

Suite 301, Level 3, Oran Park Podium 351 Oran Park Drive ORAN PARK NSW 2570 4632 6500 Paul.hume@premise.com.au premise.com.au

11 May 2022

Director Communities and Place Wingecarribee Shire Council Civic Centre, 68 Elizabeth Street MOSS VALE NSW 2571

Dear Geoff,

CHELSEA GARDENS COOMUNGIE PRECINCT – WATER & SEWER INFRASTRUCTURE STAGING PLAN

Premise is assisting Prime Moss Vale Pty Ltd ('Applicant') in this matter. On behalf of the Applicant we thank Wingecarribee Shire Council ('the Council') for its extensive analysis and advice since November 2021 which has been agreed to and forms the basis of the approach going forward for delivery of water and sewer infrastructure for the project.

On instructions from and on behalf of the Applicant we have prepared a water & sewer infrastructure staging plan to service the development of the Chelsea Gardens Coomungie Precinct, being Lot 3 DP 706194 and Lot 12 DP 8660366 located at 32 Lovelle Street and 141 Yarrawa Road ('the Subject Land'). It has been prepared to enable a clear and concise strategy for delivery of sewer and water infrastructure for the stages of Chelsea Gardens and for referencing in any draft conditions of consent.

1.0 Background

The Applicant is the registered owner of the Subject Land.

The Applicant has lodged a concept development application ('DA') for residential subdivision of approximately 1,200 lots; including Stage 1 comprising a Torrens Title subdivision of 173 residential lots, two (2) lots for open space or drainage and two (2) residue Lots, with associated works including site clearing, tree removal, bulk earthworks and construction of new roads and public infrastructure, open space and restoration of a section of the Whites Creek on the Land ('the Development'). Council's reference no. for the DA for the Development is 20/0227.

Determination of DA 20/0227 is subject to the provisions of *Wingecarribee Local Environmental Plan 2010* ('WLEP 2010'). Clause 7.10(2) of WLEP 2010 provides that development consent must not be granted unless the determining authority is satisfied that any public utility infrastructure that is essential for the proposed development is available or that adequate arrangements have been made to make that infrastructure available when it is required.

DA 20/0227 is also subject to the provisions of the *Moss Vale Township Development Control Plan* ('DCP'). *Section 22: Chelsea Gardens Coomungie Precinct* of the DCP specifically applies and requires a water and sewer servicing strategy for the Development.

The Council is the responsible water and sewer servicing authority for the Development.



Following detailed consultation with the Council a table of water and sewer issues, including Council's preferred approach was prepared by Council and issued to the Applicant via email on 24 December 2021 (see **Appendix A**). It is acknowledged that Appendix A refers to a total number of 1073 lots, which is consistent with a clarification letter by Beveridge Williams dated 3 December 2021 concerning amended stage boundaries in the revised indicative staging plan provided to Council on 3 December 2021. We note that development consent is being sought under the concept development application for up to a maximum of 1,200 residential lots, the maximum yield on which all infrastructure planning has been based. Final lot yields will be determined with detailed subdivision design, to be undertaken as part of future subdivision applications for Council's further and more detailed consideration. Council has noted this clarification and is satisfied in the understanding that 1200 residential lots is the maximum yield for infrastructure purposes.

2.0 The Staging Plan

The Staging Plan covers the construction and transfer to the Council of certain water and sewer infrastructure at various stages of the Development. This agreement is expected to be implemented by conditions of development consent.

The schedule at **Appendix B** sets out the water infrastructure to be constructed and transferred to the Council and the timing of the construction and transfer of the water infrastructure items. **Note**: in respect to item 2 (additional reservoir), whilst water modelling investigations confirm that the Development requires an additional 2.2ML reservoir to service the development, the Council has expressed a preference to construct a 10ML reservoir at the preferred site (Hill Road) to maximise storage capacity at the preferred site (Hill Road). Dual 10ML reservoirs support growth beyond 2051, minimise risk in the network, have an ability to provide water supply to southern villages and provide greater flexibility for operation, maintenance and cleaning of structures. Given the above the Applicant is agreeable to the additional 10ML reservoir on a cost sharing basis with Council.

The schedule at **Appendix C** sets out the sewer infrastructure to be constructed and transferred to the Council and the timing of the construction and transfer of the sewer infrastructure items. The above schedules should be read in conjunction with the following plans:

- Plan titled *Stage 1 Lead-in Water Main Context Plan* by JMD Development Consultants, ref: 18001W1 Rev D (**Appendix D**);
- Plans of proposed Stage 1 trunk main sewer works by Beveridge Williams, ref: 18001S2 Version B
 (Appendix E); and
- Plans of proposed Stage 2 trunk main sewer works by Beveridge Williams, ref: 18001S3 Version B (**Appendix F**).

The Staging Plan is subject to the following matters:

- the proposed cost-sharing basis for the additional 10ML water reservoir as described above.
- that the sewer and water infrastructure nominated under the Strategy is not deliverable unless a development consent is granted consistent with DA 20/0227 as currently lodged for approval.
- In the event of a refusal (including on appeal) the Strategy is discontinued.



Please contact either myself or the Applicant with any questions.

Your sincerely,

Paul Hume

Senior Town Planner

Appendices

Original Development Stage	Revised Lots	Number of Lots	Total Number of Lots	Current	Council Comments
1	1 - 176	176	176	A new 12 L/s pump station at the development + Emergency Storage of 50kL (8hrs ADWF). 580m of DN160 HDPE rising main connecting into the existing 150mm gravity sewer off Lovelle Street. 960m of 300mm sewer from MH GH01102 to SPS MV17. This new sewer will run parallel to the Whites Creek trunk sewer, providing additional capacity during wet weather events when flow can spill from MH GH01102 into the new sewer*. SPS MV17 pump capacity upgraded to 25 L/s. SPS MV17 rising main increased to DN200 HDPE. A total length of 230m.	The new pump station must be constructed and connected to council's infrastructure as per the current conditions The full size pump station and emergency storage (248kL) should be built at stage 1 at the beginning of the project not added to over several years. Commence concept design for sewer network upgrades for stages 2. *For consideration and comment — as briefly mentioned, there is a potential option for achieving this objective via an upsizing of the current main rather than duplication. This would deal more effectively with future growth in Moss Vale beyond this development. It may simplify approvals, but would require some agreements to be in place to manage the risks and costs to both parties. For this to work council would have to agree with the applicant on a contribution to the main upgrade (instead of funding and building a separate main) and guarantee deliver timeframes.
2	2A - 205 2B - 89	294	470	65 kL of emergency storage at the main pump station to satisfy the design requirement of 8 hours storage at ADWF.	This to be done at stage 1 Concept design of network required Council has a strong preference not to extend the temporary STP to stage 2 due to potential environmental and health risks. While Council appreciates the issues and impacts to development staging if the upgrade of the Moss Vale STP is delayed, or does not align with potential development of Stage 2, Council is of the opinion that this issue needs to be

					addressed in the draft conditions of consent for the concept approval. In the circumstance that connection to Council's sewer system is not possible at Stage 2, any approval for extension will require a review of the existing operation of the plant and assessment of the potential risks of expanded use of the temporary STP, focussed on (but not limited to) the effects of the proposal on the community and environment. This will be part of any assessment approval of stage 2, if this circumstance arises. Expansion of the temporary STP operation will only be considered if there are no other viable alternatives.
3A & 3B	3 - 301	301	771	additional 40 kL of emergency storage at the main pump station to satisfy the design requirement of 8 hours storage at ADWF.	This to be done at stage 1
4 & 5	4-66 5-153	219	990	Increase flow rate to 35 L/s at pump station at the development. An additional 60 kL of emergency storage at the main pump station to satisfy the design requirement of 8 hours storage at ADWF. 2,430m of 300mm sewer from the development connecting to the 300mm sewer constructed in 2021. SPS MV17 pump capacity upgraded to 45 L/s.*	Emergency storage tank should be constructed to full capacity (248kL) at stage 1 (An additional 60 kL of emergency storage at the main pump station to satisfy the design requirement of 8 hours storage at ADWF) *For consideration and comment —as per previous note - there is a potential option for achieving this objective via an upsizing of the current main rather than duplication. This would deal more effectively with future growth in Moss Vale beyond this development. It may simplify approvals, but would require some agreements to be in place to manage the risks and costs to both parties. For this to work council would have to agree with the applicant on a contribution to the main upgrade (instead of funding and building a separate main) and guarantee deliver timeframes.
6 & 7	6- 83	83	1073	At 2025 the only required infrastructure is an additional 40 kL of emergency storage at the main pump station to satisfy the design requirement of 8 hours storage at ADWF.	This should be done at stage 1

Water staging

Original Development Stage	Revised Lots	Number of Lots (Stage)	Total Number of Lots	Current	Council preference
1	1 - 176	176	176	Stage 1 works consistent with Section "4.1 Proposed Servicing Strategy" of the Water Servicing Strategy report by Urban Water Solutions dated 20/04/2020. The pipework will need to be modelled to the minimum	Stage 1 to connect to via Hill Road reservoir zone. Location, and proposed method required (live preferably, as a shutdown requires the res to be isolated and network supply rearranged).
				pipe size to ensure water quality is maintained for stage 1 whilst not compromising supply. The main installed will then be upgraded as further stages of the development progress	Possible locations – Hill Road, connection to the 525mm. Arthur Street connect to one of the trunk mains (250/300) – this second option would need to be modelled. (note: All previous modelling reports have connected directly to the reservoir/525 trunk).
				Details must be provided as to how the applicant proposes to connect the ultimate and temporary water service for the estate to the existing network through the Hill	Water main sizing to be confirmed for early stages. Ultimate sized DN450 may cause water quality issues in earlier stages. Main to be upsized as development progresses.
				Road Low reservoir system. Concept details must also be provided as to how the applicant proposes to augment the	Connection via Yarrawa Road or Lovelle Street existing mains not allowed at this stage. – This is the Blakes Hill zone.
				storage at this reservoir for the ultimate servicing of the estate.	Council requires that the Concept plan identify the long term site for the future reservoir. Council preferred site is adjacent to the Hill Rd Reservoir site. Needs same top water line and bottom water line to match the operating profile of the existing reservoir.
2	2A - 205 2B - 89	294	470		Short term strategy works must be completed prior to connection of Stage 2. Up to 480 lots may be serviced with these works. i.e. new valves in Bowral to force flow to Moss Vale and rezoning of Blakes Hill zone. Stage 2B requires additional reservoir (2.2ML for CG).
					Council preference to construct 10ML reservoir to maximise storage capacity at the preferred site (Hill Road). Dual 10ML reservoirs support growth beyond 2051 and minimise risk in the network with ability to supply to southern villages. Also provides greater flexibility for

				operation, maintenance and cleaning of structures. Obviously this would require a cost agreement for the CG component.
3a & 3b	3 - 301	301	771	Stage 3, 4 and 5 (up to 960 lots) require, at minimum, Stage 1 and/or Stage 2 of the Bowral to Moss Vale duplication main to be commissioned OR construction of a new booster pumping station on the existing DN375 B2MV trunk main (possible location at Eridge Park).
4 & 5	4-66 5-153	219	990	As above.
6 & 7	6- 83	83	1073	Full duplication of the Bowral to Moss Vale main to be commissioned.

APPENDIX B SCHEDULE OF ITEMS – WATER INFRASTRUCTURE

Column 1	Column 2	Column 3	Column 4
Item	Public Purpose	Manner & Extent	Timing/ Works Completion Date
A. Carrying out of	Work		
Connection to existing Hill Road Lower Reservoir.	Water Services	Connect directly to the existing water main infrastructure in the vicinity of the Lower Reservoir, with final connection details to be determined by water modelling and in consultation with Council. To be delivered by Applicant.	Work is to be completed prior to the issuance of the Subdivision Certificate which creates the 1st residential lot.
Construct additional 10ML reservoir	Water Services	To be constructed in the vicinity of existing Hill Road reservoirs with final location to be determined in consultation with Council. To be delivered under a joint funding and delivery arrangement with Council to be determined on the basis of the development requiring 2.2ML of the additional 10ML water storage.	Work is to be completed and commissioned prior to the issuance of the Subdivision Certificate which creates the 382 nd residential lot.

APPENDIX B SCHEDULE OF ITEMS – WATER INFRASTRUCTURE

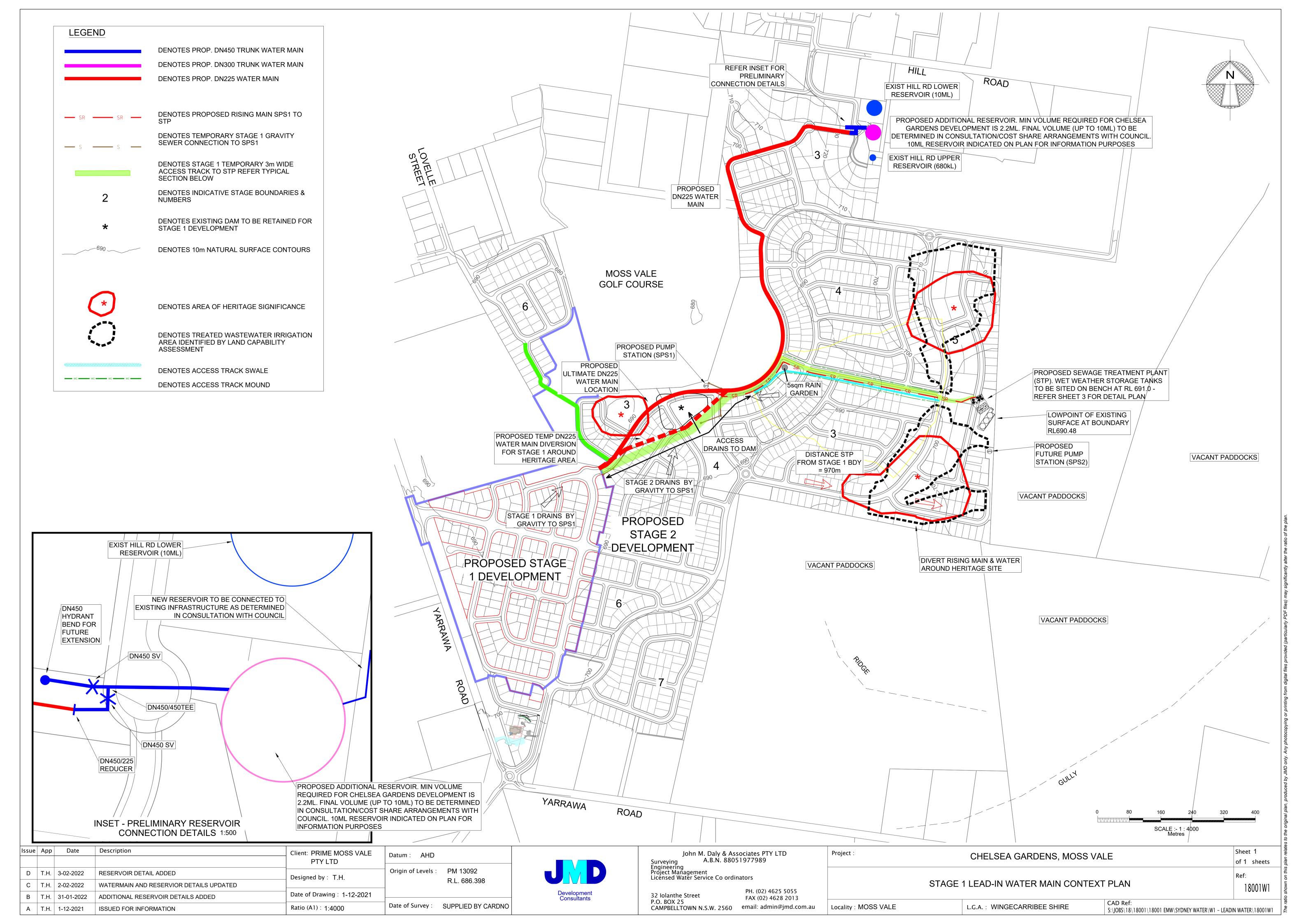
3. Construct Stage 1 and / or Stage 2 of Bowral to Moss Vale water main duplication OR new booster pumping station on the existing DN375 B2MV trunk main.	Water Services	Option to be determined by water modelling and in consultation with Council. To be delivered in accordance with Council's Water and Sewer Development Servicing Plan.	Work is to be completed and commissioned prior to the issuance of the Subdivision Certificate which creates the 471st residential lot.
4. Completion of Bowral to Moss Vale water main duplication	Water Services	Final design to be determined by in consultation with Council. To be delivered by in accordance with Council's Water and Sewer Development Servicing Plan.	Work is to be completed and commissioned prior to the issuance of the Subdivision Certificate which creates the 961st residential lot.
B. Dedication of La	ind		
5. Part Lot 12 DP 866036.	Water Services	Dedication to Council of Land associated with construction of additional 10ML reservoir (Works item 2). To be delivered by Applicant.	Land to be dedicated prior to the issuance of the Subdivision Certificate which creates the 382 nd residential lot.

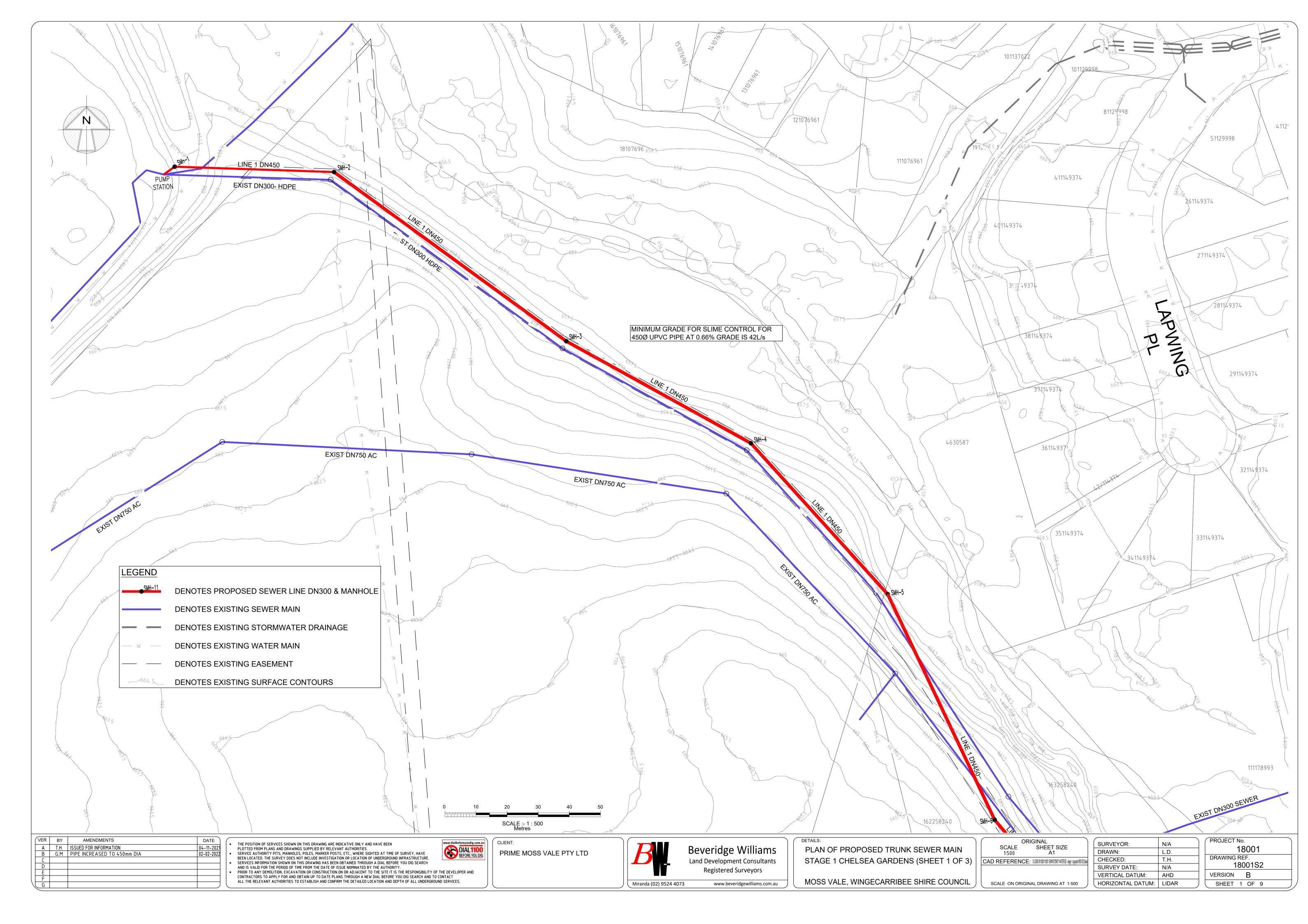
APPENDIX C SCHEDULE OF ITEMS – SEWER INFRASTRUCTURE

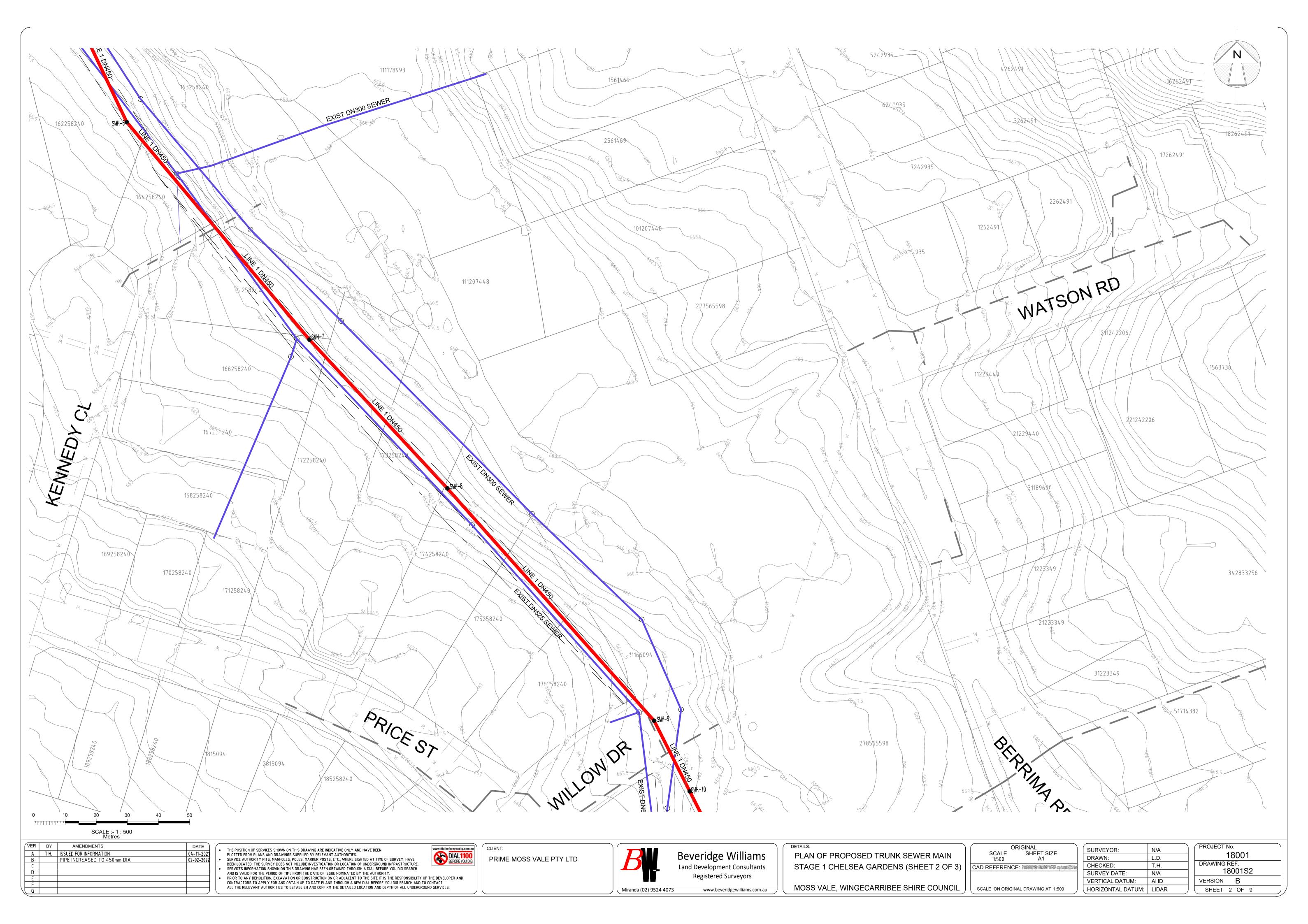
Column 1	Column 2	Column 3	Column 4
Item	Public Purpose	Manner & Extent	Timing/ Works Completion Date
A. Carrying out of Work			
(a) Construction of sewer	Sewer Services	Final designs to be determined by and in consultation	Work is to be completed prior to the issuance of the
pump station SPS1 with emergency storage of 248KL (8 hours Average Dry Weather Flow) with flow rate of 12L/s. (b) Construction of 580m of a rising main (DN160 HDPE) connecting with the existing 150mm gravity main in Lovelle Street.	Jewel Jelvices	with Council. To be delivered by Applicant.	Subdivision Certificate which creates the 1st residential lot.
(c) Construction of 960m of a 450mm gravity main connecting MH GH01102 to SPS MV17.			
 (d) Upgrading of SPS MV17 pump capacity to 25 L/S. (e) Upgrading of 230m of rising main from SPS MV17 to DN200 HDPE. 			

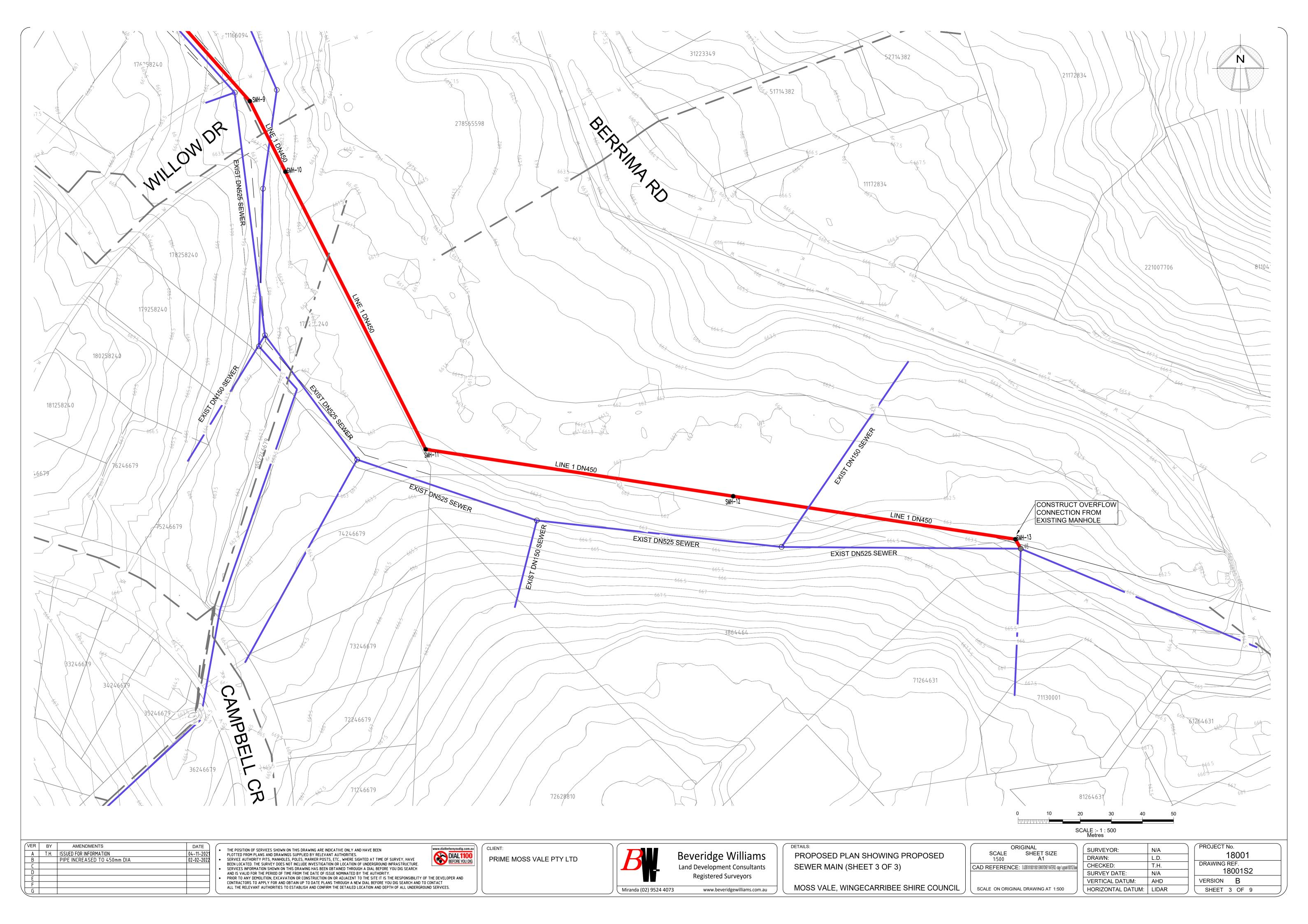
APPENDIX C SCHEDULE OF ITEMS – SEWER INFRASTRUCTURE

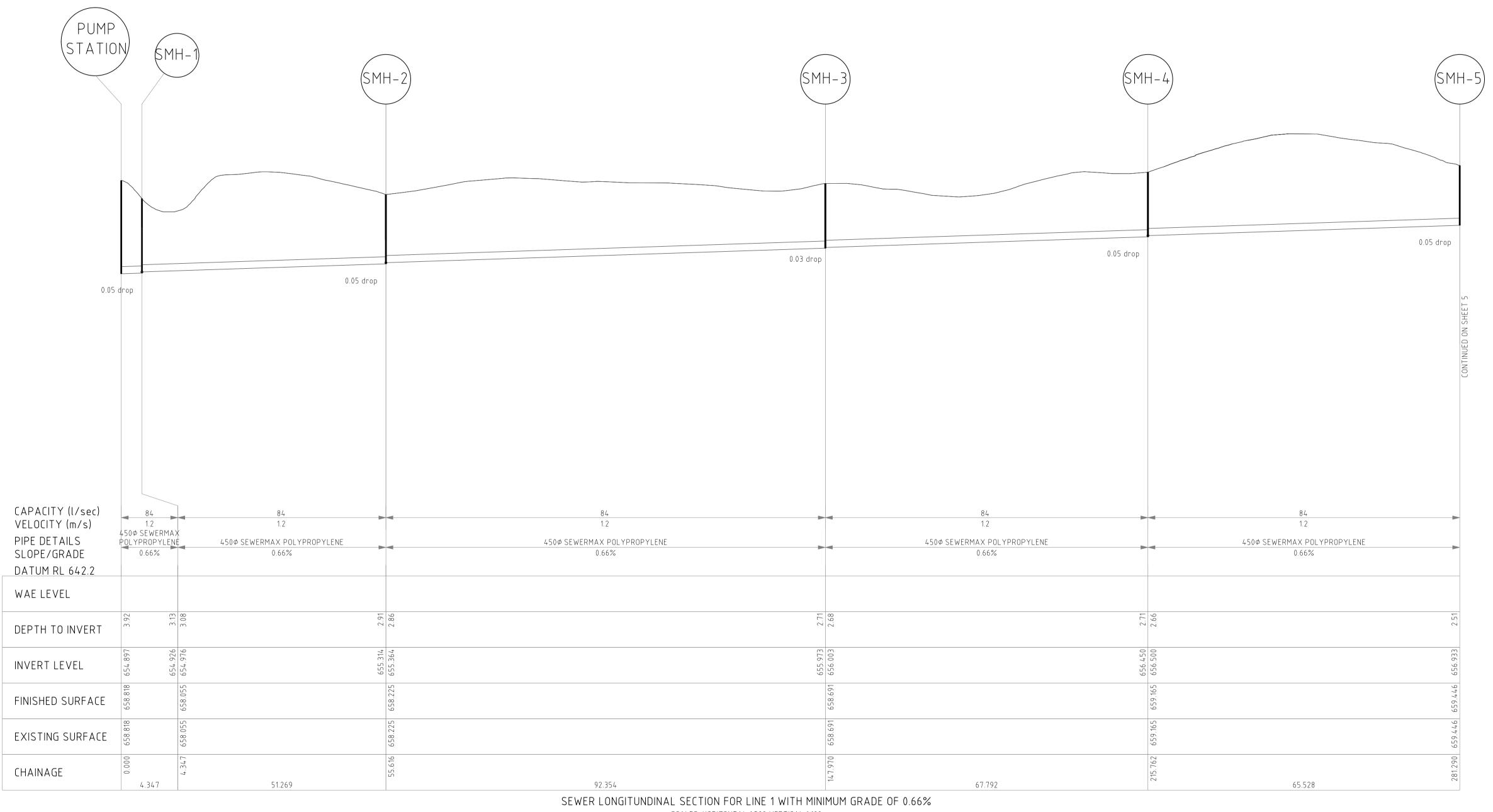
 (a) Increase flow rate capacity at SPS1 to 35L/s. (b) Construction of an additional 2,430m of 450mm gravity main. (c) Increase flow rate capacity of SPS MV17 to 45L/s. 	Sewer Services	Final designs to be determined by and in consultation with Council. To be delivered by Applicant.	Work is to be completed prior to the issuance of the Subdivision Certificate which creates the 772 nd residential lot.
B. Dedication of Land			
1. Part Lot 12 DP 866036.	Sewer Services	Dedication to Council of Land associated with construction of sewer pump station SPS1 (Works item 1(a)). To be delivered by Applicant.	Land to be dedicated prior to the issuance of the Subdivision Certificate which creates the 1st residential lot.











SCALE :- 1 : 500 Metres

SEWER LUNGITUNDINAL SECTION FOR LINE I WITH MINIMUM GRADE OF 0.0
SCALES: HORIZONTAL 1:500 VERTICAL 1:100

	VER	BY	AMENDMENTS	DATE
	Α	T.H.	ISSUED FOR INFORMATION	04-11-202
	В	G.M	PIPE INCREASED TO 450mm DIA	02-02-202
	C			
	D			
	Ε			
	F			
·	١			

THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN
PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.
SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE
BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.
SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH
AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY. www.dialbeforeyoudig.com.au

DIAL1100

BEFORE YOU DIG PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.

CLIENT: PRIME MOSS VALE PTY LTD

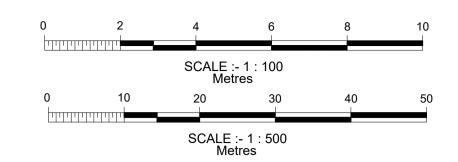


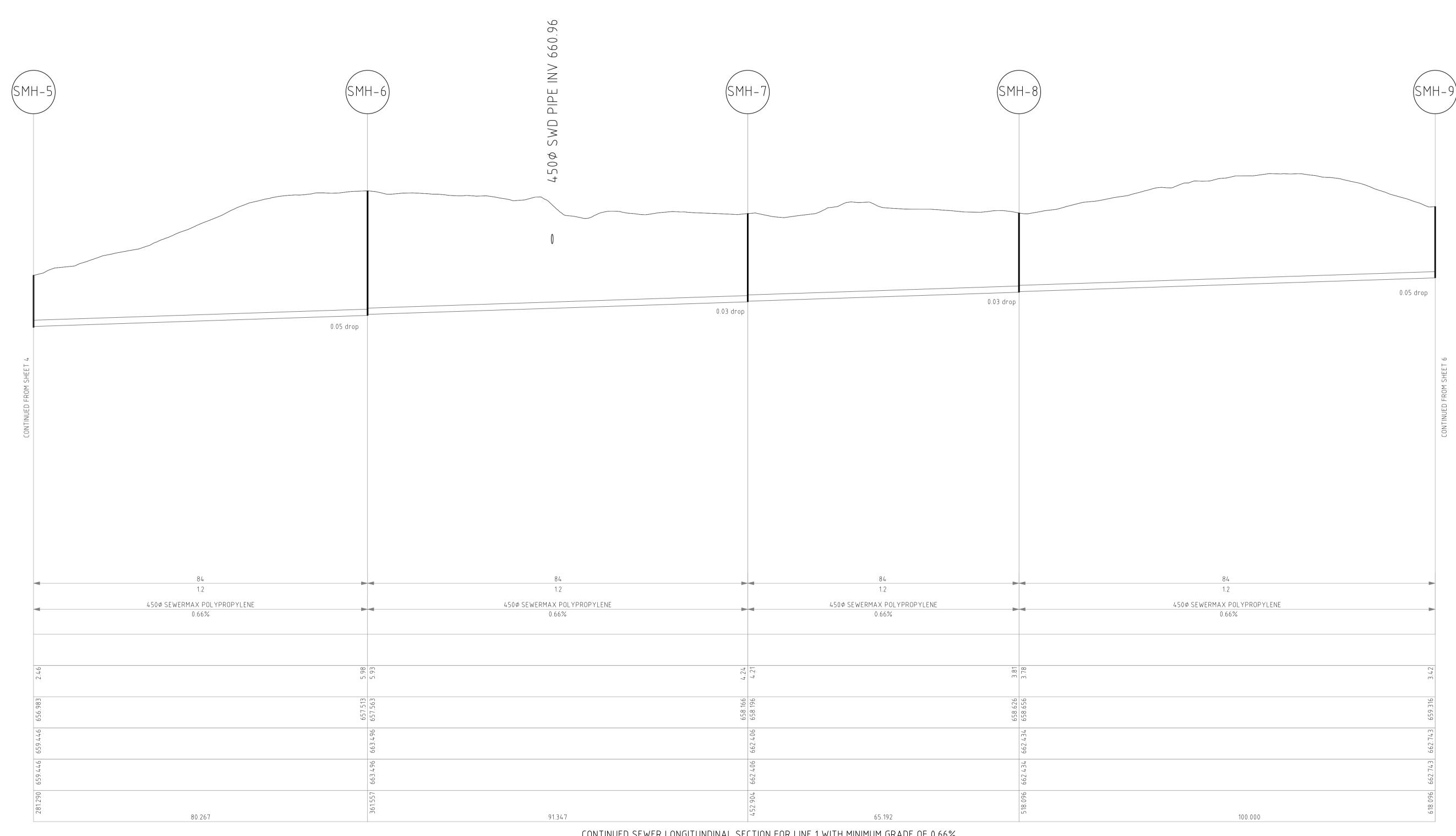
LONGITUDINAL SECTION OF PROPOSED TRUNK SEWER MAIN AT MINIMUM GRADE OF 0.66% CH 0 TO CH281.290 MOSS VALE, WINGECARRIBEE SHIRE COUNCIL

		_
ORIGINAL SCALE SHEET SIZE	SI	U
1:500 A1	D	R
CAD REFERENCE: \$\text{SUBS\(0\text{M\text{1800\frac{1}{18	С	Н
V 1V	SI	J
	VI	Ε
SCALE ON ORIGINAL DRAWING AT 1:500/1:100	(H	С

	/	l \	
	SURVEYOR:	N/A	
	DRAWN:	L.D.	L
	CHECKED:	T.H.	
	SURVEY DATE:	N/A	L
	VERTICAL DATUM:	AHD	
)	HORIZONTAL DATUM:	LIDAR	
	·		

RVEYOR:	N/A	PROJECT No.
AWN:	L.D.	18001
ECKED:	T.H.	DRAWING REF.
RVEY DATE:	N/A	18001S2
RTICAL DATUM:	AHD	VERSION B
RIZONTAL DATUM:	LIDAR	SHEET 4 OF 9





CONTINUED SEWER LONGITUNDINAL SECTION FOR LINE 1 WITH MINIMUM GRADE OF 0.66% SCALES: HORIZONTAL 1:500 VERTICAL 1:100

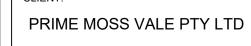
VER	BY	AMENDMENTS	DATE	(
Α	T.H.	ISSUED FOR INFORMATION	04-11-2021	
В	G.M	PIPE INCREASED TO 450mm DIA	02-02-2022	
С				
D				
E				
F				

www.dialbeforeyoudig.com.au

DIAL1100
BEFORE YOU DIG

CLIENT:

PRIME THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.
 SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.
 SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY.
 PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.



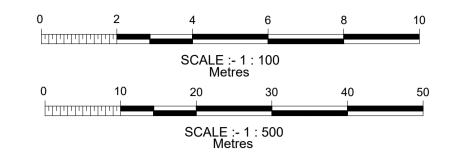


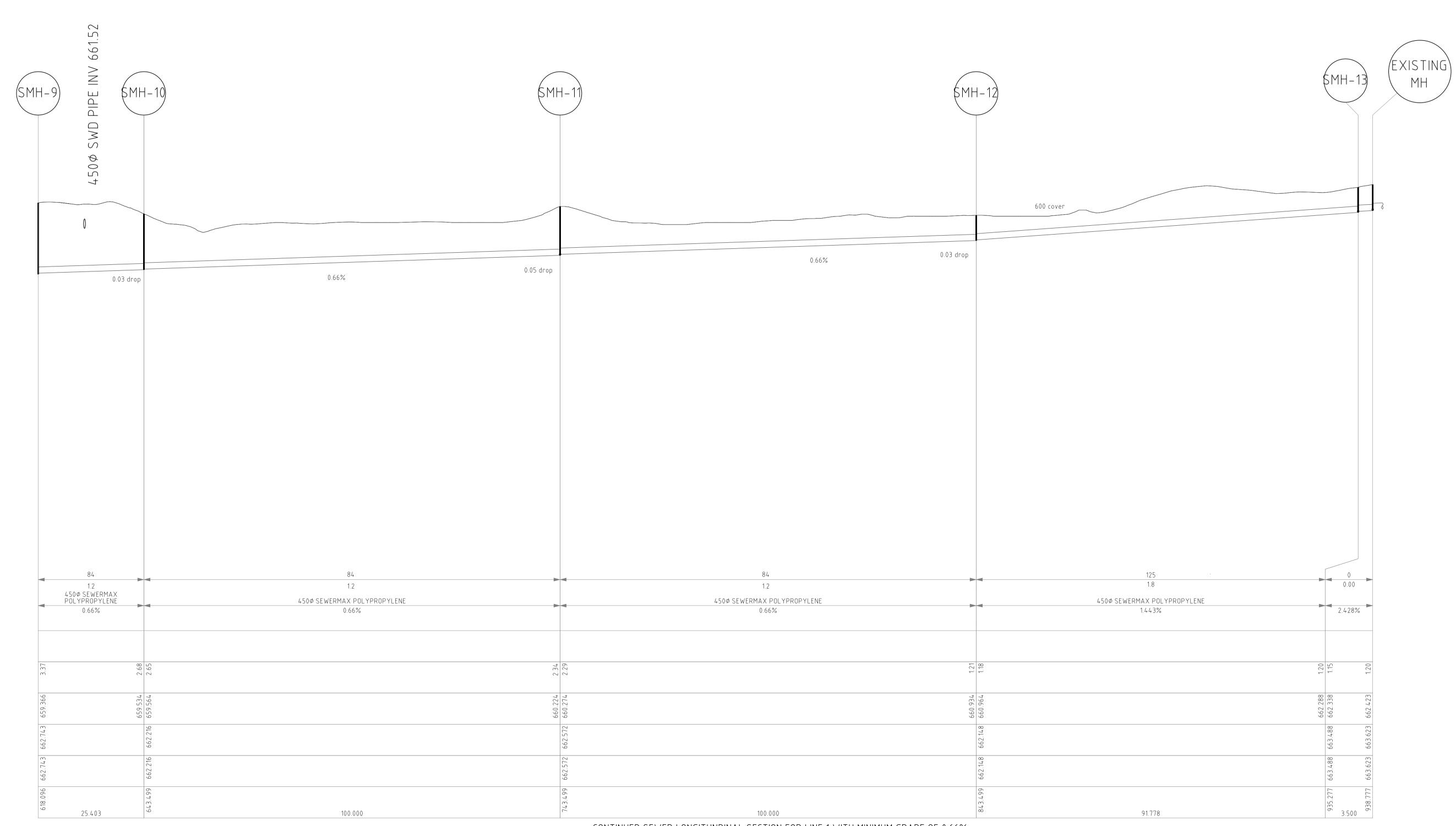
DETAILS:	(ORIGINAL)	
LONGITUDINAL SECTION OF PROPOSED TRUNK	SCALE SHEET SIZE 1:500 A1	
SEWER MAIN AT MINIMUM GRADE OF 0.66%	CAD REFERENCE: \$\$\text{\$\tex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\	
CH 281.290 TO CH 681.096		
MOSS VALE, WINGECARRIBEE SHIRE COUNCIL	SCALE ON ORIGINAL DRAWING AT 1:500/1:100	

ORIGINAL SCALE SHEET SIZE 1:500 A1	[
CAD REFERENCE: SUGBS 181 (8001 1800 1 ELM/S YONEY WATERS2 - stage 1 upgrade/1800 152 Base	
y 19	5
COALE ON ODICINIAL DRAWING AT 4.500/4.400	

\			PRO
	SURVEYOR:	N/A	
	DRAWN:	L.D.	
388	CHECKED:	T.H.	DR/
	SURVEY DATE:	N/A	
	VERTICAL DATUM:	AHD	VEF
	HORIZONTAL DATUM:	LIDAR	s

OR:	N/A	PROJECT No.
	L.D.	18001
D:	T.H.	DRAWING REF.
DATE:	N/A	18001S2
L DATUM:	AHD	VERSION B
NTAL DATUM:	LIDAR	SHEET 5 OF 9





CONTINUED SEWER LONGITUNDINAL SECTION FOR LINE 1 WITH MINIMUM GRADE OF 0.66%

SCALES: HORIZONTAL 1:500 VERTICAL 1:100

	VER	BY	AMENDMENTS	DATE		THE
	Α	T.H.	ISSUED FOR INFORMATION	04-11-2021	•	PLO
	В	G.M	PIPE INCREASED TO 450mm DIA	02-02-2022	•	SEF
	C					BEE SEF
	D				`	ANI
	Е				•	PRI
l	F					CON
١.						~

www.dialbeforeyoudig.com.au

DIAL1100

BEFORE YOU DIG THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.

SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE. SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.



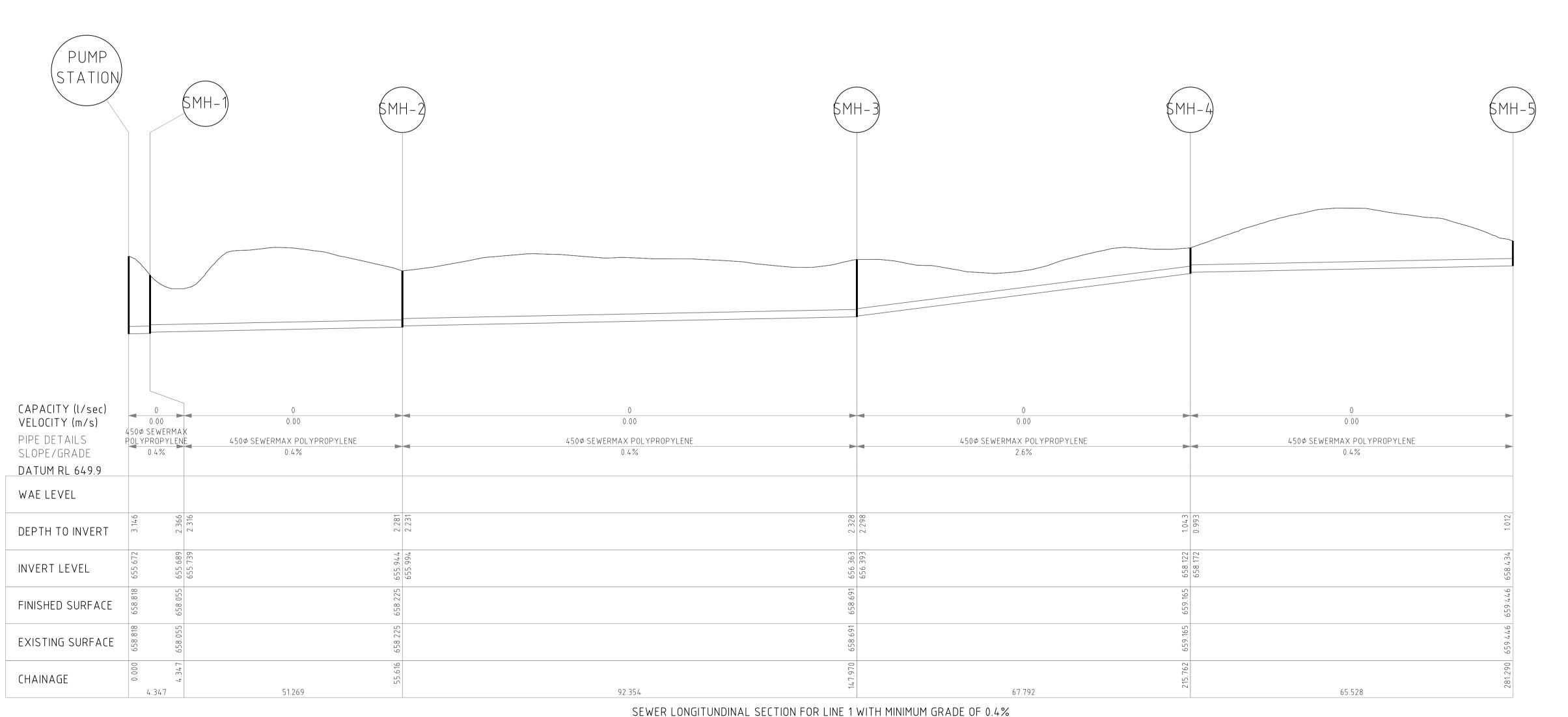
B	Beveridge Williams Land Development Consultants Registered Surveyors
	www.beveridgewilliams.com.au

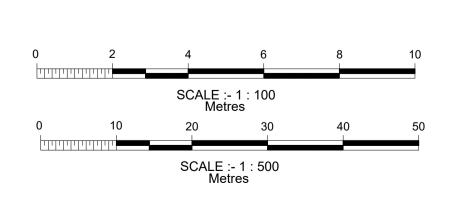
LONGITUDINAL SECTION OF PROPOSED TRUNK SEWER MAIN AT MINIMUM GRADE OF 0.66% CH 618.096 TO CH 938.777 MOSS VALE, WINGECARRIBEE SHIRE COUNCIL

١	ORIGINAL SCALE SHEET SIZE	SUF
I	1:500 A1	DRA
I	CAD REFERENCE: \$\.\08518\18001\18001\8001\8001\8001\8001\8	CHE
l	•	SUF
I		VER
J	SCALE ON ORIGINAL DRAWING AT 1:500	HOF

		1
	SURVEYOR:	N/A
	DRAWN:	L.D.
del18001S2 Base	CHECKED:	T.H.
	SURVEY DATE:	N/A
	VERTICAL DATUM:	AHD
J	HORIZONTAL DATUM:	LIDAR

1	PROJECT No.
	18001
İ	DRAWING REF.
	18001S2
	VERSION B
)	SHEET 6 OF 9





SEWER LONGITUNDINAL SECTION FOR LINE 1 WITH MINIMUM GRADE OF 0.4% SCALES: HORIZONTAL 1:500 VERTICAL 1:100

\Box				
	VER	BY	AMENDMENTS	DATE
	Α	T.H.	ISSUED FOR INFORMATION	04-11-2021
	В	G.M	PIPE INCREASED TO 450mm DIA	02-02-2022
	C			
	D			
	E			
1	F			

 THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.
 SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.
 SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY.
 PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES. www.dialbeforeyoudig.com.au

DIAL1100

BEFORE YOU DIG

CLIENT: PRIME MOSS VALE PTY LTD



LONGITUDINAL SECTION OF PROPOSED TRUNK SEWER MAIN AT MINIMUM GRADE OF 0.40% CH 0 TO CH 281.290 MOSS VALE, WINGECARRIBEE SHIRE COUNCIL

	ORIGINAL		
K	SCALE SHEET SIZE 1:500 A1	S D	
	CAD REFERENCE: \$\loos\tank\tank\tank\tank\tank\tank\tank\tank	С	
	V 17	S	
		V	
- ,	SCALE ON ORIGINAL DRAWING AT 1:500	П	

	SURVEYOR:	N/A
	DRAWN:	L.D.
ige 1 upgradel 1800 1S2 Base	CHECKED:	T.H.
0 10	SURVEY DATE:	N/A
	VERTICAL DATUM:	AHD
00	HORIZONTAL DATUM:	LIDAR

_	
)	PROJECT No.
	40004
	18001
	DRAWING REF.
	18001S2
_	
	VERSION B

CAPACITY (l/sec) VELOCITY (m/s) 0.00 0.00 0.00 PIPE DETAILS 450¢ SEWERMAX POLYPROPYLENE 450¢ SEWERMAX POLYPROPYLENE 450¢ SEWERMAX POLYPROPYLENE 450¢ SEWERMAX POLYPROPYLENE SLOPE/GRADE 0.4% 0.4% 0.4% 0.4% DATUM RL 649.9 DEPTH TO INVERT INVERT LEVEL FINISHED SURFACE EXISTING SURFACE CHAINAGE 80.267 91.347 65.192 100.000 SEWER LONGITUNDINAL SECTION FOR LINE 1 WITH MINIMUM GRADE OF 0.4% SCALES: HORIZONTAL 1:500 VERTICAL 1:100 THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN
PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.
SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE
BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.
SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH
AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY. www.dialbeforeyoudig.com.au

DIAL 1100

BEFORE YOU DIG LONGITUDINAL SECTION OF PROPOSED TRUNK PRIME MOSS VALE PTY LTD SEWER MAIN AT MINIMUM GRADE OF 0.40%

VER BY AMENDMENTS A T.H. ISSUED FOR INFORMATION
B G.M PIPE INCREASED TO 450mm DIA
C
D

PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.



CH 281.290 TO CH 618.096 MOSS VALE, WINGECARRIBEE SHIRE COUNCIL

	ORIGINAL SCALE SHEET SIZE) (,
K	1:500 A1		[
	CAD REFERENCE: \$3,085/18/100/11/00/1 EIN/SYDNEY WATER(2:-stage:1 upgrade/100/152/8sse	1 L	(
	V 10	l [(
			١
	SCALE ON ORIGINAL DRAWING AT 1:500/1:100) [ŀ

SURVEYOR:	N/A	PROJECT No.
DRAWN:	L.D.	180
CHECKED:	T.H.	DRAWING REF.
SURVEY DATE:	N/A	1800
VERTICAL DATUM:	AHD	VERSION B
HORIZONTAL DATUM:	LIDAR	SHEET 8 O

SCALES: HORIZONTAL 1:500 VERTICAL 1:100 VER BY AMENDMENTS PROJECT No. DATE www.dialbeforeyoudig.com.au

DIAL1100

BEFORE YOU DIG CLIENT: SURVEYOR: N/A THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN A T.H. ISSUED FOR INFORMATION
B G.M PIPE INCREASED TO 450mm DIA Beveridge Williams

Land Development Consultants PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.

SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE
BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.
SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH 18001 LONGITUDINAL SECTION OF PROPOSED TRUNK PRIME MOSS VALE PTY LTD DRAWN: L.D. DRAWING REF. SEWER MAIN AT MINIMUM GRADE OF 0.40% CHECKED: T.H. CAD REFERENCE: \$1,08518/1800/1800/1EMM\$YDNEY NATER\$2-stage 1 upgrade(1800/\$2 Base 18001S2 SURVEY DATE: N/A AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY. Registered Surveyors CH 618.096 TO CH 938.776 PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES. VERTICAL DATUM: AHD version B MOSS VALE, WINGECARRIBEE SHIRE COUNCIL SCALE ON ORIGINAL DRAWING AT 1:500/1:100 HORIZONTAL DATUM: LIDAR SHEET 9 OF 9 www.beveridgewilliams.com.au

CAPACITY (l/sec) 0 0.00 450¢ SEWERMAX POLYPROPYLENE 2.4% VELOCITY (m/s) 0.00 0.00 0.00 0.00 450¢ SEWERMAX PIPE DETAILS 450¢ SEWERMAX POLYPROPYLENE 450¢ SEWERMAX POLYPROPYLENE POLYPROPYLENE 450¢ SEWERMAX POLYPROPYLENE SLOPE/GRADE 0.4% 0.4% 0.4% 0.72% DATUM RL 649.9 662.288 HGL DEPTH TO INVERT INVERT LEVEL FINISHED SURFACE EXISTING SURFACE CHAINAGE 25.403 100.000 91.778 3.500 100.000 SEWER LONGITUNDINAL SECTION FOR LINE 1 WITH MINIMUM GRADE OF 0.4%

0 2 4 6 8 10

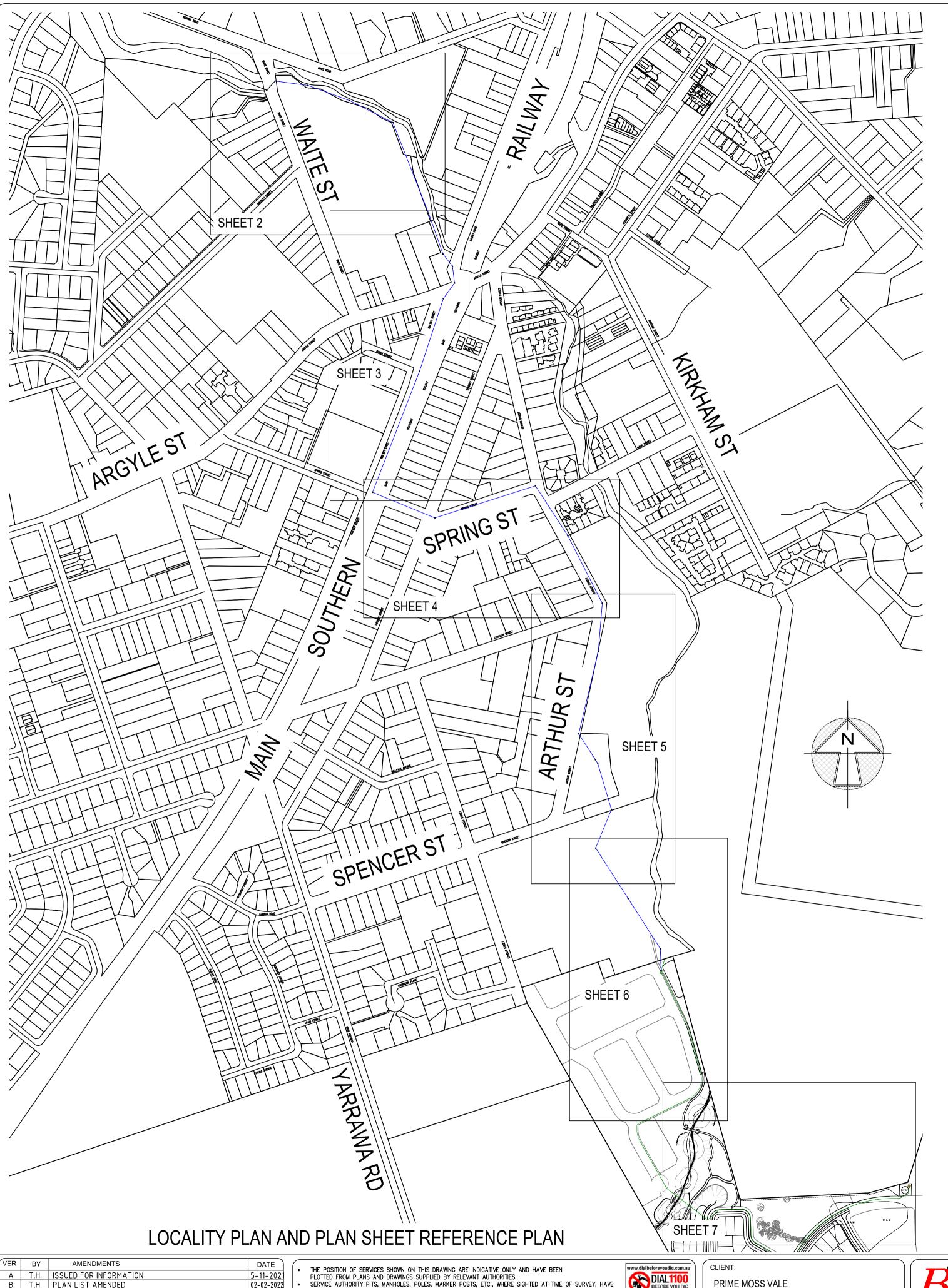
SCALE :- 1 : 100

Metres

0 10 20 30 40 50

SCALE :- 1 : 500

Metres



NOTES:

- 1. THIS PLAN AND LONGITUDINAL SECTION HAS BEEN PREPARED USING LEVELS INTERPOLATED FROM LIDAR DATA AND LOCATION OF SERVICES AS PROVIDED BY WINGECARRIBEE SHIRE COUNCIL AND/OR DIAL BEFORE YOU DIG INFORMATION ONLY AND IS FOR PLANNING PURPOSES ONLY.
- 2. ALL LEVELS AND PIPE GRADES ARE SUBJECT TO CONFIRMATION OF LEVELS BY SURVEY.
- 3. LOCATION OF THE PROPOSED SEWER PIPE RELATIVE TO EXISTING SERVICES HAS YET TO BE CONFIRMED. ALL DESIGN DETAILS INCLUDING LOCATION, LEVEL AND LENGTH OF PIPE IS SUBJECT TO CONFIMATION OF LOCATION AND LEVEL OF EXISTING SURFACES AND SERVICES.

NOTES

- SW1 All works are to be carried out in accordance with Wingecarribee shire Council Engineering Construction Specifications (current from 1/1/2021)
 SW2 Manhole construction is to comply with standard drawing WSC-SEW-005 & as required by Council's Engineer
- SW3 All services and assets are to be located by Dial Before You Dig and or investigations on site and located by hand digging, identified, marked and protected by the contractor.
- SW4 Council is to be notified 48 hours prior to commencement of works and for inspections.
- SW5 Junctions and sidelines are to be left open to allow work as executed inspection to be carried out prior to backfilling.
- SW6 All work to be inspected by Council prior to backfilling.
 SW7 Sewer junctions to be marked with sewer main marking tape tied from the sewer junction to a hardwood stake of minimum 40mm square X
 400mm long at 100mm above ground, the stake to be painted yellow.
 SW8 Riser to be fitted to all sewer junctions and terminated approximately 500mm below finished surface level where depth exceeds 1.2m. Refer
- SW9 Relevant fees to be paid for Council to undertake any junction cut-ins on existing mains.

PLAN LIST AND ISSUE REGISTER

SHEET NO.	DESCRIPTION	ISSUE
1	REFERENCE PLAN	В
2	PLAN A	В
3	PLANS B & C	В
4	PLAN D	В
5	PLANS E & F	В
6	PLANS G & H	В
7	PLAN I	В
8	SECTION 00 - 318.215	В
9	SECTION 318.215 - 639.156	В
10	SECTION 639.156 - 983.956	В
11	SECTION 983.956 - 1272.856	В
12	SECTION 1272.856 - 1579.807	В
13	SECTION 1579.807 - 1929.690	В
14	SECTION 1929.690 - 2165.737	В

5-11-202° 02-02-2022 A T.H. ISSUED FOR INFORMATION B T.H. PLAN LIST AMENDED

PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.

SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OF LOCATION OF UNDERGROUND INFRASTRUCTURE. SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.

Beveridge Williams **Land Development Consultants** Registered Surveyors

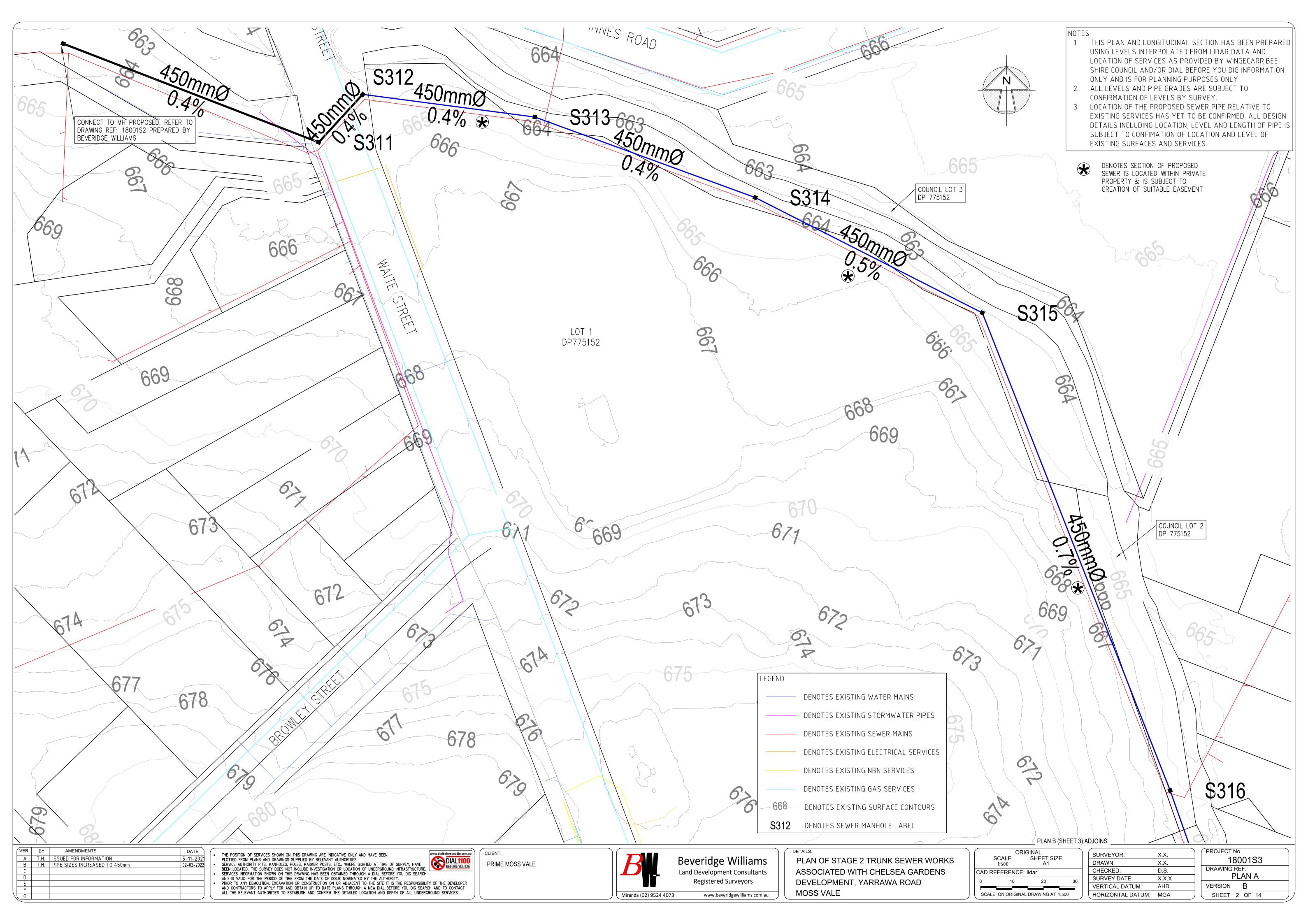
www.beveridgewilliams.com.au

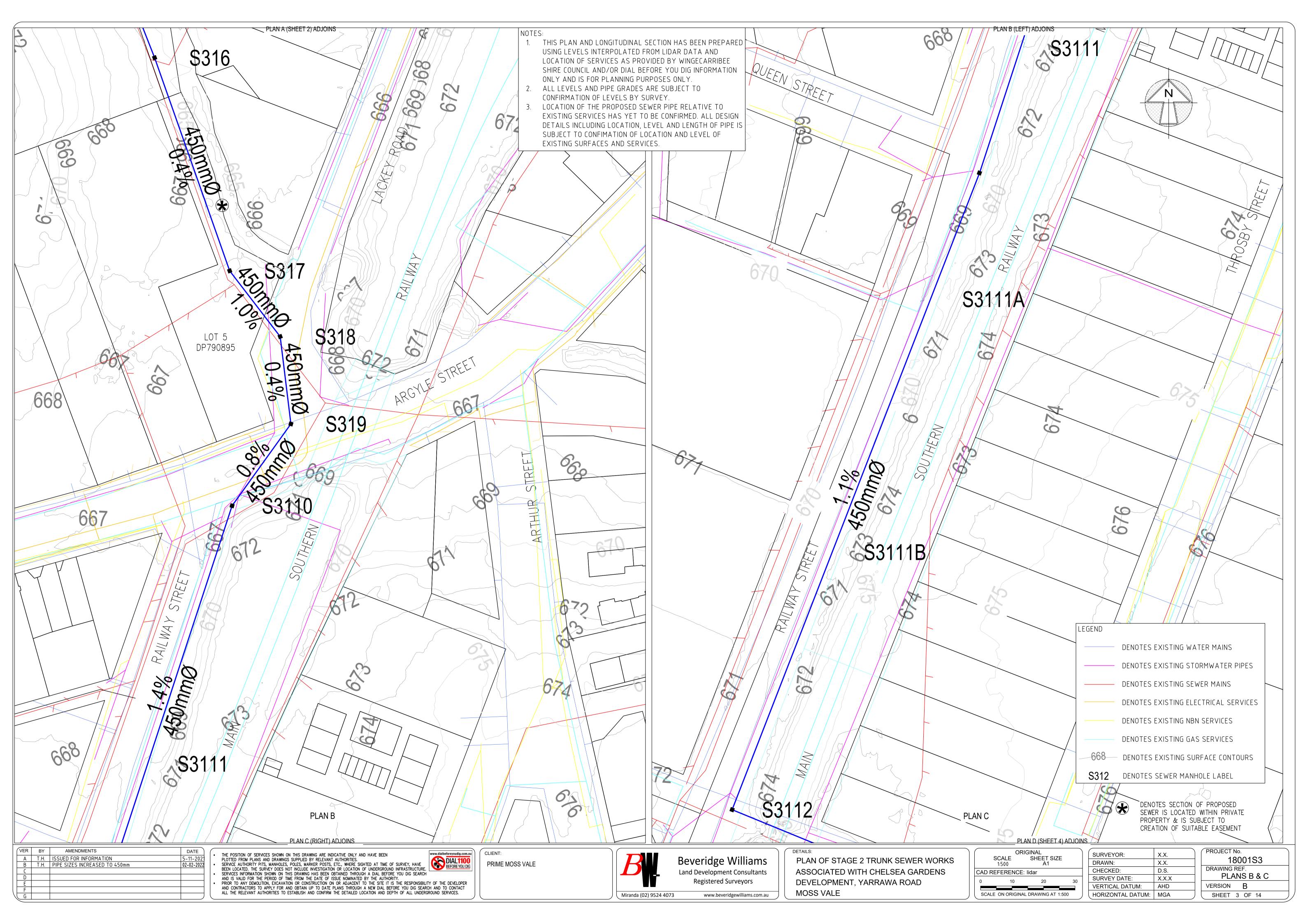
PLAN OF STAGE 2 TRUNK SEWER WORKS ASSOCIATED WITH CHELSEA GARDENS DEVELOPMENT, YARRAWA ROAD MOSS VALE

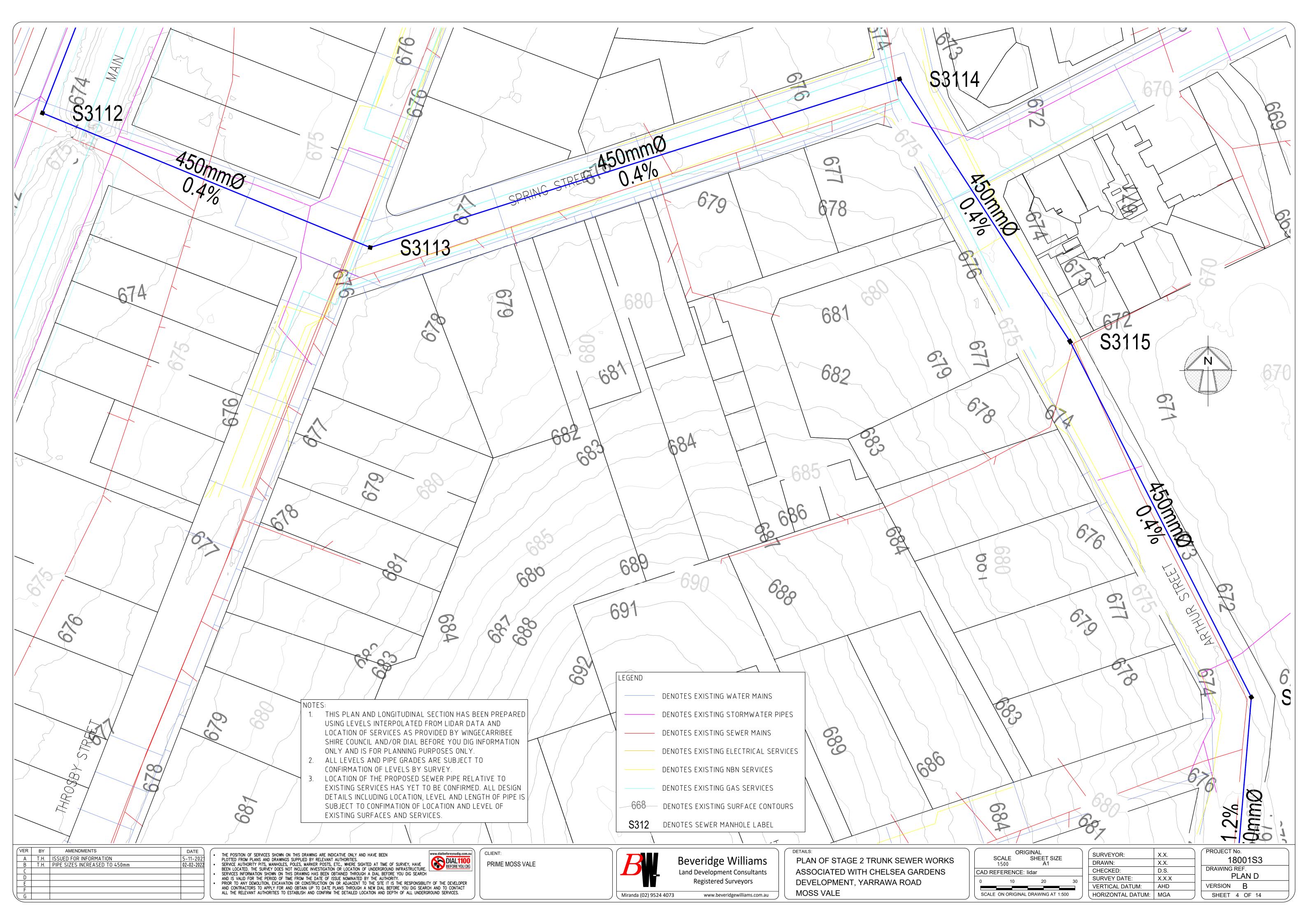
\mathcal{L}		OF	RIGINAL		
	_	CALE 1:4000	SHEET A		
	CAD RE	FERENCE	E: lidar		
	0	80	160)	240
\bigcup	SCALE	ON ORIGIN	AL DRAWING	G AT 1:4000	

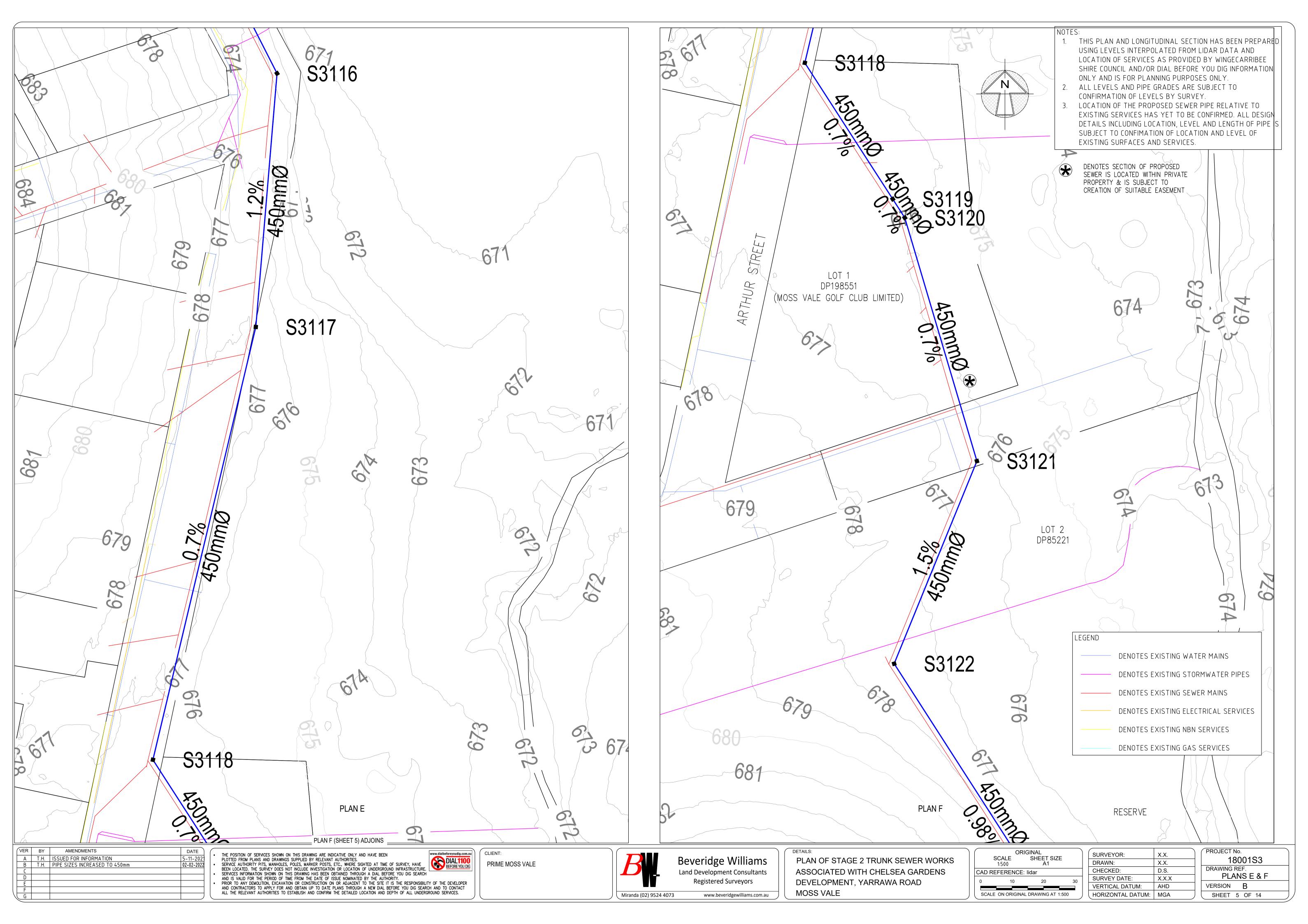
SURVEYOR:	X.X.	1	_
DRAWN:	X.X.		
CHECKED:	D.S.		_
SURVEY DATE:	X.X.X		_
VERTICAL DATUM:	AHD		
HORIZONTAL DATUM:	MGA		

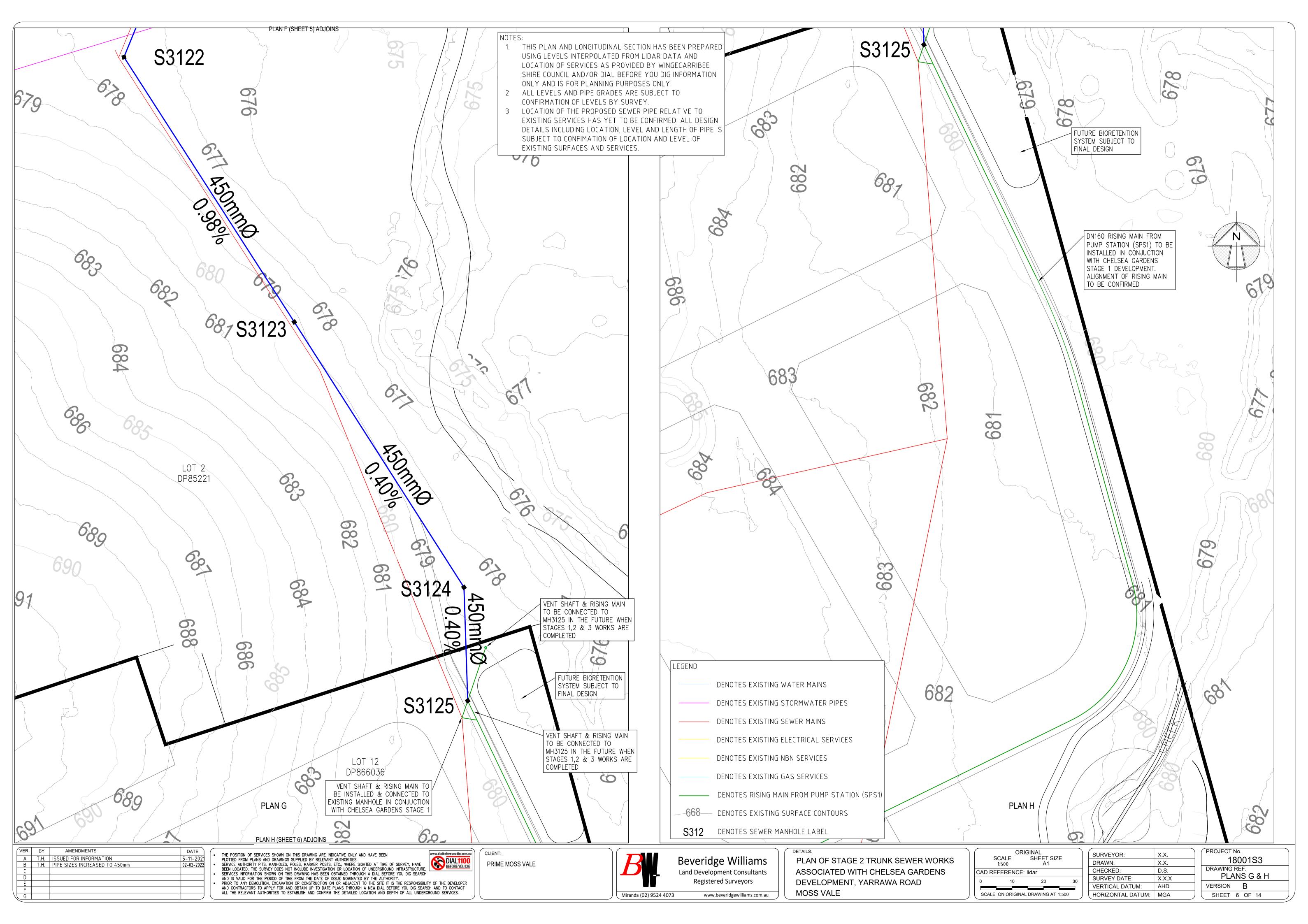
PROJECT No. 18001S3 DRAWING REF. REFERENCE PLAN VERSION A SHEET 1 OF 14

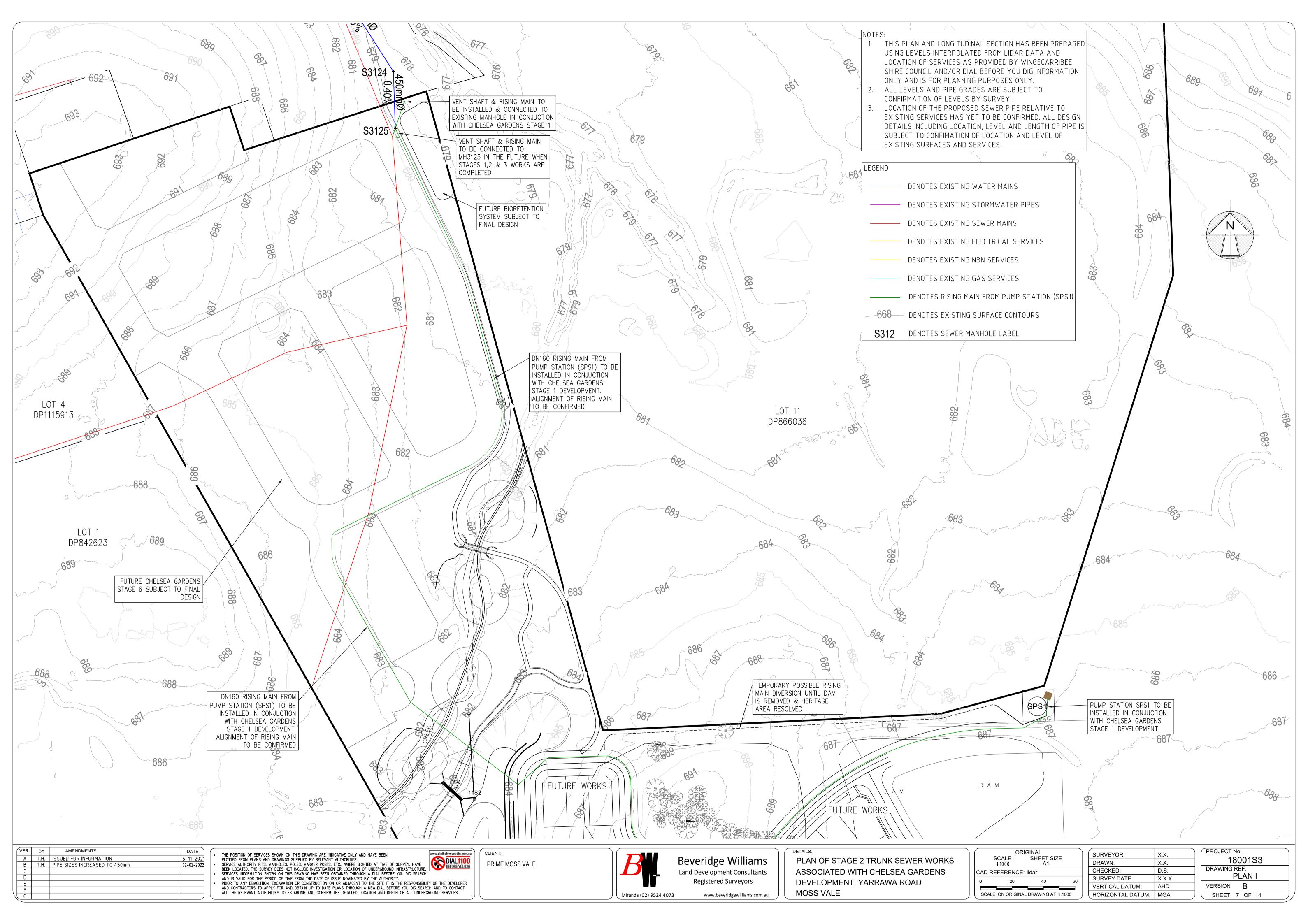


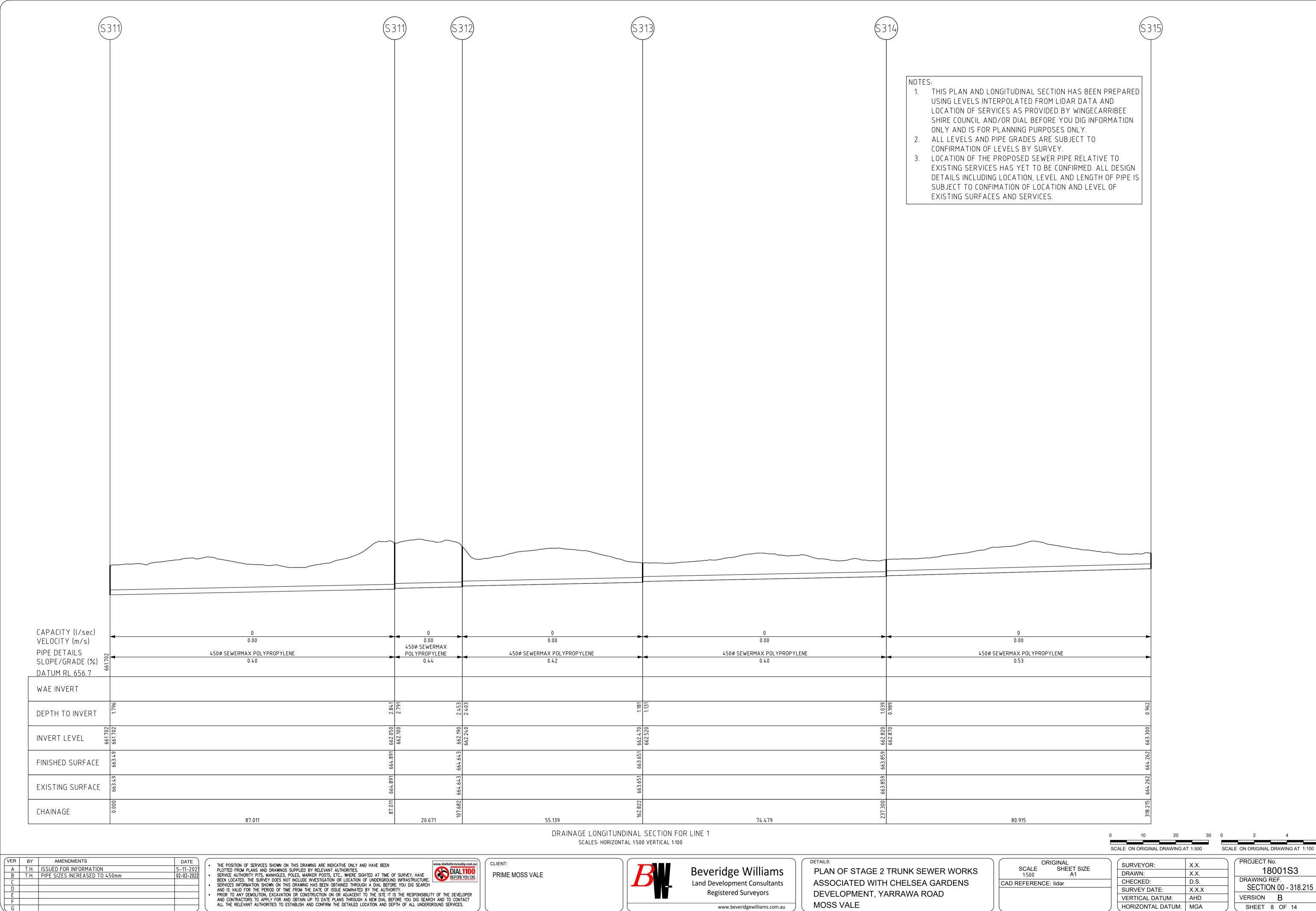










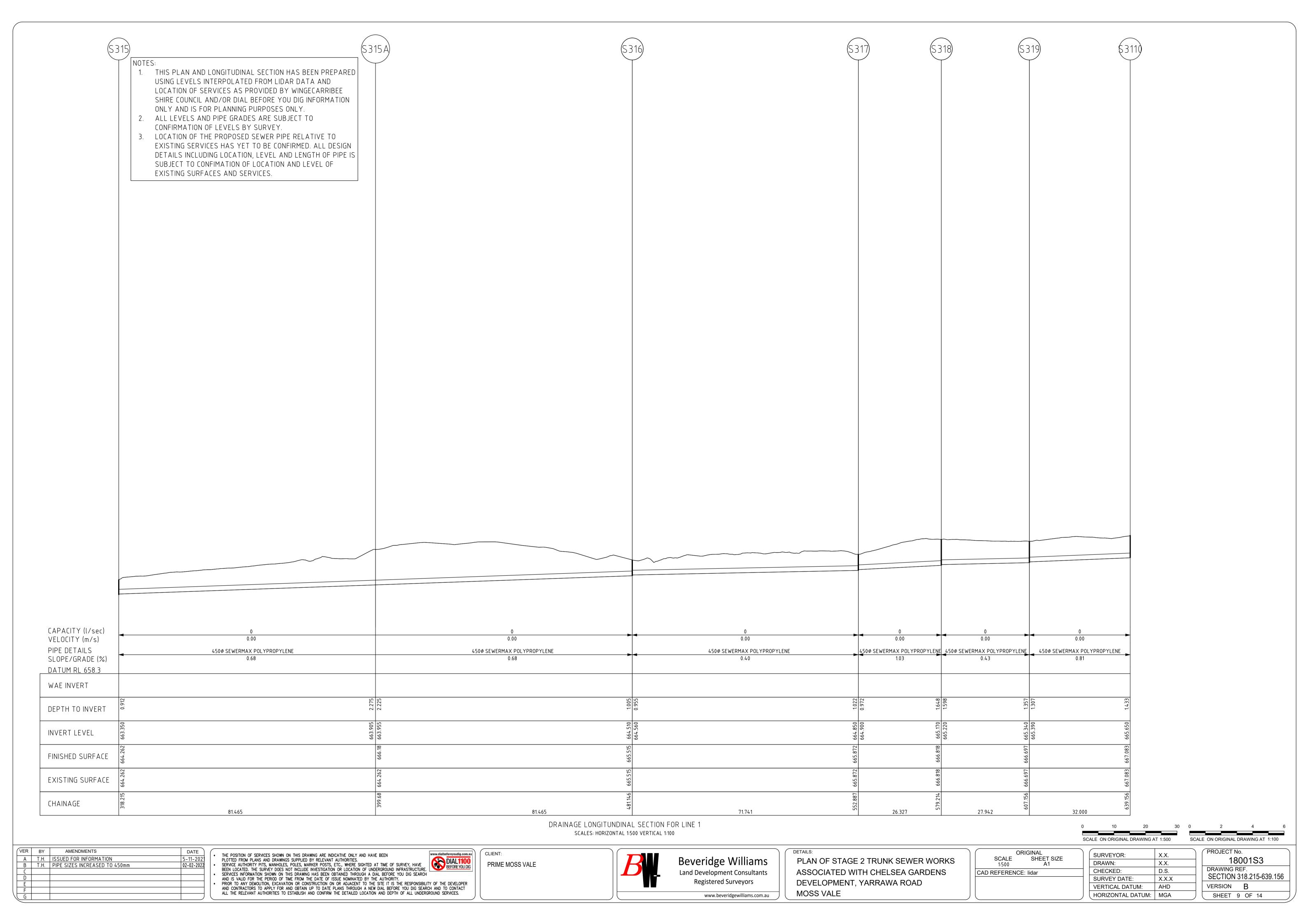


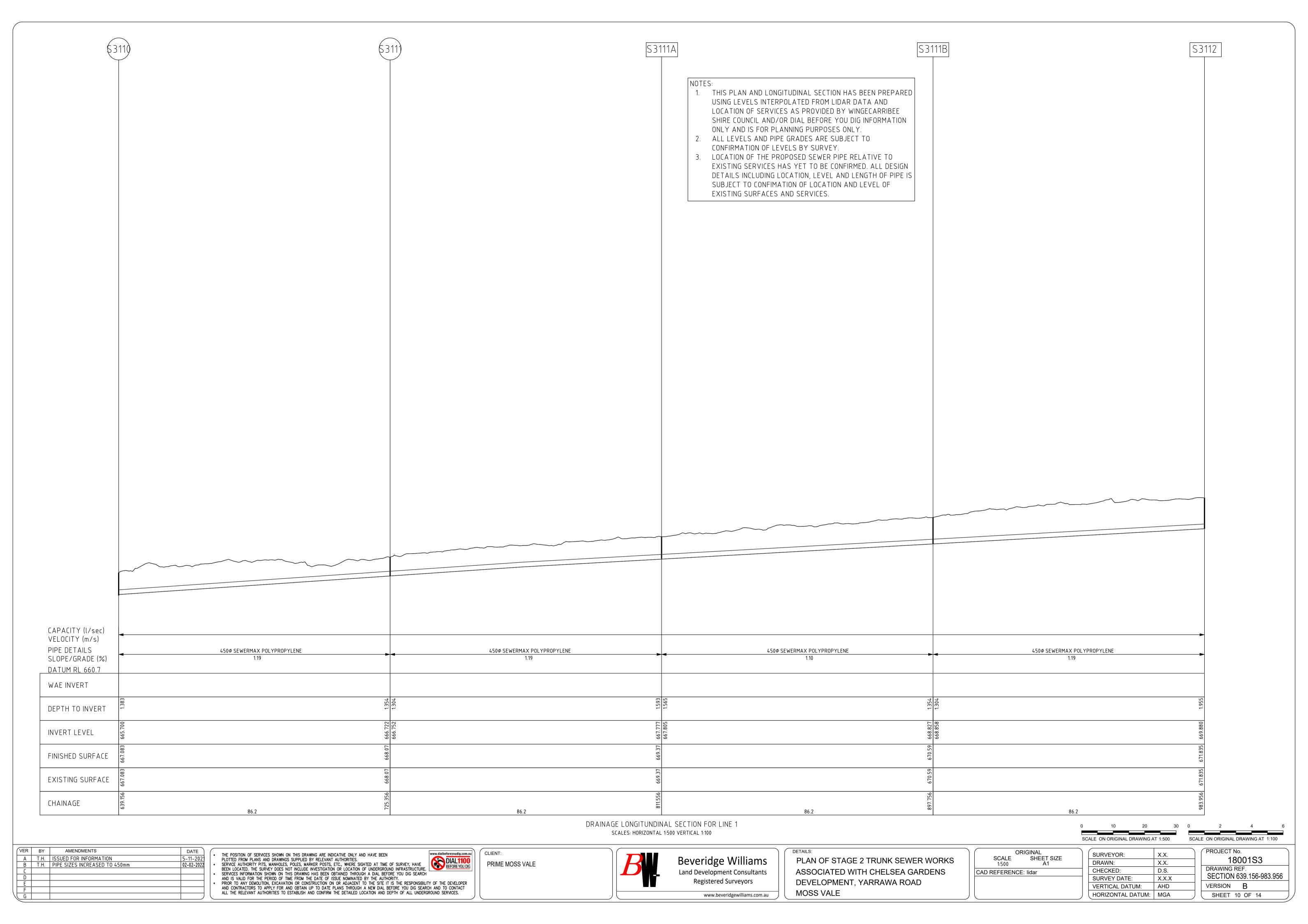
DEVELOPMENT, YARRAWA ROAD MOSS VALE

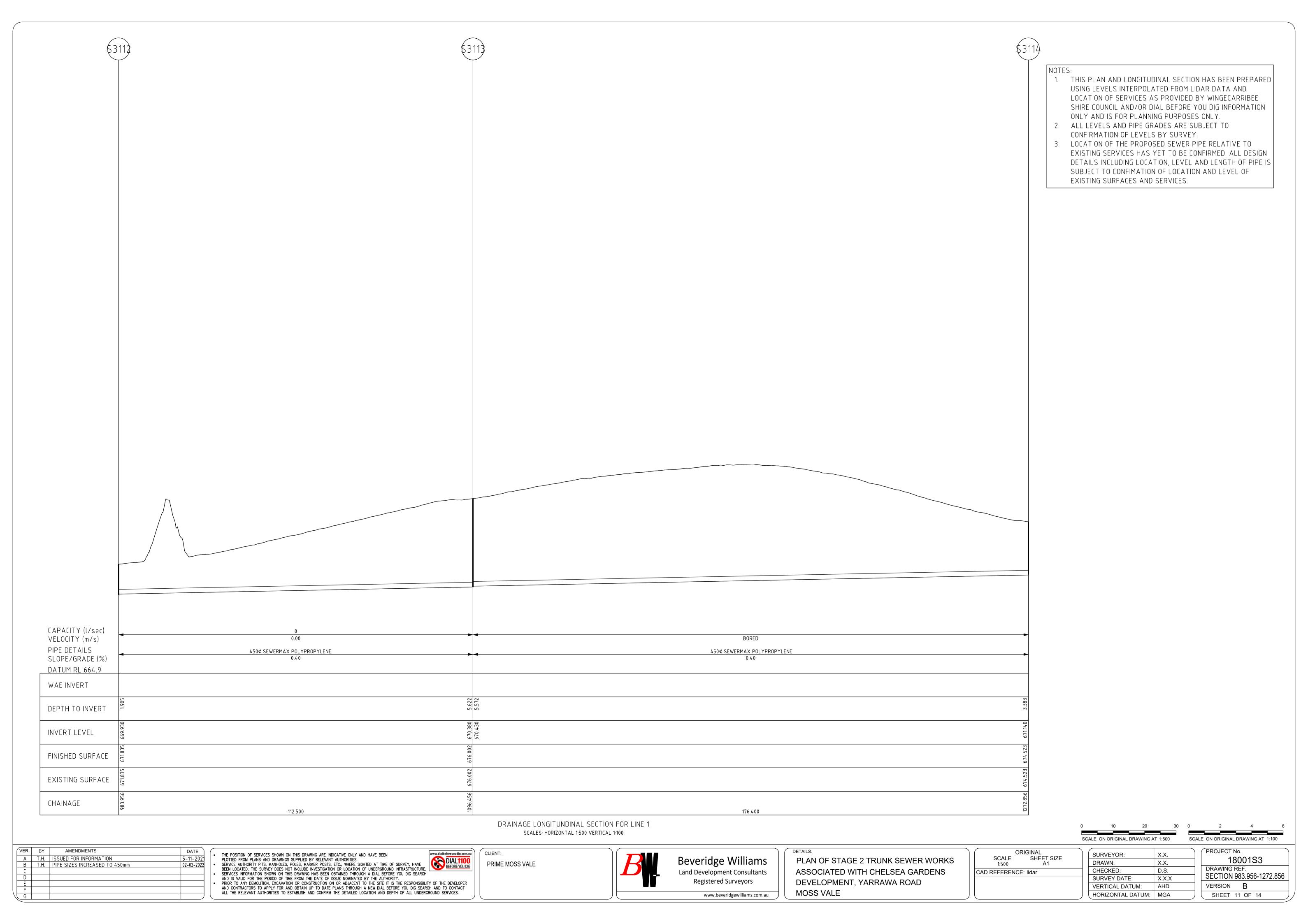
www.beveridgewilliams.com.au

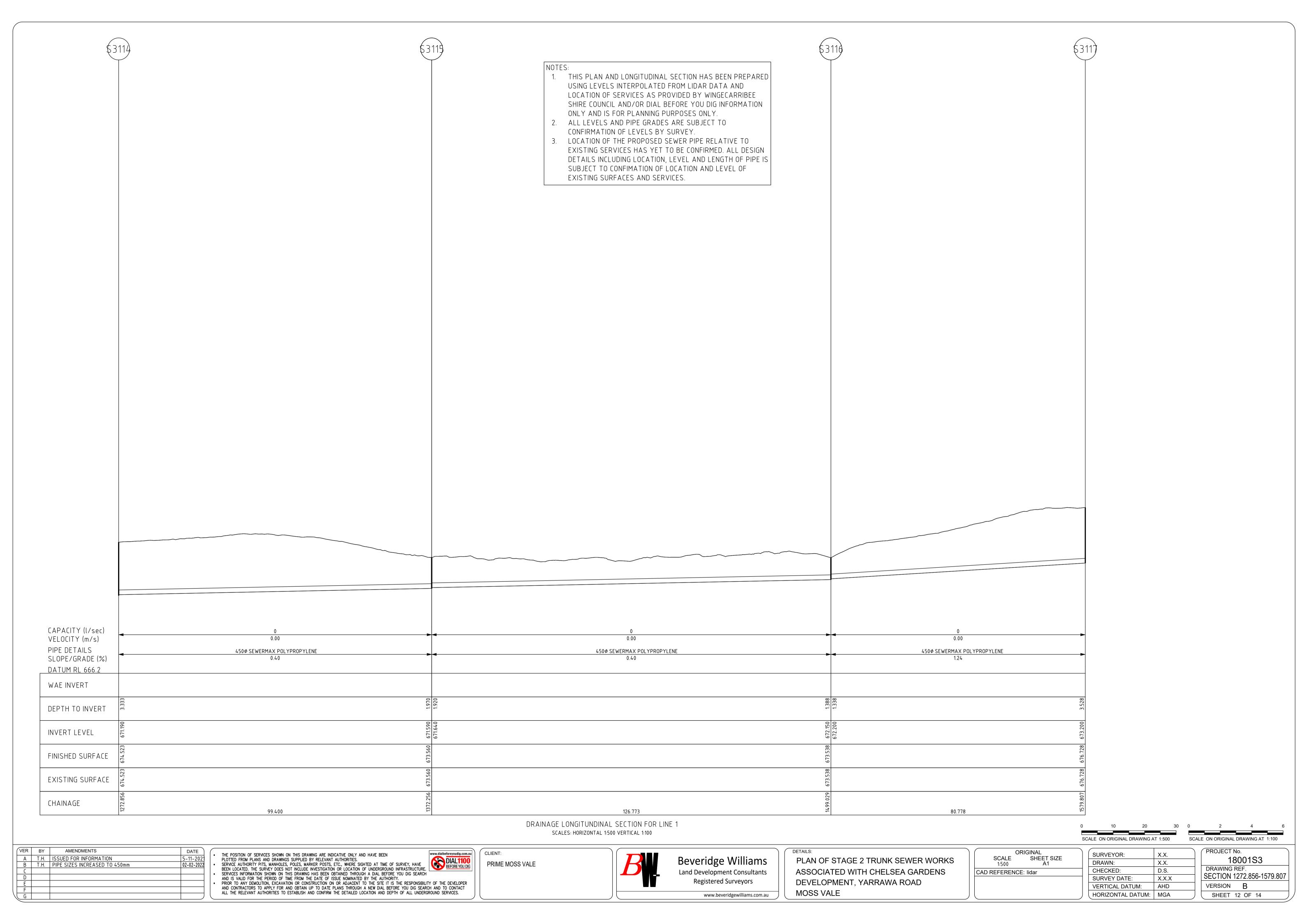
SURVEY DATE: X.X.X VERTICAL DATUM: AHD HORIZONTAL DATUM: MGA

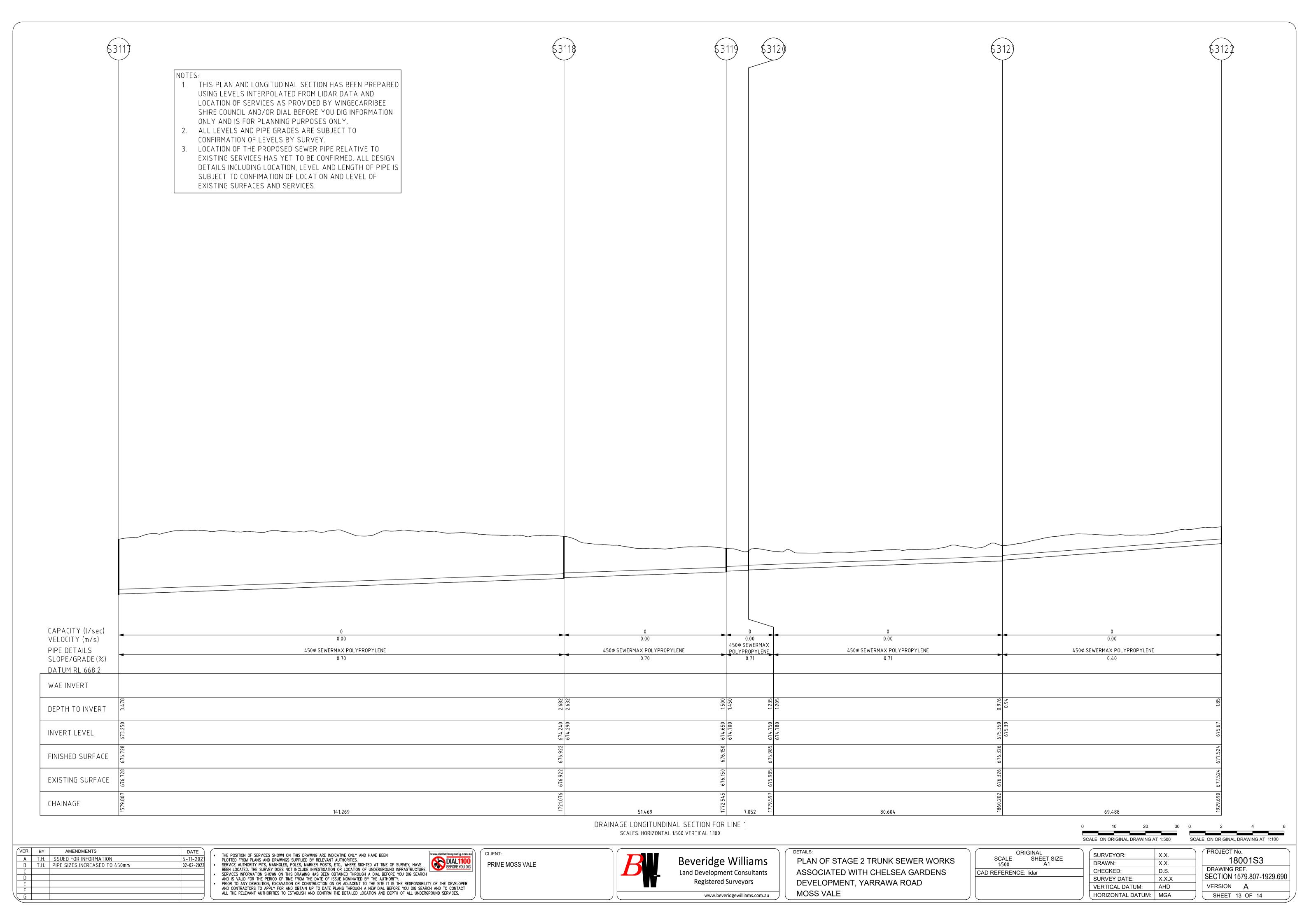
PROJECT No. 18001S3 DRAWING REF. SECTION 00 - 318.215 VERSION B SHEET 8 OF 14

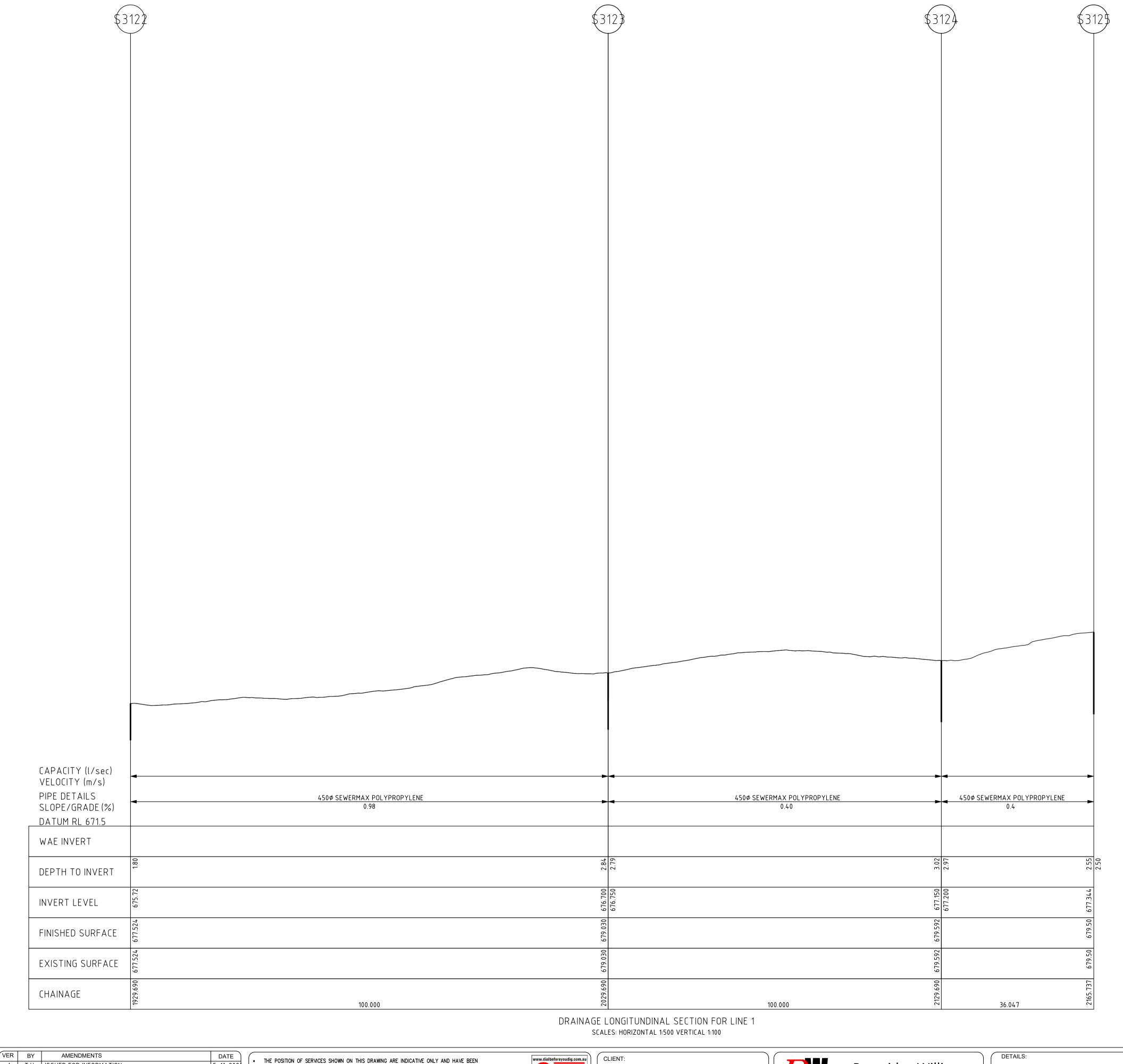












NOTES:

- 1. THIS PLAN AND LONGITUDINAL SECTION HAS BEEN PREPARED USING LEVELS INTERPOLATED FROM LIDAR DATA AND LOCATION OF SERVICES AS PROVIDED BY WINGECARRIBEE SHIRE COUNCIL AND/OR DIAL BEFORE YOU DIG INFORMATION ONLY AND IS FOR PLANNING PURPOSES ONLY.
- 2. ALL LEVELS AND PIPE GRADES ARE SUBJECT TO CONFIRMATION OF LEVELS BY SURVEY.
- 3. LOCATION OF THE PROPOSED SEWER PIPE RELATIVE TO EXISTING SERVICES HAS YET TO BE CONFIRMED. ALL DESIGN DETAILS INCLUDING LOCATION, LEVEL AND LENGTH OF PIPE IS SUBJECT TO CONFIMATION OF LOCATION AND LEVEL OF EXISTING SURFACES AND SERVICES.

 VER
 BY
 AMENDMENTS
 DATE

 A
 T.H.
 ISSUED FOR INFORMATION
 5-11-2021

 B
 T.H.
 PIPE SIZES INCREASED TO 450mm
 02-02-2022

 C
 D
 E

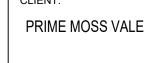
 E
 E
 E

THE POSITION OF SERVICES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM PLANS AND DRAWINGS SUPPLIED BY RELEVANT AUTHORITIES.

SERVICE AUTHORITY PITS, MANHOLES, POLES, MARKER POSTS, ETC., WHERE SIGHTED AT TIME OF SURVEY, HAVE BEEN LOCATED. THE SURVEY DOES NOT INCLUDE INVESTIGATION OR LOCATION OF UNDERGROUND INFRASTRUCTURE.

SERVICES INFORMATION SHOWN ON THIS DRAWING HAS BEEN OBTAINED THROUGH A DIAL BEFORE YOU DIG SEARCH AND IS VALID FOR THE PERIOD OF TIME FROM THE DATE OF ISSUE NOMINATED BY THE AUTHORITY.

PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON OR ADJACENT TO THE SITE IT IS THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTORS TO APPLY FOR AND OBTAIN UP TO DATE PLANS THROUGH A NEW DIAL BEFORE YOU DIG SEARCH AND TO CONTACT ALL THE RELEVANT AUTHORITIES TO ESTABLISH AND CONFIRM THE DETAILED LOCATION AND DEPTH OF ALL UNDERGROUND SERVICES.





PLAN OF STAGE 2 TRUNK SEWER WORKS
ASSOCIATED WITH CHELSEA GARDENS
DEVELOPMENT, YARRAWA ROAD
MOSS VALE

0	RIGINAL	(
SCALE 1:500	SHEET SIZE	f
CAD REFERENC	E: lidar	ŀ

SURVEYOR:	X.X.
DRAWN:	X.X.
CHECKED:	D.S.
SURVEY DATE:	X.X.X
VERTICAL DATUM:	AHD
HORIZONTAL DATUM:	MGA

	X.X.	PROJECT No. 18001S3			
	X.X.				
	D.S.	DRAWING REF.			
	X.X.X	SECTION 1929.690-2165.737			
	AHD	VERSION A			
M:	MGA	SHEET 14 OF 14			

SCALE ON ORIGINAL DRAWING AT 1:500 SCALE ON ORIGINAL DRAWING AT 1:100