

0 10 20 30 40 50 METRES  
M.G.A. ZONE 56 M.G.A. DATUM: GDA2020

- DESIGNER AND WATER SERVICING COORDINATOR:  
QALCHEK PTY LTD (CERTIFIED No.289)  
UNIT 2, LEVEL 1, 15-17 DAVID ROAD, EMU PLAINS 2750  
PH. No. (02) 4722 8181  
  
FOR:  
WOORONG PARK PTY LTD  
c/o J WYNDHAM PRINCE  
580 HIGH STREET, PENRITH, NSW 2750  
PH. (02) 4720 3300
- THE WORKS AND MATERIALS ARE IN ACCORDANCE WITH THE SEWERAGE CODE OF AUSTRALIA WSA 02-2002-2.2 SYDNEY WATER EDITION VERSION 4 (2017) INCLUDING THE SYDNEY WATER SUPPLEMENT & APPENDICES AS WELL AS THE SYDNEY WATER TECHNICAL SPECIFICATION - CIVIL VERSION 9.0.
- ALL STRUCTURES WERE CONSTRUCTED TO FINISHED SURFACE LEVELS.  
ALL LEVELS REFER TO FINISHED SURFACE LEVEL.
- ALL BUILDING LAYOUTS, FINISHED SURFACE LEVELS, STORMWATER INFORMATION, AND GENERAL CIVIL ENGINEERING DETAILS TAKEN FROM:  
CIVIL BASEPLAN: 998512-P7C and Abell Road-BASE FOR SERVICE DESIGN.dwg (SUPPLIED 20.05.2021 BY JWP)  
SURFACE INFORMATION: 9985 P7C DESIGN TRIANGLES 210520.dwg (SUPPLIED 21.05.2021 BY JWP)  
SWD INFORMATION SUBDIVISION: 9985-12-CC10001-10803.pdf AS WELL AS 9985-12-CC11001-11801.pdf (SUPPLIED 20.05.21 BY JWP)
- THE MINIMUM NUMBER OF FIELD COMPACTION TESTS CONDUCTED TO SATISFY THE SEWERAGE CODE OF AUSTRALIA ARE:  
SAND/CEMENT BACKFILL (20:1) WAS USED AT ROAD CROSSINGS.  
PIPE EMBEDMENT ZONE: 0 TESTS CONDUCTED (LETTER PROVIDED)  
TRENCH FILL ZONE (NON TRAFFICABLE): 95 TESTS CONDUCTED  
TRENCH FILL ZONE (TRAFFICABLE): 0 TESTS CONDUCTED (LETTER PROVIDED)  
TRENCH FILL ZONE (MAINTENANCE STRUCTURES): 174 TESTS CONDUCTED  
TRENCH FILL ZONE - TOTAL: 269 TESTS CONDUCTED
- ALL EXCAVATION, SHORING EXCAVATION AND STABILITY OF ADJACENT STRUCTURES/SERVICES/DWELLINGS WAS THE RESPONSIBILITY OF THE CONSTRUCTOR.
- ALL PCS CONNECTIONS TO I.S. ARE AT 0.7m & 45° TO MAIN UNLESS OTHERWISE INDICATED.  
DENOTES STANDARD PCS CONNECTION (REFER DTC-2120 ISSUE A DATE 18.03.15)
- THE WORKS WERE CONSTRUCTED IN ACCORDANCE WITH SYDNEY WATER'S DEEMED TO COMPLY DRAWINGS:  
FOR ALL MH'S  
DTC-2000 (ISSUE C 18.03.15),  
DTC-2203 (ISSUE B 18.03.15),  
DTC-2220 (ISSUE D 18.03.15),  
DTC-2221 (ISSUE B 01.03.13),  
DTC-2222 (ISSUE C 18.03.15)
- PIPES CONCRETE ENCASED SHOWN ACCORDINGLY: REFER TO SEW-1205-V
- W.A.C. PREPARED FROM INFORMATION SUPPLIED (IN PART BY QALCHEK PTY LTD) & BY DARACON GROUP.

LOCALITY PLAN & BENCHMARK DIAGRAM

(NOT TO SCALE)

1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L1 CONCRETE ENCASEMENT ADDED	FJ	07.10.21
C	L10 MS ADDED, FUTURE INV. L1&L2 AMENDED	FJ	15.09.21
B	ISSUE FOR APPROVAL	FJ	05.06.21
A	LAYOUT FOR CLIENT	FJ	03.05.21
No.	AMENDMENT DESCRIPTION	BY	DATE

PLAN TO BE READ IN CONJUNCTION WITH CURRENT SYDNEY WATER STANDARDS SYDNEY WATER CORPORATION

PRIOR TO COMMENCEMENT OF EXCAVATION FOR PROPOSED AND EXISTING SERVICES CONTACT:

DIAL BEFORE YOU DIG Ph. 1100  
ELECTRICITY Ph.  
GAS Ph.  
TELECOMMUNICATIONS Ph.  
SYDNEY WATER Ph. 132 092  
GIVING AT LEAST 48 HOURS NOTICE.

UTILITIES			
TYPE	DATE	REF.	
WATER: DN100 Water	05.06.21	DESIGN	
NEW WATER: DN100 Water	05.06.21	DESIGN	
STORMWATER: SWD	20.05.21	ENG.PLAN	
NEW STORMWATER: SWD	20.05.21	ENG.PLAN	
SSM 16361 (ORIGIN)	05.05.21	SCIMS	

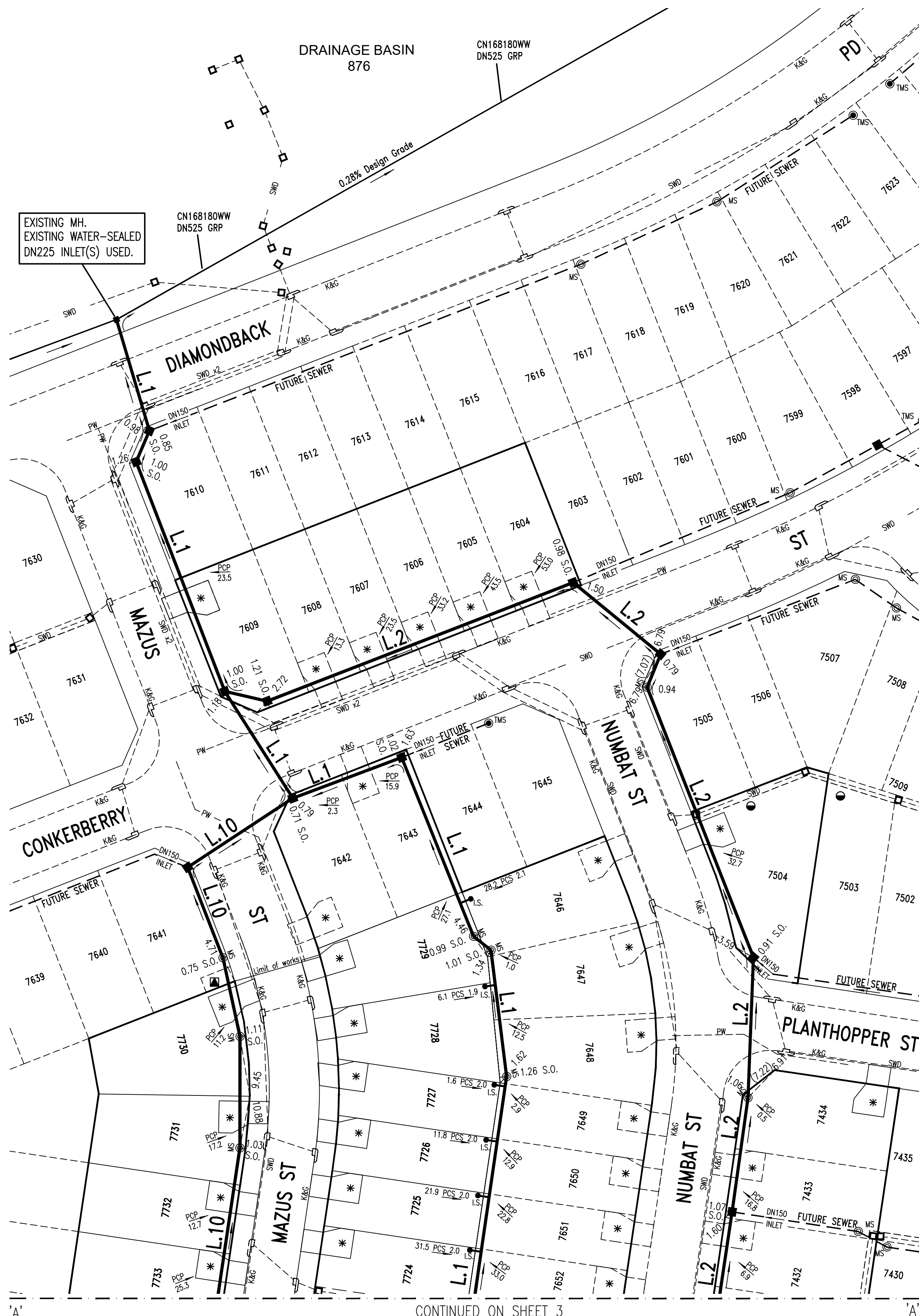
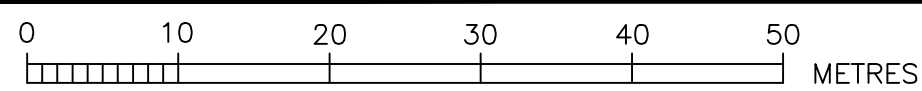
WORK AS CONSTRUCTED CERTIFICATION			
DEVELOPER	WOORONG PARK PTY LTD		
WATER SERVICE CO-ORDINATOR	QALCHEK PTY LTD		
CONSTRUCTOR	C.J.DOYLE		
COMPLETED	07.10.2022	W.A.C. PREPARED	14.10.2022
DESIGNER	QALCHEK PTY LTD		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS.			

PIPE SCHEDULE				
SIZE DN	TYPE	CLASS	LENGTH	PIPE JOINING METHOD / NOTES
225	U.P.V.C.	SN8	653.42	RRJ
150	U.P.V.C.	SN8	1945.60	RRJ
100	U.P.V.C.	SN10	457.20	SWJ

AUSTRALIAN HEIGHT DATUM	
SCALES	
PLAN: 1:500	SECTION: HOR. 1:500, VERT. 1:125
CROSS SECTIONS: NATURAL	
LENGTHS, DEPTHS & LEVELS ARE IN METRES	

NO AMENDMENTS ARE TO BE MADE TO THIS PLAN WITHOUT REFERENCE TO SYDNEY WATER. THIS PLAN IS NOT NECESSARILY UP TO DATE OR CORRECT AND SYDNEY WATER ACCEPTS NO RESPONSIBILITY.	
U.B. DIRECTORY	MAP126/B13 45th Edition
SHEET . 1 . OF . 12 .	File No. N/A

SYDNEY WATER CORPORATION Case No. 190658WW BLACKTOWN SEWERAGE DRAINS TO RICHMOND ROAD CARRIER VIA SP1160 RIVERSTONE S.T. 0042	
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CONTINUED ON SHEET 3



LINE No.	CHAINAGE	TYPE (MH/MS/MC)	DN RISER	CLASS OF COVER	MATERIAL (PVC-U, PE, PP, GRP, CAST IN SITU CONC, PRE-CAST CONC, OTHER - SPECIFY)	COMMENTS (BRAND/DTC No/ISSUE, DATE/NA, OTHER AS REQUIRED)
1	20.83	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	26.89	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	71.10	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	93.87	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	114.74	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	149.37	MS	225	B	AS PER WSA-137	AS PER WSA-137
	153.38	MS	225	B	AS PER WSA-137	AS PER WSA-137
	176.24	MS	225	B	AS PER WSA-137	AS PER WSA-137
	251.12	MS	225	B	AS PER WSA-137	AS PER WSA-137
	325.75	MS	225	B	AS PER WSA-137	AS PER WSA-137
	329.01	MS	225	B	AS PER WSA-137	AS PER WSA-137
	340.57	MH	1050	B	IN-SITU CONCRETE	DTC-2203
	364.91	MS	225	D	AS PER WSA-137	AS PER WSA-137
	382.74	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	396.10	MS	225	B	AS PER WSA-137	AS PER WSA-137
	400.32	MS	225	B	AS PER WSA-137	AS PER WSA-137
	408.64	MS	300	B	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	453.68	MS	300	B	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	481.35	MS	225	D	AS PER WSA-137	AS PER WSA-137
	507.87	MS	225	D	AS PER WSA-137	AS PER WSA-137
	528.70	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	579.01	MS	300	B	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	599.32	MS	225	D	AS PER WSA-137	AS PER WSA-137
	691.71	TMS	225	B	AS PER WSA-137	AS PER WSA-137
2	7.80	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	66.73	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	87.04	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	93.46	MS	225	D	AS PER WSA-137	AS PER WSA-137
	145.61	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	170.83	MS	225	D	AS PER WSA-137	AS PER WSA-137
	191.53	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	214.85	MS	225	D	AS PER WSA-137	AS PER WSA-137
	237.42	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	243.78	MS	225	D	AS PER WSA-137	AS PER WSA-137
	287.85	MS	225	D	AS PER WSA-137	AS PER WSA-137
	294.44	MS	300	D	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	316.99	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	338.17	MS	300	D	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	377.89	MS	225	B	AS PER WSA-137	AS PER WSA-137
	489.17	MH	1050	B	IN-SITU CONCRETE	DTC-2203
	503.65	MS	225	B	AS PER WSA-137	AS PER WSA-137
	516.48	MS	225	D	AS PER WSA-137	AS PER WSA-137
	538.97	MS	225	D	AS PER WSA-137	AS PER WSA-137
	564.22	MH	1050	B	IN-SITU CONCRETE	DTC-2203
	640.81	TMS	225	B	AS PER WSA-137	AS PER WSA-137
3	40.96	MS	225	D	AS PER WSA-137	AS PER WSA-137
	159.86	MS	225	D	AS PER WSA-137	AS PER WSA-137
	166.47	MS	225	D	AS PER WSA-137	AS PER WSA-137
	170.47	MS	300	D	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	188.42	MS	225	D	AS PER WSA-137	AS PER WSA-137
	213.70	MH	1050	B	IN-SITU CONCRETE	DTC-2203
	323.65	TMS	225	B	AS PER WSA-137	AS PER WSA-137
4	33.26	TMS	225	D	AS PER WSA-137	AS PER WSA-137
5	53.56	MS	225	D	AS PER WSA-137	AS PER WSA-137
	135.35	TMS	225	D	AS PER WSA-137	AS PER WSA-137
6	16.55	TMS	225	D	AS PER WSA-137	AS PER WSA-137
7	13.53	TMS	225	B	AS PER WSA-137	AS PER WSA-137
8	53.57	MH	1050	B	IN-SITU CONCRETE	DTC-2203
	67.70	TMS	225	B	AS PER WSA-137	AS PER WSA-137
9	16.55	TMS	225	B	AS PER WSA-137	AS PER WSA-137
10	22.59	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	40.04	MS	225	D	AS PER WSA-137	AS PER WSA-137
	54.50	MS	225	D	AS PER WSA-137	AS PER WSA-137
	74.52	MS	225	D	AS PER WSA-137	AS PER WSA-137
	125.22	MS	225	D	AS PER WSA-137	AS PER WSA-137
	237.89	MH	1050	D	IN-SITU CONCRETE	DTC-2203
	244.35	MS	225	D	AS PER WSA-137	AS PER WSA-137
	256.93	TMS	225	D	AS PER WSA-137	AS PER WSA-137
11	13.03	TMS	225	B	AS PER WSA-137	AS PER WSA-137
12	14.99	TMS	225	B	AS PER WSA-137	AS PER WSA-137
13	16.44	TMS	225	B	AS PER WSA-137	AS PER WSA-137
14	39.05	MH	1050	B	IN-SITU CONCRETE	DTC-2203
	55.81	TMS	225	B	AS PER WSA-137	AS PER WSA-137
15	14.51	TMS	225	B	AS PER WSA-137	AS PER WSA-137
16	17.90	MS	300	D	AS PER WSA-137	AS PER WSA-137, CONNECTION TO RISER
	40.91	END CAP	-	-	-	-
17	30.16	MS	225	B	AS PER WSA-137	AS PER WSA-137
	94.97	MS	225	B	AS PER WSA-137	AS PER WSA-137
	172.06	TMS	225	B	AS PER WSA-137	AS PER WSA-137
18	0.00	MS	225	B	AS PER WSA-137	AS PER WSA-137
	75.23	TMS	225	B	AS PER WSA-137	AS PER WSA-137

- EASEMENT FOR DRAINAGE 1.5 WIDE
- \* DRIVEWAY
- SUBSTATION

1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L.1 CONCRETE ENCASEMENT ADDED	FJ	07.10.21
C	L.10 MS ADDED, FUTURE INV. L.1&L.2 AMENDED	FJ	15.09.21
B	ISSUE FOR APPROVAL	FJ	05.06.21
A	LAYOUT FOR CLIENT	FJ	03.05.21
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY. LTD.	CONTRACT NO.	190658WW	SHEET	2 OF 12 SHEETS
W.S.C.	QALCHEK PTY. LTD.	COMPLETED	07.10.2022		
CONSTRUCTOR	C.J. DOYLE	W.A.C. PREPARED	14.10.2022		
DESIGNER	QALCHEK PTY. LTD.	SYDNEY WATER CORPORATION			
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS					
FOR DETAILS OF SERVICES SEE SHEET 1					





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CONTINUED ON SHEET 2

A'

0 10 20 30 40 50 METRES

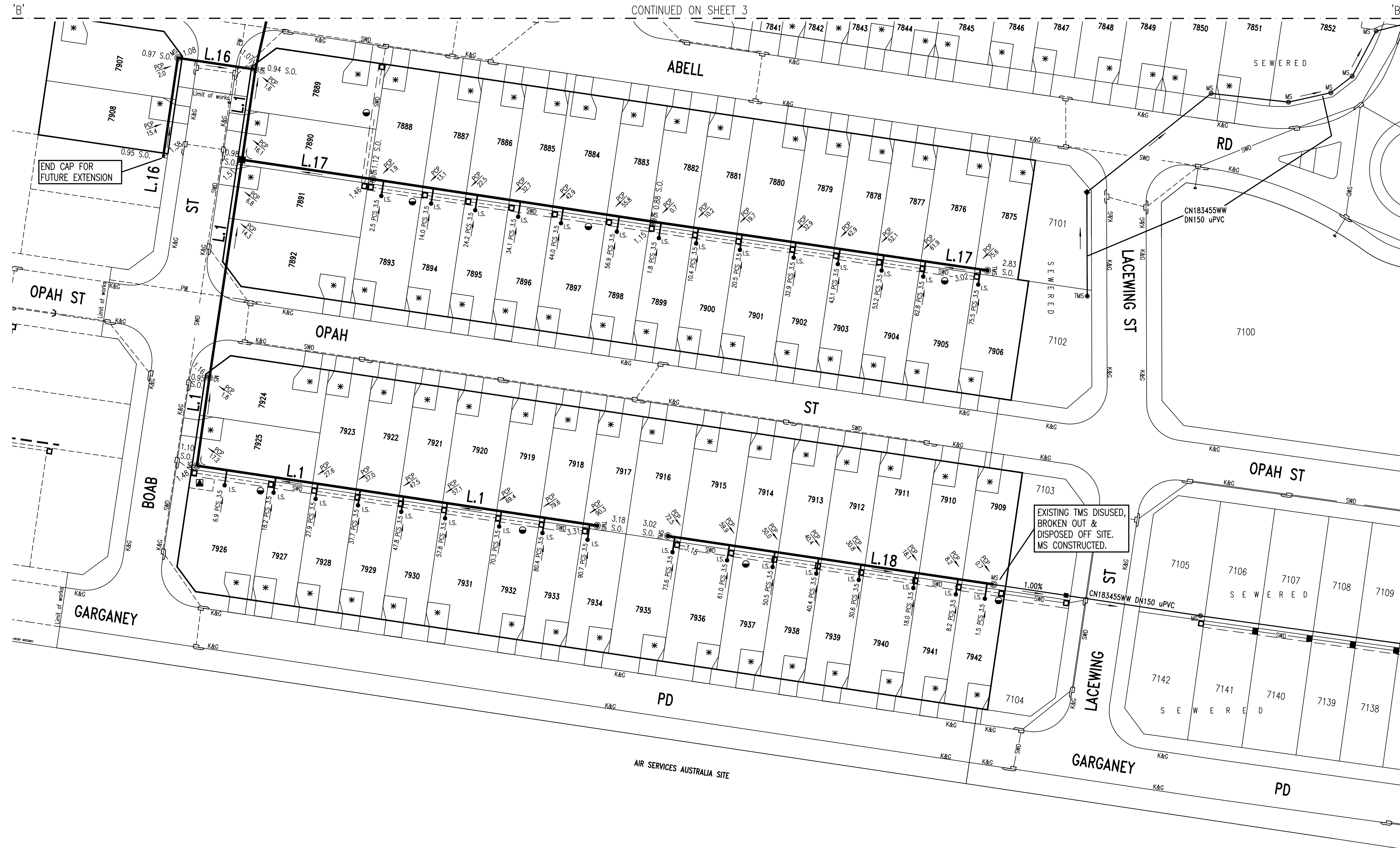
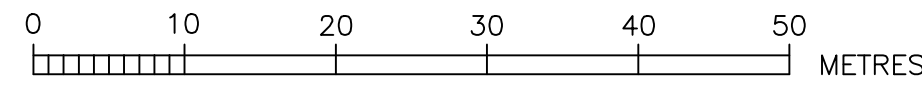
DEVELOPER CONTRACT PLAN  
WORK-AS-CONSTRUCTED

CONTINUED ON SHEET 4

No.	AMENDMENT DESCRIPTION	BY	DATE
1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L1 CONCRETE ENCASEMENT ADDED	FJ	07.10.21
C	L10 MS ADDED, FUTURE INV. L1&L2 AMENDED	FJ	15.09.21
B	ISSUE FOR APPROVAL	FJ	05.06.21
A	LAYOUT FOR CLIENT	FJ	03.05.21

- EASEMENT FOR DRAINAGE 1.5 WIDE
- \* DRIVEWAY
- SUBSTATION

WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER	
DEVELOPER	WOORONG PARK PTY. LTD.	Case No. 190658WW SHT 3 OF 12 SHTS. SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
W.S.C.	QALCHEK PTY. LTD.		
CONSTRUCTOR	C.J. DOYLE		
COMPLETED	07.10.2022		
W.A.C. PREPARED	14.10.2022		
DESIGNER	QALCHEK PTY. LTD.		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			



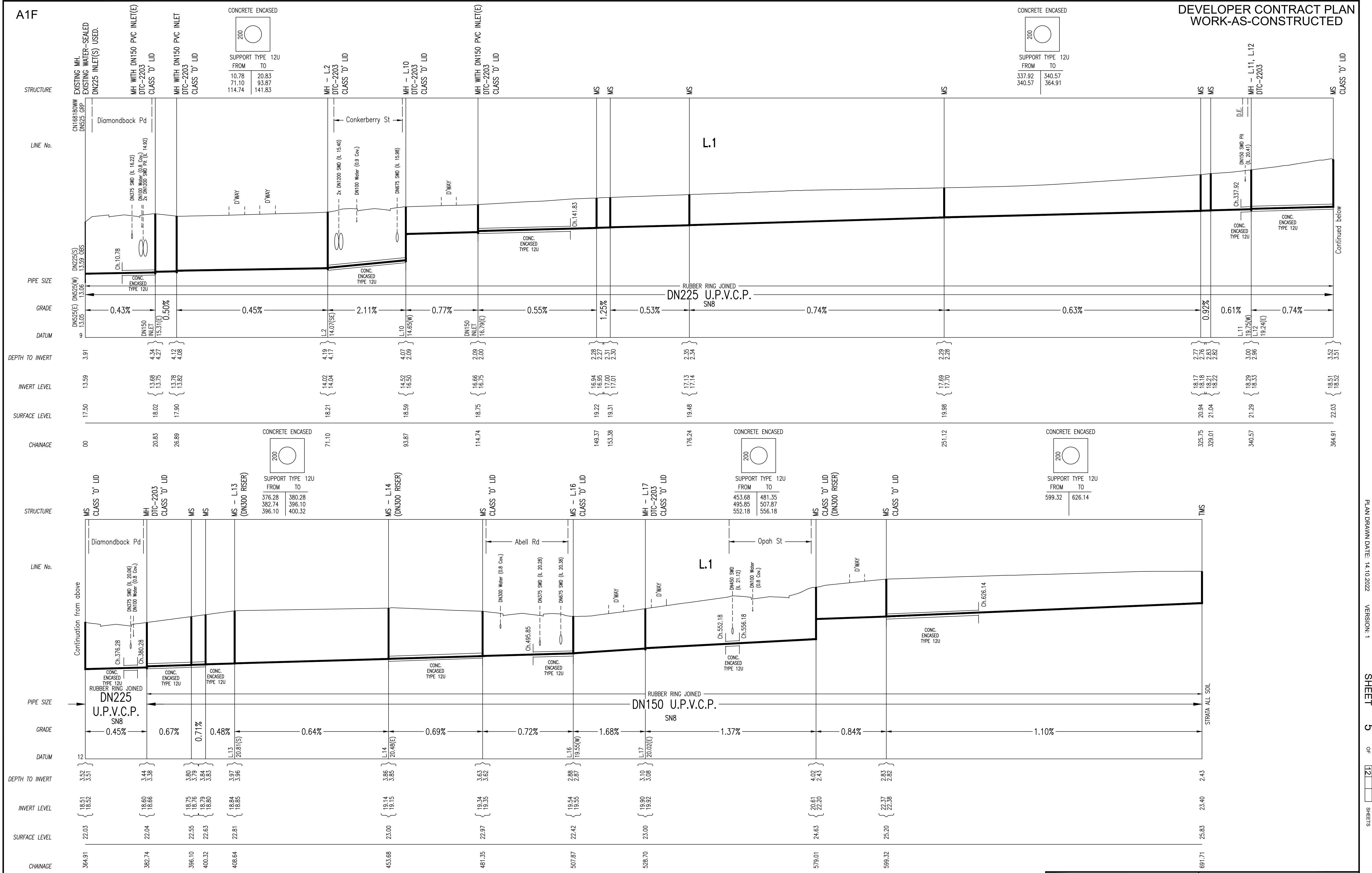
CONTINUED ON SHEET 3

No.	AMENDMENT DESCRIPTION	BY	DATE
1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L.1 CONCRETE ENCASUREMENT ADDED	FJ	07.10.21
C	L.10 MS ADDED, FUTURE INV. L.1&L.2 AMENDED	FJ	15.09.21
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- EASEMENT FOR DRAINAGE 1.5 WIDE
- \* DRIVEWAY
- ▲ SUBSTATION

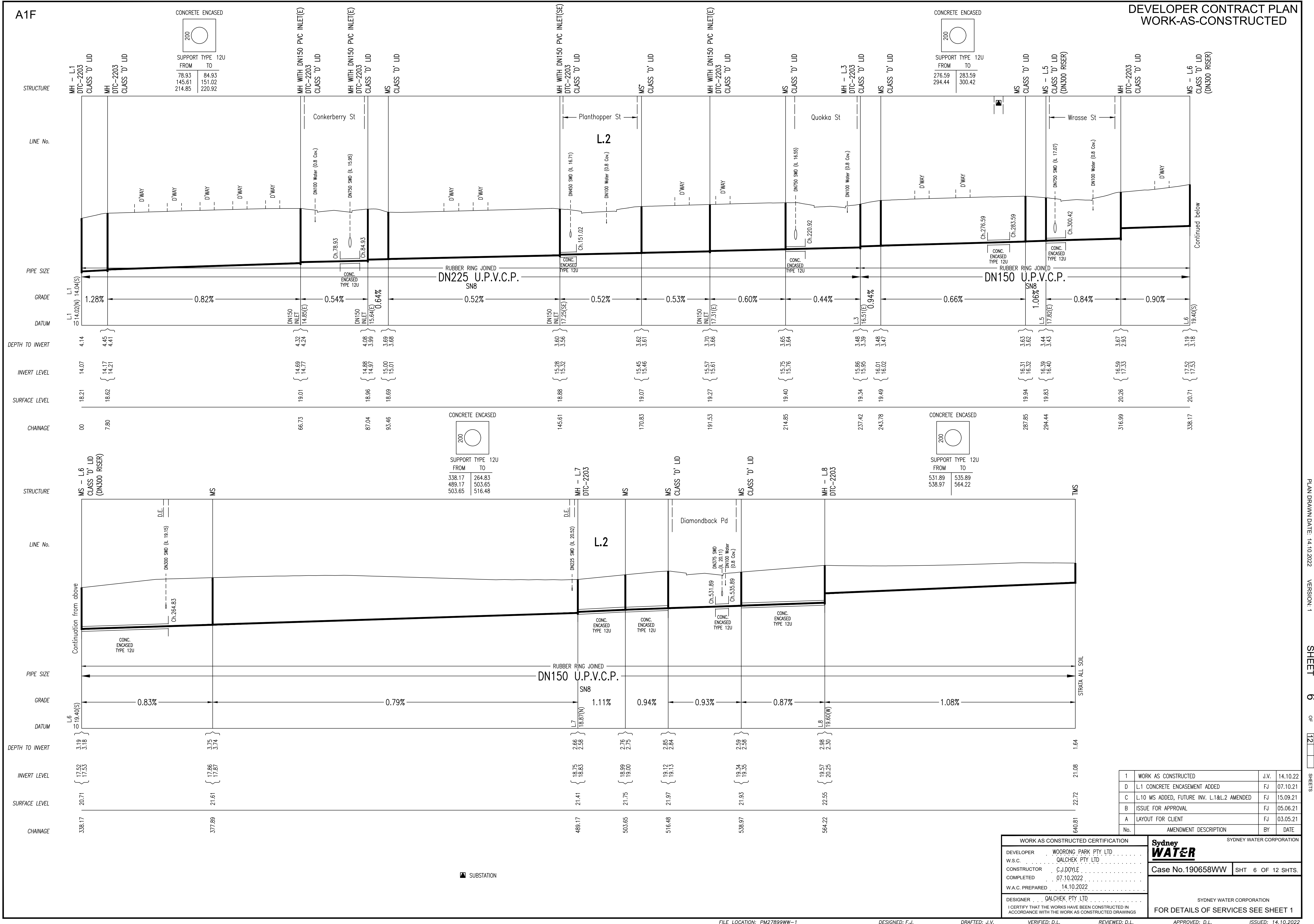
WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	CONTRACTOR	QALCHEK PTY LTD
W.S.C.	QALCHEK PTY LTD	COMPLETED	07.10.2022
DESIGNER	QALCHEK PTY LTD	W.A.C. PREPARED	14.10.2022
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	





No.	AMENDMENT DESCRIPTION	BY	DATE
1	WORK AS CREATED	J.V.	14.10.22
D	L1 CONCRETE ENCASEMENT ADDED	FJ	07.10.21
C	L10 MS ADDED, FUTURE INV. L1&L2 AMENDED	FJ	15.09.21
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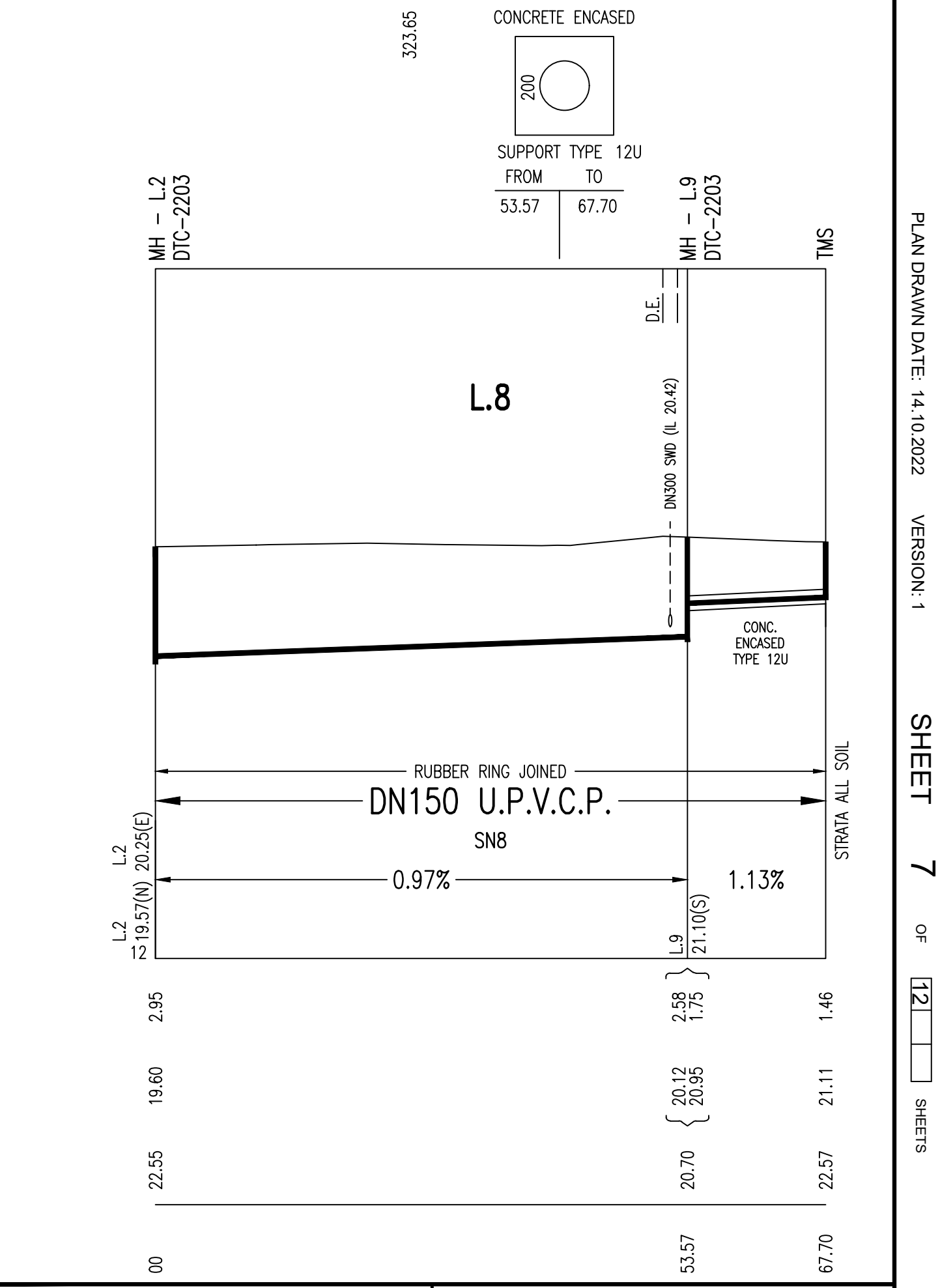
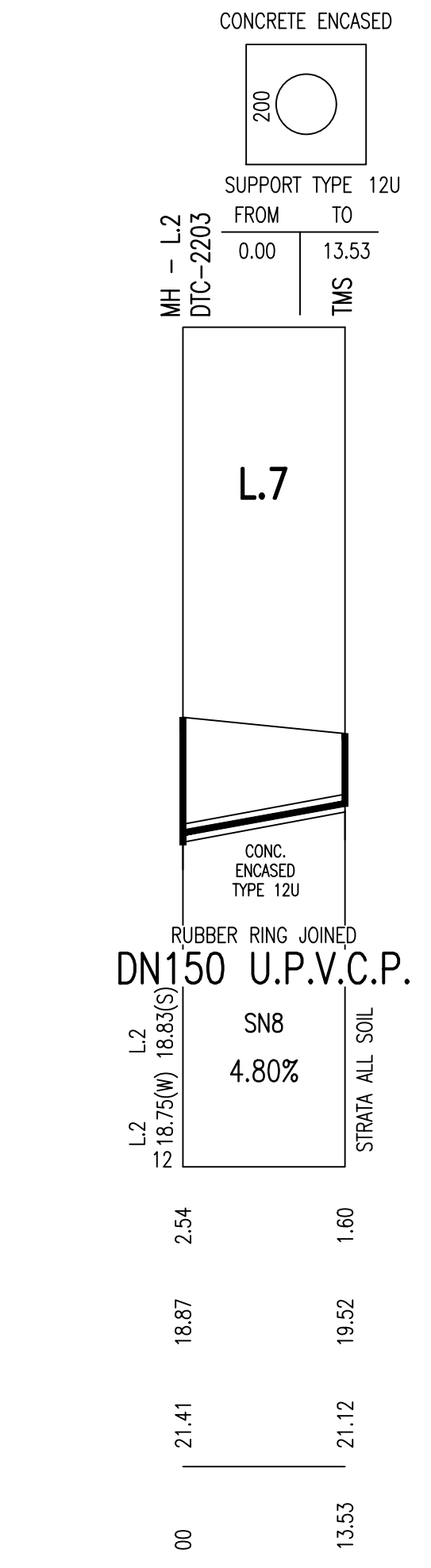
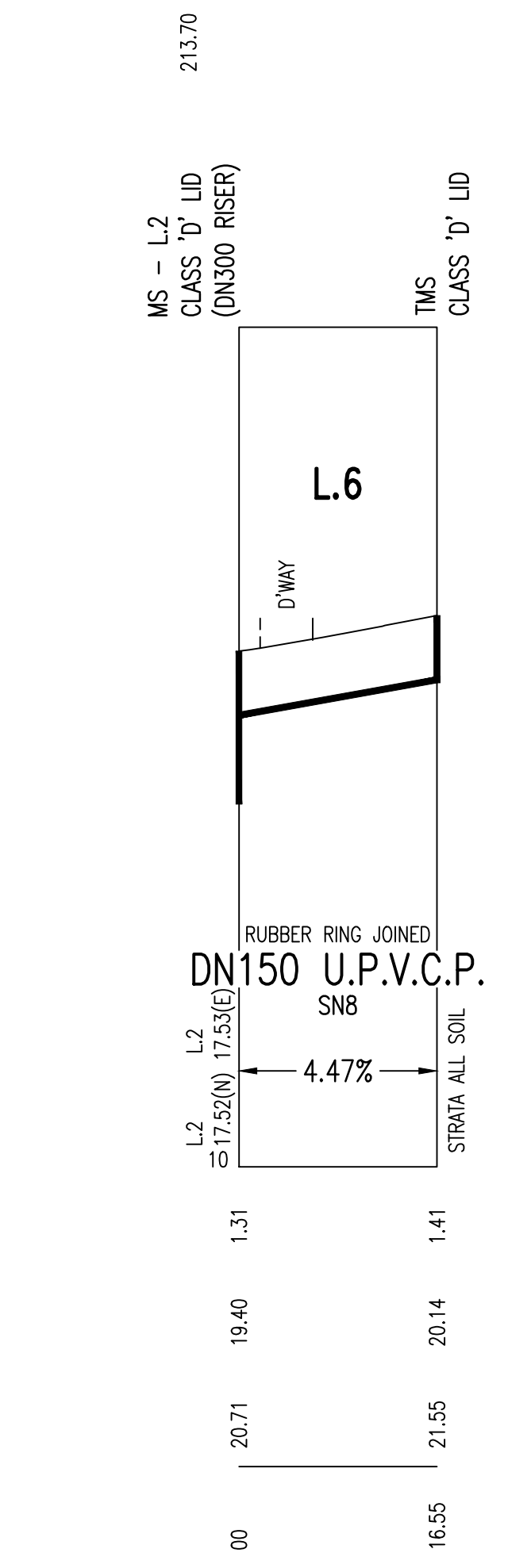
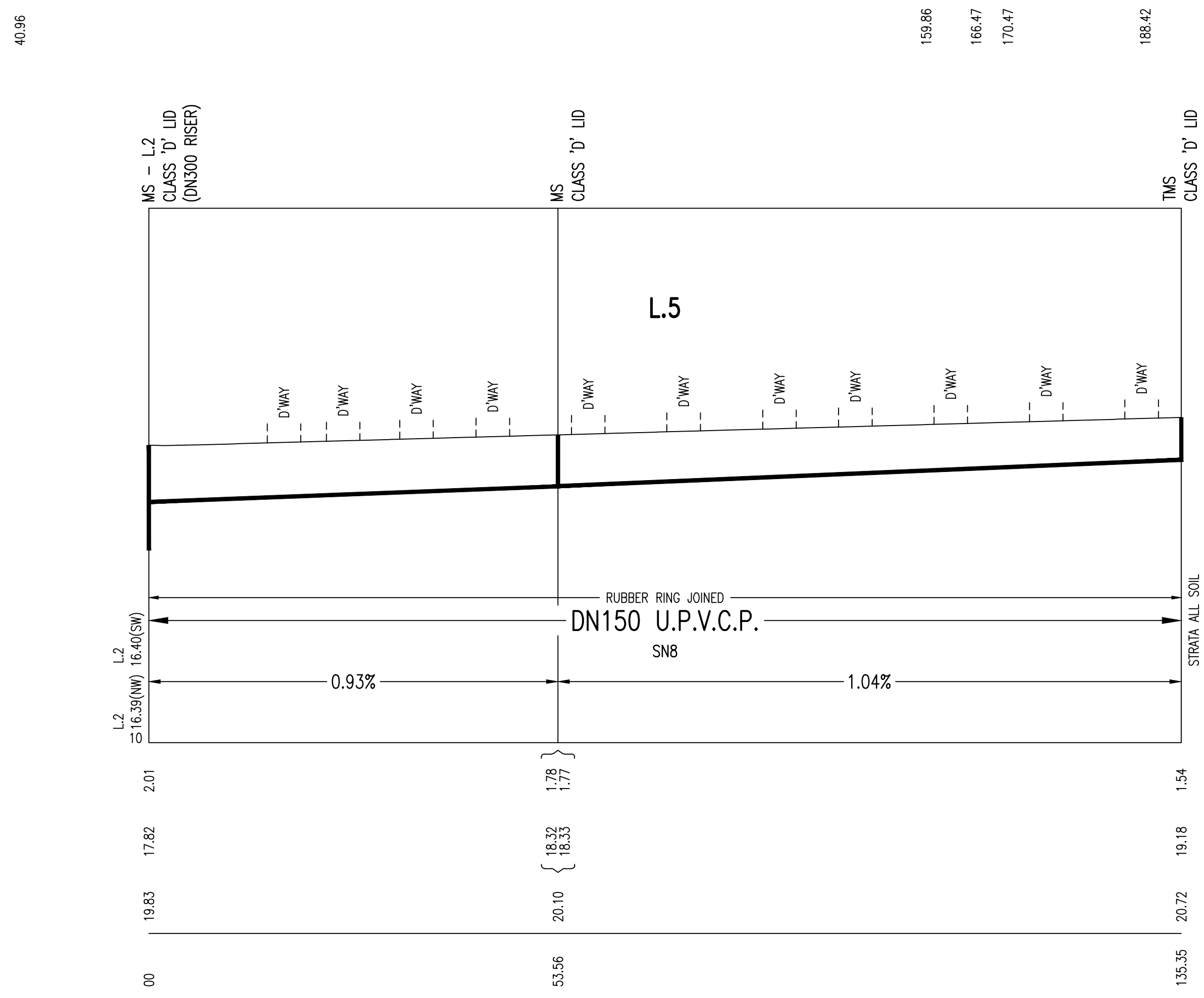
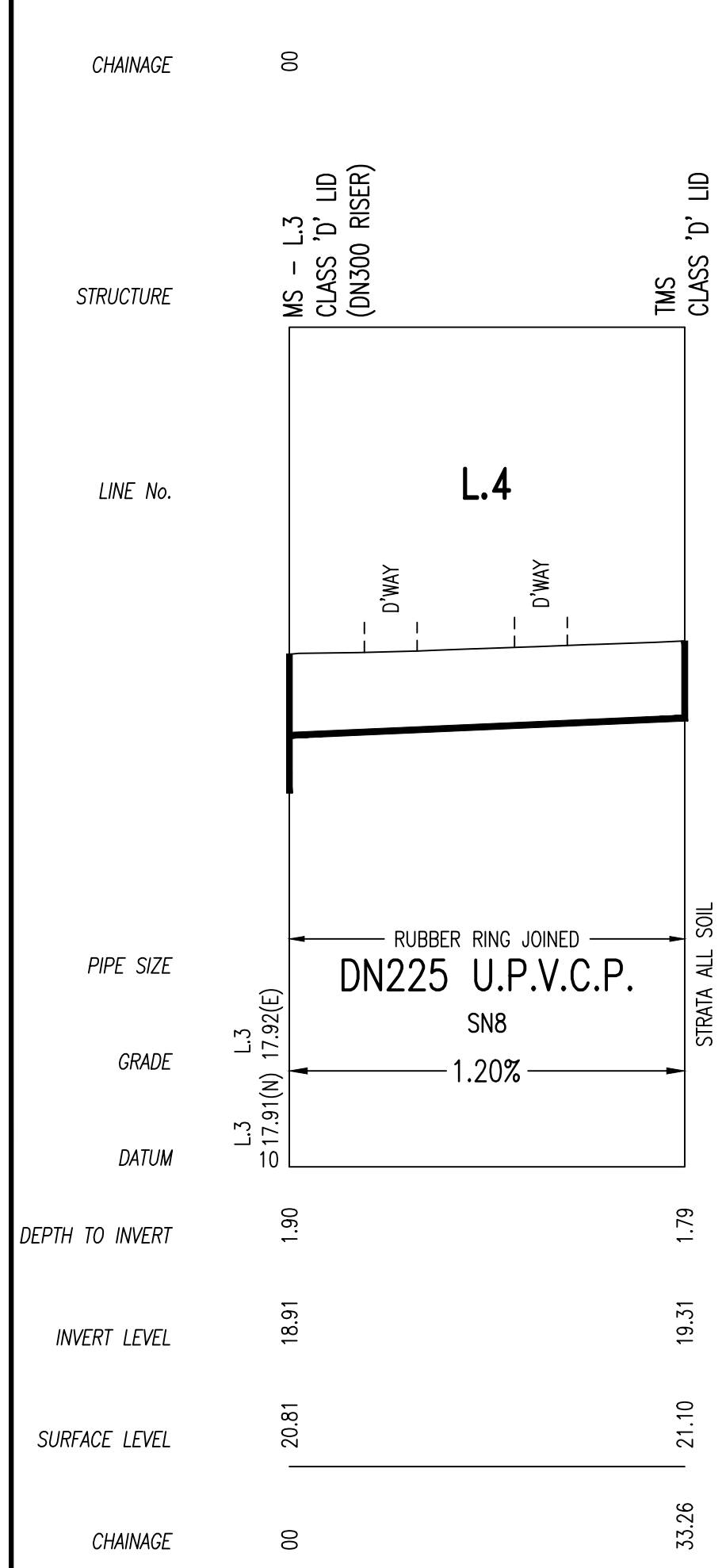
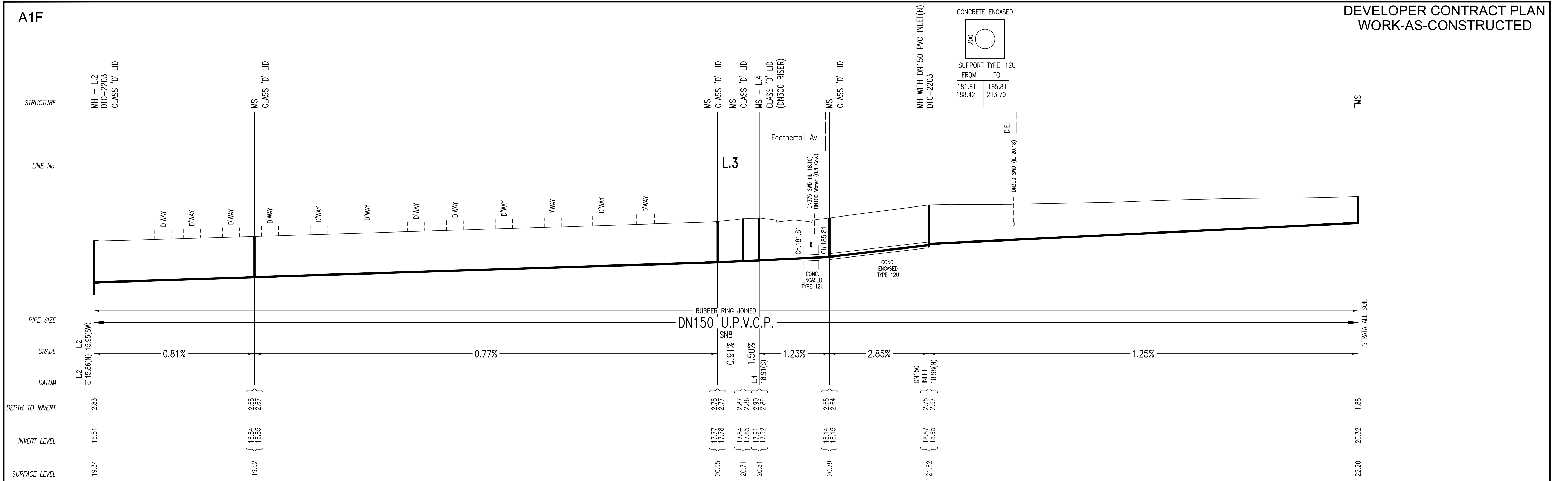
WORK AS CREATED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD		
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J. DOYLE		
COMPLETED	07.10.2022		
W.A.C. PREPARED	14.10.2022	Case No. 190658WW	SHT 5 OF 12 SHTS.
DESIGNER	QALCHEK PTY LTD	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CREATED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	



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WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	<b>Sydney WATER</b>	Case No.190658WW
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J.DOYLE	SHT	6 OF 12 SHTS.
COMPLETED	07.10.2022		
W.A.C. PREPARED	14.10.2022		
DESIGNER	QALCHEK PTY LTD	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	

PLAN DRAWN DATE: 14.10.2022 VERSION: 1 SHEET 6 OF 12 SHEETS

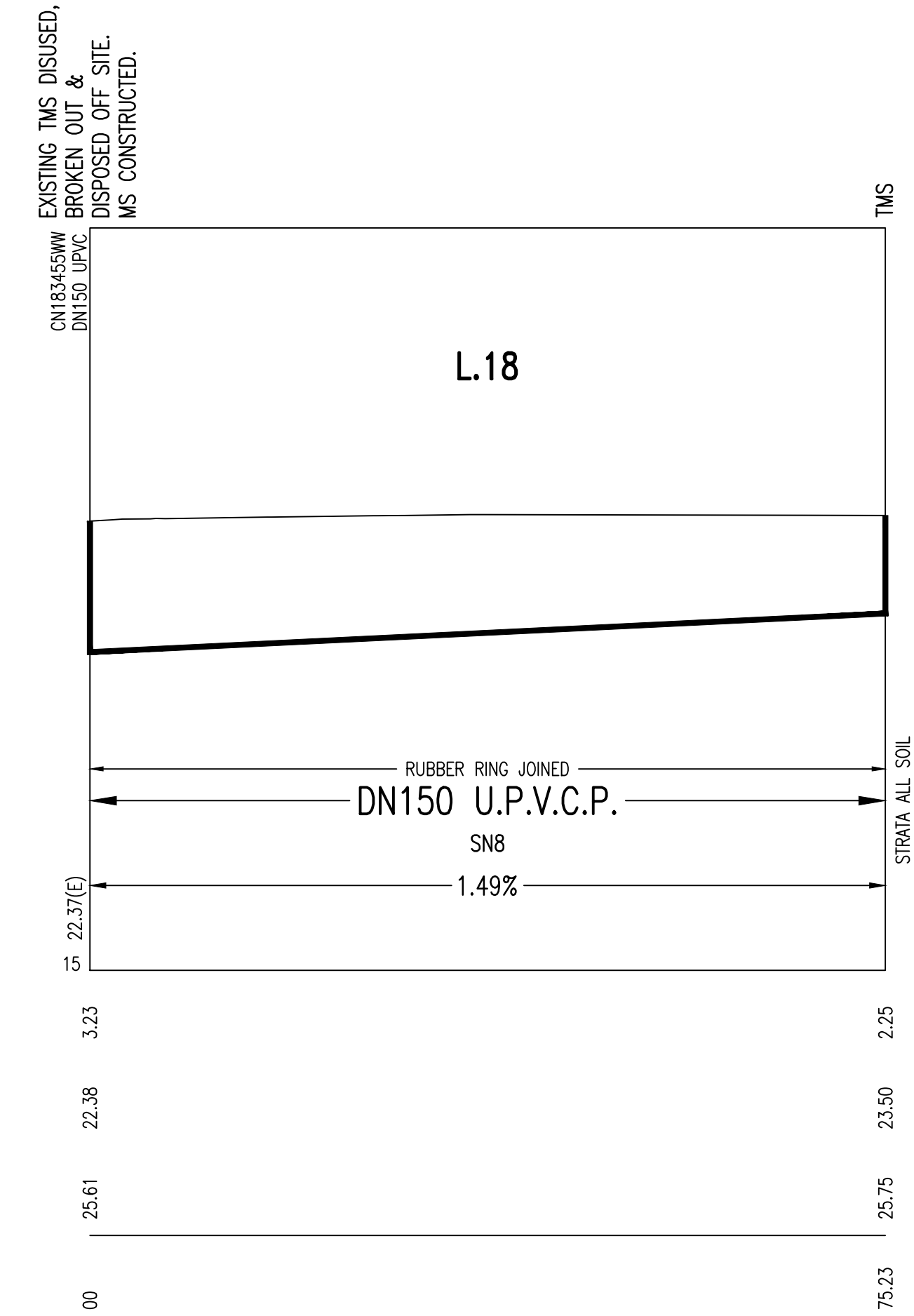
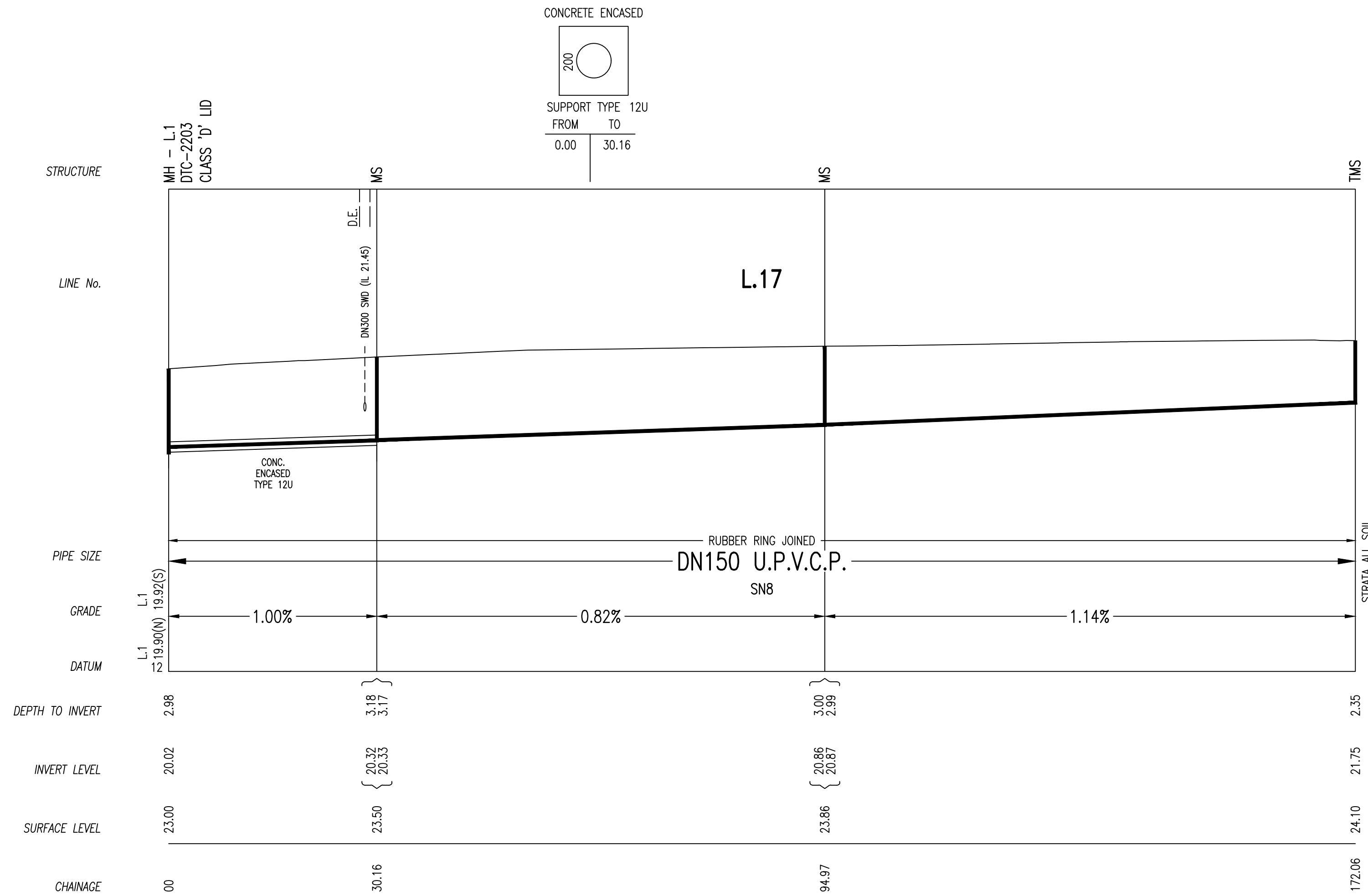


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WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	<b>Sydney WATER</b>	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J.DOYLE	Case No.190658WW	SHT 7 OF 12 SHTS.
COMPLETED	07.10.2022	FOR DETAILS OF SERVICES SEE SHEET 1	
W.A.C. PREPARED	14.10.2022		
DESIGNER	QALCHEK PTY LTD	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	






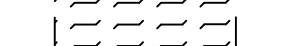



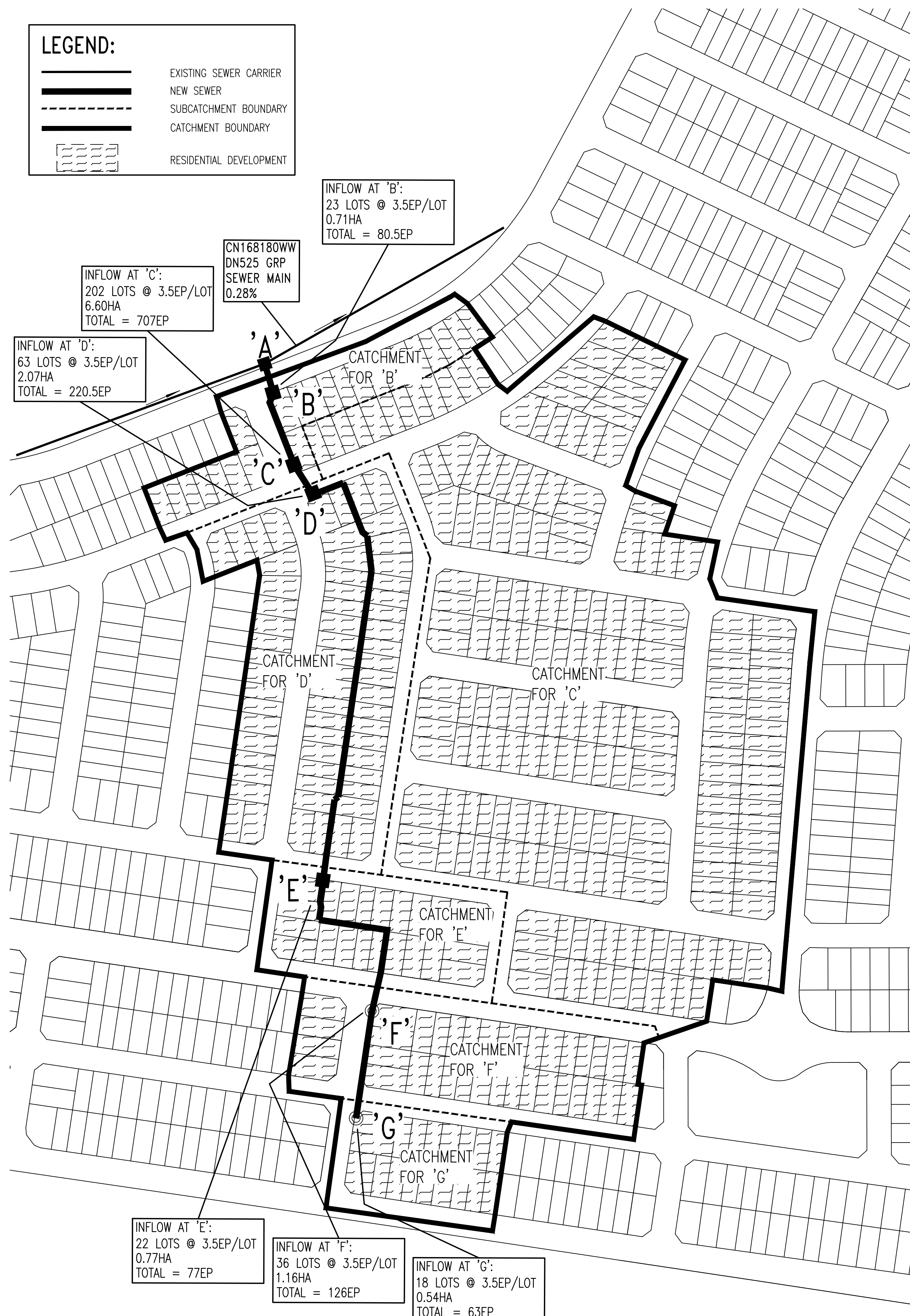


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WORK AS CONSTRUCTED CERTIFICATION		Sydney WATER SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	Case No.190658WW SHT 9 OF 12 SHTS.	
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J.DOYLE		
COMPLETED	07.10.2022		
W.A.C. PREPARED	14.10.2022	SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	
DESIGNER	QALCHEK PTY LTD		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			

**LEGEND:**

-  EXISTING SEWER CARRIER
-  NEW SEWER
-  SUBCATCHMENT BOUNDARY
-  CATCHMENT BOUNDARY
-  RESIDENTIAL DEVELOPMENT



<b>EP FOR CONNECTION POINT B</b> Residential: 23 Lots @ 3.5EP/Lot = 80.5EP (0.71ha) Total: 80.5EP	<b>EP FOR CONNECTION POINT C = INFLOW FROM L.2</b> Residential: 202 Lots @ 3.5EP/Lot = 707EP (6.60ha) Total: 707EP	<b>EP FOR CONNECTION POINT D</b> Residential: 63 Lots @ 3.5EP/Lot = 220.5EP (2.07ha) Total: 220.5EP	<b>EP FOR CONNECTION POINT E</b> Residential: 22 Lots @ 3.5EP/Lot = 77EP (0.77ha) Total: 77EP	<b>EP FOR CONNECTION POINT F</b> Residential: 36 Lots @ 3.5EP/Lot = 126EP (1.16ha) Total: 126EP	<b>EP FOR CONNECTION POINT G</b> Residential: 18 Lots @ 3.5EP/Lot = 63EP (0.54ha) Total: 63EP
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Point 'A' Ch. 00 DN225 uPVC SN8 ID = 233.6mm 0.44% Total Area = 11.85 ha Total EP = 1274 CAP = 33.36 l/s DF = 19.70 l/s	Point 'B' Ch. 20 DN225 uPVC SN8 ID = 233.6mm 0.41% Total Area = 11.14 ha Total EP = 1194 CAP = 32.20 l/s DF = 18.78 l/s	Point 'C' Ch. 71 DN225 uPVC SN8 ID = 233.6mm 2.41% Total Area = 4.54 ha Total EP = 487 CAP = 78.37 l/s DF = 10.10 l/s	Point 'D' Ch. 94 DN225 uPVC SN8 ID = 233.6mm 0.62% Total Area = 2.47 ha Total EP = 266 CAP = 39.64 l/s DF = 6.95 l/s	Point 'E' Ch. 383 DN150 uPVC SN8 ID = 149.60mm 0.71% Total Area = 1.70 ha Total EP = 189 CAP = 12.93 l/s DF = 5.72 l/s	Point 'F' Ch. 508 DN150 uPVC SN8 ID = 149.60mm 1.61% Total Area = 0.54 ha Total EP = 63 CAP = 17.66 l/s DF = 3.24 l/s
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FLOWCHART L.1 'A' TO 'G' 05.06.2021

SUMMARY													
SECTION	CHAINAGE	TOTAL AREA	TOTAL Grav	TOTAL Grav + Pump	PIPE SIZE (DN)	PIPE SIZE (ID)	PIPE GRADE	DESIGN FLOW (DF)	Qf (Capacity)	Actual	SELF CLEANSING	SLIME CONTROL	Capacity
	m	Ha	EP	EP	mm	mm	%	L/s	L/s	PDWF			Deficit
A-B	0-20	11.85	1274	1274	225	233.6	0.44	19.70	33.36	6.60	Self Cleansing OK	NA	OK
B-C	20-71	11.14	1194	1194	225	233.6	0.41	18.78	32.20	6.29	Self Cleansing OK	NA	OK
C-D	71-94	4.54	487	487	225	233.6	2.41	10.10	78.37	3.38	Self Cleansing OK	NA	OK
D-E	94-383	2.47	266	266	225	233.6	0.62	6.95	39.64	2.33	Self Cleansing OK	NA	OK
E-F	383-508	1.7	189	189	150	149.6	0.71	5.72	12.93	1.92	Self Cleansing OK	NA	OK
F-G	508-579	0.54	63	63	150	149.6	1.32	3.24	17.66	1.09	Self Cleansing OK	NA	OK



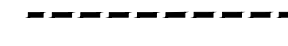

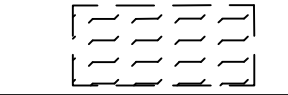
FLWSCHEDULE SUMMARY L.1 'A' TO 'G' 05.06.2021

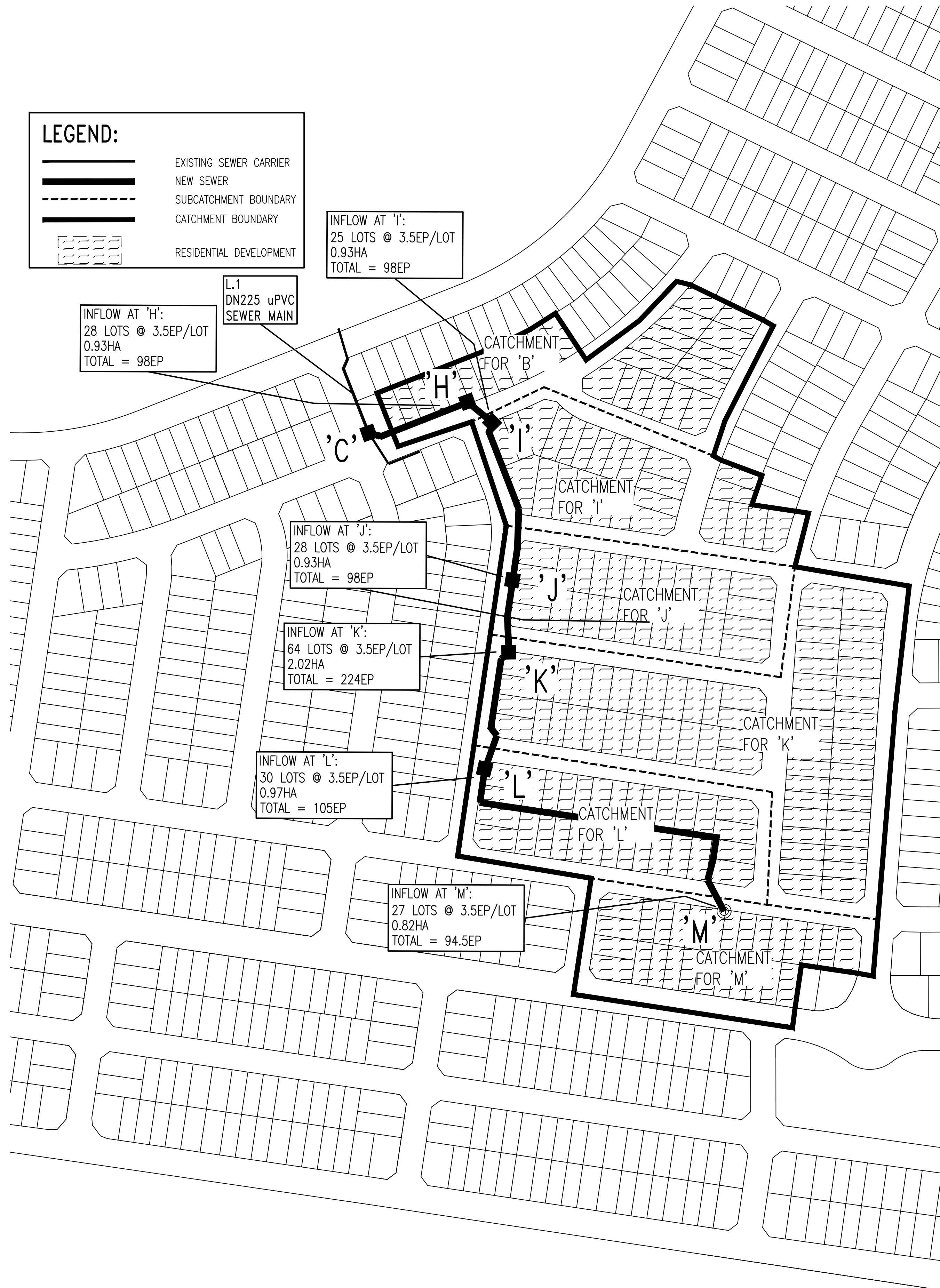
1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L.1 CONCRETE ENCASEMENT ADDED	FJ	07.10.21
C	L.10 MS ADDED, FUTURE INV. L.1&L.2 AMENDED	FJ	15.09.21
B	ISSUE FOR APPROVAL	FJ	05.06.21
A	LAYOUT FOR CLIENT	FJ	03.05.21
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION DEVELOPER: WOODRONG PARK PTY. LTD. W.S.C.: QALCHEK PTY. LTD. CONSTRUCTOR: C.J. DOYLE COMPLETED: 07.10.2022 W.A.C. PREPARED: 14.10.2022 DESIGNER: QALCHEK PTY. LTD.		SYDNEY WATER CORPORATION <b>Sydney WATER</b> Case No. 190658WW SHT 10 OF 12 SHTS. FOR DETAILS OF SERVICES SEE SHEET 1	
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**LEGEND:**

-  EXISTING SEWER CARRIER
-  NEW SEWER
-  SUBCATCHMENT BOUNDARY
-  CATCHMENT BOUNDARY
-  RESIDENTIAL DEVELOPMENT



INFLOW AT 'H':  
28 LOTS @ 3.5EP/LOT  
0.93HA  
TOTAL = 98EP

INFLOW AT 'I':  
25 LOTS @ 3.5EP/LOT  
0.93HA  
TOTAL = 98EP

INFLOW AT 'J':  
28 LOTS @ 3.5EP/LOT  
0.93HA  
TOTAL = 98EP

INFLOW AT 'K':  
64 LOTS @ 3.5EP/LOT  
2.02HA  
TOTAL = 224EP

INFLOW AT 'L':  
30 LOTS @ 3.5EP/LOT  
0.97HA  
TOTAL = 105EP

INFLOW AT 'M':  
27 LOTS @ 3.5EP/LOT  
0.82HA  
TOTAL = 94.5EP

L.1  
DN225 uPVC  
SEWER MAIN

EP FOR CONNECTION POINT H Residential: 28 Lots @ 3.5EP/Lot = 98EP (0.93ha) Total: 98EP	EP FOR CONNECTION POINT I Residential: 25 Lots @ 3.5EP/Lot = 87.5EP (0.93ha) Total: 87.5EP	EP FOR CONNECTION POINT J Residential: 28 Lots @ 3.5EP/Lot = 98EP (0.93ha) Total: 98EP	EP FOR CONNECTION POINT K Residential: 64 Lots @ 3.5EP/Lot = 224EP (2.02ha) Total: 224EP	EP FOR CONNECTION POINT L Residential: 30 Lots @ 3.5EP/Lot = 105EP (0.97ha) Total: 105EP	EP FOR CONNECTION POINT M Residential: 27 Lots @ 3.5EP/Lot = 94.5EP (0.82ha) Total: 94.5EP
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L.1 DN225 uPVC 0.41%	Point 'C' Ch. 00	Point 'H' Ch. 67	Point 'I' Ch. 87	Point 'J' Ch. 192	Point 'K' Ch. 238	Point 'L' Ch. 317	Point 'M' Ch. 540
	DN225 uPVC SN8 ID = 233.6mm 0.81%	DN225 uPVC SN8 ID = 233.6mm 0.54%	DN225 uPVC SN8 ID = 233.6mm 0.52%	DN225 uPVC SN8 ID = 233.6mm 0.56%	DN150 uPVC SN8 ID = 149.60mm 0.70%	DN150 uPVC SN8 ID = 149.60mm 0.80%	
	Total Area = 6.60 ha Total EP = 707 CAP = 45.34 l/s DF = 12.96 l/s	Total Area = 5.67 ha Total EP = 609 CAP = 36.98 l/s DF = 11.71 l/s	Total Area = 4.74 ha Total EP = 522 CAP = 36.29 l/s DF = 10.57 l/s	Total Area = 3.81 ha Total EP = 424 CAP = 37.66 l/s DF = 9.24 l/s	Total Area = 1.79 ha Total EP = 200 CAP = 12.84 l/s DF = 5.89 l/s	Total Area = 0.82 ha Total EP = 63 CAP = 13.73 l/s DF = 3.96 l/s	

FLOWCHART L.2 'C' TO 'M' 05.06.2021

SUMMARY													
SECTION	CHAINAGE	TOTAL AREA	TOTAL Grav	TOTAL Grav + Pump	PIPE SIZE (DN)	PIPE SIZE (ID)	PIPE GRADE	DESIGN FLOW (DF)	Qf (Capacity)	Actual	SELF CLEANSING	SLIME CONTROL	Capacity
	m	Ha	EP	EP	mm	mm	%	L/s	L/s	PDWF			Deficit
C-H	0-67	6.6	707	707	225	233.6	0.81	12.96	45.34	4.34	Self Cleansing OK	NA	OK
H-I	67-87	5.67	609	609	225	233.6	0.54	11.71	36.98	3.92	Self Cleansing OK	NA	OK
I-J	87-192	4.74	522	522	225	233.6	0.52	10.57	36.29	3.54	Self Cleansing OK	NA	OK
J-K	192-238	3.81	424	424	225	233.6	0.56	9.24	37.66	3.10	Self Cleansing OK	NA	OK
K-L	238-317	1.79	200	200	150	149.6	0.7	5.89	12.84	1.98	Self Cleansing OK	NA	OK
L-M	317-540	0.82	95	95	150	149.6	0.8	3.96	13.73	1.33	Self Cleansing OK	NA	OK

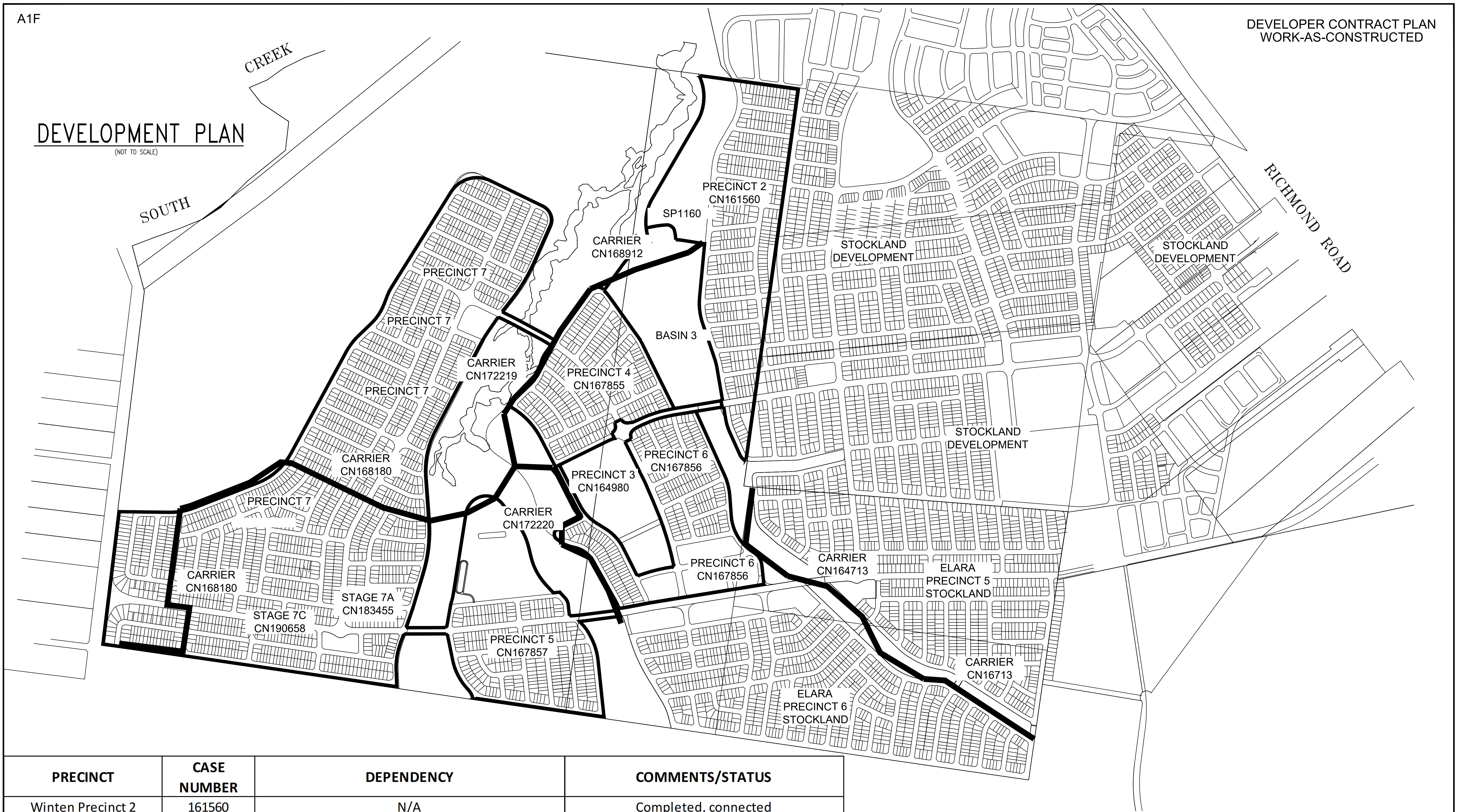
FLWSCHEDULE SUMMARY L.2 'C' TO 'M' 05.06.2021

1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L.1 CONCRETE ENCASUREMENT ADDED	FJ	07.10.21
C	L.10 MS ADDED, FUTURE INV. L.1&L.2 AMENDED	FJ	15.09.21
B	ISSUE FOR APPROVAL	FJ	05.06.21
A	LAYOUT FOR CLIENT	FJ	03.05.21
No.	AMENDMENT DESCRIPTION	BY	DATE

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY. LTD.	<b>Sydney WATER</b>	Case No.190658WWW SHT 11 OF 12 SHTS.
W.S.C.	QALCHEK PTY. LTD.		
CONSTRUCTOR	C.J.DOYLE		
COMPLETED	07.10.2022		
W.A.C. PREPARED	14.10.2022		
DESIGNER	QALCHEK PTY. LTD.		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		SYDNEY WATER CORPORATION FOR DETAILS OF SERVICES SEE SHEET 1	



**DEVELOPMENT PLAN**  
(NOT TO SCALE)



PRECINCT	CASE NUMBER	DEPENDENCY	COMMENTS/STATUS
Winten Precinct 2	161560	N/A	Completed, connected
Winten Precinct 3	164980	167855, 168912, 172219, 172220	Completed, connected
Winten Precinct 4	167855	168912, 172219, 172220	Completed, connected
Winten Precinct 5	180446	168912, 172219, 172221	Completed, Connected
Winten Precinct 6	167856	164980, 167855, 168912, 172219, 172220, 164713	Completed, connected
Winten Precinct 7A	183455	168912, 172219, 172220	Under Construction
Winten Precinct 7C	190658	168912, 172219, 172220, 168180, 183455	Designed under this CN
Winten Carrier Phase 1	168912	N/A	Completed, connected
Winten Carrier Phase 2	172219	168912	Completed, connected
Winten Carrier Phase 3	172220	168912, 172219	Completed, connected
Winten Carrier Stage 2	168180	168912, 172219, 172220	Under Construction

No.	AMENDMENT DESCRIPTION	BY	DATE
1	WORK AS CONSTRUCTED	J.V.	14.10.22
D	L.1 CONCRETE ENCASUREMENT ADDED	FJ	07.10.21
C	L.10 MS ADDED, FUTURE INV. L.1&L.2 AMENDED	FJ	15.09.21
B	ISSUE FOR APPROVAL	FJ	05.06.21
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WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	WOORONG PARK PTY LTD	<b>Sydney WATER</b>	Case No.190658WWW SHT 12 OF 12 SHTS.
W.S.C.	QALCHEK PTY LTD		
CONSTRUCTOR	C.J.DOYLE		
COMPLETED	07.10.2022		
W.A.C. PREPARED	14.10.2022		
DESIGNER	QALCHEK PTY LTD	SYDNEY WATER CORPORATION	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		FOR DETAILS OF SERVICES SEE SHEET 1	