

LOCALITY PLAN
SCALE - 1:20,000
MELWAYS: 388 C 10

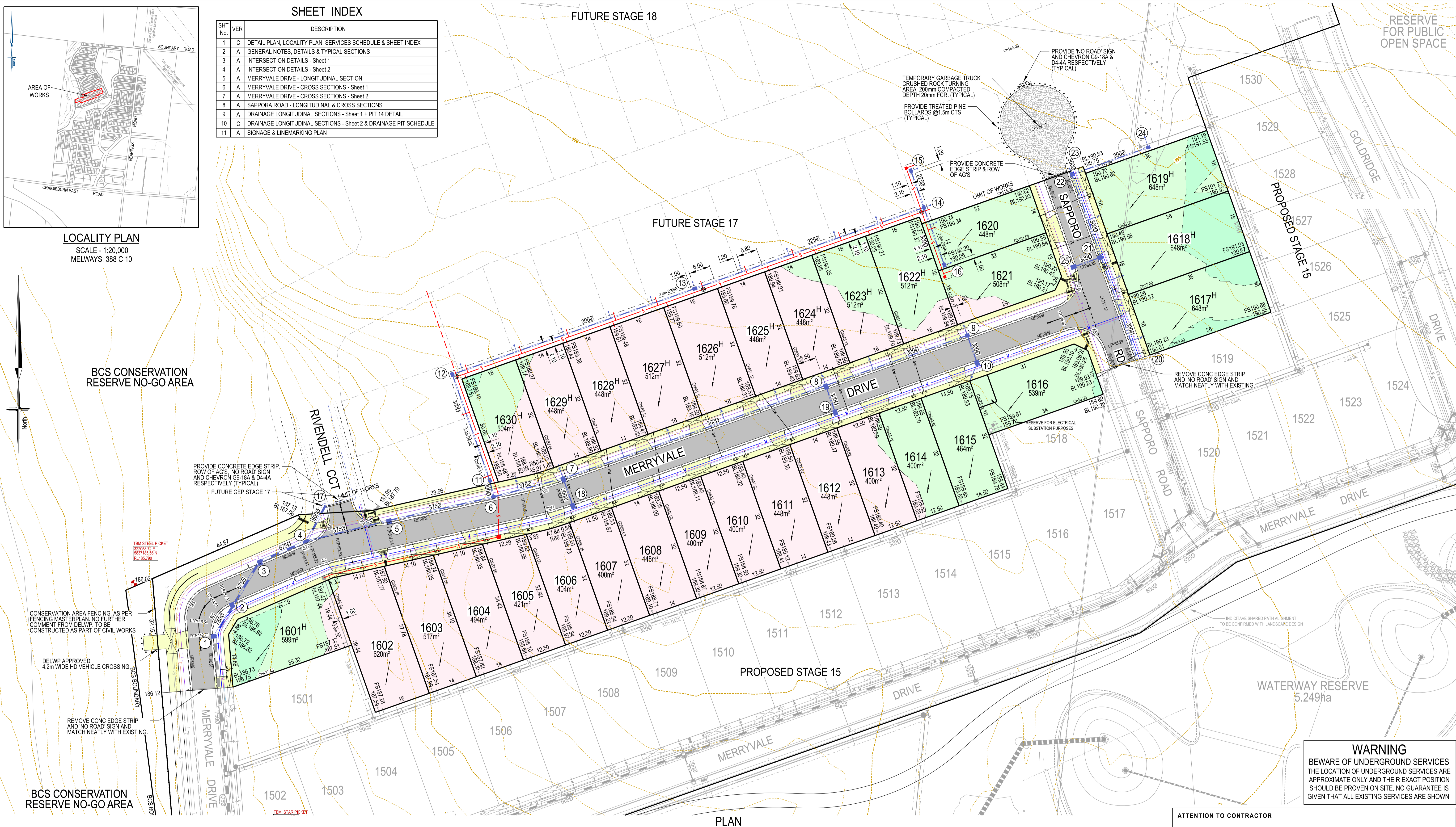
SHEET INDEX

SHT No.	VER	DESCRIPTION
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11	A	SIGNAGE & LINEMARKING PLAN

FUTURE STAGE 18

FUTURE STAGE 17

PROPOSED STAGE 15



CONSERVATION AREA FENCING, AS PER FENCING MASTERPLAN. NO FURTHER COMMENT FROM DELWP. TO BE CONSTRUCTED AS PART OF CIVIL WORKS

DELWP APPROVED 4.2m WIDE HD VEHICLE CROSSING

REMOVE CONC EDGE STRIP AND NO ROAD SIGN AND MATCH NEATLY WITH EXISTING

BCS CONSERVATION RESERVE NO-GO AREA

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

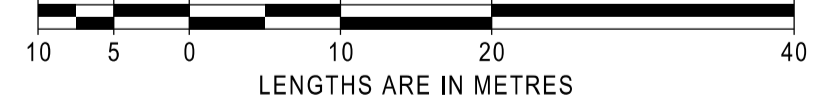
ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
- Contractor to ensure that the site is pegged and or set out checked by the licenced surveyor responsible for certifying the Plan of Subdivision prior to underground infrastructure being installed.
- Where concrete works about a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.

PLAN

SCALE 1:500

SCALE 1:500 @ A1



AS CONSTRUCTED

SYMBOL LEGEND

Drains	Prop	Prev Stage	Ex/Natural/FS Level	+28.57	+29.57
Sewer < 3000	S	S	FS @ Building Line	+BL28.57	+FS29.57
Sewer ≥ 3000	S	S	Top/Toe Batter Level	+TOP28.57	+TOE27.57
Water (DW)	W	W	Top/Bottom RW Level	+TW28.57	+BW27.57
Water (NDW)	W	W	100yr Flood Level	+FL28.57	
House Drain	H	H	Fill Proposed (<0.3m±0.3m)		
Property Inlet	I	I	Cut Proposed		
Street Sign	S	S	Asphalt Surface Prop		
PSM	P	P	Concrete Surface Prop (Paths/Driveways/Slabs)		
Rock Ret Wall	R	R	Tree To Be Removed		
Sleeper Ret Wall	RS	RS	Tree To Be Retained with Tree Protection Zone (TPZ)		
Conduits 50mm	GW	GW			
Conduits 100mm	W100	W100			
Street Tree without/with Passive Irrigation (Refer Detail)	T	T			
Ex Drains	EX S	EX S			
Ex Water DW/NDW	EX W	EX W			
Ex Sewer/Gas	EX S	EX S			
Ex Elect/Comm	EX E	EX E			

SERVICES OFFSETS AND LOCATIONS

Location	Gas	Water		Communications		Electricity		BOK	Road Width	Joint Trenching	Street Classification
		NDW	DW	Cables	Pits	Cables	Poles				
MERRYVALE DRIVE (Lot 1601)	2.10 E&S	2.60 E&S	3.10 E&S	5.80 W&N	1.80 E&S	6.60 W&N	1.00 BOK	4.35 E&S 8.05 W&N	20.00	G&W, FTTH&E	STREET LEVEL 1
MERRYVALE DRIVE (Lots 1602 to 1616)	2.10 S	2.60 S	3.10 S	1.80 N	1.80 N	2.60 N	1.00 BOK	4.20 N 4.20 S	16.00	G&W, FTTH&E	STREET LEVEL 1
SAPPORA ROAD	2.10 E	2.60 E	3.10 E	1.80 W	1.80 E	2.60 W	1.00 BOK	4.20 E 4.20 W	16.00	G&W, FTTH&E	STREET LEVEL 1
RIVENDELL CIRCUIT	2.10 E	2.60 E	3.10 E	5.80 W	1.80 E	6.60 W	1.00 BOK	4.35 E 8.05 W	20.00	G&W, FTTH&E	STREET LEVEL 1

		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
MELWAY REF. 388-C-10		RATHDOWNE ESTATE STAGE 16		MUNICIPALITY WHITTLESEA	
DATE 10.07.23		REMARKS PIT 24 AMENDED		CHECKED BPD	
DATE 08.11.22		REMARKS PIPE DIAMETER AMENDED		CHECKED RGW	
DATE 12.10.22		REMARKS ISSUED FOR CONSTRUCTION		CHECKED PG	
SCALE AS SHOWN		DATUM AHD		DATE DEC'21	
SHEET 1 OF 11		C		J:\HS355\Eng\Stage 16\E16_R01_DET.dwg	

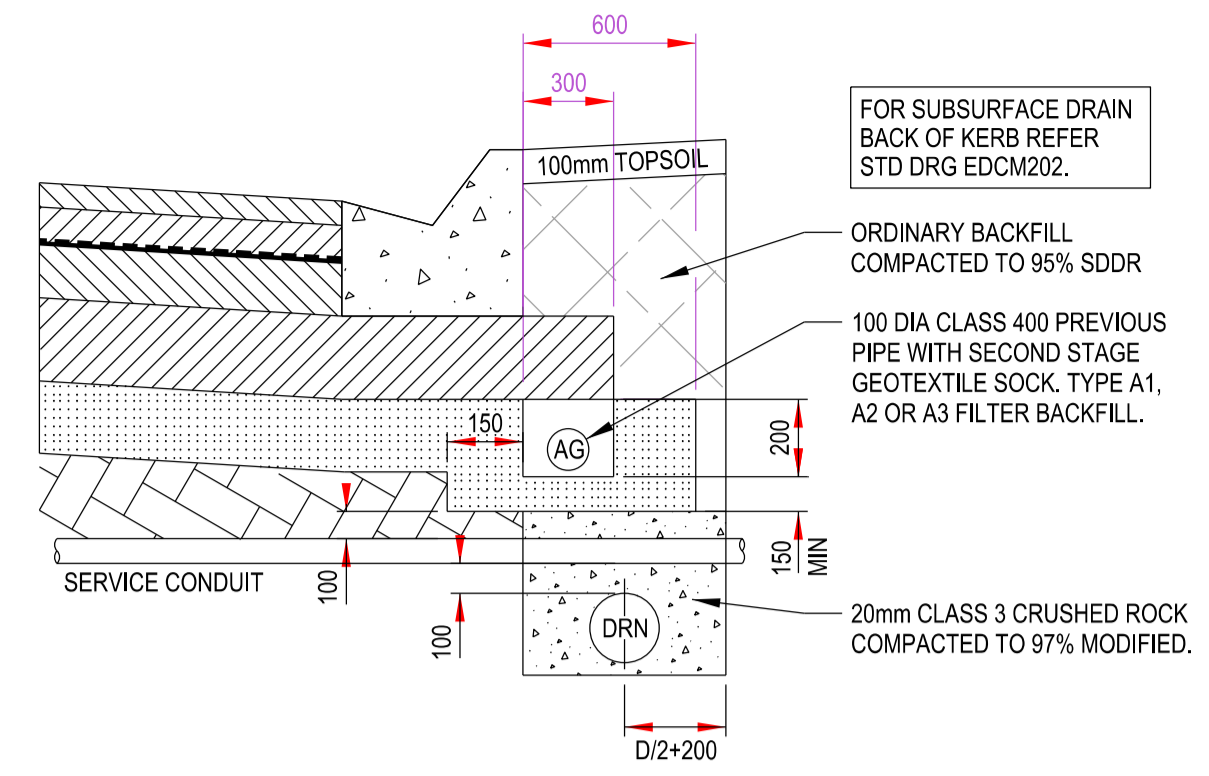
NOTES

- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PLANS AND CURRENT CITY OF WHITTLESEA SPECIFICATIONS AND STANDARD DRAWINGS APPROVED BY COUNCIL AND TO THE SATISFACTION OF THE ENGINEER.
- COUNCIL TO BE NOTIFIED 2 CLEAR DAYS PRIOR TO COMMENCEMENT OF WORKS.
- DRAINAGE AND PITS TO BE SET OUT FROM OFFSETS SHOWN RATHER THAN FROM CENTRELINE PIPE CHAINAGES. REFER EDM01-608 FOR FURTHER DETAILS.
- ALL PIPES TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED AND SHALL BE R/R UP TO AND INCLUDING 750mm DIAMETER. PIPES ABOVE THIS SIZE MUST BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS. ALL DRAINS THAT CROSS UNDER ROAD PAVEMENTS ARE TO BE CLASS 4 R.C.P.
- JOINTING FOR CURVED PIPE ALIGNMENT SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS (R/R'S FOR MINOR DEFLECTIONS OR COMPLETE R.C. BANDAGES)
- PROPERTY INLETS ARE TO BE PLACED 1.0m FROM THE LOW CORNER OF LOT UNLESS OTHERWISE SHOWN.
- LOTS DENOTED THIS 416H ARE TO BE PROVIDED WITH A 100mm HOUSE DRAIN PLACED 5.5m FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN. HOUSE DRAINS TO BE CONNECTED TO STREET DRAINAGE WITH 27A & CAP, CLEAR OF ANY PAVING. IF CONNECTION IS WITHIN PAVING A PIT MUST BE USED.
- APPROVED GRANULAR BACKFILL TO BE PROVIDED WHERE PIPE TRENCHES ENCR OACH UNDER ROADWAY DUE TO DEEP EXCAVATIONS IN ROCK.
- SHALLOW CUT OFF DRAINS ARE TO BE PROVIDED ON SUBDIVISION BOUNDARY WHERE NECESSARY.
- PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004, INCLUDING ALL RELEVANT REGULATIONS, HAVE BEEN ADDRESSED. IN PARTICULAR, THE REQUIRED NOTIFICATIONS MUST BE OVEYED TO THE VICTORIAN WORKCOVER AUTHORITY - HEALTH & SAFETY DIVISION WITH RESPECT TO TRENCHING OPERATIONS. DETAILS OF THE CONTRACTORS OCCUPATIONAL HEALTH & SAFETY PROCEDURES MUST BE LODGED WITH THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
- AGRICULTURAL PIPE DRAINS TO PLACED BEHIND ALL KERB AND CHANNEL AND BUFFER PITCHERS AND WHERE DIRECTED BY THE ENGINEER (REFER TO STD DRG EDM202).
- ALL DRAINAGE TRENCHES UNDER ROAD PAVEMENTS, KERB & CHANNEL, PARKING BAYS, DRIVEWAYS, FOOTPATHS AND BEHIND KERB & CHANNEL SHALL BE BACKFILLED WITH CRUSHED ROCK
- BATTERS SHALL BE 1 IN 6 FOR CUT & FILL UNLESS OTHERWISE SHOWN. BATTERS EXCEEDING 1 IN 6 MUST BE STABILISED AS PER COUNCIL REQUIREMENTS.
- ALL NATIVE TREES AND SHRUBS TO BE RETAINED UNLESS ROAD CONSTRUCTION NECESSITATES THEIR REMOVAL OR REMOVAL IS DIRECTED BY THE ENGINEER.
- LOTS TO BE GRADED AND LEFT CLEAN TO THE SATISFACTION OF THE ENGINEER.
- ON COMPLETION THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF RUBBISH AND SPOIL FROM SITE.
- WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND THE VARIOUS AUTHORITIES NOTIFIED PRIOR TO COMMENCEMENT OF WORKS.
- ALL MATERIAL SURROUNDING SERVICE AUTHORITY PITS LOCATED IN FOOTPATHS MUST BE ADEQUATELY COMPACTED IN 150mm LAYERS AND TESTED TO THE SATISFACTION OF THE CITY OF WHITTLESEA PRIOR TO THE CONSTRUCTION OF FOOTPATH BAYS ADJACENT TO THESE PITS.
- THE WATER CONDUIT OFFSET FROM THE LOT BOUNDARY IS GIVEN ON THE WATER RETICULATION PLAN. THE CONTRACTOR MUST CONSTRUCT CONDUITS TO ACCORD WITH THE GIVEN OFFSET AND ENSURE THAT THE CONCRETER MARKS THE KERB AND FOOTPATH EXACTLY ABOVE THE CONDUIT.
- ALL GAS AND WATER CONDUITS FOR RESIDENTIAL LOTS TO BE PVC CLASS 12, 50mm DIAMETER & 100mm DIAMETER RESPECTIVELY.
- TELSTRANBN Co TO BE NOTIFIED 7 DAYS PRIOR TO CONCRETE BEING PLACED.
- CONDUITS ARE TO BE EXTENDED 450mm BEHIND FACE OF KERB AND TO BE REFERENCED ON FACE OF KERB.
- ALL STREET SIGNS TO BE CONSTRUCTED AND ERECTED TO CURRENT CITY OF WHITTLESEA STANDARDS. STREET NAME PLATES TO BE IN ACCORDANCE WITH STANDARD DRAWING SD825, INCLUDING 'NO THROUGH ROAD' NOMINATION WHERE APPLICABLE.
- TRAFFIC CONTROL SIGNS, MARKINGS & DELINEATORS TO BE INSTALLED IN ACCORDANCE WITH AS1742.2. ALL LINE MARKING IS TO BE LONG LIFE ROAD MARKING, WITH LONGITUDINAL LINES IN THERMOPLASTIC & TRANSVERSE MARKINGS IN COLD APPLIED.
- ALL DRIVEWAYS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH EDM501 & 502 AND ARE TO BE OFFSET 0.75m FROM SIDE BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN.
- ALL DRIVEWAY RAMPS INTO PROPERTIES ARE TO BE CUT IN AT A MAXIMUM GRADE OF 1 IN 6.
- ALL PEDESTRIAN CROSSINGS ARE TO BE CONSTRUCTED GENERALLY IN ACCORDANCE WITH EDM403. ALL PRAM CROSSING SPLAYS MUST BE 600mm WIDE AND NO GREATER.
- FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLANS. FILLING TO BE CLEAN CLAY COMPACTED TO A DRY DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1289.5.2.1-2003. CONTROL TESTING TO COMPLY WITH ASS3798-2007 APPENDIX B, LEVEL 1.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION No. 448 (SEPT '95) AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE SUPERVISING ENGINEER.
- FILL REQUIRED UNDER ROADWAY KERB AND CHANNEL AND FOOTPATH TO BE UNDERTAKEN AS PER COUNCIL'S CONSTRUCTION SPECIFICATION FOR ROAD & DRAINAGE WORKS 20.6 (TYPE A MATERIAL AS PER VICROADS STANDARD SPECIFICATION 204) AND COMPACTED TO 98% AASHO IN 150mm LAYERS.
- PAVEMENT DEPTH MAY NOT BE ALTERED WITHOUT WRITTEN APPROVAL FROM CITY OF WHITTLESEA DEVELOPMENT ENGINEERING UNIT PRIOR TO THE COMMENCEMENT OF WORKS. ADDITIONAL COSTS WILL NOT BE CONSIDERED POST TENDER.
- THE CONTRACTOR IS TO ORGANISE AND PAY FOR TESTING OF PAVEMENT BASE COURSE MATERIAL AND FINAL LAYER OF CRUSHED ROCK. A COPY OF RESULTS IS TO BE FORWARDED TO THE DIRECTOR OF ENGINEERING OR HIS REPRESENTATIVE. THE RESULTS MUST MEET THE REQUIREMENTS OF THE CITY OF WHITTLESEA SPECIFICATION BEFORE ANY FURTHER WORKS ARE REQUIRED.
- THE CONTRACTOR MUST COMPLETE A LEVEL CHECK BETWEEN ALL TBMS TO VERIFY LEVEL VALUES BEFORE COMMENCEMENT OF WORKS. ALL TBMS AND CONTROL POINTS ARE TO BE MAINTAINED AND PROTECTED AT ALL TIMES DURING CONSTRUCTION. SHOULD ANY MARKS BE DISTURBED, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE DEVELOPER'S CONSULTANT TO ARRANGE RE-INSTALLMENT AT THE CONTRACTORS EXPENSE.

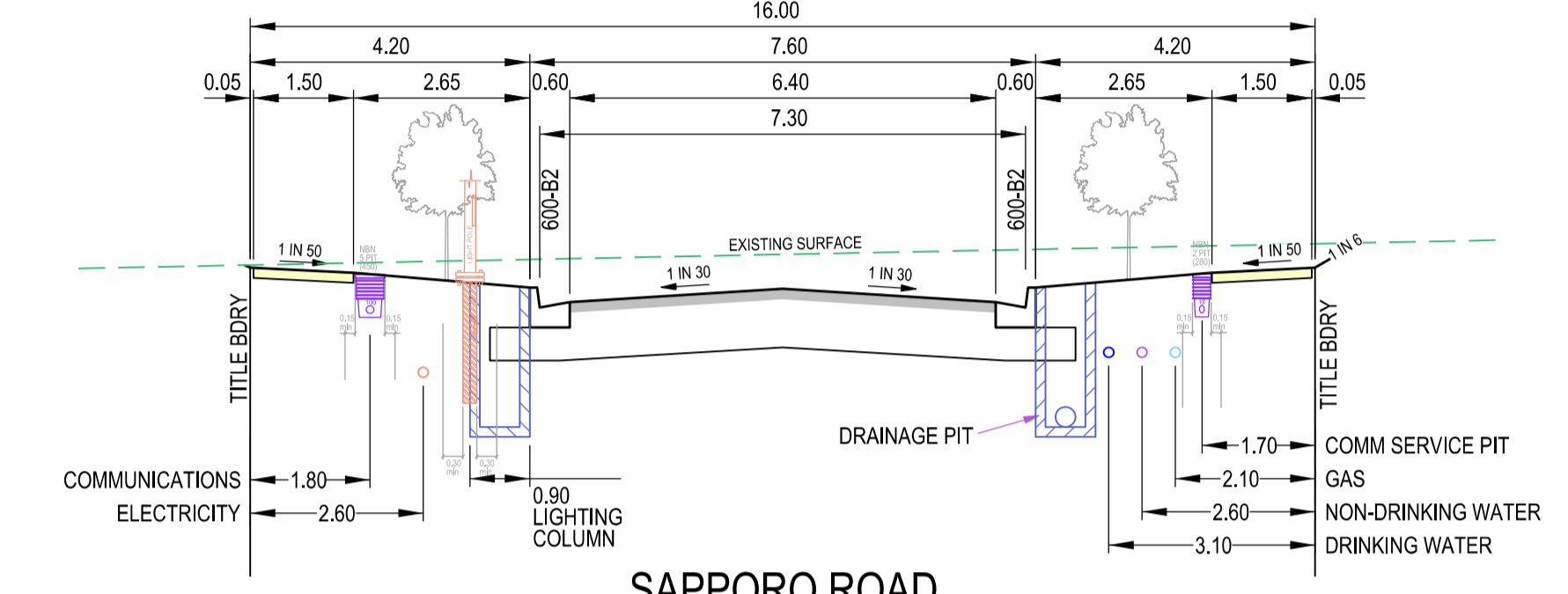
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR MUST SUBMIT A SMP TO THE DEVELOPER'S CONSULTANT FOR APPROVAL. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION No.275 "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL" AND MW SITE ENVIRONMENTAL MANAGEMENT POLICY 3.8.2. APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS. THE SMP SHALL BE APPROVED BY CITY OF WHITTLESEA DEVELOPMENT ENGINEERING UNIT PRIOR TO THE COMMENCEMENT OF WORKS.
- ALL FOOTPATHS IN ROADS TO BE OFFSET 50mm FROM PROPERTY BOUNDARY. FOOTPATHS CONSTRUCTED ABOVE EXISTING LEVEL TO BE CONSTRUCTED ON APPROVED FILL (TO AS-3798) OF F.C.R. INTO NATURAL GROUND.
- PRIOR TO COMMENCEMENT OF WORKS TREE PROTECTION ZONES (TPZ) ARE TO BE INSTALLED AS SPECIFIED IN THE ANNOTATED DETAILS FORMING PART OF THE PLANNING PERMIT TO TREES NOTED "TO BE RETAINED". THIS INCLUDES THE FOLLOWING
 - RING LOCK WIRE MESH MINIMUM 1.20m HIGH (STD DRG SDL2.02)
 - MAIN POSTS 100mm TREATED PINE (TP), MINIMUM 1.80m HIGH
 - INTERMEDIATE POSTS STEEL STAR PICKETS (SP), MINIMUM 1.80m HIGH
 - THE CORNER POSTS ARE TO BE TP WITH TP STAYS
 - EVERY THIRD POST TO BE TP
 - SP TO BE PLACED IMMEDIATELY BETWEEN THE TP AT MAX 3.0m INTERVALS
 - THE RING LOCK MESH TO ENCLOSE THE STRUCTURE AND BE FIRMLY SECURED AT EACH POST
 - POSTS MUST BE SUNK INTO THE GROUND BY 450mm (THERE IS TO BE NO CONCRETE TO SECURE POSTS AS THIS WILL AFFECT pH LEVELS)
 - HIGH VISIBILITY HAZARD MARKER TAPE SECURELY FIXED TO TOP OF WIRE MESH FENCE WITH WIRE TIES
 - THE TREE PROTECTION ZONE IS TO BE CLEARLY SIGN POSTED IN ACCORDANCE WITH CONDITION 20 OF THE PLANNING PERMIT (STD DRG SDL2.03)

NO EXCAVATION SHALL BE CARRIED OUT WITHIN 5.0m OF ANY TREE UNTIL APPROVAL IS GIVEN BY THE ENGINEER.

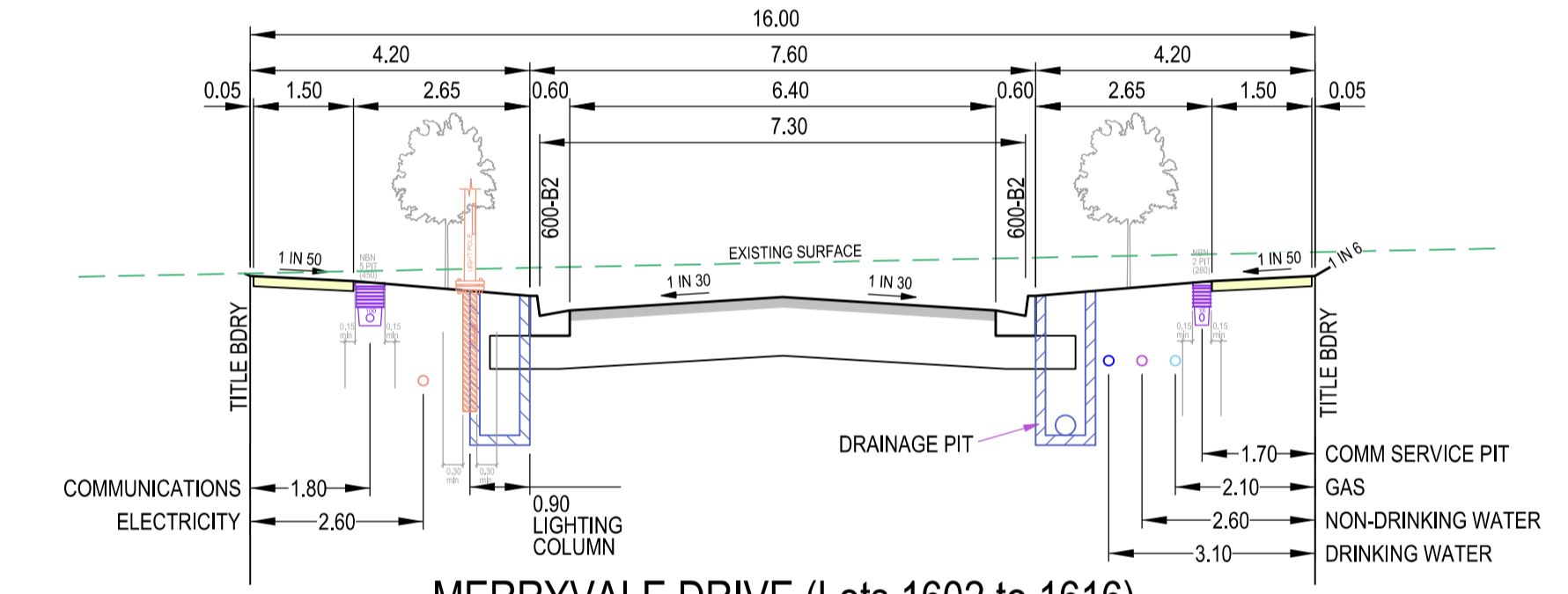
- PROVIDE 1.8m HIGH PALING FENCE ALONG ANY COMMON BOUNDARY BETWEEN A LOT AND MUNICIPAL RESERVE. FENCING TO BE ERECTED BY THE DEVELOPER (OR OWNER) AT NO COST TO COUNCIL. PALINGS TO BE ON THE RESERVE SIDE AND CONSTRUCTED IN ACCORDANCE WITH COUNCIL STANDARD DRAWING SDL3.09 & SDL3.10.
- VEHICULAR EXCLUSION FENCING TO BE PROVIDED ALONG THE ROAD FRONTAGES OF ALL RESERVES. REFER LANDSCAPE PLANS FOR FENCE DETAILS. FENCING TO BE CONSTRUCTED AS PART OF LANDSCAPE WORKS.
- PROVIDE TEMPORARY SAFETY BARRIER FENCE (FARM FENCE AS PER MW STD. DWG. 7251/8/203) ALONG EDGE OF OUTFALL DRAINS. SAFETY FENCE TO REMAIN UNTIL PERMANENT UNDERGROUND DRAINAGE IS INSTALLED.
- EXISTING DAM OR WATERCOURSES TO BE EXCAVATED TO A FIRM BASE AND BACKFILLED AS SPECIFIED. DEVELOPER'S CONSULTANT TO BE NOTIFIED WHEN THE DAM OR WATERCOURSES ARE EXCAVATED TO A FIRM BASE. NO FILLING IS TO BE PLACED PRIOR TO DAMS BEING INSPECTED AND LEVELS TAKEN. BACKFILLING IS TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
- TACTILE GROUND SURFACE INDICATORS (TGS) ARE TO BE INSTALLED WHERE SHOWN IN ACCORDANCE WITH COUNCIL STD DRG SD320 AND AS1428.
- A BUILDING PERMIT MUST BE OBTAINED FOR ANY STRUCTURAL/RETAINING WALL EXCEEDING 1.0m IN HEIGHT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION IN ACCORDANCE WITH THE BUILDING CODE OF AUSTRALIA. A COPY OF BUILDING PERMITS AND 'CERTIFICATE OF COMPLIANCE - CONSTRUCTION' TO BE SUBMITTED TO COUNCIL PRIOR TO STATEMENT OF COMPLIANCE.
- ALL STRUCTURAL WORKS MUST BE SUPERVISED BY A QUALIFIED STRUCTURAL ENGINEER.



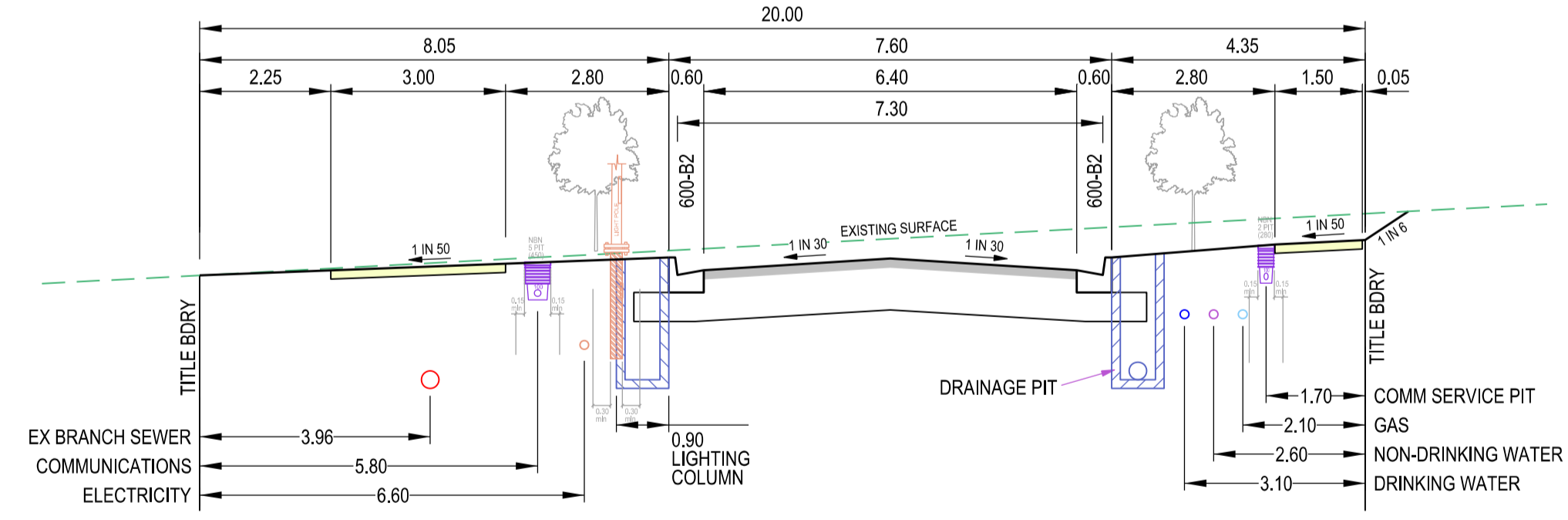
SUBSURFACE DRAIN
NTS



SAPPORO ROAD
16.0m ROAD RESERVE
ACCESS STREET TYPE 1

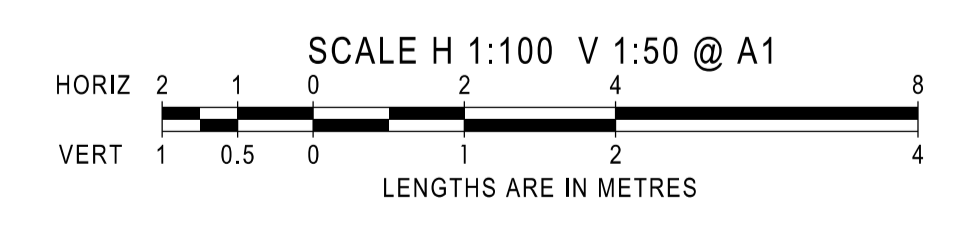


MERRYVALE DRIVE (Lots 1602 to 1616)
ACCESS STREET TYPE 1

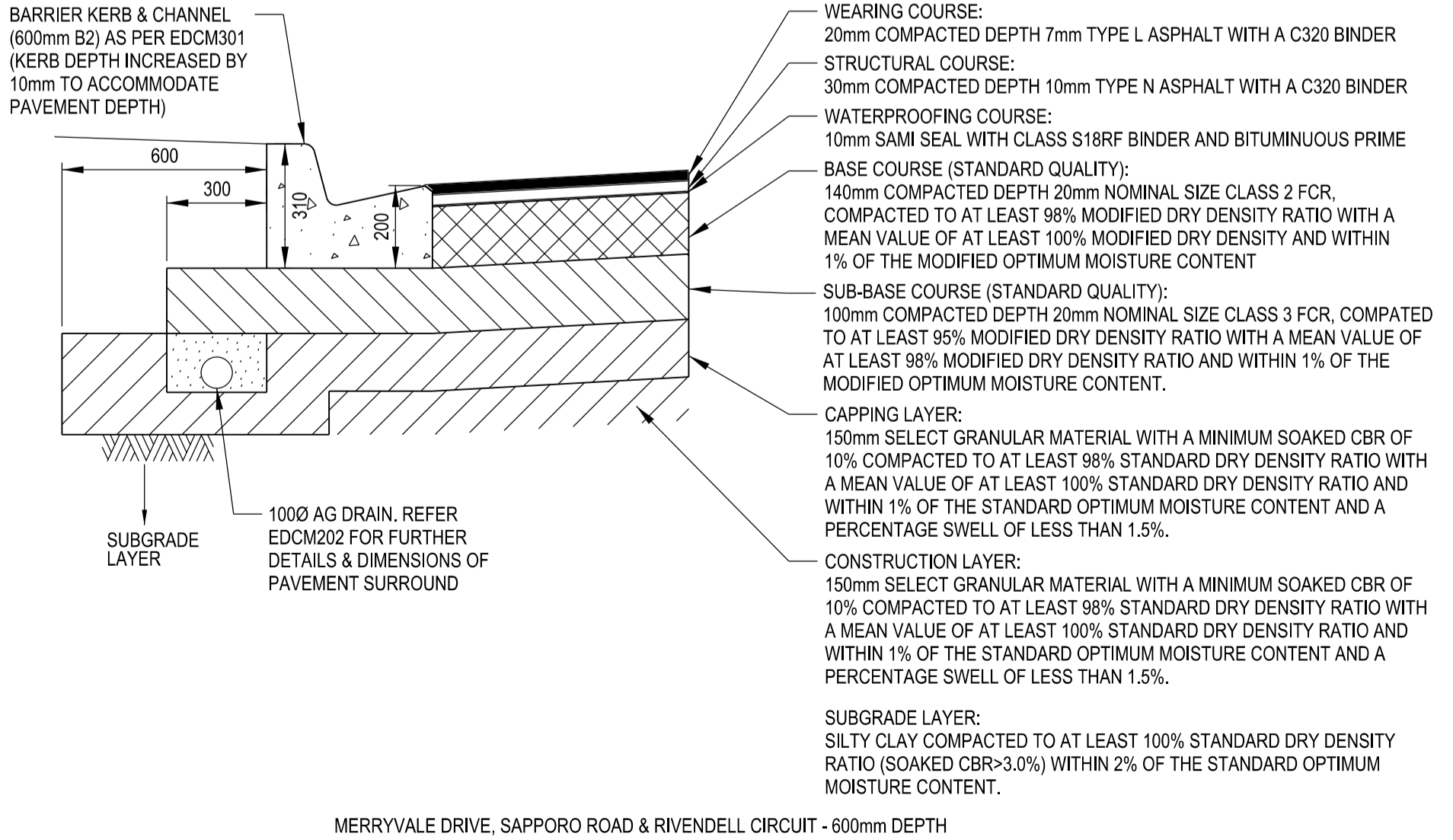


MERRYVALE DRIVE (Lot 1601) & RIVENDELL CIRCUIT
20.0m ROAD RESERVE
ACCESS STREET TYPE 1

TYPICAL ROAD CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50

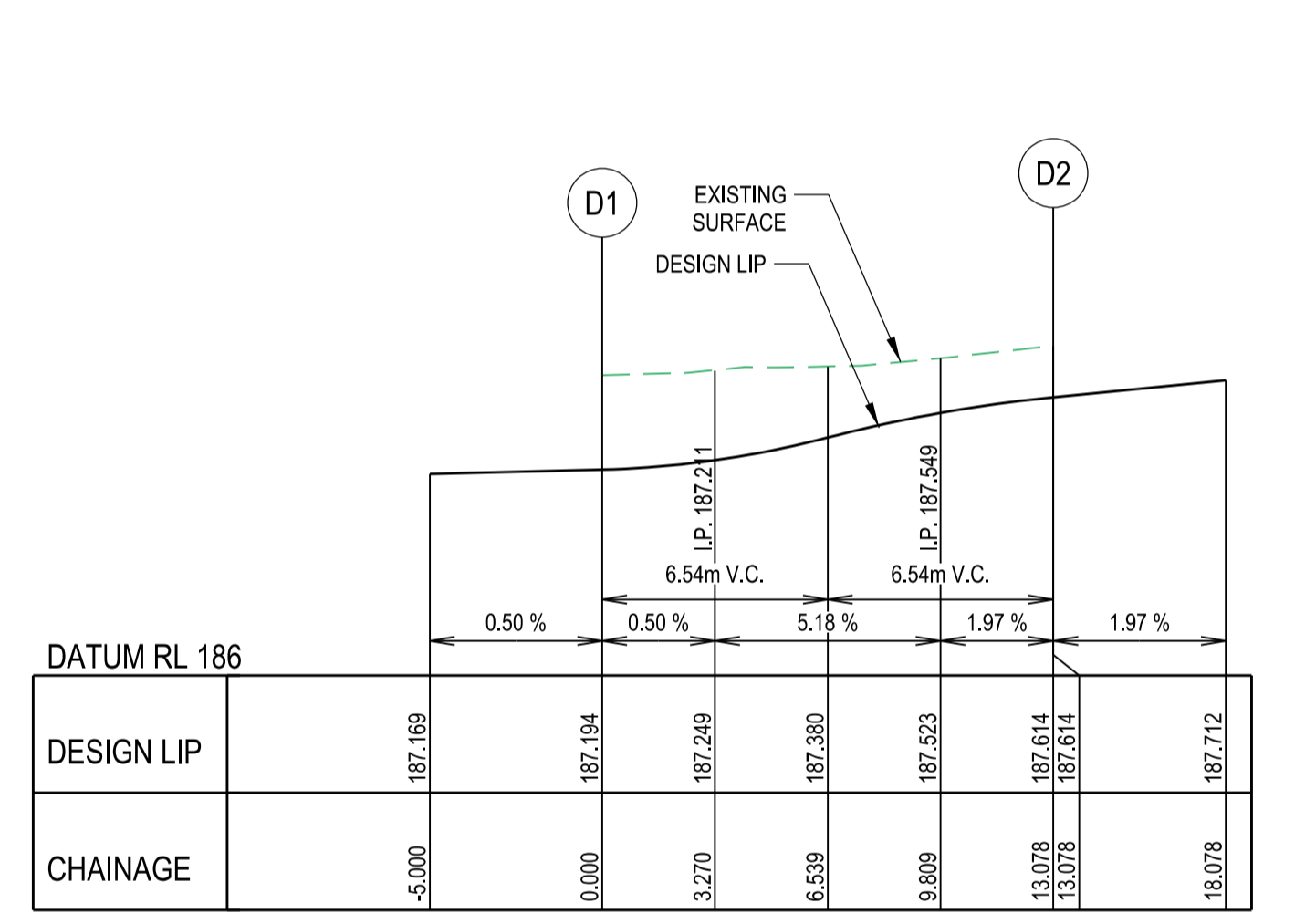
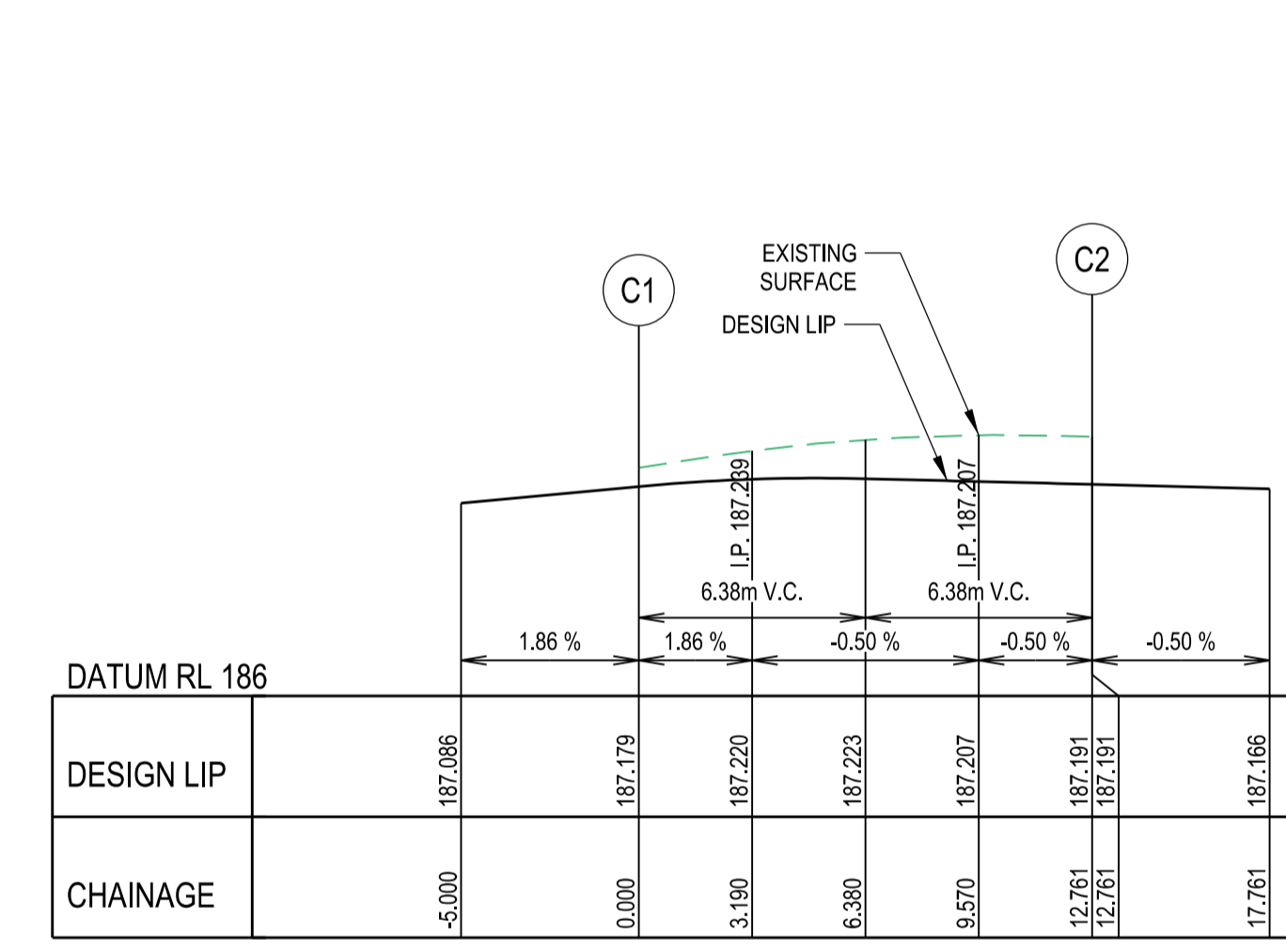
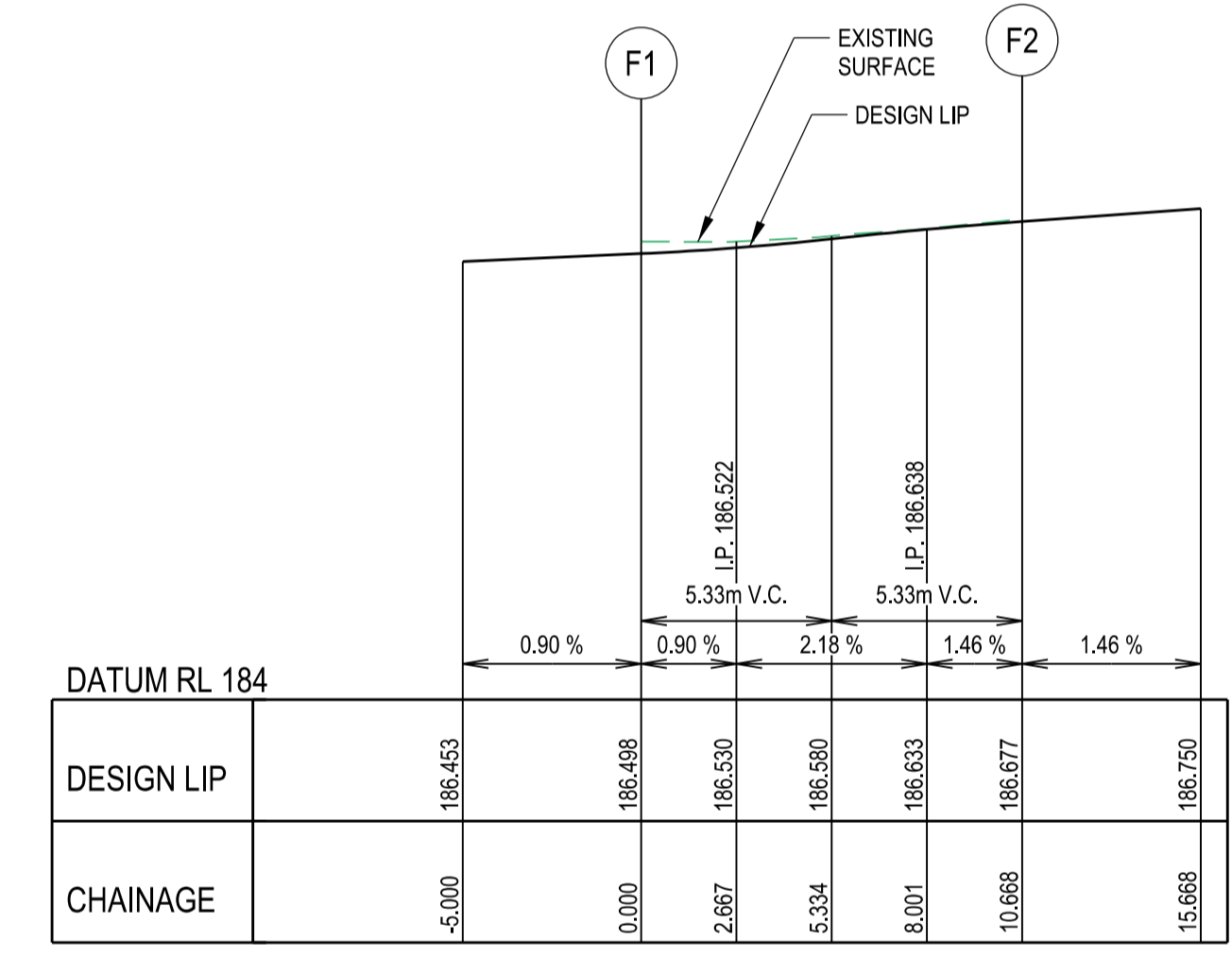
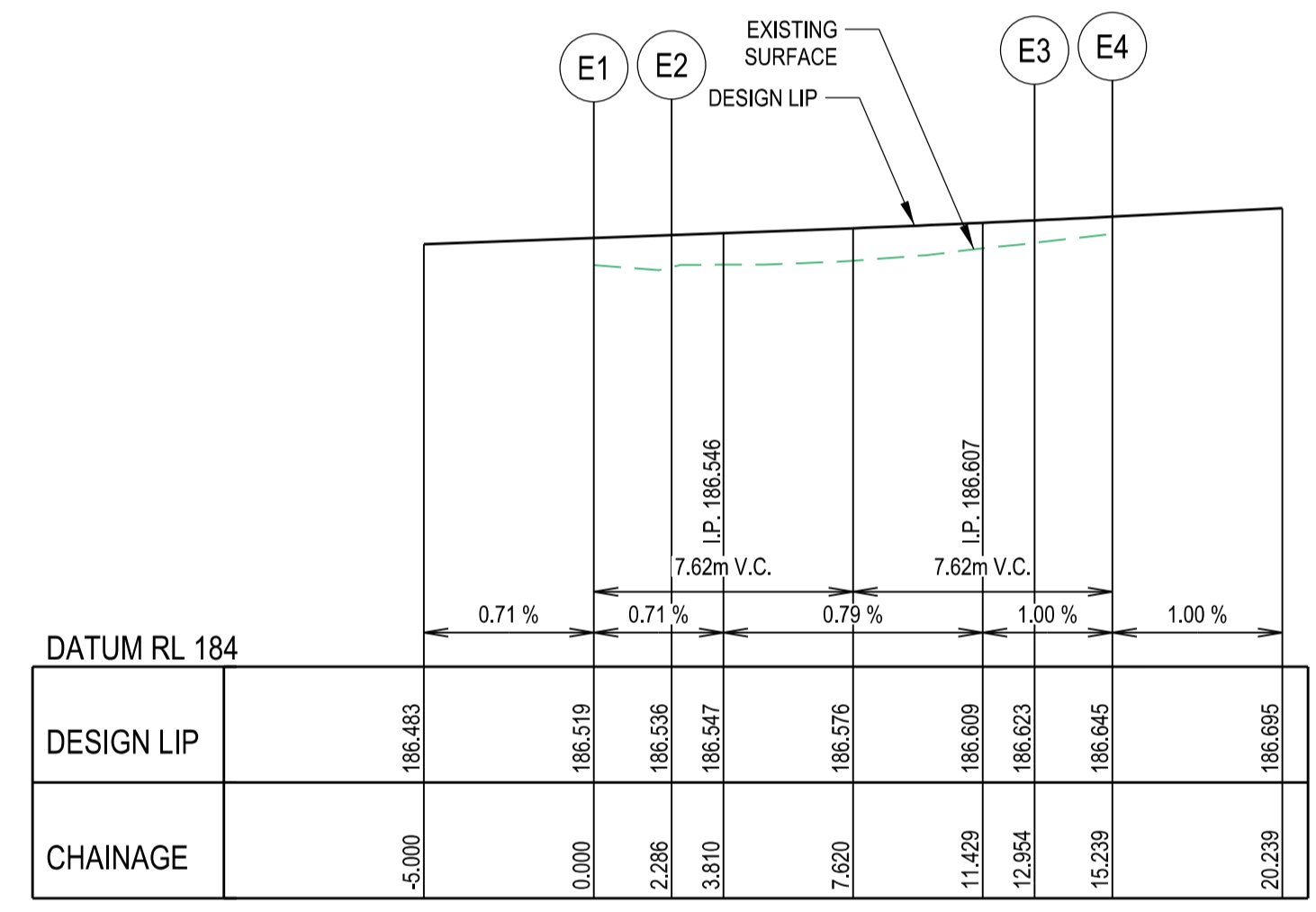
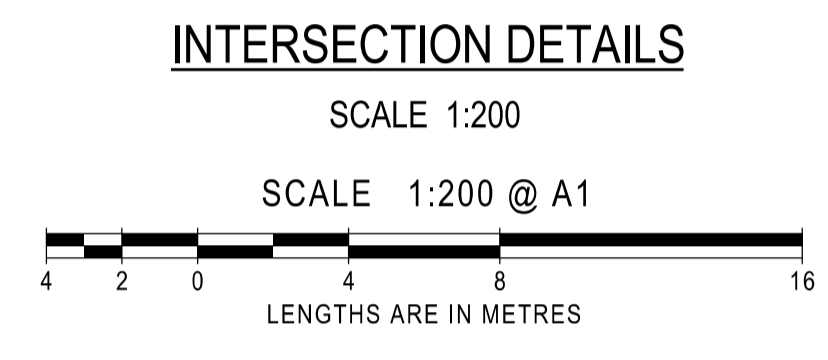
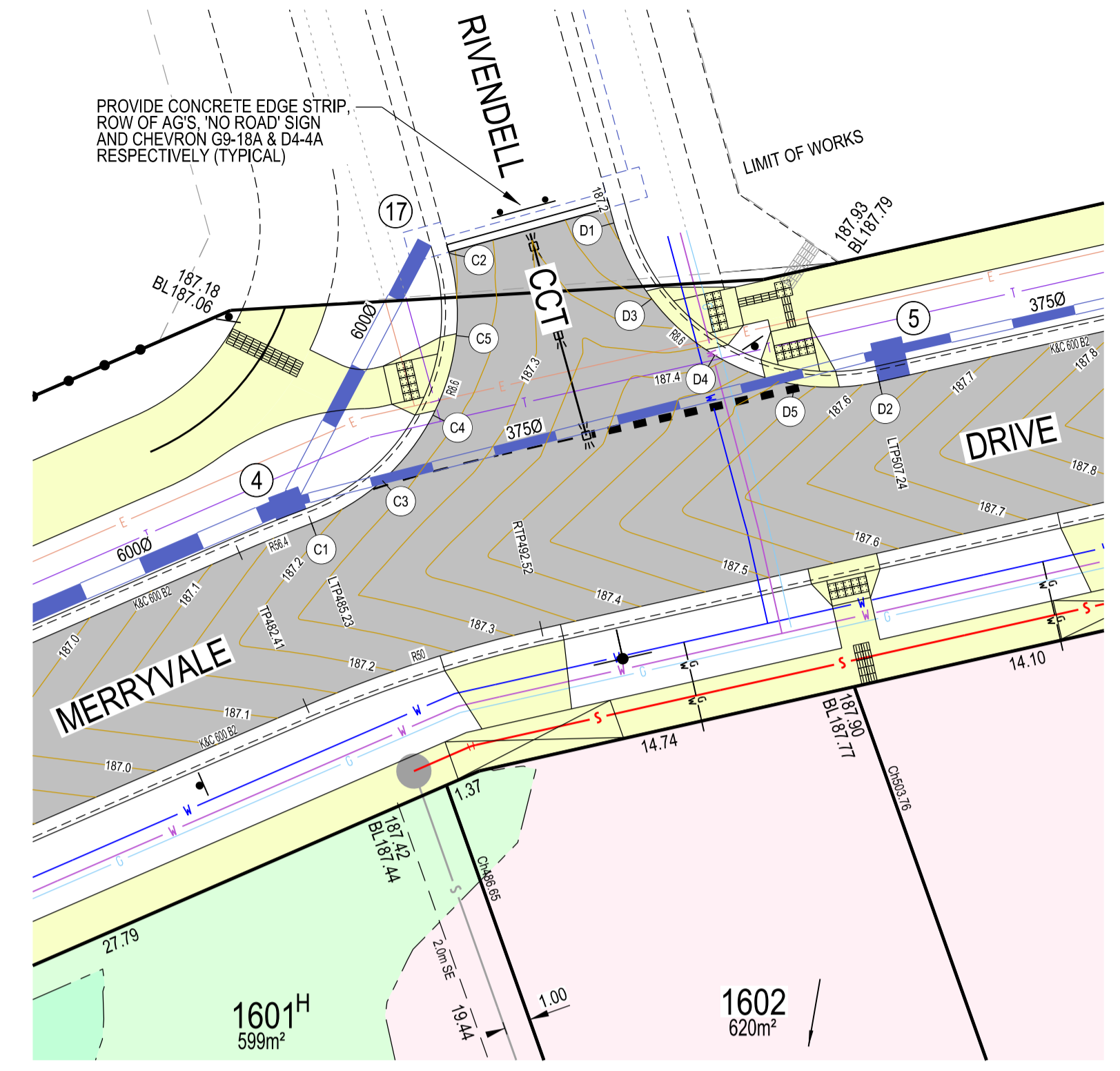
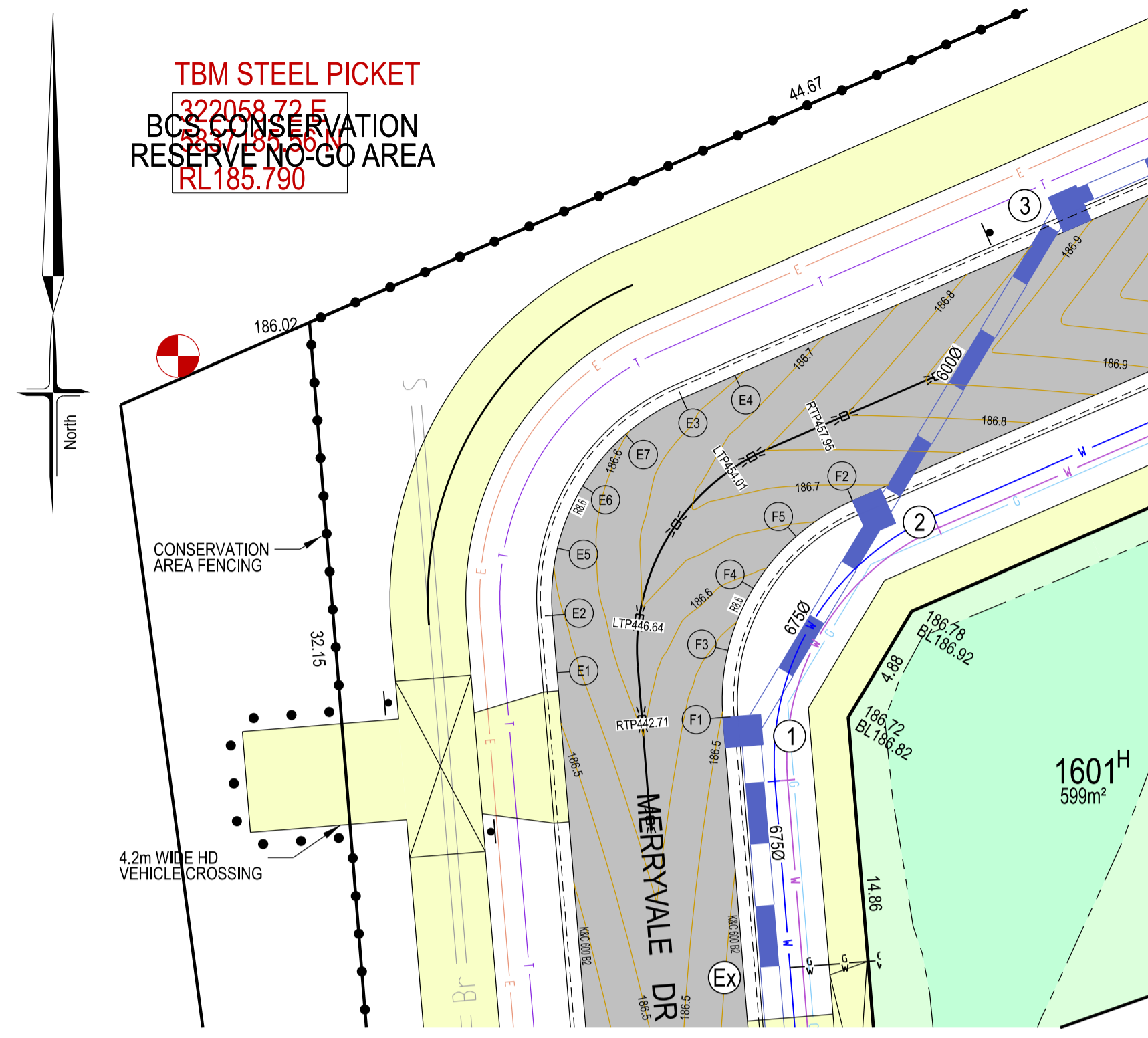


AS CONSTRUCTED



MERRYVALE DRIVE, SAPPORO ROAD & RIVENDELL CIRCUIT - 600mm DEPTH

AMENDMENTS		 land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
		MELWAY REF.	388-C-10	RATHDOWNE ESTATE STAGE 16	
		SURVEY	BPD		
B	08.11.22	PIPE DIAMETER AMENDED	DESIGN	RGW	MUNICIPALITY
A	12.10.22	ISSUED FOR CONSTRUCTION	DRAWN	PG	WHITTLESEA
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATE DEC'21
			REFERENCE 9365 E/16		SHEET 2 OF 11



Alignment E

Point no	Easting	Northing	RL
E 1	322073.725	5837173.026	186.519
E 2	322073.541	5837175.304	186.536
E 3	322076.877	5837183.880	186.523
E 4	322080.772	5837184.794	186.645
E 5	322073.738	5837177.953	186.556
E 6	322074.735	5837180.415	186.576
E 7	322076.435	5837182.456	186.599

Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
E 2	3	71.073	8.600	10.668	1.602	1.192	2.374	2.624	2.667 186.576

Alignment F

Point no	Easting	Northing	RL
F 1	322080.288	5837171.263	186.498
F 2	322085.425	5837179.840	186.677
F 3	322080.486	5837173.912	186.530
F 4	322081.482	5837176.374	186.580
F 5	322083.183	5837178.415	186.633

Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
F 1	2	71.073	8.600	10.668	1.602	1.192	2.374	2.624	2.667 186.580

Alignment C

Point no	Easting	Northing	RL
C 1	322108.064	5837196.600	187.179
C 2	322113.337	5837206.957	187.191
C 3	322110.779	5837198.240	187.220
C 4	322112.714	5837200.753	187.223
C 5	322113.608	5837203.796	187.207

Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
C 1	2	-85.015	-8.600	12.761	2.260	1.675	2.693	3.117	3.190 187.223

Alignment D

Point no	Easting	Northing	RL
D 1	322119.657	5837208.118	187.194
D 2	322129.827	5837202.029	187.614
D 3	322121.102	5837205.208	187.249
D 4	322123.525	5837203.041	187.380
D 5	322126.579	5837201.929	187.523

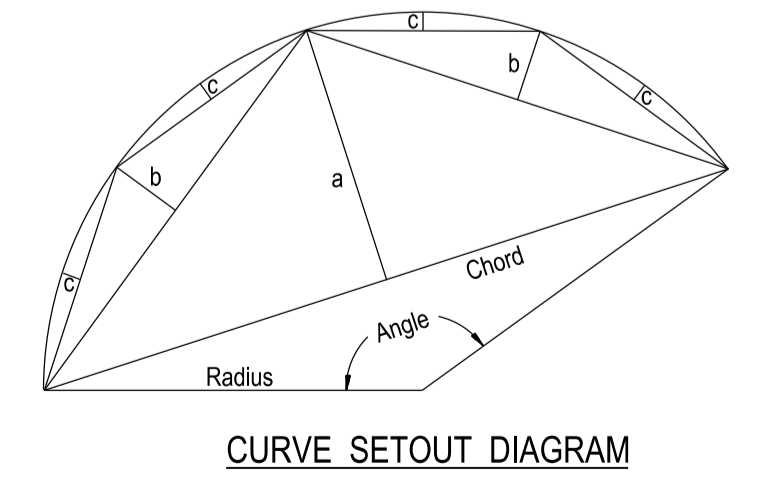
Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
D 1	2	-87.131	-8.600	13.078	2.369	1.754	2.736	3.191	3.270 187.380

LIP OF KERB PROFILES
SCALE - HORIZONTAL 1:200
VERTICAL 1:40

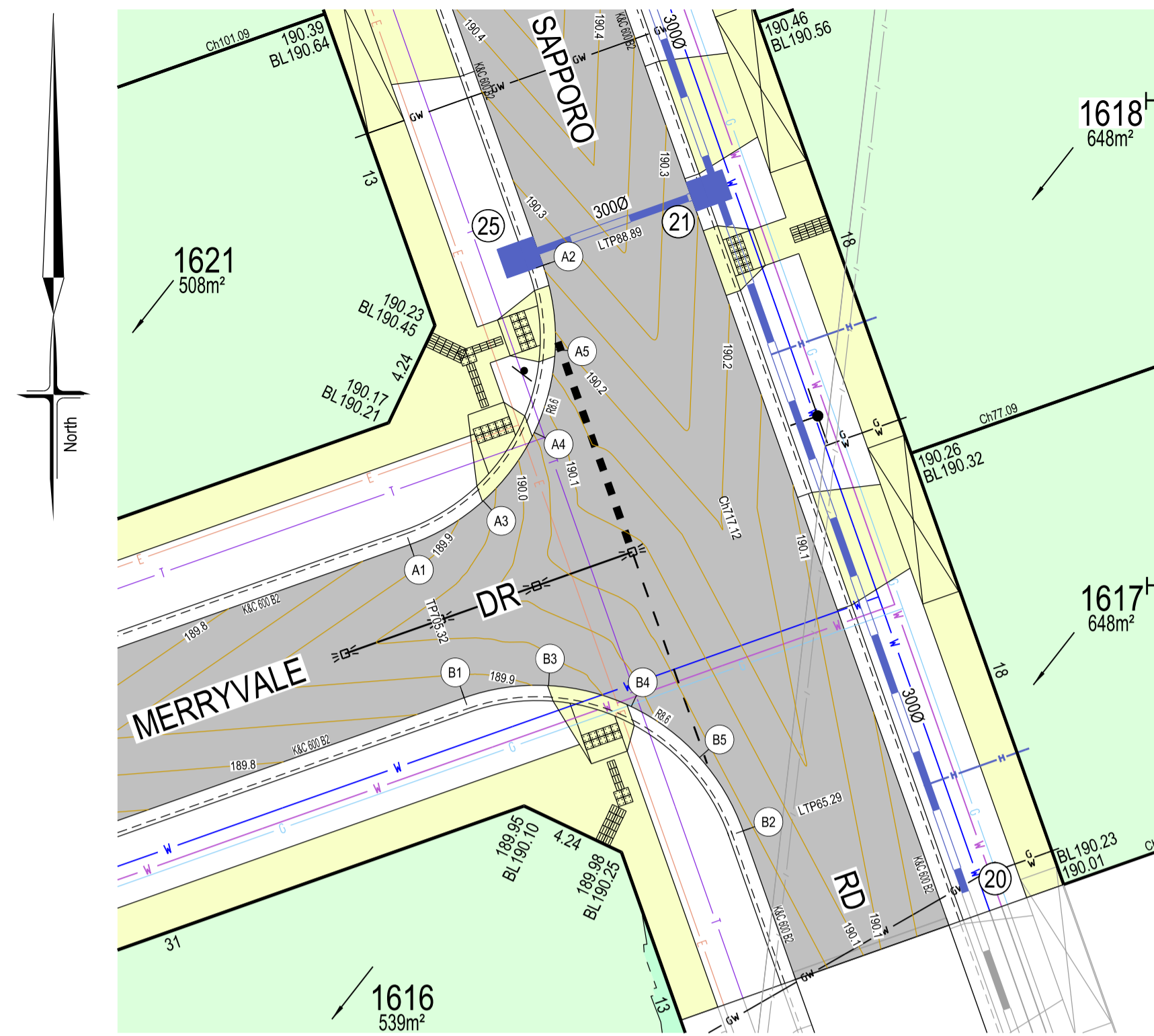
SYMBOL LEGEND

Drains	Prop	Ex Natural/FS Level	+28.57	+NS07.57	+FS09.57
Sewer < 3000	S	FS @ Building Line	+BL28.57		
Sewer ≥ 3000	S	Top/Toe Batter Level	+TOP28.57	+TOE27.57	
Water (DW)	W	Top/Bottom RW Level	+TW28.57	+BW27.57	
Water (NDW)	W	100yr Flood Level	+FL28.57		
House Drain	H	Fill Proposed (<0.3m≥0.3m)			
Property Inlet	I	Cut Proposed			
Street Sign	FSM	Asphalt Surface Prop			
Rock Ret Wall	R	Concrete Surface Prop (Paths/Driveways/Slabs)			
Sleeper Ret Wall	R	Tree To Be Removed			
Conduits 50mm	GW	Tree To Be Retained with Tree Protection Zone (TPZ)			
Conduits 100mm	W100				
Street Tree without/with Passive Irrigation (Refer Detail)	T				
Ex Drains	Ex S				
Ex Water/DW/NDW	Ex W				
Ex Sewer/Gas	Ex G				
Ex Elect/Comm	Ex E				

AS CONSTRUCTED



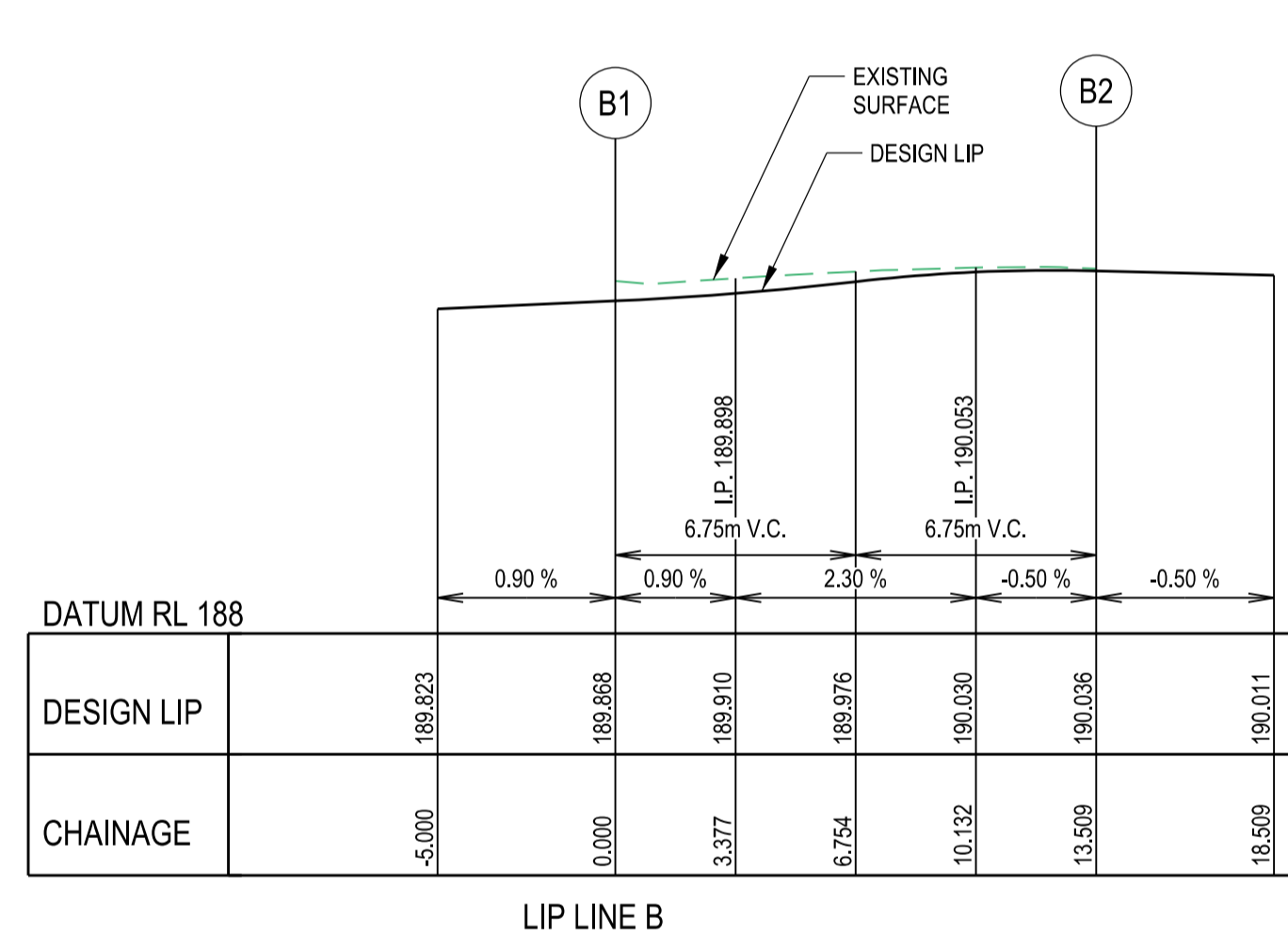
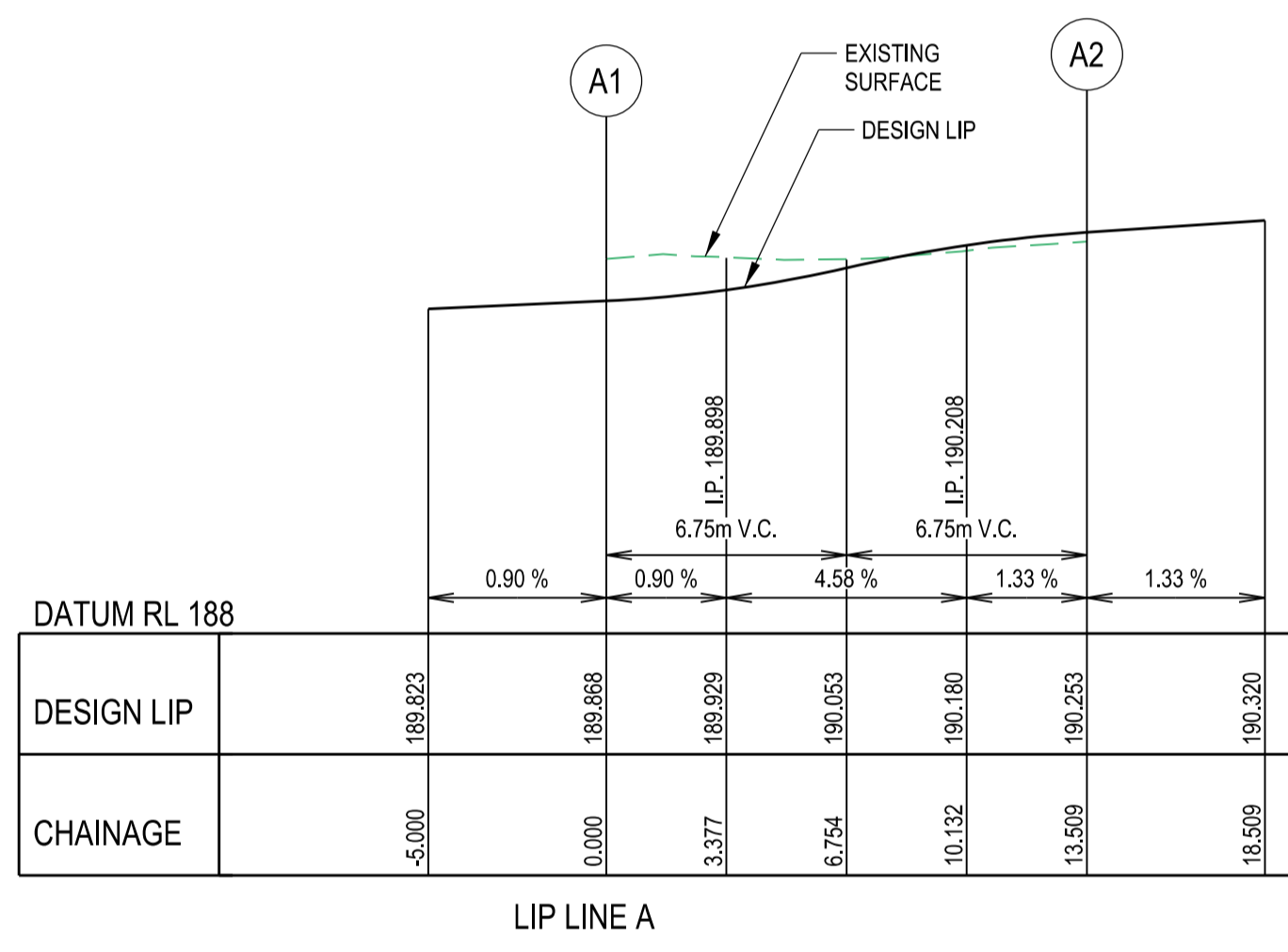
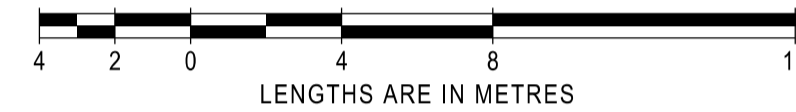
AMENDMENTS		brees pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	08.11.22	PIPE DIAMETER AMENDED	MELWAY REF. 388-C-10	MUNICIPALITY WHITTLESEA	
A	12.10.22	ISSUED FOR CONSTRUCTION	SURVEY BPD	REFERENCE 9365 E/16	
VER	DATE	REMARKS	DESIGN RGW	DRAWN PG	
			CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE DEC'21	SHEET 3 OF 11



INTERSECTION DETAILS

SCALE 1:200

SCALE 1:200 @ A1



Alignment A

Point no	Easting	Northing	RL
A 1	322317.677	5837262.920	189.868
A 2	322322.914	5837273.896	190.253
A 3	322320.561	5837264.635	189.929
A 4	322322.569	5837267.323	190.053
A 5	322323.395	5837270.576	190.180

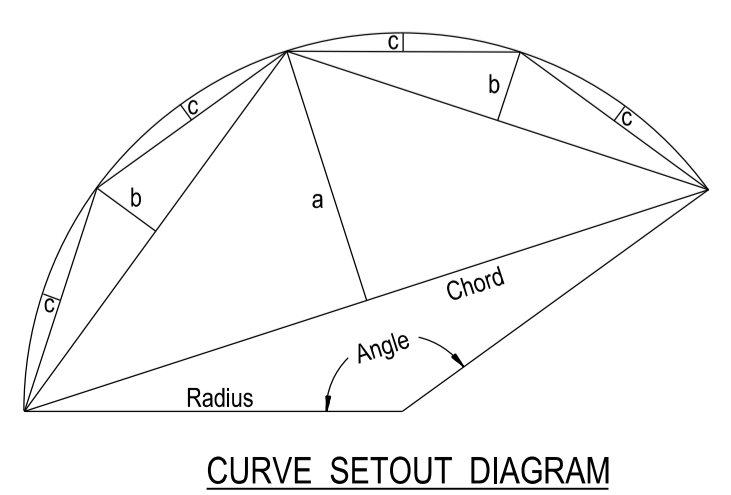
Alignment B

Point no	Easting	Northing	RL
B 1	322319.812	5837256.886	189.868
B 2	322330.789	5837251.649	190.036
B 3	322323.133	5837257.368	189.910
B 4	322326.386	5837256.541	189.976
B 5	322329.074	5837254.533	190.030

Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
A 1	2	-90.000	-8.600	13.509	2.519	1.864	2.790	3.291	3.377 190.053

Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
B 1	2	90.000	8.600	13.509	2.519	1.864	2.790	3.291	3.377 189.976

LIP OF KERB PROFILES
SCALE - HORIZONTAL 1:200
VERTICAL 1:40

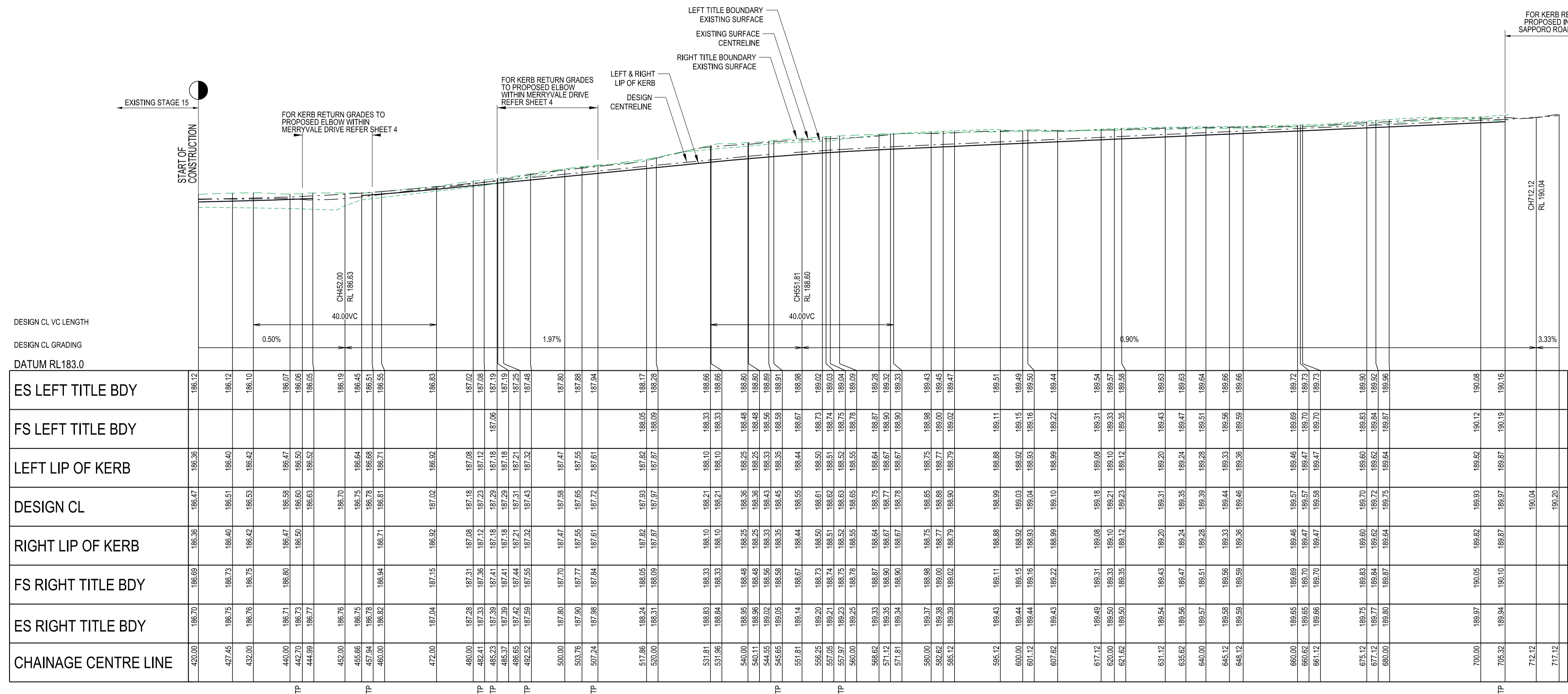


SYMBOL LEGEND

- Drains: Prop, Prev Stage
- Sewer < 3000: S, S
- Sewer ≥ 3000: S, S
- Water (DW): W, W
- Water (NDW): W, W
- House Drain: W, W
- Property Inlet: W, W
- Street Sign: S, S
- FSM: S, S
- Rock Ret Wall: R, R
- Sleeper Ret Wall: R, R
- Conduits 50mm: C, C
- Conduits 100mm: C, C
- Street Tree without/with Passive Irrigation (Refer Detail): T, T
- Ex Drains: Ex D, Ex D
- Ex Water/DW/NDW: Ex W, Ex W
- Ex Sewer/Gas: Ex S, Ex S
- Ex Elect/Comm: Ex E, Ex E
- Ex Natural/FS Level: Ex N, Ex N
- FS @ Building Line: FS, FS
- Top/Toe Batter Level: Top, Top
- Top/Bottom RW Level: Top, Top
- 100yr Flood Level: FL, FL
- Fill Proposed (<0.3m/≥0.3m): F, F
- Cut Proposed: C, C
- Asphalt Surface Prop: A, A
- Concrete Surface Prop (Paths/Driveways/Slabs): C, C
- Tree To Be Removed: X
- Tree To Be Retained with Tree Protection Zone (TPZ): T, T

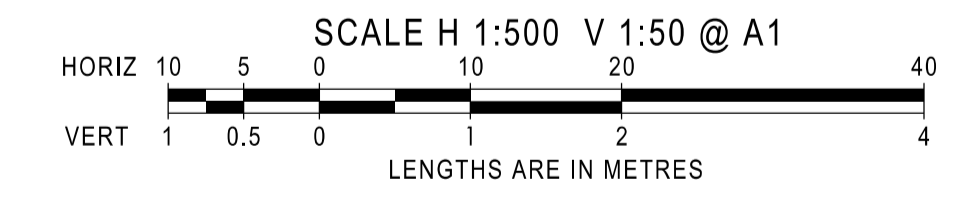
AS CONSTRUCTED

		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
		MELWAY REF. 388-C-10	RATHDOWNE ESTATE STAGE 16		MUNICIPALITY WHITTLESEA
		SURVEY BPD	REFERENCE 9365 E/16		
		A 12.10.22 ISSUED FOR CONSTRUCTION	DRAWN PG		
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD
					DATE DEC'21
			SHEET 4 OF 11		



**MERRYVALE DRIVE
LONGITUDINAL SECTION**

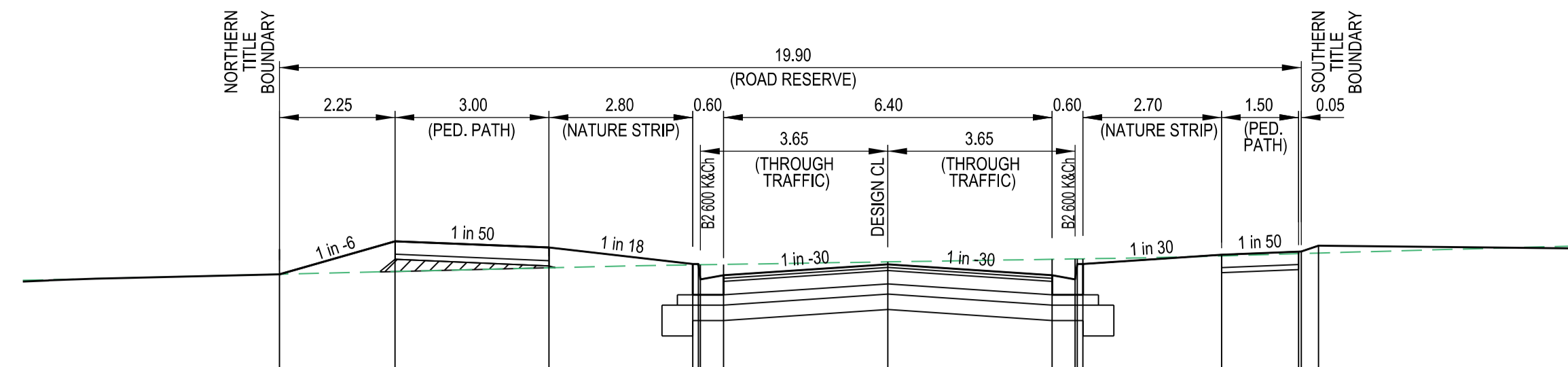
SCALE HORIZONTAL 1:500
VERTICAL 1:50



LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	INDICATES CRUSHED ROCK BACKFILL REFER NOTE 35, SHEET 2 LEVEL 1 SUPERVISION REQUIRED

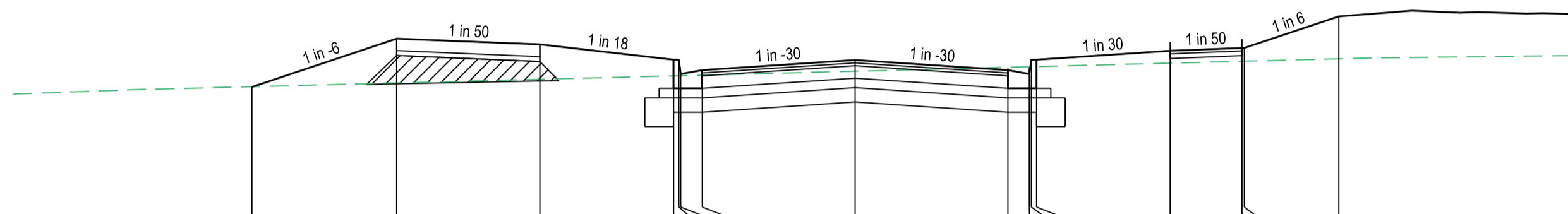
AS CONSTRUCTED

AMENDMENTS		 breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310		
				MUNICIPALITY WHITTLESEA		
B 08.11.22 PIPE DIAMETER AMENDED		MELWAY REF. 388-C-10	RATHDOWNE ESTATE STAGE 16		REFERENCE 9365 E/16	
A 12.10.22 ISSUED FOR CONSTRUCTION		SURVEY BPD			DESIGN RGW	DRAWN PG
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD	DATE DEC'21



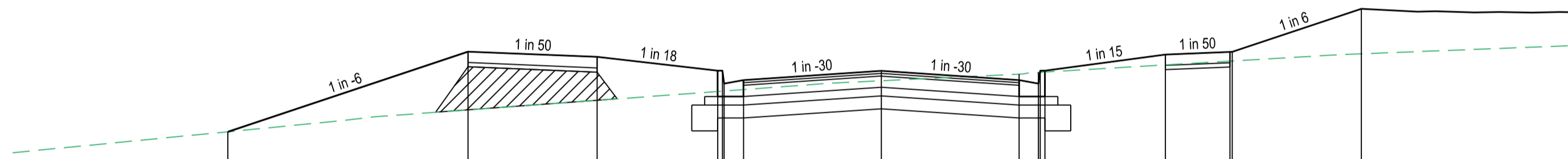
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DESIGN RL's											
EXIST RL's											
OFFSETS											

CH 485.23



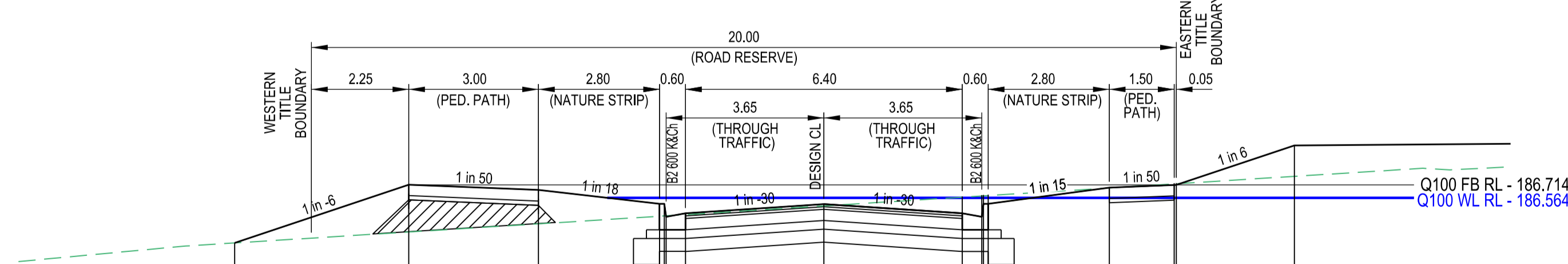
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DESIGN RL's											
EXIST RL's											
OFFSETS											

CH 458.34



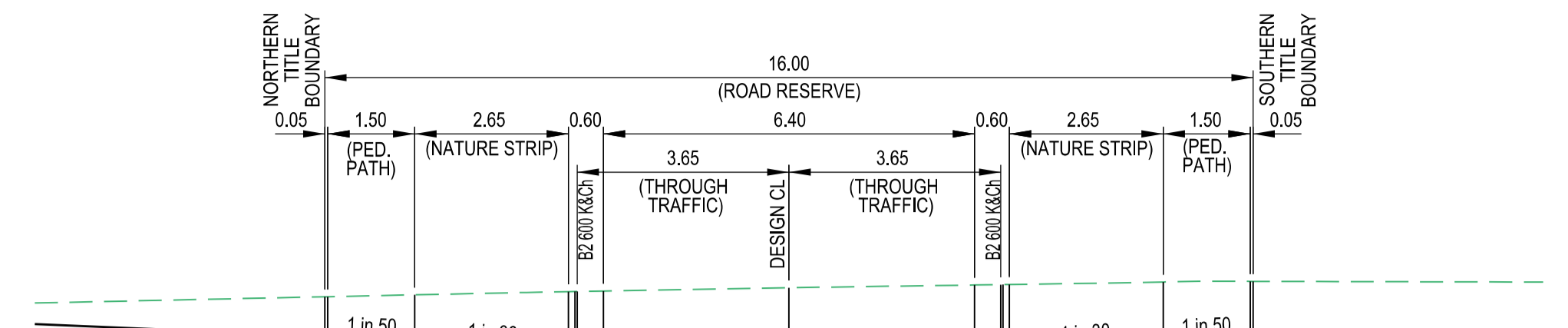
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DESIGN RL's											
EXIST RL's											
OFFSETS											

CH 442.00



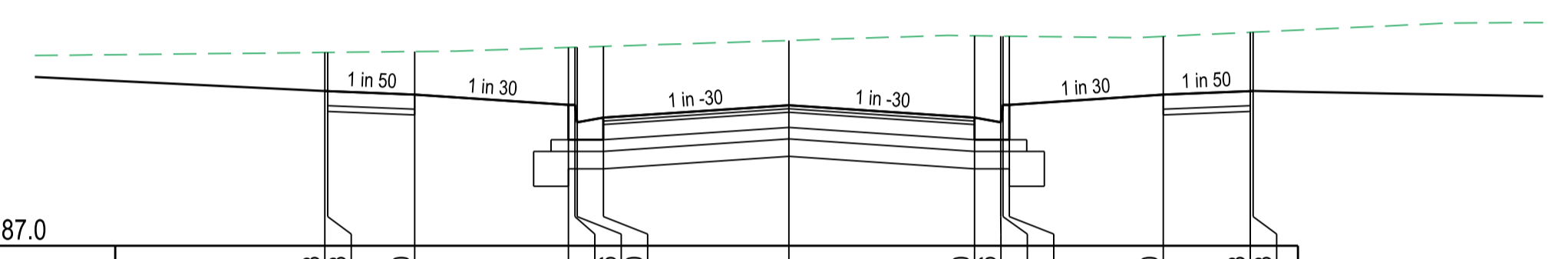
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DESIGN RL's											
EXIST RL's											
OFFSETS											

CH 427.45



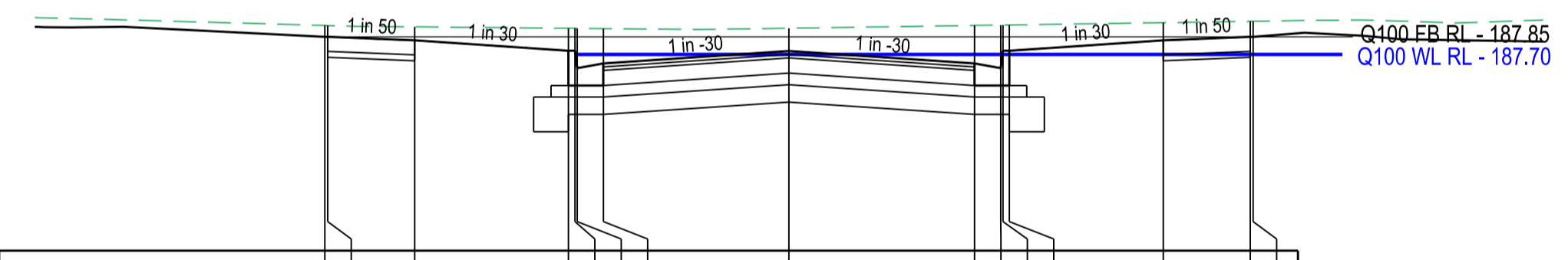
	DATUM RL187.0										
DESIGN RL's											
EXIST RL's											
OFFSETS											

TPCH 545.65



	DATUM RL187.0										
DESIGN RL's											
EXIST RL's											
OFFSETS											

CH 531.96



	DATUM RL186.0										
DESIGN RL's											
EXIST RL's											
OFFSETS											

CH 507.24

MERRYVALE DRIVE

CROSS SECTIONS

SCALE HORIZONTAL 1:100

VERTICAL 1:50

SCALE H 1:100 V 1:50 @ A1

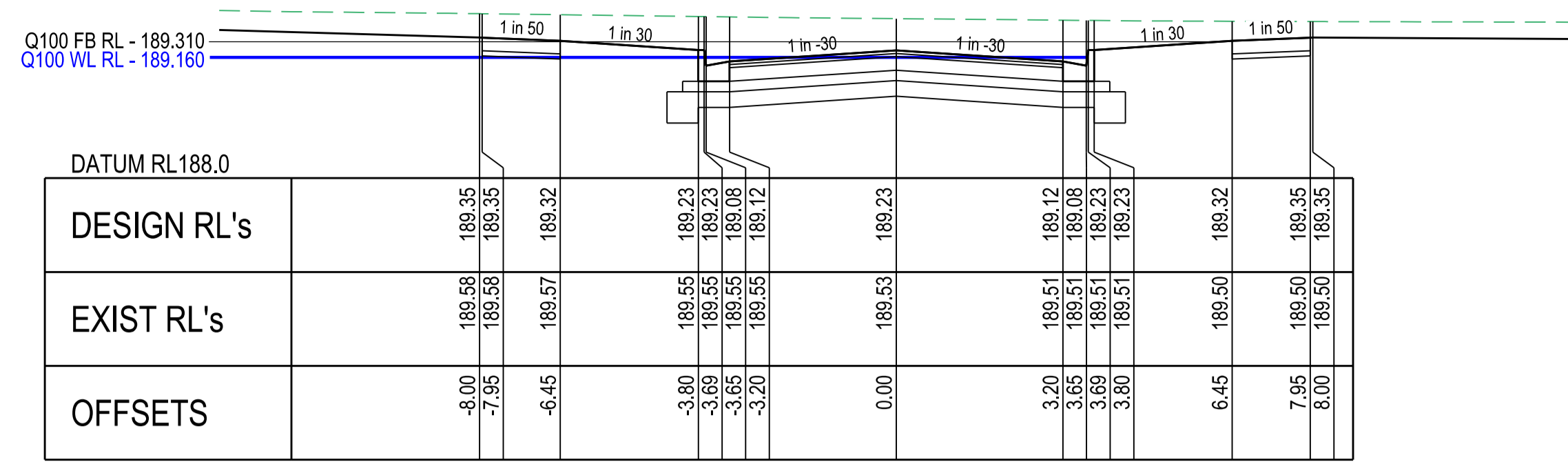


AS CONSTRUCTED

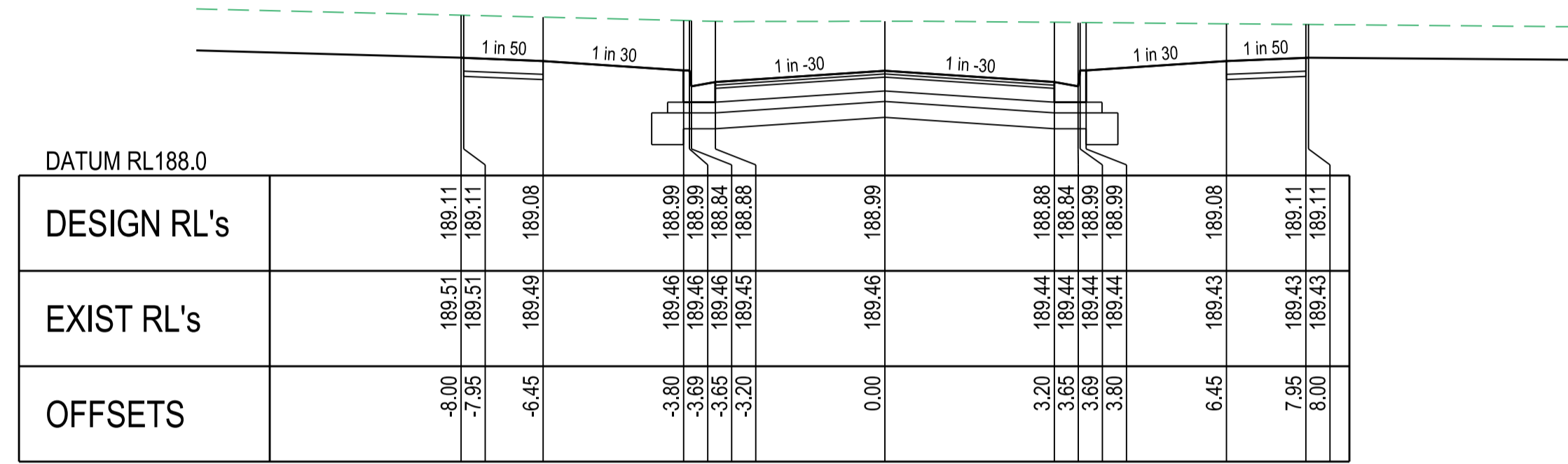
LEGEND

- EXISTING SURFACE
- DESIGN SURFACE
- ▨ INDICATES CRUSHED ROCK BACKFILL REFER NOTE 35, SHEET 2 LEVEL 1 SUPERVISION REQUIRED

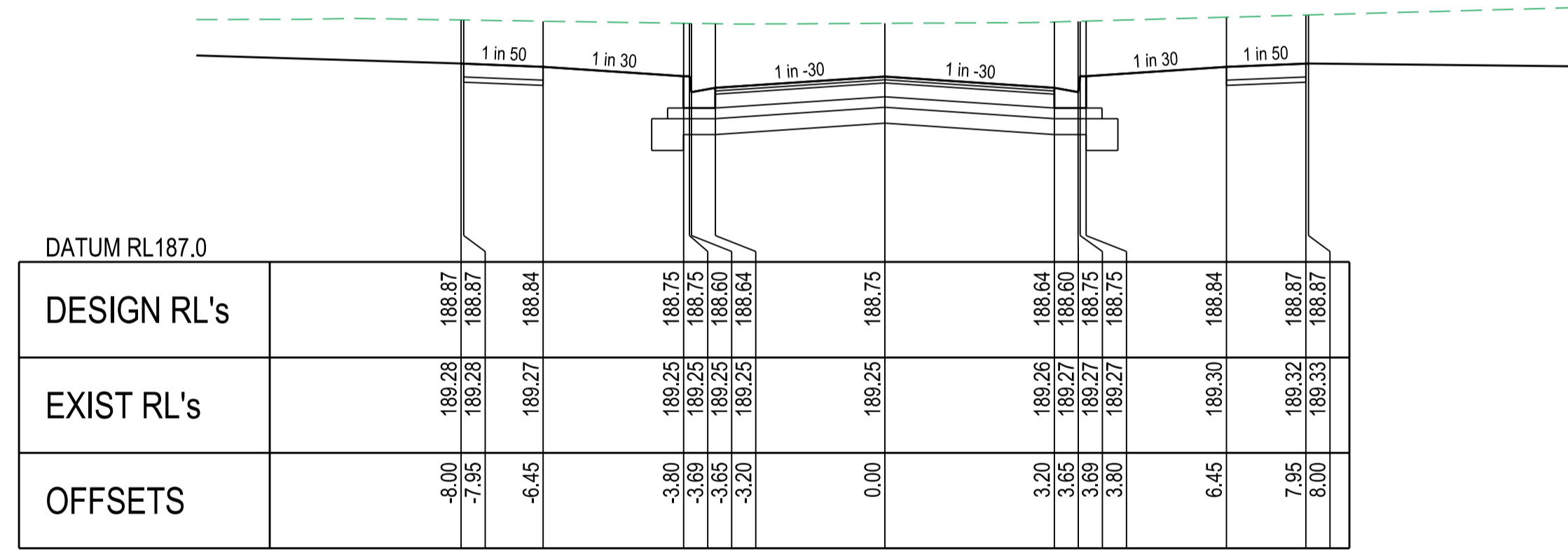
		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
AMENDMENTS B 08.11.22 PIPE DIAMETER AMENDED A 12.10.22 ISSUED FOR CONSTRUCTION VER DATE REMARKS		MELWAY REF. 388-C-10 SURVEY BPD DESIGN RGW DRAWN PG		RATHDOWNE ESTATE STAGE 16 MUNICIPALITY WHITTLESEA REFERENCE 9365 E/16	
CHECKED		SCALE AS SHOWN DATUM AHD		DATE DEC'21 SHEET 6 OF 11	



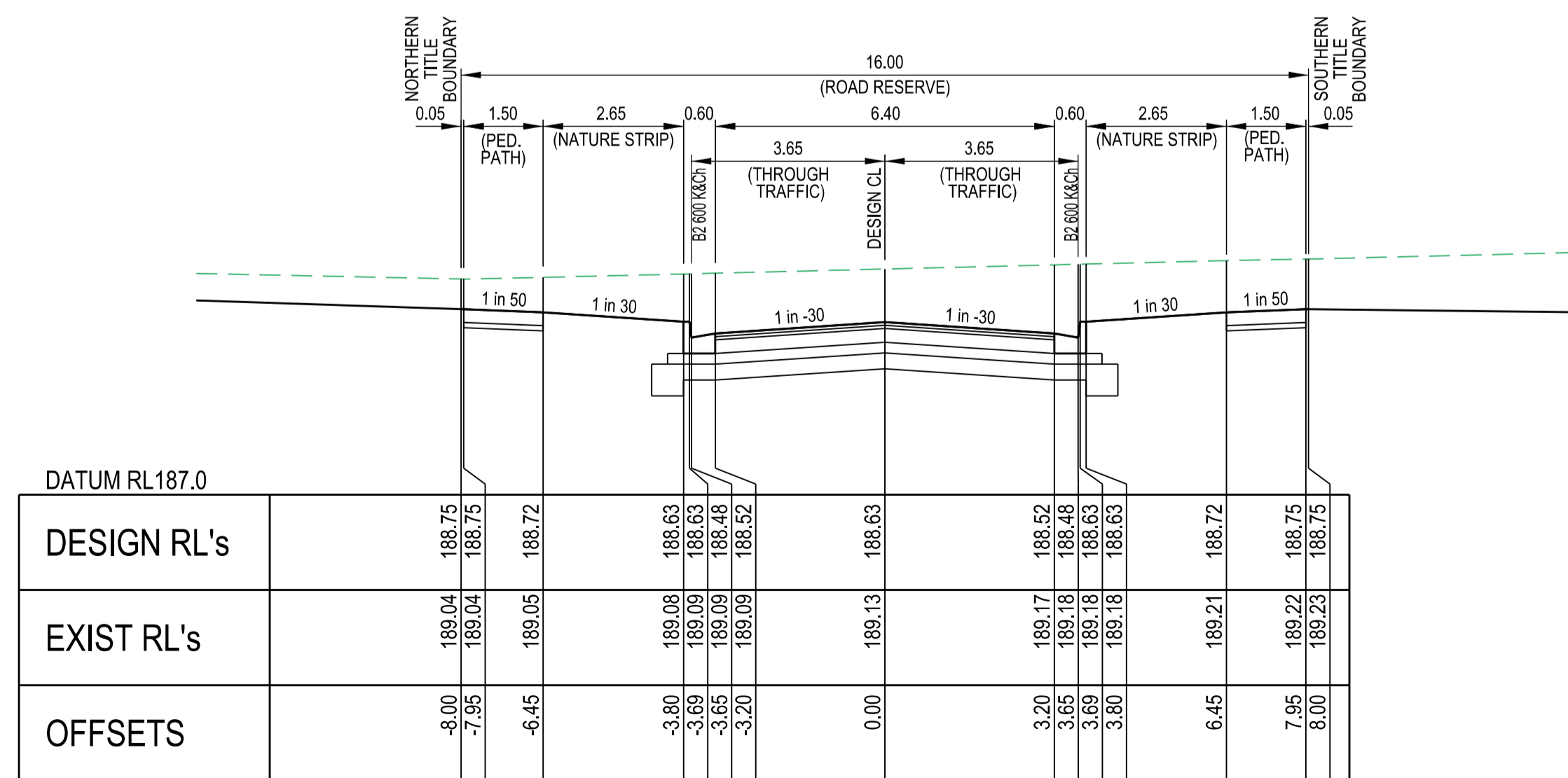
CH 621.62



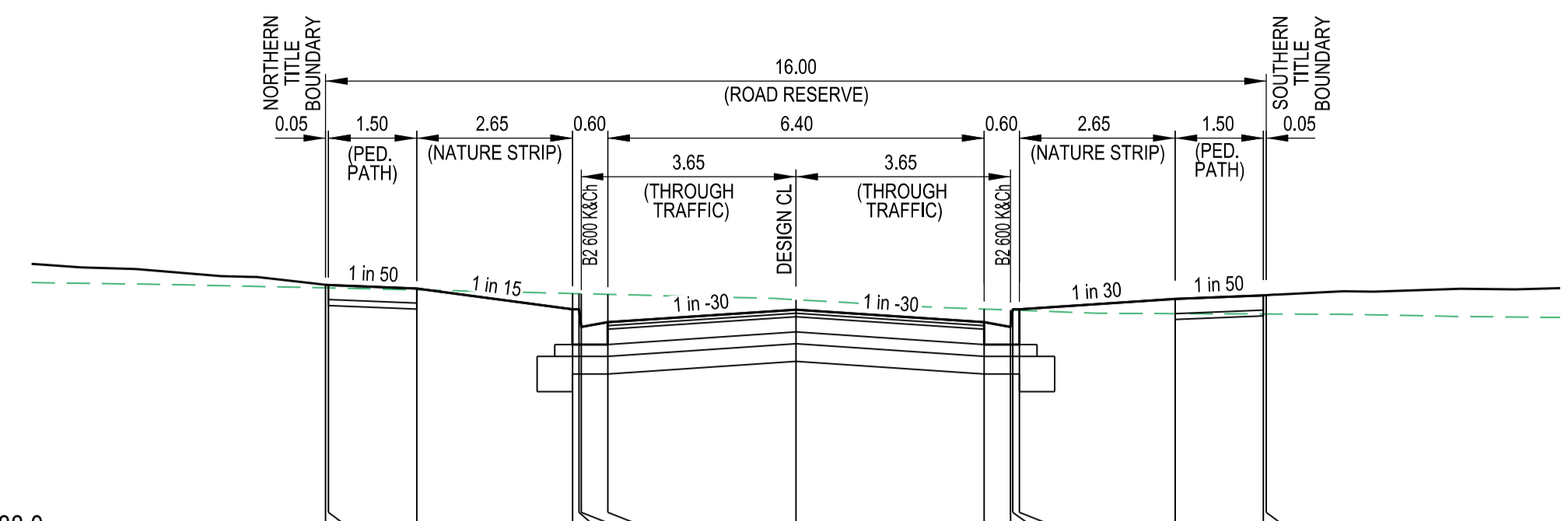
CH 595.12



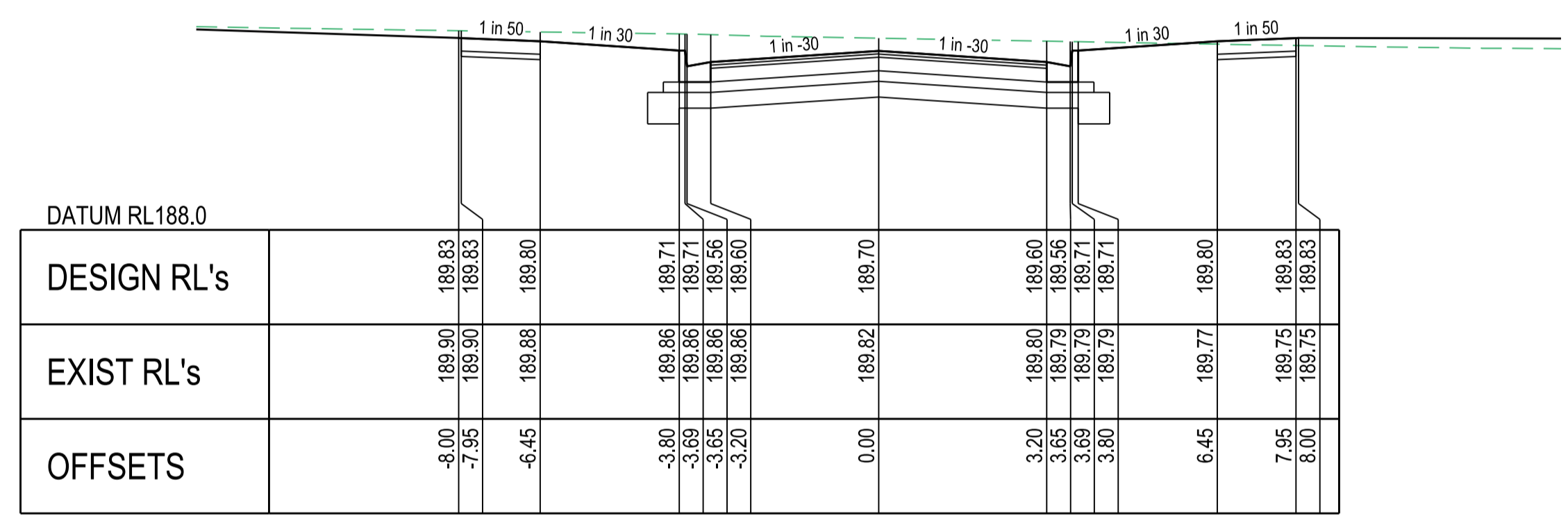
CH 568.62



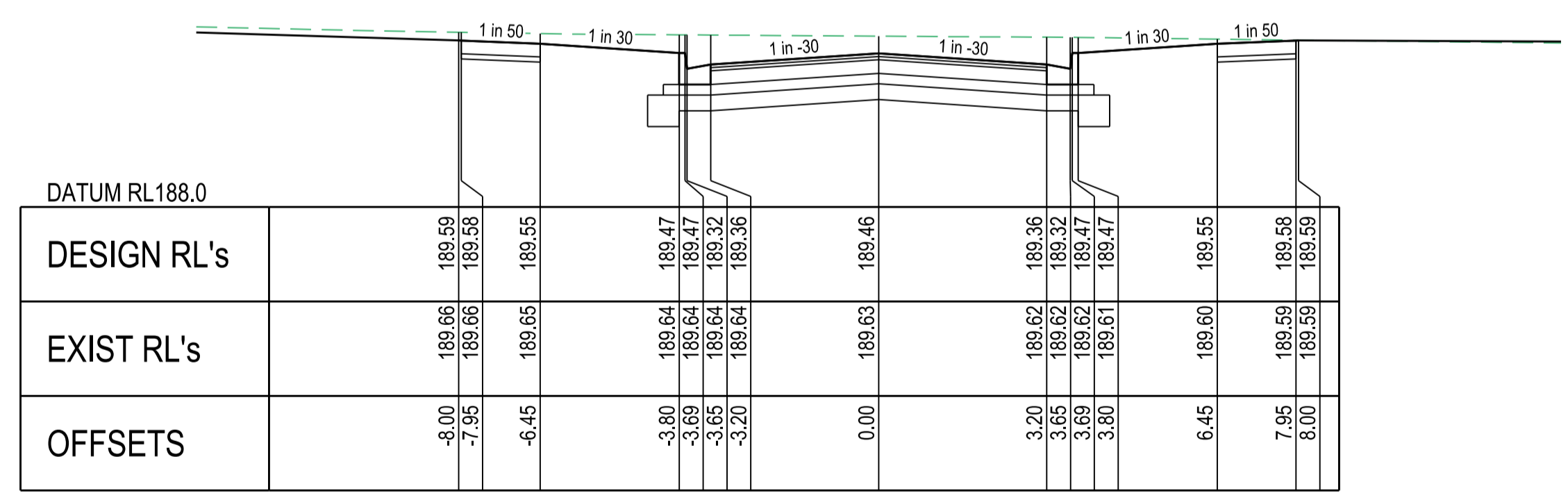
TPCH 557.97



TPCH 705.32



CH 675.12



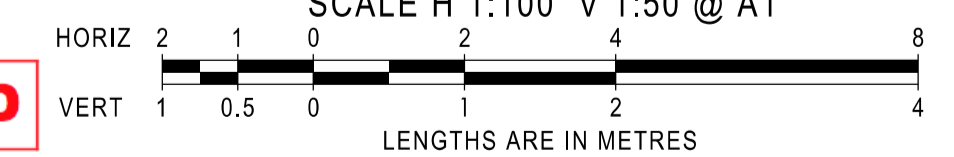
CH 648.12

MERRYVALE DRIVE
CROSS SECTIONS

SCALE HORIZONTAL 1:100
SCALE VERTICAL 1:50

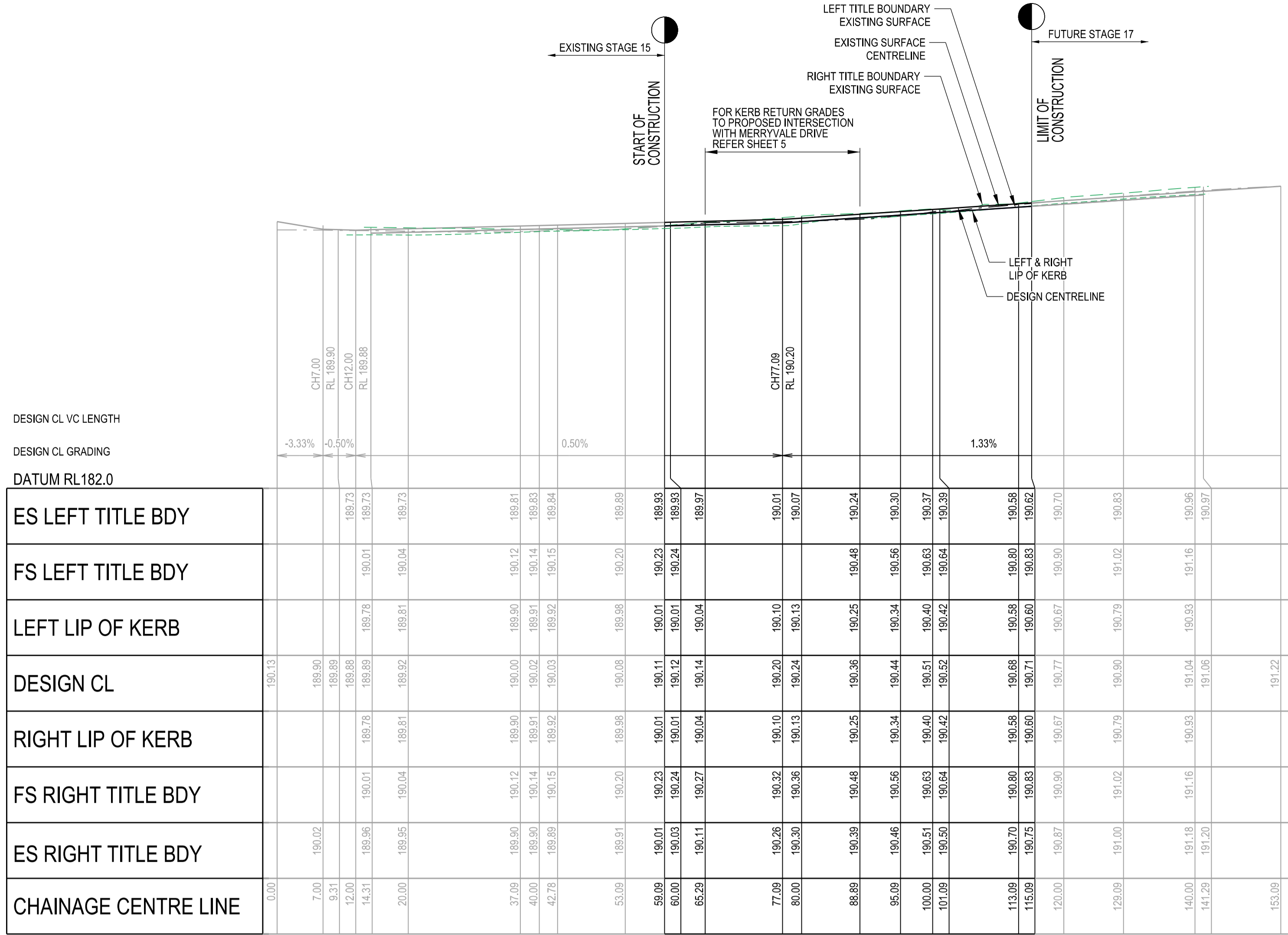
SCALE H 1:100 V 1:50 @ A1

AS CONSTRUCTED



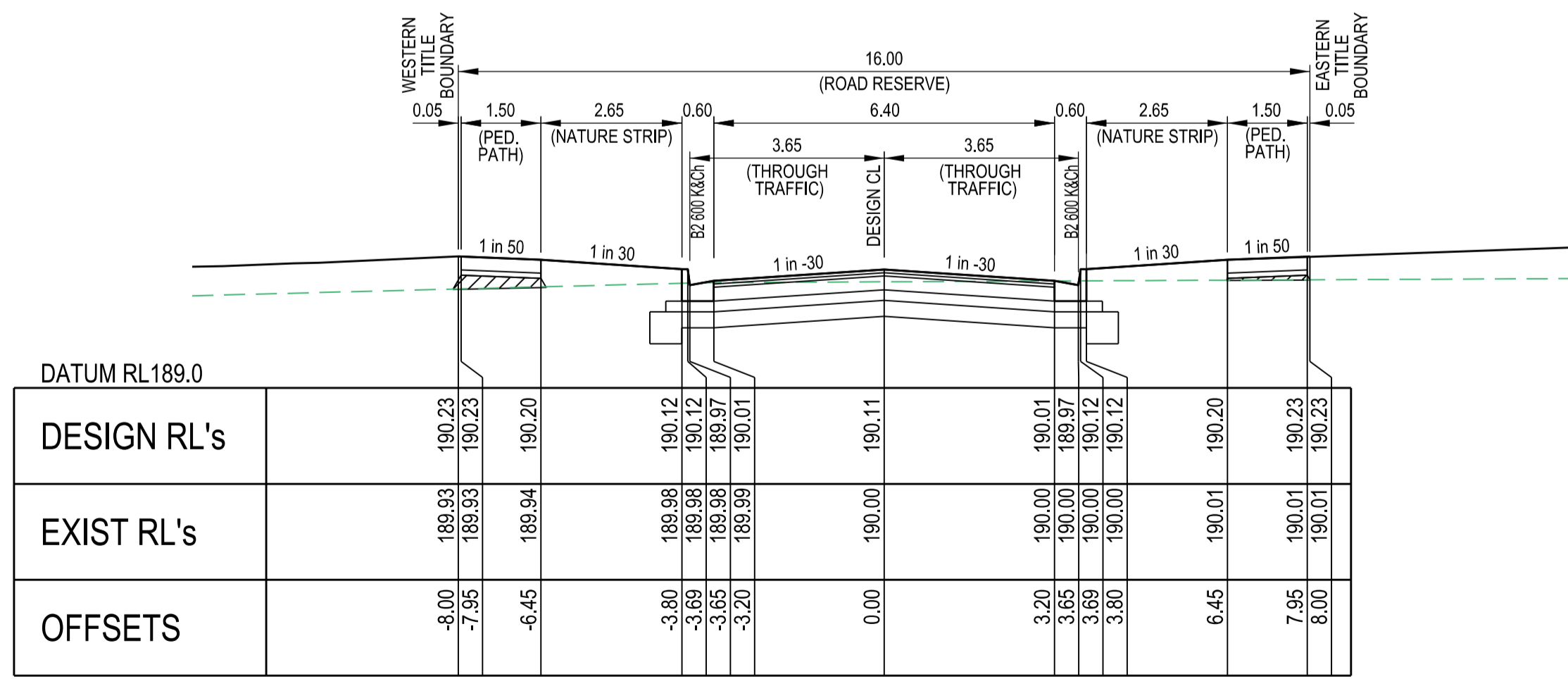
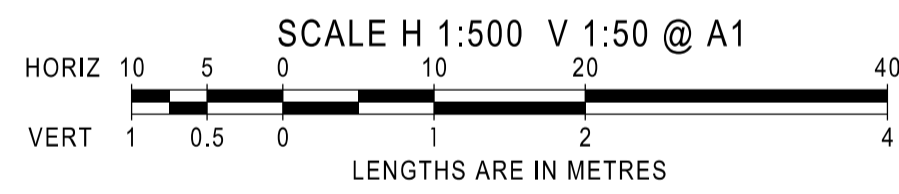
LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	INDICATES CRUSHED ROCK BACKFILL REFER NOTE 35, SHEET 2 LEVEL 1 SUPERVISION REQUIRED

AMENDMENTS		brees pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	08.11.22	PIPE DIAMETER AMENDED	MELWAY REF. 388-C-10	RATHDOWNE ESTATE STAGE 16	
A	12.10.22	ISSUED FOR CONSTRUCTION	SURVEY BPD	MUNICIPALITY WHITTLESEA	
VER	DATE	REMARKS	DESIGN RGW	REFERENCE 9365 E/16	
			DRAWN PG	SHEET 7 OF 11	
			CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE DEC'21	



**SAPPORO ROAD
LONGITUDINAL SECTION**

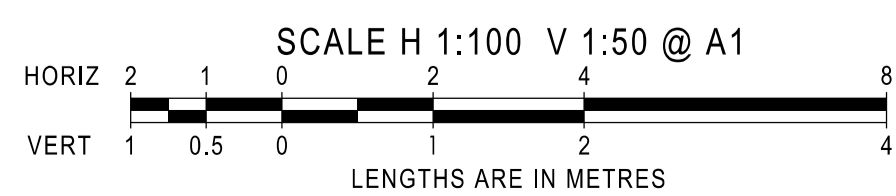
SCALE HORIZONTAL 1:500
VERTICAL 1:50



CH 59.09

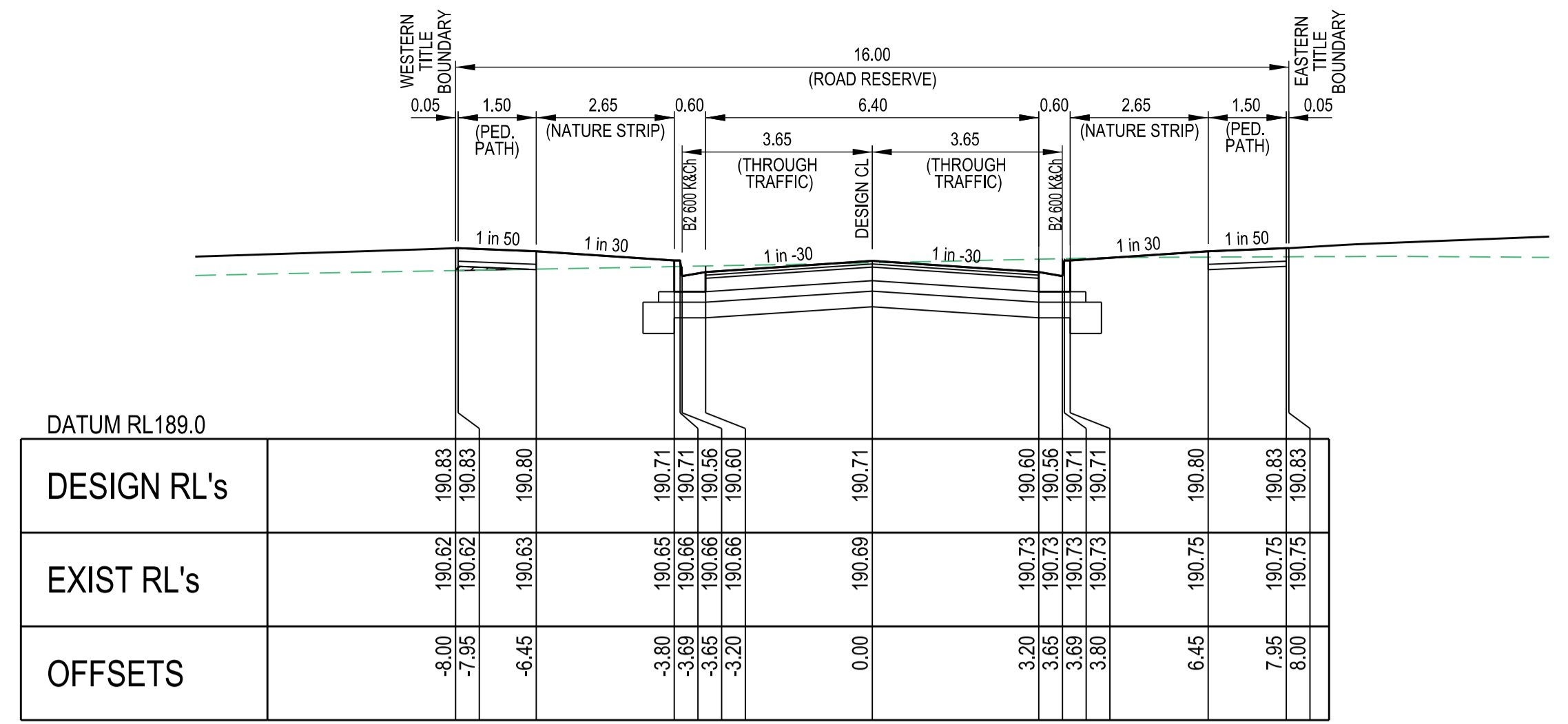
**SAPPORO ROAD
CROSS SECTIONS**

SCALE HORIZONTAL 1:100
VERTICAL 1:50

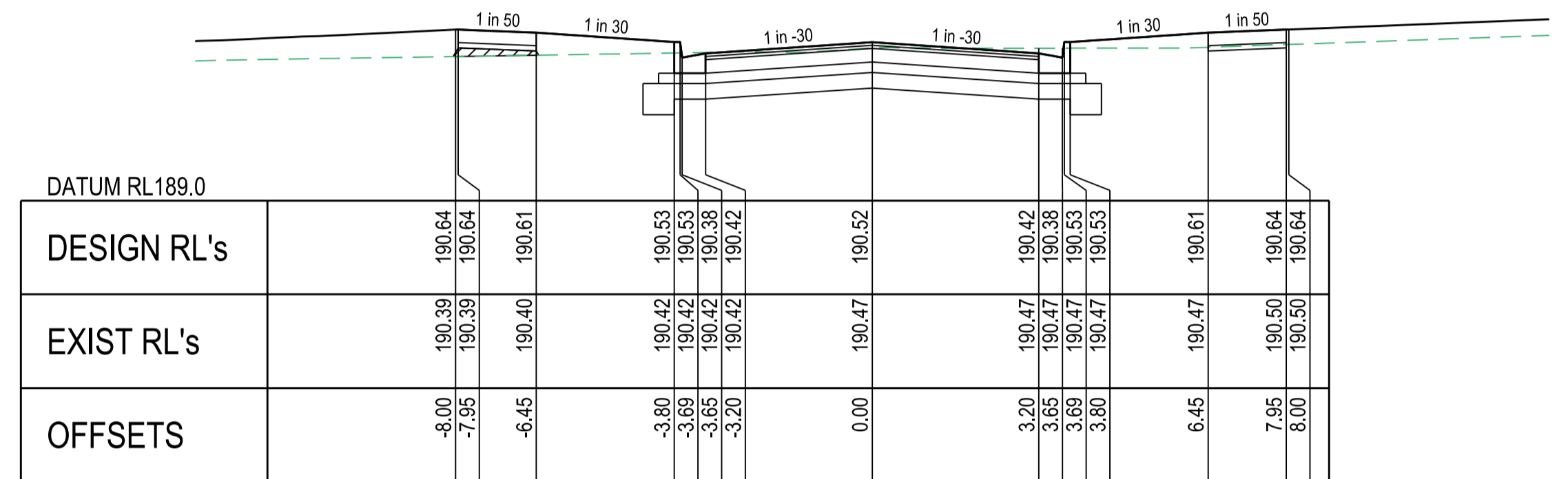


LEGEND

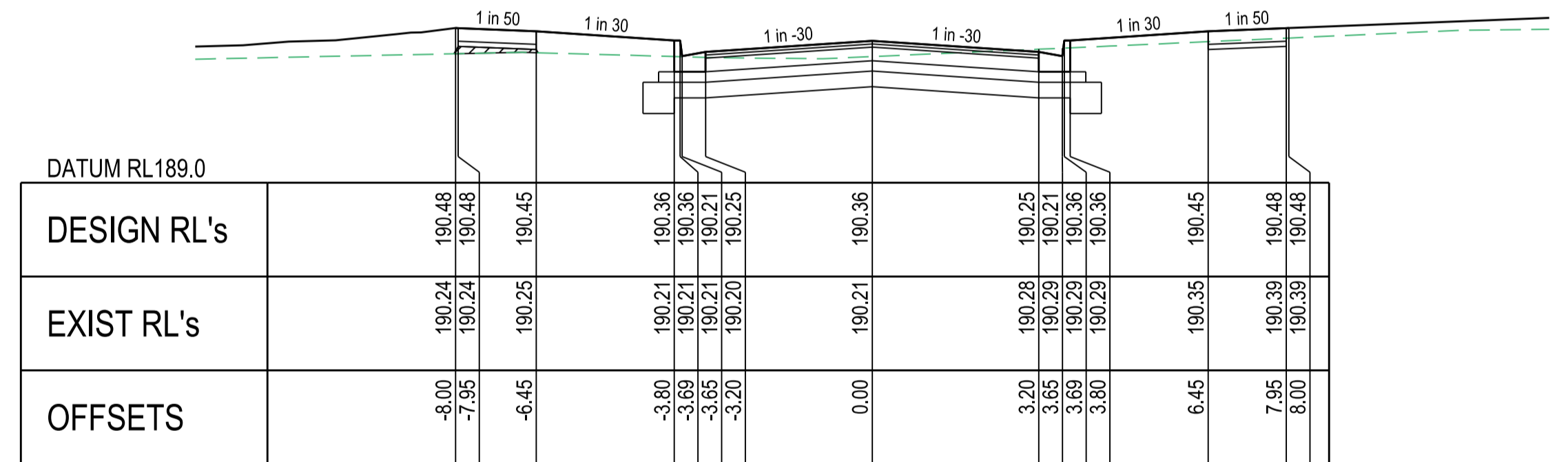
- EXISTING SURFACE
- DESIGN SURFACE
- ▨ INDICATES CRUSHED ROCK BACKFILL REFER NOTE 35, SHEET 2 LEVEL 1 SUPERVISION REQUIRED



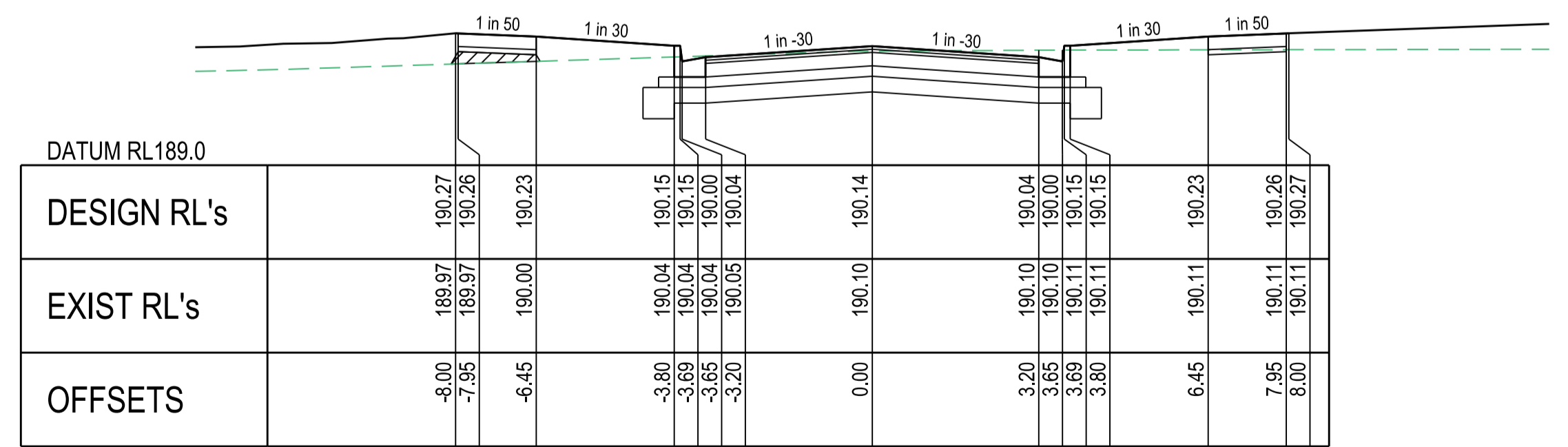
CH 115.09



CH 101.09



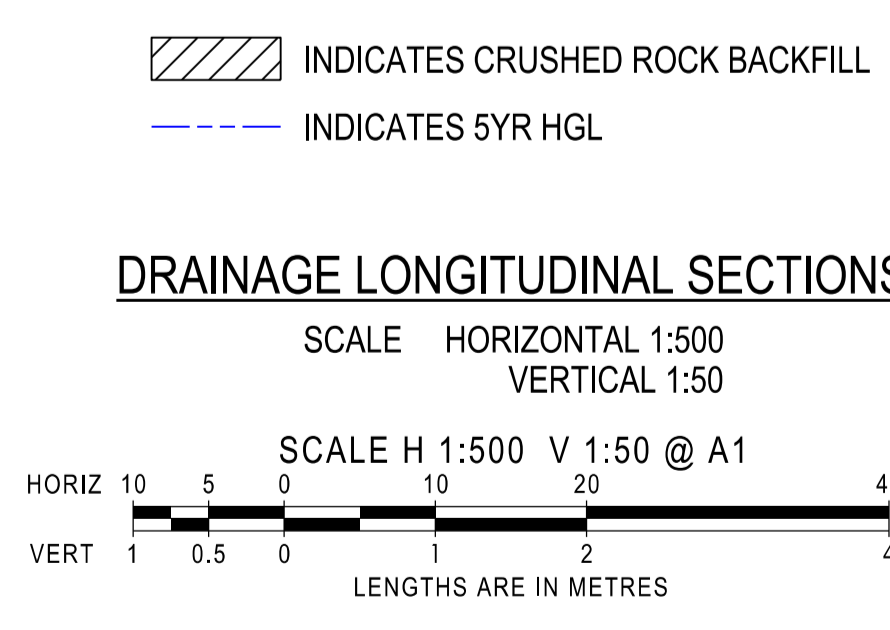
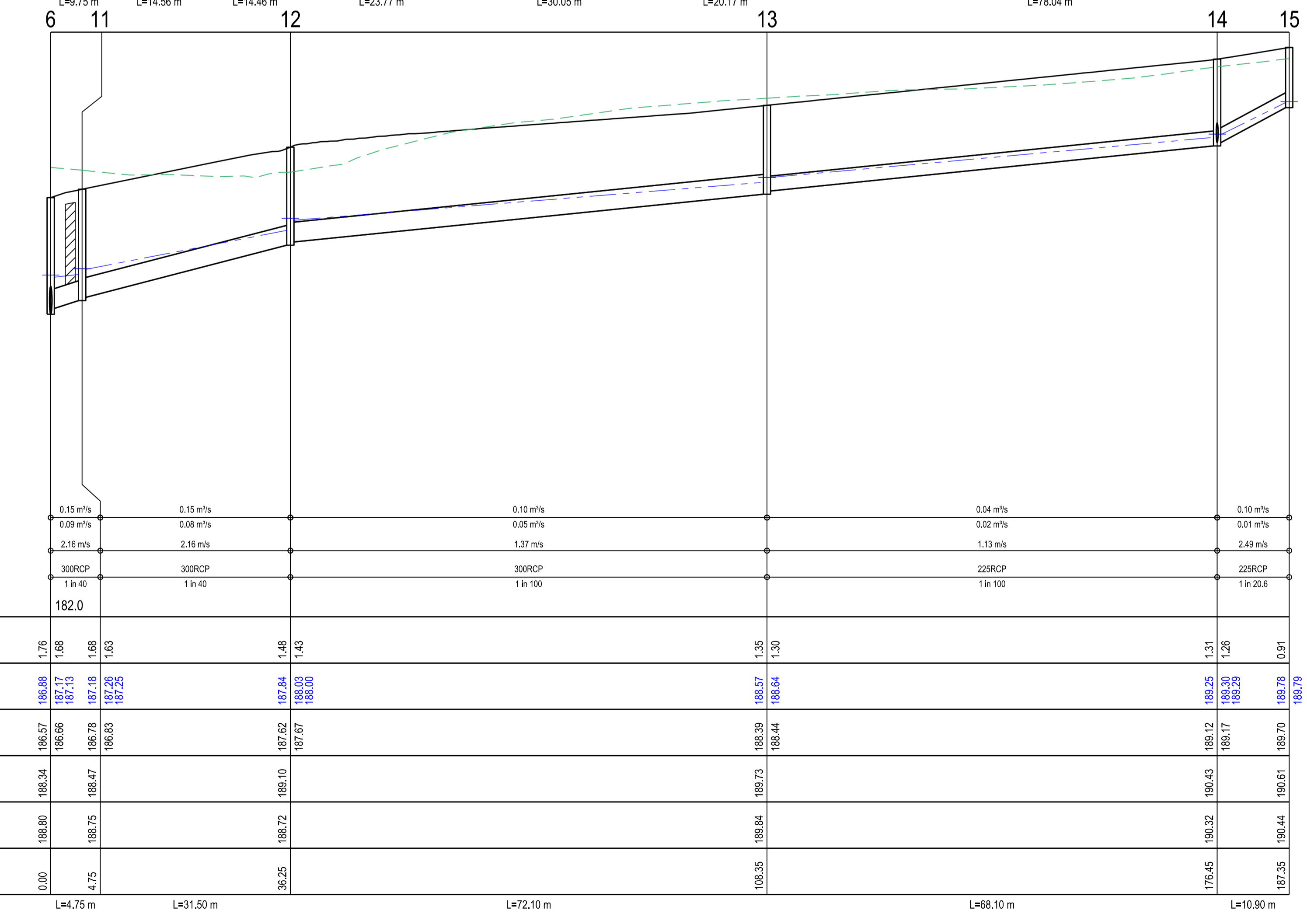
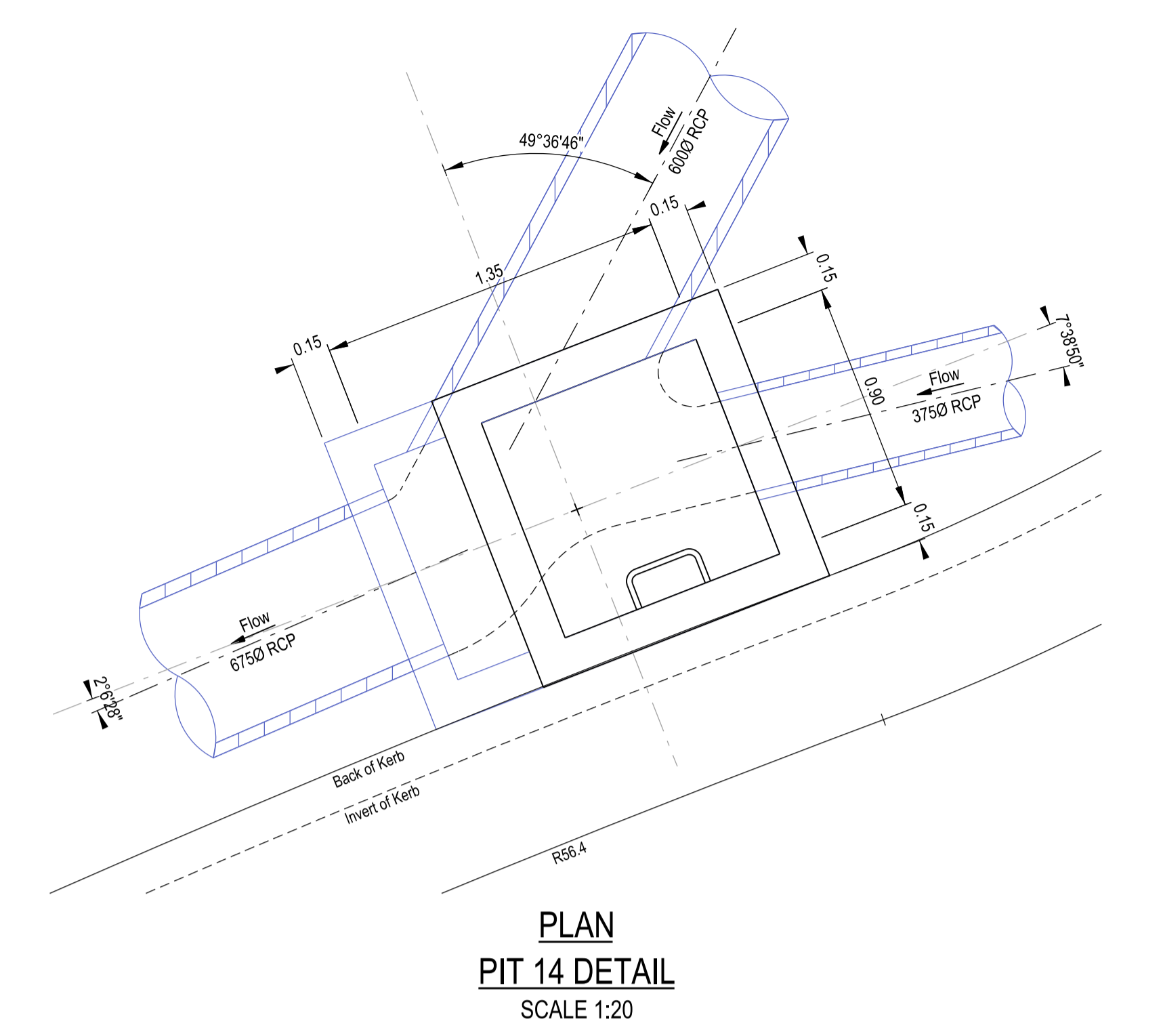
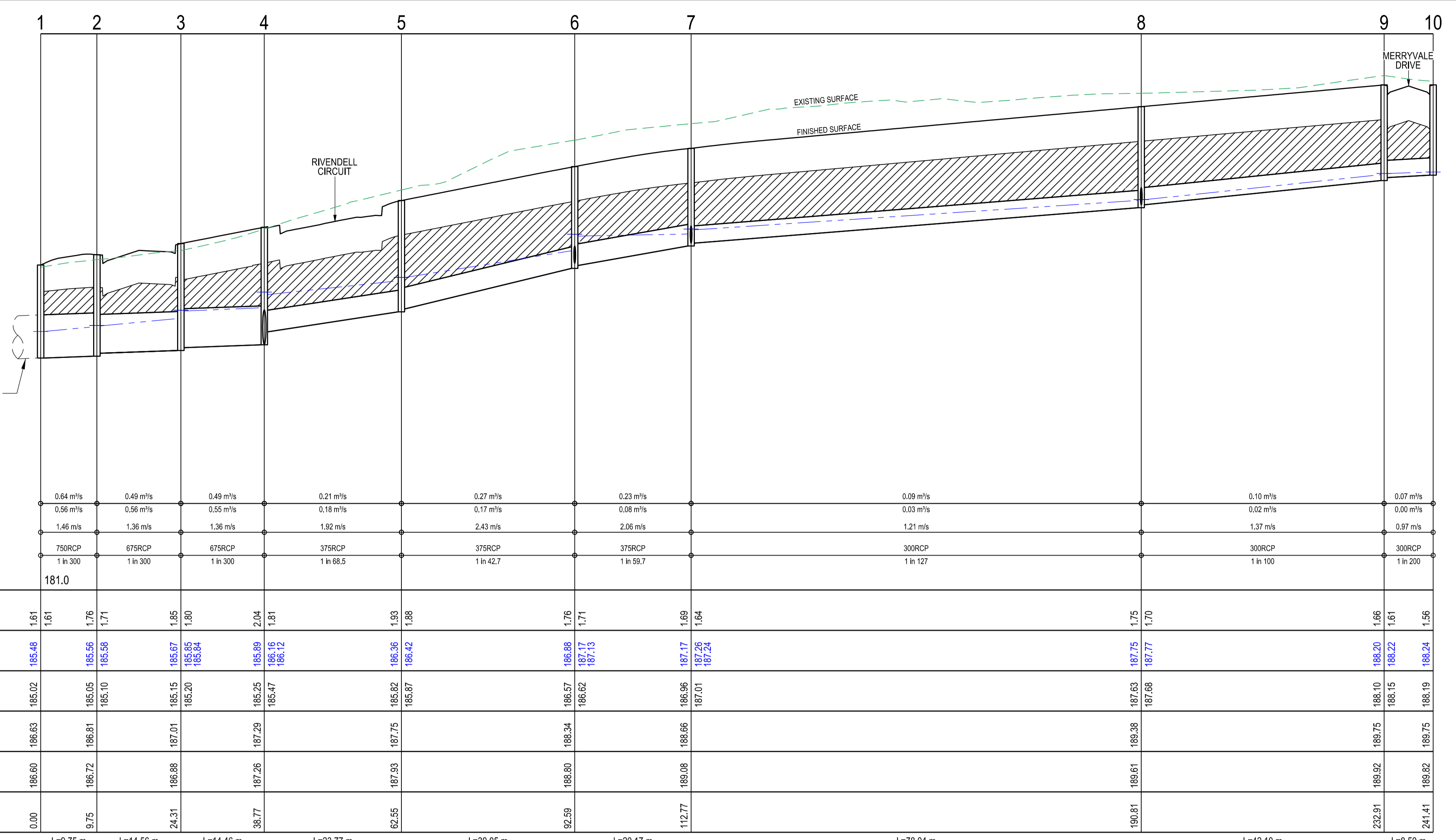
LTP CH 88.89



LTP CH 65.29

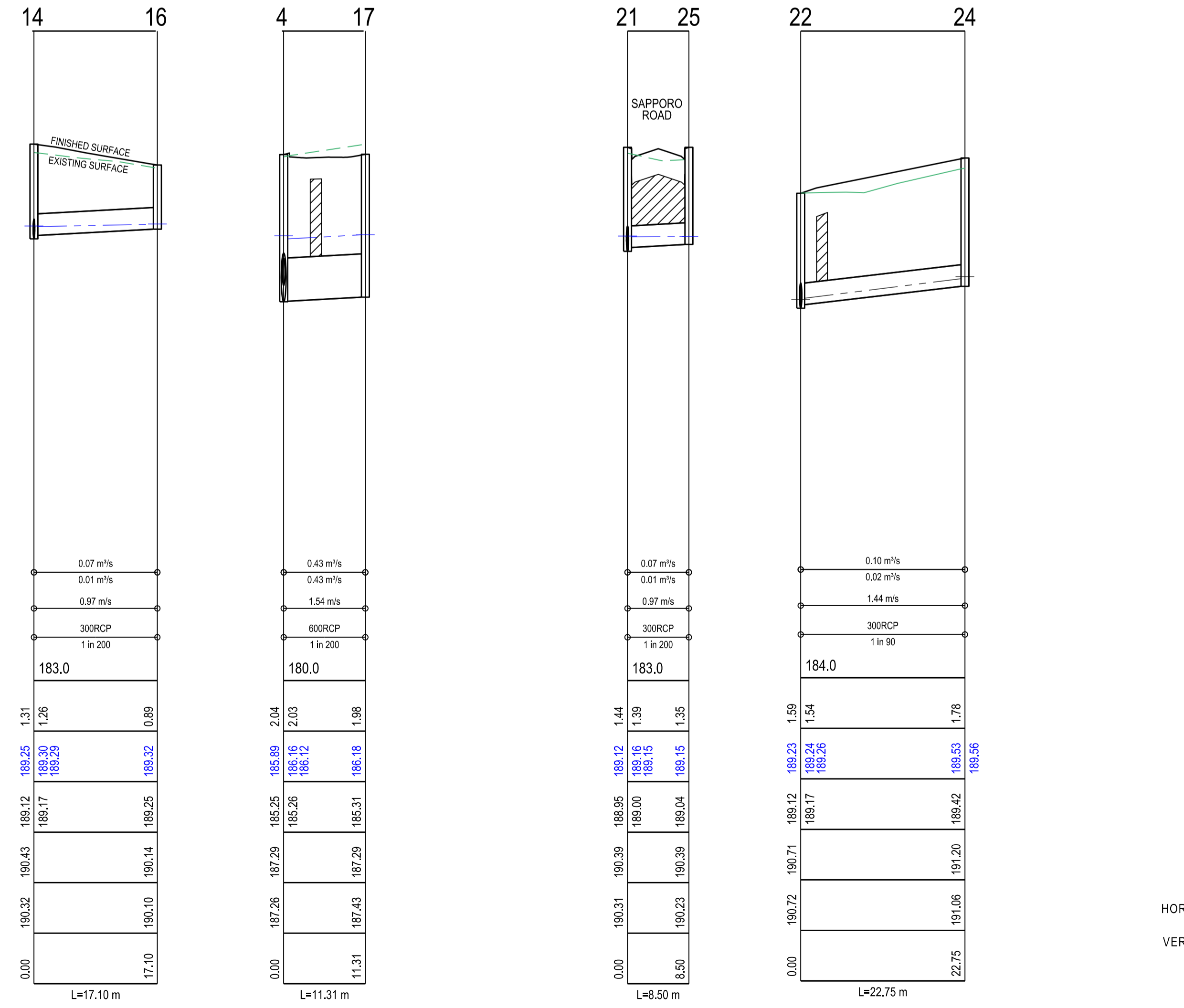
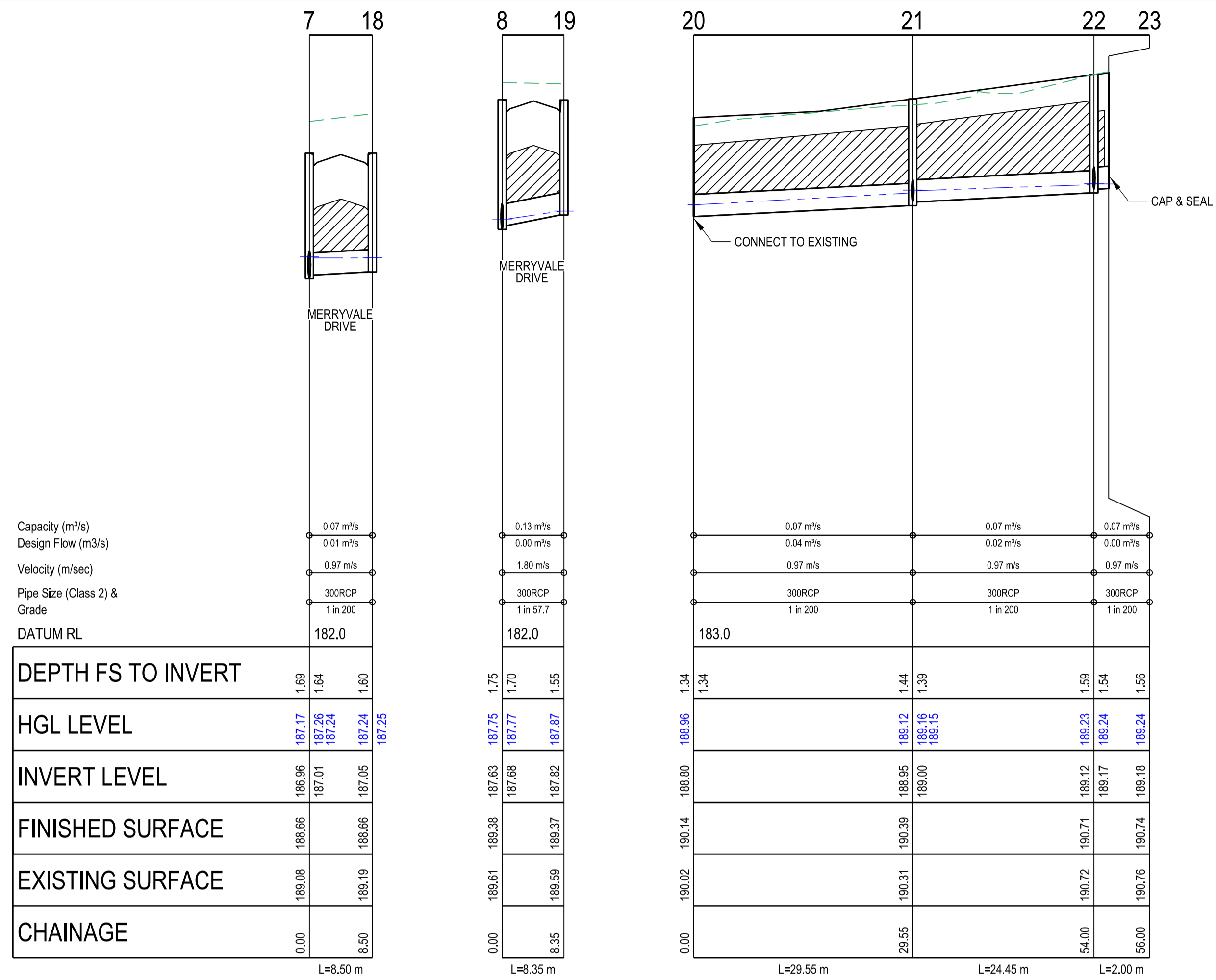
AS CONSTRUCTED

AMENDMENTS		MELWAY REF. 388-C-10		breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	08.11.22	PIPE DIAMETER AMENDED	DESIGN	BPD	RGW	RATHDOWNE ESTATE STAGE 16	
A	12.10.22	ISSUED FOR CONSTRUCTION	DRAWN	PG	PG	MUNICIPALITY WHITTLESEA	
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD	DATE DEC'21	REFERENCE 9365 E/16
						SHEET 8 OF 11	PH: 10072623



AS CONSTRUCTED

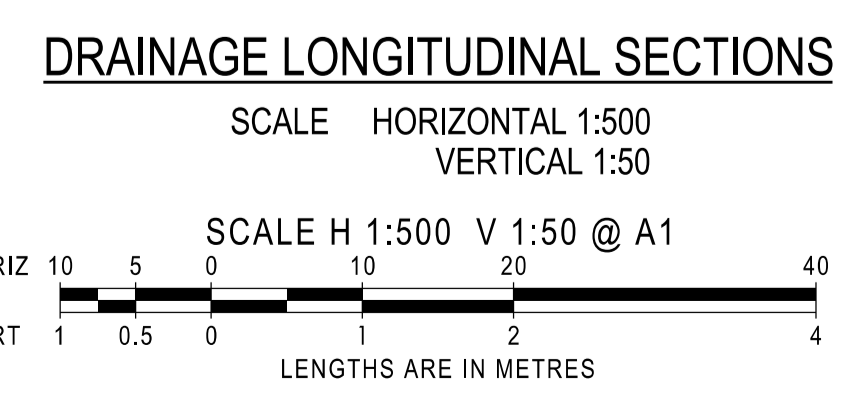
AMENDMENTS		 land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
B	08.11.22	PIPE DIAMETER AMENDED	MELWAY REF. 388-C-10	RATHDOWNE ESTATE STAGE 16	
A	12.10.22	ISSUED FOR CONSTRUCTION	SURVEY BPD	MUNICIPALITY WHITTLESEA	
VER	DATE	REMARKS	DESIGN RGW	REFERENCE 9365 E/16	
			DRAWN PG	SHEET 9 OF 11	
			CHECKED	SCALE AS SHOWN	DATUM AHD
				DATE DEC'21	



PIT SCHEDULE

PIT No.	PIT DESCRIPTION	LENGTH	WIDTH	INLET		OUTLET		TOP PIT RL	DEPTH INVERT	REMARKS
				INVERT	DIA	INVERT	DIA			
1	GRATED ENTRY PIT	900	900	185.020	750			186.63	1.612	CONNECT TO EXISTING END PIPE - GAA STD DWG EDCM601&607 (HAUNCHED)
2	GRATED ENTRY PIT	900	900	185.103	675	185.05	750	186.81	1.758	GAA STD DWG EDCM601&607 (HAUNCHED)
3	GRATED ENTRY PIT	900	900	185.201	675	185.15	675	187.01	1.854	GAA STD DWG EDCM601&607 (HAUNCHED)
4	JUNCTION PIT	900	900	185.474	375	185.25	675	187.29	2.038	GAA STD DWG EDCM607 (HAUNCHED)
				185.255	600					
5	GRATED ENTRY PIT	900	600	185.871	375	185.82	375	187.75	1.929	GAA STD DWG EDCM601&607
6	JUNCTION PIT	900	600	186.624	375	186.57	375	188.34	1.764	GAA STD DWG EDCM607
				186.662	300					
7	GRATED ENTRY PIT	900	600	187.012	300	186.96	375	188.66	1.693	GAA STD DWG EDCM601&607
				187.012	300					
8	GRATED ENTRY PIT	900	600	187.677	300	187.63	300	189.38	1.751	GAA STD DWG EDCM601&607
				187.677	300					
9	JUNCTION PIT	900	600	188.148	300	188.10	300	189.76	1.657	GAA STD DWG EDCM605
10	GRATED ENTRY PIT	900	600			188.19	300	189.76	1.565	GAA STD DWG EDCM601
11	JUNCTION PIT	900	600	186.831	300	186.781	300	188.465	1.684	GAA STD DWG EDCM605
12	JUNCTION PIT	900	600	187.668	300	187.618	300	189.101	1.483	GAA STD DWG EDCM605
13	JUNCTION PIT	900	600	188.439	225	188.389	300	189.734	1.345	GAA STD DWG EDCM605
14	JUNCTION PIT	900	600	189.170	225	189.12	225	190.433	1.313	GAA STD DWG EDCM605
				189.169	300					
15	EASEMENT PIT	900	600			189.699	225	190.609	0.910	GAA STD DWG EDCM605
16	EASEMENT PIT	900	600			189.254	300	190.143	0.889	GAA STD DWG EDCM605
17	END PIPE					185.312	600	187.292	1.980	CAP & SEAL
18	GRATED ENTRY PIT	900	600			187.054	300	188.655	1.601	GAA STD DWG EDCM601
19	GRATED ENTRY PIT	900	600			187.822	300	189.373	1.551	GAA STD DWG EDCM601
20	END PIPE			188.800	300			190.135	1.335	CONNECT TO EXISTING END PIPE
21	GRATED ENTRY PIT	900	600	188.998	300	188.948	300	190.388	1.440	GAA STD DWG EDCM601
				189.000	300					
22	JUNCTION PIT	900	600	189.170	300	189.12	300	190.714	1.594	GAA STD DWG EDCM605
				189.170	300					
23	END PIPE					189.18	300	190.741	1.561	CAP & SEAL
24	JUNCTION PIT	900	600			189.42	300	191.2	1.780	GAA STD DWG EDCM605
25	GRATED ENTRY PIT	900	600			189.042	300	190.388	1.345	GAA STD DWG EDCM601

INDICATES CRUSHED ROCK BACKFILL
INDICATES SYR HGL



AS CONSTRUCTED

AMENDMENTS		MELWAY REF. 388-C-10		 land surveyors civil engineers		RATHDOWNE ESTATE STAGE 16		MUNICIPALITY	
B	08.11.22	PIPE DIAMETER AMENDED	SURVEY					BPD	WHITTLESEA
A	12.10.22	ISSUED FOR CONSTRUCTION	DESIGN	RGW	REFERENCE		9365 E/16		
VER	DATE	REMARKS	CHECKED	SCALE AS SHOWN	DATUM AHD	DATE DEC'21	SHEET 10 OF 11	B	

SIGNAGE LEGEND

- A STREET SIGNS (2 No) AT CENTRE OF ROUNDABOUT
- B GIVE WAY SIGN (R1-2A) - CLASS 1
- C ROAD CLOSED SIGN (G9-20) WITH OBSTRUCTION MARKER SIGN (D4-5) - CLASS 1
- D BICYCLE PEDESTRIAN WARNING SIGN (W6-9A) WITH CROSSING ARROW SIGN (W8-23A) & ON SIDE ROAD SIGN (W8-3AL) BELOW. ALL CLASS 1.
- E BICYCLE PEDESTRIAN WARNING SIGN (W6-9A) WITH CROSSING ARROW SIGN (W8-23A) BELOW. ALL CLASS 1.
- F TURN SIGN (W1-1AL & W1-1AR) - CLASS 1 WITH 20km/h ADVISORY SPEED SIGN (W8-2A)

NOTES

- a) ALL SIGNS TO BE SLEEVED USING A SL27 SLEEVE WITH A MINIMUM OF 2 WEDGES.
- b) HAZARD / DIRECTIONAL TGS'S SHOWN THUS AND FOOTPATH RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VICROADS STD DWGS SD2031 TO SD2035. TGS'S SHALL CONFORM TO AS1428.4
- c) ALL SIGNS TO BE INSTALLED IN ACCORDANCE WITH MCC205
- d) SWLM - INDICATES SOLID WHITE 'LONGLIFE' LINE MARKING
BWLM - INDICATES BROKEN WHITE 'LONGLIFE' LINE MARKING



BCS CONSERVATION RESERVE NO-GO AREA

BCS CONSERVATION RESERVE NO-GO AREA

SIGNAGE & LINEMARKING PLAN
SCALE 1:500
SCALE 1:500 @ A1
LENGTHS ARE IN METRES

AS CONSTRUCTED

				breese pitt dixon pty. ltd. land surveyors civil engineers		1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310	
AMENDMENTS		MELWAY REF.	388-C-10	RATHDOWNE ESTATE STAGE 16		MUNICIPALITY WHITTLESEA	
B	08.11.22	PIPE DIAMETER AMENDED	SURVEY			BPD	REFERENCE 9365 E/16
A	12.10.22	ISSUED FOR CONSTRUCTION	DESIGN	RGW	SHEET 11 OF 11		
VER	DATE	REMARKS	DRAWN	PG	CHECKED	SCALE AS SHOWN	DATUM AHD
						DATE DEC'21	