

DEVELOPER CONTRACT PLAN
WORK-AS-CONSTRUCTED

A1



0 10 20 30 40 50 METRES

NOTES :-

1 WATER SERVICING COORDINATOR: ROSE ATKINS RIMMER (INFRASTRUCTURE) Pty. Ltd.
SHOP 7 & 8 M CENTRE
40 STERLING ROAD MINCHINBURY NSW 2770
Ph: (02) 9853 0200

SURVEY: YOUDALE STRUDWICK AND COMPANY Pty Ltd.
SUITE 4, 114 HAMPDEN ROAD ARTAMON NSW 2064
Ph: (02) 9419 8222

FOR: BIRLING ESTATE DEVELOPMENTS Pty. Ltd.
975 THE NORTHERN ROAD BRINGELLY NSW 2556
Ph: (02) 4774 6000

2 ALL WORKS & MATERIALS ARE IN ACCORDANCE WITH THE SEWERAGE CODE OF AUSTRALIA WSA 02-2002-2.2 (SYDNEY WATER EDITION - Version 4 - 2017) AND SYDNEY WATER'S TECHNICAL SPECIFICATION - CIVIL (VERSION 11.0).

3 ALL SERVICES SHOWN WERE INDICATIVE ONLY. A CURRENT SERVICES SEARCH & SITE CHECK OF ALL EXISTING SERVICES WAS REQUIRED PRIOR TO COMMENCEMENT OF ANY WORKS.

4 THE CONSTRUCTOR WAS TO DETERMINE THE LOCATION & LEVEL OF EXISTING SERVICES WITHIN THE VICINITY OF SEWER WORKS BY POTHOLING PRIOR TO COMMENCEMENT OF ANY WORKS. THE CONSTRUCTOR WAS TO NOTIFY THE DESIGNER SHOULD ANY POTENTIAL CLASHES OCCUR OR IF MINIMUM CLEARANCES IN ACCORDANCE WITH TABLE 4.2 OF THE SEWERAGE CODE OF AUSTRALIA WSA 02-2002-2.2 (SYDNEY WATER EDITION VER 4 2017) CANNOT BE ACHIEVED.

5 ALL SURVEY MARKS WERE PEGS UNLESS OTHERWISE NOTED.

6 THE CONSTRUCTOR VERIFIED ALL EXISTING INVERT LEVELS PRIOR TO CONSTRUCTION.

7 TRENCH FILL IN ROAD CARRIAGEWAYS (TO SUBGRADE LEVEL ONLY) COMPLIED WITH ROAD OWNER'S REQUIREMENTS.

8 ALL STRUCTURES IN ACCORDANCE WITH MAINTENANCE STRUCTURE SCHEDULE (SHEET 7).

9 ALL STRUCTURES CONSTRUCTED TO PROPOSED FINISHED SURFACE LEVELS. THE CONSTRUCTOR WAS TO LIASE WITH THE SITE SUPERINTENDENT TO VERIFY ALL FINAL LEVELS.

10 PIPES CONCRETE ENCASED (SUPPORT TYPE 12u TO SEW-1205-V) SHOWN ACCORDINGLY:

PIPES MICROTUNNELLED SHOWN ACCORDINGLY:

11 DRAINAGE LIMITS ARE TO PROPOSED FINISHED SURFACE LEVELS.

12 PROPERTY CONNECTION SEWERS INSTALLED IN ACCORDANCE WITH SEW-1151-S.

13 SEWER ENDS WERE NOT BACKFILLED UNTIL LOCATION & INVERT LEVEL HAD BEEN OBSERVED & APPROVAL TO BACKFILL RECEIVED FROM THE W.S.C.

14 BUILDING OVER/ADJACENT TO SEWER. CONDITIONS APPLY. REFER TO TAP-IN.

15 THE MINIMUM NUMBER OF COMPACTION TESTS REQUIRED TO SATISFY C2.8.3 OF THE TECHNICAL SPECIFICATION - CIVIL (VERSION 11.0) ARE:

PAVED AREAS:

PIPE EMBEDMENT ZONE: NIL TESTS
(PRE-QUALIFIED - WSA 02 CL 22.3.3.1) TRENCH FILL ZONE: 64 TESTS
(4 TEST LOCATIONS, 1 TEST / 300mm LAYER / 50m MAIN)
(REFER C2.8.4 WHERE STABILISED SAND IS BEING USED)

INTERMEDIATE/UNPAVED AREAS: LESS THAN 3m TRENCH DEPTH

PIPE EMBEDMENT ZONE: NIL TESTS TRENCH FILL ZONE: 44 TESTS
(PRE-QUALIFIED - WSA 02 CL 22.3.3.1) (14 TEST LOCATIONS, 1 TEST / 900mm LAYER / 100m MAIN)

INTERMEDIATE/UNPAVED AREAS: GREATER THAN 3m TRENCH DEPTH

PIPE EMBEDMENT ZONE: NIL TESTS TRENCH FILL ZONE: 141 TESTS
(PRE-QUALIFIED - WSA 02 CL 22.3.3.1) (10 TEST LOCATIONS, 1 TEST / 300mm LAYER / 50m MAIN)

Maintenance Structures: LESS THAN 3m TRENCH DEPTH

220 TESTS (1 TEST / 300mm LAYER WITHIN 300mm OF EACH STRUCTURE)

Maintenance Structures: GREATER THAN 3m TRENCH DEPTH

152 TESTS (2 TESTS / 300mm LAYER WITHIN 300mm OF EACH STRUCTURE)

(REFER C2.8.4 WHERE STABILISED SAND IS BEING USED)

NOTE: NUMBER OF TESTS REQUIRED BY SYDNEY WATER COMPETENT GEOTECHNICAL ENGINEER (AS DEFINED IN SYDNEY WATER'S ENGINEERING COMPETENCY STANDARD, SYDNEY WATER DOCUMENT D0000833) MAY VARY BASED ON CHOSEN TEST LOCATIONS AND SITE SPECIFIC REQUIREMENTS. AVERAGE DEPTHS USED IN ABOVE CALCULATIONS.

16 COUNCIL'S TREE PRESERVATION ORDER STRICTLY ADHERED TO. EXCAVATIONS IN THE VICINITY OF TREES CARRIED OUT IN ACCORDANCE WITH ARBORIST SPECIFICATIONS AND UNDER THE SUPERVISION OF THE SITE ARBORIST (MANUAL OR HYDRO-EXCAVATION MAY BE REQUIRED).

NOTE: TREES SHOWN ON PLAN BASED ON THE CLIENT SUPPLIED SURVEY INFORMATION. ALL TREES MAY NOT HAVE BEEN SHOWN.

05	WORK-AS-CONSTRUCTED	K.G.	17/12/25
04	BORE SECTION AMENDED & NEW DTC's UPDATED	K.G.	18/12/24
03	ISSUE TO SYDNEY WATER	K.G.	17/10/24
02	DESIGN REVISED AS PER UPDATED ENGINEERING	K.G.	8/3/24
01	ISSUE FOR TENDER	K.G.	17/11/23
No.	REVISION DESCRIPTION	BY	DATE

LOCALITY SKETCH

NOT TO SCALE

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. 02 8500 0000
GAS Ph. 02 8500 0000
TELECOMMUNICATIONS Ph. 02 8500 0000
TNSW: Ph. 02 8500 0000
GIVING AT LEAST 48 HOURS NOTICE.

UTILITIES

TYPE	DATE	REF.	TYPE	DATE	REF.
WATER: - - - - -	18/12/24	Hydro			
PROF. WATER: - - - - -	18/12/24	RAR			
STORMWATER: - - - - -	18/12/24	enspire			
PROF. STORMWATER: - - - - -	18/12/24	enspire			
TEL: - - - - -	18/12/24	Survey			
TELE: - - - - -	18/12/24	Survey			
TS: - - - - -	18/12/24	Survey			

WORK AS CONSTRUCTED CERTIFICATION

DEVELOPER	BIRLING ESTATE DEVELOPMENTS Pty. Ltd.
WATER SERVICE CO-ORDINATOR	ROSE ATKINS RIMMER (INFRASTRUCTURE) Pty. Ltd.
CONSTRUCTOR	C J DOYLE CONTRACTING SERVICES Pty. Ltd.
COMPLETED	24/10/2025
DESIGNER	ROSE ATKINS RIMMER (INFRASTRUCTURE) 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
OD406 STEEL	-	52.66		ENCASING PIPE
225 u.P.V.C.	SN8	603.01	R.R.J.	
150 u.P.V.C.	SN8	1290.19	R.R.J.	

GDA 2020

AUSTRALIAN HEIGHT DATUM

SCALES

PLAN 1:500 SECTION HORIZONTAL 1:1000	VERTICAL 1:250
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CROSS SECTIONS NATURAL

Sydney WATER

STAGE 1

BIRLING

SYDNEY WATER CORPORATION

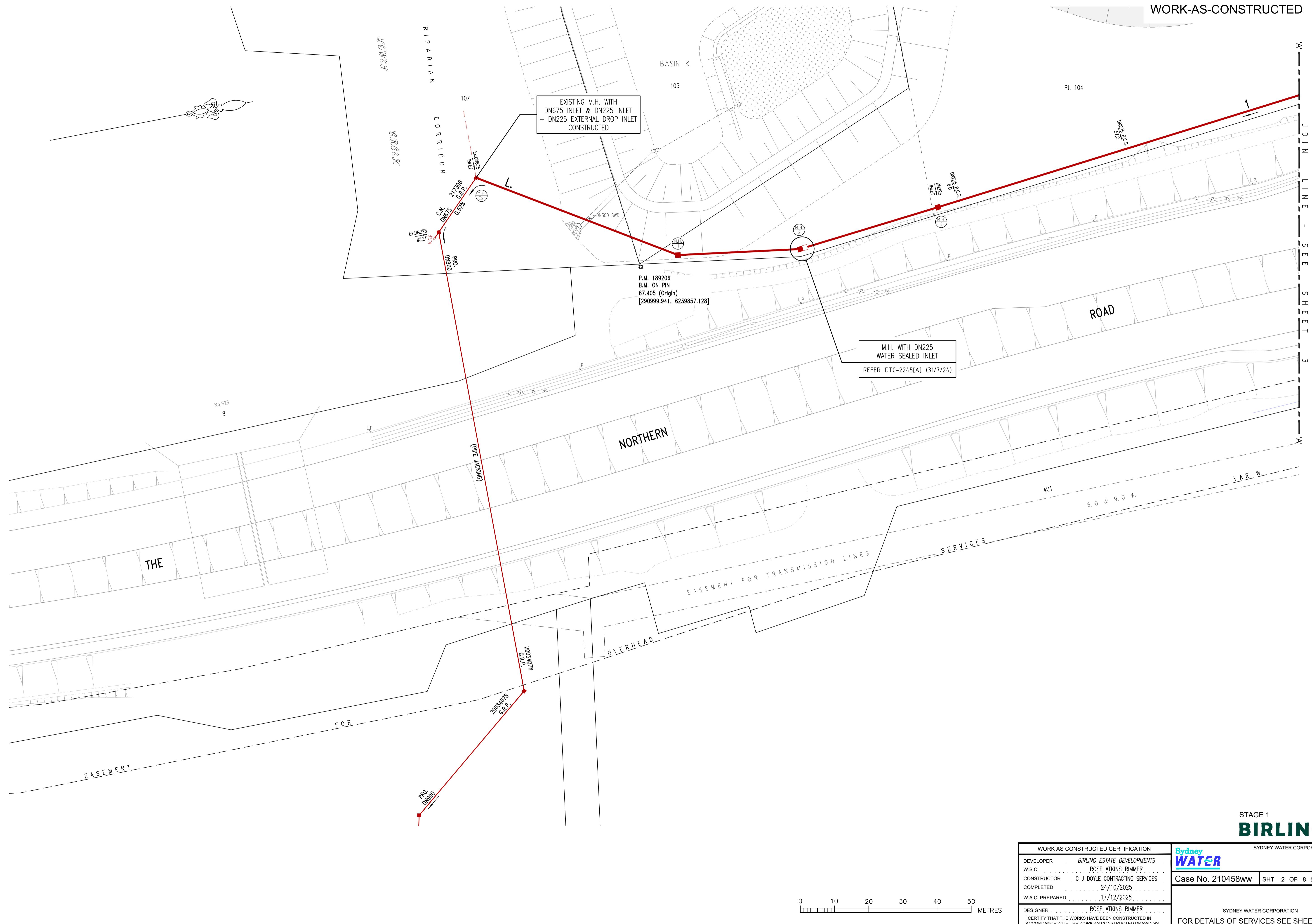
Case No. 210458ww

CAMDEN SEWERAGE

DRAINS TO

UPPER SOUTH CREEK AWRC

VIA LOWES CREEK CARRIER SEC.

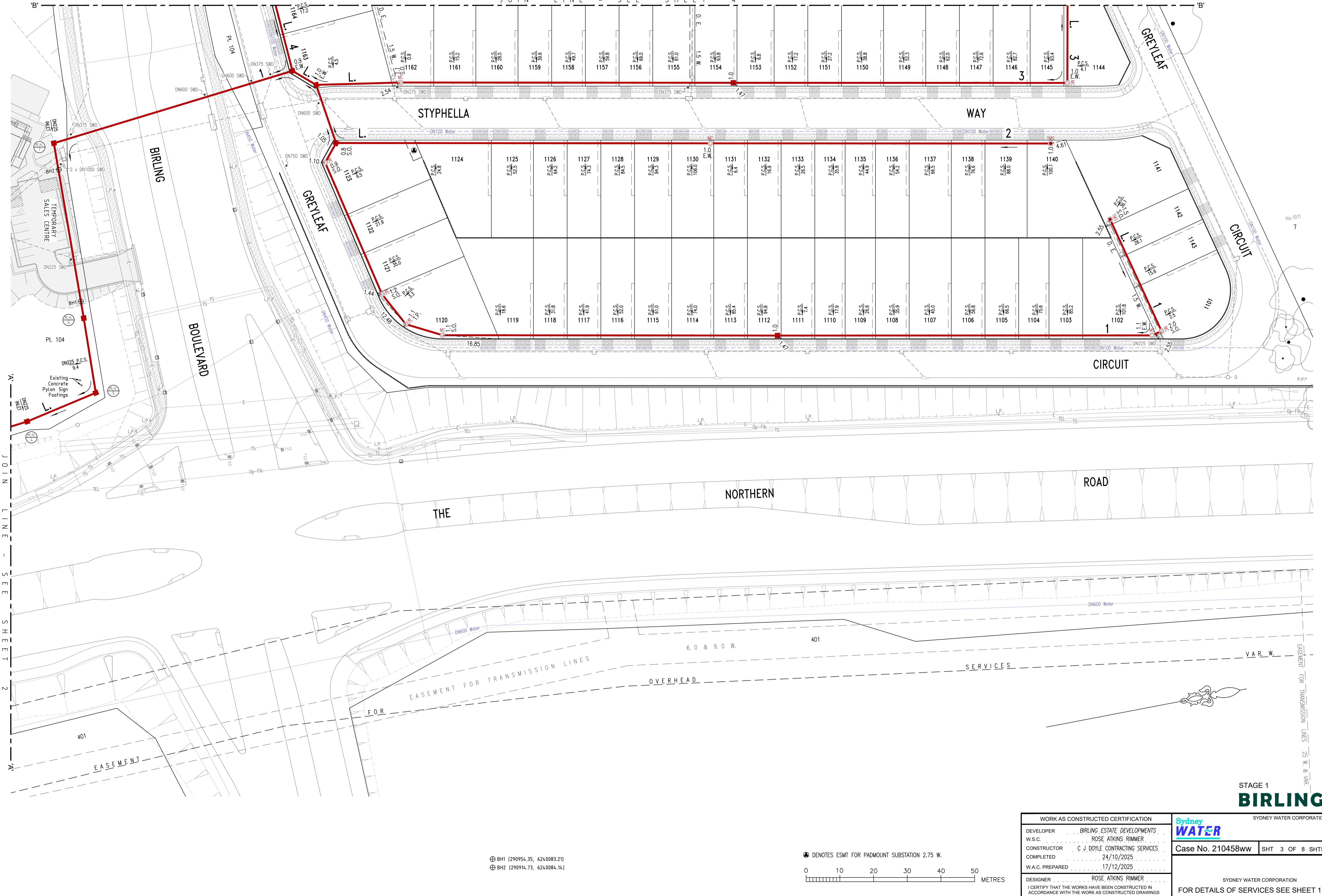


STAGE 1

BIRLING

SYDNEY WATER CORPORATION

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	BIRLING ESTATE DEVELOPMENTS		
W.S.C.	ROSE ATKINS RIMMER		
CONSTRUCTOR	C J DOYLE CONTRACTING SERVICES		
COMPLETED	24/10/2025		
W.A.C. PREPARED	17/12/2025		
DESIGNER	ROSE ATKINS RIMMER		
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	



WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	BIRLING ESTATE DEVELOPMENTS	 Case No. 210458WW	
W.S.C.	ROSE ATKINS RIMMER		
CONSTRUCTOR	C J DOYLE CONTRACTING SERVICES	SHT 3 OF 8 SHTS.	
COMPLETED	24/10/2025		
W.A.C. PREPARED	17/12/2025	SYDNEY WATER CORPORATION	
DESIGNER	ROSE ATKINS RIMMER		
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			

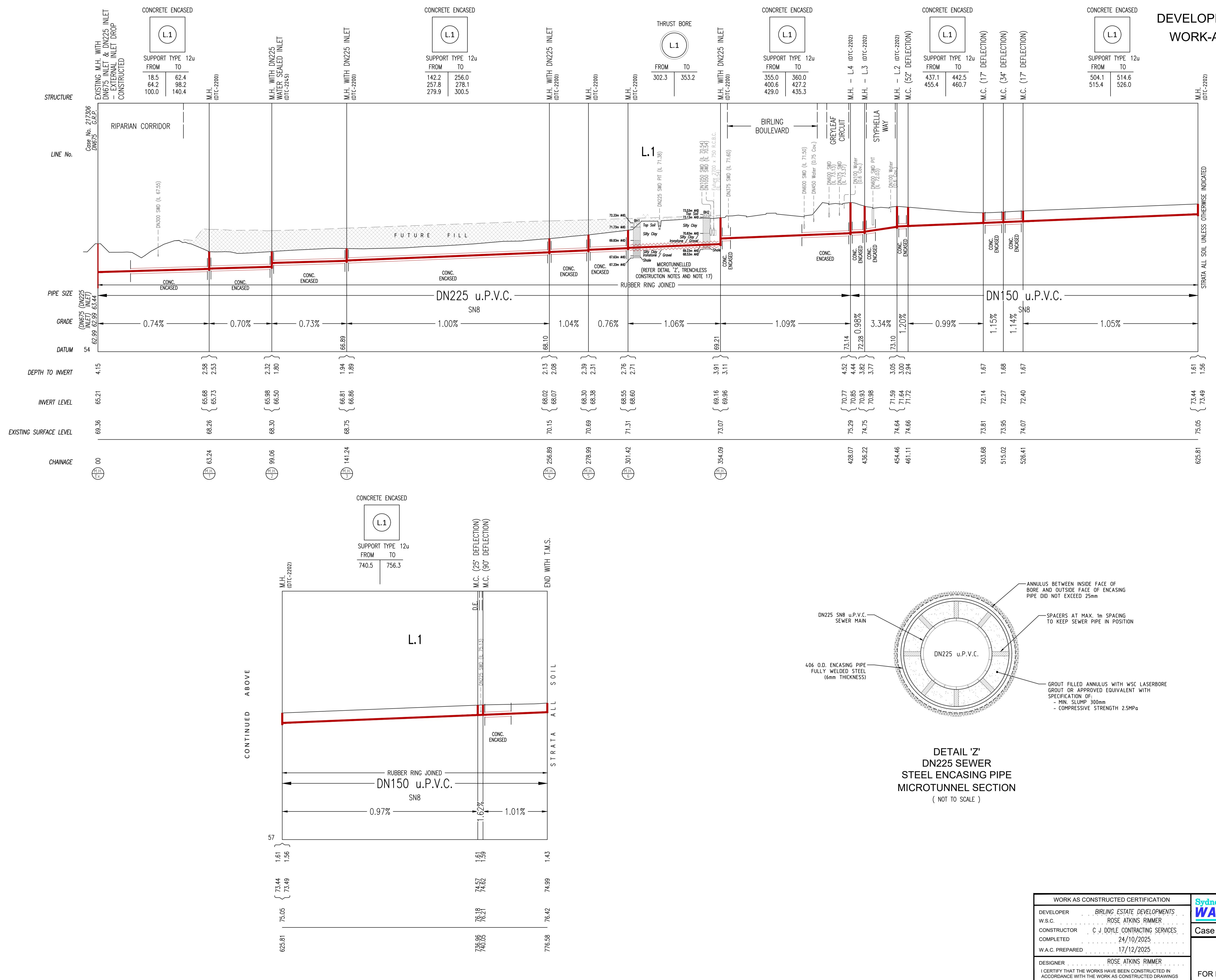


PLAN DRAWN DATE: 17/12/25 VERSION: 05 SHEET 4 OF 8 SHEETS

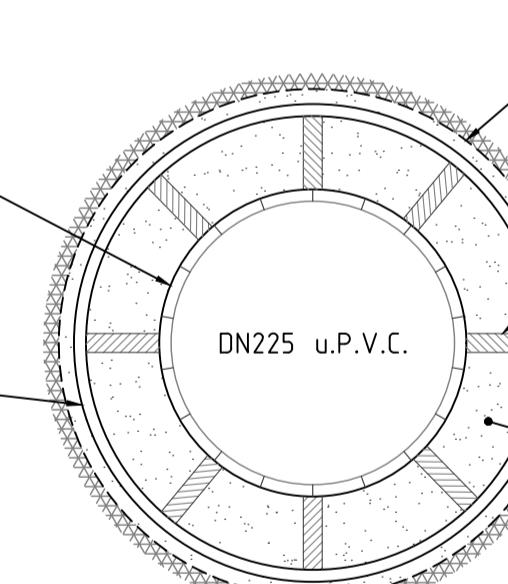
WORK AS CONSTRUCTED CERTIFICATION	Sydney WATER	
DEVELOPER	BIRLING ESTATE DEVELOPMENTS	SYDNEY WATER CORPORATION
W.S.C.	ROSE ATKINS RIMMER	
CONTRACTOR	C.J. DOYLE CONTRACTING SERVICES	
COMPLETED	24/10/2025	
W.A.C. PREPARED	17/12/2025	
DESIGNER	ROSE ATKINS RIMMER	
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FOR DETAILS OF SERVICES SEE SHEET 1		

④ DENOTES ESMT FOR PADMOUNT SUBSTATION 2.75 W.

0 10 20 30 40 50 METRES



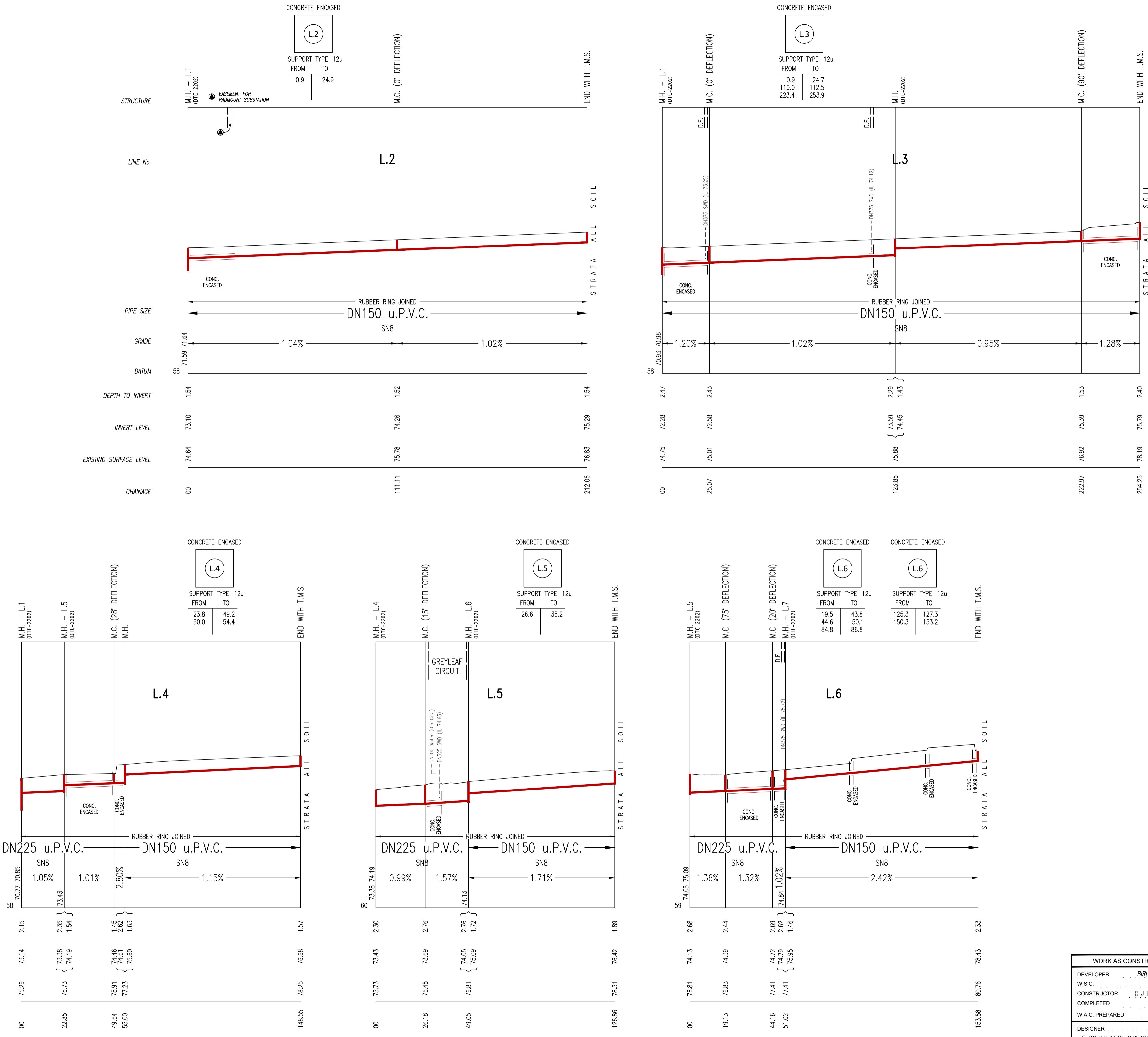
**DETAIL 'Z'
DN225 SEWER
STEEL ENCASING PIPE
MICROTUNNEL SECTION
(NOT TO SCALE)**

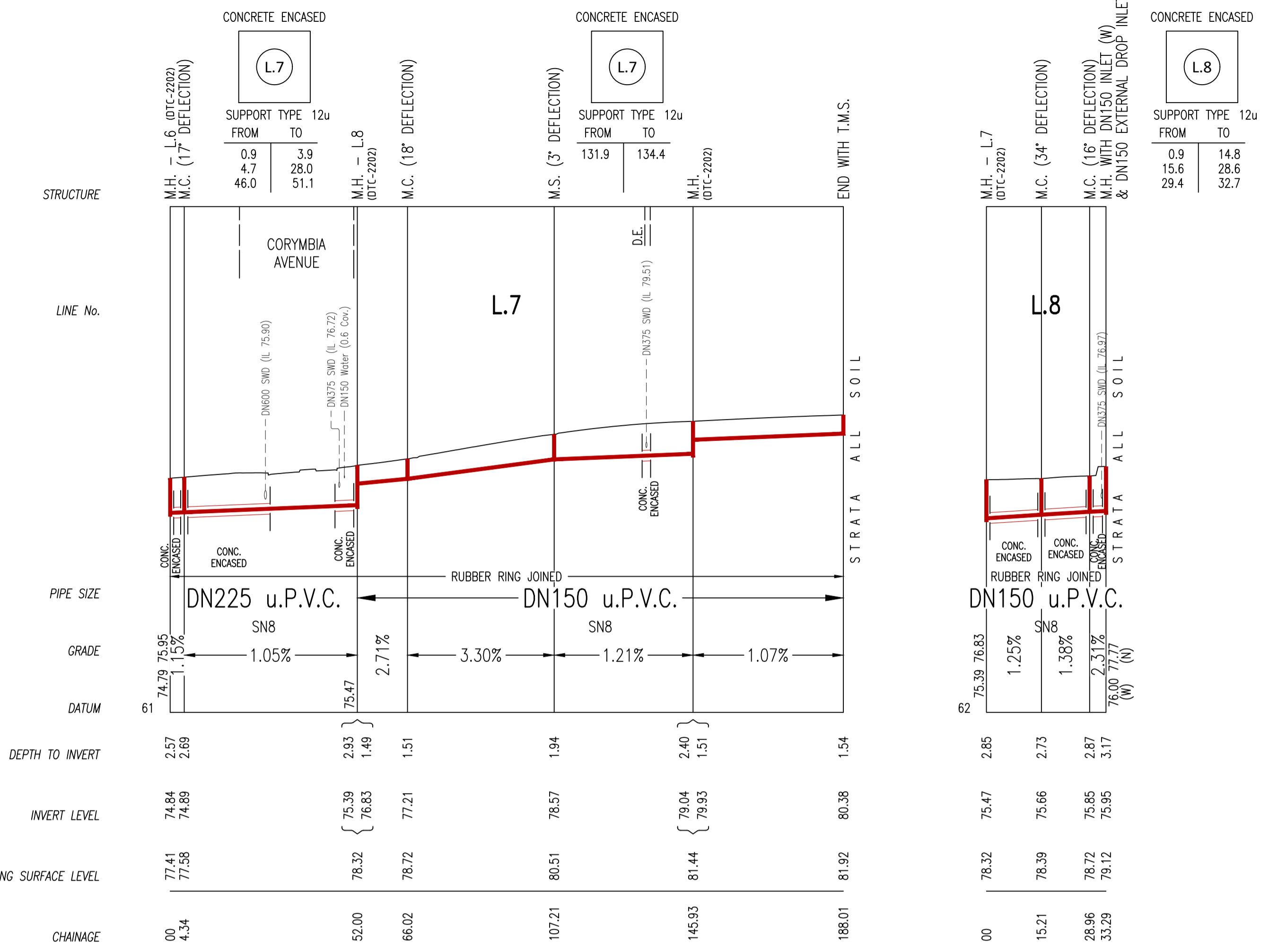


The diagram shows a cross-section of a DN225 u.P.V.C. sewer pipe. The pipe is shown in perspective, with its bore labeled 'DN225 u.P.V.C.'. The pipe is encased in a larger concrete pipe, which is depicted with a hatched pattern. Spacers are shown as small rectangular blocks placed at various points along the inner circumference of the concrete pipe. A line of text points to the annulus between the two pipes, stating: 'ANNULUS BETWEEN INSIDE FACE OF BORE AND OUTSIDE FACE OF ENCASING PIPE DID NOT EXCEED 25mm'. Another line of text points to the spacers, stating: 'SPACERS AT MAX. 1m SPACING TO KEEP SEWER PIPE IN POSITION'. A third line of text points to the grout-filled annulus, stating: 'GROUT FILLED ANNULUS WITH WSC LASERBOR GROUT OR APPROVED EQUIVALENT WITH SPECIFICATION OF:
- MIN. SLUMP 300mm
- COMPRESSIVE STRENGTH 2.5MPa'.

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sydney WATER	SYDNEY WATER CORPORATION
Case No. 210458ww	
SHT 5 OF 8 SHTS.	
SYDNEY WATER CORPORATION	
FOR DETAILS OF SERVICES SEE SHEET 1	



MAINTENANCE STRUCTURE SCHEDULE
(REFER NOTE 8)

LINE NO.	CHAINAGE	M.G.A. COORDINATE		STRUCTURE	DN RISER	CLASS OF COVER	MATERIAL	COMMENTS
		EASTING	NORTHING					
1	63.25	29098.64	6239868.48	M.H.1	1200	D	CAST IN-SITU	DTC-2200[G] (31/7/24)
1	99.08	291003.65	6239903.95	M.H.2	1200	D	CAST IN-SITU	M.H. WITH DN225 WATER SEALED INLET. REFER DTC-2245[A] (31/7/24)
1	141.25	290999.21	6239945.89	M.H.3	1200	D	CAST IN-SITU	DTC-2200[G] (31/7/24) WITH DN225 INLET
1	256.91	290986.35	6240060.83	M.H.4	1200	D	CAST IN-SITU	DTC-2200[G] (31/7/24) WITH DN225 INLET
1	279.01	290981.82	6240082.46	M.H.5	1200	D	CAST IN-SITU	DTC-2200[G] (31/7/24)
1	301.44	290959.39	6240083.11	M.H.6	1200	D	CAST IN-SITU	DTC-2200[G] (31/7/24)
1	354.10	290906.74	6240084.17	M.H.7	1200	D	CAST IN-SITU	M.H. TO DTC-2200[G] (31/7/24) WITH & DN225 INLET & EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
1	428.09 (L.4 Ch00)	-	-	M.H.	1200	D	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
1	436.24 (L.3 Ch00)	-	-	M.H.	1200	B	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
1	454.48 (L.2 Ch00)	-	-	M.H.	1200	B	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
1	461.13	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
1	503.70	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
1	515.04	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
1	526.43	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
1	625.83	-	-	M.H.	1200	D	CAST IN-SITU	DTC-2202[F] (31/7/24)
1	736.98	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
1	740.06	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
1	776.60	-	-	T.M.S.	300	B	PVC-U	MAINTENANCE CHAMBER
2	111.11	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
2	212.06	-	-	T.M.S.	300	B	PVC-U	-
3	25.07	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
3	123.85	-	-	M.H.	1200	D	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
3	222.97	-	-	M.C.	600	D	PE	MAINTENANCE CHAMBER
3	254.25	-	-	T.M.S.	300	B	PVC-U	-

MAINTENANCE STRUCTURE SCHEDULE
(REFER NOTE 8 & MAINTENANCE SHAFT NOTES BELOW)

LINE NO.	CHAINAGE	M.G.A. COORDINATE		STRUCTURE	DN RISER	CLASS OF COVER	MATERIAL	COMMENTS
		EASTING	NORTHING					
4	22.85 (L.5 Ch00)	-	-	M.H.	1200	D	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
4	49.64	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
4	55.00	-	-	M.H.	1050	B	CAST IN-SITU	M.H. TO DTC-2203[C] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
4	148.55	-	-	T.M.S.	300	B	PVC-U	-
5	26.18	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
5	49.05 (L.6 Ch00)	-	-	M.H.	1200	D	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
5	126.86	-	-	T.M.S.	300	B	PVC-U	-
6	19.13	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
6	44.16	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
6	51.02 (L.7 Ch00)	-	-	M.H.	1200	B	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
6	153.58	-	-	T.M.S.	300	B	PVC-U	-
7	4.34	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
7	52.00 (L.8 Ch00)	-	-	M.H.	1200	D	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
7	66.02	-	-	M.C.	600	D	PE	MAINTENANCE CHAMBER
7	107.21	-	-	M.S.	300	B	PVC-U	M.S. WITH NO CROSSFALL. REFER SEW-1315-V
7	145.93	-	-	M.H.	1200	D	CAST IN-SITU	M.H. TO DTC-2202[F] (31/7/24) WITH EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)
7	188.01	-	-	T.M.S.	300	B	PVC-U	-
8	15.21	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
8	28.96	-	-	M.C.	600	B	PE	MAINTENANCE CHAMBER
8	33.29	-	-	M.H.	1050	B	CAST IN-SITU	DTC-2203[C] (31/7/24) WITH DN150 INLET & EXTERNAL DROP INLET TO DTC-2221[D] (31/7/24)

MAINTENANCE SHAFT NOTES:

i) MAINTENANCE SHAFTS WITH 0° DEFLECTIONS IN ACCORDANCE WITH SEW-1314-V;
ii) MAINTENANCE SHAFTS WITH 1°-15° DEFLECTIONS IN ACCORDANCE WITH SEW-1315-V.

STAGE 1

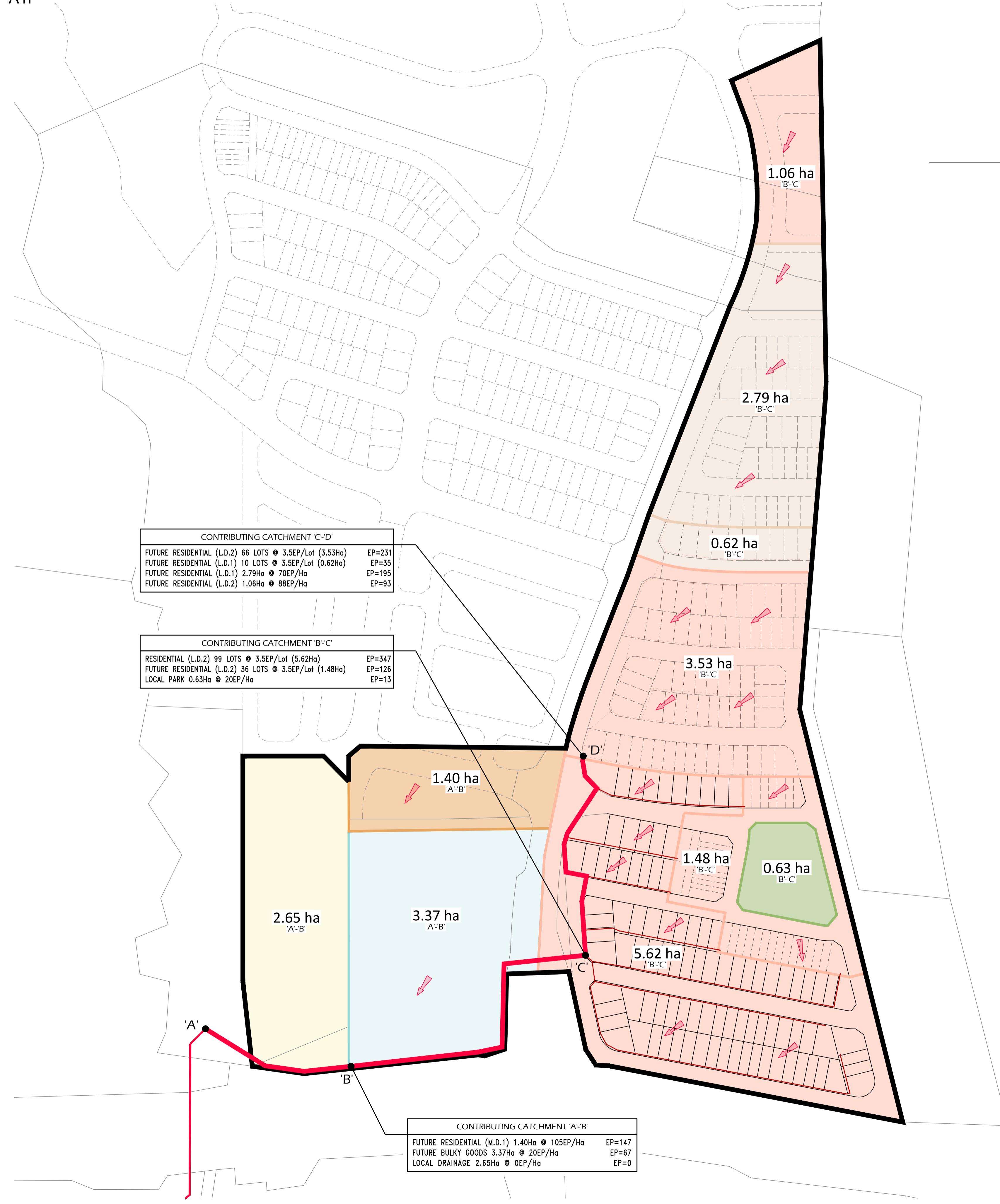
BIRLING

SYDNEY WATER CORPORATION



Case No. 210458ww SHT 7 OF 8 SHTS.

WORK AS CONSTRUCTED CERTIFICATION	
DEVELOPER	BIRLING ESTATE DEVELOPMENTS
W.S.C.	ROSE ATKINS RIMMER
CONTRACTOR	C.J. DOYLE CONTRACTING SERVICES
COMPLETED	24/10/2025
W.A.C. PREPARED	17/12/2025
DESIGNER	ROSE ATKINS RIMMER
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	
FOR DETAILS OF SERVICES SEE SHEET 1	



EXISTING DN675 G.R.P.	DN225 P.V.C. @ 0.70%	DN225 P.V.C. @ 0.76%	DN225 P.V.C. @ 0.99%
	Qf = 42.17 L/s DF = 19.15 L/s EP=1,254 < Max,2,419EP SELF CLEANSING OK	Qf = 43.94 L/s DF = 16.76 L/s EP=1,040 < Max,2,558EP SELF CLEANSING OK	Qf = 50.15 L/s DF = 10.82 L/s EP=554 < Max,3,006EP SELF CLEANSING OK
A	B	C	D

LEGEND

(AS PER LOWES CREEK MARYLAND PRECINCT
INDICATIVE LAND USE PLAN, DATED 19/7/2021)

- RESIDENTIAL ZONING - LOW DENSITY BAND 1 (10~20 Dw/Ha)
- RESIDENTIAL ZONING - LOW DENSITY BAND 2 (20~25 Dw/Ha)
- RESIDENTIAL ZONING - MEDIUM DENSITY BAND 1 (25~35 Dw/Ha)
- LOCAL PARK ZONING
- LOCAL DRAINAGE ZONING
- BULKY GOODS ZONING
- CATCHMENT BOUNDARY
- DESIGN FALL OF LAND
- PROPOSED SEWER EXTENSION
- EXISTING SEWER

STAGE 1
BIRLING

WORK AS CONSTRUCTED CERTIFICATION	Sydney WATER	
DEVELOPER	BIRLING ESTATE DEVELOPMENTS	
W.S.C.	ROSE ATKINS RIMMER	
CONTRACTOR	C. J. DOYLE CONTRACTING SERVICES	
COMPLETED	24/10/2025	
W.A.C. PREPARED	17/12/2025	
DESIGNER	ROSE ATKINS RIMMER	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS		

SYDNEY WATER CORPORATION
Case No. 210458ww SHT 8 OF 8 SHTS.

SYDNEY WATER CORPORATION
FOR DETAILS OF SERVICES SEE SHEET 1