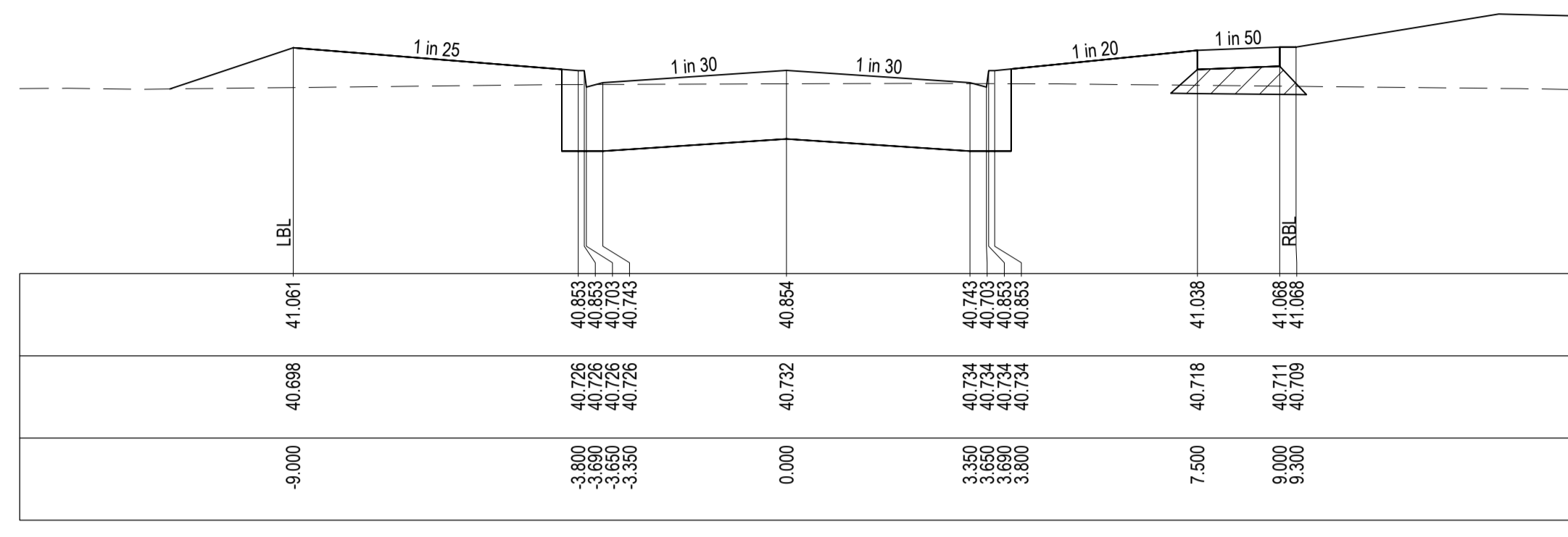
CH 116.746



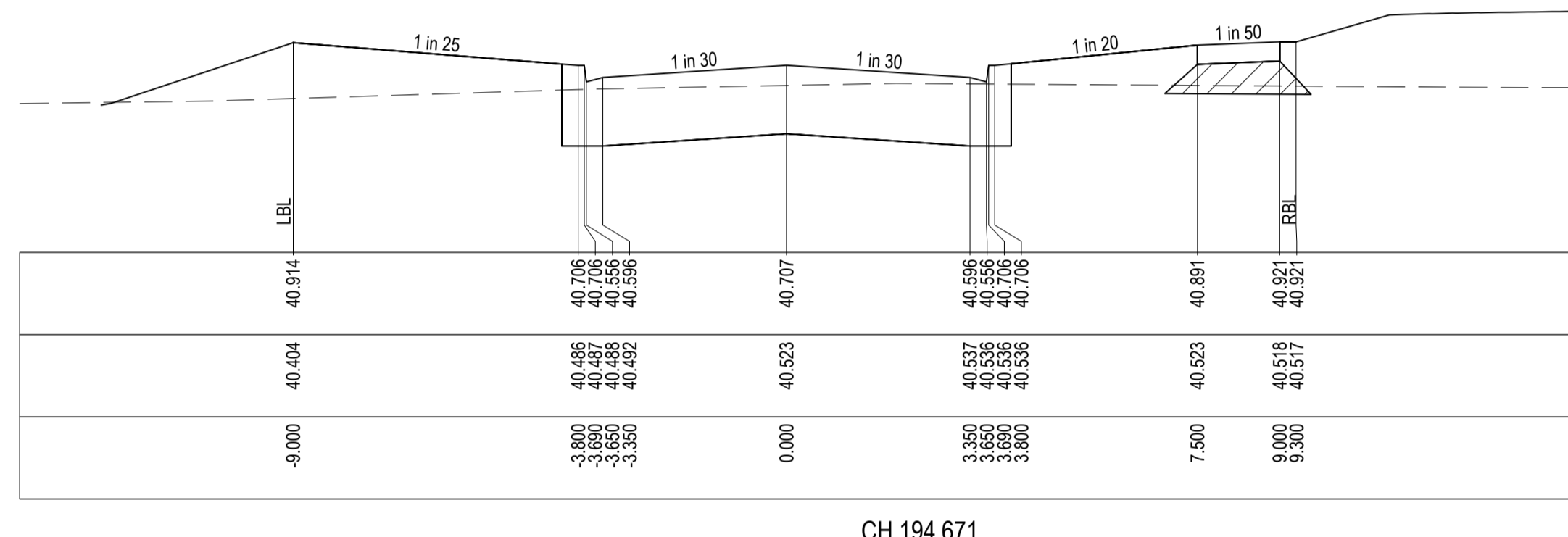
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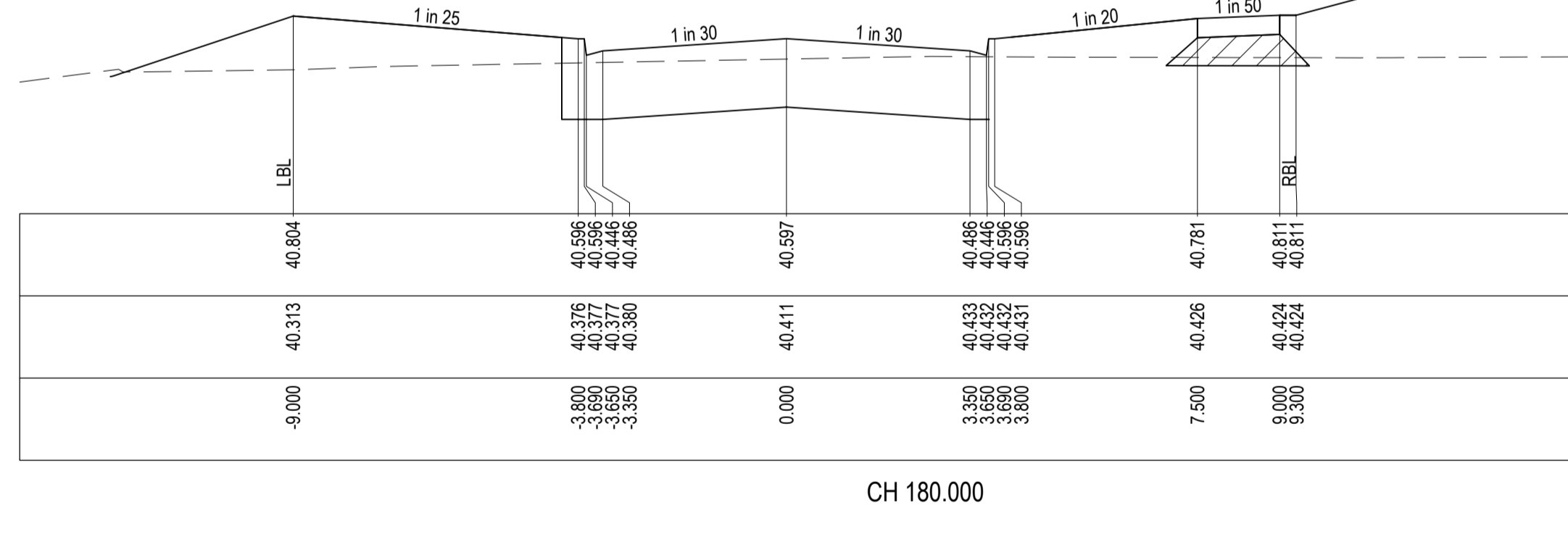
CH 88.521



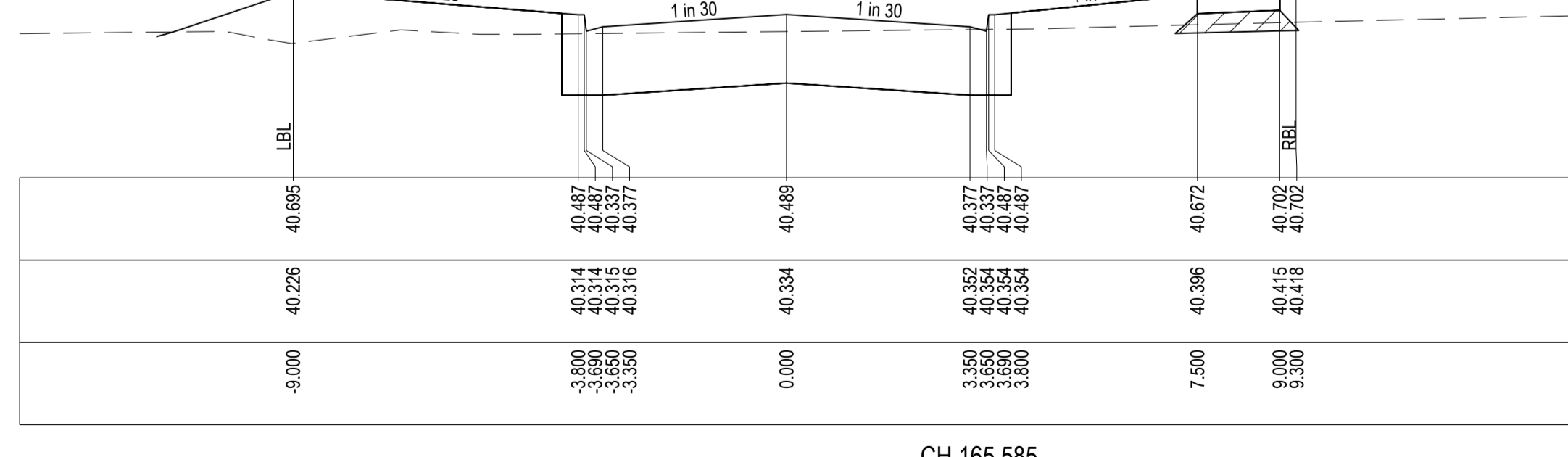
CH 219.847



CH 194.671



CH 180.000



CH 165.585

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
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B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

villawood
 properties
 Communities Designed for Living

creo
 CONSULTANTS
 Level 7, 176 Wellington Parade
 East Melbourne, VIC, Australia 3002

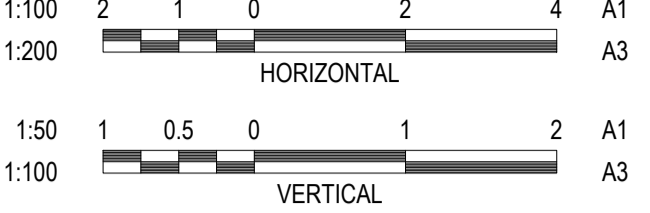
ARMSTRONG
 MT DUNEDIN

ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 5
FRANKLIN ROAD - SHEET 1

ISSUED FOR CONSTRUCTION

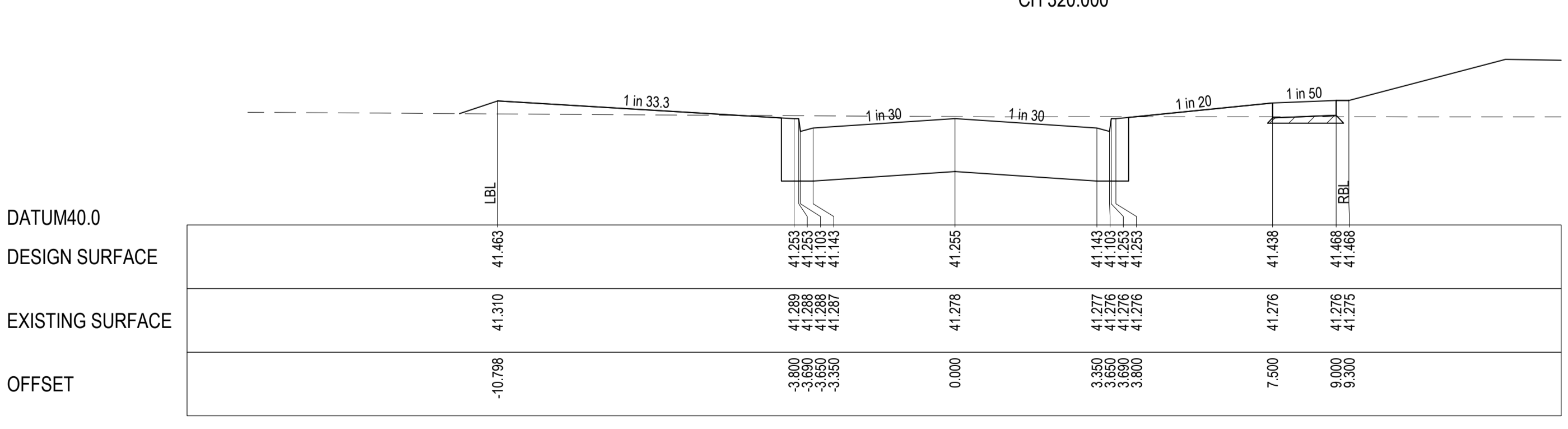
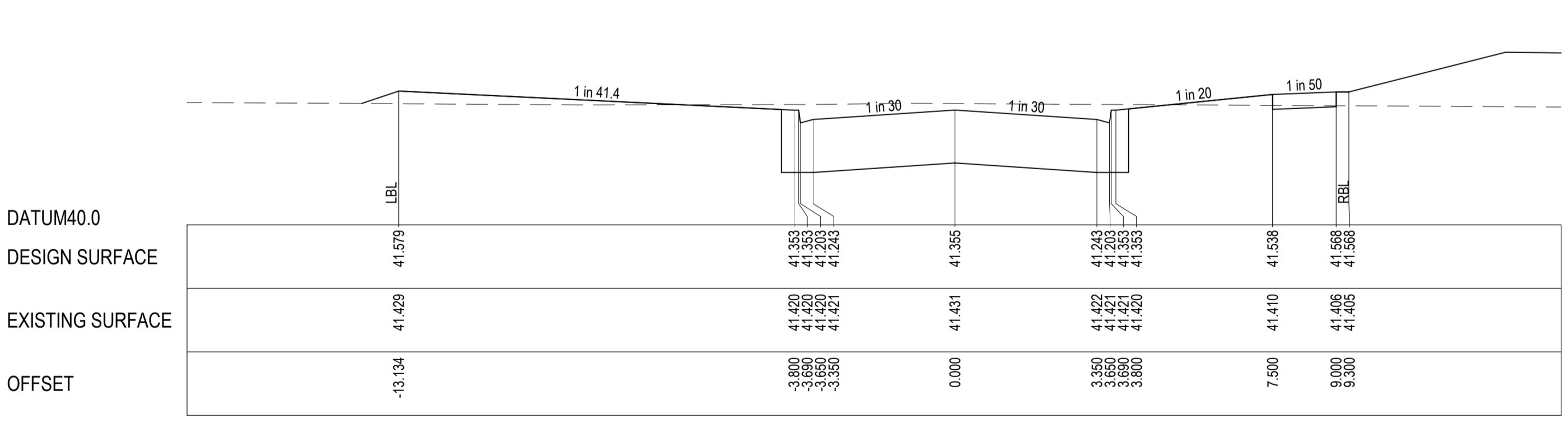
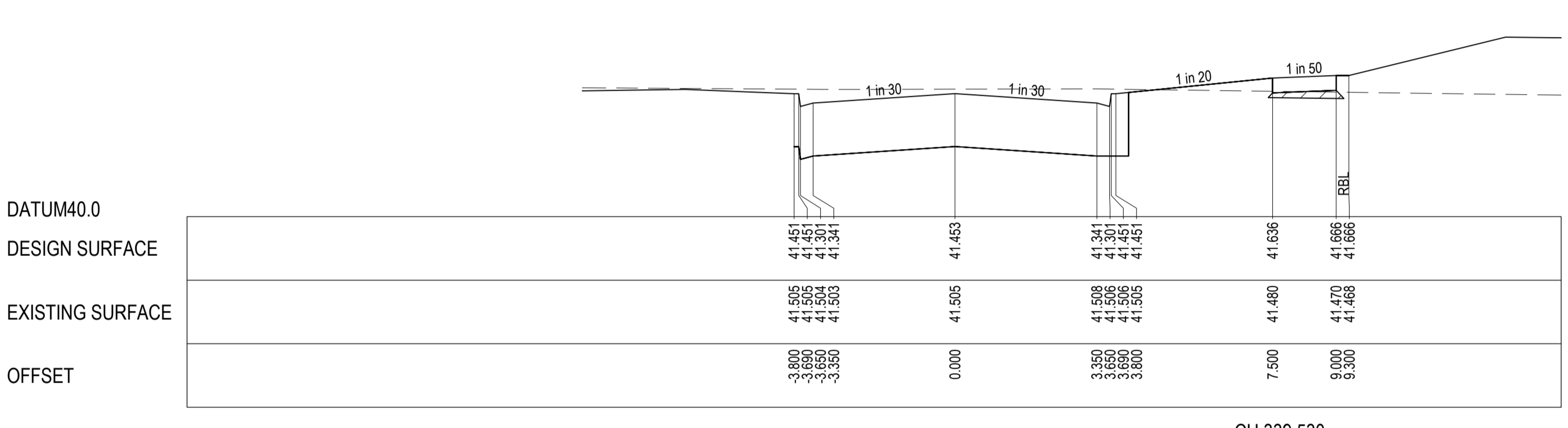
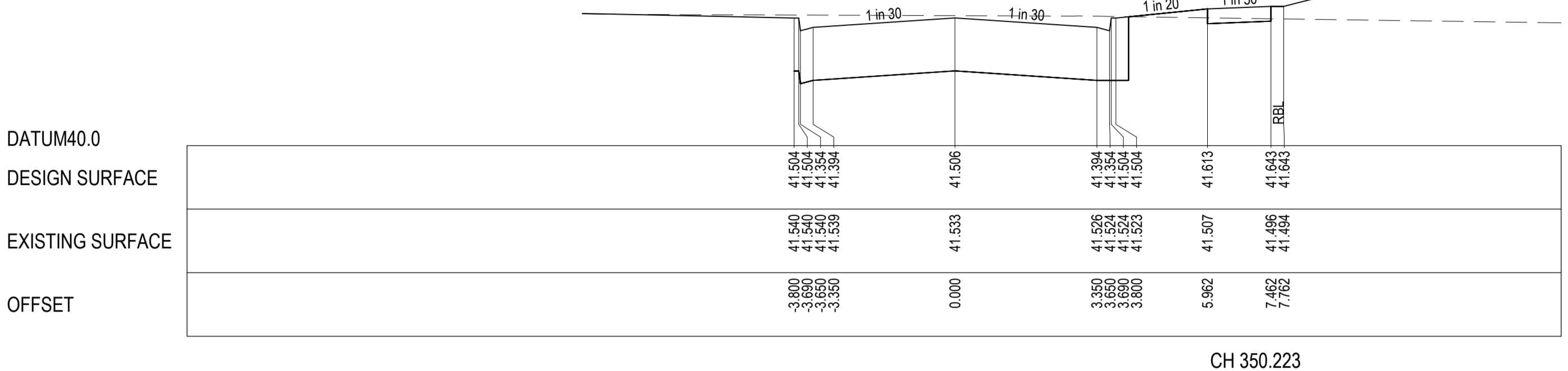
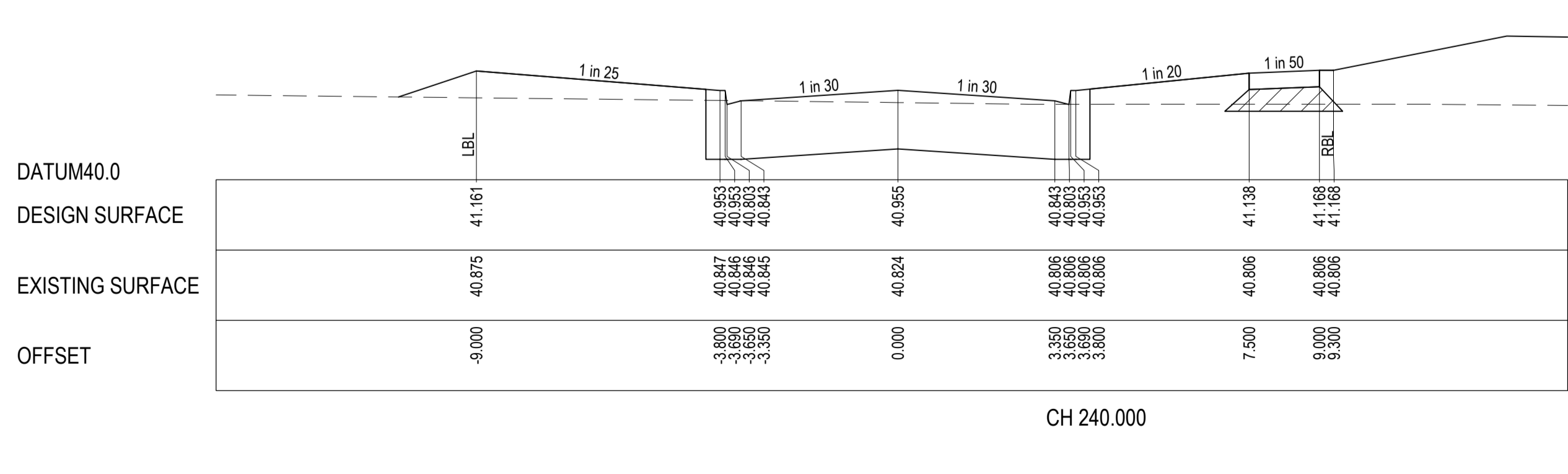
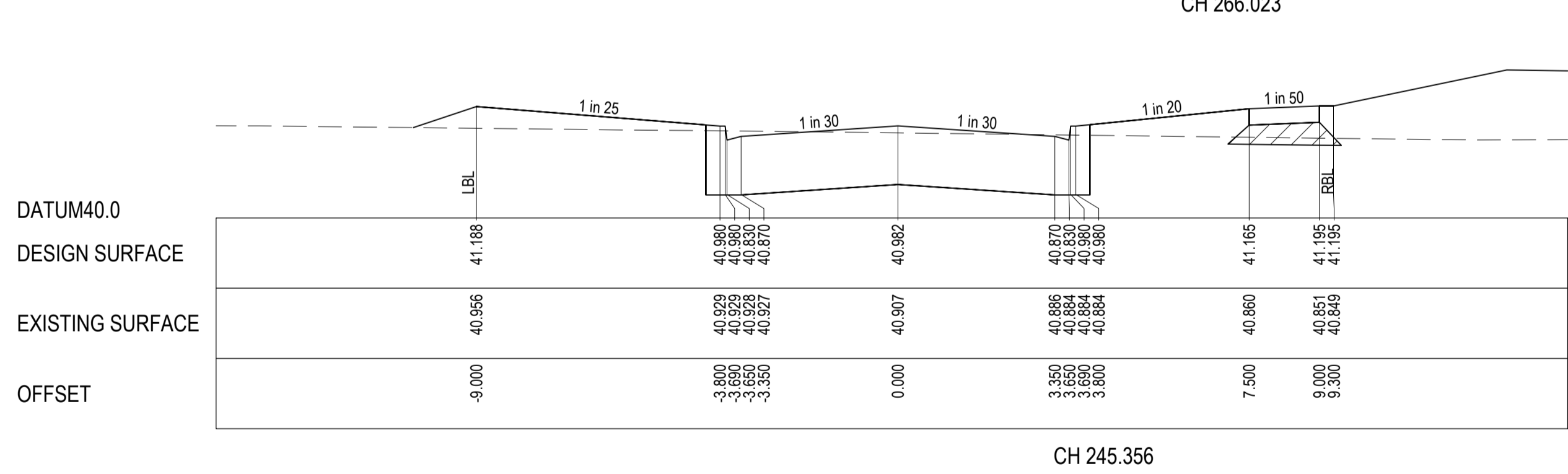
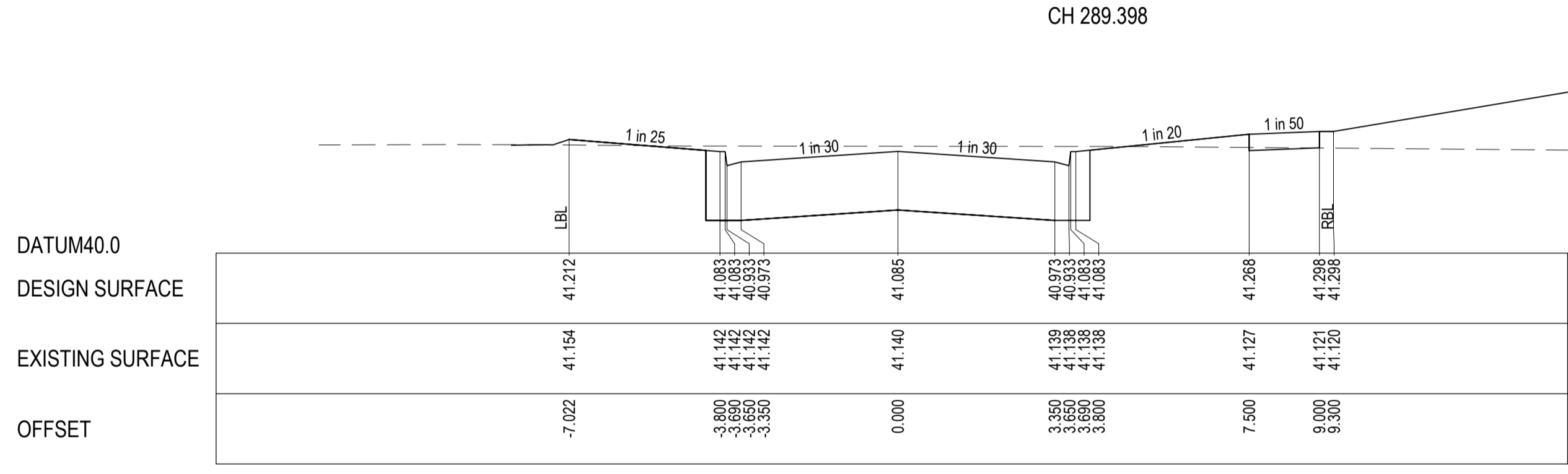
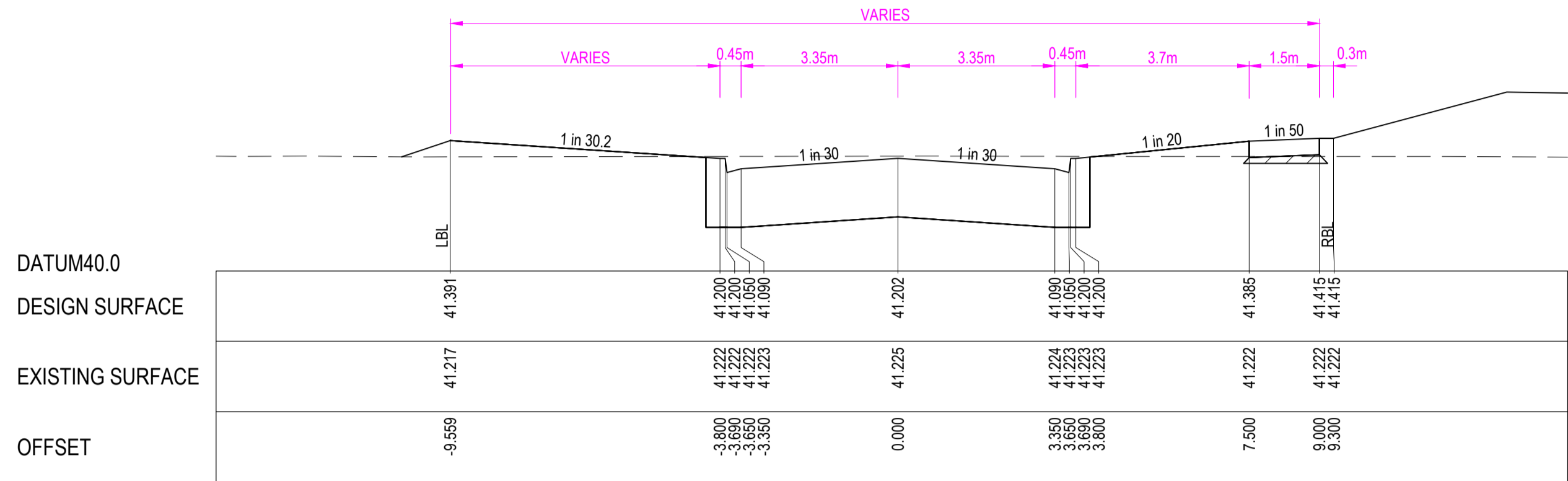
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R504	0

GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
 Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 15 of 26 Cert 13852
 Endorsed Engineering Plan
 Signed *[Signature]* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL



LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	SELECT FILL

NOTE
 SELECT FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE



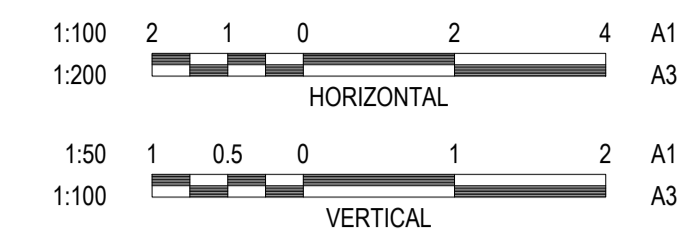
REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 6
FRANKLIN ROAD - SHEET 2

ISSUED FOR CONSTRUCTION

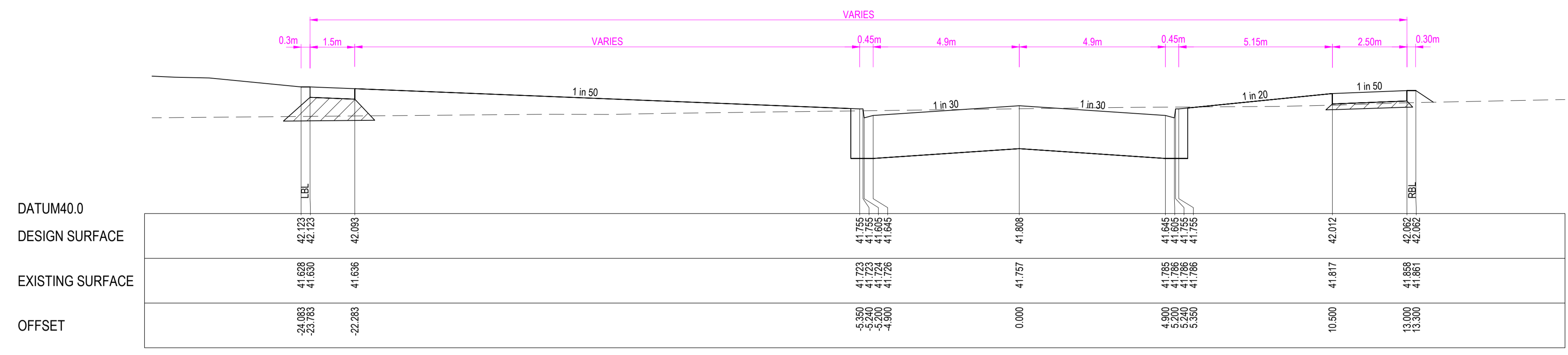
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R505	0



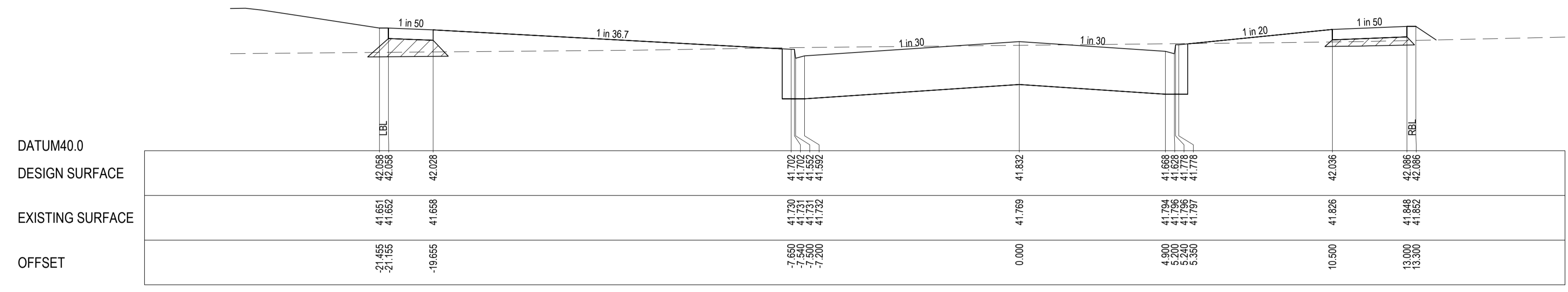
LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	SELECT FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT
AND FOOTPATHS WHERE CONSTRUCTED
ABOVE NATURAL SURFACE

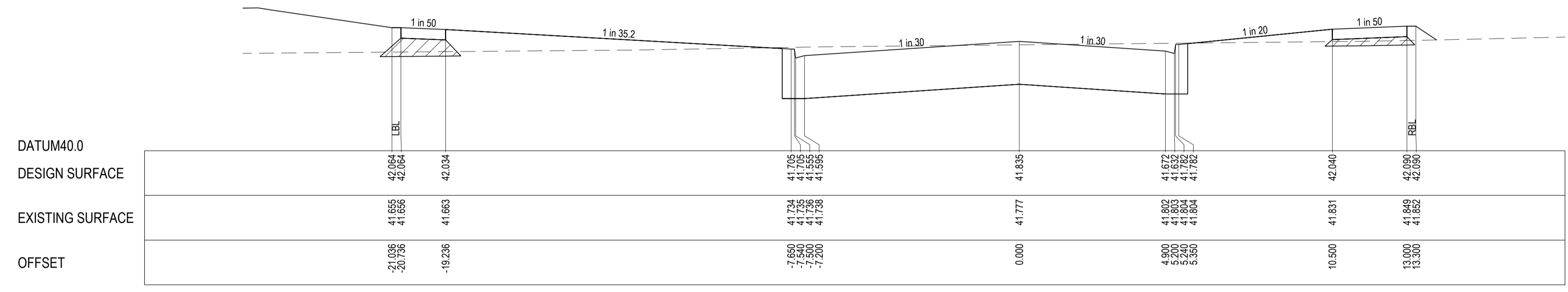
GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
Endorsed Plan referred to in Permit No: 496-2012-14
Sheet 16 of 26 Cert 13852
Endorsed Engineering Plan
Signed *Adrian* Date 27/06/2019
For and on behalf of the Greater Geelong City
Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL



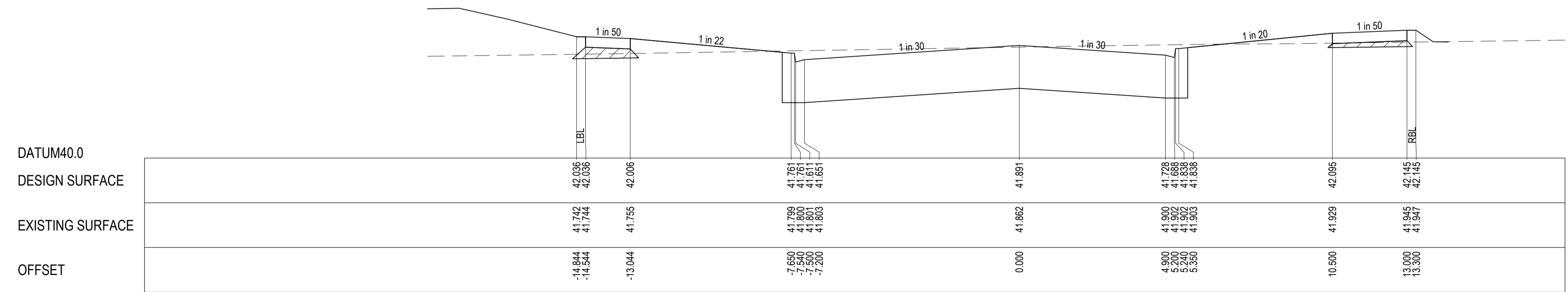
CH 420.213



CH 415.490



CH 414.737



CH 403.601

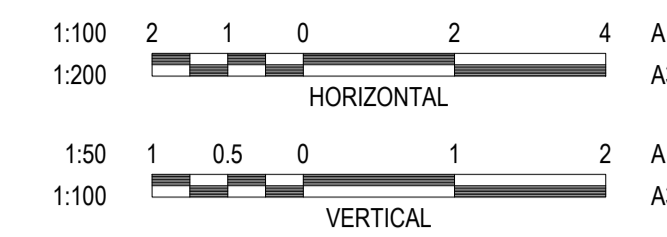
REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 7
CORNFLOWER WAY - SHEET 1

ISSUED FOR CONSTRUCTION

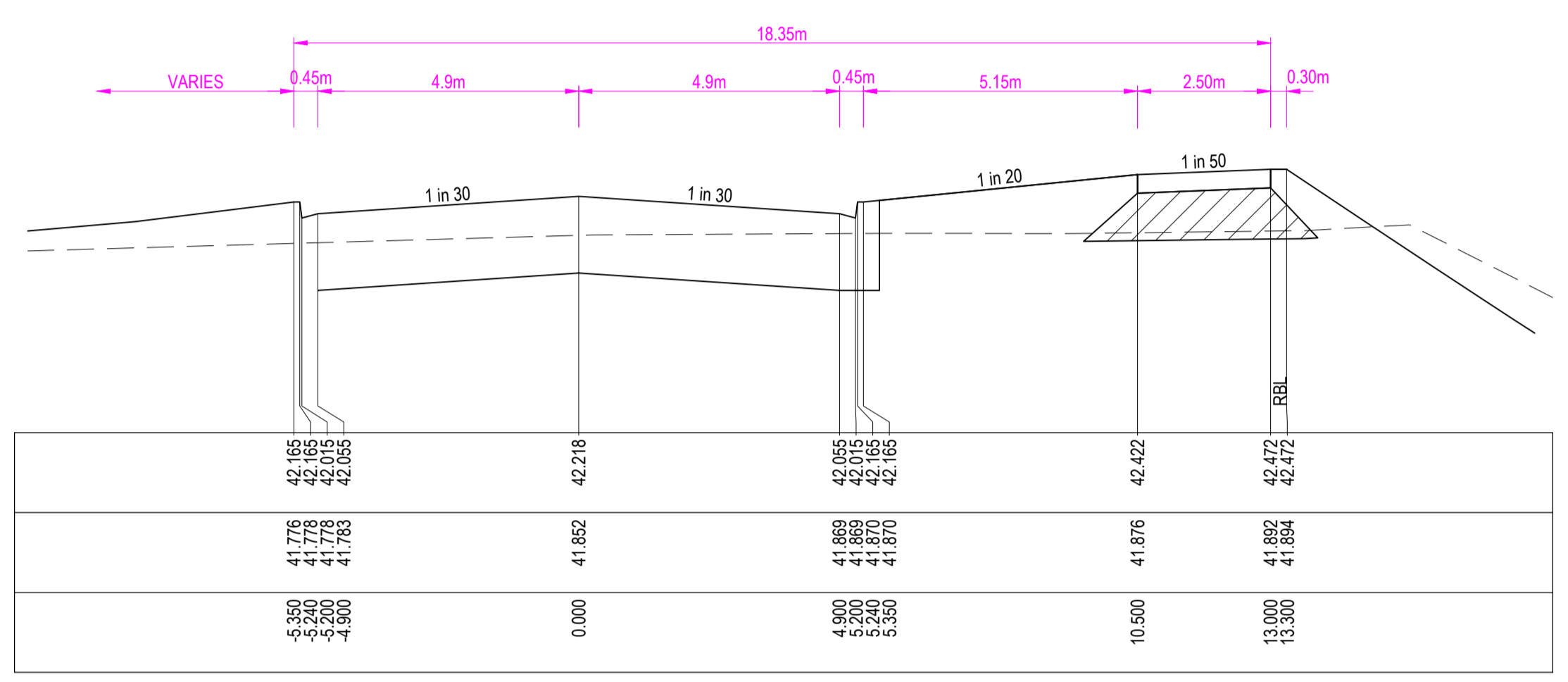
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R506	0



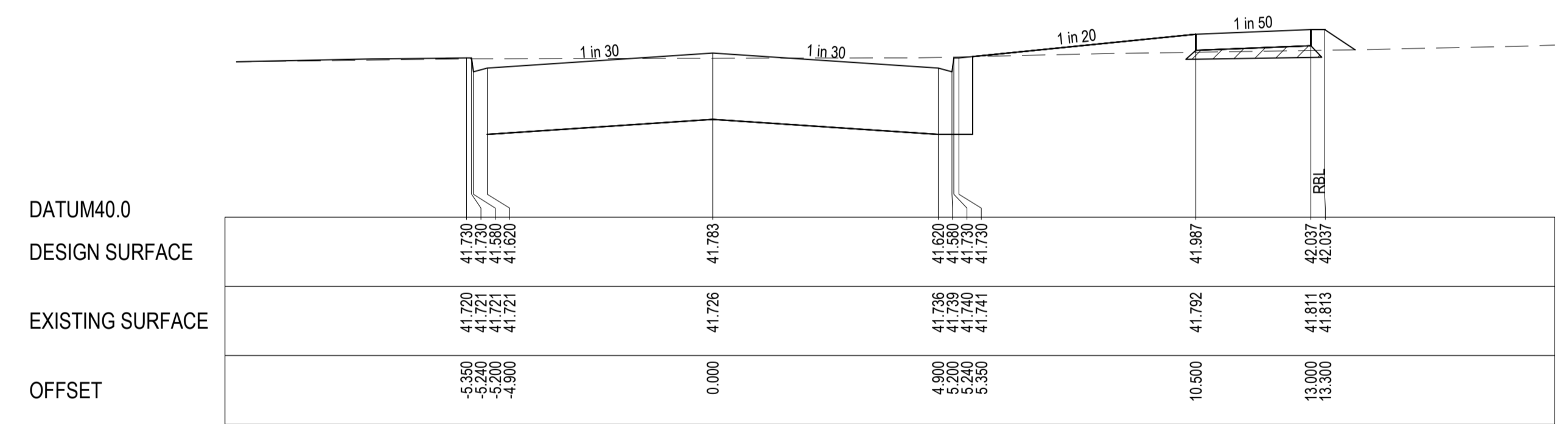
LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	SELECT FILL

NOTE
SELECT FILL REQUIRED UNDER PAVEMENT
AND FOOTPATHS WHERE CONSTRUCTED
ABOVE NATURAL SURFACE

GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
Endorsed Plan referred to in Permit No: 496-2012-H
Sheet 17 of 26 Cert 13852
Endorsed Engineering Plan
Signed *[Signature]* Date 27/06/2019
For and on behalf of the Greater Geelong City
Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL



CH 462.347



CH 443.568

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT

Communities Designed for Living

PROJECT

Level 7, 176 Wellington Parade
East Melbourne, VIC, Australia 3002

DRAWING TITLE

ARMSTRONG - STAGE 45
ROAD CROSS SECTIONS - 8
CORNFLOWER WAY - SHEET 2

STATUS

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R507	0

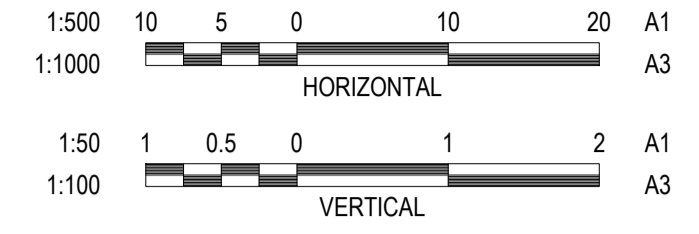
**GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME**

Endorsed Plan referred to in Permit No: 496-2012-H
Sheet 18 of 26 Cert 13852
Endorsed Engineering Plan

Signed *Chief* Date 27/06/2019

For and on behalf of the Greater Geelong City Council as the Responsible Authority

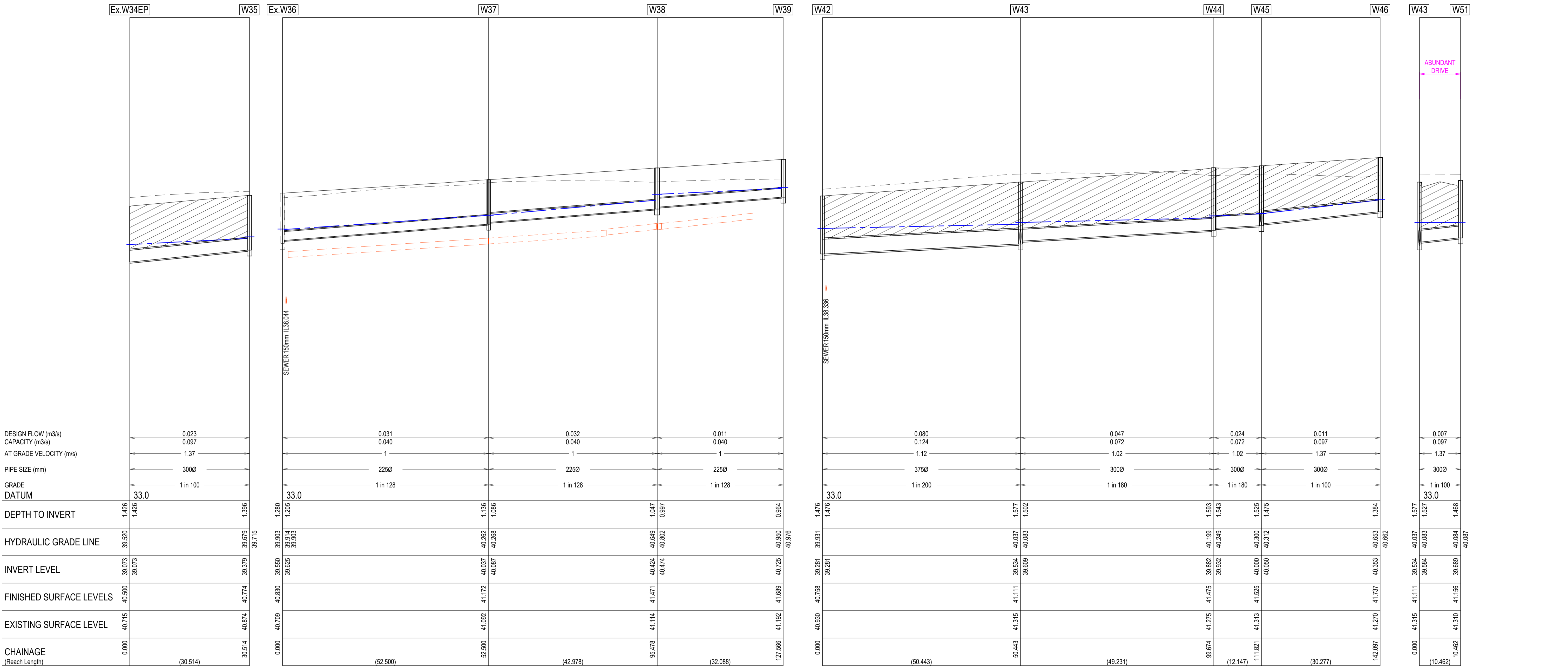
NOTE: THIS IS NOT A BUILDING APPROVAL



LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- DRAINAGE PIPE/PIT
- EXISTING DRAINAGE PIPE/PIT
- HYDRAULIC GRADE LINE
- CRUSHED ROCK BACKFILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



DESIGN FLOW (m ³ /s)	CAPACITY (m ³ /s)	AT GRADE VELOCITY (m/s)	PIPE SIZE (mm)	GRADE DATUM	DEPTH TO INVERT	HYDRAULIC GRADE LINE	INVERT LEVEL	FINISHED SURFACE LEVELS	EXISTING SURFACE LEVEL	CHAINAGE (Reach Length)
0.023	0.097	1.37	3000	33.0	1.426	39.520	39.073	40.500	40.715	0.000
0.031	0.040	1	2250	33.0	1.295	39.903	39.625	40.830	40.709	(30.514)
0.032	0.040	1	2250	33.0	1.136	40.262	40.037	41.172	41.092	(52.500)
0.011	0.040	1	2250	33.0	1.047	40.649	40.424	41.471	41.114	(42.978)
0.080	0.124	1.12	3750	33.0	1.476	39.931	39.281	40.758	40.930	(50.443)
0.047	0.072	1.02	3000	33.0	1.577	40.037	39.534	41.111	41.315	(49.231)
0.024	0.072	1.02	3000	33.0	1.543	40.249	39.932	41.475	41.275	(12.147)
0.011	0.097	1.37	3000	33.0	1.525	40.300	40.000	41.525	41.313	(30.277)
0.007	0.097	1.37	3000	33.0	1.468	40.653	40.353	41.737	41.270	(10.462)

- NOTES**
- PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYER FOR THE FOLLOWING:
 - BENEATH DRIVEWAY CROSSOVERS TO THE UNDERSIDE OF THE PAVEMENT OR CROSSOVER.
 - ADJACENT TO KERBING OR CONCRETE WORKS TO A LEVEL THAT IS NOT AFFECTED BY A 45 DEGREE ANGLE OF REPOSE FROM NEAR THE LOWER EDGE.
 - ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILISED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOMINAL SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
 - ALL DRAINAGE PIPES TO BE SPIGOT-SOCKET RUBBER RING JOINTED (RRJ).
 - ALL DRAINAGE PIPES SHALL BE CLASS 2 RCP, UNLESS OTHERWISE NOTED.
 - WHERE PITS DROP LESS THAN 50mm, THE PIT FLOOR MUST BE SHAPED TO MATCH THE LOWER HALF OF THE PIPE.
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REINFORCED CONCRETE PIPES

ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-1989, LOADS ON BURIED PIPES. CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTORS COST.

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED	CLIENT	PROJECT	DRAWING TITLE	STATUS	SCALE AT A1	DRAWN	DESIGNED	
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.	<p>Communities Designed for Living</p>	<p>Level 7, 176 Wellington Parade East Melbourne, VIC, Australia 3002</p>	<p>Level 7, 176 Wellington Parade East Melbourne, VIC, Australia 3002</p>	<p>ARMSTRONG - STAGE 45 DRAINAGE LONG SECTIONS - 1</p>	<p>ISSUED FOR CONSTRUCTION</p>	AS SHOWN	M.TROUNCE	M.TROUNCE
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.						PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.						T.PALIOS	T.PALIOS	MARCH 2019
										PROJECT No.	DRAWING No.	REVISION	
										180016.45	R600	0	

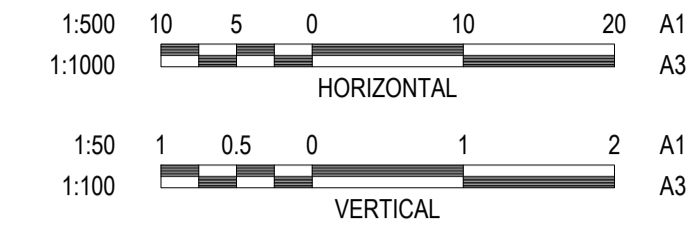
**GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME**

Endorsed Plan referred to in Permit No: 496-2012-H
Sheet 19 of 26 Cert 13852
Endorsed Engineering Plan

Signed *[Signature]* Date 27/06/2019

For and on behalf of the Greater Geelong City Council as the Responsible Authority

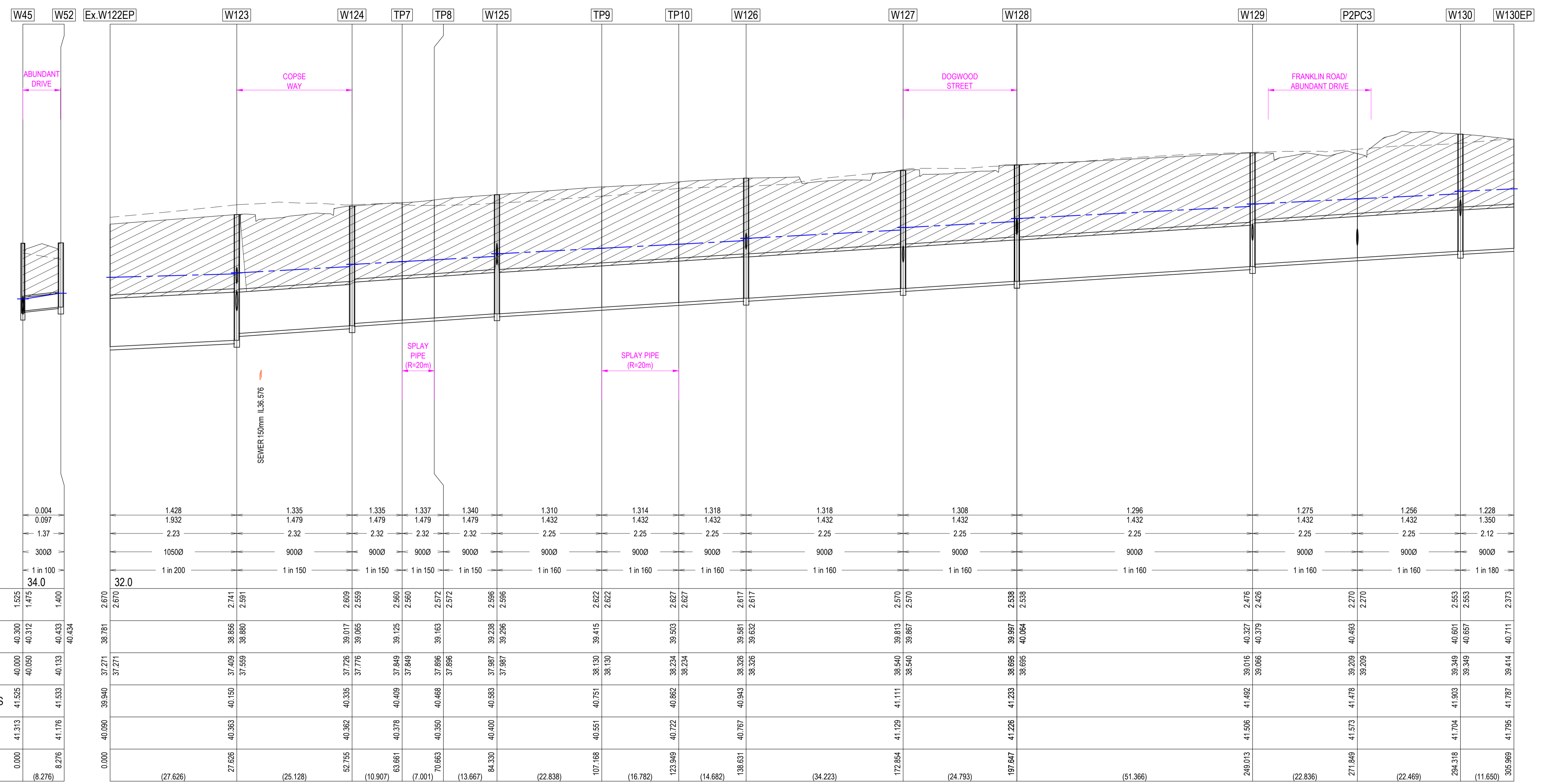
NOTE: THIS IS NOT A BUILDING APPROVAL



LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- DRAINAGE PIPE/PIT
- EXISTING DRAINAGE PIPE/PIT
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NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



	W45	W52	Ex.W122EP	W123	W124	TP7	TP8	W125	TP9	TP10	W126	W127	W128	W129	P2PC3	W130	W130EP
DESIGN FLOW (m3/s)	0.004			1.428	1.335	1.335	1.337	1.340	1.310	1.314	1.318	1.318	1.308			1.296	1.228
CAPACITY (m3/s)	0.097			1.932	1.479	1.479	1.479	1.479	1.432	1.432	1.432	1.432	1.432			1.432	1.350
AT GRADE VELOCITY (m/s)	1.37			2.23	2.32	2.32	2.32	2.32	2.25	2.25	2.25	2.25	2.25			2.25	2.12
PIPE SIZE (mm)	3000			10500	9000	9000	9000	9000	9000	9000	9000	9000	9000			9000	9000
GRADE DATUM	34.0			32.0													
DEPTH TO INVERT	1.525	1.475		2.670	2.670	2.609	2.589	2.560	2.622	2.622	2.627	2.627	2.570	2.570	2.538	2.538	2.373
HYDRAULIC GRADE LINE	40.300	40.312		38.856	38.880	39.017	39.065	39.125	39.415	39.415	39.503	39.503	39.813	39.867	40.327	40.483	40.711
INVERT LEVEL	40.000	40.050		37.409	37.559	37.726	37.776	37.849	38.130	38.130	38.234	38.234	38.540	38.590	39.016	39.209	39.349
FINISHED SURFACE LEVELS	41.525	41.533		40.150	40.335	40.378	40.409	40.468	40.751	40.751	40.862	40.862	41.111	41.129	41.492	41.478	41.903
EXISTING SURFACE LEVEL	41.313	41.176		40.363	40.362	40.378	40.378	40.350	40.551	40.551	40.722	40.722	41.129	41.129	41.506	41.573	41.704
CHAINAGE (Reach Length)	0.000	8.276		27.626	27.626	52.755	63.661	70.663	107.168	123.949	138.631	172.864	197.647	249.013	271.849	294.318	305.969
		(8.276)		(27.626)	(27.626)	(25.128)	(10.907)	(7.001)	(13.667)	(22.838)	(16.782)	(34.223)	(24.793)	(51.366)	(22.836)	(22.469)	(11.650)

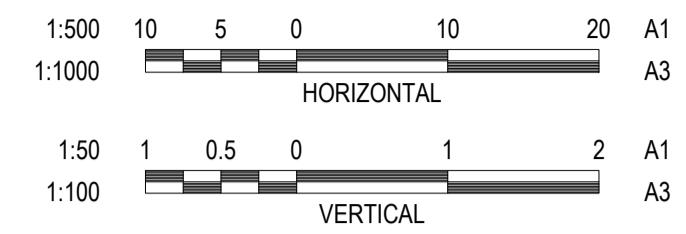
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REINFORCED CONCRETE PIPES

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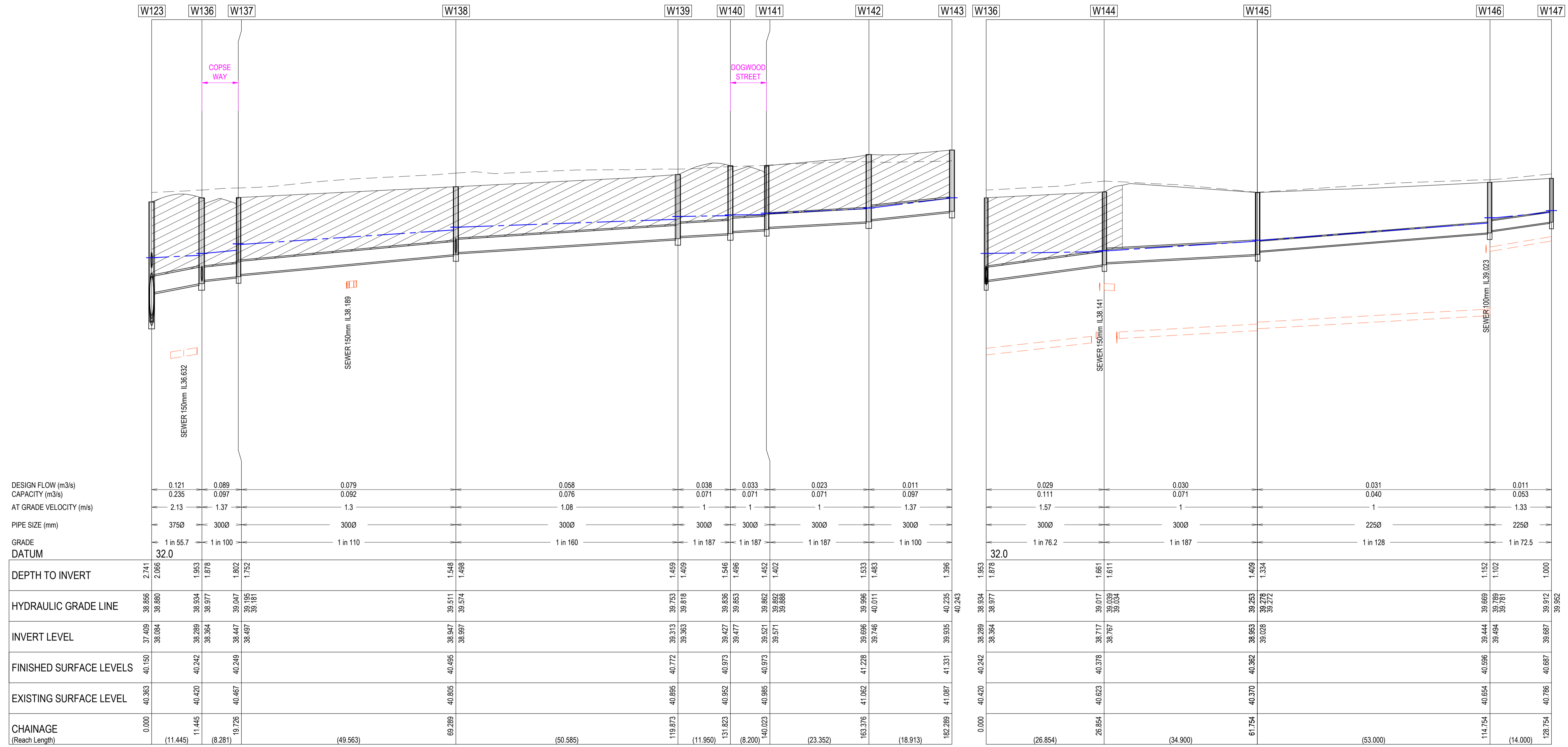
<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>ISSUE DESCRIPTION</th> <th>DRAWN</th> <th>DESIGNED</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>27/06/19</td> <td>CONSTRUCTION ISSUE</td> <td>M.T.</td> <td>M.T.</td> <td>T.P.</td> </tr> <tr> <td>B</td> <td>19/06/19</td> <td>COUNCIL COMMENTS DATED 27/05/19</td> <td>M.T.</td> <td>M.T.</td> <td>T.P.</td> </tr> <tr> <td>A</td> <td>29/03/19</td> <td>ISSUED TO COUNCIL FOR APPROVAL</td> <td>M.T.</td> <td>M.T.</td> <td>T.P.</td> </tr> </tbody> </table>	REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED	0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.	B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.	A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.	<p>CLIENT</p> <p>Communities Designed for Living</p>	<p>PROJECT</p> <p>Level 7, 176 Wellington Parade East Melbourne, VIC, Australia 3002</p>	<p>DRAWING TITLE</p> <p>ARMSTRONG - STAGE 45 DRAINAGE LONG SECTIONS - 2</p>	<p>STATUS</p> <p>ISSUED FOR CONSTRUCTION</p>	<table border="1"> <tr> <td>SCALE AT A1</td> <td>DRAWN</td> <td>DESIGNED</td> </tr> <tr> <td>AS SHOWN</td> <td>M.TROUNCE</td> <td>M.TROUNCE</td> </tr> <tr> <td>PROJECT ENGINEER</td> <td>PROJECT MANAGER</td> <td>DATE FIRST ISSUE</td> </tr> <tr> <td>T.PALIOS</td> <td>T.PALIOS</td> <td>MARCH 2019</td> </tr> <tr> <td>PROJECT No.</td> <td>DRAWING No.</td> <td>REVISION</td> </tr> <tr> <td>180016.45</td> <td>R601</td> <td>0</td> </tr> </table>	SCALE AT A1	DRAWN	DESIGNED	AS SHOWN	M.TROUNCE	M.TROUNCE	PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE	T.PALIOS	T.PALIOS	MARCH 2019	PROJECT No.	DRAWING No.	REVISION	180016.45	R601	0
REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED																																										
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GREATER GEELONG CITY COUNCIL
 PLANNING & ENVIRONMENT ACT 1987
 GREATER GEELONG PLANNING SCHEME
 Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 20 of 26 Cert 15852
 Endorsed Engineering Plan
 Signed *[Signature]* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority
 NOTE: THIS IS NOT A BUILDING APPROVAL



LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	DRAINAGE PIPE/PIT
	EXISTING DRAINAGE PIPE/PIT
	HYDRAULIC GRADE LINE
	CRUSHED ROCK BACKFILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



	W123	W136	W137	W138	W139	W140	W141	W142	W143	W136	W144	W145	W146	W147
DESIGN FLOW (m ³ /s)	0.121	0.089			0.079			0.038	0.033	0.023			0.031	0.011
CAPACITY (m ³ /s)	0.235	0.097			0.092			0.071	0.071	0.071			0.040	0.053
AT GRADE VELOCITY (m/s)	2.13	1.37			1.3			1	1	1			1	1.33
PIPE SIZE (mm)	3750	3000			3000			3000	3000	3000			2250	2250
GRADE	1 in 55.7	1 in 100			1 in 110			1 in 187	1 in 187	1 in 187			1 in 128	1 in 72.5
DATUM	32.0													
DEPTH TO INVERT	2.741	2.066	1.953	1.878			1.548	1.498					1.152	1.102
HYDRAULIC GRADE LINE	38.856	38.880	38.934	38.977			39.511	39.574					39.669	39.761
INVERT LEVEL	37.409	36.084	36.289	36.394			38.947	38.997					38.444	38.494
FINISHED SURFACE LEVELS	40.150	40.242	40.242	40.249			40.495	40.495					40.596	40.687
EXISTING SURFACE LEVEL	40.363	40.420	40.420	40.467			40.805	40.805					40.654	40.786
CHAINAGE	0.000	11.445	19.726				69.269						114.754	128.754
(Reach Length)		(11.445)	(8.281)				(49.563)						(53.000)	(14.000)

- NOTES**
- PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYER FOR THE FOLLOWING:
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A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



DRAWING TITLE
**ARMSTRONG - STAGE 45
 DRAINAGE LONG SECTIONS - 3**

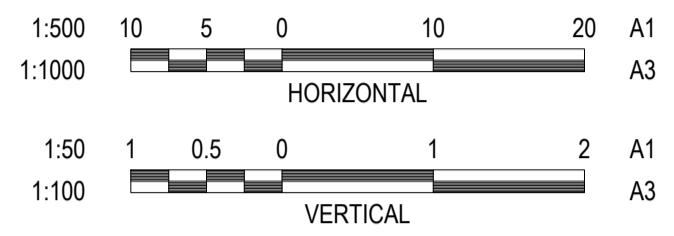
STATUS
**ISSUED FOR
 CONSTRUCTION**

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R602	0

LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- DRAINAGE PIPE/PIT
- - - EXISTING DRAINAGE PIPE/PIT
- HYDRAULIC GRADE LINE
- ▨ CRUSHED ROCK BACKFILL

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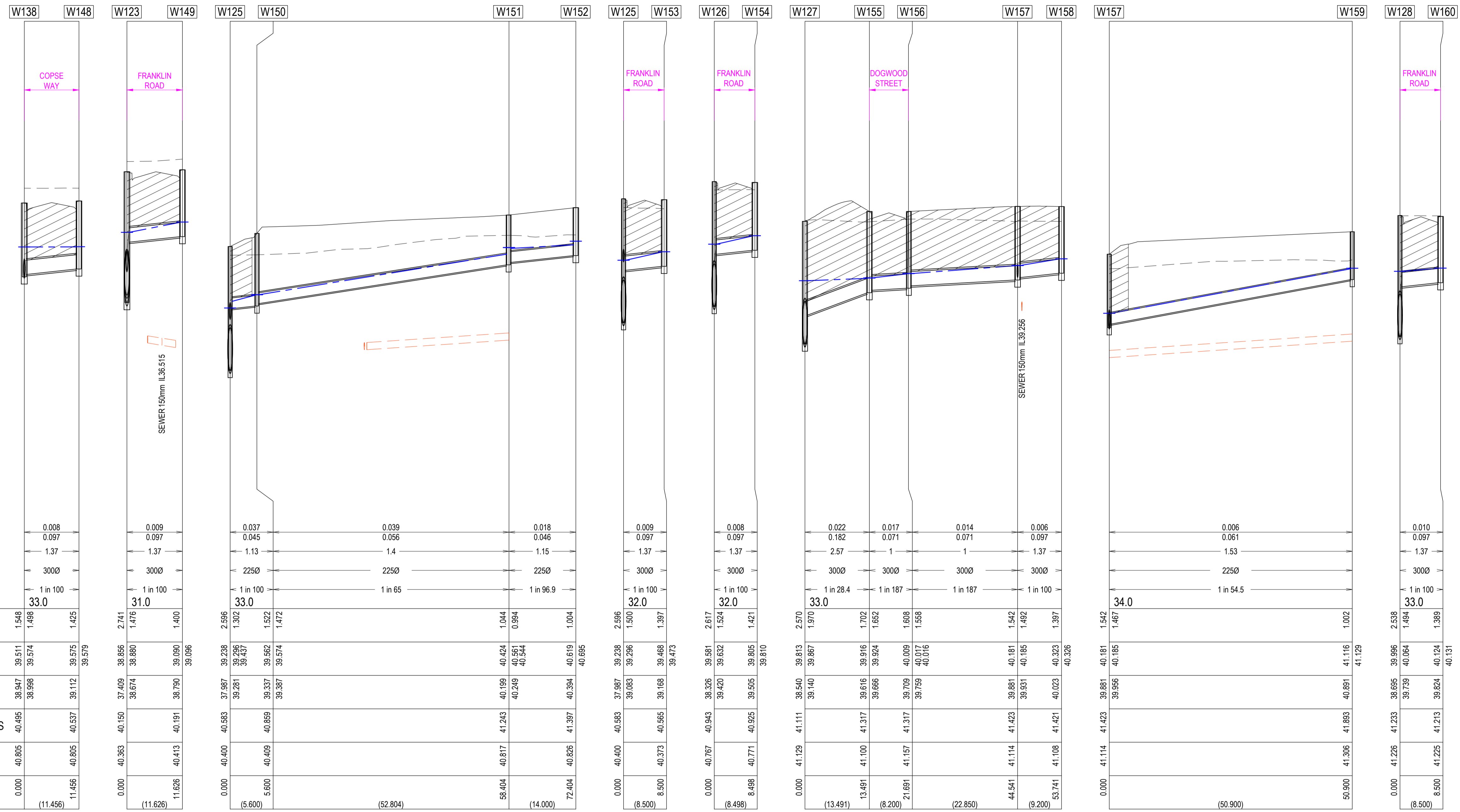


GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 21 of 26 Cert 13852
 Endorsed Engineering Plan

Signed *[Signature]* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority

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DESIGN FLOW (m ³ /s)	CAPACITY (m ³ /s)	AT GRADE VELOCITY (m/s)	PIPE SIZE (mm)	GRADE DATUM	DEPTH TO INVERT	HYDRAULIC GRADE LINE	INVERT LEVEL	FINISHED SURFACE LEVELS	EXISTING SURFACE LEVEL	CHAINAGE (Reach Length)
0.008	0.097	1.37	3000	33.0	1.548	39.511	39.511	40.495	40.805	0.000
0.009	0.097	1.37	3000	31.0	1.438	39.574	39.574	40.537	40.805	11.456
0.037	0.045	1.13	2250	33.0	2.741	38.856	37.409	40.150	40.363	0.000
0.039	0.056	1.4	2250	31.0	1.476	38.880	36.674	40.859	40.413	11.626
0.018	0.046	1.15	2250	31.0	1.044	40.424	40.199	41.243	40.817	58.404
0.009	0.097	1.37	3000	32.0	1.500	39.236	39.236	40.859	40.373	8.500
0.008	0.097	1.37	3000	32.0	2.617	39.581	39.420	40.943	40.767	8.498
0.022	0.182	2.57	3000	33.0	2.570	39.813	39.140	41.111	41.129	0.000
0.017	0.071	1	3000	33.0	1.970	39.867	39.140	41.111	41.129	13.491
0.014	0.071	1	3000	33.0	1.702	39.916	39.616	41.317	41.100	13.491
0.006	0.097	1.37	3000	34.0	1.652	39.924	39.656	41.317	41.108	53.741
0.010	0.061	1.53	2250	33.0	1.608	40.009	39.709	41.157	41.108	0.000
0.010	0.097	1.37	3000	33.0	1.389	40.016	39.759	41.157	41.108	8.500
0.010	0.097	1.37	3000	33.0	1.002	41.116	40.891	41.893	41.306	50.900
0.010	0.097	1.37	3000	33.0	2.538	39.996	39.739	41.233	41.225	0.000
0.010	0.097	1.37	3000	33.0	1.494	40.064	39.739	41.233	41.225	8.500

- NOTES**
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A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



ARMSTRONG - STAGE 45
DRAINAGE LONG SECTIONS - 4

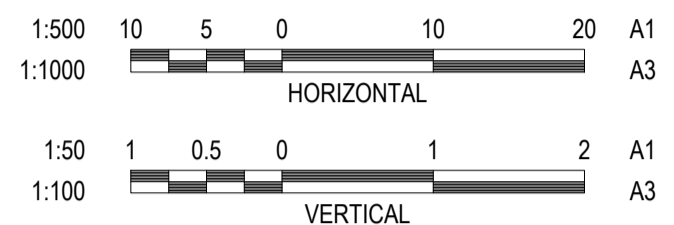
ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R603	0

LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- DRAINAGE PIPE/PIT
- EXISTING DRAINAGE PIPE/PIT
- HYDRAULIC GRADE LINE
- CRUSHED ROCK BACKFILL

NOTE: ALL DRAINAGE PIPES ARE CLASS 2 TYPE UNLESS OTHERWISE SHOWN



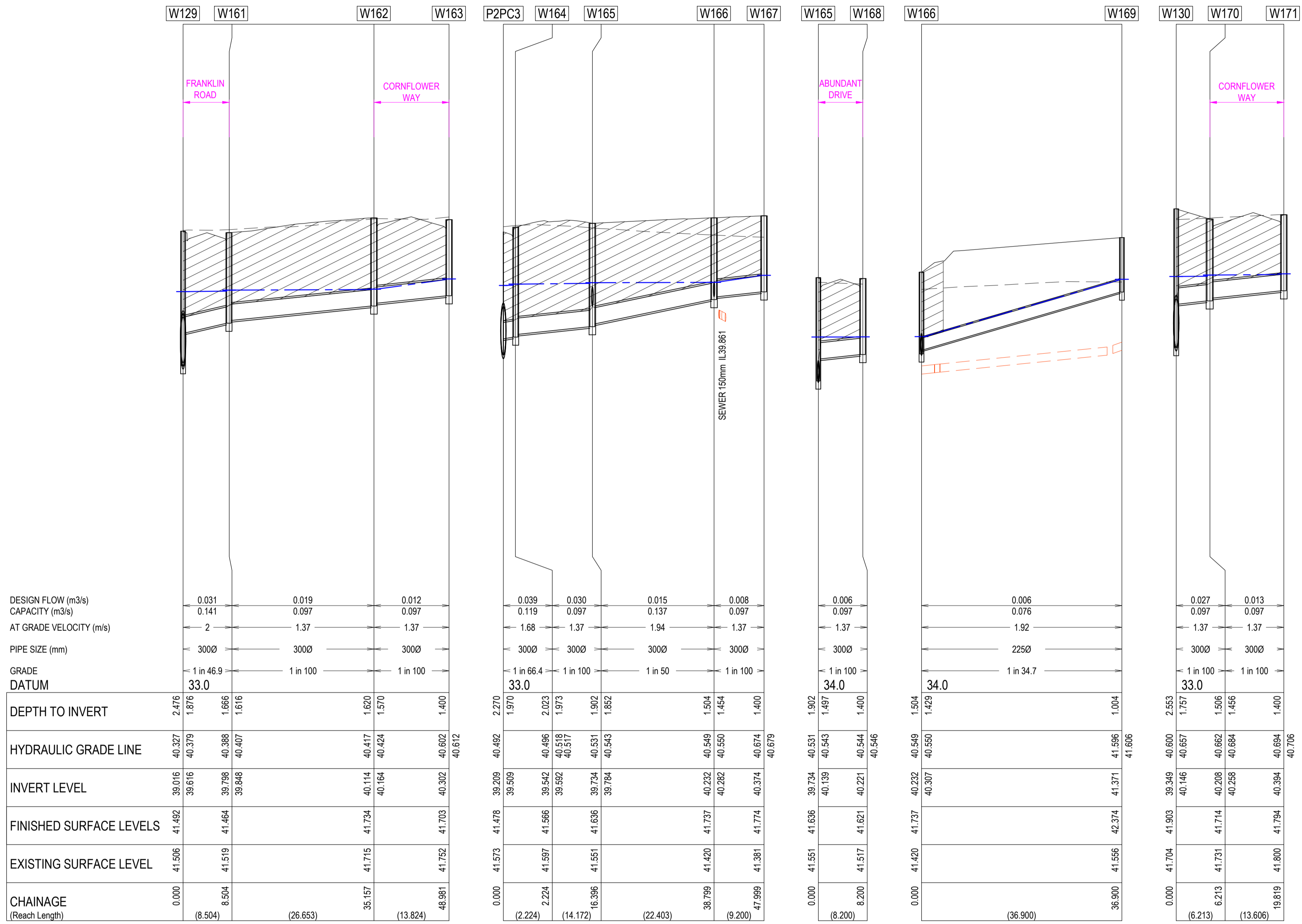
GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME

Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 22 of 26 - Cell 13852
 Endorsed Engineering Plan

Signed *Adrian F...* Date 27/06/2019

For and on behalf of the Greater Geelong City Council as the Responsible Authority

NOTE: THIS IS NOT A BUILDING APPROVAL

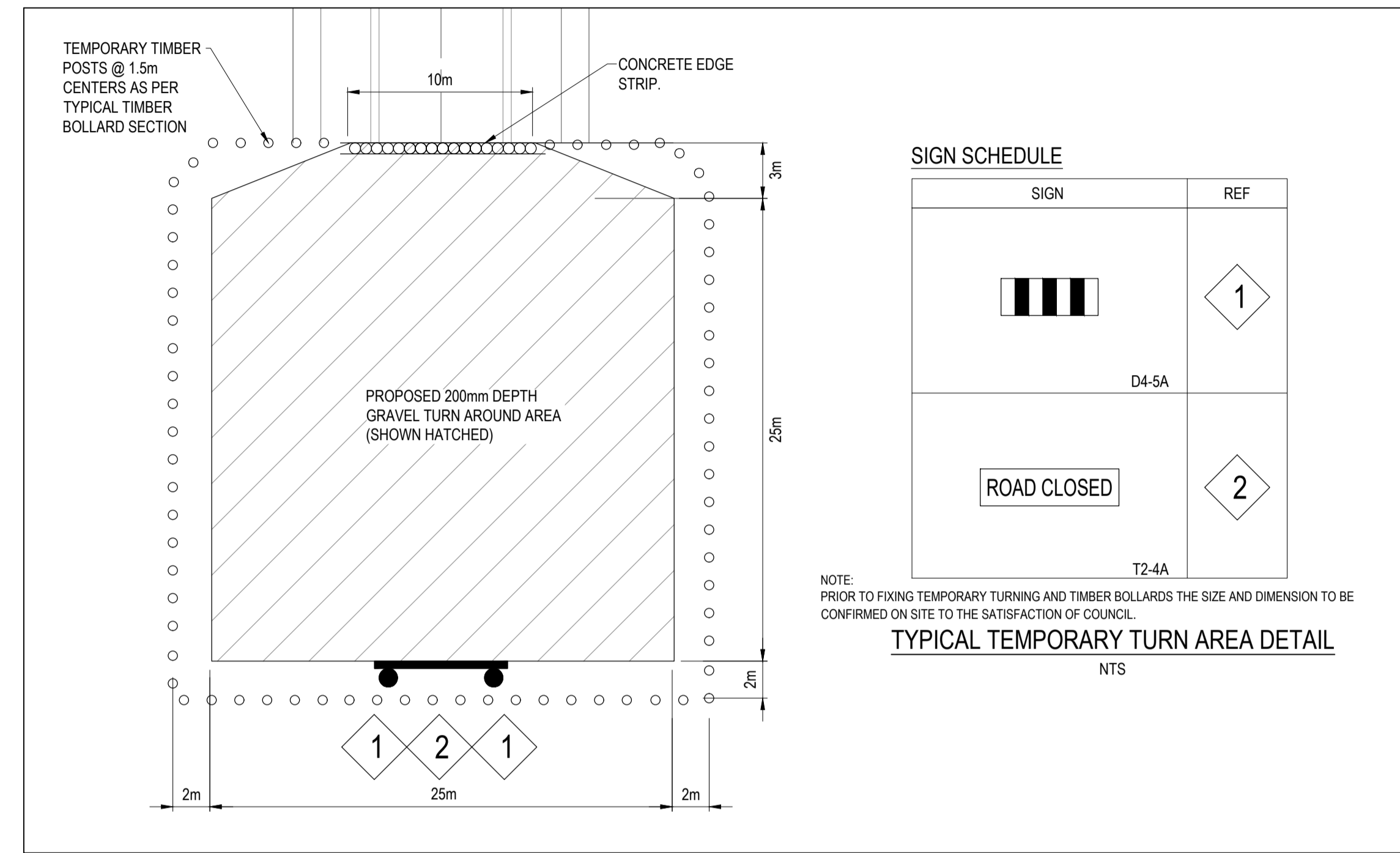
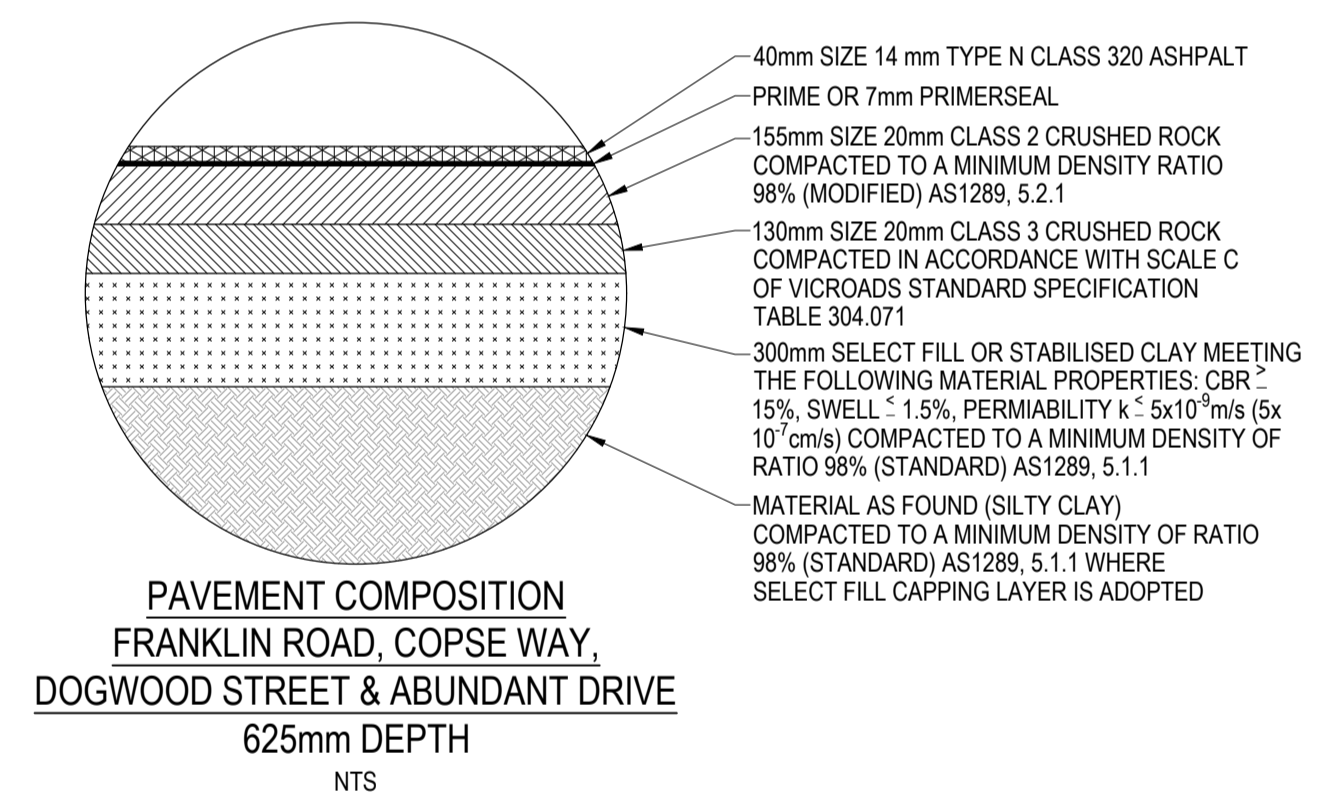
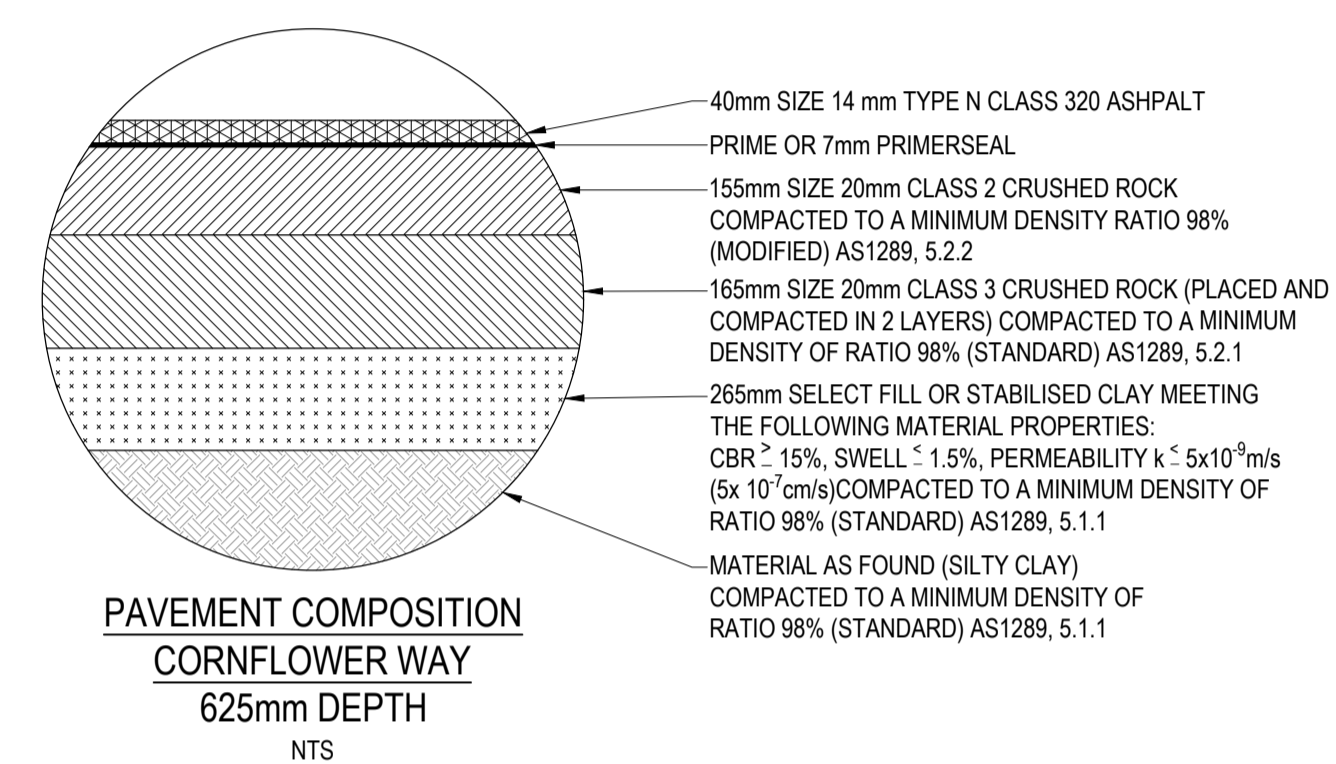


- NOTES**
- PIPE TRENCHES WITHIN THE ROAD RESERVE MUST BE BACKFILLED WITH 20mm NOM. SIZE CLASS 3 CRUSHED ROCK TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% MODIFIED RELATIVE COMPACTION IN 150mm THICK LAYERS FOR THE FOLLOWING:
 - BENEATH DRIVEWAY CROSSOVERS TO THE UNDERSIDE OF THE PAVEMENT OR CROSSOVER.
 - ADJACENT TO KERBING OR CONCRETE WORKS TO A LEVEL THAT IS NOT AFFECTED BY A 45 DEGREE ANGLE OF REPOSE FROM NEAR THE LOWER EDGE.
 - ALL PIPES UNDER ROADS SHALL BE BACKFILLED WITH 2% STABILISED SAND TO SPRINGLINE. ABOVE THIS POINT, PROVIDE 20mm NOMINAL SIZE CLASS 3 FINE CRUSHED ROCK (WETMIX) COMPACTED TO 98% MODIFIED COMPACTION IN 150mm MAXIMUM LAYER.
 - ALL DRAINAGE PIPES TO BE SPIGOT-SOCKET RUBBER RING JOINTED (RRJ).
 - ALL DRAINAGE PIPES SHALL BE CLASS 2 RCP, UNLESS OTHERWISE NOTED.
 - WHERE PITS DROP LESS THAN 50mm, THE PIT FLOOR MUST BE SHAPED TO MATCH THE LOWER HALF OF THE PIPE.
 - ALL SPLAYED SECTIONS OF PIPE ARE TO BE BACKFILLED WITH 2% STABILIZED SAND, 300mm ABOVE TOP OF PIPE.

REINFORCED CONCRETE PIPES

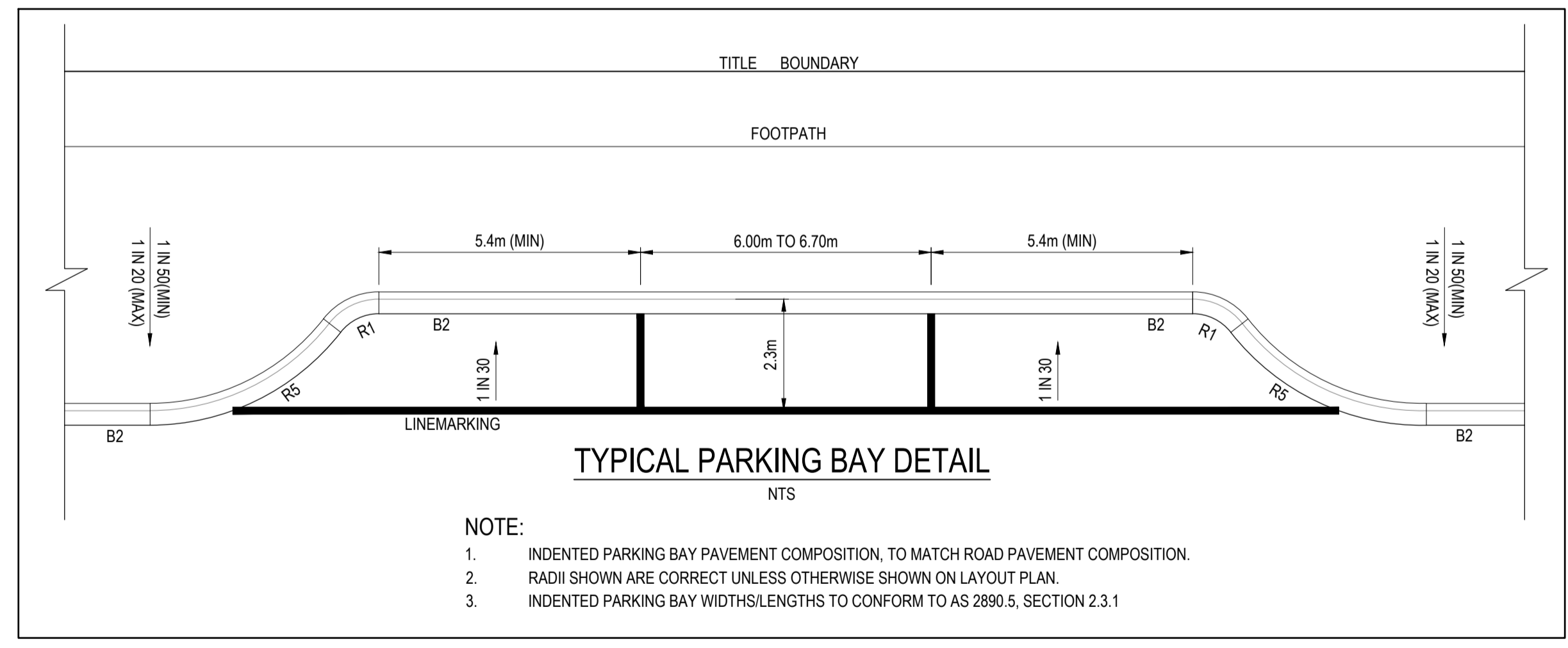
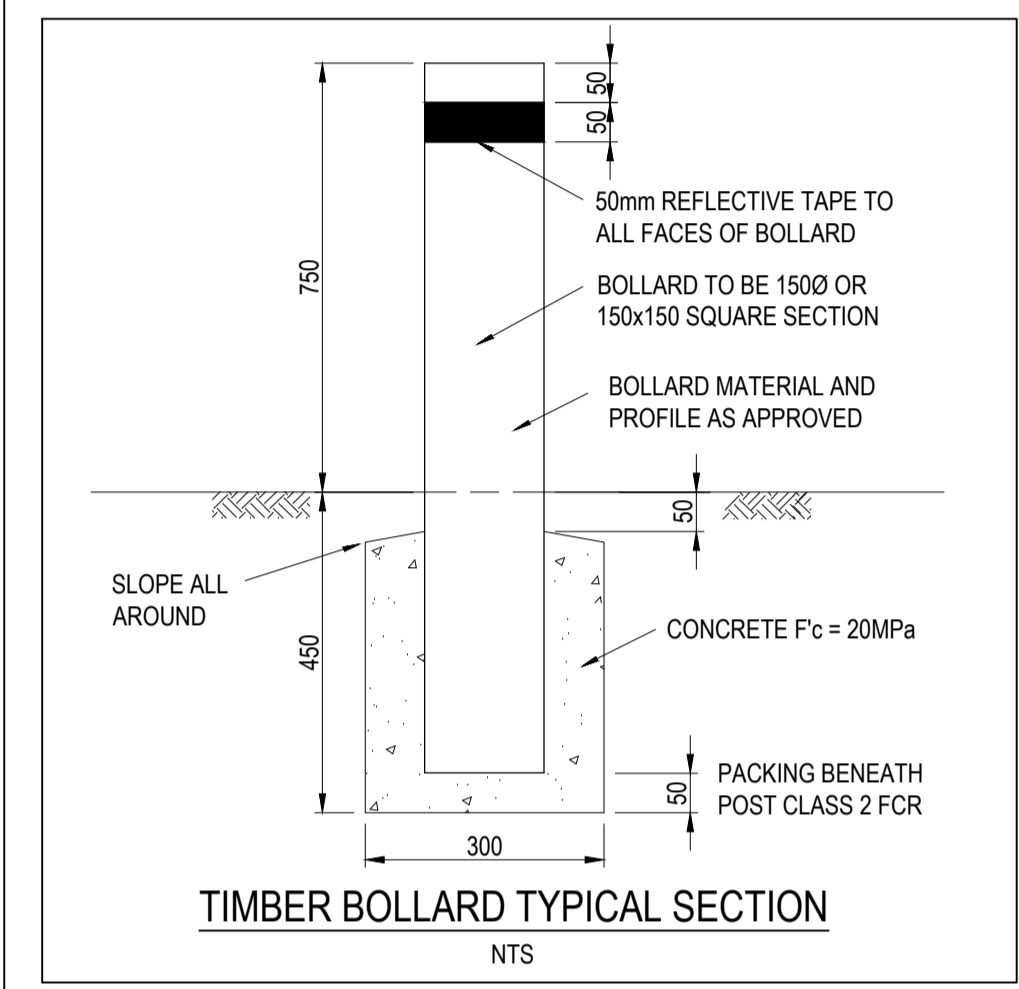
ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-1989, LOADS ON BURIED PIPES. CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPAIRED AT THE CONTRACTORS COST.

REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED	CLIENT	PROJECT	DRAWING TITLE	STATUS	SCALE AT A1	DRAWN	DESIGNED	
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.	 Communities Designed for Living	 Level 7, 176 Wellington Parade East Melbourne, VIC, Australia 3002	 MT DUNEED	ARMSTRONG - STAGE 45 DRAINAGE LONG SECTIONS - 5	ISSUED FOR CONSTRUCTION	AS SHOWN	M.TROUNCE	M.TROUNCE
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.						PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.						T.PALIOS	T.PALIOS	MARCH 2019
										PROJECT No.	DRAWING No.	REVISION	
										180016.45	R604	0	



SIGN SCHEDULE

SIGN	REF
	1
D4-5A	
	2
T2-4A	



REVISION	DATE	ISSUE DESCRIPTION	DRAWN	DESIGNED	APPROVED
0	27/06/19	CONSTRUCTION ISSUE	M.T.	M.T.	T.P.
B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.

CLIENT

Communities Designed for Living

PROJECT

Level 7, 176 Wellington Parade
 East Melbourne, VIC, Australia 3002

DRAWING TITLE

MT DUNEED

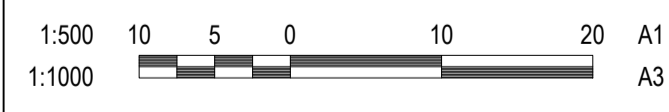
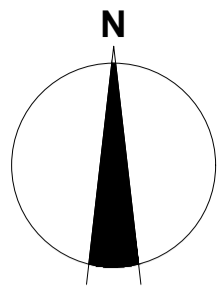
DRAWING TITLE

**ARMSTRONG - STAGE 45
 TYPICAL DETAILS**

STATUS

**ISSUED FOR
 CONSTRUCTION**

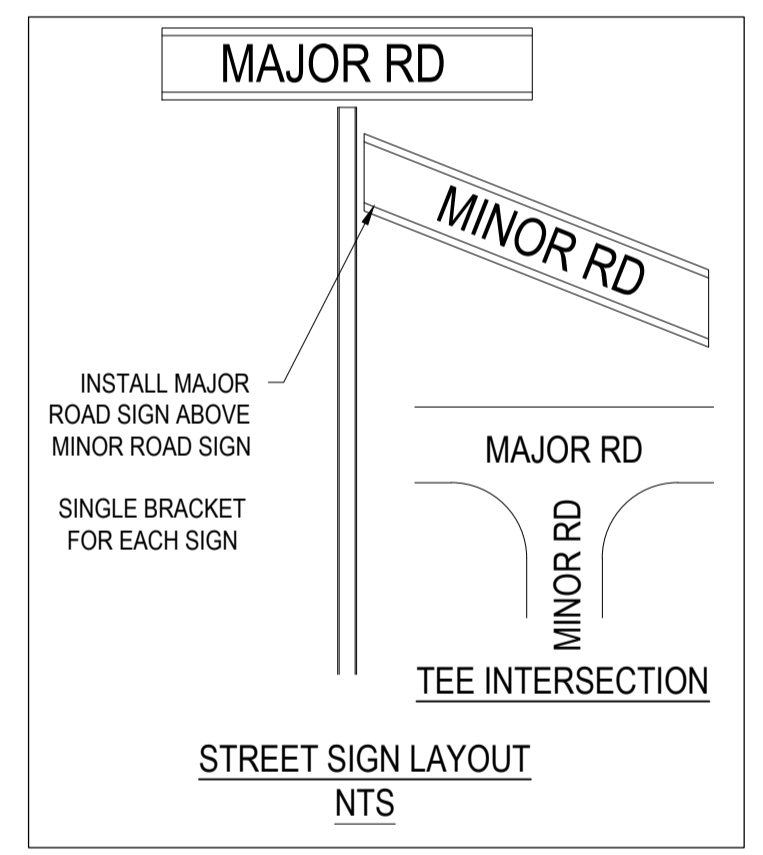
SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R700	0



SIGN SCHEDULE					
SIGN	REF	QUANTITY	SIGN	REF	QUANTITY
	1	REFER BELOW		5	1No.
STREET SIGN			R5-35R		
	2	3No.		6	3No.
R5-35			D4-2-1		
	3	2No.		7	2No.
T2-4A			D4-6R		
	4	4No.		8	2No.
R1-2			D4-6L		

GREATER GEELONG CITY COUNCIL
PLANNING & ENVIRONMENT ACT 1987
GREATER GEELONG PLANNING SCHEME
 Endorsed Plan referred to in Permit No: 496-2012-H
 Sheet 25 of 26 Cert 13852
 Endorsed Engineering Plan
 Signed *[Signature]* Date 27/06/2019
 For and on behalf of the Greater Geelong City Council as the Responsible Authority
NOTE: THIS IS NOT A BUILDING APPROVAL

STREET SIGN SCHEDULE	
FRANKLIN RD	3No.
CORNFLOWER WAY	1No.
DOGWOOD ST	2No.
ABUNDANT DR	2No.
COPSE WAY	2No.



LINEMARKING & SIGNAGE NOTES:

1. ALL LINE MARKING AND SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH AS 1742.1 AND AS 1742.2, UNLESS SPECIFICALLY SHOWN OTHERWISE.
2. LINEMARKING IS TO BE INSTALLED USING EXTRUDED LONG LIFE THERMOPLASTIC PAINT. TEMPORARY LINEMARKING USING ORDINARY PAINT IS TO BE APPLIED WHEN WEARING COURSE ASPHALT IS NOT APPLIED FOR A PERIOD OF TIME E.G. AT PRACTICAL COMPLETION.
3. ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH AS 1742-3.
4. LINEMARKING SET OUT SHALL BE INSPECTED AND APPROVED BY COUNCIL BEFORE FINAL LINEMARKING IS CARRIED OUT.

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B	19/06/19	COUNCIL COMMENTS DATED 27/05/19	M.T.	M.T.	T.P.
A	29/03/19	ISSUED TO COUNCIL FOR APPROVAL	M.T.	M.T.	T.P.



ARMSTRONG - STAGE 45
SIGNAGE & LINEMARKING PLAN

ISSUED FOR CONSTRUCTION

SCALE AT A1	DRAWN	DESIGNED
AS SHOWN	M.TROUNCE	M.TROUNCE
PROJECT ENGINEER	PROJECT MANAGER	DATE FIRST ISSUE
T.PALIOS	T.PALIOS	MARCH 2019
PROJECT No.	DRAWING No.	REVISION
180016.45	R800	0

