

Your Ref:

Our Ref: Proclaim No: SDW2310/17  
WYP8983/16

Enquiries: Apryl Astudillo  
Tel: (03) ext 2494

23 August 2019

Smec Australia Pty Ltd  
Po Box 6208  
ST KILDA ROAD CENTRAL VIC 8008

Dear Luke Vieyra

**RE: FARM ROAD STAGE 1 - AMENDMENTS TO CONSTRUCTION PLAN APPROVAL**

Please be advised that the amended construction plans submitted to Council for Farm Road Stage 1 are approved.

A copy of the following approved plans have been enclosed for your information.

- Drawing No. 205E-01-02 Revision 4
- Drawing No. 205E-01-03 Revision 5
- Drawing No. 205E-01-09 Revision 1
- Drawing No. 205E-01-17 Revision 2
- Drawing No. 205E-01-18 Revision 2
- Drawing No. 205E-01-22 Revision 1

Yours sincerely,



**APRYL ASTUDILLO**  
**SENIOR DEVELOPEMENT ENGINEER**



Your Ref:

Our Ref: Proclaim No: SDW2310/17  
WYP8983/16

Enquiries: *Apryl Astudillo*  
Tel: (03) 8734 5488

20 March 2019

Smec Australia Pty Ltd  
Po Box 6208  
ST KILDA ROAD CENTRAL VIC 8008

Dear Luke Vieyra

**RE: FARM ROAD STAGE 1 - AMENDMENTS TO CONSTRUCTION PLAN APPROVAL**

Please be advised that the amended construction plans submitted to Council for Farm Road Stage 1 are approved.

A copy of the following approved plans have been enclosed for your information.

- Drawing No. 205E-01-02 Revision 1
- Drawing No. 205E-01-03 Revision 2
- Drawing No. 205E-01-13 Revision 1
- Drawing No. 205E-01-16 Revision 1
- Drawing No. 205E-01-17 Revision 1
- Drawing No. 205E-01-18 Revision 1
- Drawing No. 205E-01-23 Revision 1

Yours sincerely,



**STAN PESKA**  
**SUBDIVISIONS CO-ORDINATOR**





Civic Centre  
Postal

Telephone  
Facsimile  
Email

45 Princes Highway, Werribee, Victoria 3030, Australia  
PO Box 197, Werribee, Victoria 3030, Australia

(03) 9742 0777  
(03) 9741 6237  
mail@wyndham.vic.gov.au  
[www.wyndham.vic.gov.au](http://www.wyndham.vic.gov.au)

DX 30258 Werribee Vic  
ABN: 38 393 903 860

Your Ref:

Our Ref: SDW2310/17  
WYP8983/16

Enquiries: Andrew Quach  
Tel: (03) 9742 0760

11 January 2019

Smec Australia Pty Ltd  
Po Box 6208  
ST KILDA ROAD CENTRAL VIC 8008

Dear Luke Vieyra

#### RE: FARM ROAD STAGE 1 - CONSTRUCTION PLAN APPROVAL

Please be advised that the road and drainage construction plans submitted to Council for Farm Road Stage 1 are approved subject to the following conditions:-

1. **Prior to commencement of works, an on-site pre-commencement meeting must be held between Council, the Engineering Consultant and the Contractor. Please contact Darren Maskell from Council on 0419 373 676 to book a precommencement meeting.**
2. **Prior to installation of any Tactile Ground Surface Indicators, the proposed product must be inspected and approved by Council. Please notify Councils construction supervisor to book an inspection prior to installation.**
3. **Prior to commencement of works, the Plan of Subdivision must be certified by Council.**
4. **Prior to commencement of approved works within ANY existing road reserves, the consultant/contractor MUST apply for consent to work within the road reserves from Council or any other relevant responsible authorities. The Contractor will be responsible for maintain all existing assets within the limit of works as demonstrated on the approved plans.**
5. **A free-flowing drainage outlet must be established and maintained throughout the entirety of construction works. No road boxing works are to commence in the absence of a free-flowing drainage outlet.**
6. Prior to commencement of works, the consultant/contractor shall provide to Council the following information:-
  - source of quarry material; and
  - optimum moisture content and maximum modified dry density of the F.C.R to be used (from N.A.T.A. approved laboratory).

If the source of the quarry material is changed during the course of the works, new test results shall be provided.

7. Prior to the commencement of works, a Site Environmental Management Plan (SEMP) must be submitted to and **approved** by Council.
8. Construction is to commence within twelve (12) months of approval, otherwise construction plans and specifications are to comply with design standards current at the time of re-submission.
9. Filled allotments shall be compacted in 150mm maximum layers, with compaction tests being taken at not more than 300mm lift on all allotments and filled areas. The test results and location of the tests on each allotment shall be forwarded to Council.

10. Wyndham City Council Specifications and standard details shall be read in conjunction with the approved plans.
11. Prior to Council issuing a Statement of Compliance, pursuant to the Subdivision Act 1988, your firm shall provide to Council the following:
- Payment of construction supervision fees amounting to 2.5% of the total cost of road and drainage works;
  - Payment of a maintenance bond amounting to 5% of the total cost of road and drainage works;
  - An electronic copy of all as constructed drawings and relevant files in both AutoCad DWG and Adobe PDF file formats, to either [subdiveng@wyndham.vic.gov.au](mailto:subdiveng@wyndham.vic.gov.au) or via Objective Connect. Please note that the minimum resolution of PDF files required is 300dpi;
  - An electronic copy of drainage catchment plans and detailed computations in Adobe PDF file format to either [subdiveng@wyndham.vic.gov.au](mailto:subdiveng@wyndham.vic.gov.au) or via Objective Connect;
  - As constructed asset information for drainage and related assets in digital format in accordance with "D-Spec" to either [subdiveng@wyndham.vic.gov.au](mailto:subdiveng@wyndham.vic.gov.au) or via Objective Connect; and
  - As-constructed asset information for assets within the road reserve in digital format in accordance with "R-Spec" to either [subdiveng@wyndham.vic.gov.au](mailto:subdiveng@wyndham.vic.gov.au) or via Objective Connect; and
  - The A.H.D levels and M.G.A co-ordinates of the high stability P.S.Ms.
  - For further information please see: <https://www.wyndham.vic.gov.au/subdivisionguidelines>
12. Easements are to be created to cover all services which cross any part of private allotments.
13. During construction of works under this permit, access to and egress from the subject land must be via a route designed and approved by the Council. Where practical this access should be remote from established residential areas.
14. Provide Landscaping Plan for approval by Council. Please contact [subdivlud@wyndham.vic.gov.au](mailto:subdivlud@wyndham.vic.gov.au) to arrange a pre-application meeting prior to the submission of landscape plans for municipal reserves and/or public open space.
15. WorkSafe Victoria is to be advised via E-mail ([construction@workcover.vic.gov.au](mailto:construction@workcover.vic.gov.au)) of these Subdivisional works with the following details:
- Name of the principal contractor
  - Name and phone contact of relevant Engineering Consultants supervisor dealing with the works
  - Brief description of the works
  - Locality/address of the works
  - Estimated commencement date of the works, and
  - Expected completion date of the works.
16. In undertaking the construction works, the developer shall ensure all works are undertaken in accordance with the OH & S Act, Regulation and Codes, and shall maintain a safe workplace for Council's staff undertaking inspections. The supervision of works by Council staff only extends to the quality of Council's future infrastructure and does not include ensuring that the works are undertaken safely.

Please find a set of stamped approved plans attached.

Yours sincerely,



APRYL ASTUDILLO

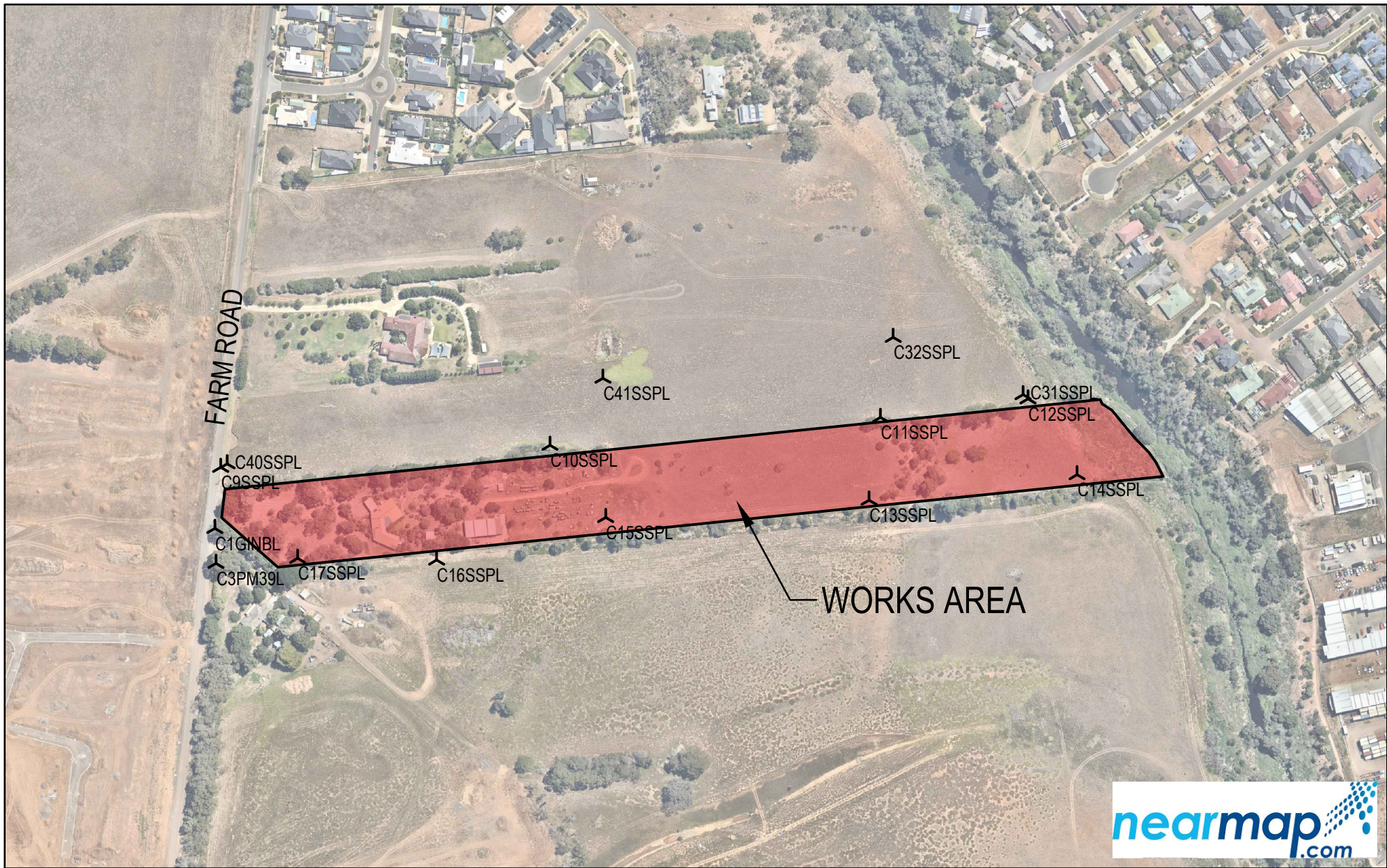
**SENIOR DEVELOPMENT ENGINEER**

Encl: (1) Stamped approved plans



# Farm Road, Werribee

## Stage 1



### Drawing Index

- 2052E-01-01 Cover Plan
- 2052E-01-02 Layout Plan - 1
- 2052E-01-03 Layout Plan - 2 Drainage Outfall Works
- 2052E-01-04 Intersection Detail Plan & Lip Profiles - 1
- 2052E-01-05 Intersection Detail Plan & Lip Profiles - 2
- 2052E-01-06 Longitudinal Sections - 1
- 2052E-01-07 Longitudinal Sections - 2
- 2052E-01-08 Cross Sections: Filly Street
- 2052E-01-09 Cross Sections: Gelding Boulevard & Horseman Street
- 2052E-01-10 Cross Sections: Yearling Promenade
- 2052E-01-11 Cross Sections: Phipps Road Ch0.00 to Ch127.37
- 2052E-01-12 Cross Sections: Phipps Road Ch144.17 to Ch256.88
- 2052E-01-13 Drainage Longitudinal Sections - 1
- 2052E-01-14 Drainage Longitudinal Sections - 2
- 2052E-01-15 Drainage Longitudinal Sections - 3
- 2052E-01-16 Drainage Longitudinal Sections - 4
- 2052E-01-17 Drainage Longitudinal Sections - 5
- 2052E-01-18 Pit Schedule
- 2052E-01-19 Signage & Linemarking Plan
- 2052E-01-20 General Notes & Details
- 2052E-01-21 Extended Driveway Concrete Jointing Detail
- 2052E-01-22 Tree Removal and Protection Plan Gelding Boulevard
- 2052E-01-23 Outfall and Rock Chute Details
- 2052E-01-24 Earthworks Plan
- 2052E-01-85 Safety In Design

SURVEY CONTROL POINTS				
POINT	EASTING	NORTHING	RL (AHD)	DESCRIPTION
C9SSPL	293237.37	5800882.04	18.22	STEEL STAR PICKET
C1GINBL	293232.99	5800836.16	18.13	
C17SSPL	293295.18	5800813.68	17.93	STEEL STAR PICKET
C16SSPL	293399.60	5800812.32	17.70	STEEL STAR PICKET
C15SSPL	293526.61	5800844.33	17.43	STEEL STAR PICKET
C13SSPL	293724.57	5800857.37	17.20	STEEL STAR PICKET
C11SSPL	293733.04	5800919.59	17.22	STEEL STAR PICKET
C32SSPL	293742.64	5800979.67	17.29	STEEL STAR PICKET
C31SSPL	293840.20	5800936.67	12.09	STEEL STAR PICKET
C12SSPL	293843.88	5800933.43	12.03	STEEL STAR PICKET
C14SSPL	293880.79	5800876.52	11.83	STEEL STAR PICKET
C40SSPL	293242.18	5800884.63	18.26	STEEL STAR PICKET
C10SSPL	293484.83	5800898.68	17.92	STEEL STAR PICKET
C41SSPL	293524.55	5800949.00	17.61	STEEL STAR PICKET
C3PM39L	293233.84	5800809.86	18.08	PERMANENT MARK

ROAD LAYOUT TABLE									
ROAD NAME	ROAD CLASSIFICATION	RESERVE WIDTH (m)	ROAD WIDTH (m)			KERB TYPE		VERGE WIDTH (m)	
			LIP to LIP	INV to INV	BACK to BACK	NTH/WEST	STH/EAST	NTH/WEST	STH/EAST
FILLY STREET (LOT 1 - LOT 3)	A51	16.00	6.40	7.30	7.60	B2	B2	5.65	3.05
FILLY STREET (LOT 3 - LOT 4)	A51	16.00	6.40	7.30	7.60	B2	B2	5.65	3.05
GELDING BOULEVARD	A51	16.00	4.60	5.50	5.80	B2	B2	5.60	4.90
SADDELBRED AVENUE	A51	16.00	6.40	7.30	7.60	B2	B2	4.50	4.20
SADDELBRED AVENUE (EXTENDED DRIVEWAY)	AL	10.00	3.50	-	3.50	B2	B2	3.25	3.25
PHIPPS ROAD	A51	16.00	6.40	7.30	7.60	B2	B2	4.20	4.50
BRIDLE STREET	A51	16.00	6.40	7.30	7.60	B2	B2	4.20	4.50
YEARLING PROMENADE	A51	14.50	6.40	7.30	7.60	B2	B2	4.50	2.70

SERVICES OFFSET SCHEDULE										
ROAD NAME	GAS		WATER		RECYCLED WATER		ELECTRICITY		OPTIC FIBRE	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
FILLY STREET (LOT 1 - LOT 3)	NORTH	1.80	NORTH	2.80	NORTH	2.30	NORTH	4.30	NORTH	3.5
FILLY STREET (LOT 3 - LOT 4)	WEST	1.80	WEST	2.80	WEST	2.30	WEST	4.30	WEST	3.5
GELDING BOULEVARD	SOUTH	1.75	SOUTH	2.70	SOUTH	2.20	NORTH	3.95	SOUTH	3.25
SADDELBRED AVENUE	WEST	2.10	WEST	3.10	WEST	2.60	EAST	2.60	EAST	1.80
SADDELBRED AVENUE (EXTENDED DRIVEWAY)	WEST	1.00	WEST	2.00	WEST	1.50	EAST	2.60	EAST	1.80
PHIPPS ROAD	SOUTH	2.10	SOUTH	3.10	SOUTH	2.60	NORTH	2.60	NORTH	1.80
BRIDLE STREET	WEST	2.10	WEST	3.10	WEST	2.60	EAST	2.60	EAST	1.80
YEARLING PROMENADE	WEST	2.10	WEST	3.10	WEST	2.60	EAST	1.10	EAST	0.30

### NOTES FOR WORKS UNDER OVERHEAD ELECTRICAL POWERLINES

- MAINTENANCE AND REFUELLING OF VEHICLES AND EQUIPMENT MUST NOT BE CARRIED OUT UNDER POWERLINES
- THE STORAGE OR HANDLING OF FLAMMABLE LIQUIDS OR GASSES IS NOT PERMITTED UNDER POWERLINES
- THE PARKING OF LARGE VEHICLES OR CARAVANS, SITE HUTS OR SIMILAR IS NOT PERMITTED UNDER POWERLINES
- STOCKPILING OF EXCAVATED MATERIAL IS NOT PERMITTED UNDER POWERLINES
- VEHICLES AND EQUIPMENT EXCEEDING 3 METRES MAXIMUM OPERATING HEIGHT ARE NORMALLY NOT PERMITTED UNDER AUSNET'S POWERLINES. A HIGHER OPERATING HEIGHT LIMIT IS SUBJECT TO SUFFICIENT CLEARANCE TO THE CONDUCTORS AND WRITTEN APPROVAL
- SP AUSNET'S LINES CONTRACT SUPERVISOR MUST BE NOTIFIED AT LEAST 10 WORKING DAYS PRIOR TO THE WORKS COMMENCING SO THAT APPROPRIATE PERMITS CAN BE ARRANGED. ADDITIONAL SAFETY PRECAUTIONS DEEMED NECESSARY WILL BE ADVISED AT THIS TIME. ALL PERSONS COMMENCING WORK ON THE SITE MUST BE MADE AWARE OF PERMIT CONDITIONS AND SAFETY PRECAUTIONS
- ALL WORK IN THE VICINITY MUST BE IN ACCORDANCE WITH THE INDUSTRIES NO GO ZONE REQUIREMENTS AND SP AUSNET MUST BE SATISFIED THAT ALL SUB CONTRACTORS WORKING IN THE AREA IN THE VICINITY OF THE OVERHEAD LINES WORK WITHIN THESE GUIDELINES, INCLUDING THE PROVISION OF A SPOTTER AS REQUIRED.

### TXU (GAS) - STANDARD NOTES







- GAS MAINS, FITTINGS AND MARKER TAPE ARE TO BE SUPPLIED BY TXU (GAS).
- EXCAVATION, SUPPLY AND PLACEMENT OF REQUIRED BACKFILL TO BE BY OTHERS.
- TWO WEEKS OF NOTIFICATION OF COMMENCEMENT OF EXCAVATION WORKS SHALL BE GIVEN TO THE DISTRICT CENTRE.

### REINFORCED CONCRETE PIPE

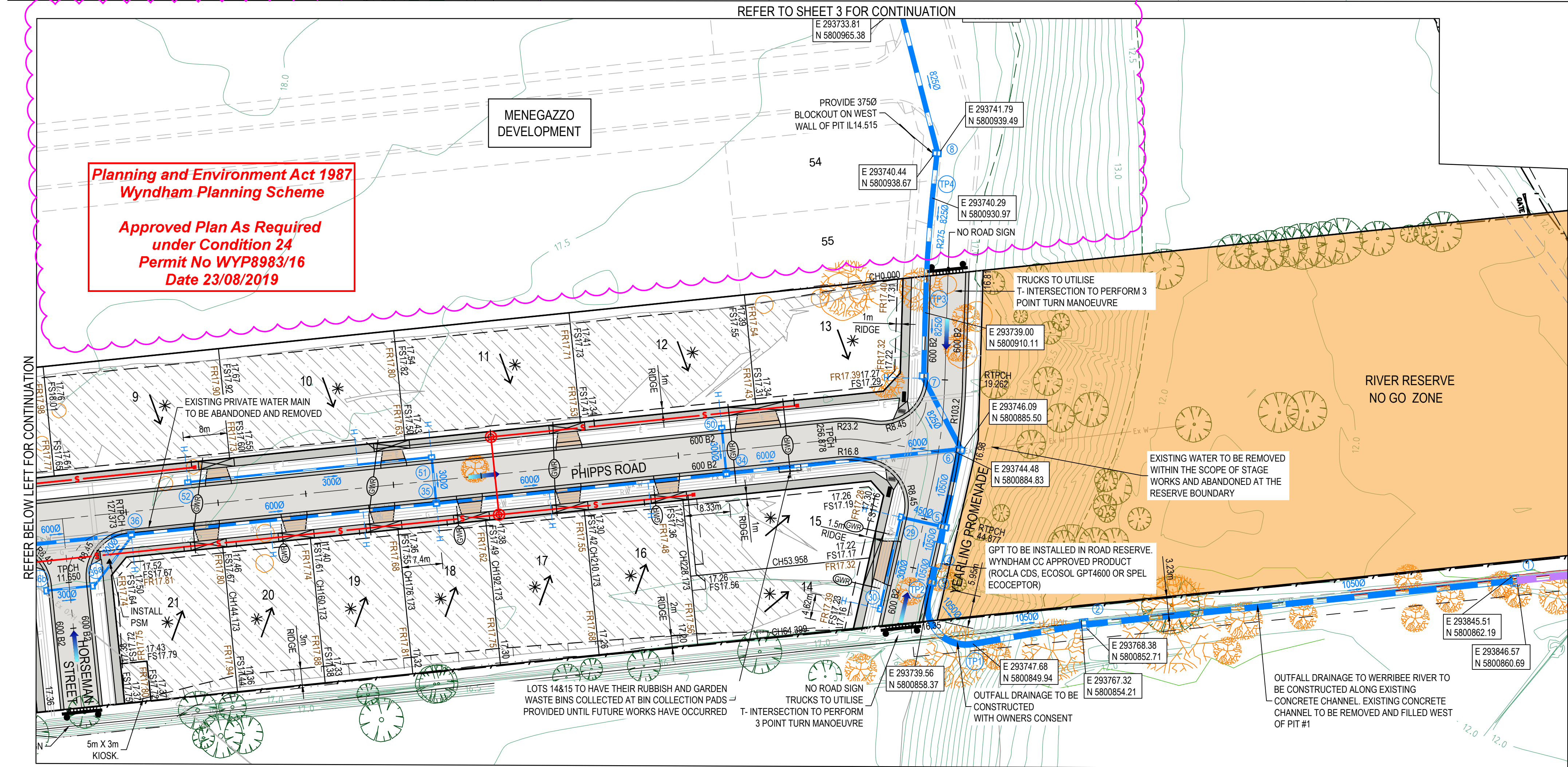
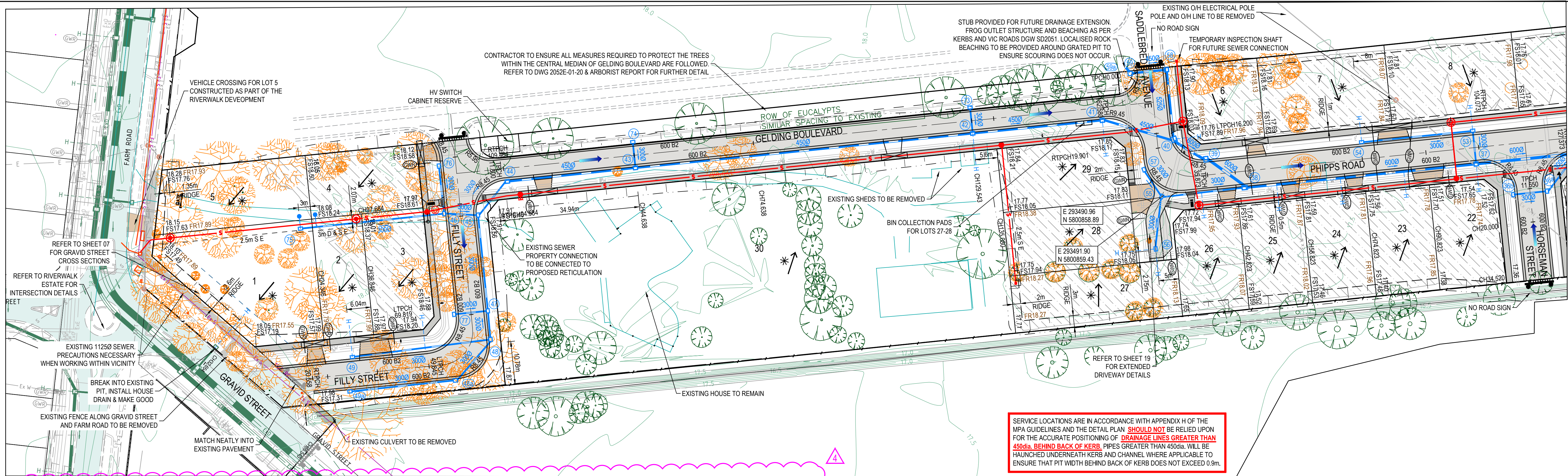
- ALL STORMWATER DRAINAGE PIPES SHALL NOT BE SUBJECTED TO CONSTRUCTION TRAFFIC LOADING DURING CONSTRUCTION UNLESS THE PIPE STRENGTH CHARACTERISTICS HAVE BEEN COMPUTED AND APPROVED BY THE CONTRACTORS ENGINEER. COMPUTATIONS ARE TO ACCORD WITH AS.3725-2007, LOADS ON BURIED PIPES.
- CONCRETE PIPES DAMAGED DUE TO CONSTRUCTION LOADS SHALL BE REPLACED & RELAID AT THE CONTRACTOR'S COST.

**WARNING**  
**SAFETY MEASURES REQUIRED**  
Please note there are risks attached to the construction of this project, and any ongoing maintenance of structures. Consider the safety of all. For potential risks, consequences and controls refer to Safety In Design Risk Register  
SID P4.6.6, 2052E-01-85  
**ASSESS THE RISK - STAY SAFE**

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

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL	<div>All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.</div> <div><div>Quality Management - ISO 9001 Global-Mark.com.au®</div><div>O&amp;M Management - AS/NZS 4801 Global-Mark.com.au®</div><div>Environmental Management - ISO 14001 Global-Mark.com.au®</div></div>	TITLE	NAME		 <div>Member of the Surbana Jurong Group © ABN 47 065 475 149 Level 10, 71 Queens Road Melbourne, VIC 3004 Ph 03 9514 1500</div>		Farm Road, Werribee - Stage 1 Wyndham City Council Road and Drainage Cover Plan			
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV		DRAFTER	S.Sathasivam				<div>MELWAYS REF <b>205 G12</b></div> <div>PROJECT / DRAWING No <b>2052E-01-01</b></div> <div>SHEET No <b>01 of 25</b></div> <div>REVISION <b>D</b></div>			
B	06.04.18	DRAWING LIST AMENDED	NG/NG	LV		DESIGNER	N.Green							
C	30.10.18	OFFSETS AMENDED	NG/NG	LV		CHECKED	L.Vieyra							
D	21.11.18	DRAWING LIST AMENDED	NG/NG	LV		AUTHORISED	L.Vieyra							
<div><b>SUBJECT TO APPROVAL</b></div>						REFERENCE No. 1								
					REFERENCE No. 2		SCALE AS SHOWN AT A1							





LEGEND - LAYOUT PLAN	
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY	
	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	ELECTRICITY (U.GROUND)
	ELECTRICITY (O.HEAD)
	GAS
	TELSTRA
	OPTIC FIBRE
	WATER
	RECYCLE WATER
	AG. DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SWALE DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING HOUSE DRAIN
	EXISTING ELECTRICITY (UNDER GROUND)
	EXISTING ELECTRICITY OVERHEAD
	EXISTING GAS
	EXISTING TELSTRA
	EXISTING OPTIC FIBRE
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING AG. DRAIN
	EXISTING SERVICE CONDUITS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE ELECTRICITY (UNDER GROUND)
	FUTURE ELECTRICITY OVERHEAD
	FUTURE GAS
	FUTURE TELSTRA
	FUTURE OPTIC FIBRE
	FUTURE WATER
	FUTURE RECYCLED WATER

	FUTURE AG. DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	ZERO LOT LINES
	EXISTING SURFACE LEVEL
	FINISHED BUILDING LINE LEVEL
	FINISHED RIDGE LINE LEVEL
	CHAINAGE
	TOP OF RETAINING WALL LEVEL
	BOTTOM OF RETAINING WALL LEVEL
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	STRUCTURAL FILL > 200mm DEEP
	EXISTING STRUCTURAL FILL > 200mm DEEP
	CUT > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED INDUSTRIAL DRIVEWAY
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	EXISTING ROAD PAVING

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REV	DATE	AMENDMENT / REVISION DESCRIPTION	DESIGN	APPROVAL
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV
1	18.02.19	DRAINAGE INTERFACE AMENDED	NG	LV
2	19.05.07	PIT 55 COORDINATE ADDED	HE	LV
3	26.07.19	CHAINAGES ADDED	AK	LV
4	22.08.19	EXTERNAL ROAD LAYOUT ADDED	AK	LV

**ISSUED FOR CONSTRUCTION**

TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	

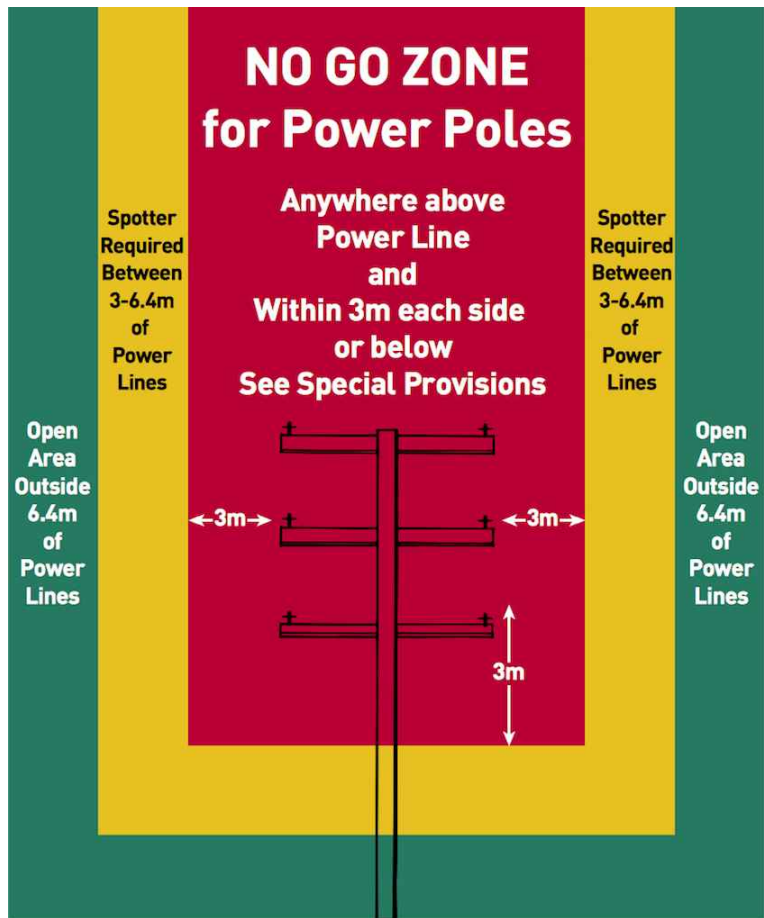
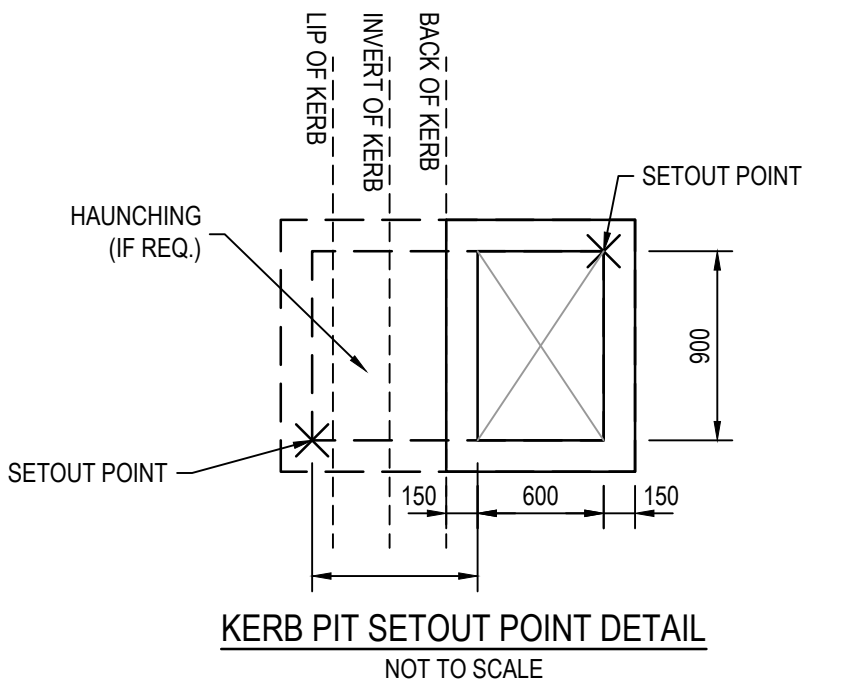
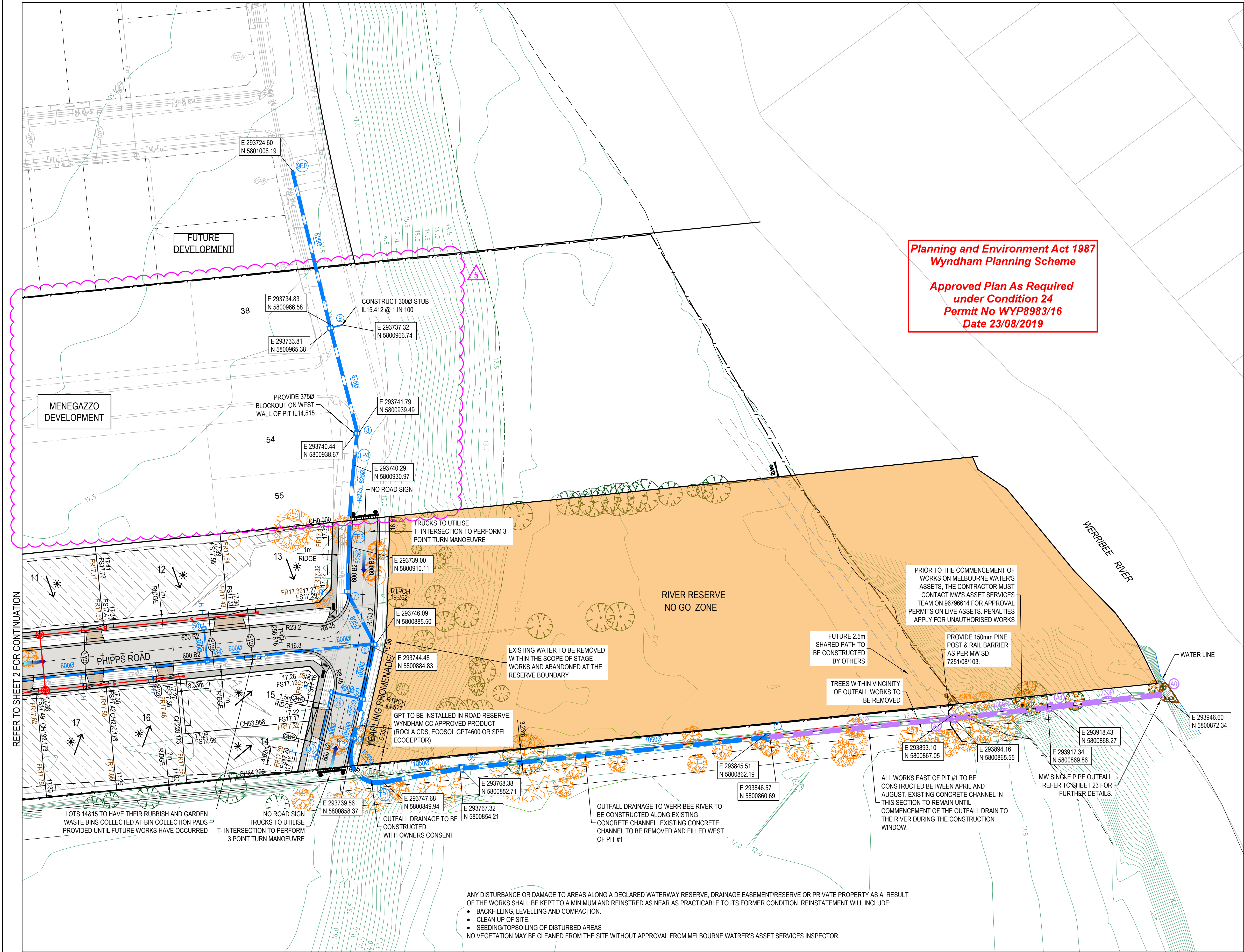
Member of the Surbana Jurong Group  
ABN 47 065 475 149  
Level 10, 71 Queens Road  
Melbourne, VIC 3004  
Ph 03 9514 1500

Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Layout Plan - 1

MELWAYS REF <b>205 G12</b>	PROJECT / DRAWING No. <b>2052E-01-02</b>	SHEET No. <b>02 of 25</b>	REVISION <b>4</b>
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DWG PATH: V:\Vault\Projects\_Urban\2052E-Farm Road, Werribee\2052E-01\DWG\2052E-01-02.dwg PRINTED BY: AK13343 on 22/08/2019 at 11:17:27 AM



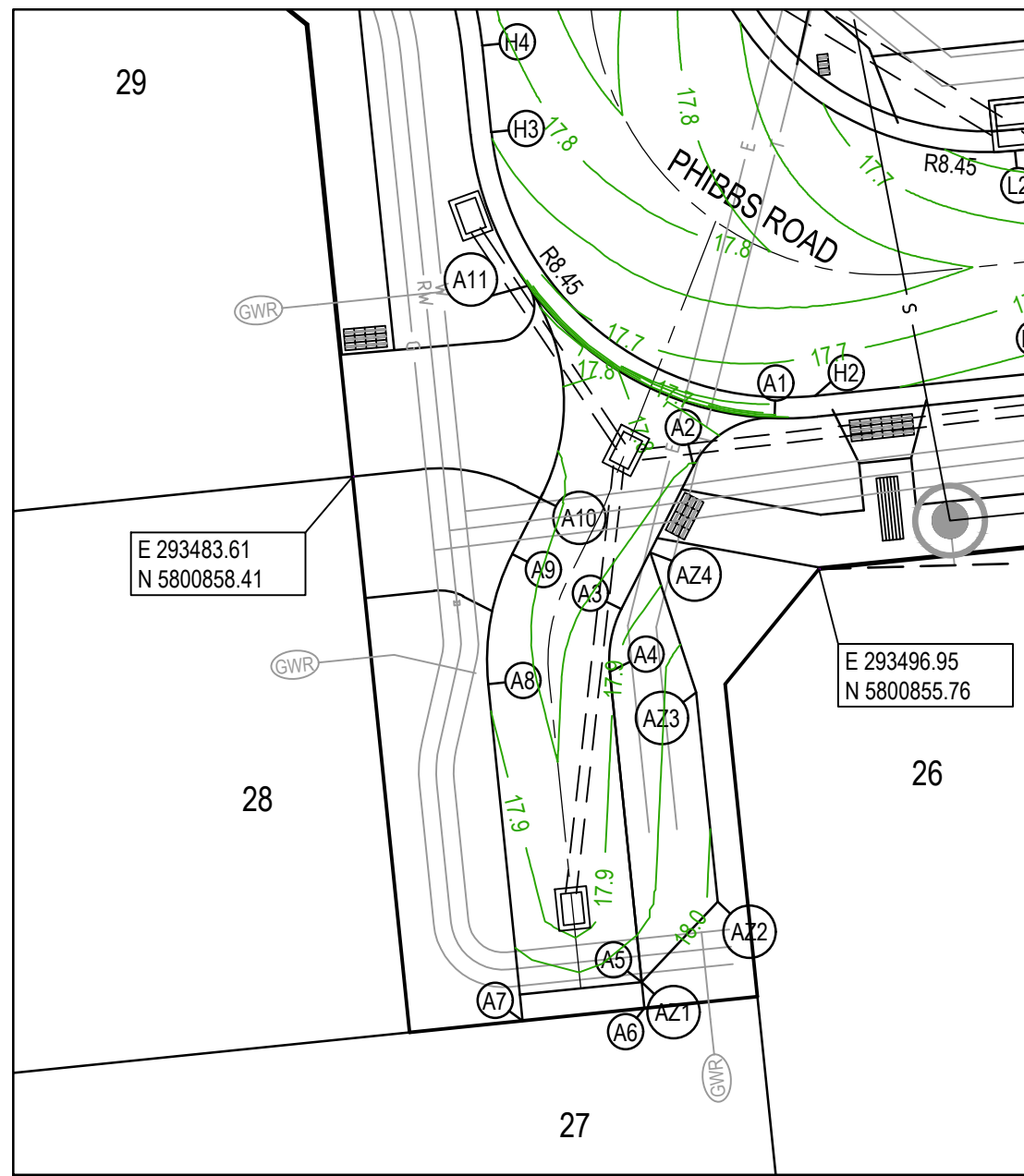


**WARNING**  
**SAFETY MEASURES REQUIRED**  
Please note there are risks attached to the construction of this project, and any ongoing maintenance of structures. Consider the safety of all. For potential risks, consequences and controls refer to Safety in Design Risk Register SID P4.E6.2052E-01-85  
**ASSESS THE RISK - STAY SAFE**

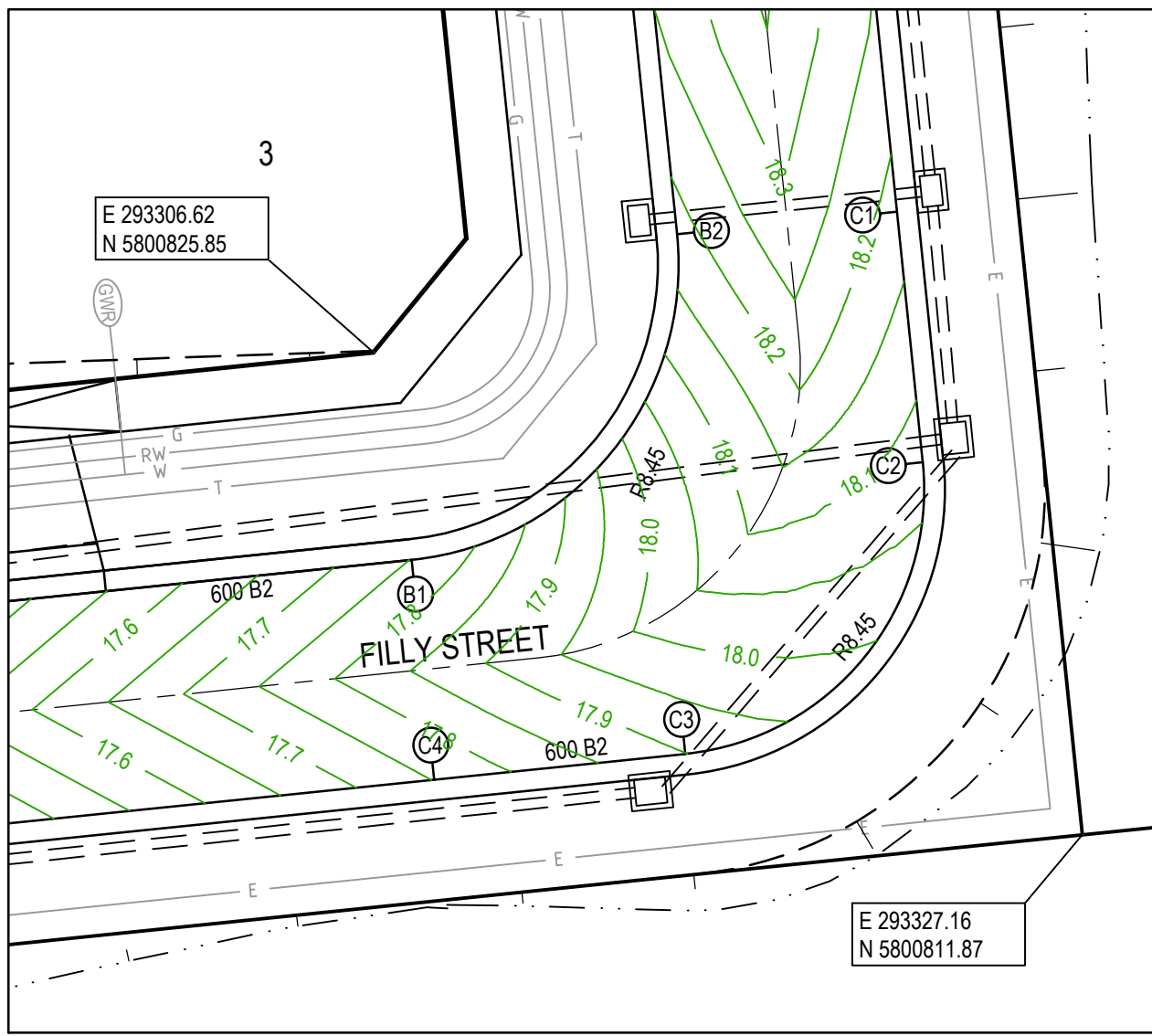
**WARNING**  
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www.1100.com.au

SERVICE LOCATIONS ARE IN ACCORDANCE WITH APPENDIX H OF THE MPA GUIDELINES AND THE DETAIL PLAN **SHOULD NOT** BE RELIED UPON FOR THE ACCURATE POSITIONING OF **DRAINAGE LINES GREATER THAN 450dia. BEHIND BACK OF KERB.** PIPES GREATER THAN 450dia. WILL BE HAUNCHED UNDERNEATH KERB AND CHANNEL WHERE APPLICABLE TO ENSURE THAT PIT WIDTH BEHIND BACK OF KERB DOES NOT EXCEED 0.9m.





HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	



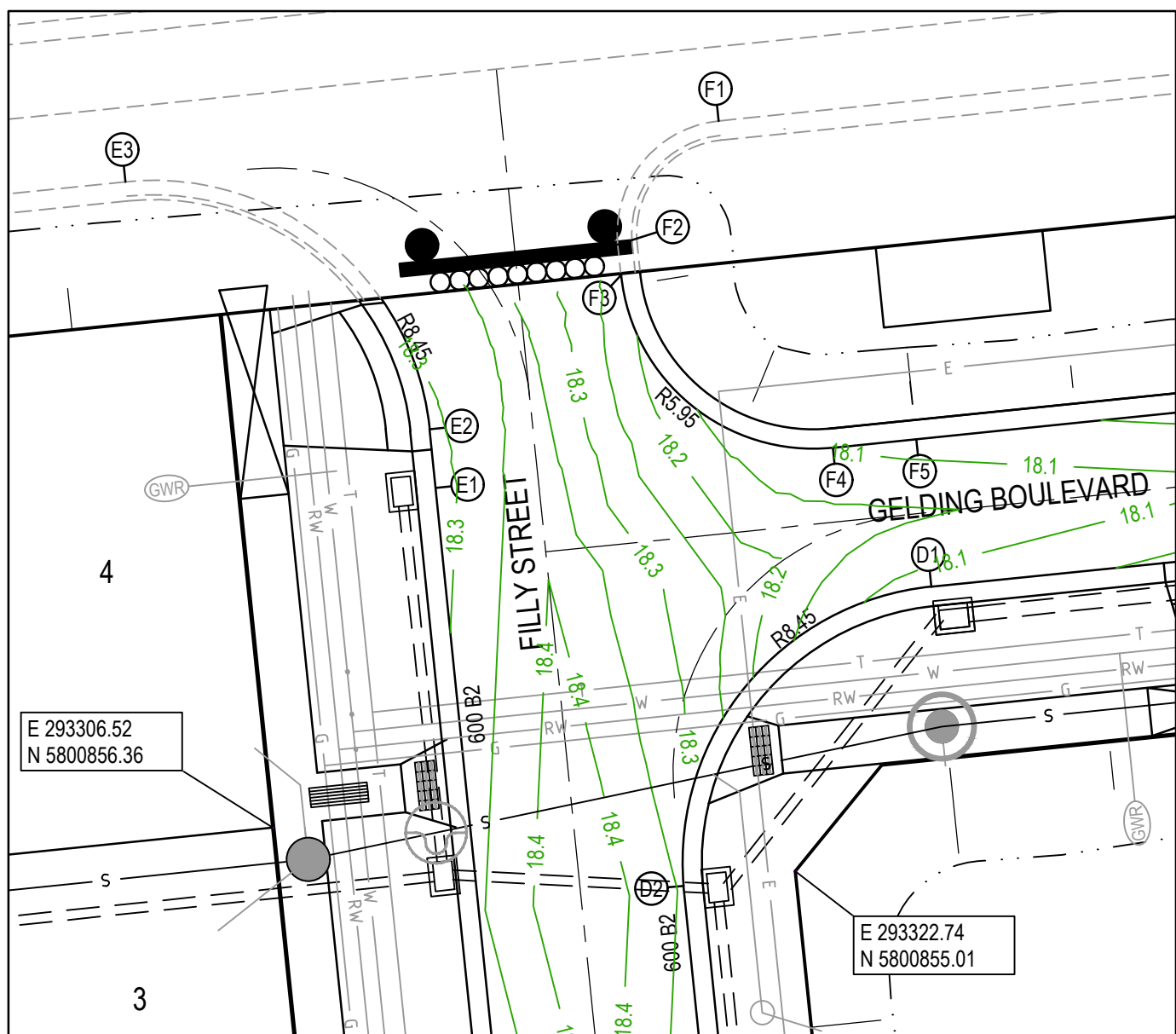
HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	

LEGEND - INTERSECTION DETAIL PLAN	
ALL PROPOSED	
EXISTING	
PROPOSED DRIVEWAY & FOOTPATH	
HOUSE DRAIN	
SERVICE CONDUITS	
TACTILE PAVERS	
EXISTING STORMWATER DRAIN	
EXISTING MAIN DRAIN	
EXISTING SEWER & MAINTENANCE STRUCTURES	
EXISTING SERVICE CONDUITS	
EXISTING TACTILE PAVERS	
FUTURE STORMWATER DRAIN	
FUTURE MAIN DRAIN	
FUTURE SEWER & MAINTENANCE STRUCTURES	
FUTURE HOUSE DRAIN	
FUTURE SERVICE CONDUITS	
FUTURE TACTILE PAVERS	
EXISTING RETAINING WALL	
RETAINING WALL	
FUTURE RETAINING WALL	
EDGE STRIP, SUBSOIL DRAIN, 'NO ROAD' SIGN & BARRIER	
PERMANENT SURVEY MARK	
TEMPORARY BENCH MARK	

- NOTES
- ALL VEHICLE CROSSINGS AND PRAM CROSSINGS TO BE MINIMUM OF 0.75m FROM PIT.
  - ALL PRAM CROSSINGS TO BE MINIMUM OF 2.0m FROM VEHICLE CROSSINGS.
  - VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF THE LANDSCAPE WORKS.
  - INDUSTRIAL DRIVEWAYS TO COUNCIL RESERVES TO BE PROVIDED AS PART OF LANDSCAPE WORKS.
  - SHARE PATH THROUGH CREEK CORRIDOR TO FORM PART OF LANDSCAPE WORKS.

HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	

HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	



HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	

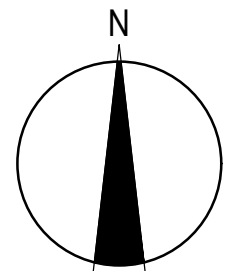
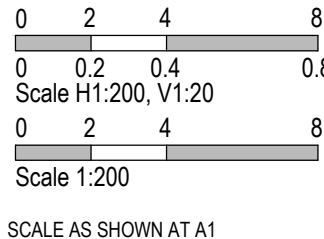
HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	

HORIZONTAL GEOMETRY	
VERTICAL GEOMETRY	
DATUM RL17	
DESIGN LEVEL	
EXISTING SURFACE	
NORTHING	
EASTING	
CHAINAGE	

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	03.04.18	DRAINAGE & LIP LINE E AMENDED	NG/NG	LV
C	21.06.18	SEWER AMENDED	NG/NG	LV
D	21.11.18	DRAWING MOVED TO SHEET 4	NG/NG	LV

SUBJECT TO APPROVAL

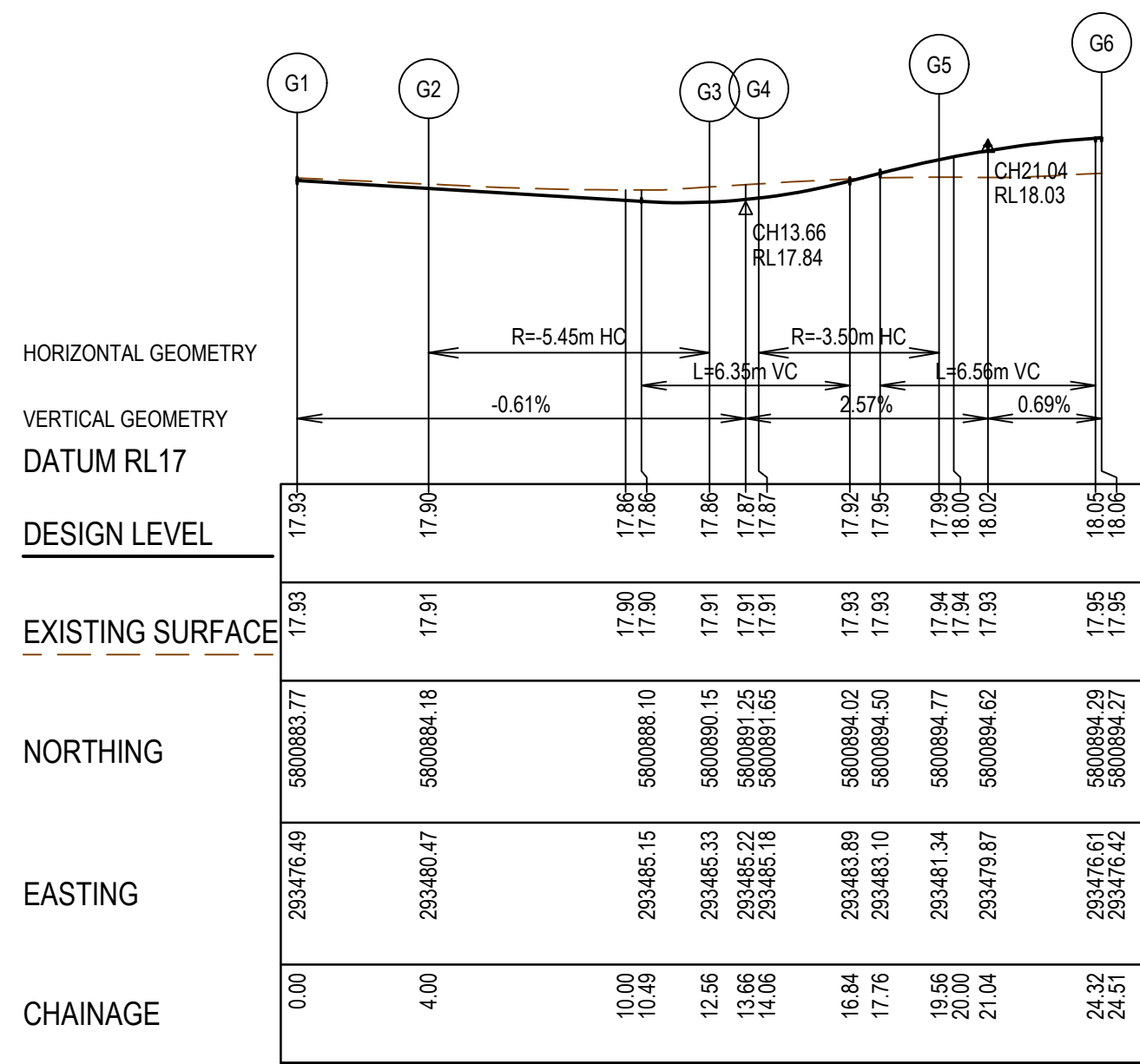
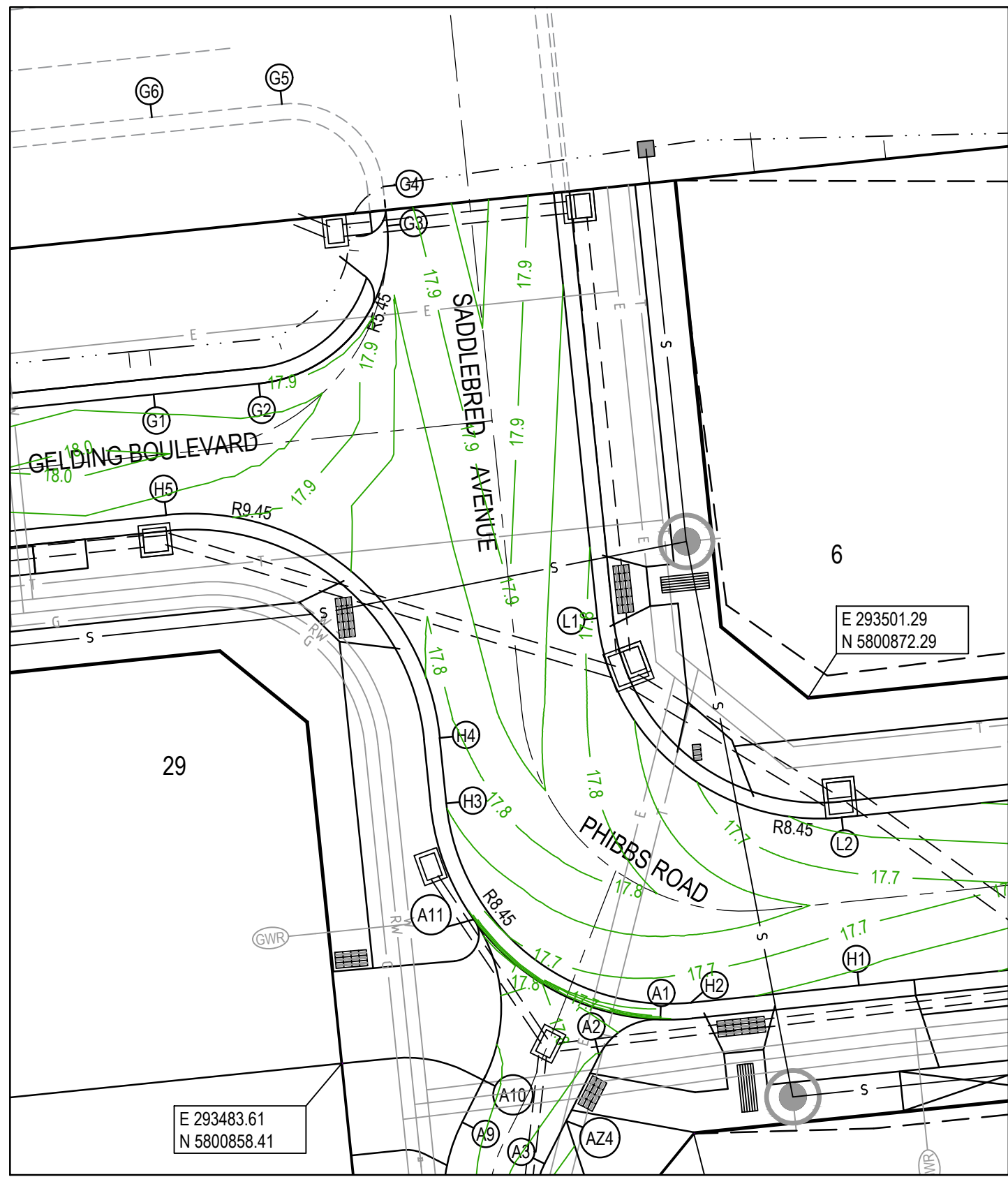
ALL setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	TITLE	NAME
	DRAFTER	S.Sathasivam
	DESIGNER	N.Green
	CHECKED	L.Vieyra
	AUTHORISED	L.Vieyra
	REFERENCE No. 1	
	REFERENCE No. 2	



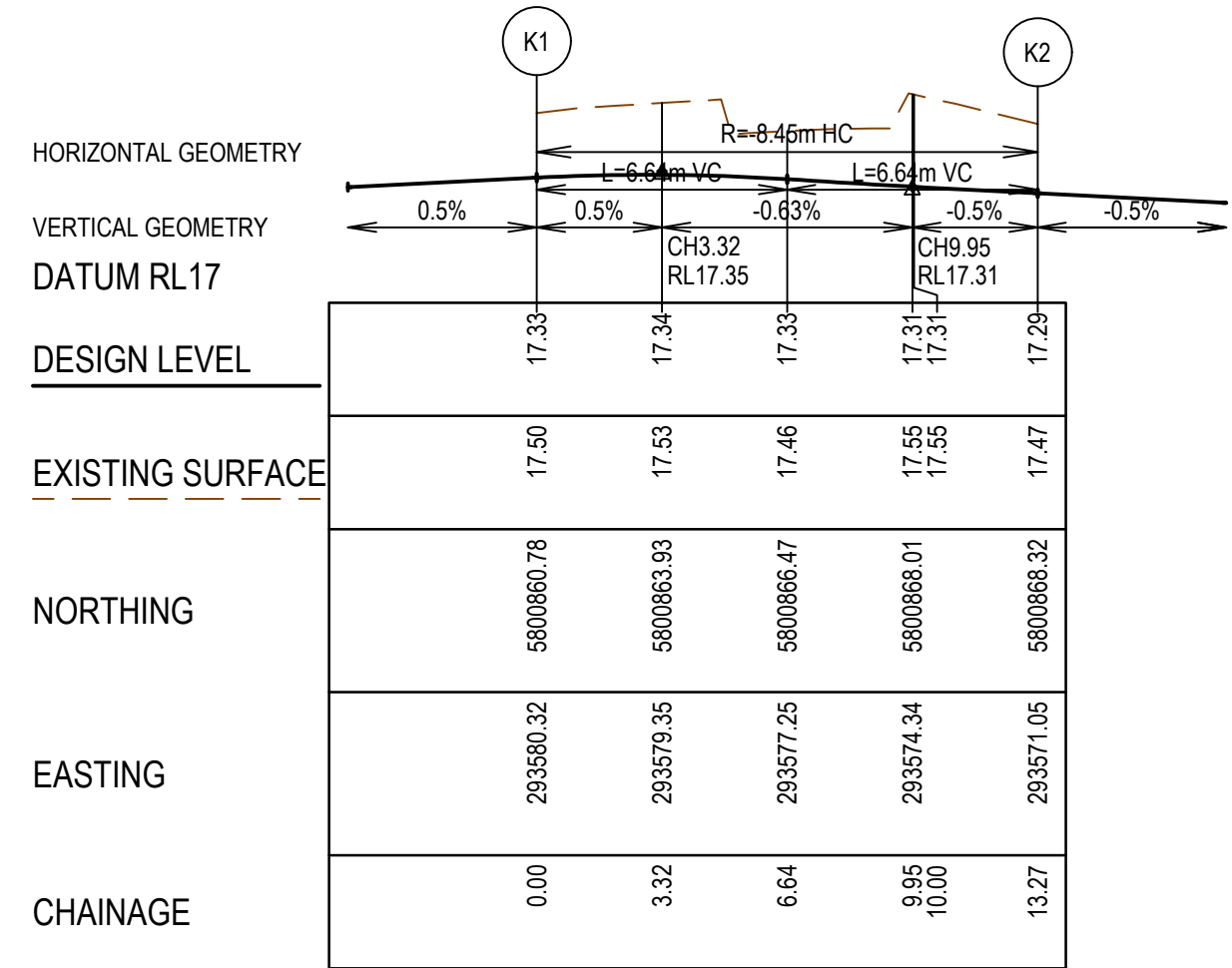
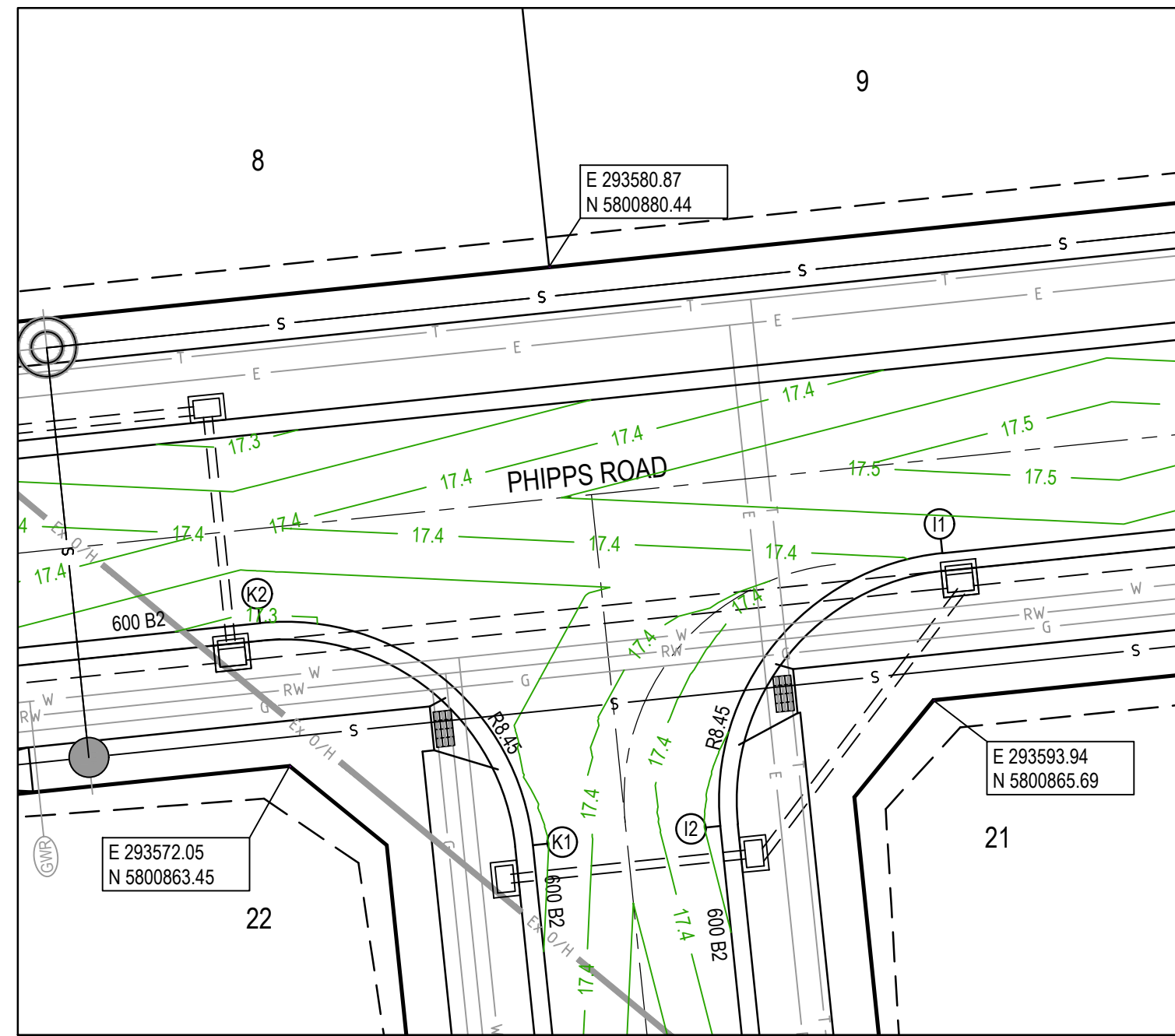
MELWAYS REF	PROJECT / DRAWING No	SHEET No	REVISION
205 G12	2052E-01-04	04 of 25	D

Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Intersection Detail Plan  
& Lip Profiles - 1

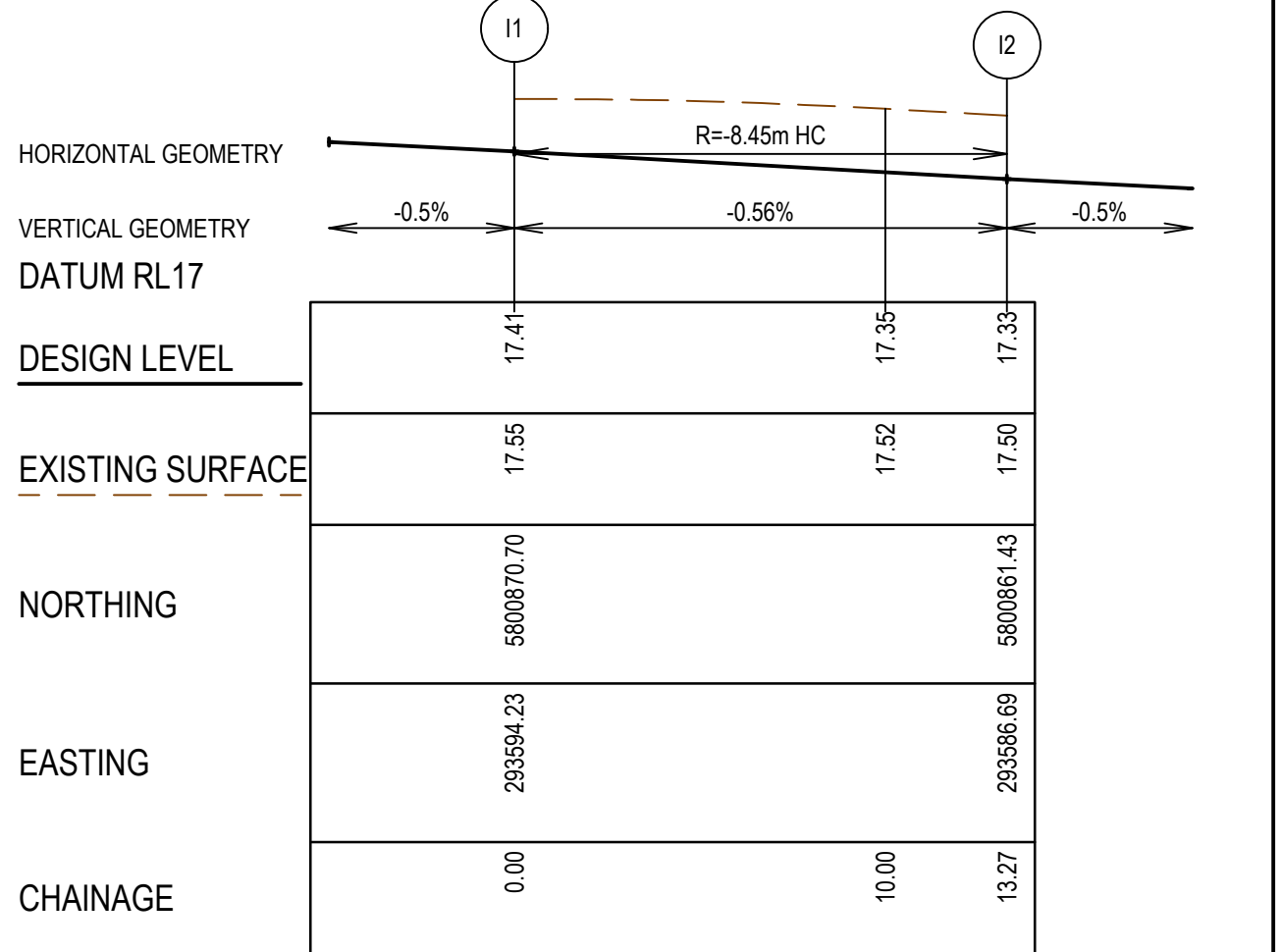




LIP LINE G



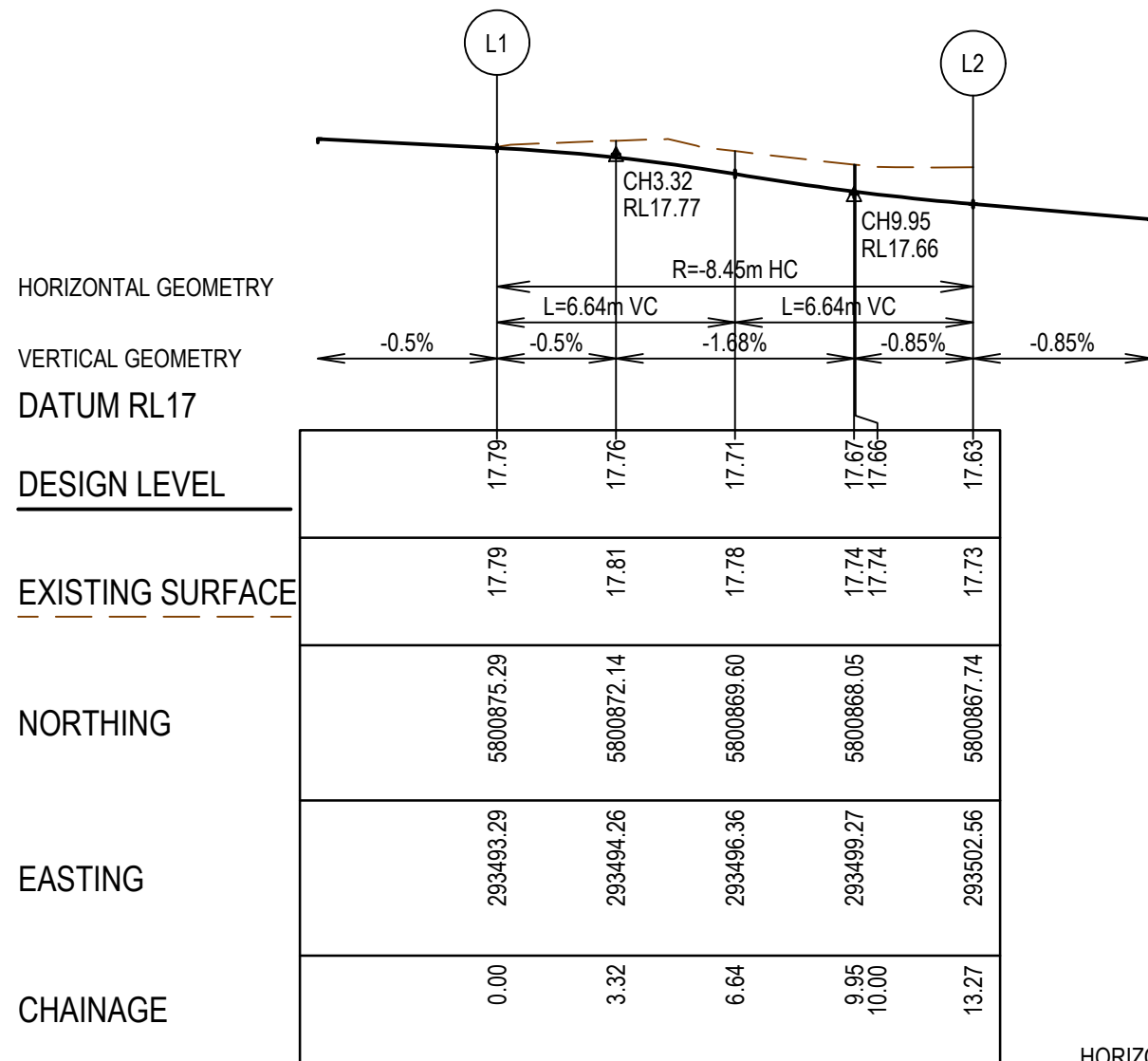
LIP LINE K



LIP LINE I



LIP LINE H



LIP LINE L

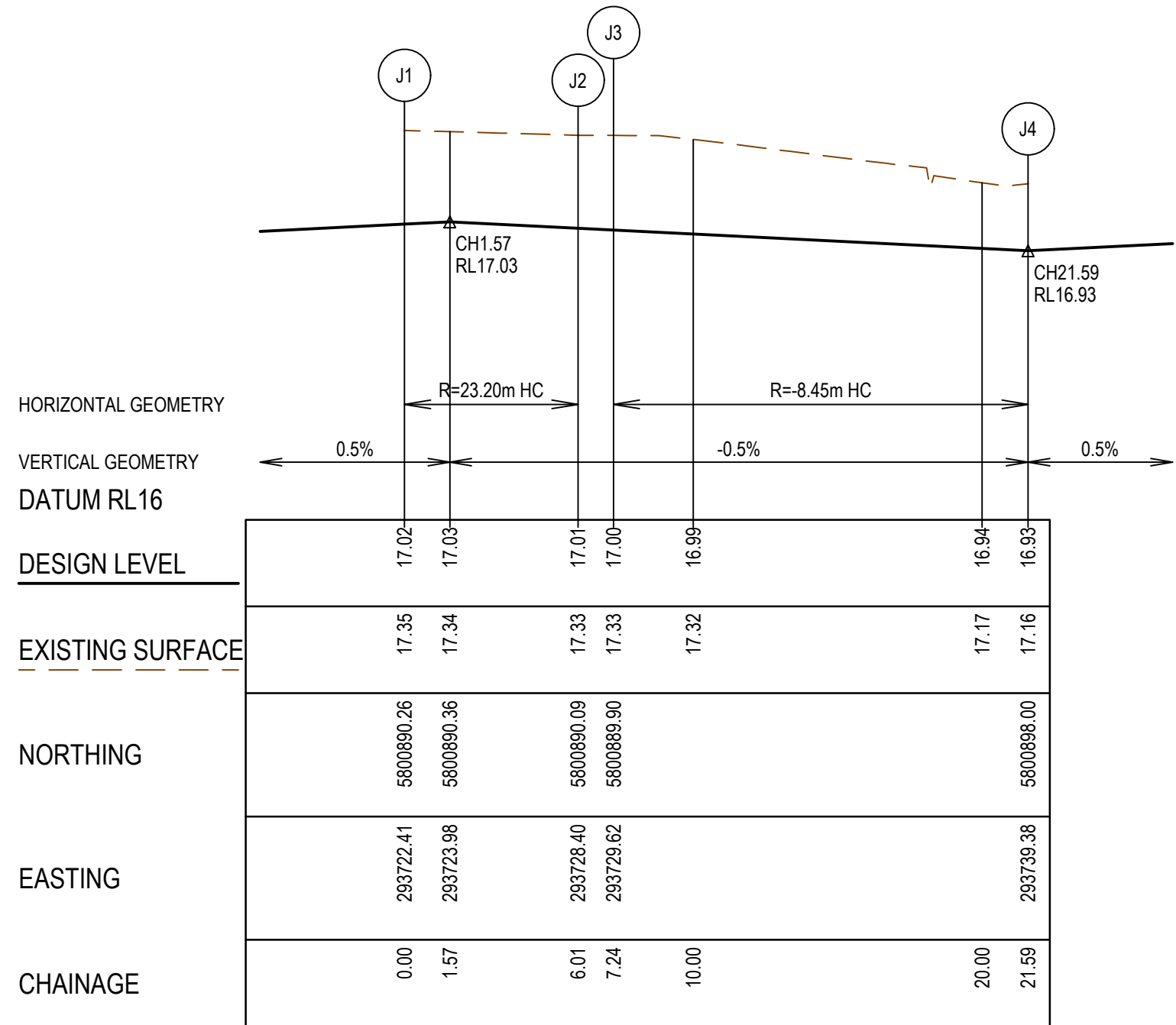
LEGEND - INTERSECTION DETAIL PLAN  
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY

	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN

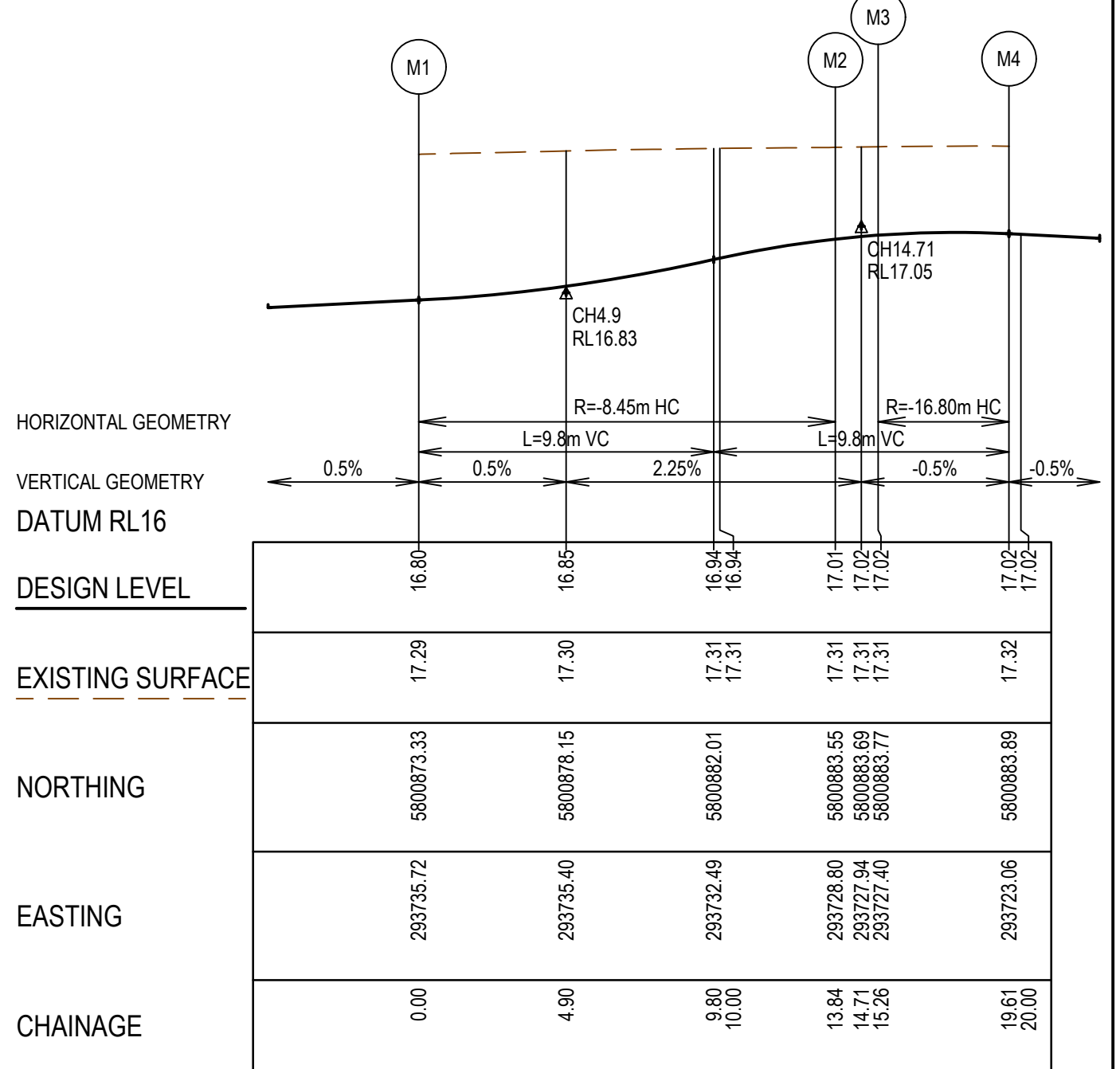
	FUTURE MAIN DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE SERVICE CONDUITS
	FUTURE TACTILE PAVERS
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	EDGE STRIP, SUBSOIL DRAIN, 'NO ROAD' SIGN & BARRIER
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH

NOTES

- ALL VEHICLE CROSSINGS AND PRAM CROSSINGS TO BE MINIMUM OF 0.75m FROM PITS.
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- VEHICLE EXCLUSION MEASURES BETWEEN ROAD RESERVE AND RESERVE TO FORM PART OF THE LANDSCAPE WORKS.
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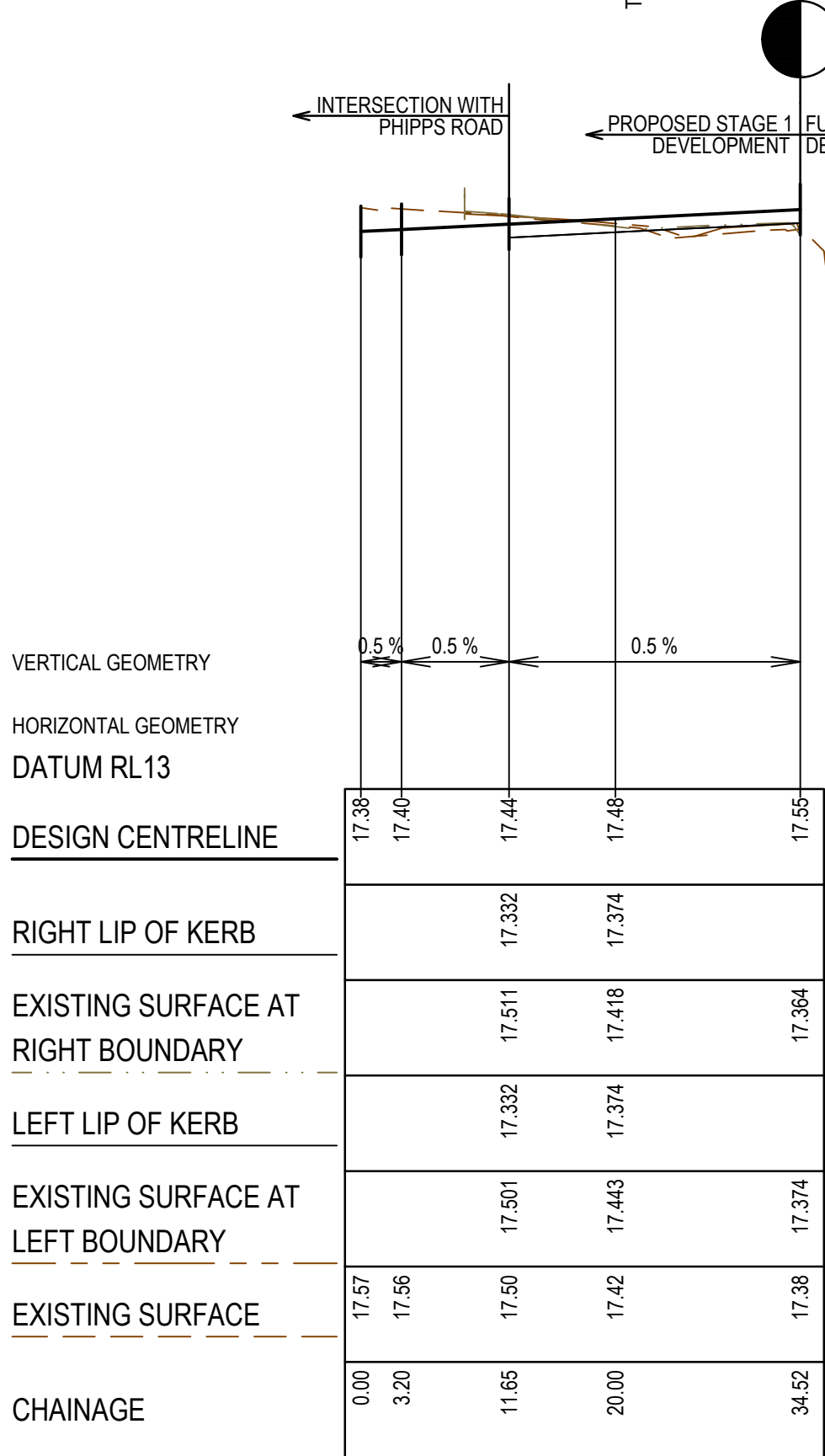
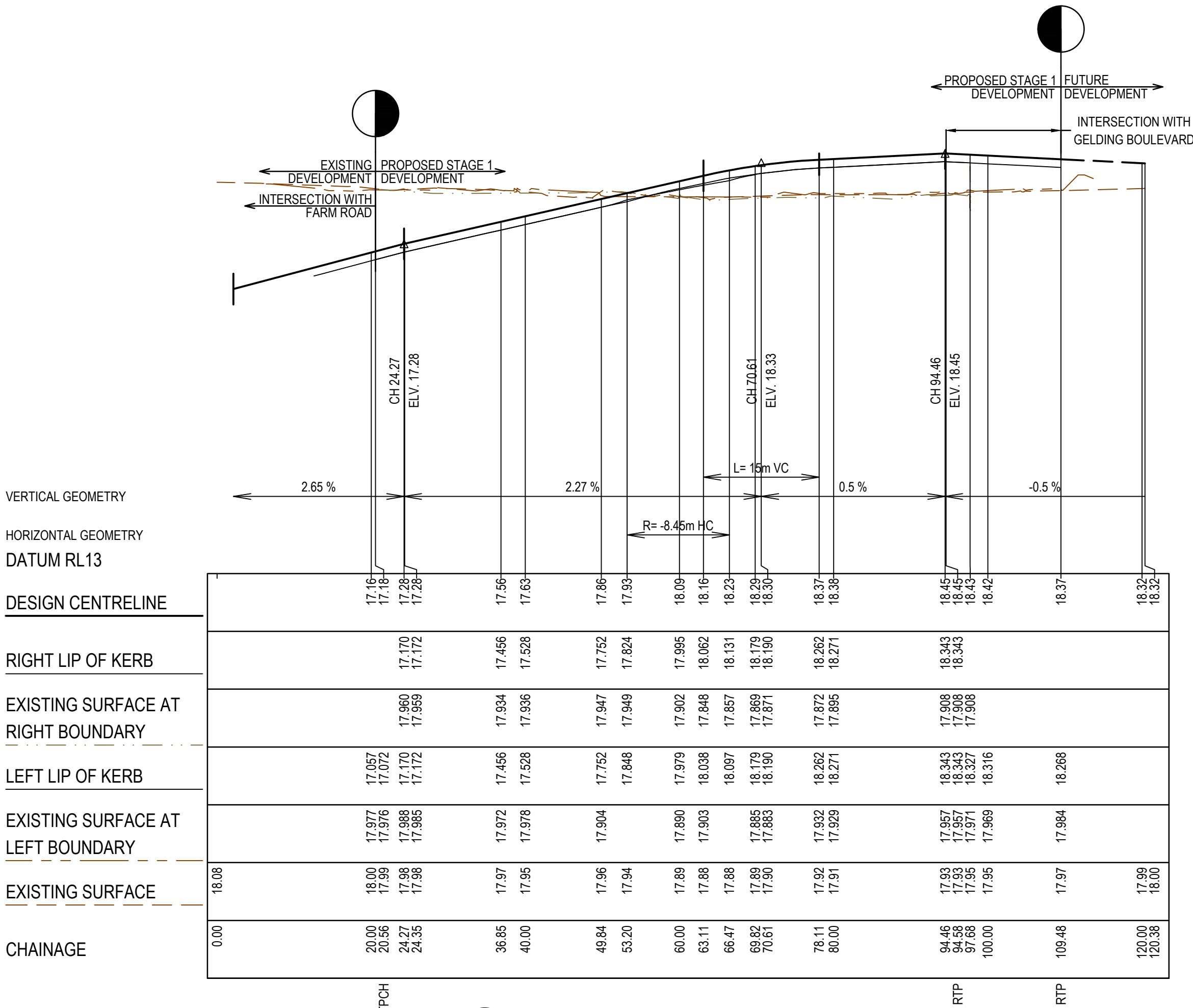


LIP LINE J

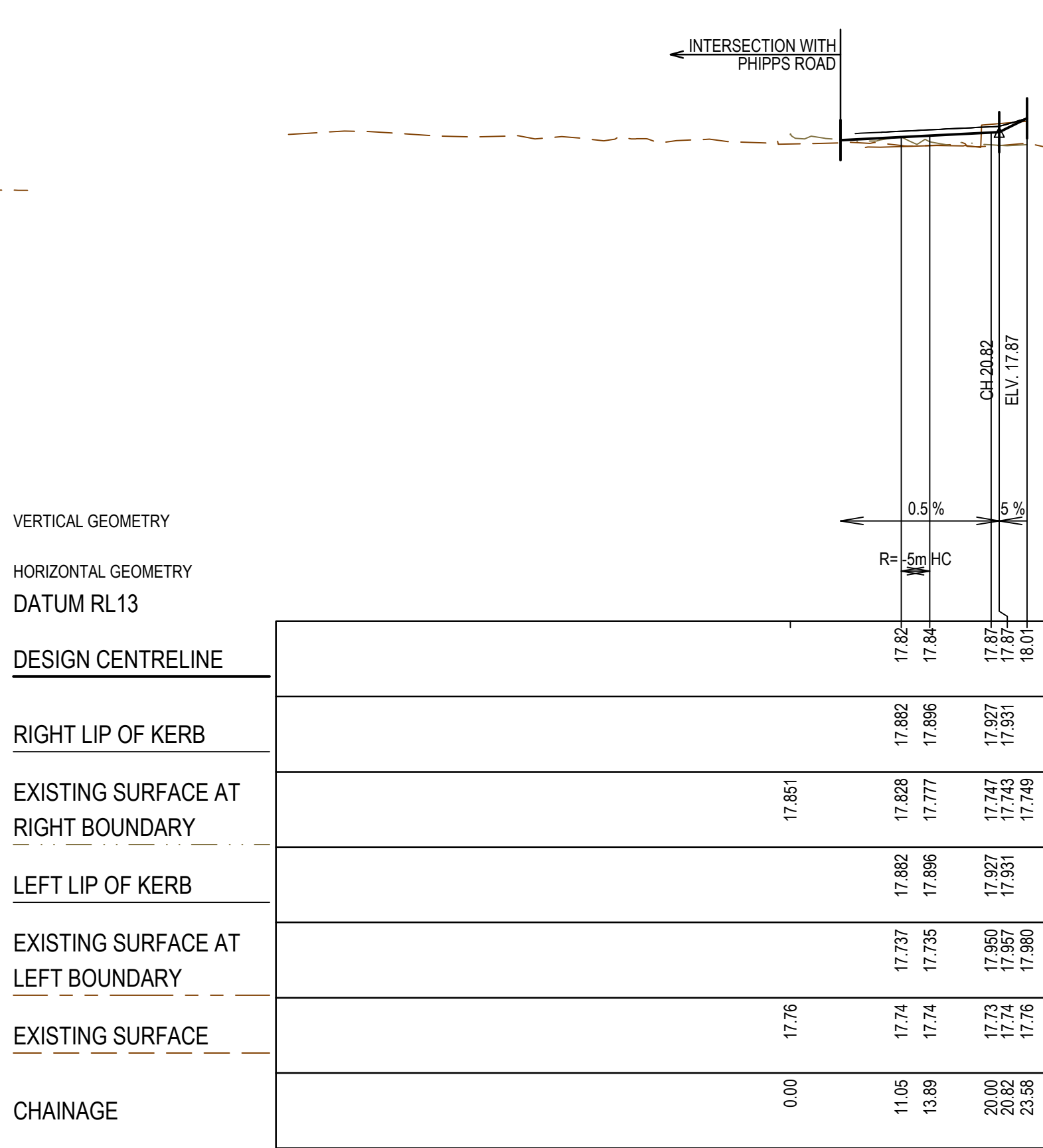
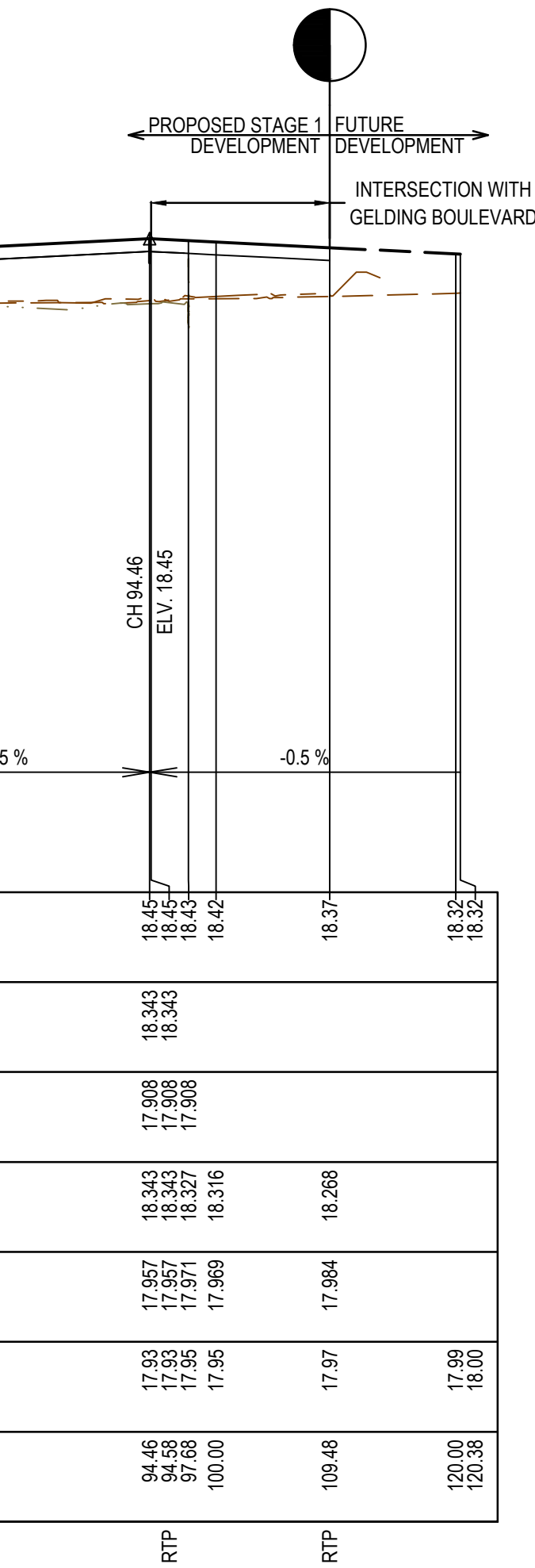


LIP LINE M

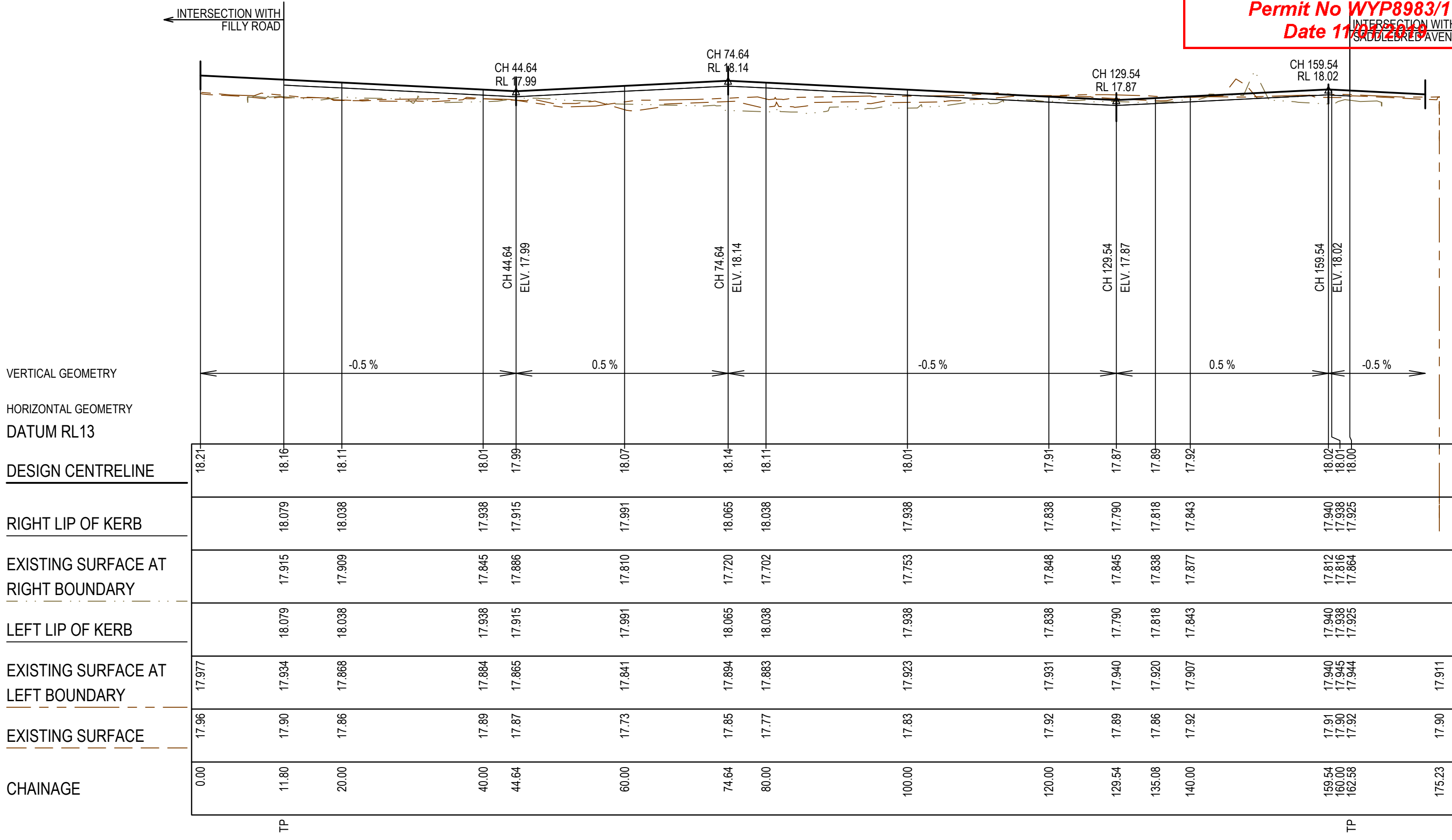




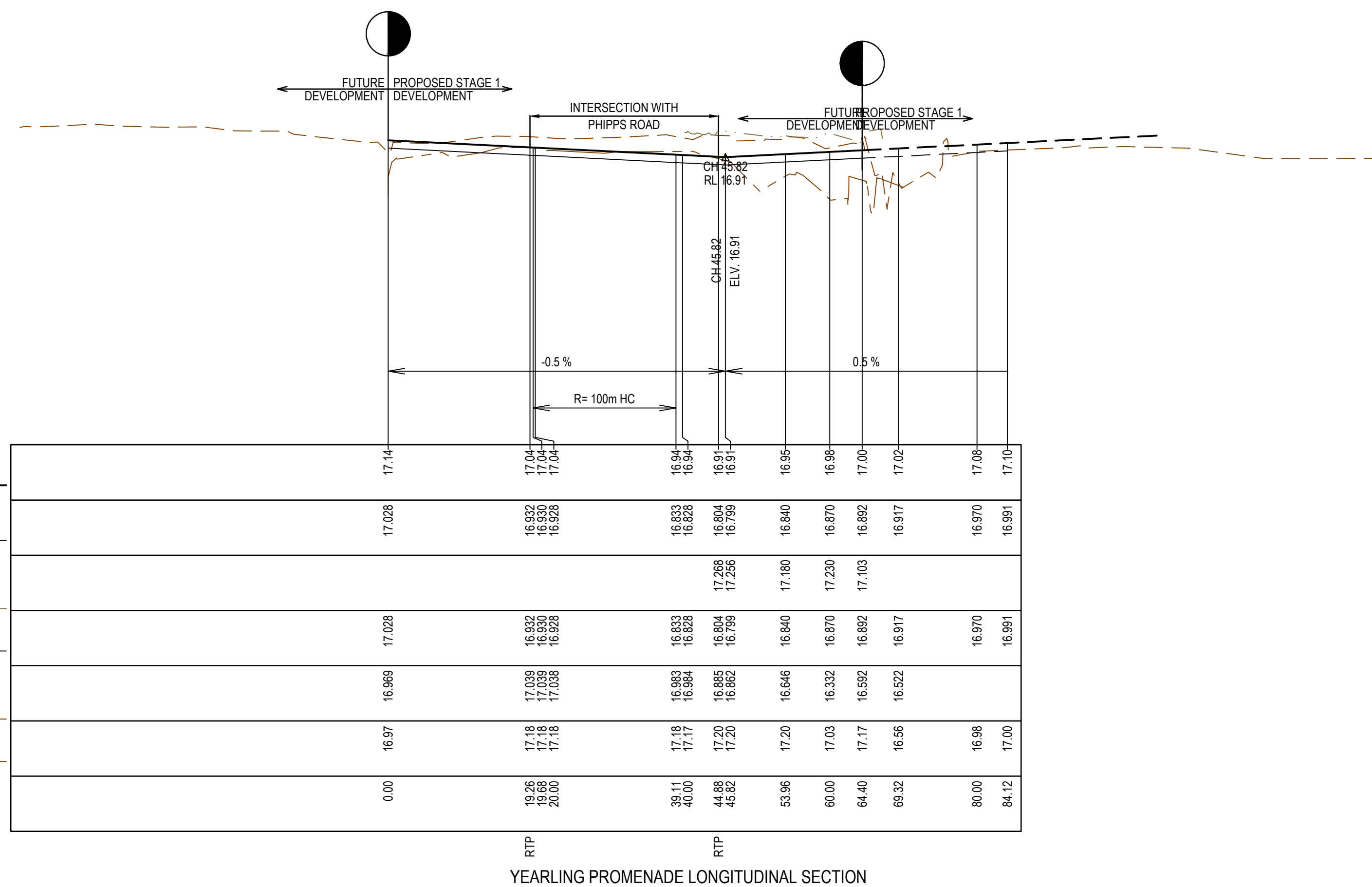
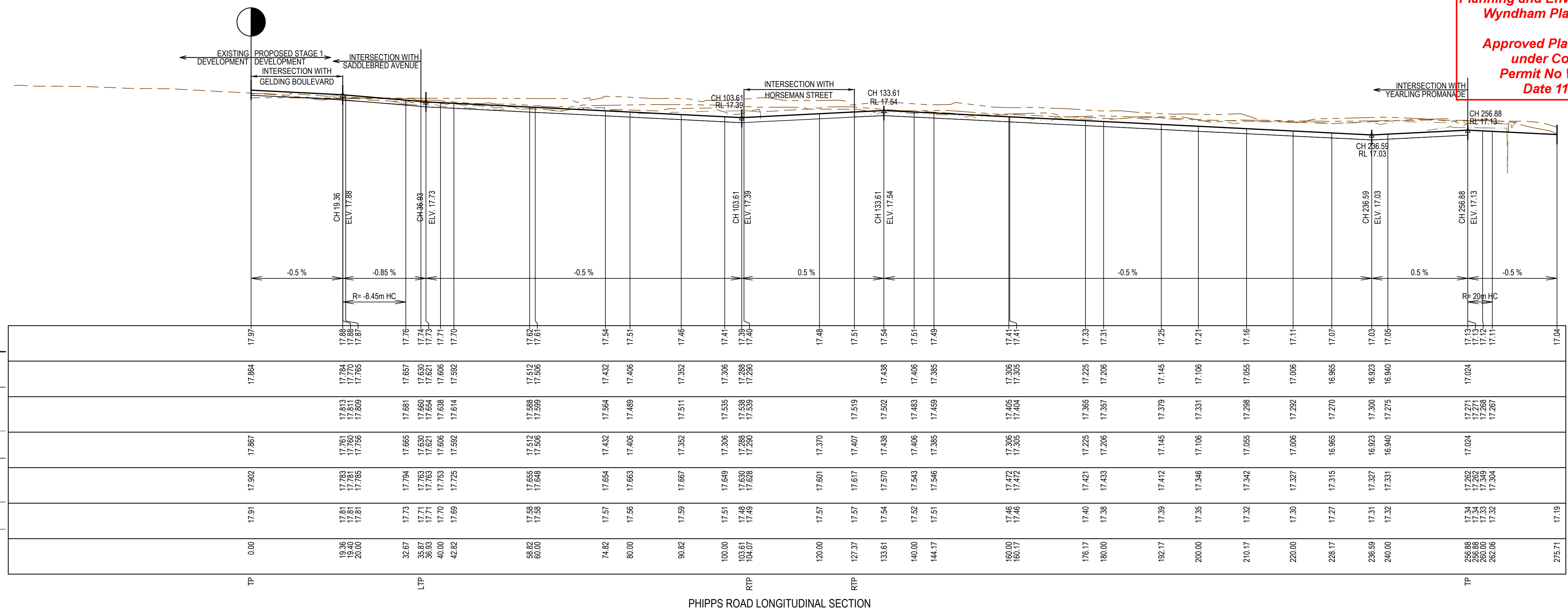
HORSEMAN STREET LONGITUDINAL SECTION



LANEWAY LONGITUDINAL SECTION



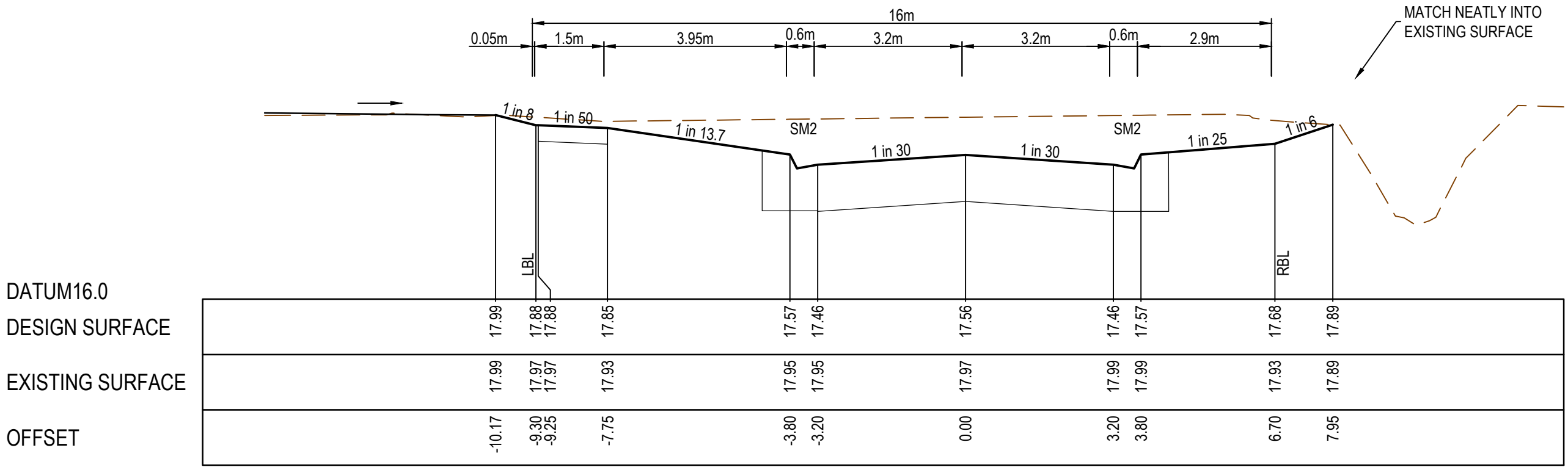
GELDING BOULEVARD LONGITUDINAL SECTION



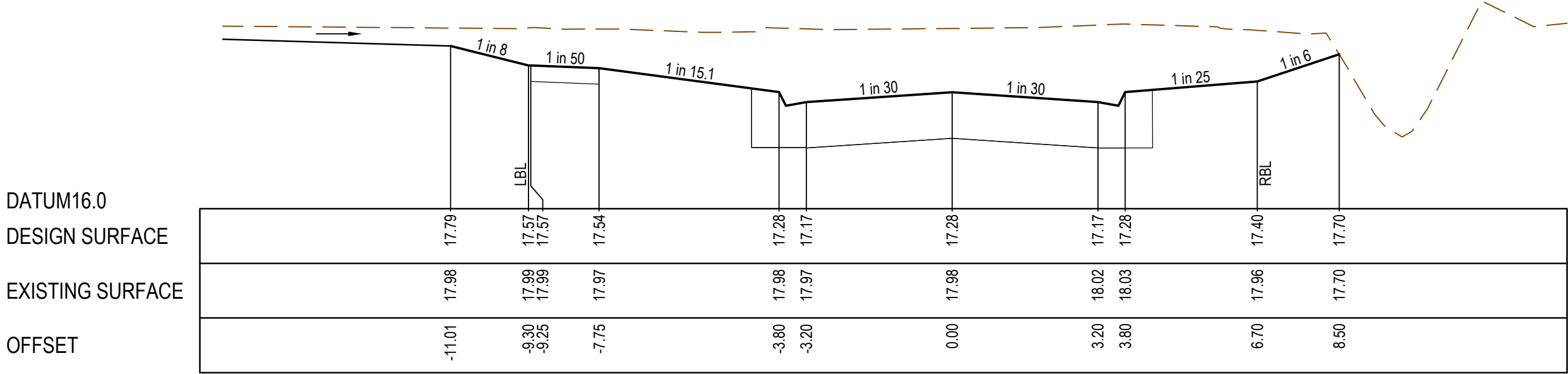
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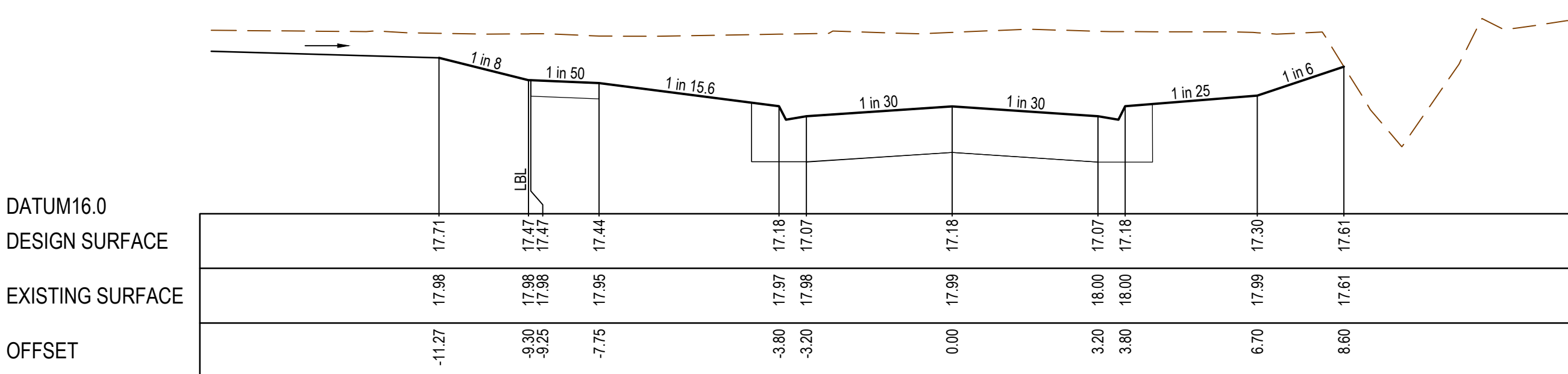
STRUCTURAL FILL REQUIRED UNDER  
PAVEMENT AND FOOTPATHS WHERE  
UNDER CONDITION 4  
CONSTRUCTED ABOVE EXISTING SURFACE  
Permit No WYP8983/16  
Date 11/01/2019



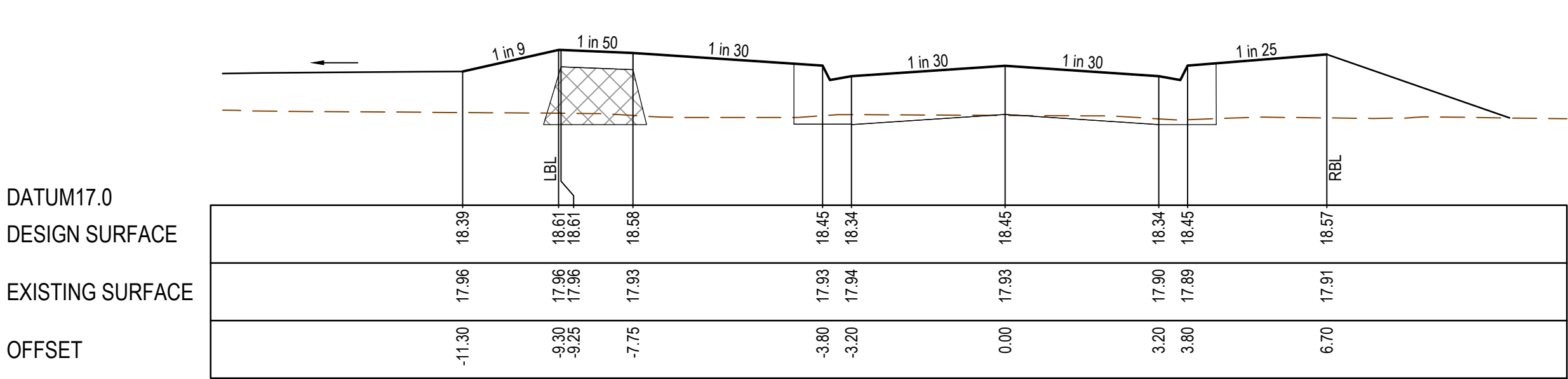
CH 36.85



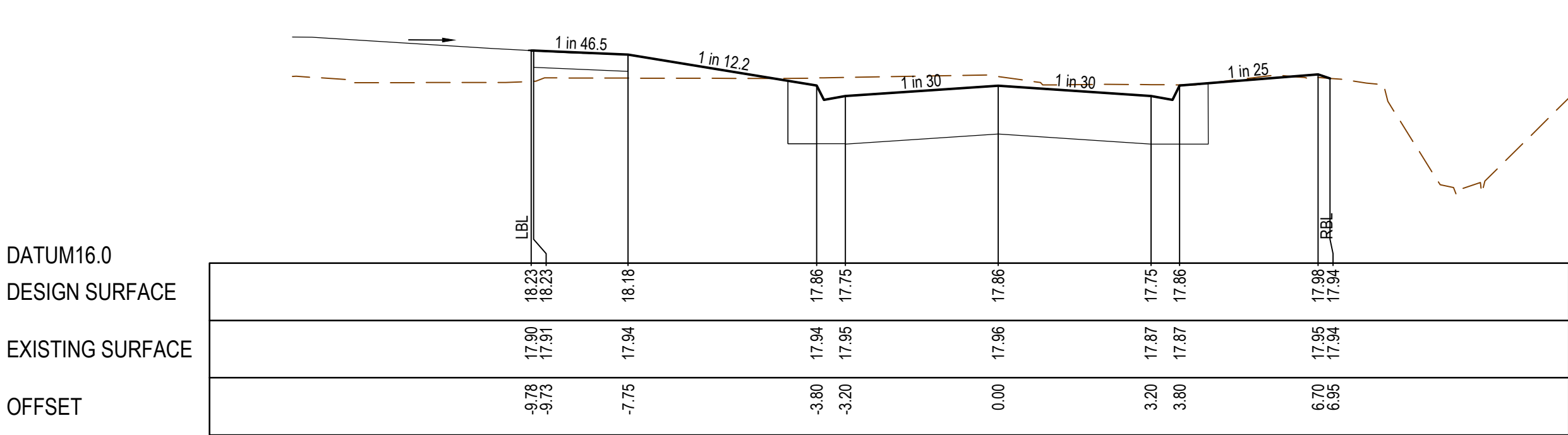
CH 24.35



RTPCH 20.56

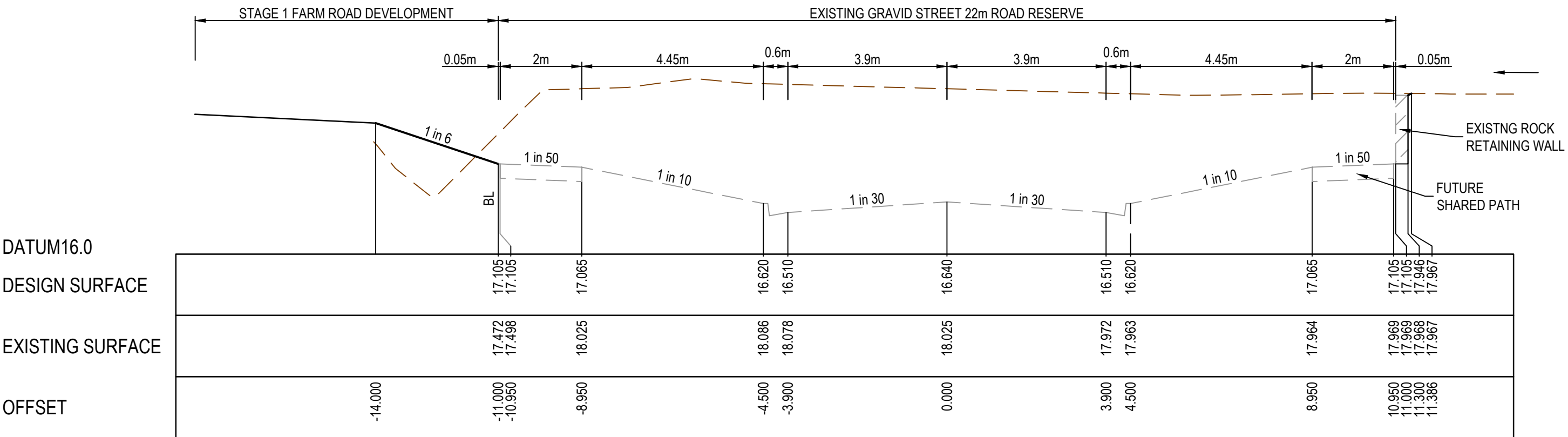


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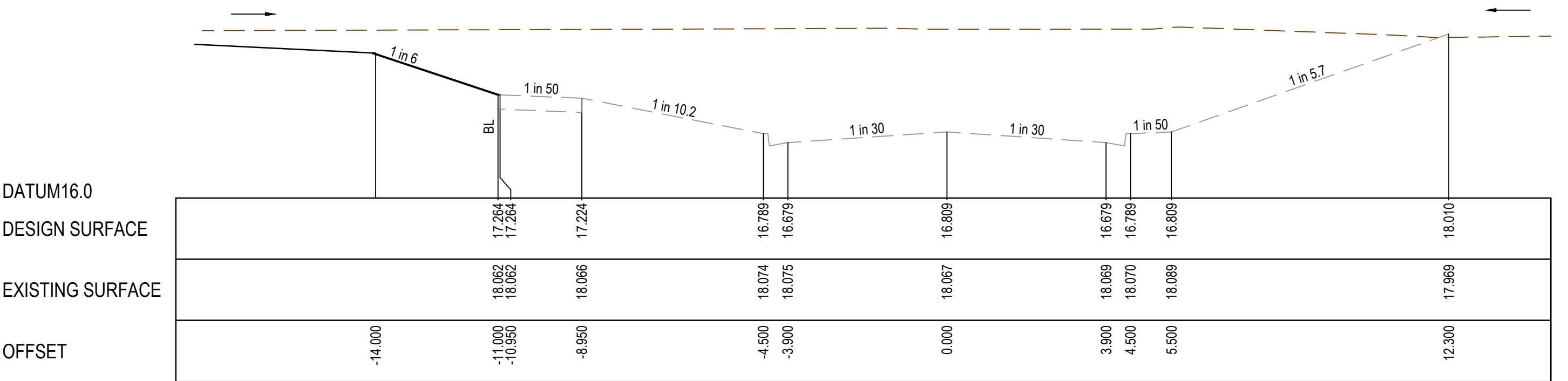


LTPCH 49.84

FILLY STREET CROSS SECTIONS



CH 66.543



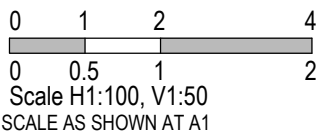
TPCH 32.654

GRAVID STREET CROSS SECTIONS

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DESIGN	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	21.06.18	GRAVID STREET CROSS SECTION ADDED	NG/NG	LV
C	30.10.18	GRAVID STREET UPDATED AS PER DV WORLS	NG/NG	LV
D	21.11.18	DRAWING MOVED TO SHEET 8	NG/NG	LV

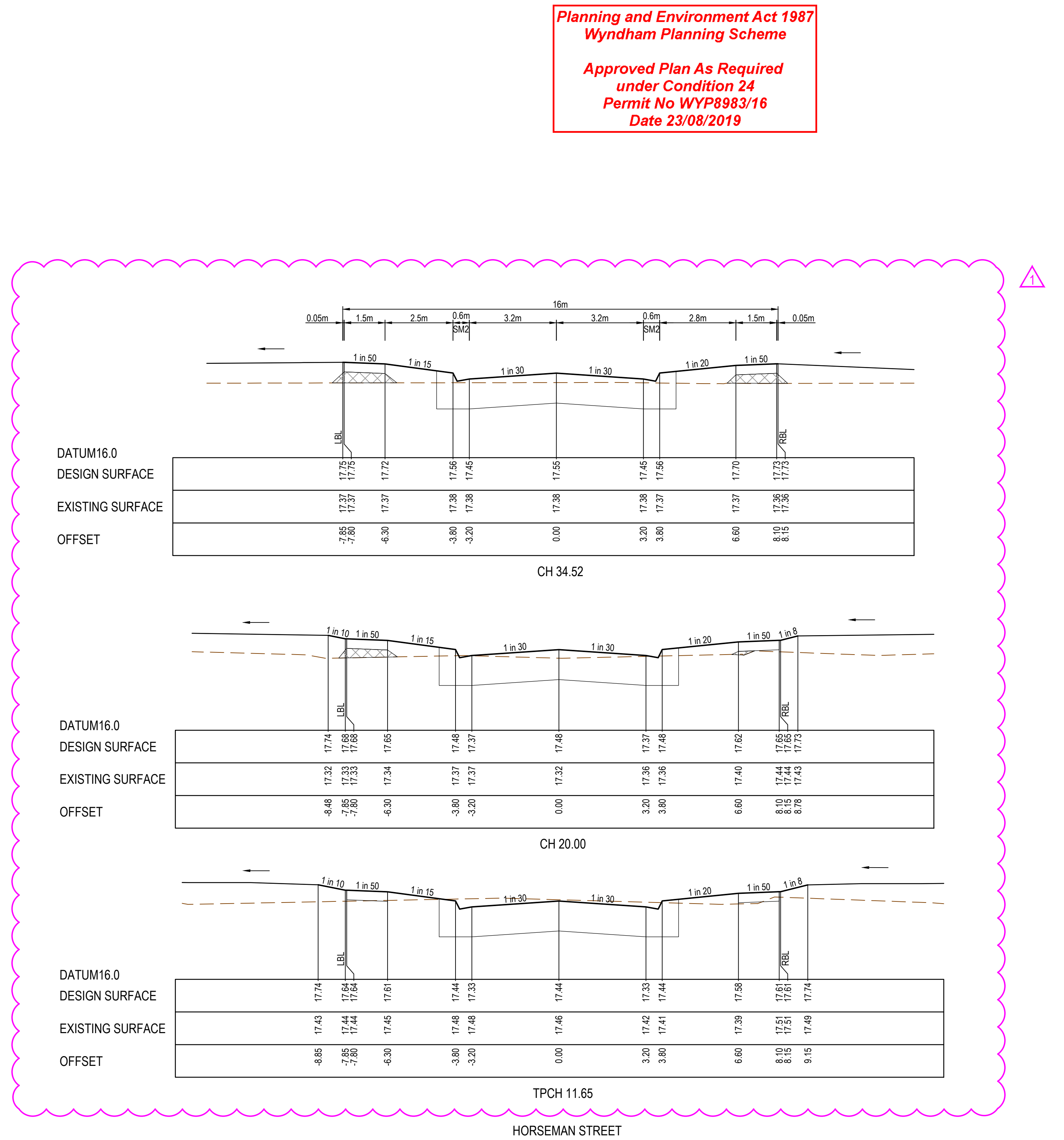
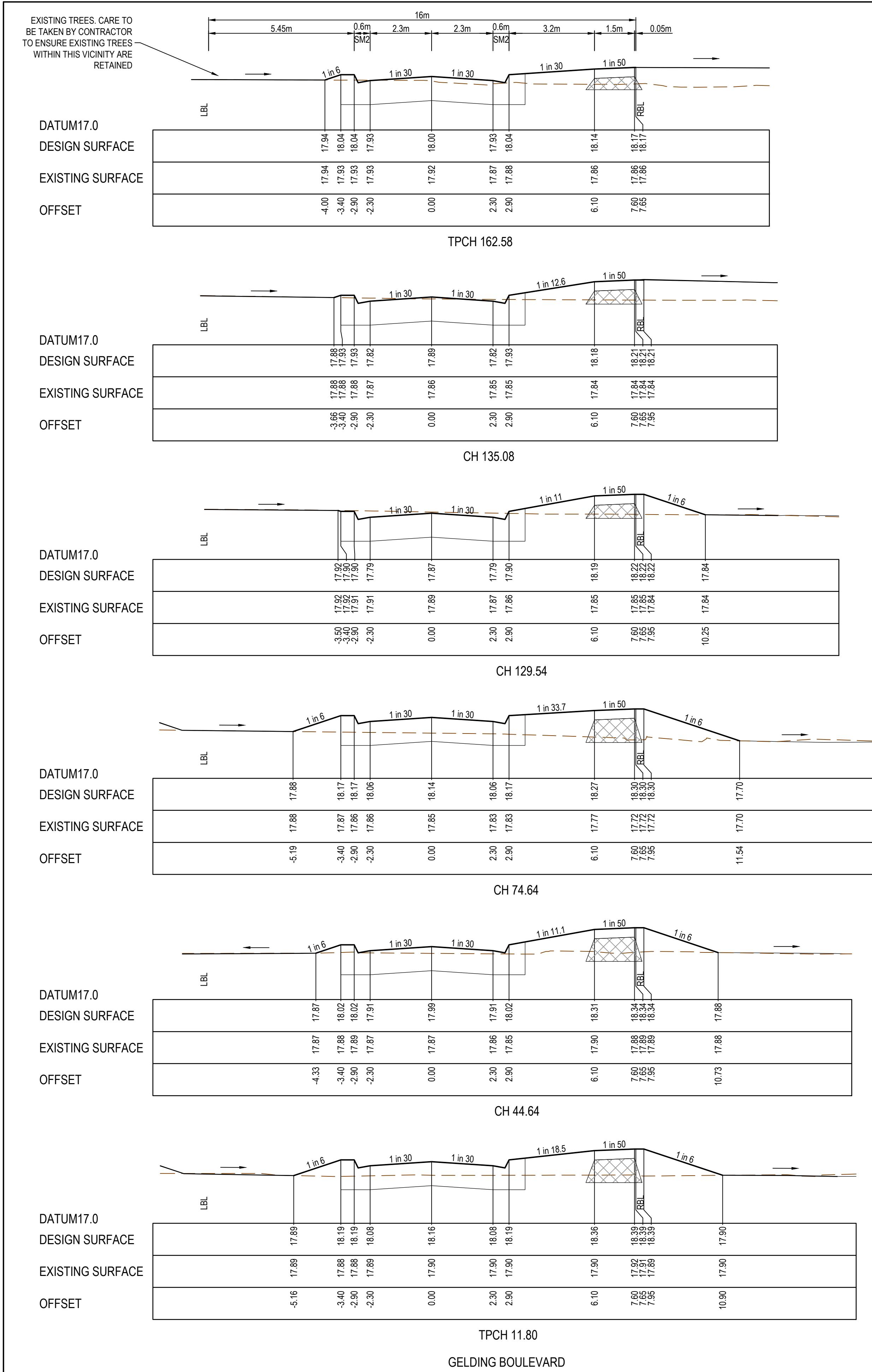
SUBJECT TO APPROVAL

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	TITLE	NAME
	DRAFTER	S.Sathasivam
	DESIGNER	N.Green
	CHECKED	L.Vieyra
	AUTHORISED	L.Vieyra
	REFERENCE No. 1	
	REFERENCE No. 2	

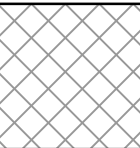


Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Cross Sections: Filly Street

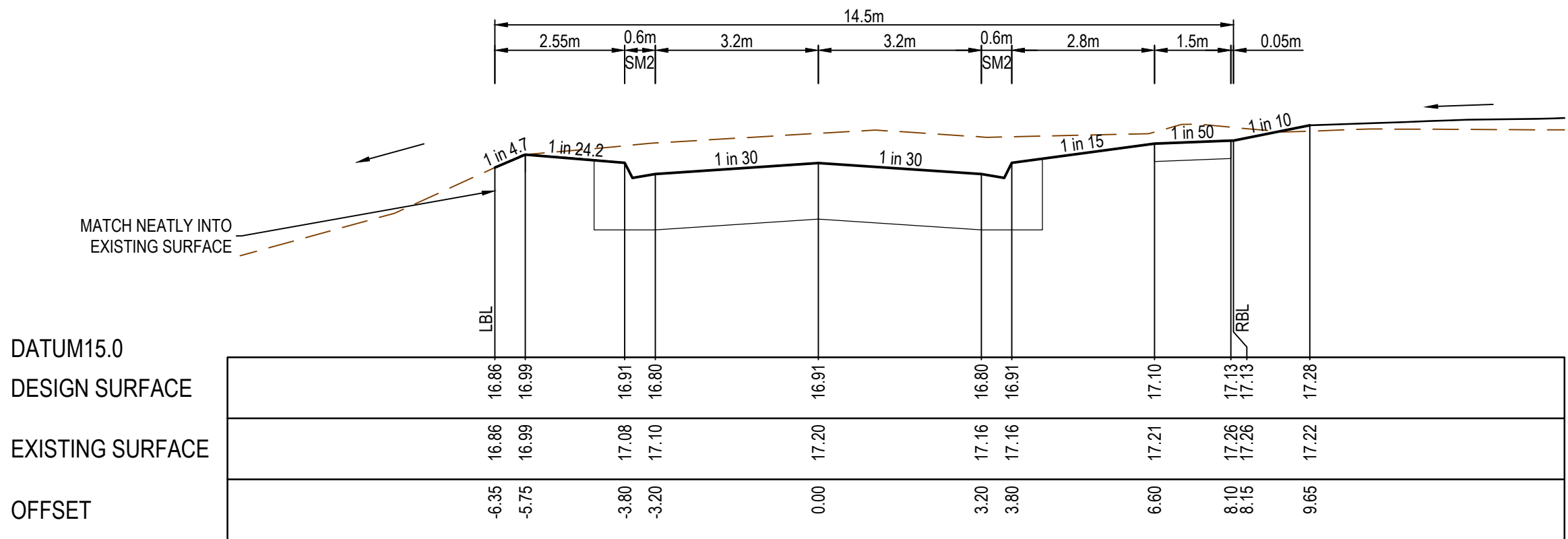
MELWAYS REF	PROJECT / DRAWING No	SHEET No	REVISION
205 G12	2052E-01-08	08 of 25	D



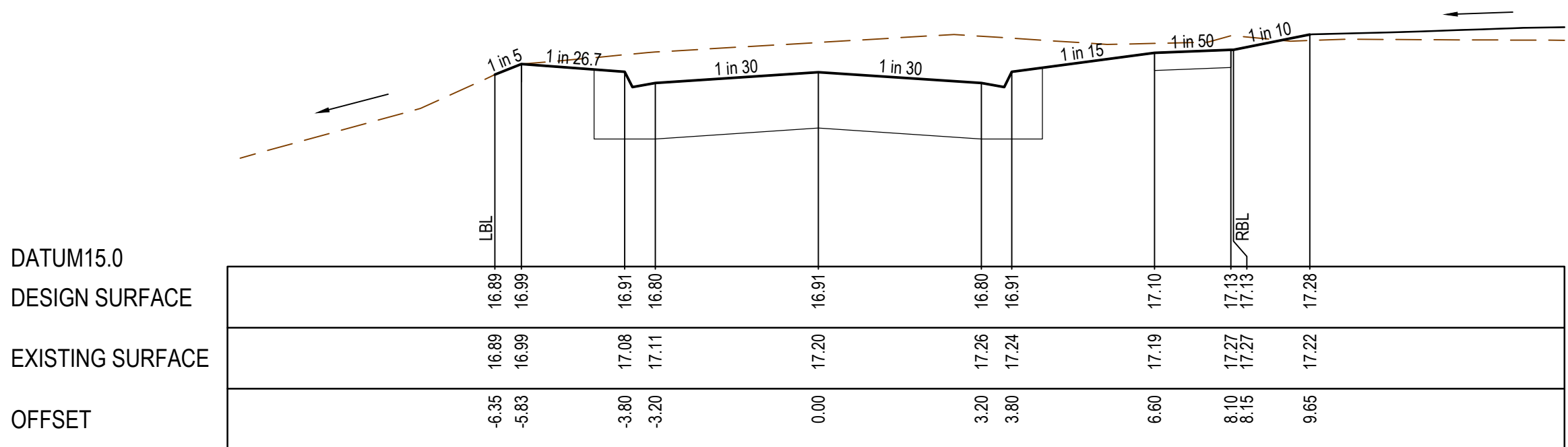




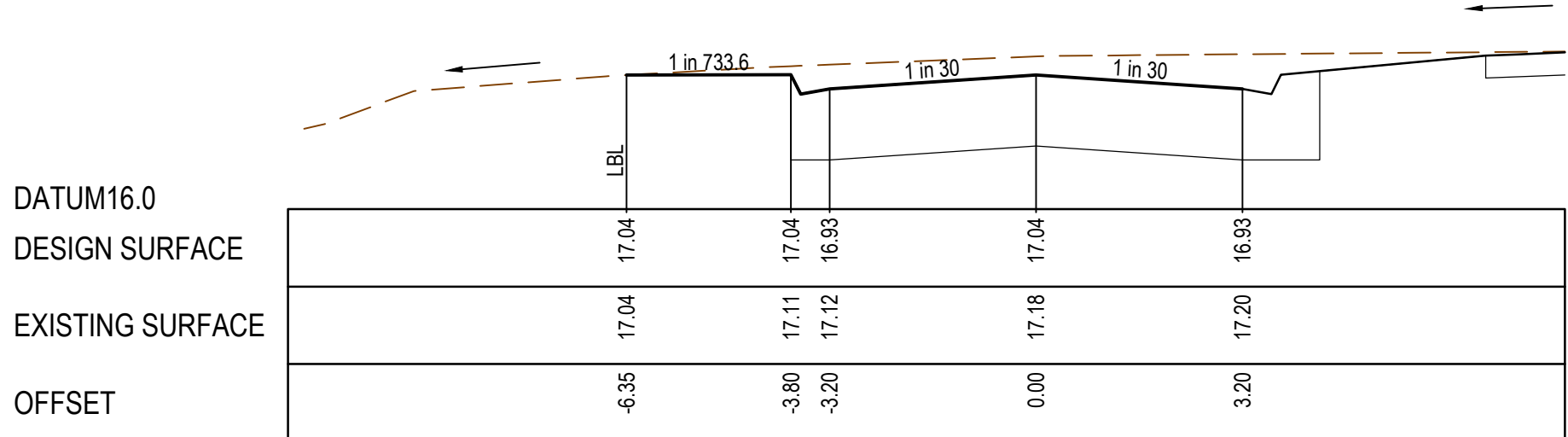
STRUCTURAL FILL REQUIRED UNDER  
PAVEMENT AND FOOTPATHS WHERE  
CONSTRUCTED ABOVE EXISTING SURFACE  
**Approved Plan As Required  
Under Condition 4  
Permit No WYP8983/16  
Date 11/01/2019**



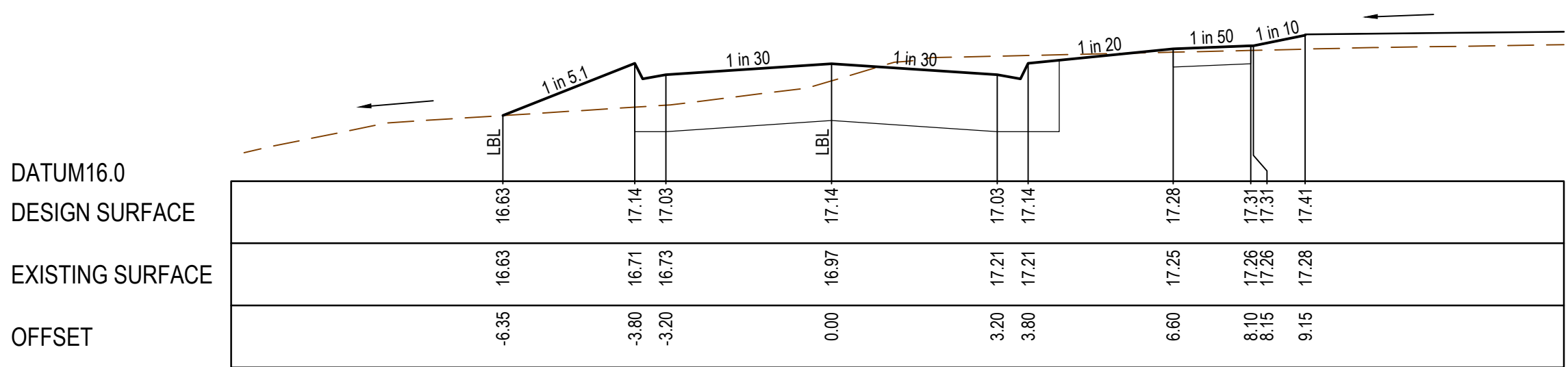
CH 45.83



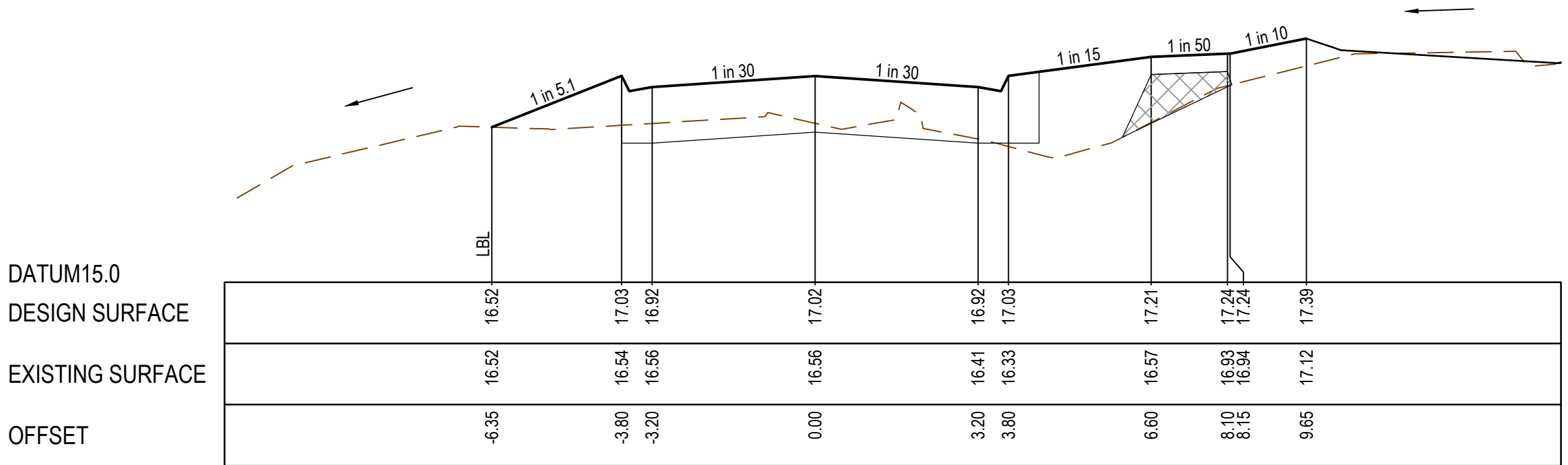
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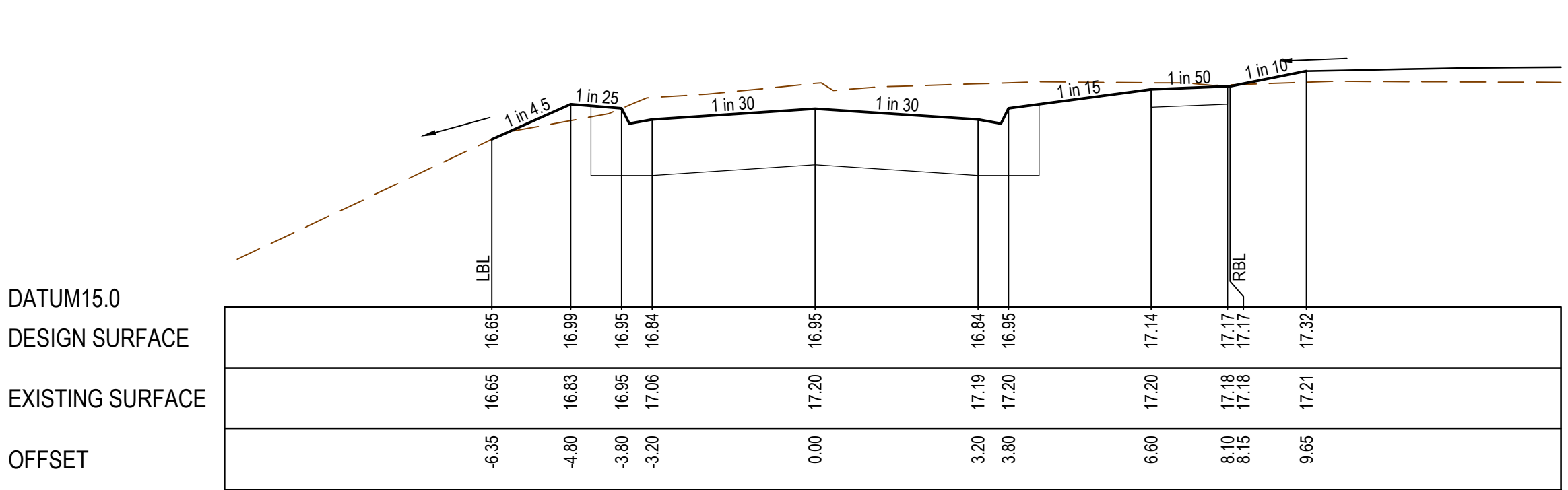
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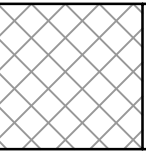
CH 0.00



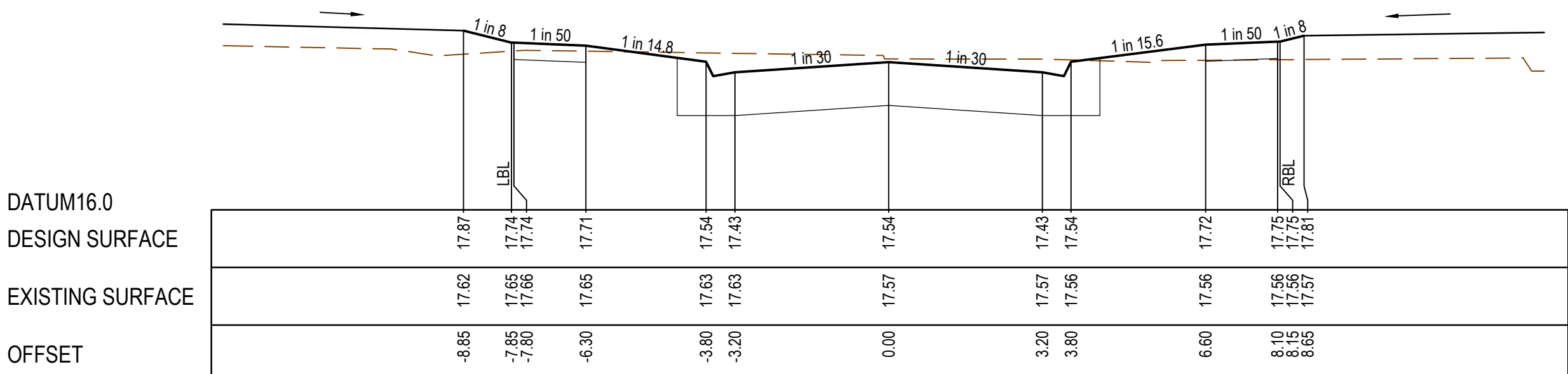
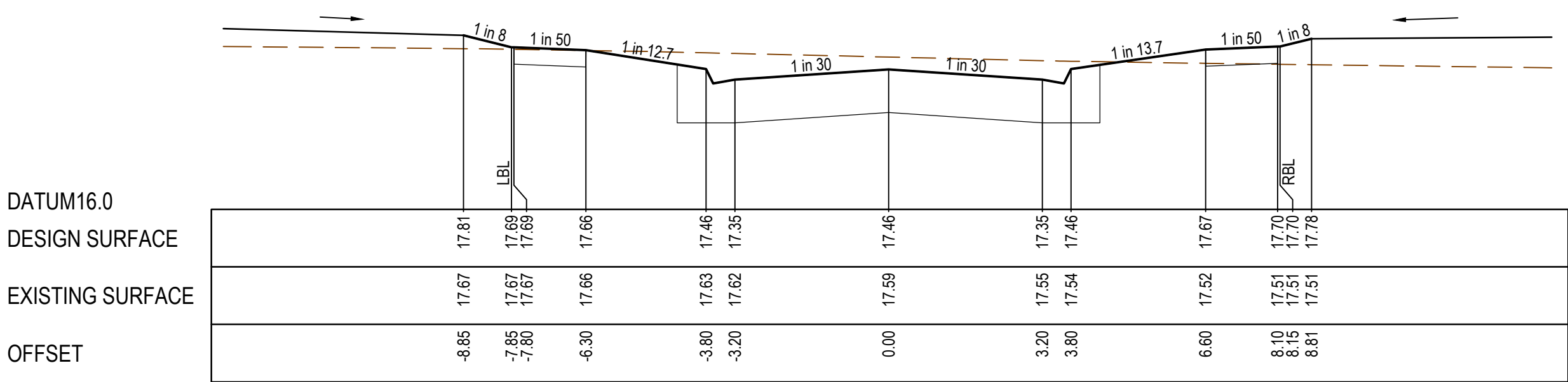
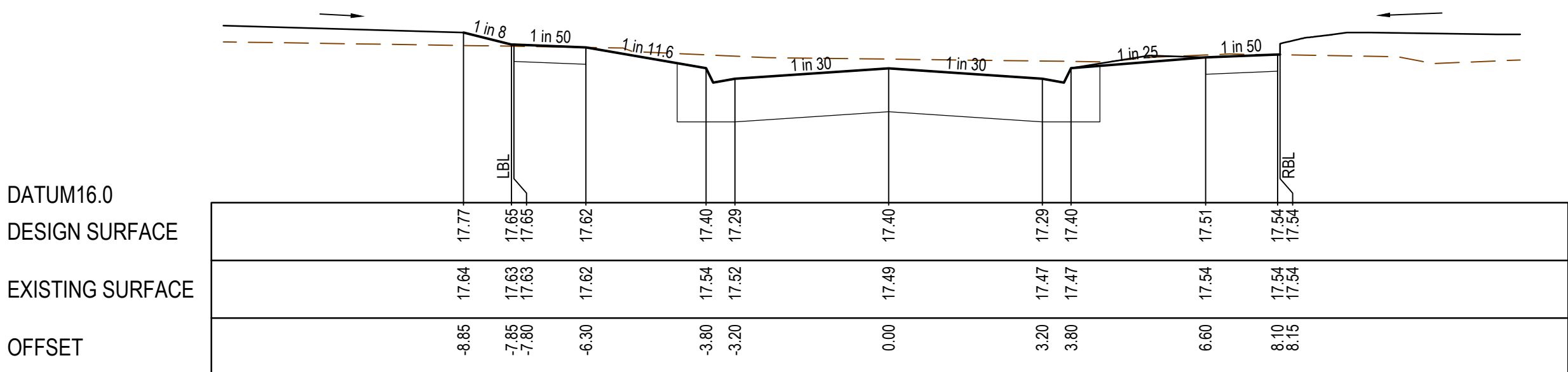
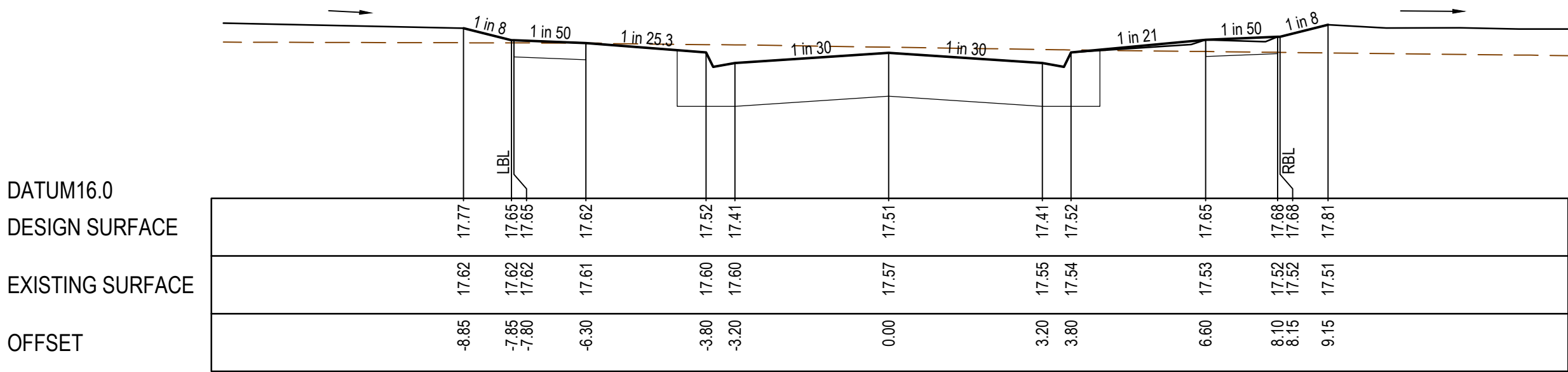
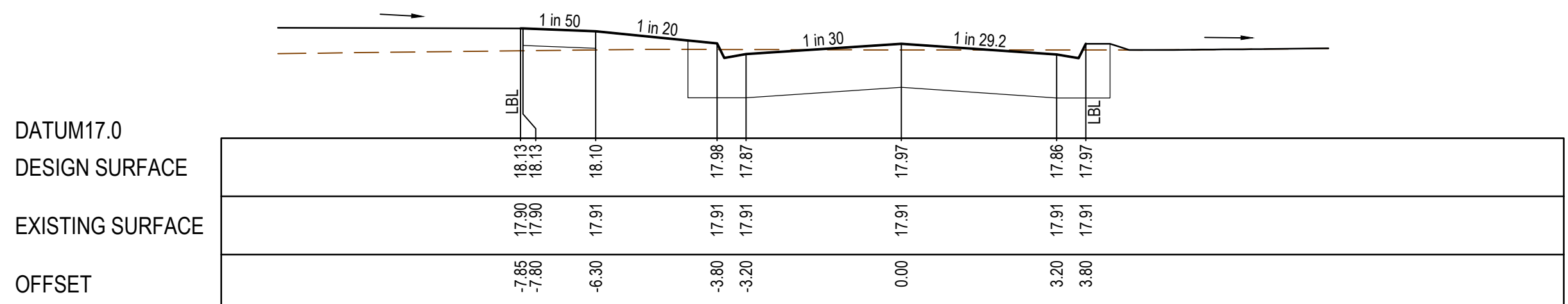
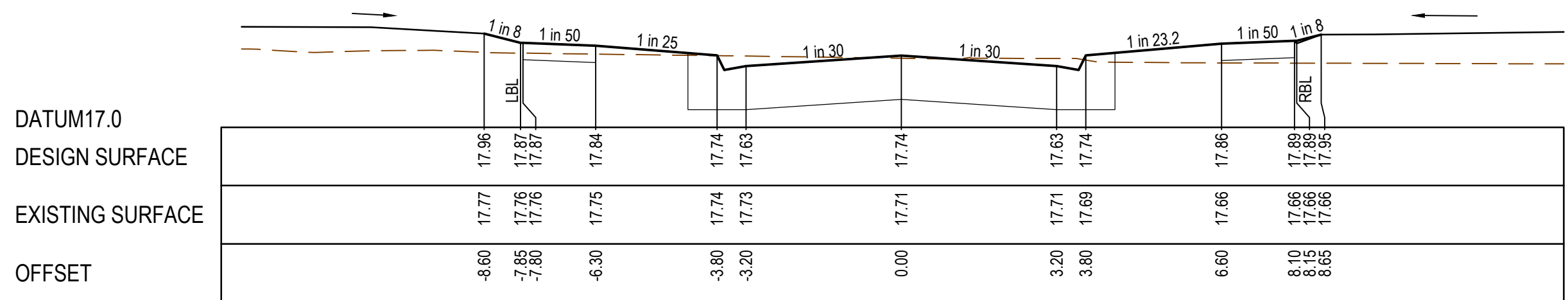
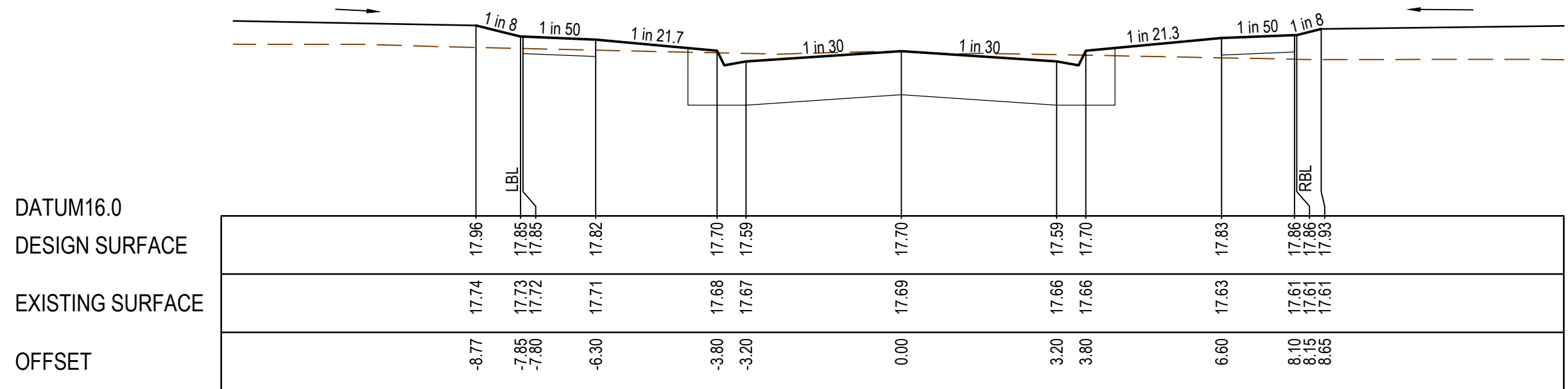
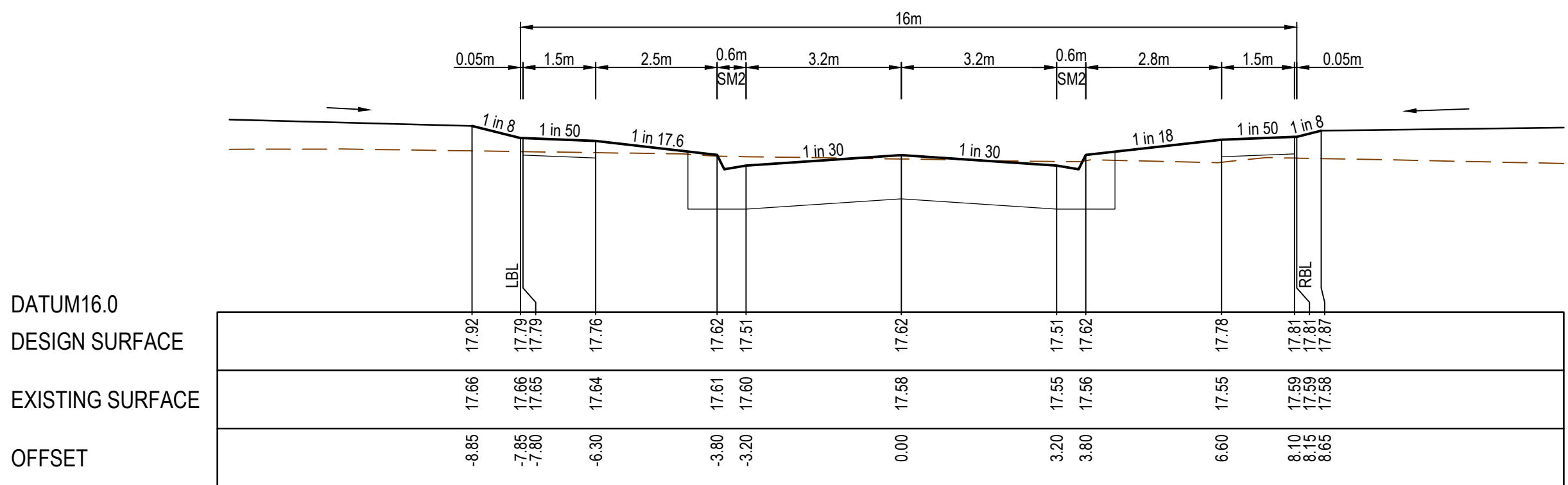
CH 69.32



CH 53.96



Approved Plan As Required  
Under Section 4  
Permit No WYP8983/16  
Date 11/01/2019

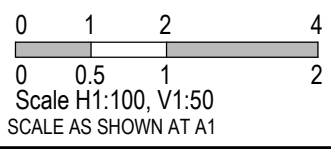


REV	DATE	AMENDMENT / REVISION DESCRIPTION	DESIGN	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	21.11.18	DRAWING MOVED TO SHEET 11	NG/NG	LV

SUBJECT TO APPROVAL

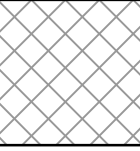
All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	
Quality Management - ISO 9001	Site Management - AS/NZS 1880
Environmental Management - ISO 14001	Logistics Management - ISO 28000

TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	

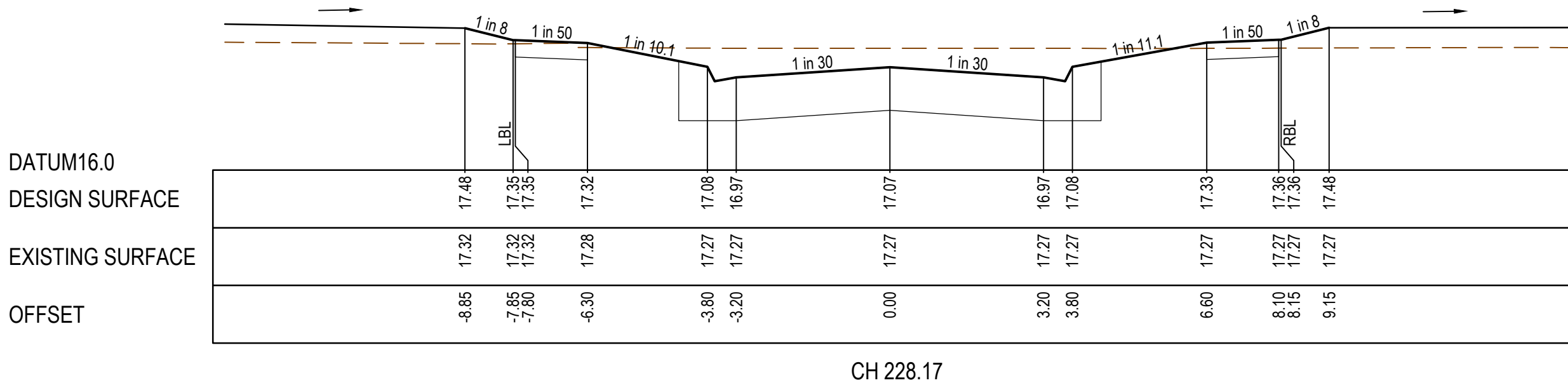
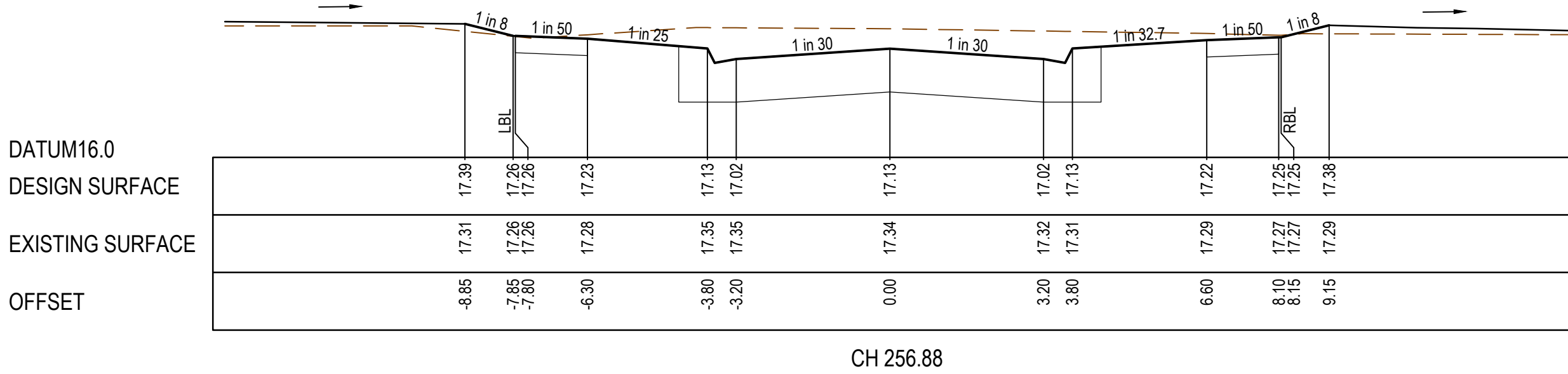
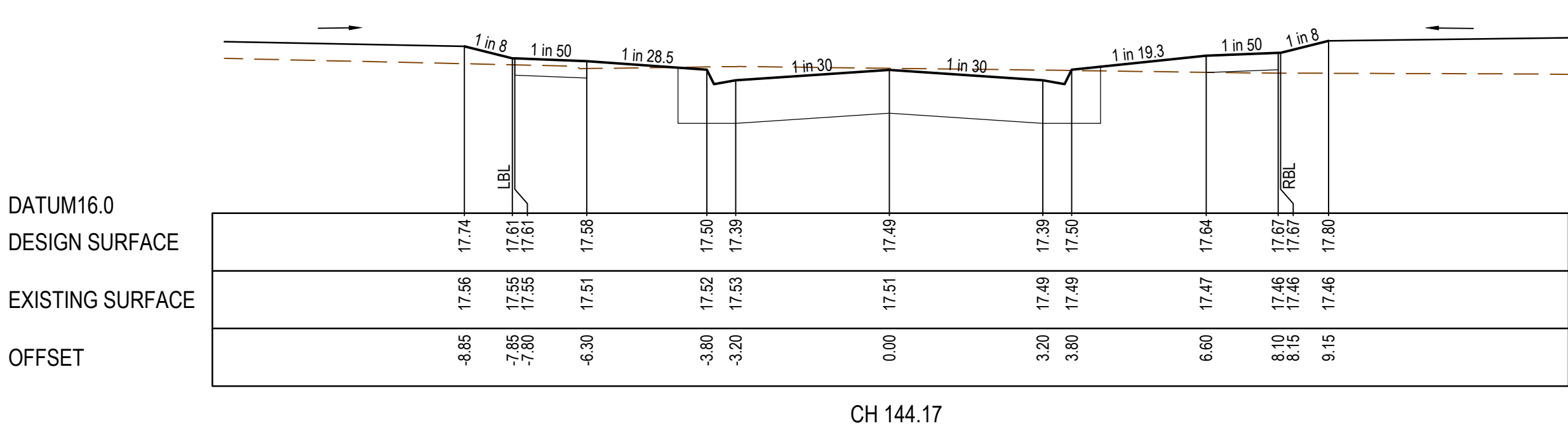
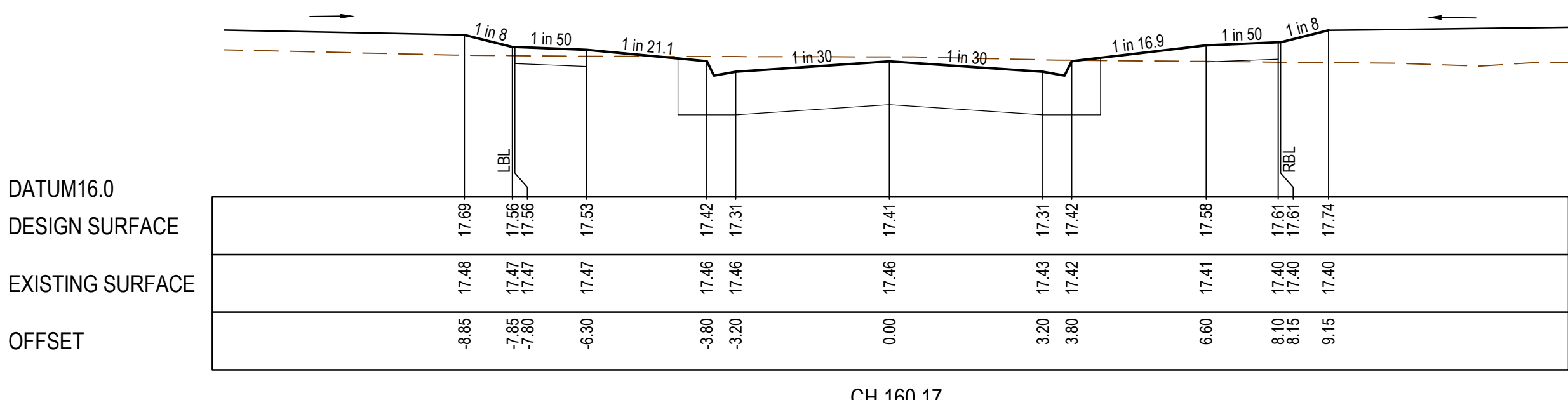
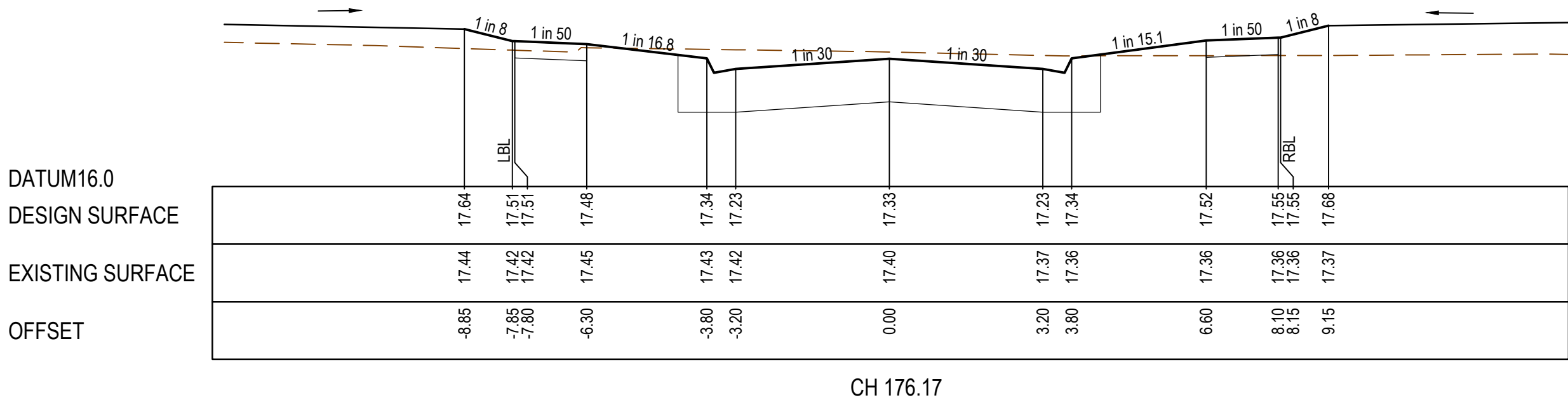
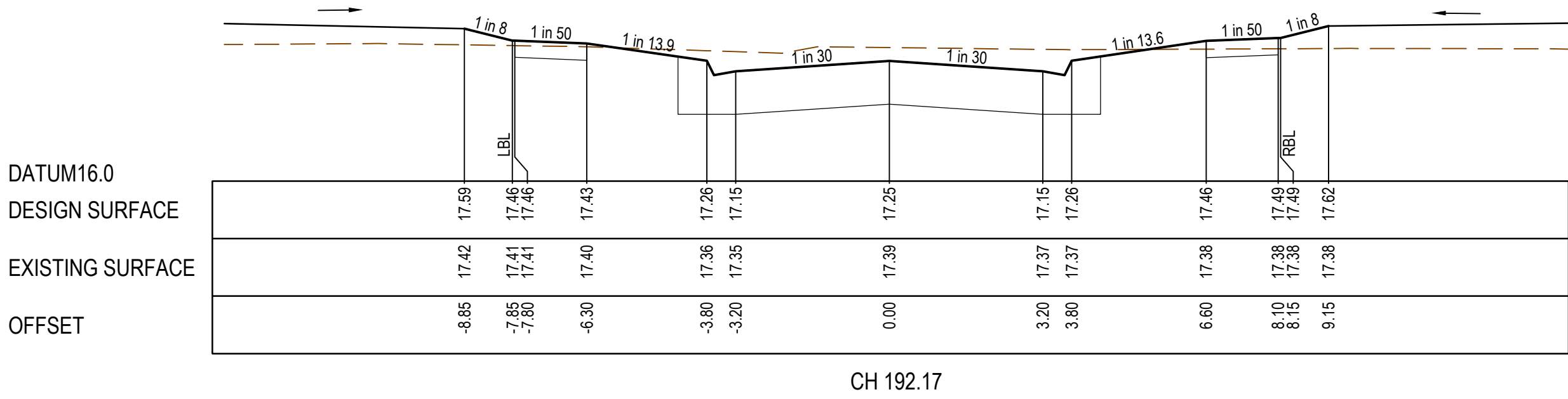
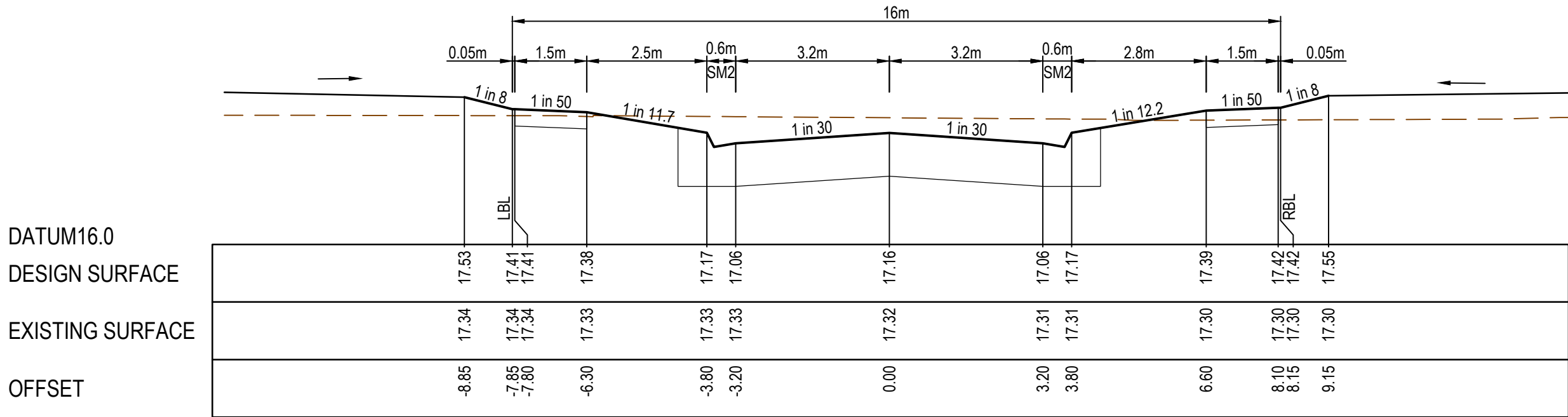


Farm Road, Werribee - Stage 1 Wyndham City Council Road and Drainage Cross Sections: Phipps Road Ch0.00 to Ch127.37	
MELWAYS REF 205 G12	PROJECT / DRAWING No 2052E-01-11
SHEET No 11 of 25	REVISION B





STRUCTURAL FILL REQUIRED UNDER  
PAVEMENT AND FOOTPATHS WHERE  
CONSTRUCTED ABOVE EXISTING SURFACE  
**Approved Plan As Required  
Under Condition 4  
Permit No WYP8983/16  
Date 11/01/2019**



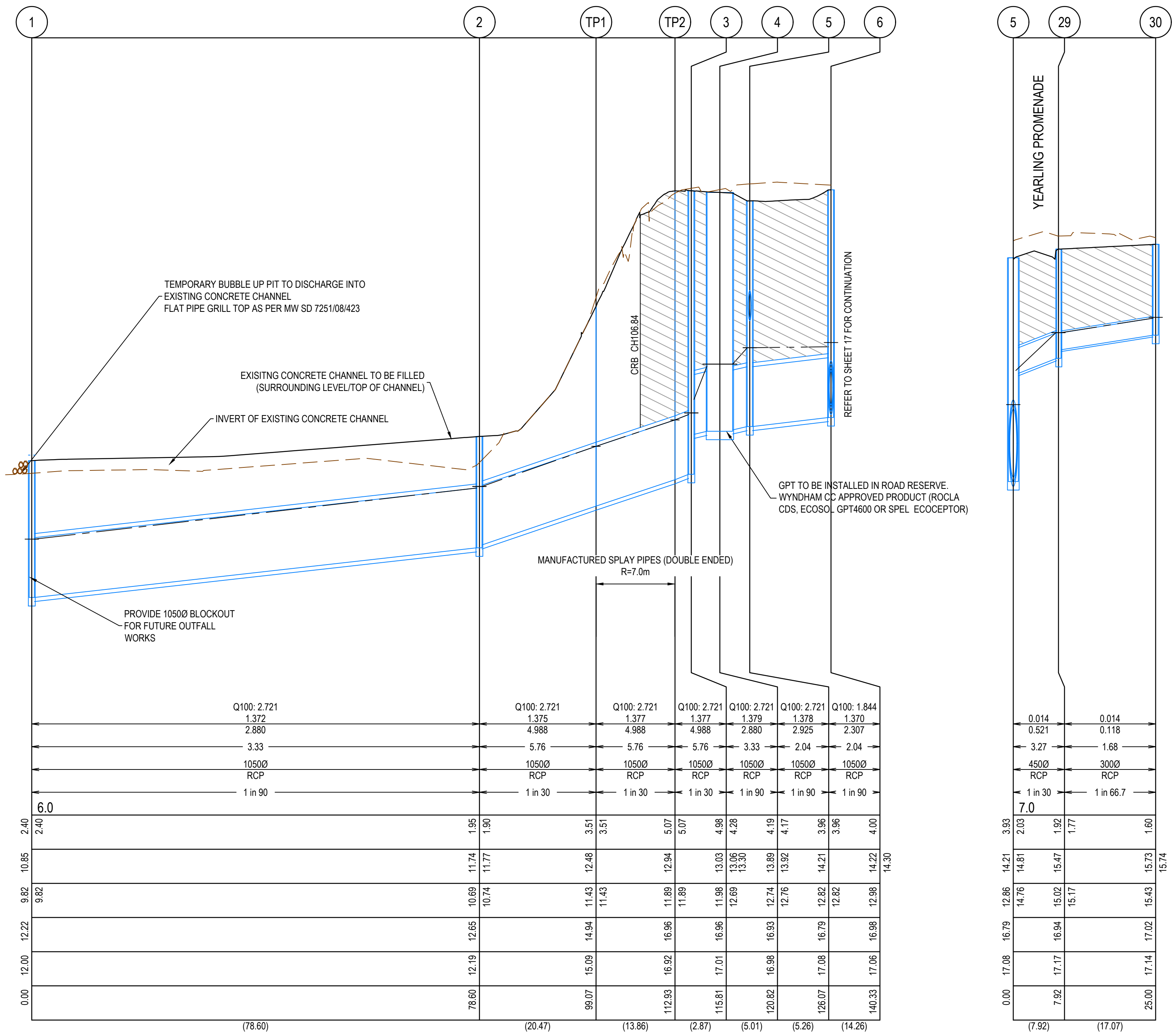
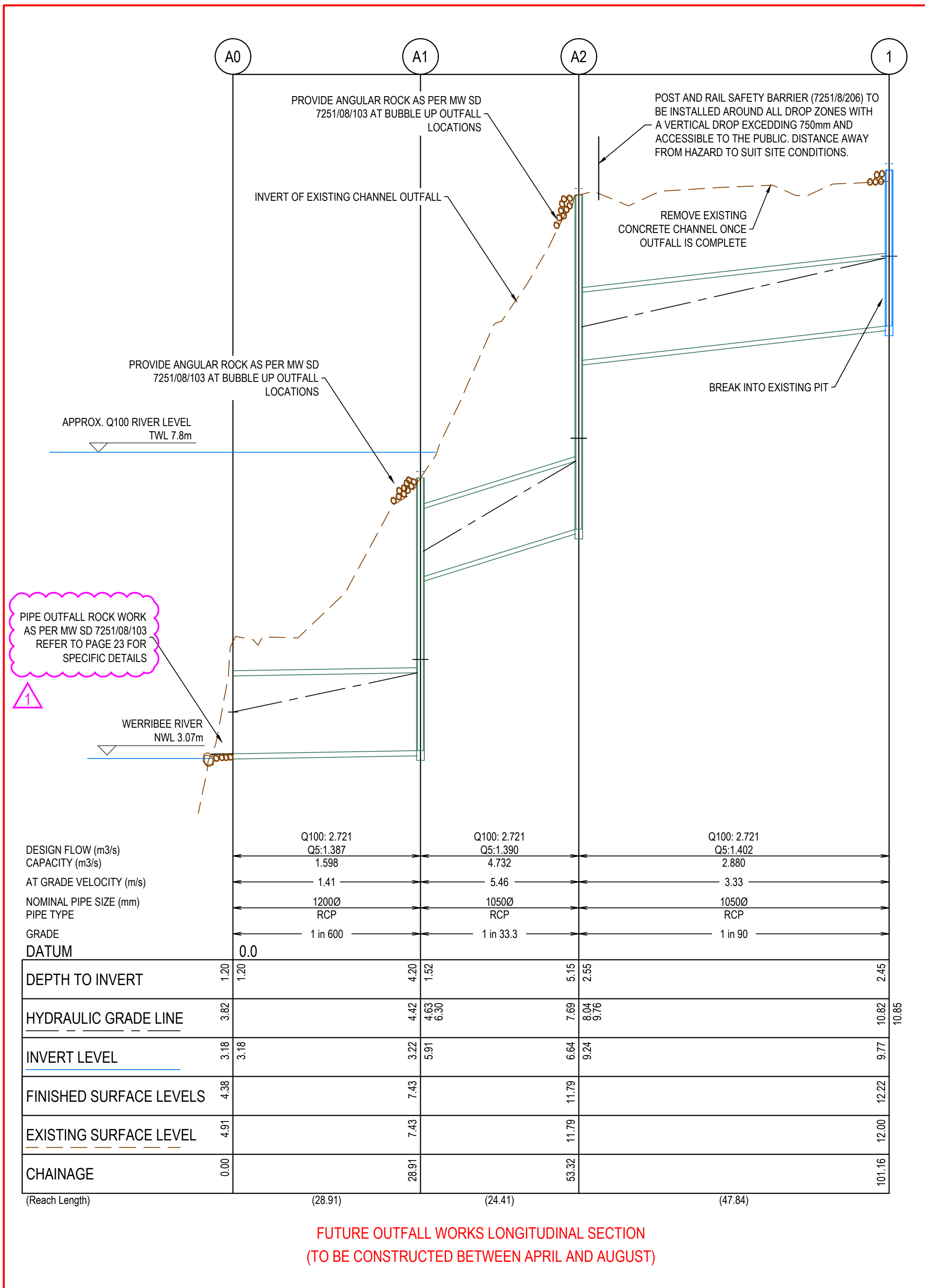
## NOTE

ALL DRAINAGE PIPES UP TO AND INCLUDING 750mm DIAMETER ARE CLASS 2  
RCP PIPES RUBBER RING JOINTED UNLESS SPECIFIED OTHERWISE. ALL  
OTHER LARGER PIPES TO BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS  
UNLESS SPECIFIED OTHERWISE.

**CRUSHED ROCK BACKFILL**  
CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE  
WITH WYNDHAM CITY COUNCIL STANDARDS & SPECIFICATION CLASS 2  
UNDER ROAD PAVEMENT & CLASS 3 BEHIND KERB

**Planning and Environment Act 1987**  
**Wyndham Planning Scheme**

**Approved Plan As Required**  
**under Condition 24**  
**Permit No WYP8983/16**  
**Date 20/03/2019**



STAGE 1 DRAINAGE WORKS WITH TEMPORARY OUTFALL LONGITUDINAL SECTION

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DESIGN	APPROVAL	TITLE	NAME
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV	DRAFTER	S.Sathasivam
1	22.01.19	ISSUED FOR CONSTRUCTION	NG/HE	LV	DESIGNER	N.Green
					CHECKED	L.Vieyra
					AUTHORISED	L.Vieyra
					REFERENCE No. 1	
					REFERENCE No. 2	

Quality Management - ISO 9001	Site Management - AS/NZS 1801	Environmental Management - ISO 14001
Global-Mark.com.au®	Global-Mark.com.au®	Global-Mark.com.au®

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SCALE AS SHOWN AT A1

**SMEC**

Member of the Surbana Jurong Group

ABN 47 065 475 149

Level 10, 71 Queens Road  
Melbourne, VIC 3004  
Ph 03 9514 1500

**YourLand**  
Developments

Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Drainage Longitudinal Sections - 1

MELWAYS REF <b>205 G12</b>	PROJECT / DRAWING No. <b>2052E-01-13</b>	SHEET No. <b>13 of 25</b>	REVISION <b>1</b>
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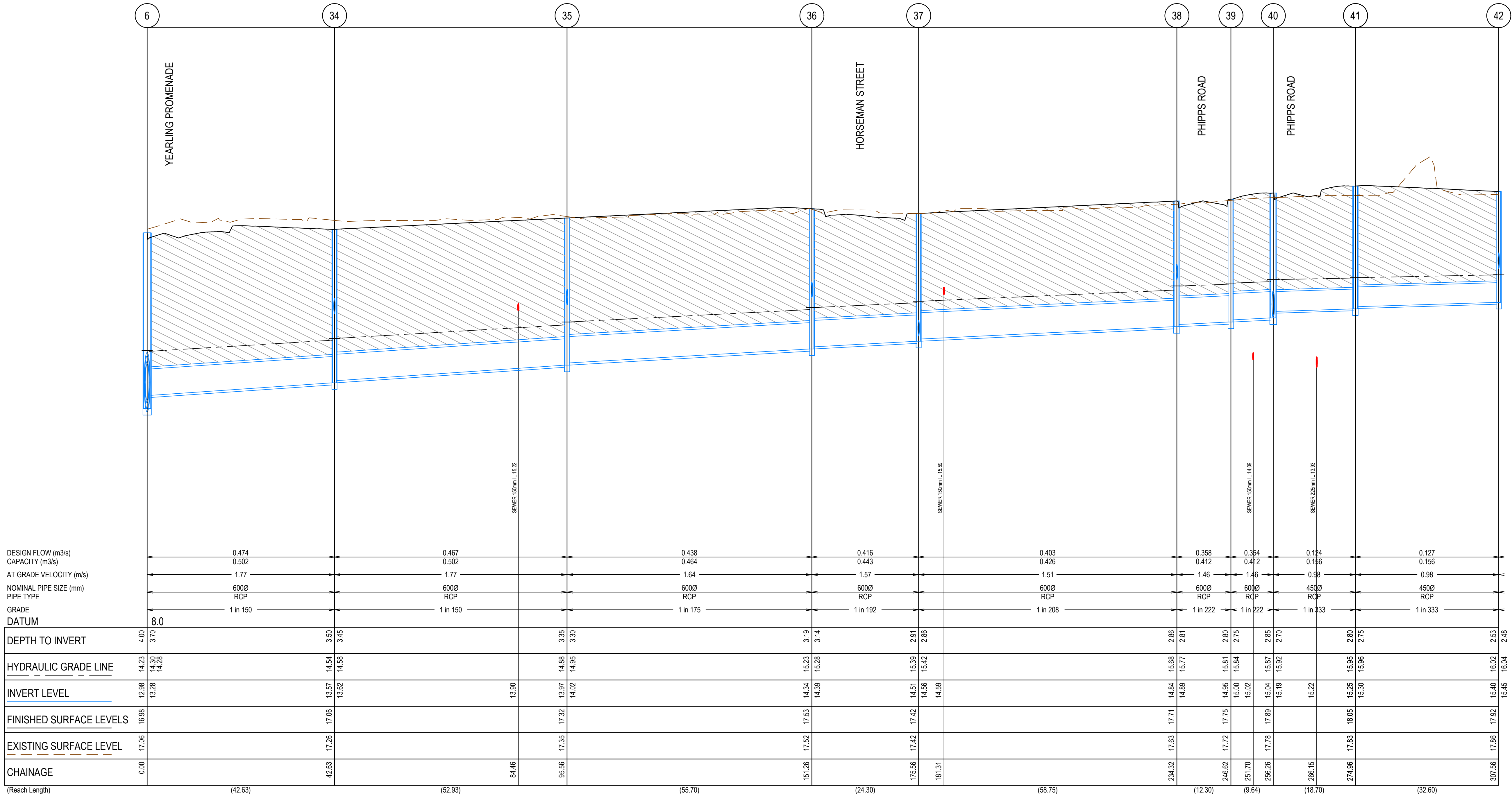


NOTE  
ALL DRAINAGE PIPES UP TO AND INCLUDING 750mm DIAMETER ARE CLASS 2  
RCP PIPES RUBBER RING JOINTED UNLESS OTHERWISE SPECIFIED. ALL OTHER  
LARGER PIPES TO BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS.

CRUSHED ROCK BACKFILL  
CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE  
WITH WYNDHAM CITY COUNCIL STANDARD SPECIFICATION FOR  
UNDER ROAD PAVEMENT & CLASS 3 BEHIND KERBS

Planning and Environment Act 1987  
Wyndham Planning Scheme

Approved Plan As Required  
under Condition 34  
Permit No WYP8983/16  
Date 11/01/2019

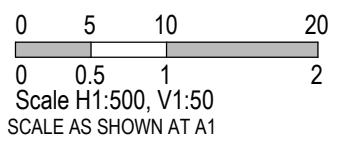


REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	03.04.18	DRAINAGE AMENDED	NG/NG	LV
C	17.05.18	OUTFALL AMENDED	NG/NG	LV
D	21.06.18	DRAINAGE AMENDED	NG/NG	LV
E	21.11.18	DRAWING MOVED TO SHEET 14	NG/NG	LV

SUBJECT TO APPROVAL

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TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	



Member of the Surbana Jurong Group  
ABN 47 065 475 149  
Level 10, 71 Queens Road  
Melbourne, VIC 3004  
Ph 03 9514 1500

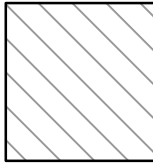
Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Drainage Longitudinal Sections - 2

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
205 G12	2052E-01-14	14 of 25	E



NOTE

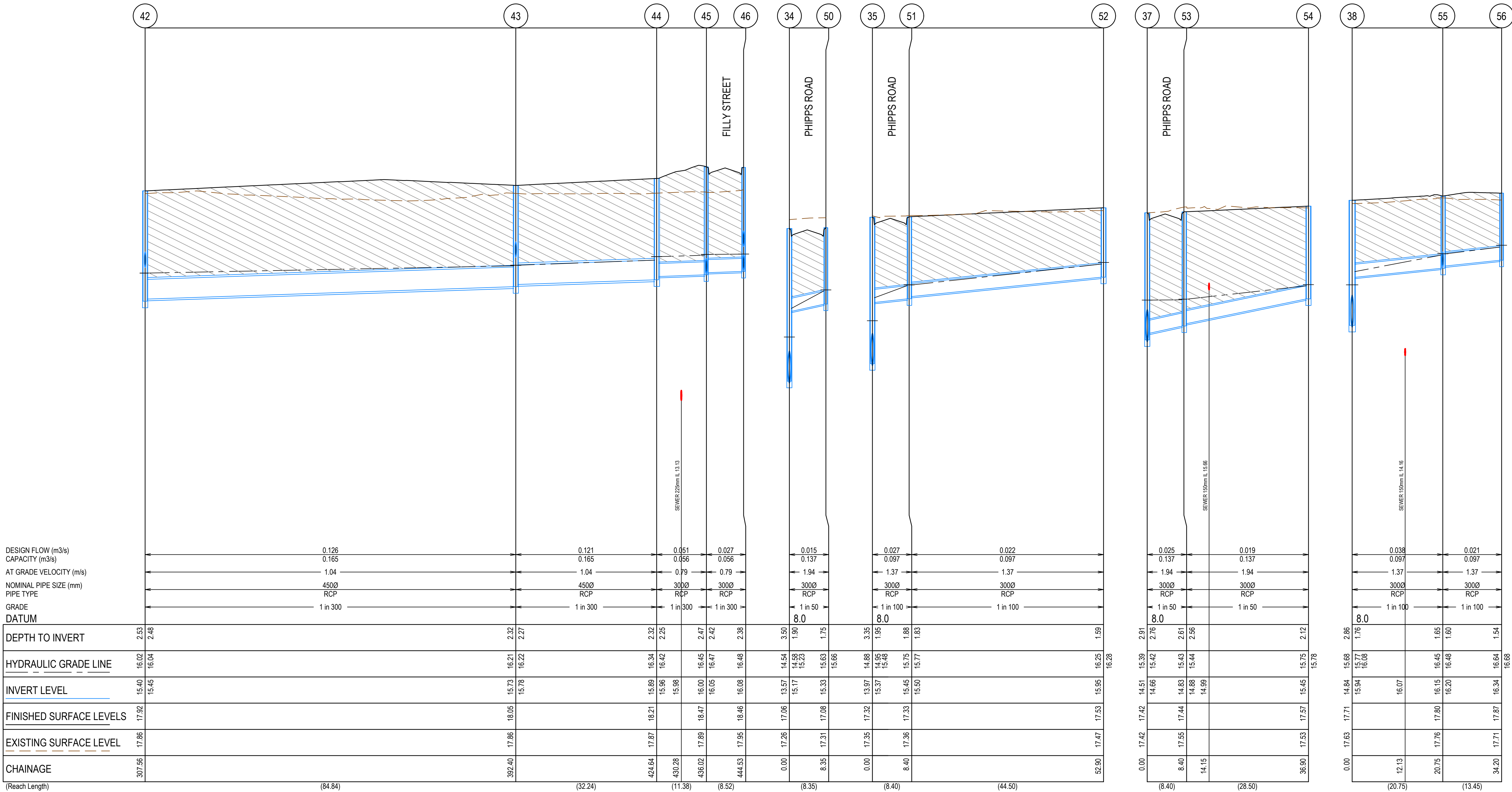
ALL DRAINAGE PIPES UP TO AND INCLUDING 750mm DIAMETER ARE CLASS 2  
RCP PIPES RUBBER RING JOINTED UNLESS OTHERWISE SPECIFIED. ALL OTHER  
LARGER PIPES TO BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS.



CRUSHED ROCK BACKFILL  
CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED BY ACCORDANCE  
WITH WYNDHAM CITY COUNCIL STANDARD SPECIFICATION  
UNDER ROAD PAVEMENT & CLASS 3 BEHIND KERB

Planning and Environment Act 1987  
Wyndham Planning Scheme

Approved Plan As Required  
under Condition 34  
Permit No WYP8983/16  
Date 11/01/2019



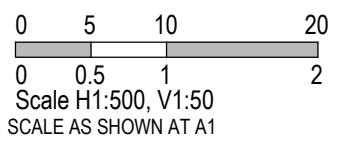
REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	03.04.18	DRAINAGE AMENDED	NG/NG	LV
C	17.05.18	OUTFALL AMENDED	NG/NG	LV
D	21.06.18	DRAINAGE AMENDED	NG/NG	LV
E	21.11.18	DRAWING MOVED TO SHEET 15	NG/NG	LV

SUBJECT TO APPROVAL

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DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
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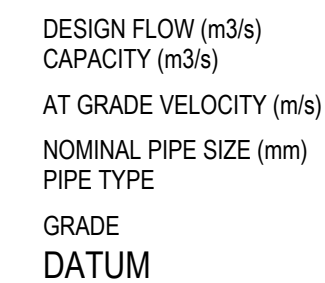
Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Drainage Longitudinal Sections - 3

MELWAYS REF	PROJECT / DRAWING No	SHEET No	REVISION
205 G12	2052E-01-15	15 of 25	E

ALL DRAINAGE PIPES UP TO AND INCLUDING 750mm DIAMETER ARE CLASS 2 RCP PIPES RUBBER RING JOINTED UNLESS SPECIFIED OTHERWISE. ALL OTHER LARGER PIPES TO BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS UNLESS SPECIFIED OTHERWISE.

**Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 20/03/2019**

**CRUSHED ROCK BACKFILL**  
CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE  
WITH WYNDHAM CITY COUNCIL STANDARDS & SPECIFICATION CLASS 2  
UNDER ROAD PAVEMENT & CLASS 3 BEHIND KERB



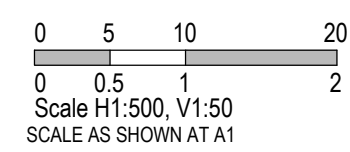
DEPTH TO INVERT	1.65	1.60	1.60		2.85	2.80			
HYDRAULIC GRADE LINE	16.45	16.48	16.59	16.59	15.75	15.80			
INVERT LEVEL	16.15	16.20	16.29		15.04	15.09	15.11		
FINISHED SURFACE LEVELS	17.80	17.89			17.89	17.99	17.99	15.19	15.86
EXISTING SURFACE LEVEL	17.76	17.78			17.78	17.91	17.91	15.24	15.96
CHAINAGE	0.00	8.35			0.00	4.04		17.56	26.68


(Reach Length) (8.35) (17.56) (9.12) (1.87)

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 <p>Quality Management - ISO 9001</p> <p>Global-Mark.com.au®</p>	 <p>OHS Management - AS/NZS 8001</p> <p>Global-Mark.com.au®</p>	 <p>Environmental Management - ISO 14001</p> <p>Global-Mark.com.au®</p>
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TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	



 **SMEC**

Member of the Surbana Jurong Group

© ABN 47 065 475 149

Level 10, 71 Queens Road  
Melbourne, VIC 3004  
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**YourLand**  
Developments

Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Drainage Longitudinal Sections - 4

MELWAYS REF <b>205 G12</b>	PROJECT / DRAWING No. <b>2052E-01-16</b>	SHEET No. <b>16 of 25</b>	REVISION <b>1</b>
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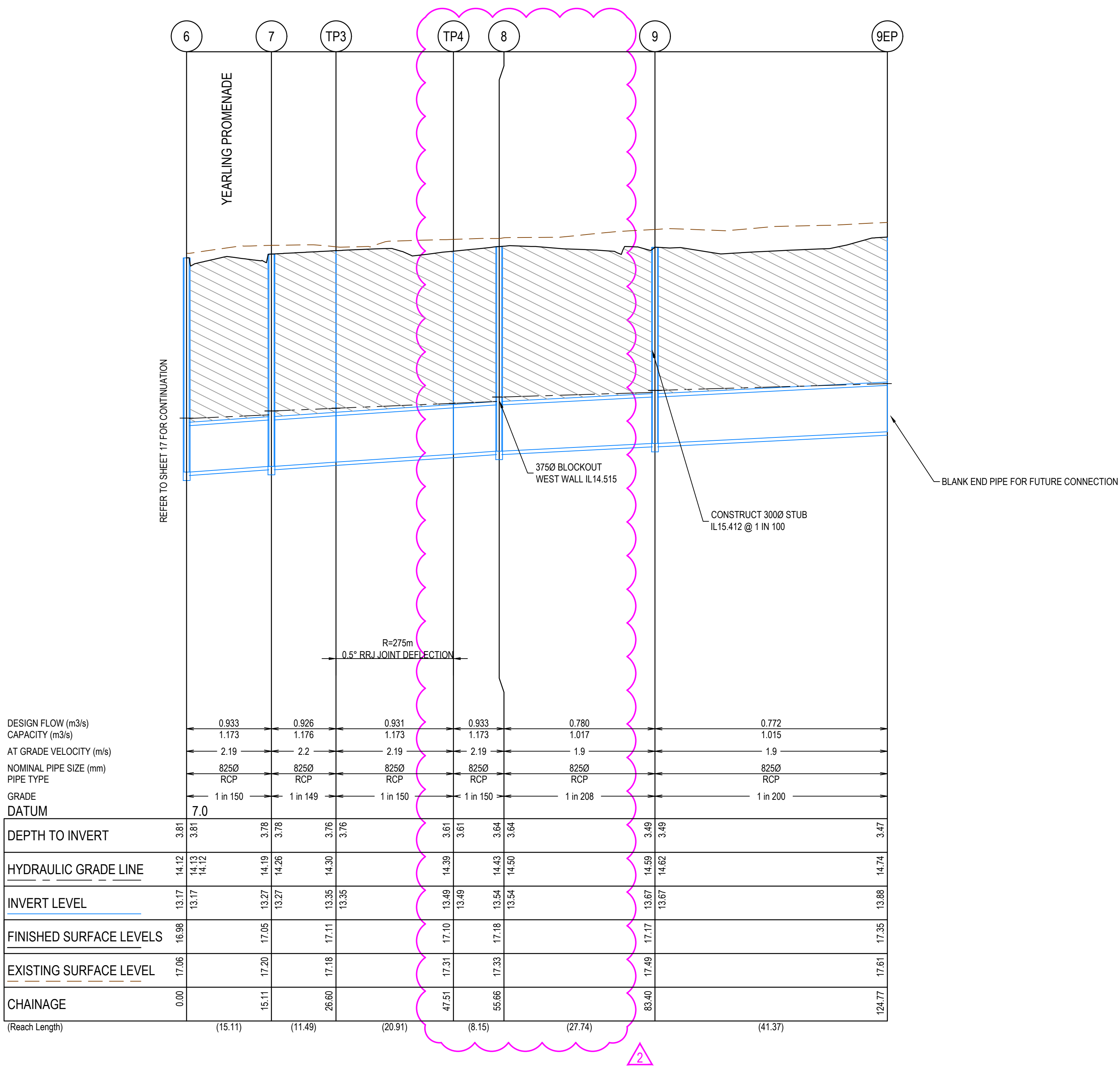


NOTE

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CRUSHED ROCK BACKFILL  
CRB INDICATES CRUSHED ROCK BACKFILL COMPACTED IN ACCORDANCE WITH WYNDHAM CITY COUNCIL STANDARDS & SPECIFICATION CLASS 2 UNDER ROAD PAVEMENT & CLASS 3 BEHIND KERB



Planning and Environment Act 1987  
Wyndham Planning Scheme

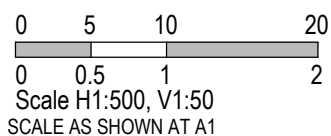
Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 23/08/2019

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV
1	18.02.19	DRAINAGE INTERFACE AMENDED	NG	LV
2	07.08.19	PIT 8 AMENDED FOR FUTURE DEVELOPMENT	NG	LV

ISSUED FOR CONSTRUCTION

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Quality Management - ISO 9001	Ops Management - AS/NZS 1801	Environmental Management - ISO 14001
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TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
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AUTHORISED	L.Vieyra
REFERENCE No. 1	
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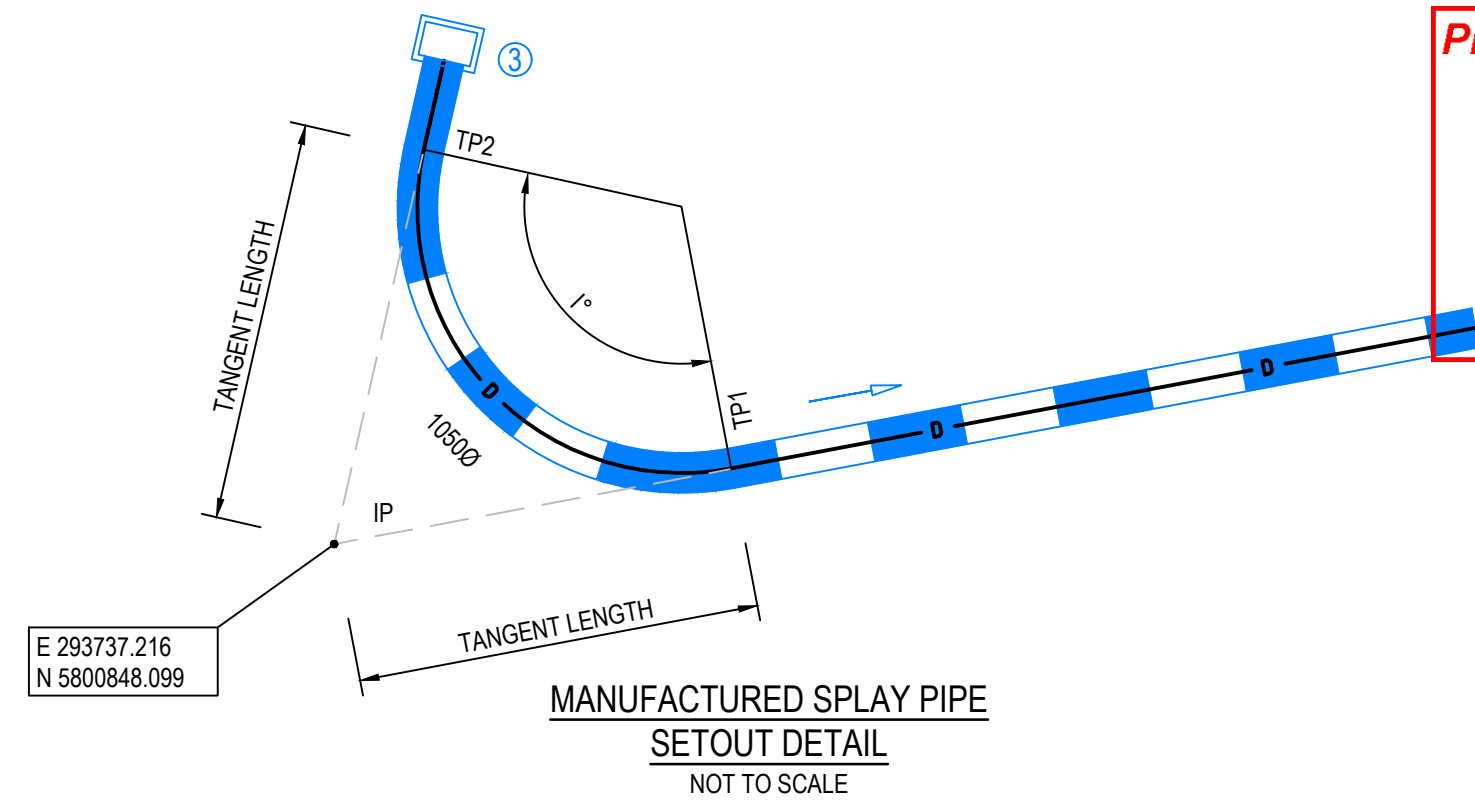


Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Drainage Longitudinal Sections - 5

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
205 G12	2052E-01-17	17 of 25	2



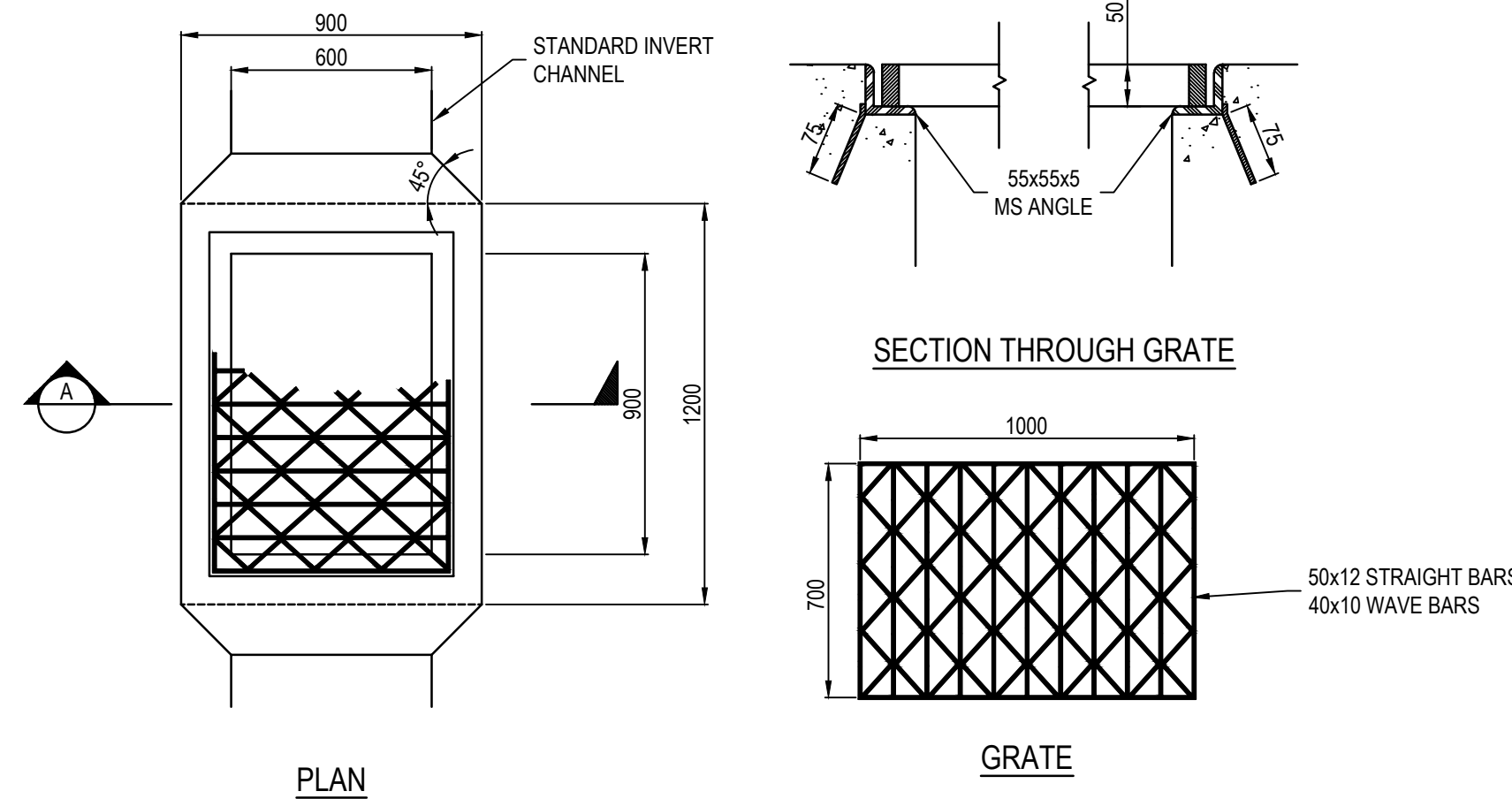
PIT SCHEDULE												
PIT		INTERNAL		INLET		OUTLET		PIT		STD DWG	REMARKS	
NAME	TYPE	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH			
FUTURE OUTFALL WORKS												
A0	OUTFALL STRUCTURE			1200	3.175			4.375	1.2	MW SD 7251/08/103	PROVIDE OUTFALL STRUCTURE WITH ROCKWORK AS PER MW SD 7251/08/103 (REFER TO SHEETS 21-22)	
A1	BUBBLE UP PIT	1700	900	1050	5.907	1200	3.224	7.428	4.205	MWC 7251/08/405 MWC 7251/08/423	PIT TO BE HAUNCHED TO 900x900 AS PER MWC STANDARD FLAT PIPE GRILL TOP AS PER MWC 7251/08/423	
A2	BUBBLE UP PIT	1600	900	1050	9.239	1050	6.639	11.792	5.152	MWC 7251/08/405 MWC 7251/08/423	PIT TO BE HAUNCHED TO 900x900 AS PER MWC STANDARD FLAT PIPE GRILL TOP AS PER MWC 7251/08/423	
STAGE 1 WORKS												
1	BUBBLE UP PIT	1600	900	1050	9.821	1050	9.771	12.223	2.452	MWC 7251/08/404 MWC 7251/08/423	PIT TO BE HAUNCHED TO 900x900 AS PER MWC STANDARD FLAT PIPE GRILL TOP AS PER MWC 7251/08/423	
2	JUNCTION PIT	1600	900	1050	10.744	1050	10.694	12.647	1.915	MWC 7251/08/404	PIT TO BE HAUNCHED TO 900x900 AS PER MWC STANDARD	
TP1	TANGENT POINT			1050	11.426	1050	11.426	14.937	3.561	-	MANUFACTURED SPLAY PIPE (DOUBLE ENDED)	
TP2	TANGENT POINT			1050	11.889	1050	11.889	16.963	5.073	-	MANUFACTURED SPLAY PIPE (DOUBLE ENDED)	
3	JUNCTION PIT	1400	900	1050	12.686	1050	11.984	16.963	4.977			
4	JUNCTION PIT	1950	4500	1050	12.764	1050	12.741	16.934	4.193	-	GPT TO BE HAUNCHED UNDER ROAD. EACH PIT OPENING TO BE HAUNCHED TO 600x900. (ROCLA CDS, ECOSOL GPT4600 OR SPEL VORTCEPTOR)	
5	DOUBLE SIDE ENTRY PIT	1750	900	1050	12.822	1050	12.822	16.786	3.964	EDCM 602 & EDCM 608	PIT TO BE HAUNCHED TO 600x900	
6	DOUBLE SIDE ENTRY PIT	1600	900	825	13.169	1050	12.981	16.981	3.999	EDCM 602 & EDCM 608	PIT TO BE HAUNCHED TO 600x900	
				600	13.281							
7	DOUBLE SIDE ENTRY PIT	1350	900	825	13.27	825	13.27	17.049	3.779	EDCM 602 & EDCM 608	PIT TO BE HAUNCHED TO 600x900	
TP3	TANGENT POINT			825	13.35	825	13.35	17.11	3.76			
TP4	TANGENT POINT			825	13.49	825	13.49	17.10	3.61			
8	JUNCTION PIT	1350	900	825	13.54	825	13.54	17.184	3.645	EDCM 608	PIT TO BE HAUNCHED TO 600x900 3750 BLOCKOUT WEST WALL - IL14.515	
				375	14.515							
9	JUNCTION PIT	1350	900	825	13.67	825	13.67	17.17	3.50	EDCM 608	PIT TO BE HAUNCHED TO 600x900 CONSTRUCT 3000 STUB - IL15.412 @ 1 IN 100	
				300	15.412							
9EP	ENDPIPE			825	13.88	825	13.88	17.352	3.467		BLANK END STUB FOR FUTURE CONNECTION	
29	DOUBLE SIDE ENTRY PIT	600	900	300	15.171	450	15.021	16.941	1.92	EDCM 602 & EDCM 608	PIT TO BE HAUNCHED TO 600x900	
30	DOUBLE SIDE ENTRY PIT	600	900			300	15.427	17.023	1.596			
45	SIDE ENTRY PIT	600	900	300	16.05	300	16	18.471	2.471	EDCM 601 & EDCM 605		
				300	16.05							
47	SIDE ENTRY PIT	600	900	300	16.181	300	16.131	18.315	2.184	EDCM 601 & EDCM 605		
				300	16.631							
48	JUNCTION PIT	750	900	300	16.255	300	16.205	18.208	2.003	EDCM 607	PIT TO BE HAUNCHED TO 600x900	
				300	16.255							
49	SIDE ENTRY PIT	600	900			300	16.371	17.465	1.094	EDCM 605		
34	DOUBLE SIDE ENTRY PIT	900	900	600	13.616	600	13.566	17.061	3.496	EDCM 602 & EDCM 608	PIT TO BE HAUNCHED TO 600x900	
				300	15.166							
35	SIDE ENTRY PIT	900	900	600	14.019	600	13.969	17.319	3.351	EDCM 601 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
				300	15.369							
36	SIDE ENTRY PIT	900	900	600	14.386	600	14.336	17.529	3.193	EDCM 601 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
				300	15.536							
37	DOUBLE SIDE ENTRY PIT	900	900	600	14.562	600	14.512	17.422	2.909	EDCM 602 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
				300	14.662							
38	SIDE ENTRY PIT	900	1200	600	14.895	600	14.845	17.706	2.862	EDCM 601 & EDCM 607 VIC ROADS SD 1023	PIT TO BE DOUBLE HAUNCHED TO 600x900 AS PER VIC ROADS SD 1023	
				300	15.945							
39	SIDE ENTRY PIT	1200	900	600	15	600	14.95	17.746	2.796	EDCM 601 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
40	SIDE ENTRY PIT	1200	1200	450	15.193	600	15.043	17.888	2.845	EDCM 601 & VR SD 1023	PIT TO BE DOUBLE HAUNCHED TO 600x900 AS PER VIC ROADS SD 1023	
				525	15.093							
41	SIDE ENTRY PIT	900	900	450	15.299	450	15.249	18.048	2.798	EDCM 601 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
42	DOUBLE SIDE ENTRY PIT	750	900	450	15.447	450	15.397	17.923	2.526	EDCM 602 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
				300	16.197							
43	DOUBLE SIDE ENTRY PIT	750	900	450	15.78	450	15.73	18.047	2.317	EDCM 602 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
				300	16.43							
44	SIDE ENTRY PIT	750	900	300	15.962	450	15.887	18.207	2.32	EDCM 601 & EDCM 607	PIT TO BE HAUNCHED TO 600x900	
46	SIDE ENTRY PIT	600	900	300	16.129	300	16.079	18.461	2.382	EDCM 601 & EDCM 605		
				300	16.679							
50	DOUBLE SIDE ENTRY PIT	600	900			300	15.333	17.081	1.748	EDCM 602 & EDCM 605		
51	SIDE ENTRY PIT	600	900	300	15.503	300	15.453	17.329	1.877	EDCM 601 & EDCM 605		
52	JUNCTION PIT	600	900	300	15.948	300	15.948	17.535	1.587	EDCM 605		
53	DOUBLE SIDE ENTRY PIT	600	900	300	14.881	300	14.831	17.442	2.611	EDCM 602 & EDCM 605		
54	JUNCTION PIT	600	900			300	15.451	17.574	2.124	EDCM 605		
55	GRATED PIT	600	900	300	16.202	300	16.152	17.803	1.651	EDCM 605	REFER TO ADJACENT DETAIL. TRAFFICABLE GRATE/LID	
				300	16.202							
56	GRATED PIT	600	900			300	16.337	17.873	1.537	EDCM 605	REFER TO ADJACENT DETAIL. TRAFFICABLE GRATE/LID	
57	SIDE ENTRY PIT	600	900			300	16.285	17.885	1.6	EDCM 601 & EDCM 605		
58	SIDE ENTRY PIT	900	900	450	15.24	525	15.19	17.989	2.8	EDCM 601 & EDCM 605	PROVIDE 3750 BLOCKOUT ON NORTH WALL FOR FUTURE CONNECTION	
				375	15.264							
59	GRATED PIT	600	900	450	15.341	450	15.291	17.908	2.617	EDCM 602 & EDCM 607	REFER TO ADJACENT DETAIL. PIT TO BE HAUNCHED TO 600x900	
59a	ENDPIPE			450	15.35	450	15.35	17.916	2.566	EDCM 605	STUB FOR FUTURE CONNECTION	
73	DOUBLE SIDE ENTRY PIT	600	900			300	16.327	17.9	1.573	EDCM 602 & EDCM 605		
74	DOUBLE SIDE ENTRY PIT	600	900			300	16.482	18.025	1.543	EDCM 602 & EDCM 605		
75	JUNCTION PIT	600	900			300	16.249	18.152	1.903	EDCM 605		
76	SIDE ENTRY PIT	600	900			300	16.919	18.406	1.488	EDCM 601 & EDCM 605	CLASS D - CAST IRON HEAVY DUTY PIT LID	
77	SIDE ENTRY PIT	600	900			300	16.716	18.312	1.596	EDCM 601 & EDCM 605		
36a	DOUBLE SIDE ENTRY PIT	600	900	300	15.681	300	15.631	17.477	1.846	EDCM 602 & EDCM 605		
36b	DOUBLE SIDE ENTRY PIT	600	900			300	15.749	17.47	1.72	EDCM 602 & EDCM 605		
48a	JUNCTION PIT	750	900	268	16.35	300	16.3	18.003	1.703	EDCM 607	PIT TO BE HAUNCHED TO 600x900	
49a	SIDE ENTRY PIT	600	900			268	16.439	17.418	0.979	EDCM 601 & EDCM 605		



Planning and Environment Act 1987  
Wyndham Planning Scheme

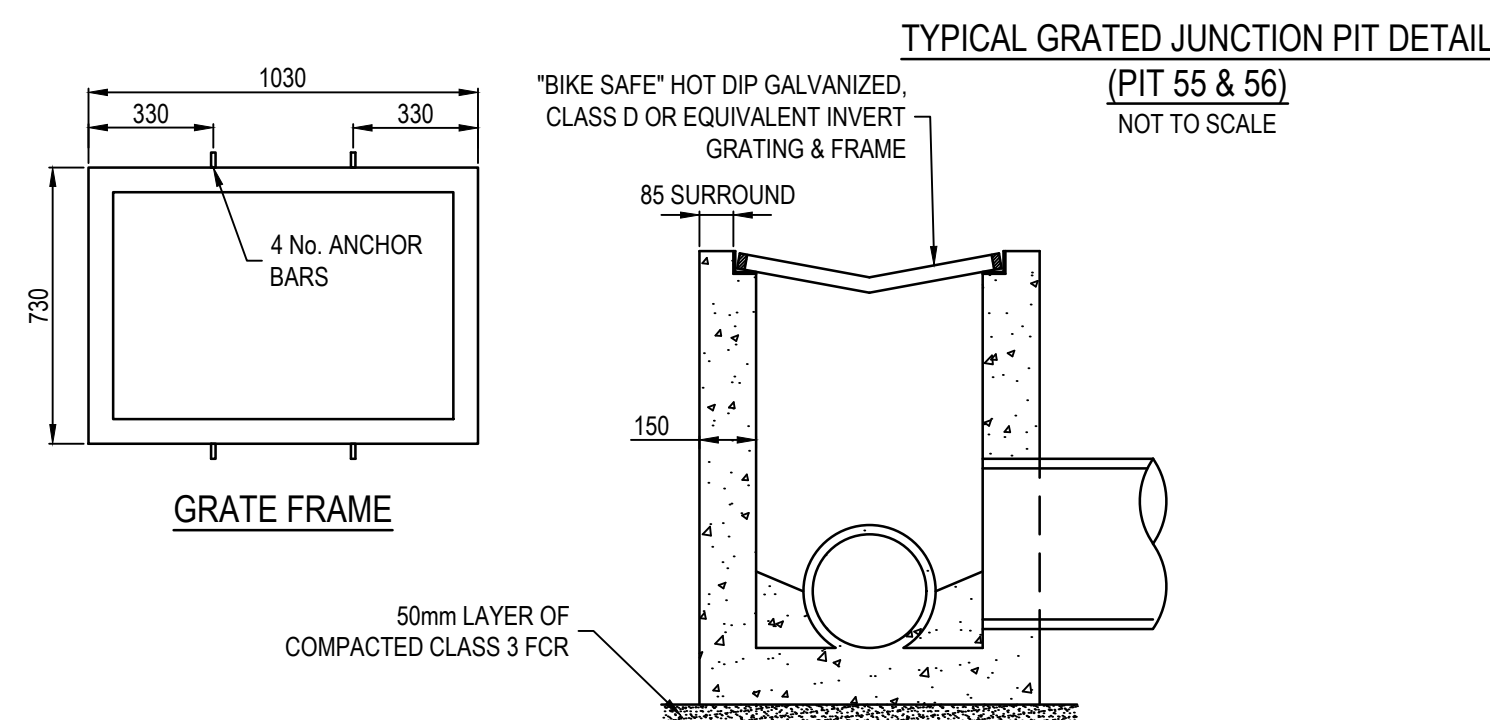
Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 23/08/2019

CURVED PIPE INFORMATION					
LOCATION	PIPE TYPE	CENTRE RADIUS (m)	ARC LENGTH (m)	TANGENT LENGTH (m)	I°
TP1-TP2	MANUFACTURED SPLAY PIPE (DOUBLE ENDED)	7.00	13.861	10.536	112.8
TP3-TP4	RRJ JOINT DEFLECTION - 0.5°	275.00	20.90	10.450	4.4



PLAN

GRATE



GRATE FRAME

SECTION A-A

JUNCTION PIT NOTES

- ALL WALLS TO BE 150mm THICK
- REFER TO STD. DWG. No. SD 5 FOR PIT DETAILS. IF PIPE DIA. EXCEEDS 450mm REFER TO STD. DWG. No. SD 6.
- A.G. INVERT TO BE 150mm BELOW SUBGRADE LEVEL.
- SUBBASE DRAINAGE: 40mm DIA. CLASS 18 UPVC STUB.
- PROVIDE STEP IRONS FOR PIT DEPTH EXCEEDING 1.0m.
- CONCRETE STRENGTH 25MPa - REFER TO MELTON SHIRE COUNCIL SPECIFICATION, SECTION 5
- GRATE FRAME TO BE "BIKE SAFE" TO AS3996-1992
- ALL DIMENSIONS ARE IN MILLIMETRES

SERVICE LOCATIONS ARE IN ACCORDANCE WITH APPENDIX H OF THE MPA GUIDELINES AND THE DETAIL PLAN **SHOULD NOT** BE RELIED UPON FOR THE ACCURATE POSITIONING OF **DRAINAGE LINES GREATER THAN 450dia. BEHIND BACK OF KERB**. PIPES GREATER THAN 450dia. WILL BE HAUNCHED UNDERNEATH KERB AND CHANNEL WHERE APPLICABLE TO ENSURE THAT PIT WIDTH BEHIND BACK OF KERB DOES NOT EXCEED 0.9m.

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DESIGN	APPROVAL	All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.		TITLE	NAME						
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV			DRAFTER	S.Sathasivam						
1	18.02.19	DRAINAGE INTERFACE AMENDED	NG	LV			DESIGNER	N.Green						
2	07.08.19	PIT 8 AMENDED FOR FUTURE DEVELOPMENT	NG	LV			CHECKED	L.Vieyra						
							AUTHORISED	L.Vieyra						
							REFERENCE No. 1							
							REFERENCE No. 2							

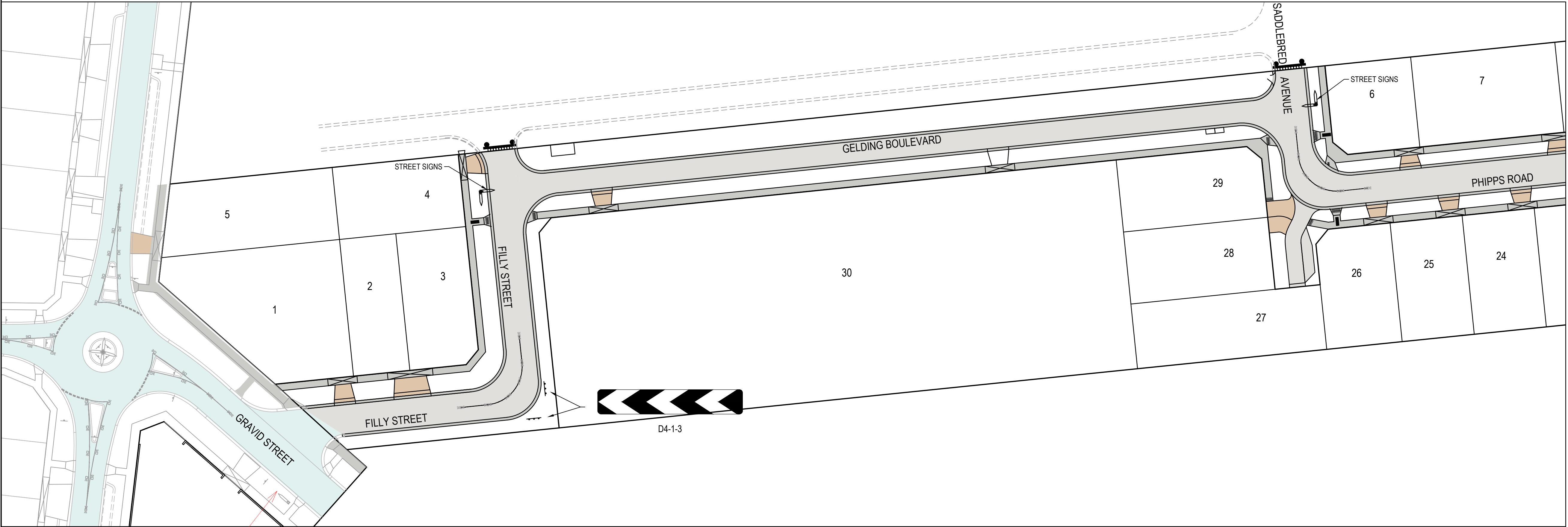
ISSUED FOR CONSTRUCTION



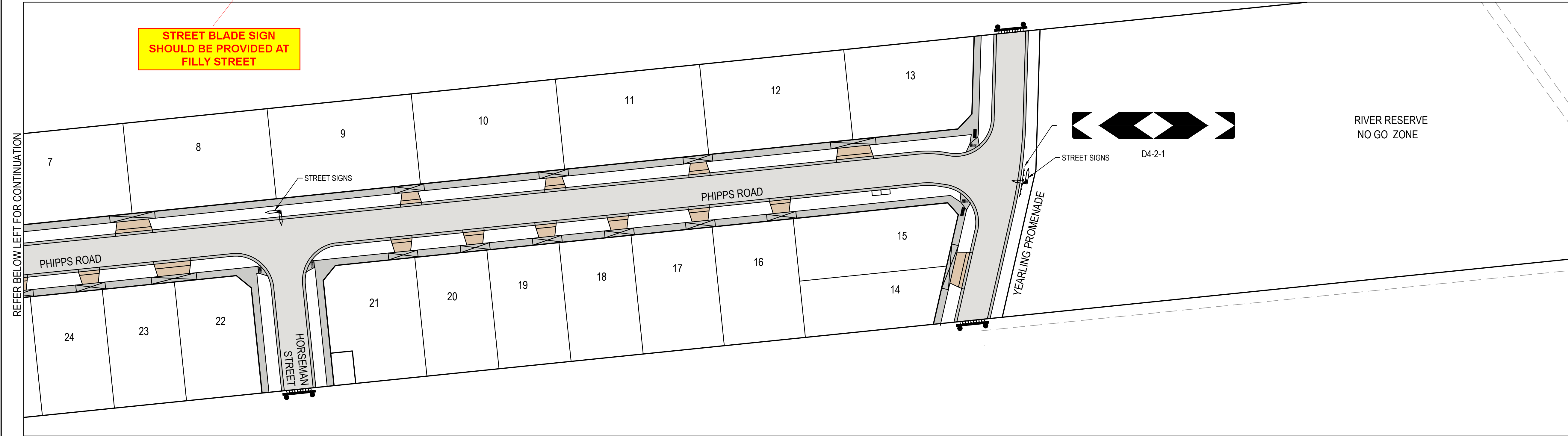
Farm Road, Werribee - Stage 1  
Wyndham City Council  
Road and Drainage  
Pit Schedule

MELWAYS REF	PROJECT / DRAWING No.	SHEET No.	REVISION
205 G12	2052E-01-18	18 of 25	2





REFER BELOW LEFT FOR CONTINUATION



REFER BELOW LEFT FOR CONTINUATION

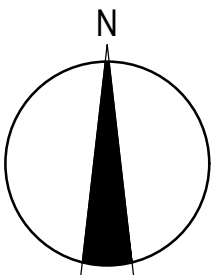
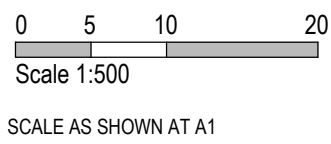
- NOTES
1. 90° BENDS TO HAVE CENTRELINE MARKING WITH RRPMS AT MAX 6m SPACING.
  2. RRPMS TO BE IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2.
  3. ALL LINEMARKING & SIGNAGE TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742.

REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	21.06.18	GIVE WAY REMOVED AND DIRECTIONAL HAZARDS ADDED	NG/NG	LV
C	21.11.18	DRAWING MOVED TO SHEET 19	NG/NG	LV

SUBJECT TO APPROVAL

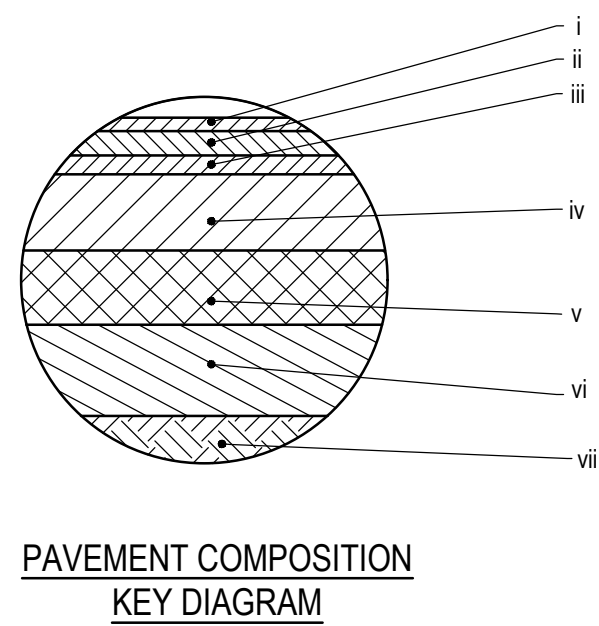
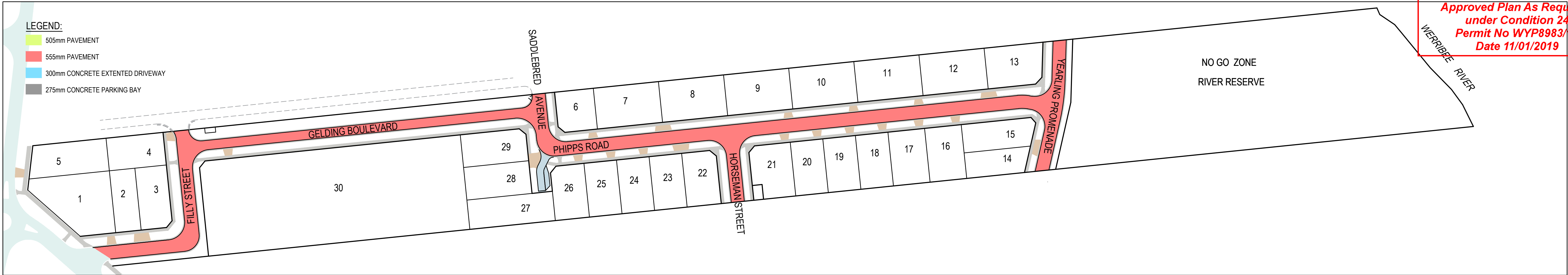
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TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
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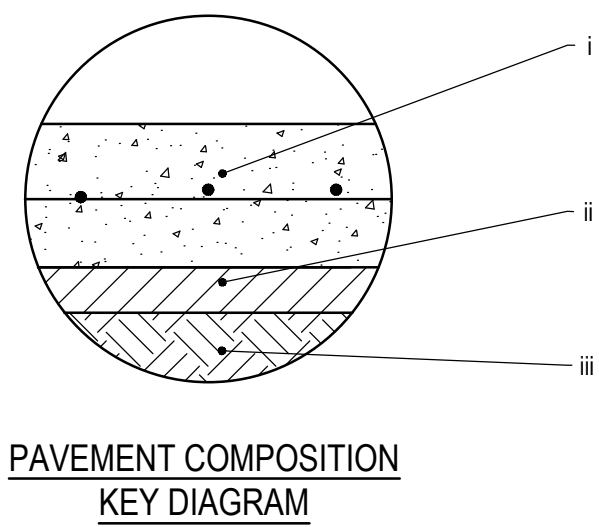


Farm Road, Werribee - Stage 1 Wyndham City Council Road and Drainage Signage & Linemarking Plan			
MELWAYS REF 205 G12	PROJECT / DRAWING No 2052E-01-19	SHEET No 19 of 25	REVISION C





ACCESS LEVEL 1 PAVEMENT COMPOSITIONS - FILLY STREET, GELDING BOULEVARD, SADDLEBRED AVENUE, PHIPPS ROAD, HORSEMAN STREET & YEARLING PROMANADE			
550mm DEPTH PAVEMENT COMPOSITION		LAYER	
PAVEMENT LAYER		THICKNESS (mm)	MATERIAL
ASPHALT	(i) WEARING COURSE	30	10mm NOM. SIZE ASPHALT TYPE N
	(ii) STRUCTURAL COURSE	30	10mm NOM. SIZE ASPHALT TYPE N
	(iii) BITUMINOUS PRIME	10	10mm DEPTH SAMI SEAL (S18RF) ≥ 1.81m <sup>2</sup> BINDER APPLICATION RATE AND PRIME.
BASE COURSE	(iv) BASE	130	20mm CLASS 2 FCR COMPACTED TO A MINIMUM DENSITY RATIO OF 98% (MODIFIED) AS1289, 5.2.1
SUBBASE COURSE	(v) UPPER SUBBASE	200	20mm CLASS 3 FCR COMPACTED TO A MINIMUM DENSITY RATIO OF 98% (MODIFIED) AS1289, 5.2.1
CAPPING	(vi) CAPPING LAYER	150	TYPE A MATERIAL (SELECT FILL) CBR ≥ 7%, SWELL ≤ 1.5%, PERMEABILITY k ≤ 1x10 <sup>-9</sup> m/s. COMPACTED TO A MINIMUM DENSITY RATIO OF 98% (STANDARD) AS1289, 5.1.1
SUBGRADE	(vii) ONLY REQUIRED WHERE CBR<2.0%		COMPACTED CLAY FILL -98% AUSTRALIAN STANDARD COMPACTION

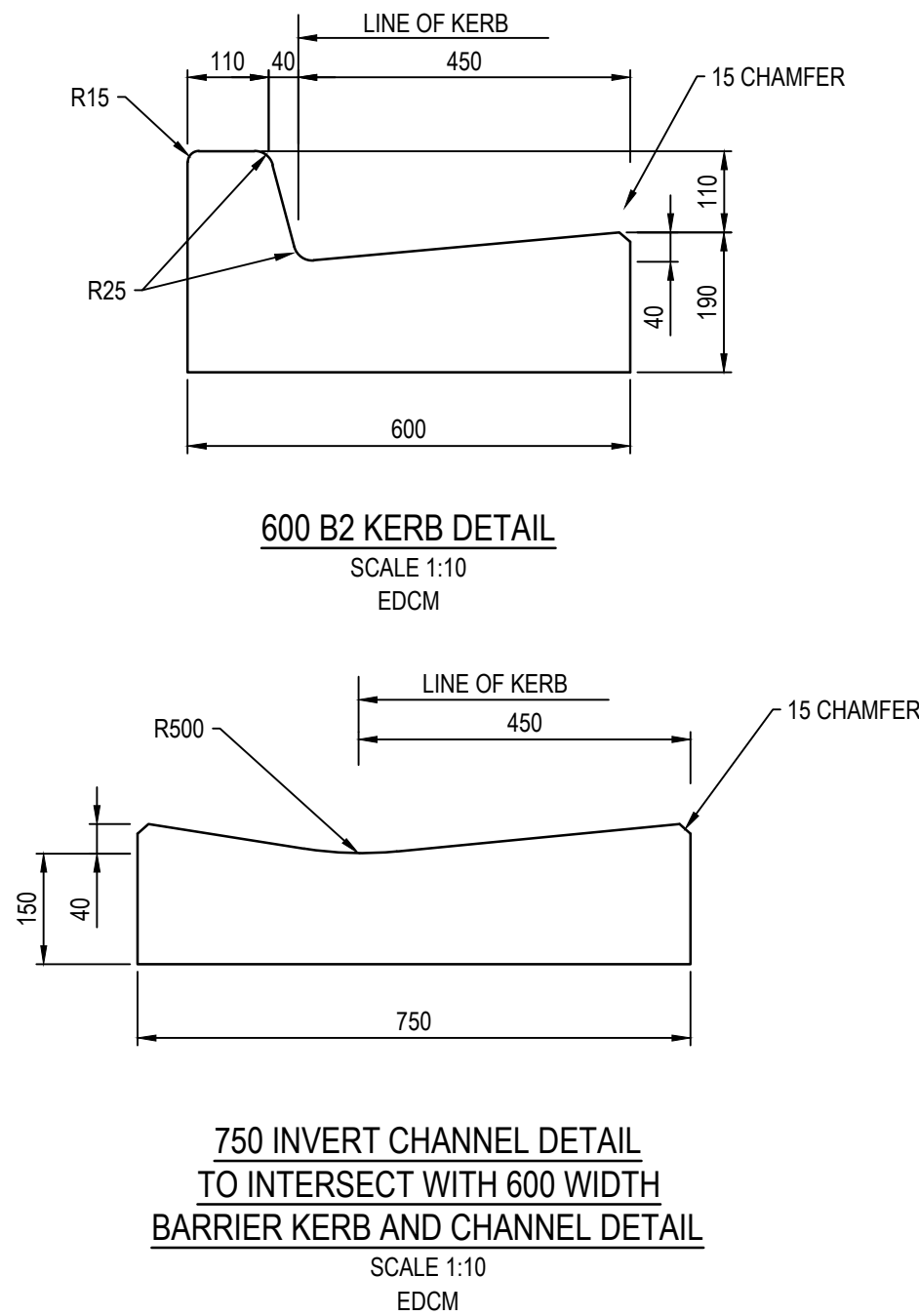
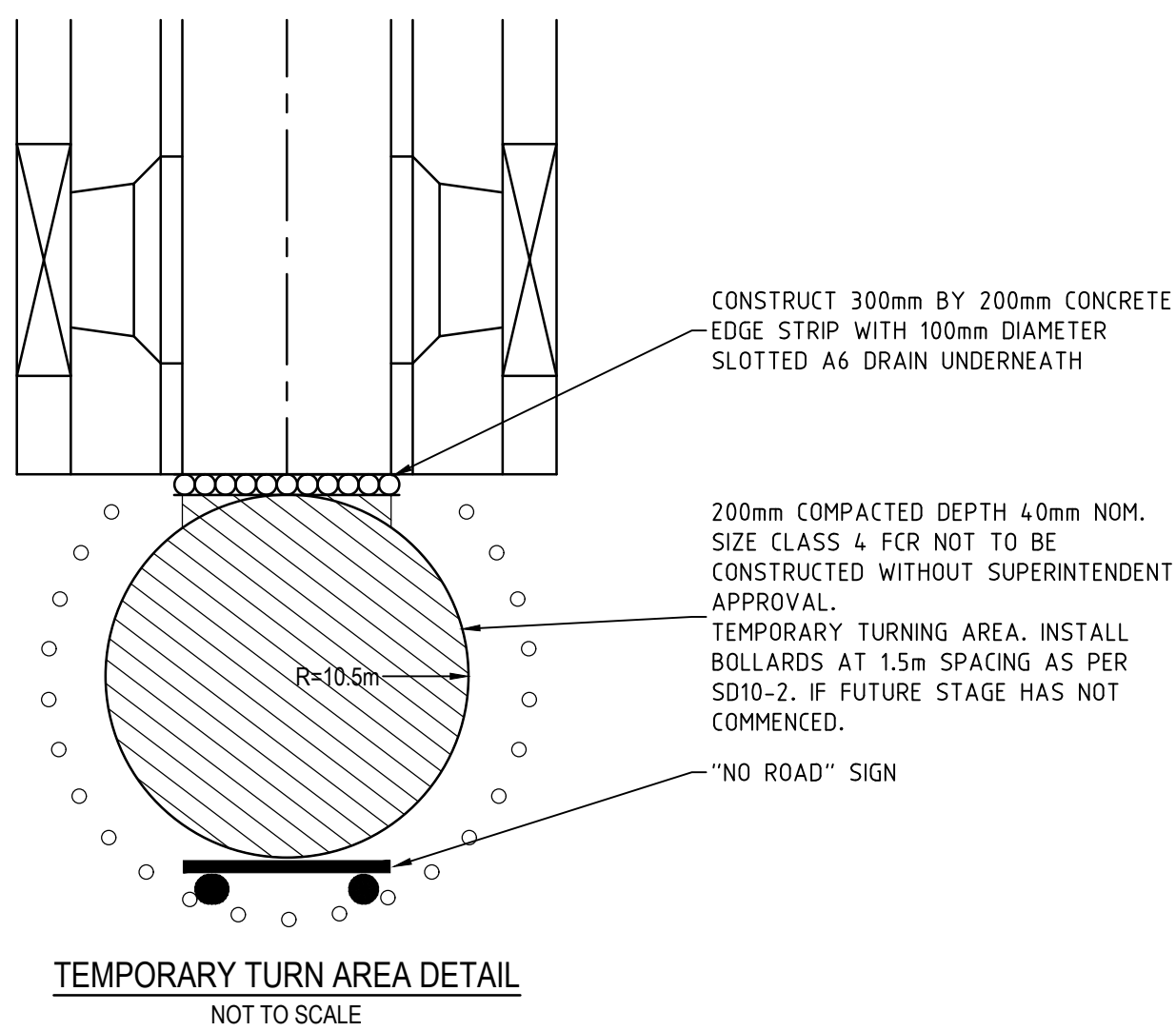
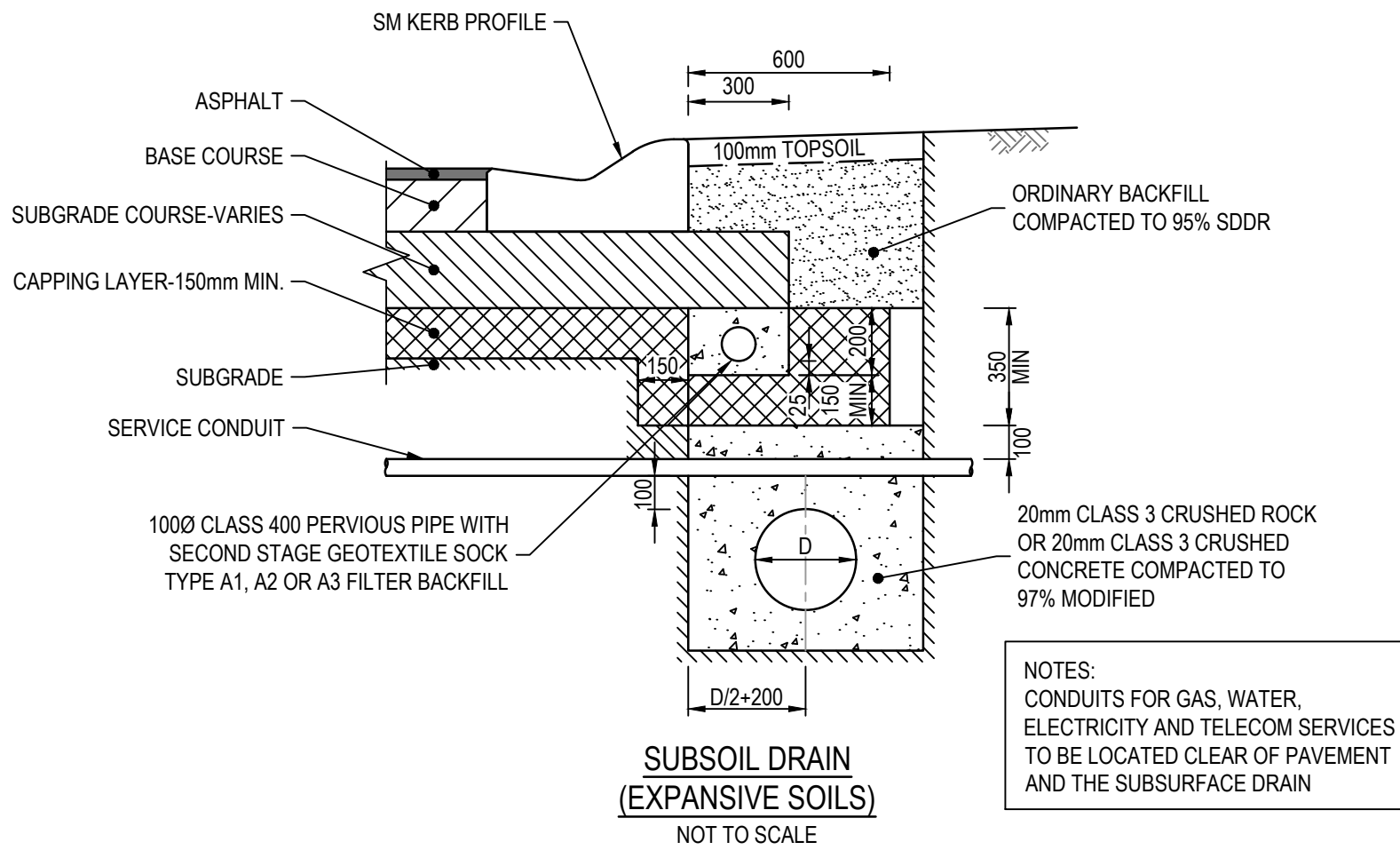


EXTENDED DRIVEWAY PAVEMENT COMPOSITION			
300mm DEPTH PAVEMENT COMPOSITION		LAYER	MATERIAL
PAVEMENT LAYER		THICKNESS (mm)	
CONCRETE	(i) WEARING COURSE	200	32MPa Plain CONCRETE, LIGHT BRUSH FINISH REINFORCED WITH SL82 MESH (40mm TOP COVER) AND TIED INTO THE KERBS AS PER THE ADJOINING CONSTRUCTION JOINT DETAIL
BASE COURSE	(ii) BASE	100	CLASS 3 20mm NOM SIZE FCR BASE COMPACTED TO 98% AS PER WCC SD11
SUBGRADE	(iii) ONLY REQUIRED WHERE CBR<2.0%		COMPACTED CLAY FILL -98% AUSTRALIAN STANDARD COMPACTION

#### PAVEMENT DETAIL NOTE

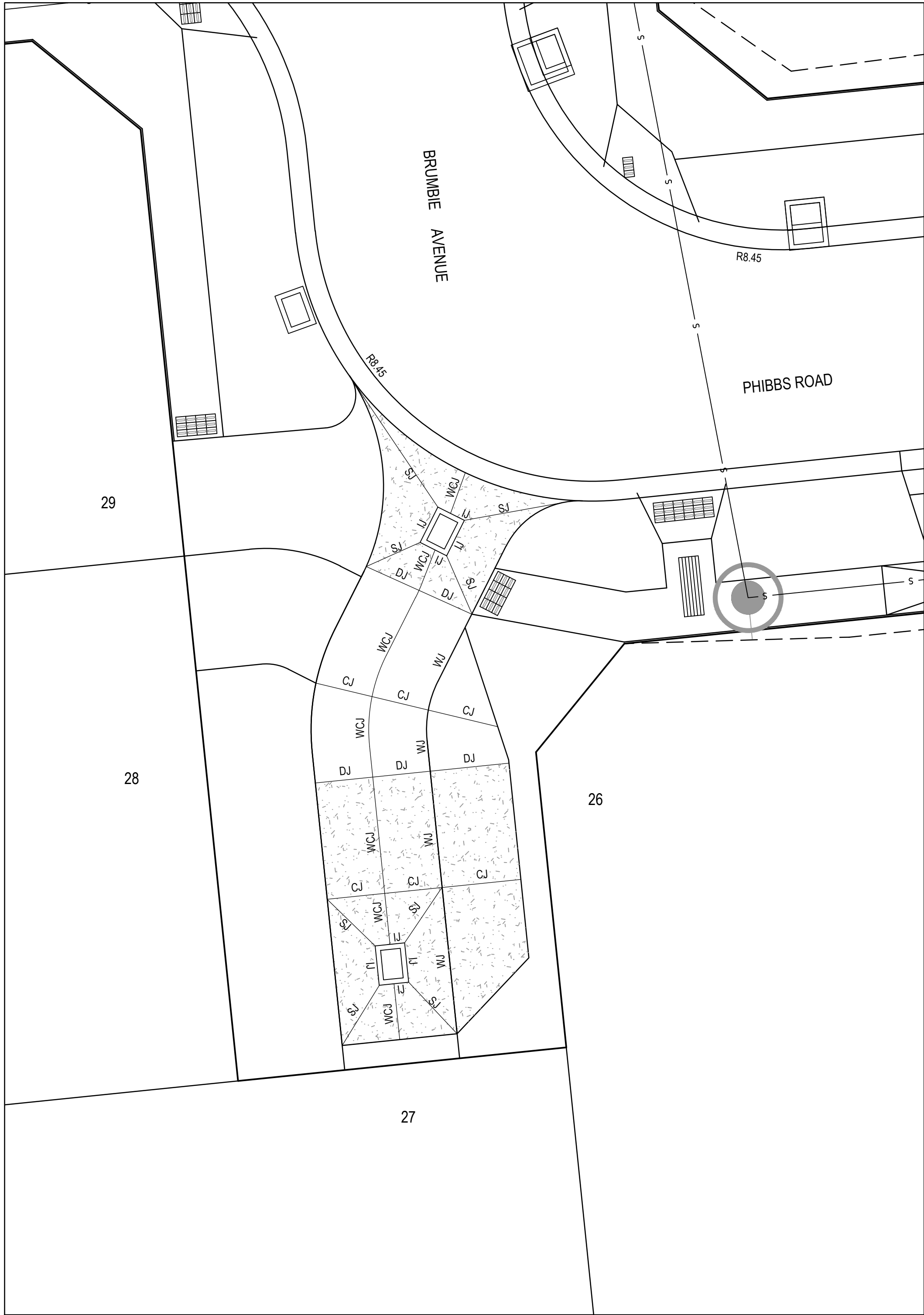
- TOP 200mm OF CRUSHED ROCK FOR ALL PAVEMENTS COMPACTED TO A MINIMUM DENSITY RATIO OF 98% (MODIFIED) AS1289.5.2.1 STANDARD AND PROOF ROLLED
- CRUSHED ROCK LAYERS TO BE LAID NO THICKER THAN 200mm PRIOR TO ADEQUATE COMPACTION

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

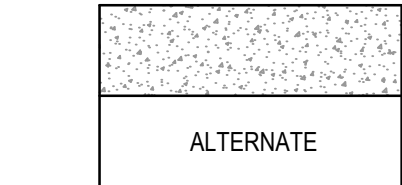


REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL	DESCRIPTION	TITLE	NAME	SCALE	PROJECT / DRAWING No.	SHEET No.	REVISION
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV	All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	DRAFTER	S.Sathasivam	0 5 10 20	205 G12	20 of 25	
B	17.05.18	PAVEMENT COMPOSITIONS UPDATED	NG/SS	LV		DESIGNER	N.Green	Scale 1:500	2052E-01-20		
C	21.06.18	FILLY STREET PAVEMENT AMENDED	NG/NG	LV		CHECKED	L.Vieyra	SCALE AS SHOWN AT A1			
D	21.11.18	DRAWING MOVED TO SHEET 20	NG/NG	LV		AUTHORISED	L.Vieyra				
						REFERENCE No. 1					
						REFERENCE No. 2					





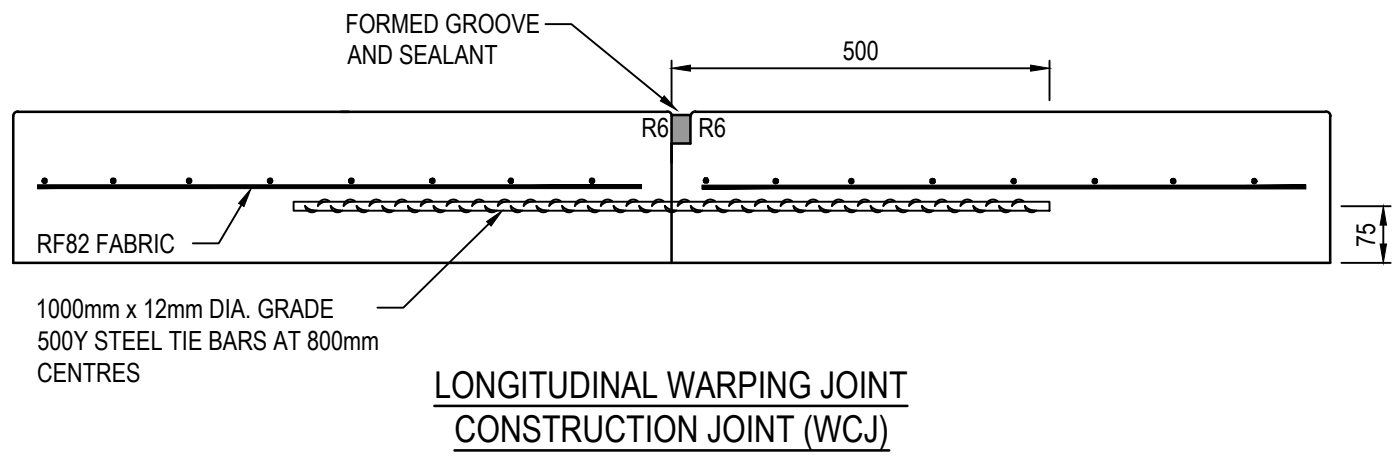
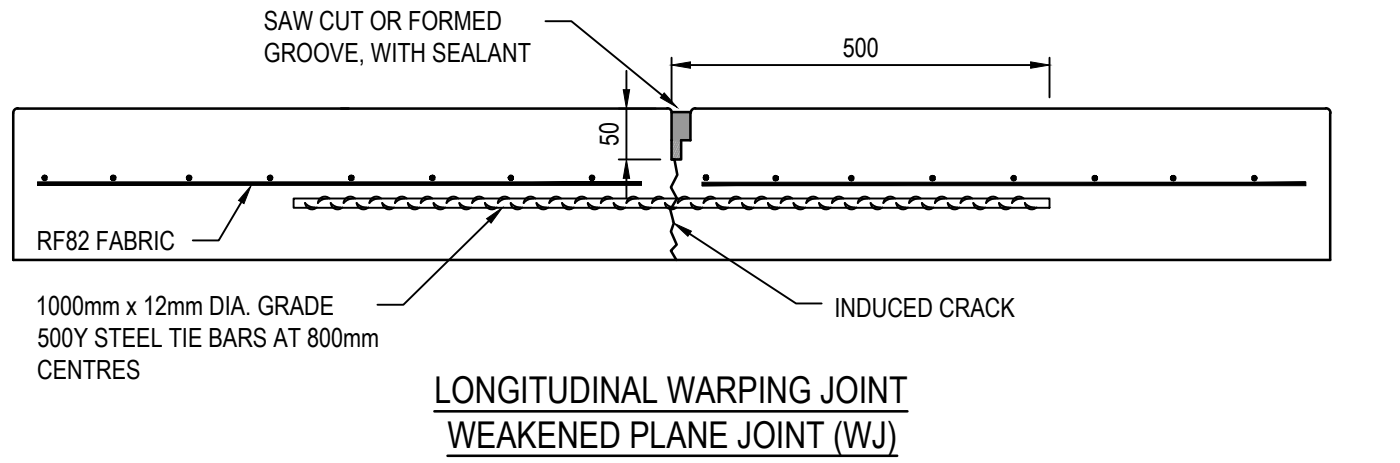
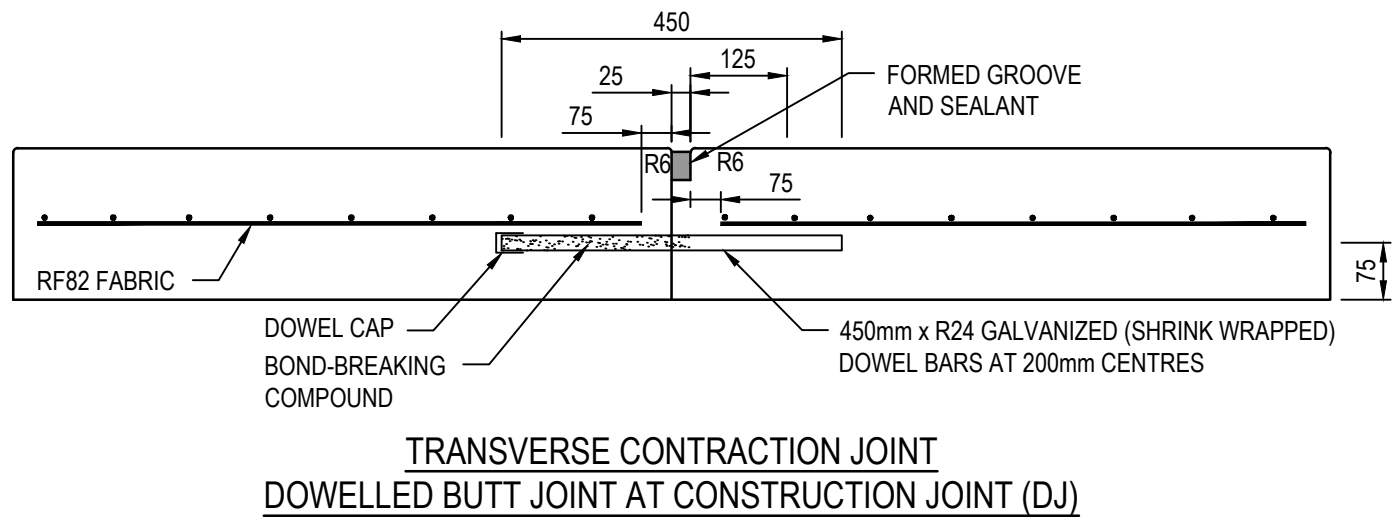
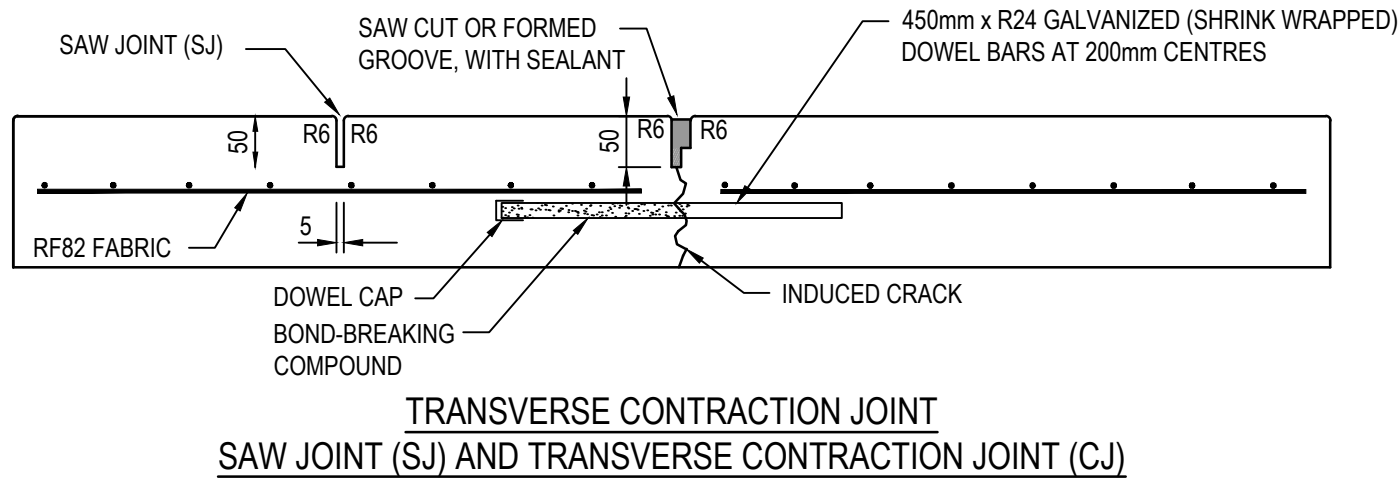
EXTENDED DRIVEWAY JOINTING DETAILS



CONCRETE PLACEMENT SEQUENCE

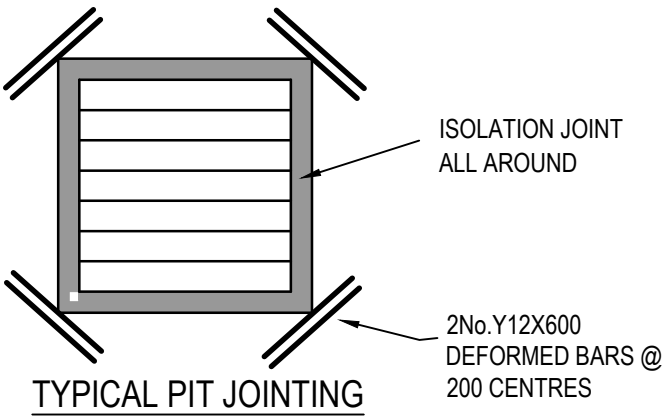
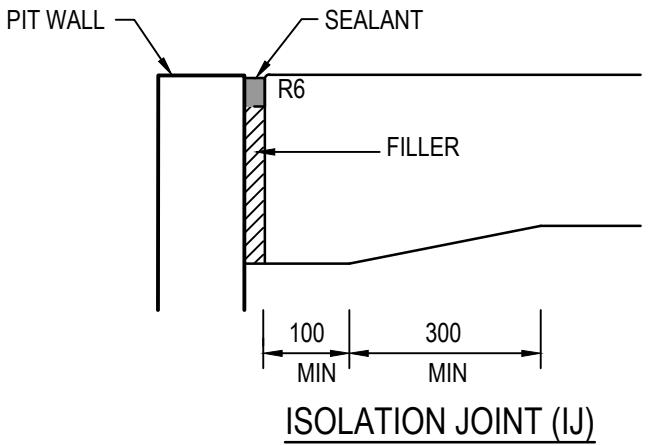
JOINT DETAIL NOTES:

1. SAW JOINTS ARE TO BE PLACED AT A MAXIMUM 5m SPACING AT INTERSECTIONS AND CONSTRUCTED 18-24 HOURS AFTER POURING.
2. TRANSVERSE/CONTRACTION JOINTS ARE TO BE PLACED AT A MAXIMUM SPACING OF 12m.
3. ISOLATION JOINTS ARE TO BE PLACED AROUND PITS.
4. ALL JOINTS SHALL BE LOCATED AND SPACED IN ACCORDANCE WITH "CEMENT AND CONCRETE ASSOCIATION OF AUSTRALIA - CONCRETE PAVEMENT DESIGN FOR RESIDENTIAL STREETS 1997".



CONCRETE JOINTING DETAILS

NOT TO SCALE



CONCRETE NOTES:

1. GENERAL
  - 1.1. ENGINEERING DRAWINGS MUST NOT BE SCALED
  - 1.2. CONTRACTORS TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS
  - 1.3. ANY DISCREPANCIES MUST BE REFERRED TO THE ENGINEER IMMEDIATELY TO ENSURE CORRECT RECTIFICATION BEFORE PROCEEDING WITH THE WORK.
  - 1.4. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH APPROPRIATE SAA CODES , VICTORIAN BUILDING REGULATIONS, AND BUILDING CODE OF AUSTRALIA
  - 1.5. ALL REFERENCES TO SAA CODES, VBR'S AND BCA SHALL INCLUDE ALL AMENDMENTS
  - 1.6. SUBSTITUTION SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER
2. CONCRETE
  - 2.1. ALL CONCRETE SHALL BE IN ACCORDANCE WITH AS3600. CONCRETE COMPRESSION STRENGTH SHALL BE: 32MPA AT 28 DAYS FOR PAVEMENT OR AS NOTED ON DRAWINGS
  - 2.2. WHEELBARROW RUNS IF USED MUST BE SUPPORTED DIRECTLY FROM THE FORMWORK AND NOT FROM THE REINFORCEMENT
  - 2.3. MECHANICALLY VIBRATE CONCRETE DURING THE CONCRETE POUR
  - 2.4. CONCRETE SURFACES MUST BE ADEQUATELY CURED. CONCRETE SHALL BE CURED IN ACCORDANCE WITH AS3600 AND NOT TO BE TRAFFICKED UNTIL AT LEAST SEVEN DAYS AFTER POURING.
  - 2.5. CONCRETE SIZES AS DRAWN ARE MINIMUM AND DO NOT INCLUDE APPLIED FINISHES
  - 2.6. UNSPECIFIED CONSTRUCTION JOINTS MUST NOT BE MADE WITHOUT THE ENGINEERS PRIOR WRITTEN APPROVAL
3. REINFORCEMENT
  - 3.1. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION. CLEAR COVER NOTED ON DRAWING(S) IS IN ACCORDANCE WITH AS3600 AND SHOULD NOT BE VARIED
  - 3.2. LAPS IN REINFORCEMENT SHOULD COMPLY WITH AS3600
  - 3.3. FIELD WELDING OF REINFORCEMENT IS ONLY PERMITTED WITH THE ENGINEER'S WRITTEN APPROVAL.
  - 3.4. ALL REINFORCEMENT IS TO BE ACCURATELY PLACED, TIED AND SUPPORTED IN POSITION BY BAR CHAIRS AT 750MM CENTRES WHERE APPROPRIATE AND ADEQUATELY IN OTHER MEMBERS
4. FORMWORK
  - 4.1. ALL FORMWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS1509
  - 4.2. RETAIN ALL FORMWORK IN POSITION FOR AT LEAST SEVEN DAYS

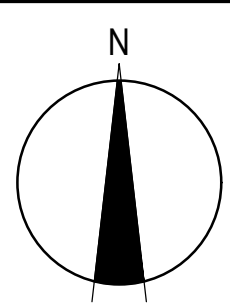
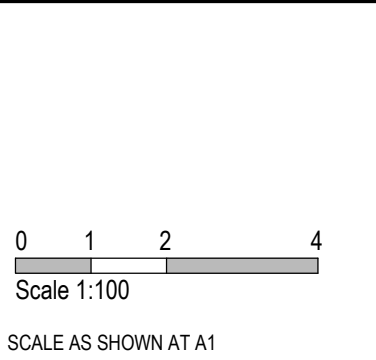
**WARNING**  
**BWARE OF UNDERGROUND SERVICES**  
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REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
A	23.03.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV
B	21.06.18	SEWER AMENDED	NG/NG	LV
C	21.11.18	DRAWING MOVED TO SHEET 21	NG/NG	LV

SUBJECT TO APPROVAL

Quality Management - ISO 9001	Occupational Health & Safety Management - AS/NZS 4801	Environmental Management - ISO 14001
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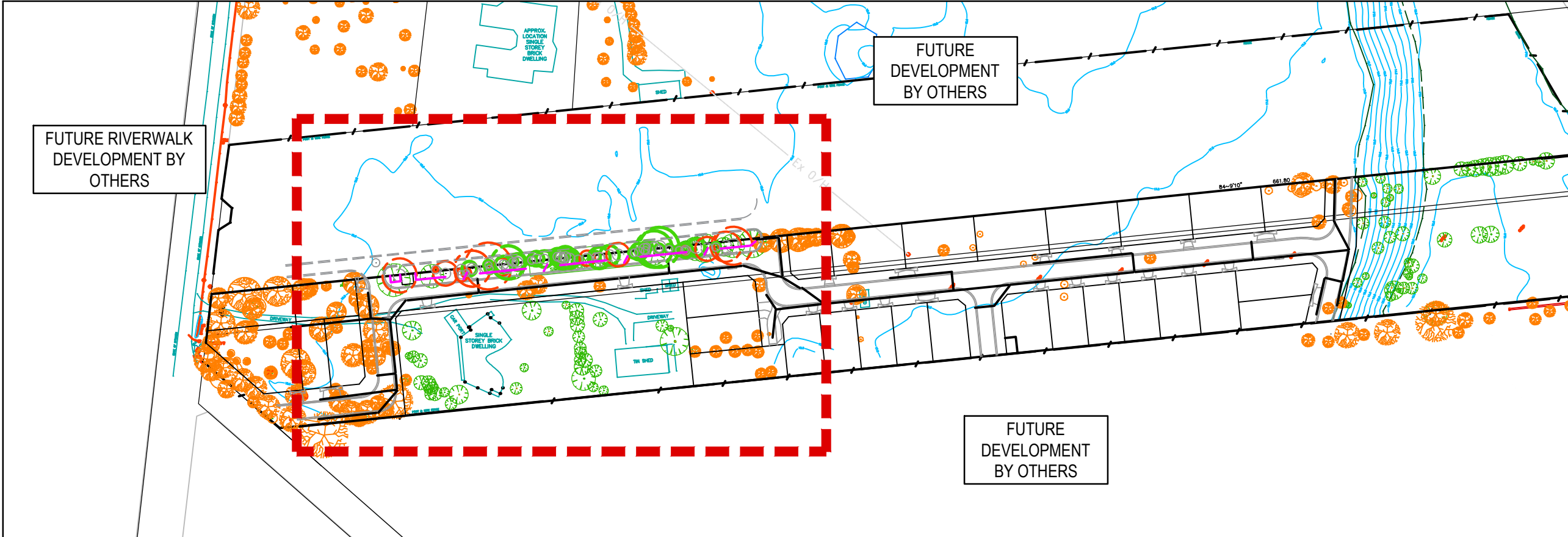
TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	



Farm Road, Werribee - Stage 1 Wyndham City Council Road and Drainage Extended Driveway Concrete Jointing Detail			
MELWAYS REF 205 G12	PROJECT / DRAWING No. 2052E-01-21	SHEET No. 21 of 25	REVISION C



# LOCALITY PLAN



TREE PROTECTION ZONE (TREES  
IMPACTED BY PROPOSED  
DEVELOPMENT - CANNOT BE SAVED)

TREE PROTECTION  
ZONE (TREES WHICH  
CAN BE RETAINED)



## STRUCTURAL ROOT ZONES

— / —

## TREE PROTECTION FENCING

## Planning and Environment Act 1987 Wyndham Planning Scheme

**Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 23/08/2019**

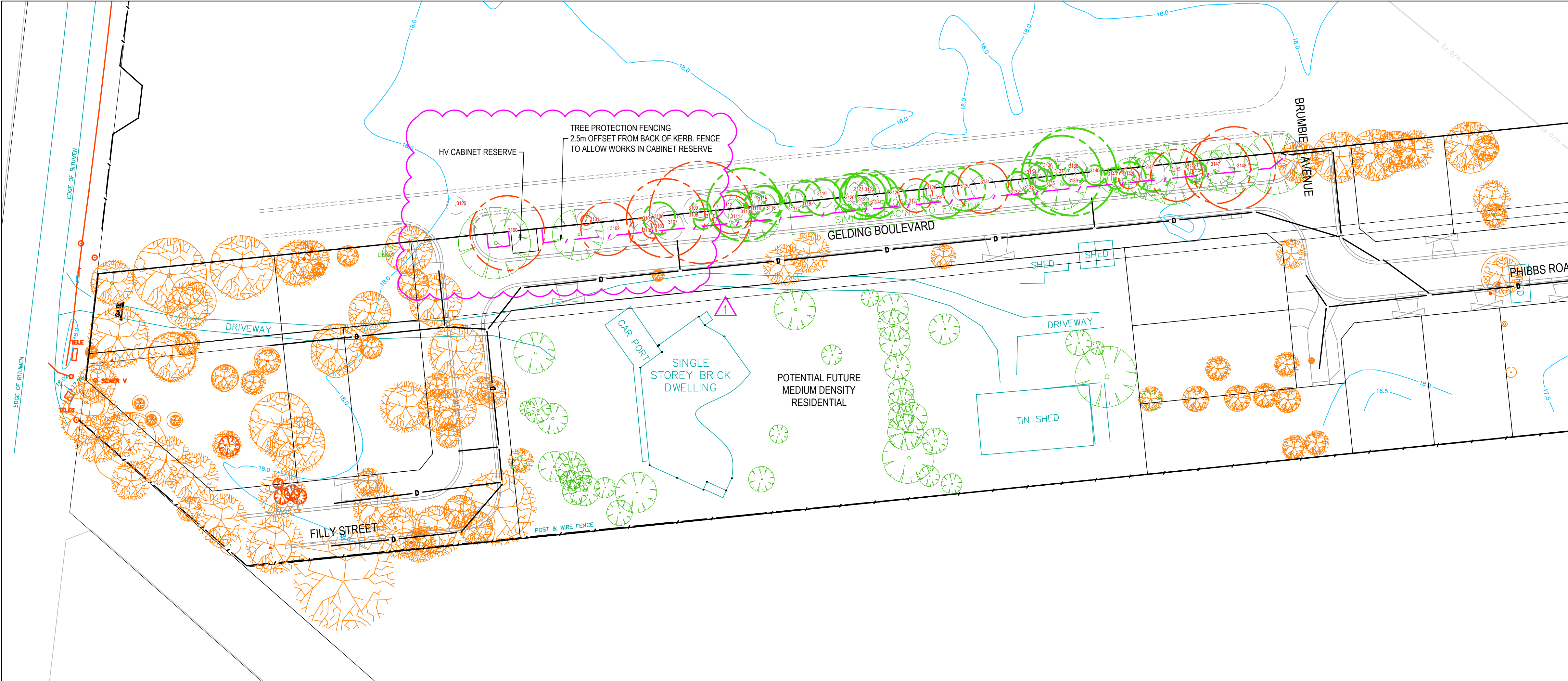
TREES TO BE RETAINED:

3100<sup>(2)</sup>  
3102  
3104  
3109  
3110  
3113  
3122  
3123  
3124  
3125  
3128  
3128A  
3129  
3130  
3132  
3133  
3137  
3138  
3141  
3143  
3144  
3145<sup>(2)</sup>  
3146  
3148<sup>(2)</sup>

STRUCTURAL ROOT ZONES IMPLICATED BY WORKS<sup>(2)</sup>

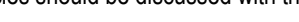





3100  
3102  
3103  
3105  
3107  
3108  
3111  
3129  
3131  
3141  
3142  
3143  
3144  
3145  
3146  
3147  
3148

## DETAILED PLAN



NOTE:

1. EVERY EFFORT SHOULD BE TAKEN TO SAVE AND PROTECT TREES HIGHLIGHTED & LISTED ON THIS PLAN.
2. IF THE SITUATION PRESENTS ITSELF WHERE A TREE CANNOT BE SAVED CONSULTATION BETWEEN COUNCIL AND A QUALIFIED ARBORIST IS TO OCCUR TO DETERMINE APPROPRIATE ACTION.
3. TREE PROTECTION FENCING TO BE INSTALLED AT 2.5M BEHIND BACK OF KERB TO ENSURE THE CONSTRUCTABILITY OF THE INFRASTRUCTURE. THERE MAY BE OCCASIONS WHERE CHANGES ARE REQUIRED TO THE FENCING DUE TO SITE CONDITIONS OR AS NEEDED TO EFFICIENTLY DELIVER THE WORKS. SHOULD CHANGES BE REQUIRED THE SUPERINTENDENT AND COUNCIL SHALL BE NOTIFIED.


REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL	<p>All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.</p> <div>    </div> <div>    </div>
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV	
1	26.03.19	HV CABINET RESERVE ACCESS ALLOWED	NG	LV	
<b>ISSUED FOR CONSTRUCTION</b>					


TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	

0 5 10 20

Scale 1:500

SCALE AS SHOWN AT A1





**Member of the Surbana Jurong Group**

ABN 47 065 475 149

Level 10, 71 Queens Road  
Melbourne, VIC 3004  
Ph 03 9514 1500

**Farm Road, Werribee - Stage 1**

**Wyndham City Council**

**Road and Drainage**

**Tree Removal and Protection Plan**

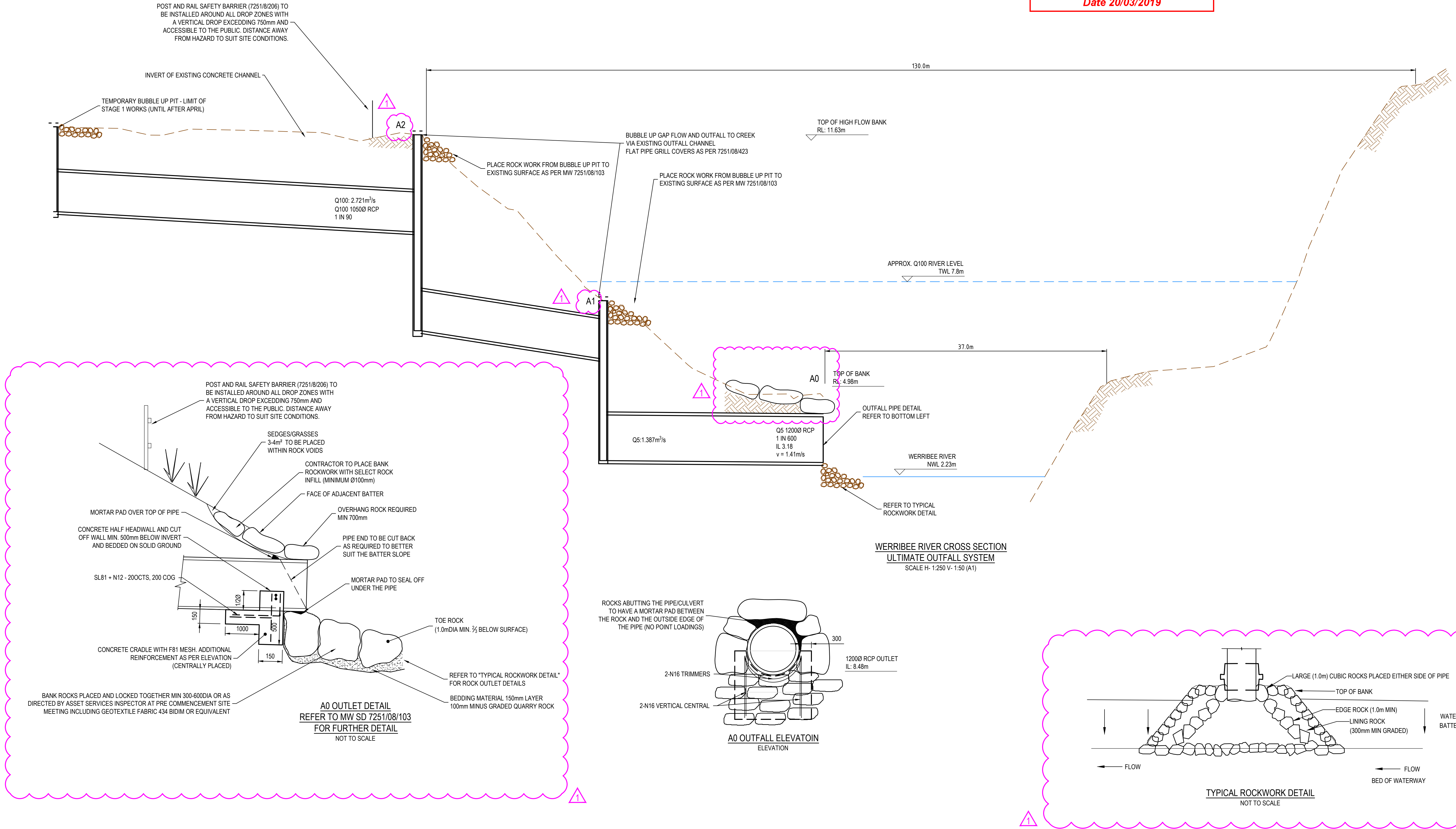
**Gelding Boulevard**

MELWAYS REF <b>205 G12</b>	PROJECT / DRAWING No. <b>2052E-01-22</b>	SHEET No. <b>22 of 25</b>	REVISION <b>1</b>
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Planning and Environment Act 1987  
Wyndham Planning Scheme

Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 20/03/2019



REV	DATE	AMENDMENT / REVISION DESCRIPTION	DES/DT	APPROVAL
0	11.01.19	ISSUED FOR CONSTRUCTION	NG/SS	LV
1	22.01.19	ISSUED FOR CONSTRUCTION	NG/HE	LV

ISSUED FOR CONSTRUCTION

All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.

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Site Management - AS/NZS 1801  
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Environmental Management - ISO 14001  
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TITLE	NAME
DRAFTER	S.Sathasivam
DESIGNER	N.Green
CHECKED	L.Vieyra
AUTHORISED	L.Vieyra
REFERENCE No. 1	
REFERENCE No. 2	

SCALE AS SHOWN AT A1

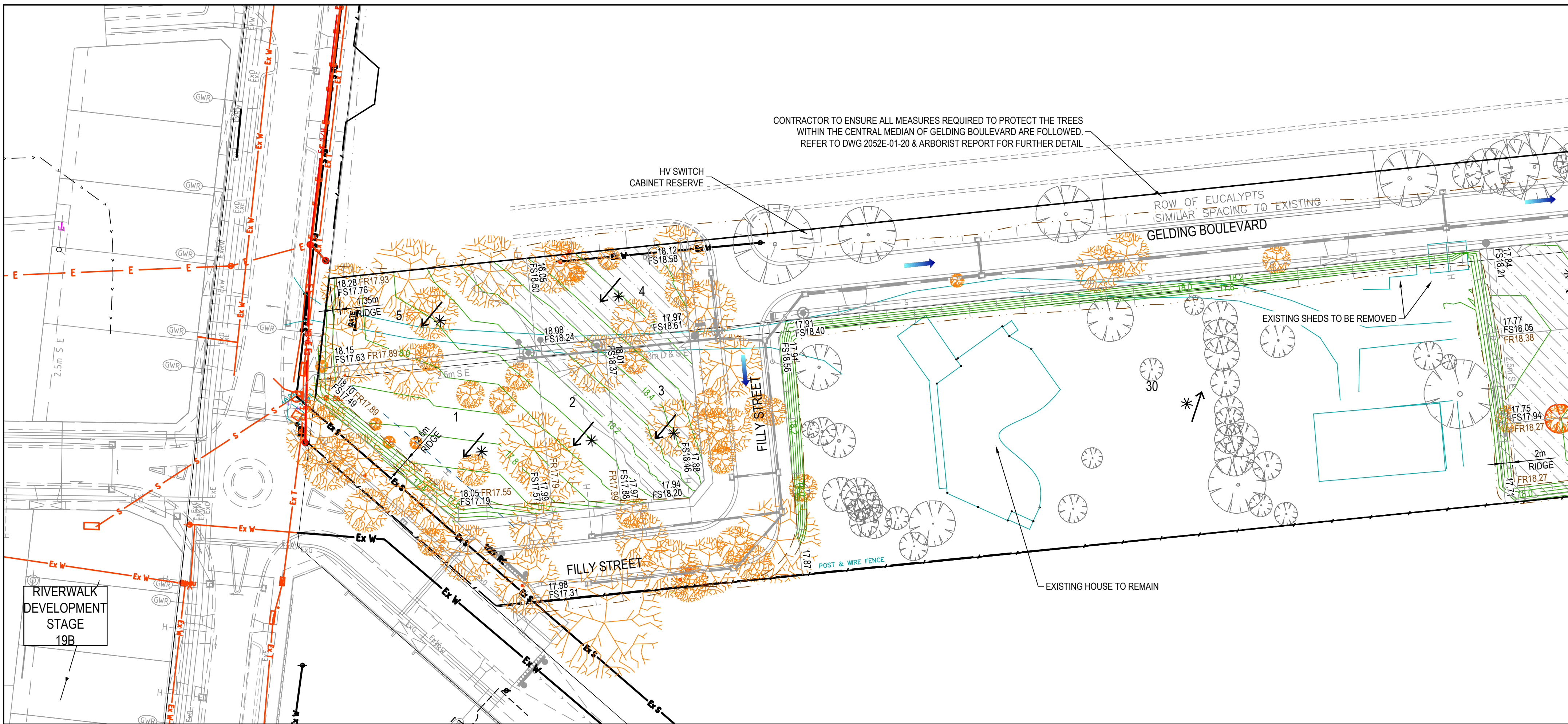
**SMEC**  
Member of the Surbana Jurong Group  
ABN 47 065 475 149  
Level 10, 71 Queens Road  
Melbourne, VIC 3004  
Ph 03 9514 1500

**YourLand**  
Developments

Farm Road, Werribee - Stage 1 Wyndham City Council Road and Drainage Outfall and Rock Chute Details			
MELWAYS REF 205 G12	PROJECT / DRAWING No. 2052E-01-23	SHEET No. 23 of 25	REVISION 1

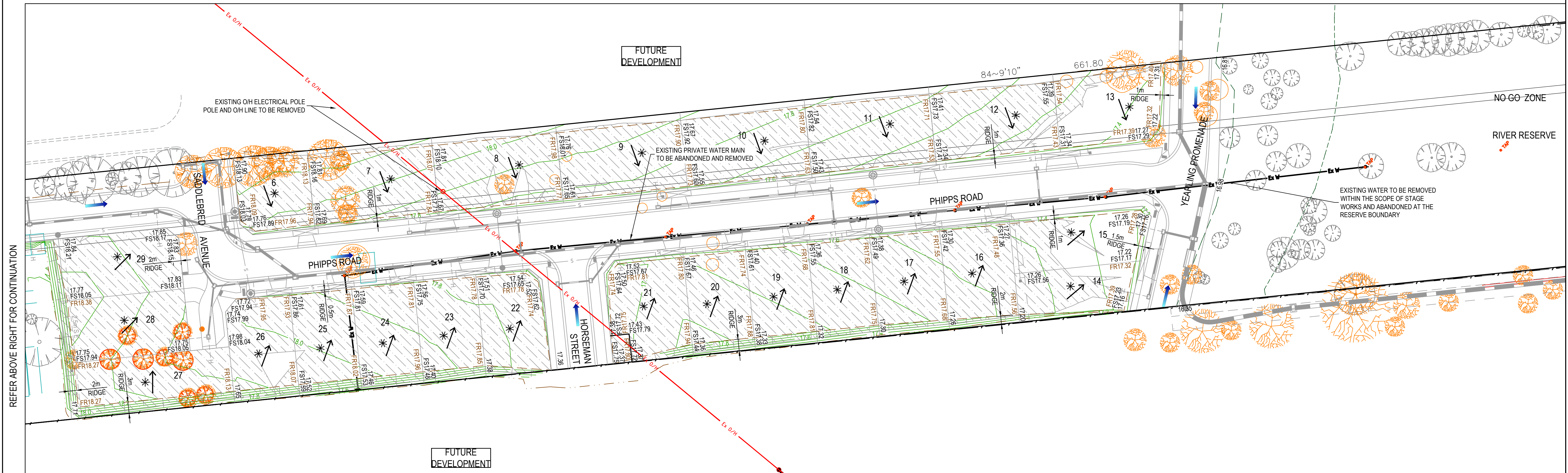
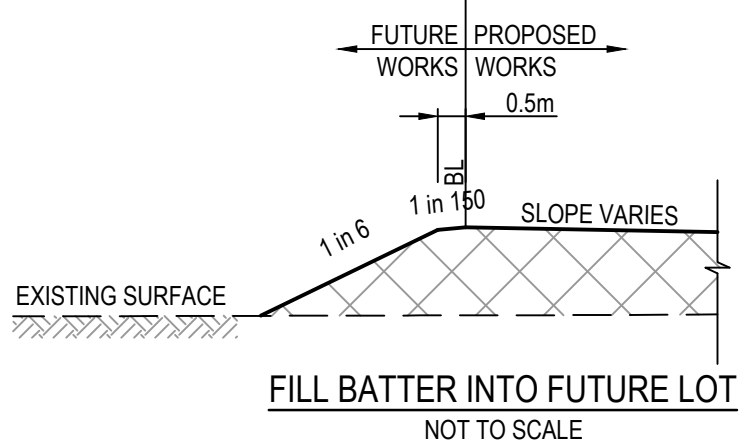







Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 01/01/2019



LEGEND - EARTHWORKS PLAN	
ALL PROPOSED, FUTURE & EXISTING SERVICE LOCATIONS ARE SHOWN INDICATIVELY	
	STORMWATER DRAIN, PIT & PROPERTY INLET
	MAIN DRAIN
	SWALE DRAIN
	SEWER & MAINTENANCE STRUCTURES
	HOUSE DRAIN
	ELECTRICITY (U.GROUND)
	ELECTRICITY (O.HEAD)
	GAS
	TELSTRA
	OPTIC FIBRE
	WATER
	RECYCLE WATER
	AG. DRAIN
	SERVICE CONDUITS
	TACTILE PAVERS
	EXISTING STORMWATER DRAIN
	EXISTING MAIN DRAIN
	EXISTING SWALE DRAIN
	EXISTING SEWER & MAINTENANCE STRUCTURES
	EXISTING HOUSE DRAIN
	EXISTING ELECTRICITY (UNDER GROUND)
	EXISTING ELECTRICITY OVERHEAD
	EXISTING GAS
	EXISTING TELSTRA
	EXISTING OPTIC FIBRE
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING AG. DRAIN
	EXISTING SERVICE CONDUITS
	EXISTING TACTILE PAVERS
	FUTURE STORMWATER DRAIN
	FUTURE MAIN DRAIN
	FUTURE SWALE DRAIN
	FUTURE SEWER & MAINTENANCE STRUCTURES
	FUTURE HOUSE DRAIN
	FUTURE ELECTRICITY (UNDER GROUND)
	FUTURE ELECTRICITY OVERHEAD
	FUTURE GAS
	FUTURE TELSTRA
	FUTURE OPTIC FIBRE
	FUTURE WATER
	FUTURE RECYCLED WATER

	FUTURE AG. DRAIN
	FUTURE MAIN LINES
	ZERO ELEVATION
	EXISTING SURFACE LEVEL
	FINISHED BUILDING LINE LEVEL
	FINISHED RIDGE LINE LEVEL
	CHAINAGE
	TOP OF RETAINING WALL LEVEL
	BOTTOM OF RETAINING WALL LEVEL
	EXISTING RETAINING WALL
	RETAINING WALL
	FUTURE RETAINING WALL
	STRUCTURAL FILL > 200mm DEEP
	EXISTING STRUCTURAL FILL > 200mm DEEP
	CUT > 200mm DEEP
	DIRECTION OF FALL
	OVERLAND FLOW
	GRADED IN DIRECTION OF FALL TO LEVEL INDICATED
	EDGE STRIP, SUBSOIL DRAIN, "NO ROAD" SIGN & BARRIER
	EXISTING TREE TO BE RETAINED
	EXISTING TREE TO BE REMOVED
	PERMANENT SURVEY MARK
	TEMPORARY BENCH MARK
	PROPOSED DRIVEWAY & FOOTPATH
	PROPOSED INDUSTRIAL DRIVEWAY
	PROPOSED SHARED FOOTPATH
	PROPOSED ROAD PAVING
	EXISTING ROAD PAVING

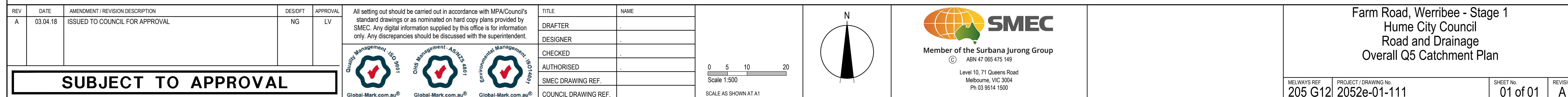


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A	12.10.18	ISSUED TO COUNCIL FOR APPROVAL	NG/SS	LV		DRAFTER	S.Sathasivam												
B	21.11.18	DRAWING MOVED TO SHEET 24	NG/NG	LV		DESIGNER	N.Green												
						CHECKED	L.Vieyra												
						AUTHORISED	L.Vieyra												
<div>SUBJECT TO APPROVAL</div>																			



PHASE	DISCIPLINE CODE		RISK REGISTER -Construction- Operations- Maintenance POTENTIAL RISK		RISK OWNER	POTENTIAL CONSEQUENCES	POTENTIAL ELIMINATION MEASURE, DESIGN INITIATIVE or CONTROL ( Identify any Standard or Code of practice used)	HOW ISSUE ADDRESSED IN DESIGN AND/OR CONSTRUCTION OF THE WORKS	IS THE RISK ELIMINATED YES/NO	Residual Risk Likelihood (0-5)	Residual Risk Consequ ence (0-5)	Residual Risk Rating	RESIDUAL RISK OWNER
Construction	RD	#N/A	Construction close to live traffic	New works will be constructed adjacent to live traffic when abutting existing stages.	Contractor	Disruptions to live traffic, construction incident involving live traffic.	Provide safe temporary traffic control (TCP)	TCP provided within contract	N	5	3	15	Constructor
Construction	RD	#N/A	Culverts	Potential risk from culverts under construction and height / fall hazards	Contractor	Falling from a height	Temporary barriers to be provided	Temporary barrier provided in contract	N	2	5	10	Constructor
Construction	US	#N/A	Utilities become a hazard within clear zones		Contractor	Personal injury, vehicle damage	Sequence works and protect with temp barrier or traffic control (TCP)	TCP provided within contract	N	1	5	5	Constructor
Operational	RD	#N/A	Sight Lines	Inadequate drivers response time.	Road Authority	Increased potential for accidents	Ensure design complies with relevant standard. Undertake thorough Safety Audit	Vis lines checked and discussed with approval authority as part of design approval process	N	1	4	4	Road Authority
Operational	LS	#N/A	Signs and street lights	Potential for drivers / riders to strike signs and street lights	Road Authority	Increased potential for accidents	Ensure design complies with relevant standard. Undertake thorough Safety Audit	Refer to appropriate standard for sign and lighting offsets	N	1	4	4	Road Authority
Operational	RF	#N/A	Headwalls	Potential vehicle conflict within clear zone	Road Authority	Increased potential for accidents	Establish adequate clear zone provision	Adequate barrier provided as per appropriate standard where within clear zone. Culvert headwall selection in accordance with authority standard	N	2	4	8	Road Authority
Operational	RD	#N/A	Culverts	Potential fall hazard during maintenance, by vehicles and pedestrians	Relevant Authority	Falling from a height	Barriers to be provided in accordance with road standards	Barriers to be provided and safe batter slopes (>1:3)	N	2	5	10	Constructor
			Drainage										
Operational	DR	#N/A	Grated Pits	Trip/fall hazard with large spaced grate	Relevant Authority	Increased potential for accidents	Provide pedestrian/bicycle friendly grates where applicable. Refer to pit schedule	Design in accordance with authority and manufacturers standards	N	3	2	6	Authority
Operational	DR	#N/A	Non Standard Large Pits	Potential for pit failure	Relevant Authority	Increased risk to maintenance crews/ vehicles	Structural design in accordance with relevant design principles.	Refer to structural drawings and calculations	N	1	4	4	Authority
Operational	DR	#N/A	Culvert Endwalls/Headwalls	Potential for falling from height	Relevant Authority	Increased potential for accidents	Fencing to be provided where culverts/headwalls are at height in accordance with relevant authority standards	Allow for fencing in Design Process	N	1	4	4	Authority
Operational	DR	#N/A	Culvert Endwall/Headwall Outlets	Children playing in large pipes / watercourses and access for maintenance	Relevant Authority	Increased potential for accidents	Restricted access to outlet structure by pit and grate design. Grate provided to authority standards	Design in accordance with authority and manufacturers standards	N	2	5	10	Authority
Maintenance	DR	#N/A	Access to Pits	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	Provide safe working conditions for maintenance. Provide safe landing/ access arrangements as per relevant authority standards	Where possible design pit in location for easy access and outside of permanent water bodies	N	2	5	10	Authority
Maintenance	DR	#N/A	Deep Pits	Lack of safe entry for maintenance	Relevant Authority	Increased potential for accidents	Contractor to be certified for work in confined spaces, step irons to be provided to appropriate authority standards. Refer to pit schedule	Design in accordance with authority standards	N	1	5	5	Authority
Maintenance	DR	#N/A	Access to drains / culverts	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	Provide safe working conditions for maintenance. Access as approved by authority	Design pit in location for easy access as agreed with authority	N	2	3	6	
			Sewer										
Maintenance	SE	#N/A	Deep Manholes	Lack of safe entry for maintenance	Relevant Authority	Increased potential for accidents	Contractor to be certified for work in confined spaces, landings and step access provided as per authority standards and schedule	Design in accordance with authority standards. Refer pit schedule on drawings	N	1	5	5	Authority
Maintenance	SE	#N/A	Access to Manholes	Lack of safe access for maintenance	Relevant Authority	Increased risk to maintenance crews	Provide safe working conditions for maintenance. Manholes located in compliance with authority standards	Where possible design manhole in location for easy access	N	1	5	5	Authority
			Electricity										
Operational	ES	#N/A	Electrical Design	Location of assets within clear zones e.g.. pits/ substations	Relevant Authority	Increased potential for accidents	Electrical designed by sub consultant with appropriate accreditation and in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	2	3	6	Authority
			Telstra										
Operational	TE	#N/A	Telstra Design	Location of assets within clear zones e.g.. pits	Relevant Authority	Increased potential for accidents	Telecommunications designed by authority consultant with appropriate accreditation and in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	2	3	6	Authority
			Water										
Operational	WA	#N/A	Water Design	Location of assets within clear zones e.g.. pits/ substations	Relevant Authority	Increased potential for accidents	Water pits designed in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	2	3	6	Authority
			Gas										
Operational	GA	#N/A	Gas Design	Location of assets within clear zones e.g.. pits/ substations	Relevant Authority	Increased potential for accidents	Water pits designed in accordance with authority standards	Pits designed below ground. Where above ground adequate offset from vehicle clear zones has been provided or barrier protection provided	N	1	1	1	Authority







Date	03.04.18
Rev	A

Planning and Environment Act 1987  
Wyndham Planning Scheme

Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 11/01/2019

Pit	Pit Type	Setout			Catch ID	Tc (min)	Intensity (mm/hr)	CofR	Area (ha)	Ae (ha)	Sum Ae	Catchment Flow	First Flow	Approach Flow
		Easting (m)	Northing (m)	RL (m)							(ha)	(L/s)	(L/s)	(L/s)
A0	EW	293915.35	5800866.63	9.55										
A1	JP	293907.74	5800868.08	10.23										
1	JP	293865.28	5800863.73	12.15										
2	JP	293787.1	5800855.72	12.39										
3	JP	293746.63	5800851.58	15.23										
TP1	TP	293746.1	5800852.7	15.38										
TP2	TP	293740.63	5800861.94	16.83										
4	SEP	293740.92	5800864.7	16.86	1P	5	84.18	0.57	0.0143	0.0082	0.0082	1.9		1.9
5	JP	293743.91	5800877.3	16.95										
6	SEP	293745.28	5800885.16	16.98	1P	5	84.18	0.57	0.0378	0.0215	0.0215	5		5
7	SEP	293738.72	5800898.62	17.05	1P	5	84.18	0.57	0.0518	0.0295	0.0684	16		16
					2P	5	84.18	0.71	0.0548	0.0389				
EP1	ENDPIPE	293739.16	5800916.7	17.14										
29	DSEP	293739.09	5800854.55	16.75	1P	13.67	54.47	0.57	0.0194	0.011	0.011	1.7	620	621.7
30	DSEP	293730.78	5800856.52	16.86	1P	13.67	54.47	0.57	0.0496	0.0283	0.0551	8.3	620	628.3
					2P	5	84.18	0.71	0.0378	0.0268				
47	SEP	293322.78	5800830.52	18.31	1P	5	84.18	0.57	0.0163	0.0093	0.0093	2.2		2.2
48	JP	293323.44	5800823.36	18.21										
49	SEP	293287.89	5800818.86	17.44	1P	5	84.18	0.57	0.0313	0.0178	0.078	18.2		18.2
					2P	5	84.18	0.71	0.0847	0.0602				
33	SEP	293723.15	5800883.07	17.14	2P	5	84.18	0.71	0.0484	0.0344	0.0344	8		8
34	DSEP	293702.89	5800880.92	17.06	1P	5	84.18	0.57	0.0606	0.0345	0.0345	8.1		8.1
35	SEP	293650.23	5800875.53	17.32	1P	5	84.18	0.57	0.0406	0.0231	0.1216	28.4		28.4
					2P	5	84.18	0.71	0.1387	0.0985				
36	SEP	293594.82	5800869.85	17.53	2P	5	84.18	0.71	0.0828	0.0588	0.0588	13.8		13.8
37	DSEP	293570.65	5800867.38	17.42	1P	5	84.18	0.57	0.0626	0.0357	0.0357	8.3		8.3
38	SEP	293512.2	5800861.39	17.71	1P	5	84.18	0.57	0.0234	0.0133	0.1036	24.2		24.2
					2P	5	84.18	0.71	0.1271	0.0902				
39	SEP	293502.48	5800868.49	17.75	1P	5	84.18	0.57	0.0101	0.0058	0.0324	7.6		7.6
					2P	5	84.18	0.71	0.0375	0.0267				
40	SEP	293494.48	5800873.46	17.89	1P	5	84.18	0.57	0.0308	0.0176	0.0176	4.1		4.1
41	SEP	293476.55	5800878.25	18.05										
42	DSEP	293444.11	5800874.98	17.92	1P	5	84.18	0.57	0.0641	0.0365	0.0365	8.5		8.5
43	DSEP	293359.71	5800866.33	18.05	1P	5	84.18	0.57	0.0484	0.0276	0.0276	6.5		6.5
44	SEP	293327.66	5800862.92	18.21	1P	5	84.18	0.57	0.0143	0.0081	0.3468	71		71
					2P	7	73.72	0.57	0.5941	0.3386				
45	SEP	293320.33	5800854.51	18.47										
46	SEP	293311.82	5800854.86	18.46										
50	DSEP	293702.06	5800889.23	17.08	1P	5	84.18	0.57	0.0579	0.033	0.065	15.2		15.2
					2P	5	84.18	0.5	0.064	0.032				
51	SEP	293649.38	5800883.88	17.33	1P	5	84.18	0.57	0.039	0.0222	0.0222	5.2		5.2
52	JP	293605.11	5800879.35	17.53	2P	5	84.18	0.5	0.1919	0.096	0.096	22.4		22.4
53	DSEP	293569.79	5800875.73	17.44	1P	5	84.18	0.57	0.0446	0.0254	0.0254	5.9		5.9
54	JP	293541.44	5800872.83	17.57	1P	5	84.18	0.57	0.03	0.0171	0.0812	19		19
					2P	5	84.18	0.5	0.1281	0.064				
55	GP	293491.59	5800859.08	17.8	2P	5	84.18	0.71	0.0437	0.0311	0.0311	7.3		7.3
56	GP	293489.93	5800845.74	17.87	1P	5	84.18	0.57	0.0166	0.0094	0.0886	20.7		20.7
					2P	5	84.18	0.71	0.1115	0.0792				
57	SEP	293486.98	5800865.88	17.88	1P	5	84.18	0.57	0.018	0.0103	0.0463	10.8		10.8
					2P	5	84.18	0.71	0.0507	0.036				
58	SEP	293492.59	5800890.9	17.99										
59	GP	293483.37	5800889.95	17.91	1P	5	84.18	0.57	0.1504	0.0857	0.0857	20		20
60a	GEP	293475.8	5800893.15	18.17										
73	DSEP	293443.45	5800881.44	17.9	1P	5	84.18	0.57	0.0287	0.0164	0.0164	3.8		3.8
74	DSEP	293359.05	5800872.8	18.02	1P	5	84.18	0.57	0.0313	0.0179	0.0179	4.2		4.2
75	JP	293275.89	5800851.11	18.15	2P	5	84.18	0.5	0.2011	0.1007	0.1007	23.6		23.6
76	SEP	293310.53	5800866.79	18.41	1P	5	84.18	0.57	0.0263	0.015	0.015	3.5		3.5
77	SEP	293314.33	5800829.65	18.31	1P	5	84.18	0.57	0.0228	0.013	0.013	3		3
36a	DSEP	293587.82	5800861.18	17.48	1P	5	84.18	0.57	0.0345	0.0197	0.0579	13.5		13.5
					2P	5	84.18	0.71	0.0538	0.0382				
36b	DSEP	293579.26	5800860.3	17.47	1P	5	84.18	0.57	0.021	0.012	0.0428	10		10

Stage 2052E-Farm Rd Werribee Stage 1  
DRAINAGE COMPUTATIONS - HYDRAULICS  
1 in 5 YEAR ARI

Date	03.04.18
Rev	A

**Planning and Environment Act 1987  
Wyndham Planning Scheme**

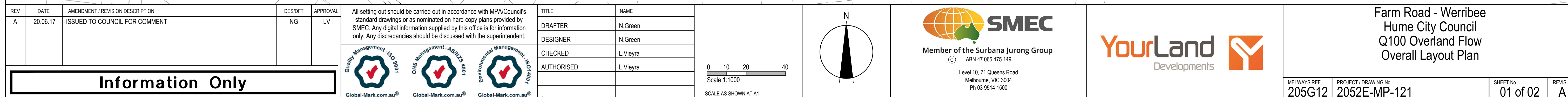
**Approved Plan As Required  
under Condition 24  
Permit No WYP8983/16  
Date 11/01/2019**

Pipe	Pipe Length (m)	Pipe Size (mm)	Pipe Grade (1 in)	Tc (min)	Intensity (mm/hr)	Sum Ae (ha)	Pipe Flow (l/s)	Pipe Capacity (l/s)	Q/Qf	Capacity Velocity (m/s)	Cover Min (m)	US Pit Ku	Pipe V'head (m)	P'head Loss (m)	Pipe T'head Loss (m)	US pit HGL (m)	Pipe US HGL (m)	DS HGL (m)	Pipe DS HGL (m)	DS Pit HGL (m)	HGL Slope (%)	HGL Head (1 in)	Freeboard (m)
A1 to A0	7.77	1350	363.6	14.47	52.95	9.8148	2683.7	2810.9	0.95	1.96	1		0.18		0.29	9.57	9.57	9.08	9.08	9.08	6.38	15.7	0.66
1 to A1	42.68	1050	50.3	14.31	53.24	9.8148	2691.6	3853.8	0.7	4.45	0.71	0.2	0.49	0.1	0.85	10.52	10.42	9.57	9.57	9.57	1.99	50.3	1.63
2 to 1	78.59	1050	80	13.94	53.93	9.8148	2710.2	3054.3	0.89	3.53	0.86	0.2	0.5	0.1	0.93	11.55	11.45	10.52	10.52	10.52	1.19	84.2	0.84
3 to 2	40.68	1050	80	13.75	54.31	9.8148	2720.7	3054.3	0.89	3.53	0.72	0.5	0.5	0.25	0.46	12.26	12.01	11.55	11.55	11.55	1.13	88.7	2.97
TP1 to 3	1.34	825	83.3	13.35	55.11	9.7487	1492.4	1573.1	0.95	2.94	3.31	0.5	0.4	0.2	0.01	12.48	12.28	12.26	12.26	12.26	1.08	92.6	2.91
TP2 to TP1	10.96	825	83.3	13.29	55.24	9.7487	1495.8	1573.1	0.95	2.94	3.41	0.5	0.4	0.2	0.12	12.79	12.59	12.48	12.48	12.48	1.08	92.2	4.04
4 to TP2	2.83	825	83.3	13.27	55.27	9.7487	1496.6	1573.1	0.95	2.94	4.71	0.3	0.4	0.12	0.03	12.94	12.82	12.79	12.79	12.79	1.09	92.1	3.92
5 to 4	12.95	825	83.3	13.2	55.41	9.7405	1499.4	1573.1	0.95	2.94	4.6	0.38	0.4	0.15	0.14	13.24	13.09	12.94	12.94	12.94	1.09	91.7	3.71
6 to 5	7.98	825	166.7	13.13	55.54	6.7734	1045	1112.4	0.94	2.08	4.53	0.5	0.19	0.1	0.04	13.38	13.28	13.24	13.24	13.24	0.53	188.8	3.6
7 to 6	15.11	825	166.7	13.01	55.78	6.7518	1046.2	1112.4	0.94	2.08	4.31	0.42	0.2	0.08	0.08	13.54	13.46	13.38	13.38	13.38	0.53	188.4	3.51
EP1 to 7	18.08	825	166.7	12.87	56.1	6.6834	1041.5	1112.4	0.94	2.08	4.4	0.5	0.19	0.1	0.1	13.73	13.64	13.54	13.54	13.54	0.53	190.1	3.41
29 to 3	8.21	750	40	13.72	54.38	0.0661	1250	1761	0.71	3.99	3.49	1.95	0.41	0.8	0.1	13.27	12.37	12.26	12.26	12.26	1.26	79.4	3.47
30 to 29	8.54	525	40	13.67	54.47	0.0551	628.3	680.3	0.92	3.14	1.58	3.16	0.43	1.36	0.12	16.42	15.06	14.72	13.27	13.27	3.98	25.1	0.44
47 to 45	24.12	300	300	6	78.45	0.1207	26.3	55.9	0.47	0.79	1.87	0.63	0.01		0.02	16.48	16.47	16.45	16.45	16.45	0.07	1352.8	1.84
48 to 47	7.19	300	300	5.85	79.32	0.0984	21.7	55.9	0.39	0.79	1.69	1.82		0.01	0.02	16.5	16.49	16.48	16.48	16.48	0.21	469.7	1.71
49 to 48	35.83	300	300	5	84.18	0.078	18.2	55.9	0.33	0.79	0.76	7		0.02	0.16	16.68	16.66	16.5	16.5	16.5	0.45	223	0.76
33 to 5	21.58	600	25	11.7	58.73	2.9672	484	1228.5	0.39	4.35	3.94	0.35	0.15	0.05	0.13	13.42	13.37	13.24	13.24	13.24	0.62	161.1	3.72
34 to 33	20.37	600	25	11.62	58.92	2.9328	480	1228.5	0.39	4.35	3	0.29	0.15	0.04	0.59	14.06	14.01	13.42	13.42	13.42	2.9	34.5	3
35 to 34	52.93	600	140.1	11.14	60.08	2.8332	472.9	519.1	0.91	1.84	2.83	0.49	0.14	0.07	0.38	14.51	14.44	14.06	14.06	14.06	0.73	137.3	2.81
36 to 35	55.7	600	166.7	10.59	61.54	2.5935	443.3	475.8	0.93	1.68	2.66	0.36	0.13	0.05	0.31	14.87	14.83	14.51	14.51	14.51	0.56	177.3	2.66
37 to 36	24.3	600	166.7	10.35	62.19	2.434	420.5	475.8	0.88	1.68	2.21	0.31	0.11	0.03	0.15	15.06	15.02	14.87	14.87	14.87	0.62	161.5	2.36
38 to 37	58.75	600	200	9.71	64.02	2.2918	407.6	434.4	0.94	1.54	2.29	0.76	0.11	0.08	0.31	15.45	15.37	15.06	15.06	15.06	0.53	190.2	2.26
39 to 38	12.3	600	200	9.58	64.43	2.0222	361.9	434.4	0.83	1.54	2.06	0.32	0.08	0.03	0.04	15.52	15.49	15.45	15.45	15.45	0.35	288.1	2.23
40 to 39	9.64	600	200	9.47	64.75	1.9898	357.9	434.4	0.82	1.54	2.17	0.57	0.08	0.05	0.06	15.62	15.58	15.52	15.52	15.52	0.62	161.2	2.27
41 to 40	18.7	450	250	9.2	65.59	0.6815	124.2	180.4	0.69	1.13	2.22	0.27	0.03	0.01	0.04	15.67	15.66	15.62	15.62	15.62	0.19	527.6	2.38
42 to 41	32.6	450	250	8.72	67.18	0.6815	127.2	180.4	0.7	1.13	2.13	0.51	0.03	0.02	0.09	15.77	15.76	15.67	15.67	15.67	0.27	364.4	2.15
43 to 42	84.84	450	250	7.47	71.81	0.6286	125.4	180.4	0.7	1.13	1.86	0.45	0.03	0.01	0.37	16.16	16.15	15.77	15.77	15.77	0.44	227.5	1.89
44 to 43	32.24	450	250	7	73.72	0.5832	119.4	180.4	0.66	1.13	1.81	2.78	0.03	0.08	0.16	16.4	16.32	16.16	16.16	16.16	0.51	195.7	1.8
45 to 44	11.38	300	300	6.51	76.04	0.2364	49.9	55.9	0.89	0.79	1.93	0.77	0.03	0.02	0.03	16.45	16.43	16.4	16.4	16.4	0.27	375.3	2.02
46 to 45	8.52	300	300	5.62	80.62	0.1157	25.9	55.9	0.46	0.79	1.9	0.26	0.01		0.01	16.46	16.46	16.45	16.45	16.45	0.07	1393.7	2
50 to 34	8.35	300	50	5	84.18	0.065	15.2	136.8	0.11	1.94	1.68	9.7		0.02	0.32	15.2	15.18	14.78	14.06	14.06	4.78	20.9	1.88
51 to 35	8.4	300	40	5.34	82.22	0.1182	27	153	0.18	2.16	2.62	2.18	0.01	0.02	0.01	14.54	14.52	14.51	14.51	14.51	0.08	1284.9	2.79
52 to 51	44.5	300	40	5	84.18	0.096	22.4	153	0.15	2.16	1.84	7	0.01	0.04	1.13	15.7	15.66	14.54	14.54	14.54	2.54	39.4	1.83
53 to 37	8.4	300	50	5.25	82.78	0.1066	24.5	136.8	0.18	1.94	2.18	2.2	0.01	0.01	0.01	15.08	15.06	15.06	15.06	15.06	0.06	1558.5	2.36
54 to 53	28.5	300	50	5	84.18	0.0812	19	136.8	0.14	1.94	1.88	7		0.03	0.58	15.69	15.66	15.08	15.08	15.08	2.05	48.8	1.89
55 to 38	20.75	300	50	5.12	83.52	0.166	38.5	136.8	0.28	1.94	2.15	1.83	0.02	0.03	0.18	15.66	15.63	15.45	15.45	15.45	0.89	112.6	2.14
56 to 55	13.45	300	50	5	84.18	0.0886	20.7	136.8	0.15	1.94	1.89	9.7		0.04	0.29	15.99	15.95	15.66	15.66	15.66	2.17	46.2	1.88
57 to 55	8.35	300	50	5	84.18	0.0463	10.8	136.8	0.08	1.94	2	7		0.01	0.19	15.86	15.85	15.66	15.66	15.66	2.27	44.1	2.02
58 to 40	17.56	525	181.8	8.58	67.66	1.2907	242.6	319.1	0.76	1.47	2.29	1.53	0.06	0.1	0.06	15.78	15.68	15.62	15.62	15.62	0.32	314.6	2.21
59 to 58	9.27	450	181.8	8.47	68.06	1.0148	191.9	211.5	0.91	1.33	2.11	0.84	0.07	0.06	0.04	15.88	15.82	15.78	15.78	15.78	0.45	221	2.03
59a to 59	1.58	450	180	8.45	68.13	0.9291	175.8	212.6	0.83	1.34	2.14	0.5	0.06	0.03	0.01	15.92	15.89	15.88	15.88	15.88	0.38	263.1	2
73 to 42	6.5	300	50	5	84.18	0.0164	3.8	136.8	0.03	1.94	1.92	9.7			0.04	15.81	15.81	15.77	15.77	15.77	0.59	168.7	2.09
74 to 43	6.5	300	50	5	84.18	0.0179	4.2	136.8	0.03	1.94	1.65	9.7			0.04	16.2	16.2	16.16	16.16	16.16	0.63	159.5	1.82
75 to 46	36.13	300	200	5	84.18	0.1007	23.6	68.4	0.34	0.97	1.53	7	0.01	0.04	0.13	16.64	16.6	16.46	16.46	16.46	0.37	268.9	1.52

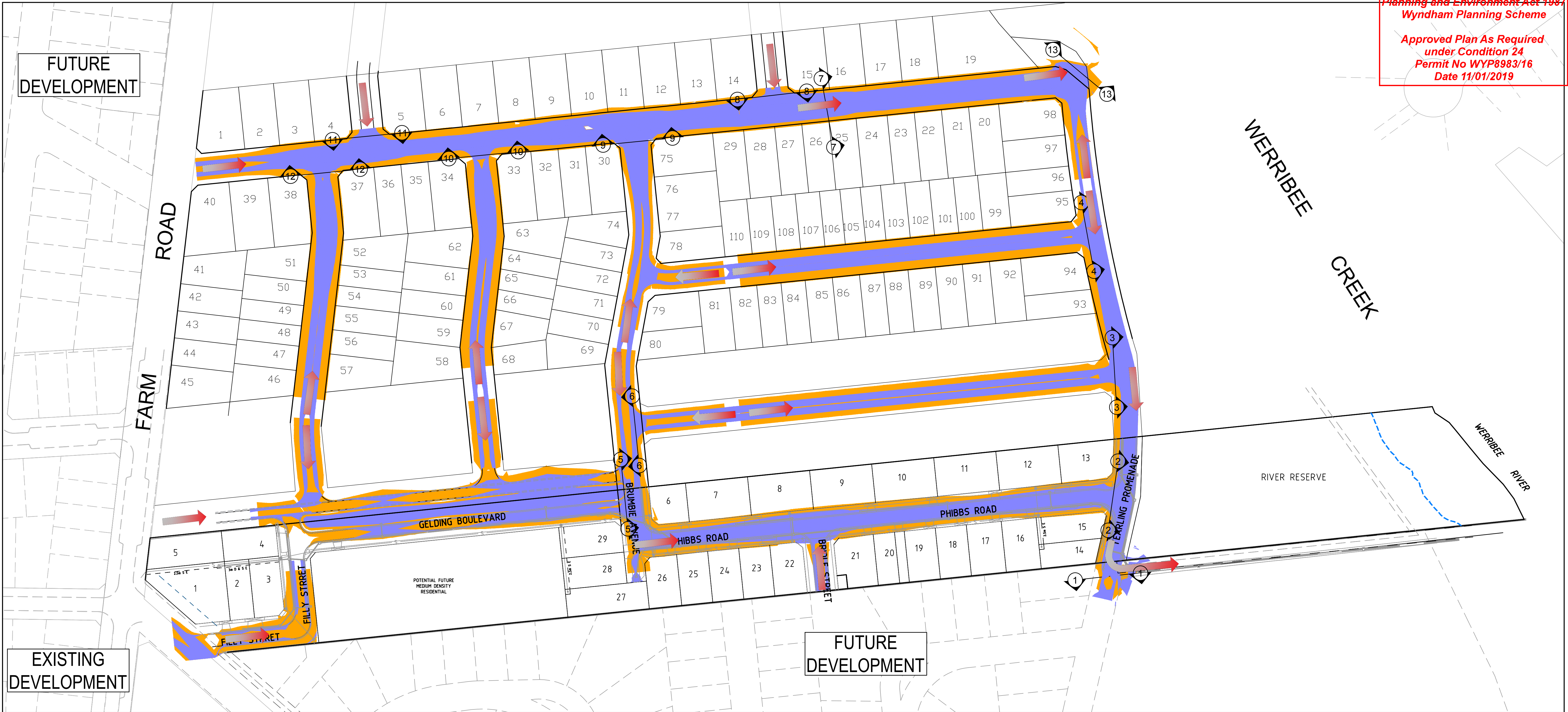


Pipe	Pipe Length (m)	Pipe Size (mm)	Pipe Grade (1 in)	Tc (min)	Intensity (mm/hr)	Sum Ae (ha)	Pipe Flow (l/s)	Pipe Capacity (l/s)	Q/Qf	Capacity Velocity (m/s)	Cover Min (m)	US Pit Ku	Pipe V'head (m)	P'head Loss (m)	Pipe T'head Loss (m)	US pit HGL (m)	Pipe US HGL (m)	DS HGL (m)	Pipe DS HGL (m)	DS HGL (m)	Slope (%)	Grade (1 in)	US (m)
<b>76 to 46</b>	11.99	300	50	5	84.18	0.015	3.5	136.8	0.03	1.94	1.72	7			0.19	16.66	16.66	16.46	16.46	16.46	1.61	61.9	1.75
<b>77 to 47</b>	8.5	300	100	5	84.18	0.013	3	96.7	0.03	1.37	1.57	9.7			0.08	16.55	16.55	16.48	16.48	16.48	0.9	44.8	1.16
<b>36a to 36</b>	11.37	300	125	5.12	83.51	0.1006	23.3	86.5	0.27	1.22	1.9	3.49	0.01	0.02	0.23	15.59	15.57	15.28	14.8	14.8	1.16	46.5	1.17
<b>36b to 36a</b>	8.6	300	125	5	84.18	0.0428	10	86.5	0.12	1.22	1.58	9.7		0.01	0.1	15.7	15.69	15.59	15.59	15.59	1.16	46.5	1.17
<b>48a to 48</b>	13.74	300	300	5.56	80.98	0.0204	4.6	55.9	0.08	0.79	1.24	0.56			0.09	16.59	16.59	16.5	16.5	16.5	0.63	157.8	1.42
<b>49a to 48a</b>	26.53	300	300	5	84.18	0.0204	4.8	55.9	0.09	0.79	0.67	7			0.14	16.73	16.73	16.59	16.59	16.59	0.52	191.8	0.69

**Planning and Environment Act 1987**  
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Q100 GAP FLOW - LAYOUT PLAN  
SCALE 1:1000 (A1)

Q100 GAP FLOW - LAYOUT PLAN LEGEND

- 150mm FREEBOARD
- Q100 GAP FLOW WATER LEVEL

REV A	DATE 20.06.17	AMENDMENT / REVISION DESCRIPTION ISSUED TO COUNCIL FOR COMMENT	DES/DT NG	APPROVAL LV	All setting out should be carried out in accordance with MPA/Council's standard drawings or as nominated on hard copy plans provided by SMEC. Any digital information supplied by this office is for information only. Any discrepancies should be discussed with the superintendent.	TITLE DRAFTER DESIGNER CHECKED AUTHORISED	NAME N.Green N.Green L.Vieyra L.Vieyra	0 10 20 40 Scale 1:1000 SCALE AS SHOWN AT A1		 Member of the Surbana Jurong Group © ABN 47 065 475 149 Level 10, 71 Queens Road Melbourne, VIC 3004 Ph 03 9514 1500		Farm Road - Werribee Hume City Council Q100 Overland Flow Overall Layout Plan	MELWAYS REF 205G12	PROJECT / DRAWING No 2052E-MP-Q100	SHEET No 01 of 01	REVISION A
Information Only					 Global-Mark.com.au®  Global-Mark.com.au®  Global-Mark.com.au®											





Project:	Farm Road, Werribee
Job No.:	2052E
Council:	WYNDHAM
Region:	SOUTH WEST / WEST REGION
C 10:	0.15445632
Design Standard:	GAA

Secondary and local roads.  
Main zone for public open space, incl. golf courses.  
High densities. (Allotment size <450m2)  
Medium densities. (Allotment size 450m2 - 600m2)

ZONE	Roads	Residential	Residential
LAND USE	Road Zone Category 2	Residential high	Residential medium
ZONE ID	RDZ2	R2Z2	R2Z

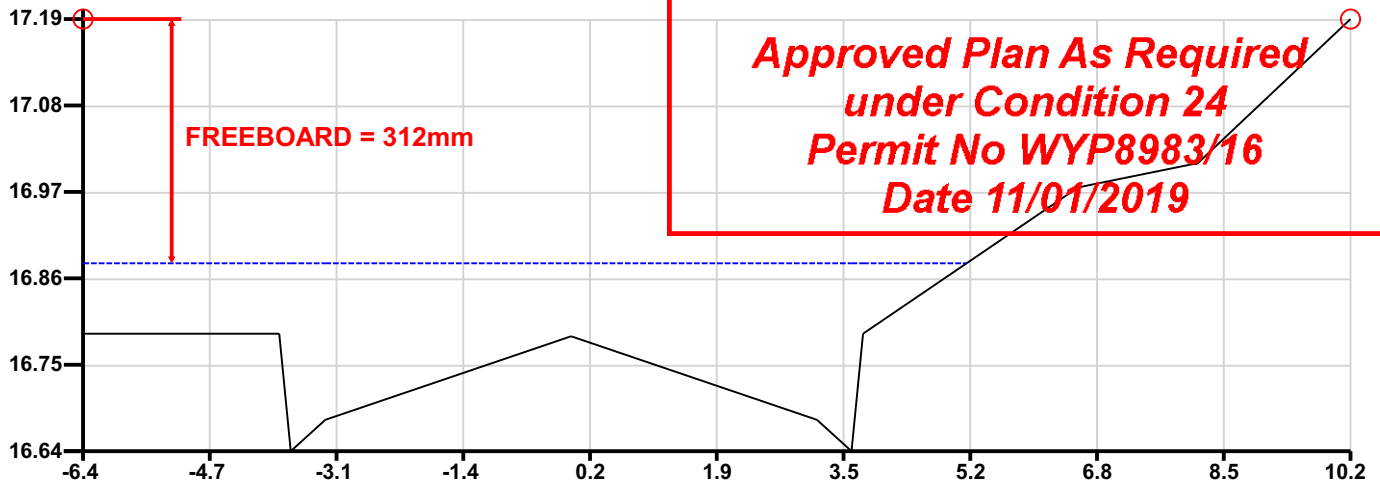
Prepared by:	N. Green
Revision:	A
Date:	21/03/2018

FREQUENCY FACTOR \ FRACTION IMPERVIOUS	0.60	0.80	0.60
C5	0.57	0.71	0.57
C10	0.60	0.75	0.60
C100	0.72	0.90	0.72

CATCHMENT AREAS	ha	ha	ha	Sub Area ha
A	0.29	0.27	0.19	0.74
B	0.29	0.84	0.10	1.23
C	0.32	0.70		1.01
D	0.61	0.47	0.56	1.64
E	0.09	0.23		0.32
F	0.94	0.73	1.06	2.73
G1	0.56	0.20	1.40	2.16
G2	0.30		0.90	1.20
H	0.14		0.20	0.34
I	0.23	0.36	0.22	0.81
J	0.19	0.28	0.33	0.80
K	0.13		0.33	0.46
L	0.20	0.45	0.48	1.13

							TIME OF CONCENTRATION			5 YEAR FLOW			100 YEAR FLOW				OUTFALL	GAP FLOW
			RDZ2	R2Z2	R2Z	Total Area	Critical Catchment	Calculated Tc	Adopted tc	A <sub>e</sub>	I	Q	A <sub>e</sub>	I	Q	PIPE ARI	QPIPE	EXCESS Q100 - QPIPE
NODE	DESCRIPTION	CONTRIBUTING CATCHMENTS	ha	ha	ha	ha		min	min	ha	mm/hr	m³/s	ha	mm/hr	m³/s		m³/s	m³/s
1		A B C D E F	2.52	3.24	2	7.67	1	13.7	13.67	4.84	54.40	0.73	6.11	115.92	1.97	5 YEAR FLOW	2.59	1.24
2		D E F	1.63	1.43	2	4.68	2	13.0	13.00	2.88	55.76	0.45	3.64	118.99	1.20	5 YEAR FLOW		0.76
3		C	0.32	0.70	0	1.01	3	7.9	7.88	0.68	70.15	0.13	0.85	151.65	0.36	5 YEAR FLOW		0.23
4		B	0.29	0.84	0	1.23	4	7.4	7.36	0.82	72.20	0.17	1.04	156.33	0.45	5 YEAR FLOW		0.29
5		F	0.94	0.73	1	2.73	5	9.0	9.00	1.66	66.20	0.31	2.10	142.65	0.83	5 YEAR FLOW		0.53
6		E	0.09	0.23	0	0.32	6	5.4	5.42	0.21	81.66	0.05	0.27	178.01	0.13	5 YEAR FLOW		0.09
7		G1 H I J K L	1.46	1.29	3	5.71	7	11.1	11.08	3.45	60.20	0.58	4.35	129.01	1.56	5 YEAR FLOW		0.98
8		H	0.14	0.00	0	0.34	8	6.1	6.07	0.20	78.10	0.04	0.25	169.84	0.12	5 YEAR FLOW		0.07
9		I	0.23	0.36	0	0.81	9	5.1	5.14	0.52	83.30	0.12	0.65	181.79	0.33	5 YEAR FLOW		0.21
10		J	0.19	0.28	0	0.80	10	6.7	6.67	0.50	75.21	0.10	0.63	163.23	0.29	5 YEAR FLOW		0.18
11		K	0.13	0.00	0	0.46	11	5.9	5.89	0.26	79.04	0.06	0.33	172.01	0.16	5 YEAR FLOW		0.10
12		L	0.20	0.45	0	1.13	12	6.7	6.67	0.71	75.21	0.15	0.90	163.23	0.41	5 YEAR FLOW		0.26
13		G1 G2 H I J K L	1.76	1.29	4	6.91	7	13.7	13.67	4.13	54.40	0.62	5.22	115.92	1.68	5 YEAR FLOW		1.06

**Approved Plan As Required  
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Date 11/01/2019**

**1. CROSS-SECTION:****2. DISCHARGE INFORMATION:**

100 year (1%) storm event

Total discharge = 1.24 cumecs

There is no pipe discharge

Overland / Channel / Watercourse discharge = 1.240 cumecs

**3. RESULTS: Water surface elevation = 16.882m**

Grade = 1 in 200

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	1.31	0.00	1.31
D(Max) = Max. Depth (m):	0.00	0.24	0.00	0.24
D(Ave) = Ave. Depth (m):	0.00	0.13	0.00	0.13
V = Ave. Velocity (m/s):	0.00	0.89	0.00	0.89
D(Max) x V (cumecs/m):	0.00	0.21	0.00	0.21
D(Ave) x V (cumecs/m):	0.00	0.11	0.00	0.11
Froude Number:	0.00	0.79	0.00	0.79
Area (m <sup>2</sup> ):	0.00	1.48	0.00	1.48
Wetted Perimeter (m):	0.00	11.72	0.00	11.72
Flow Width (m):	0.00	11.50	0.00	11.50
Hydraulic Radius (m):	0.00	0.13	0.00	0.13
Composite Manning's n:	0.000	0.020	0.000	0.020
Split Flow?	-	-	-	No

**4. CROSS-SECTION DATA:**

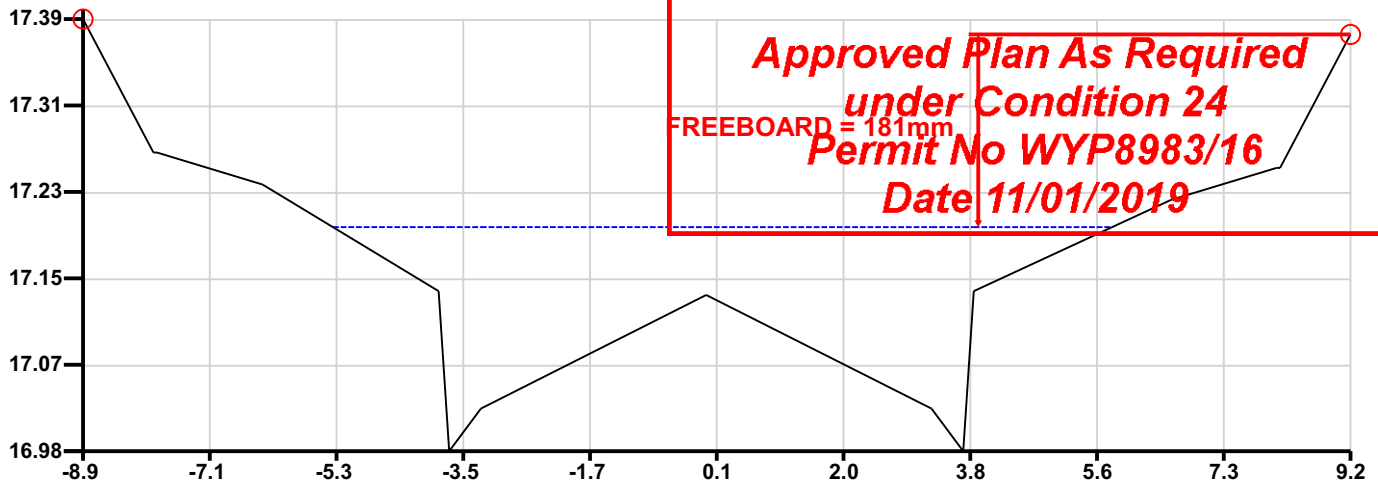
SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	R.L. (m)	MANNING'S N
1	-6.351	17.193	-6.350	16.792	0.020
2	-6.350	16.792	-3.800	16.792	0.020
3	-3.800	16.792	-3.650	16.642	0.020
4	-3.650	16.642	-3.200	16.682	0.020
5	-3.200	16.682	0.000	16.789	0.020
6	0.000	16.789	3.200	16.682	0.020
7	3.200	16.682	3.650	16.642	0.020
8	3.650	16.642	3.800	16.792	0.020
9	3.800	16.792	6.600	16.979	0.020
10	6.600	16.979	8.100	17.009	0.020
11	8.100	17.009	8.150	17.009	0.020
12	8.150	17.009	10.150	17.193	0.020



**Approved Plan As Required**  
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FREEBOARD = 181mm

### 1. CROSS-SECTION:



### 2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.76 cumecs

There is no pipe discharge

Overland / Channel / Watercourse discharge = 0.760 cumecs

### 3. RESULTS: Water surface elevation = 17.194m

Grade = 1 in 200

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.78	0.00	0.78
D(Max) = Max. Depth (m):	0.00	0.21	0.00	0.21
D(Ave) = Ave. Depth (m):	0.00	0.10	0.00	0.10
V = Ave. Velocity (m/s):	0.00	0.74	0.00	0.74
D(Max) x V (cumecs/m):	0.00	0.15	0.00	0.15
D(Ave) x V (cumecs/m):	0.00	0.07	0.00	0.07
Froude Number:	0.00	0.76	0.00	0.76
Area (m <sup>2</sup> ):	0.00	1.06	0.00	1.06
Wetted Perimeter (m):	0.00	11.20	0.00	11.20
Flow Width (m):	0.00	11.06	0.00	11.06
Hydraulic Radius (m):	0.00	0.09	0.00	0.09
Composite Manning's n:	0.000	0.020	0.000	0.020
Split Flow?	-	-	-	No

### 4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT		RIGHT HAND POINT		MANNING'S N
	CHAINAGE (m)	R.L. (m)	CHAINAGE (m)	R.L. (m)	
1	-8.850	17.389	-7.850	17.264	0.020
2	-7.850	17.264	-7.800	17.264	0.020
3	-7.800	17.264	-6.300	17.234	0.020
4	-6.300	17.234	-3.800	17.134	0.020
5	-3.800	17.134	-3.650	16.984	0.020
6	-3.650	16.984	-3.200	17.024	0.020
7	-3.200	17.024	0.000	17.131	0.020
8	0.000	17.131	3.200	17.024	0.020
9	3.200	17.024	3.650	16.984	0.020
10	3.650	16.984	3.800	17.134	0.020
11	3.800	17.134	6.600	17.220	0.020
12	6.600	17.220	8.100	17.250	0.020

4. CROSS-SECTION DATA: (continued)

SEGMENT NO.	LEFT HAND POINT	
	CHAINAGE (m)	R.L. (m)
13	8.100	17.250
14	8.150	17.250

CHAINAGE (m)	RIGHT HAND POINT		MANNING'S N
	CHAINAGE (m)	R.L. (m)	
8.150	17.250	0.020	0.020
9.150	17.375	0.020	

**Planning and Environment Act 1987**  
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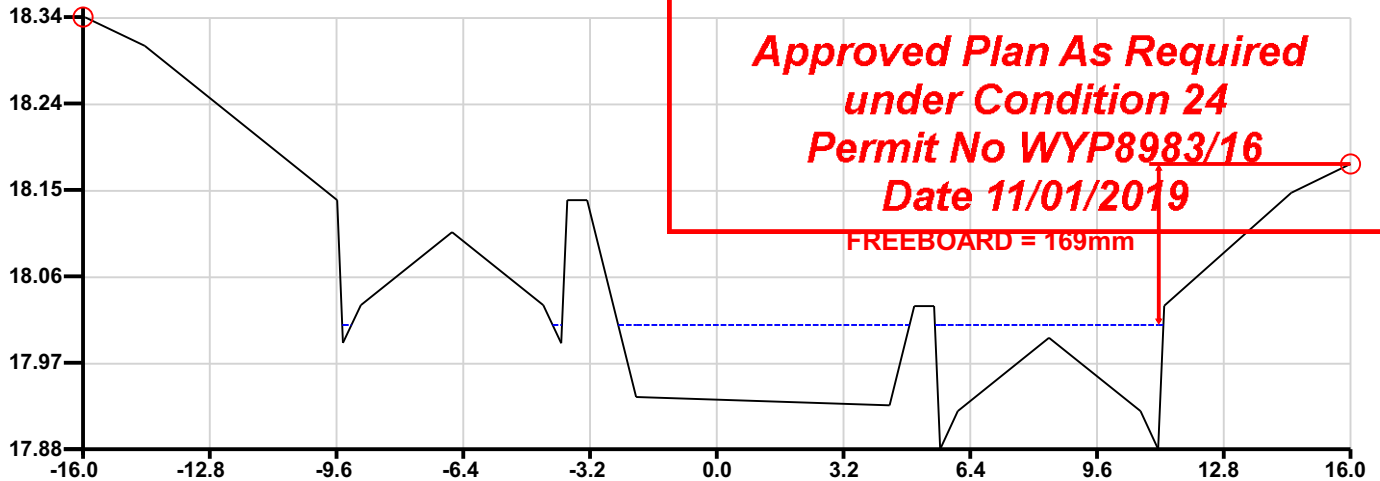


# Planning and Environment Act 1987 Wyndham Planning Scheme

**Approved Plan As Required  
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Date 11/01/2019**

FREEBOARD = 169mm

## 1. CROSS-SECTION:



## 2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.53 cumecs

There is no pipe discharge

Overland / Channel / Watercourse discharge = 0.530 cumecs

## 3. RESULTS: Water surface elevation = 18.013m

Grade = 1 in 200

Frog outlets at low point to allow flow into central median (existing tree location)

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.52	0.00	0.52
D(Max) = Max. Depth (m):	0.00	0.13	0.00	0.13
D(Ave) = Ave. Depth (m):	0.00	0.07	0.00	0.07
V = Ave. Velocity (m/s):	0.00	0.58	0.00	0.58
D(Max) x V (cumecs/m):	0.00	0.08	0.00	0.08
D(Ave) x V (cumecs/m):	0.00	0.04	0.00	0.04
Froude Number:	0.00	0.71	0.00	N/A
Area (m^2):	0.00	0.90	0.00	0.90
Wetted Perimeter (m):	0.00	13.71	0.00	13.71
Flow Width (m):	0.00	13.57	0.00	13.57
Hydraulic Radius (m):	0.00	0.07	0.00	0.07
Composite Manning's n:	0.000	0.020	0.000	N/A
Split Flow?	-	-	-	Yes

## 4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	R.L. (m)	MANNING'S N
1	-16.000	18.335	-15.950	18.335	0.020
2	-15.950	18.335	-14.450	18.305	0.020
3	-14.450	18.305	-9.600	18.144	0.020
4	-9.600	18.144	-9.450	17.994	0.020
5	-9.450	17.994	-9.000	18.034	0.020
6	-9.000	18.034	-6.700	18.110	0.020
7	-6.700	18.110	-4.400	18.034	0.020
8	-4.400	18.034	-3.950	17.994	0.020
9	-3.950	17.994	-3.800	18.144	0.020
10	-3.800	18.144	-3.300	18.144	0.020
11	-3.300	18.144	-2.060	17.938	0.020
12	-2.060	17.938	4.330	17.929	0.020

4. CROSS-SECTION DATA: (continued)

SEGMENT NO.	LEFT HAND POINT	
	CHAINAGE (m)	R.L. (m)
13	4.330	17.929
14	4.950	18.033
15	5.450	18.033
16	5.600	17.883
17	6.050	17.923
18	8.350	18.000
19	10.650	17.923
20	11.100	17.883
21	11.250	18.033
22	14.450	18.152

RIGHT HAND POINT		
CHAINAGE (m)	R.L. (m)	MANNING'S N
4.950	18.033	0.020
5.450	18.033	0.020
5.600	17.883	0.020
6.050	17.923	0.020
8.350	18.000	0.020
10.650	17.923	0.020
11.100	17.883	0.020
11.250	18.033	0.020
14.450	18.152	0.020
15.950	18.182	0.020

**Planning and Environment Act 1987**  
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