

LOCALITY SKETCH  
N.T.S.

NOTES :

- WATER SERVICING COORDINATOR, SURVEY & DESIGNER:  
CALBRE PROFESSIONAL SERVICES (NSW) PTY LTD  
P.O. BOX 8300 Baulkham Hills BC NSW 2153  
PH: (02) 8808 5000  
  
FOR:  
NORTH RICHMOND JOINT VENTURE  
PO BOX 1918  
PENRITH NSW 2750  
PH: (02) 4760 1400
- THE WORKS AND MATERIAL WERE IN ACCORDANCE WITH THE SEWERAGE CODE OF AUSTRALIA (WSA 02-2002-2.2 SYDNEY WATER VERSION 4 2017).
- ALL LOTS WERE VACANT AT TIME OF SURVEY.
- ALL STRUCTURES CONSTRUCTED TO PROPOSED FINISHED SURFACE LEVELS. THE CONSTRUCTOR LIAISED WITH THE SITE SUPERINTENDENT TO VERIFY ALL FINAL LEVELS AT TIME OF CONSTRUCTION.
- PIPES CONCRETE ENCASED SHOWN ACCORDINGLY: ALL ENCASING SUPPORT TYPE 12U
- AREAS HATCHED THUS NOT DRAINED:
- DRAINAGE LIMITS ARE TO PROPOSED FINISHED SURFACE LEVELS.
- ALL ROAD CROSSINGS BACKFILLED WITH 14:1 CEMENT STABILISED SAND.
- CONCRETE BULKHEADS CONSTRUCTED AT REAR OF KERB FOR ALL ROAD CROSSINGS. REFER STD DWG SEW-1206 & SEW-1207-V.
- THE MINIMUM NUMBER OF FIELD COMPACTION TESTS REQUIRED TO SATISFY THE SEWERAGE CODE OF AUSTRALIA (CLAUSE 22.3.4.4) ARE:  
  
PIPE EMBEDMENT ZONE: - NIL TRENCH FILL ZONE - TRAFFICABLE: NIL (SEE NOTE 8)  
(SEE NOTE 15) TRENCH FILL ZONE - NON-TRAFFICABLE: 47  
M.H. & M.S. ZONE: 63  
(PLEASE REFER TO SITE SPECIFIC COMPACTION SPECIFICATION)
- ALL PROPERTY CONNECTION SEWERS CONSTRUCTED AS DETAILED IN DTC-2120.
- PRECAUTIONS ARE NECESSARY IN THE VICINITY OF SUB-STATION & OTHER ELECTRICAL EARTHING.
- CONSTRUCTOR PROVIDED WSC WITH CERTIFIED RED MARKED UP WAC DRAWINGS SHOWING ACCURATE DISTANCES OF PCS'S TO CENTRE OF DOWNSTREAM STRUCTURES, ACCURATE DISTANCE OF PCP ALONG PCS AND CHAINAGES OF CONCRETE ENCASED SECTIONS.
- LOCATION OF SEWER LINES MARKED BY A REGISTERED LAND SURVEYOR PRIOR TO CONSTRUCTION.
- EMBEDMENT COMPACTION TESTING SUBJECT TO CLAUSE 22.3.3.1 OF SEWERAGE CODE OF AUSTRALIA. SELF-COMPACTING METAL GRANULAR EMBEDMENT MAY BE USED.
- ALL PCS'S WERE DN100 UPVC AT MINIMUM 1.65% GRADE UNLESS INDICATED OTHERWISE.
- WHERE MAINTENANCE SHAFTS HAVE A DEFLECTION GREATER THAN 30 DEGREES, 'POO PIT' TYPE OR APPROVED EQUIVALENT WAS INSTALLED. THE DEFLECTION ANGLE (D.A.) FOR EACH MAINTENANCE SHAFT IS SHOWN ON THE MAINTENANCE STRUCTURE SCHEDULE TABLE ON SHEET 5.
- ALL DN1200 M.H.'S WERE CONSTRUCTED IN ACCORDANCE WITH DTC-2000, DTC-2202, DTC-2203, DTC-2220, DTC-2221, DTC-2222 & DTC-2223. REFER MAINTENANCE STRUCTURE SCHEDULE TABLE ON SHEET 5.
- ALL MAINTENANCE STRUCTURES LOCATED WITHIN THE ROAD RESERVE FITTED WITH CLASS 'D' TRAFFICABLE LID.

**SITE SPECIFIC COMPACTION SPECIFICATION**

**WITHIN FULL WIDTH OF ROAD CARRIAGEWAY PLUS 1.0M EITHER SIDE -**

- ALL SUBGRADE SHALL BE CARRIED UP IN HORIZONTAL LAYERS, OF NOT MORE THAN 300MM THICK LOOSE MEASUREMENT, IF REQUIRED, AND SHALL HAVE EACH LAYER COMPACTED TO A 100% STANDARD DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL SUB-BASE COURSE SHALL BE PLACED AND COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL BASE COURSE SHALL BE PLACED AND COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL ROAD CROSSINGS TO BE PROVIDED IN EXISTING ROADS, THE TRENCHES SHALL BE BACKFILLED AND COMPACTED WITH A SAND/CEMENT BLEND 20:1 M3 TO SUBGRADE LEVEL, THEN BEEBZO TO WITHIN 50MM OF THE ROAD SURFACE, OR IF REQUIRED TO A HIGHER SPECIFICATION BY A SPECIFIC UTILITY AUTHORITY, TO THAT SPECIFICATION AS INSTRUCTED BY THE PROJECT SUPERINTENDENT.
- ALL TESTS TO BE TAKEN EVERY 50 METRE LENGTH OF PAVEMENT, TAKEN 1.0M FROM ALTERNATE SIDES OF PAVEMENT, BY A NATA REGISTERED LABORATORY.
- THESE AND ALL OTHER REQUIREMENTS TO BE COMPLIED WITH, TO BE READ IN CONJUNCTION WITH HAWKESBURY CITY COUNCIL DCP PART II - CONSTRUCTION SPECIFICATION.
- ANY ERRORS, OMISSIONS OR QUERIES TO BE SUBMITTED TO THE PROJECT SUPERINTENDENT FOR INSTRUCTION.

**WITHIN FULL WIDTH OF ROAD FOOTPATH / VERGE EXCLUDING 1.0M BESIDE ROAD CARRIAGEWAY EITHER SIDE -**

- ALL FILL SHALL BE CARRIED OUT IN HORIZONTAL LAYERS, EXTENDING THE FULL WIDTH OF THE AREA BEING FILLED, OF NOT MORE THAN 300MM CONSOLIDATED THICKNESS. EACH LAYER SHALL BE COMPACTED TO AT LEAST 98% STANDARD DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'.
- ALL TESTS TO BE TAKEN EVERY 50 METRE LENGTH OF ROAD FOOTPATH / VERGE ON CENTRELINE, BY A NATA REGISTERED LABORATORY.
- ALL TRENCHES TO BE BACKFILLED TO HAVE THE SAME COMPACTION AS THE SURROUNDING ROAD FOOTPATH / VERGE.
- ALL TRENCH TESTS TO BE TAKEN IN EACH 300MM LAYER AND EVERY 50 METRES OF TRENCH, BY A NATA REGISTERED LABORATORY.
- THESE AND ALL OTHER REQUIREMENTS TO BE COMPLIED WITH, TO BE READ IN CONJUNCTION WITH HAWKESBURY CITY COUNCIL DCP PART II - CONSTRUCTION SPECIFICATION.
- ANY ERRORS, OMISSIONS OR QUERIES TO BE SUBMITTED TO THE PROJECT SUPERINTENDENT FOR INSTRUCTION.

**WITHIN LOTS -**

- ALL FILL SHALL BE CARRIED OUT IN HORIZONTAL LAYERS, EXTENDING THE FULL WIDTH OF THE AREA BEING FILLED, OF NOT MORE THAN 300MM CONSOLIDATED THICKNESS. EACH LAYER SHALL BE COMPACTED TO A DENSITY OF AT LEAST 98% STANDARD DRY DENSITY RATIO DETERMINED IN ACCORDANCE WITH AS 1289 5.4.1-2007 'COMPACTION CONTROL TEST - DRY DENSITY RATIO, MOISTURE VARIATION AND MOISTURE RATIO'. THE DEPTHS OF FILL AND THE COMPACTION THEREOF ARE TO BE VERIFIED BY THE SUBMISSION OF COMPACTION CERTIFICATES AND A PLAN SHOWING CONTOURED DEPTHS OF FILL IN RELATION TO LOT BOUNDARIES.
- ALL TESTS TO BE A MINIMUM OF TWO COMPACTION TESTS PER LOT PER LAYER ARE TO BE CARRIED OUT, BY A NATA REGISTERED LABORATORY.
- ALL TRENCHES TO BE BACKFILLED TO HAVE THE SAME COMPACTION AS THE SURROUNDING LOTS.
- ALL TRENCH TESTS TO BE TAKEN IN EACH 300MM LAYER AND EVERY 50 METRES OF TRENCH, BY A NATA REGISTERED LABORATORY.
- THESE AND ALL OTHER REQUIREMENTS TO BE COMPLIED WITH, TO BE READ IN CONJUNCTION WITH HAWKESBURY CITY COUNCIL DCP PART II - CONSTRUCTION SPECIFICATION.
- ANY ERRORS, OMISSIONS OR QUERIES TO BE SUBMITTED TO THE PROJECT SUPERINTENDENT FOR INSTRUCTION.

**SITE SPECIFIC CONSTRUCTION NOTE**

- IT IS ACKNOWLEDGED THAT THERE IS RECENTLY CONSTRUCTED / COMPLETED INFRASTRUCTURE THROUGHOUT THE AREA OF PROPOSED WORKS, WITH OWNERSHIP SPREAD ACROSS SYDNEY WATER, COUNCIL AND REDBANK COMMUNITIES. THE CONTRACTOR IS AT ALL TIMES, TO UNDERTAKE WHATEVER TASKS NECESSARY TO MINIMISE DISTURBANCE AND DAMAGE TO EXISTING ROAD, KERB & GUTTER, FOOTPATH AND VEGETATION ETC, WITH ALL REPAIR AND RECTIFICATION TO MATCH THAT WHICH EXISTED PRIOR TO THE WORKS BEING UNDERTAKEN. PHOTOS OF EXISTING CONDITION WILL BE SUPPLIED TO BOTH THE PRINCIPLE CIVIL CONTRACTOR, SYDNEY WATER ACCREDITED SUBCONTRACTOR AND SUPERINTENDENT, TO CONFIRM THE PRE-WORKS CONDITION.
- SYDNEY WATER ACCREDITED SUBCONTRACTOR AT ALL TIMES, IS TO CONSULT WITH THE PRINCIPLE CIVIL CONTRACTOR, TO ENSURE THAT THE DEVELOPER, REDBANK COMMUNITIES IS ADVISED AND APPROVES THE EXTENT OF REQUIRED DISTURBANCE PRE-WORKS, IS ADVISED AND APPROVES OF ANY CHANGES TO THIS EXTENT DURING THE WORKS, AND INSPECTS AND ACCEPTS THE COMPLETED WORKS PRIOR TO THE SYDNEY WATER ACCREDITED SUBCONTRACTOR LODGING THEIR PROJECT COMPLETION PACKAGE (PCP) WITH THE WATER SERVICE CO-ORDINATOR, WITH THIS ROLE UNDERTAKEN BY CALBRE PROFESSIONAL SERVICES. CALBRE PROFESSIONAL SERVICES ARE TO ONLY ACCEPT THE PCP FOR PROCESSING, PROVIDED THIS INSPECTION AND ACCEPTANCE BY REDBANK COMMUNITIES HAS BEEN RECEIVED IN WRITING WITH THE PCP.

**CONSTRUCTION NOTES**

THE PROPOSED WORKS AS DETAILED HERE ON WERE CONSTRUCTED IN ACCORDANCE WITH:

- THE SEWERAGE CODE OF AUSTRALIA - WSA 02-2002-2.2 SYDNEY WATER EDITION VERSION 4 2017;
- DEEMED TO COMPLY DRAWINGS DTC-2000 (ISS. C, 18/03/15), DTC-2120 (ISS. A, 18/03/15), DTC-2202 (ISS. E, 18/03/15), DTC-2221 (ISS. B, 01/03/15), DTC-2222 (ISS. C, 18/03/15) & DTC-2223 (ISS. B, 18/03/15);
- SITE SPECIFIC COMPACTION SPECIFICATION AND SITE SPECIFIC CONSTRUCTION NOTE.

THE CONSTRUCTOR HAD A COPY OF THESE DOCUMENTS ON SITE AT ALL TIMES.

03	WORK AS CONSTRUCTED	T.W.	14/04/20
02	ISSUE FOR SYDNEY WATER APPROVAL	T.W.	23/09/19
01	ISSUE FOR CLIENT REVIEW	T.W.	29/04/19
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, ENDEAVOUR ENERGY Ph. 131 003  
GAS JEMENA GAS Ph. 1300 880 908  
TELECOMMUNICATIONS: TELSTRA Ph. 1800 114 918  
SYDNEY WATER Ph. 132 092  
GIVING AT LEAST 48 HOURS NOTICE.

UTILITIES		DATE		REF.	
TYPE	DATE	REF.	TYPE	DATE	REF.
WATER: DN100 Water	12/09/19	CALBRE			
PROP. WATER: DN100 Water	17/09/19	CALBRE			
STORMWATER: SMD	03/08/18	JWP			
PROP. STORMWATER: SMD	01/02/19	JWP			
TELECOM: TEL	14/03/19	NBN			
PROP. TELECOM: TEL	02/05/19	NBN			
ELECTRICAL: E	07/02/19	ENDEAVOUR			
PROP. ELECTRICAL: E	26/08/19	ENDEAVOUR			

**WORK AS CONSTRUCTED CERTIFICATION**

DEVELOPER	NORTH RICHMOND JOINT VENTURE
WATER SERVICE CO-ORDINATOR	CALBRE PROFESSIONAL SERVICES (NSW) PTY LTD
CONSTRUCTOR	JONSHAN PTY LTD
COMPLETED	22/01/2020
DESIGNER	CALBRE PROFESSIONAL SERVICES (NSW) PTY LTD
W.A.C. PREPARED	14/04/2020

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
150	U.P.V.C.	SN8	268.45	RUBBER RINGS

NO BOUNDARY TRAPS REQUIRED.

**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 . . . . . MAP 63 G12 (41st EDITION)

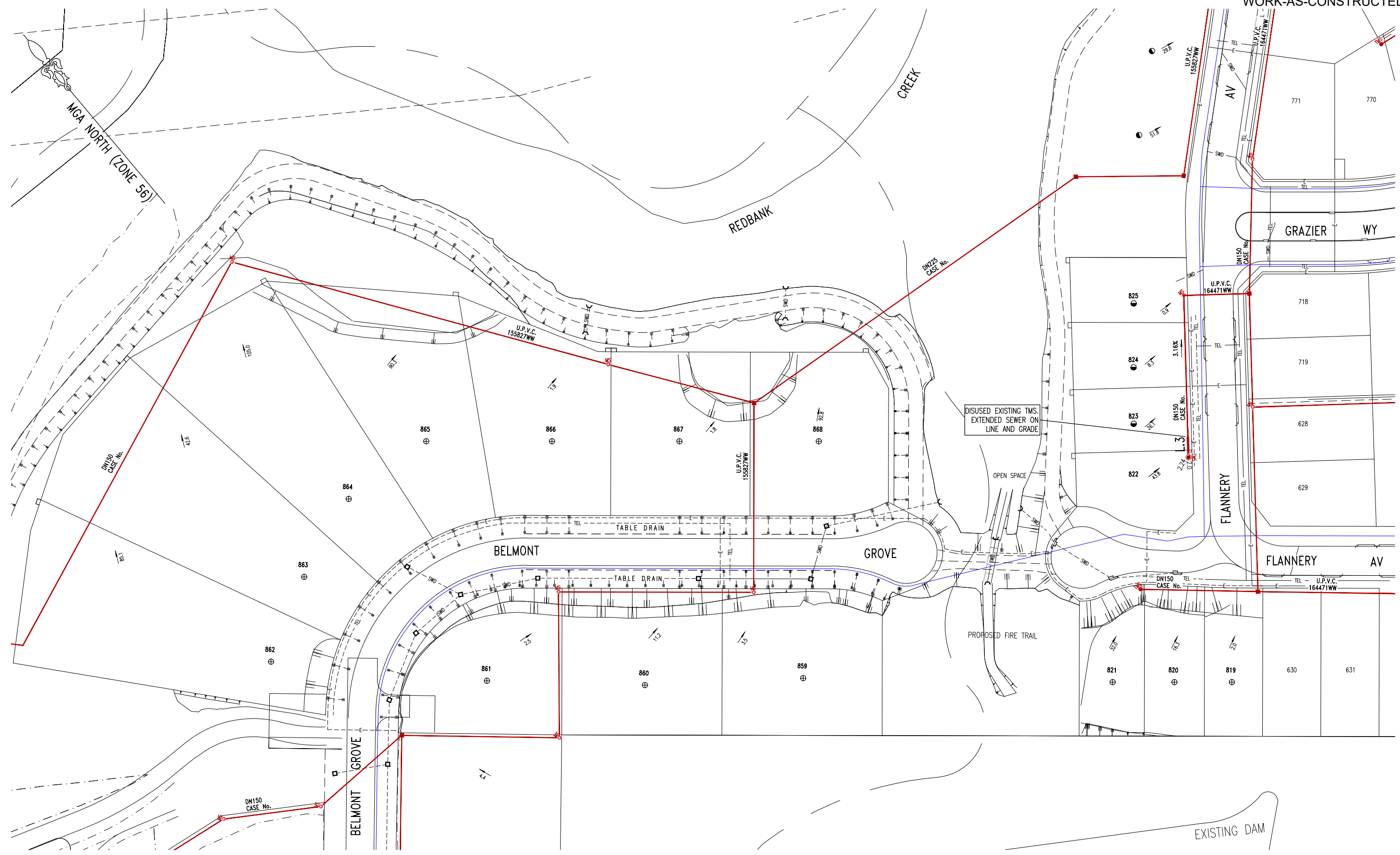
SHEET . 1 . OF . 5 . File No. N/A

REDBANK PLOUGHMANS

SYDNEY WATER CORPORATION

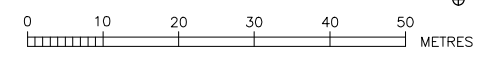
Case No. 177968WW

HAWKESBURY SEWERAGE DRAINS TO DRAINS NORTH RICHMOND S.T.W

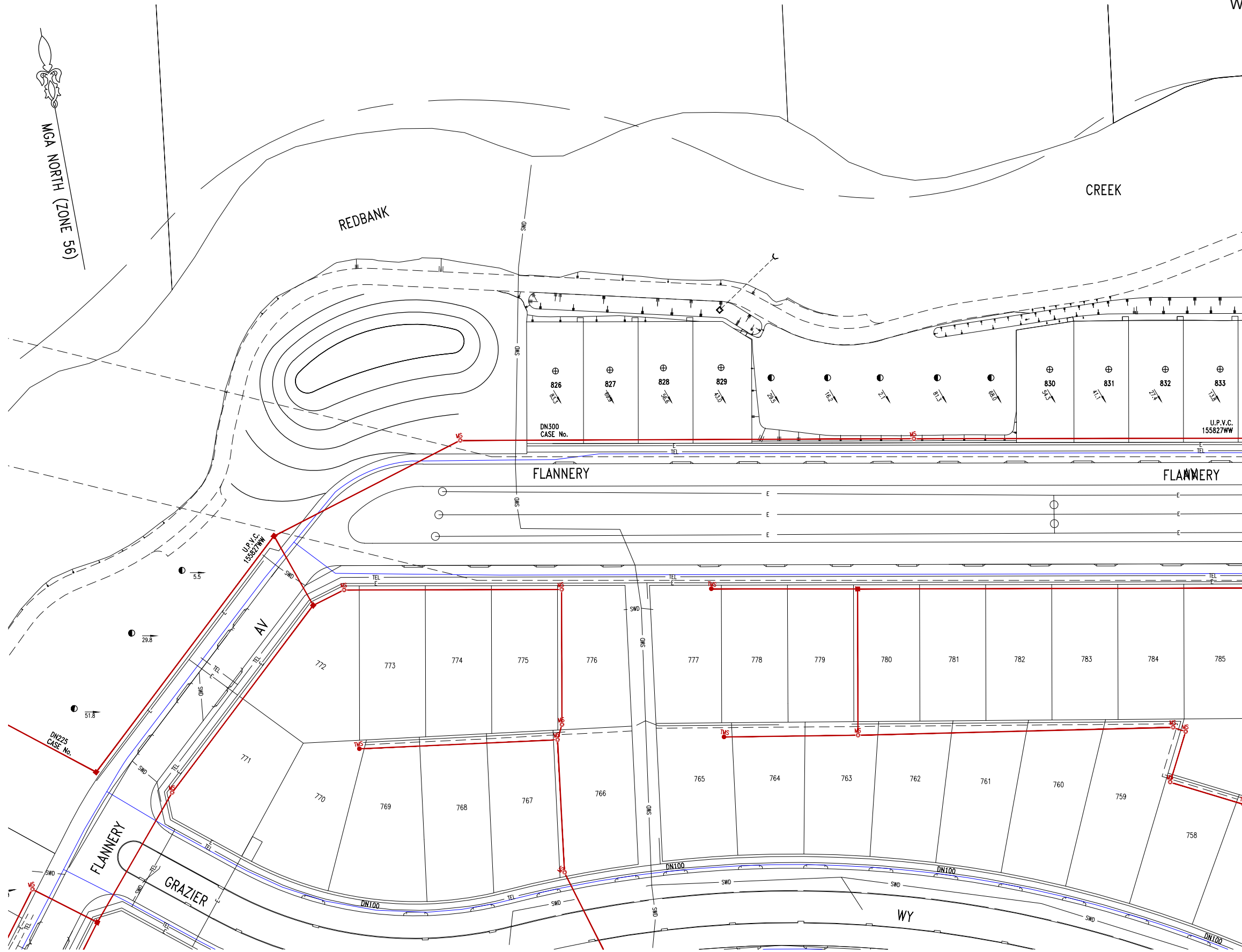


- - EXISTING PCS DISUSED.
- - EXISTING PCS DISUSED, INSTALLED NEW PCS ON EXISTING MAIN TO SUIT UPDATED LOT LAYOUT.
- ⊕ - PCS PROVIDED ON EXISTING SEWER.

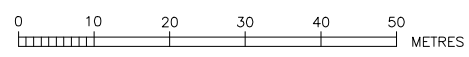
PLEASE NOTE SITE SPECIFIC  
COMPACTION SPECIFICATION AND  
CONSTRUCTION NOTE - SHEET 1



WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	NORTH RICHMOND JOINT VENTURE		Case No. 177968WW   SHT 2 OF 5 SHTS.
W.S.C.	CAIBRE PROFESSIONAL SERVICES PTY LTD.		
CONSTRUCTOR	JONSHAN PTY LTD.	DESIGNER . CAIBRE PROFESSIONAL SERVICES PTY LTD.	
COMPLETED	22/01/2020	I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	
W.A.C. PREPARED	14/04/2020	FOR DETAILS OF SERVICES SEE SHEET 1	



- - EXISTING PCS DISUSED.
- ⊕ - PCS PROVIDED ON EXISTING SEWER.



PLEASE NOTE SITE SPECIFIC  
COMPACTION SPECIFICATION AND  
CONSTRUCTION NOTE - SHEET 1

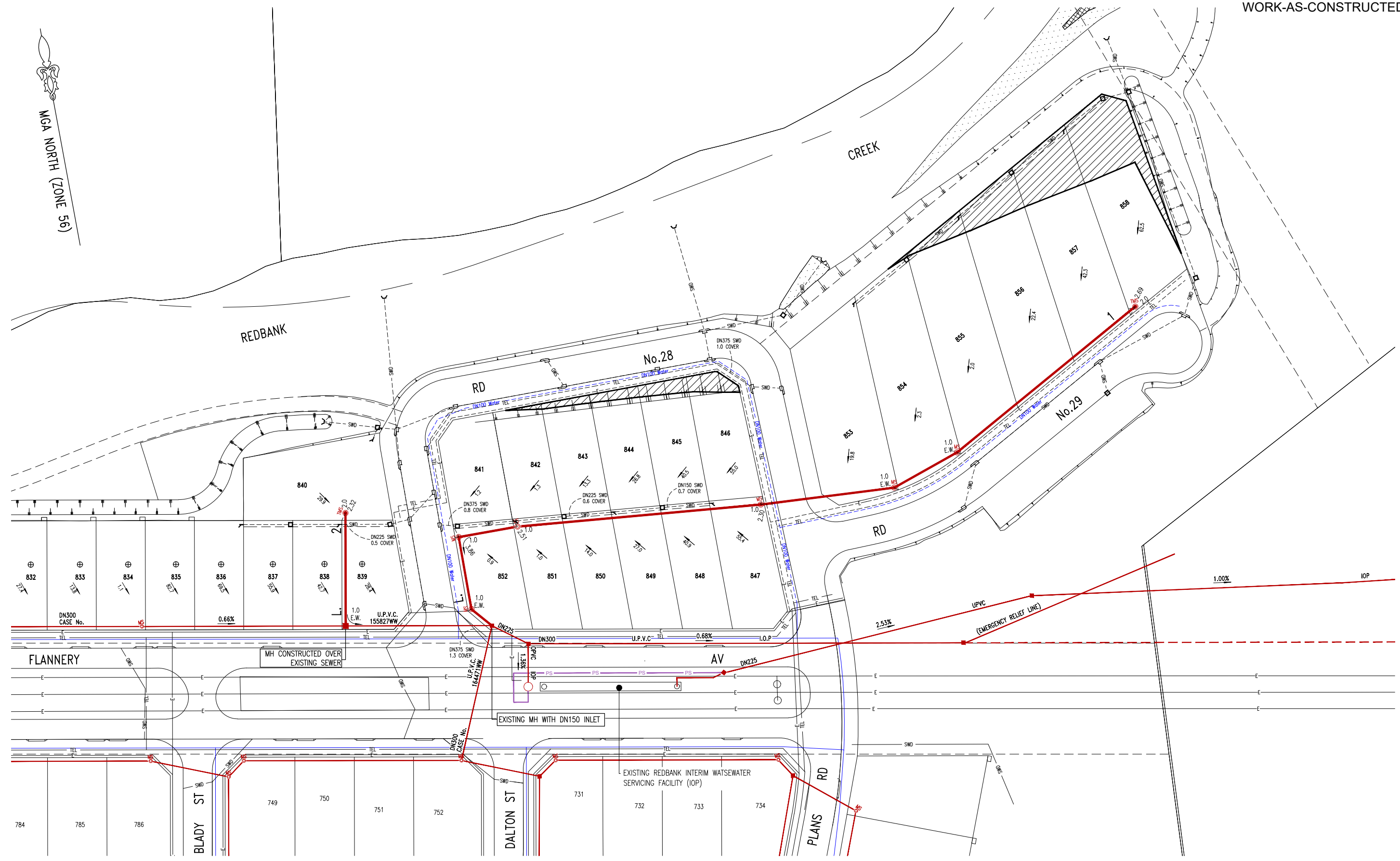
REDBANK  
PLOUGHMANS

WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	NORTH RICHMOND JOINT VENTURE		Case No. 177968WW   SHT 3 OF 5 SHTS.
W.S.C.	CALBRE PROFESSIONAL SERVICES PTY LTD		
CONSTRUCTOR	JONSHAN PTY LTD	DESIGNER . CALBRE PROFESSIONAL SERVICES PTY LTD.	
COMPLETED	22/01/2020	I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	
W.A.C. PREPARED	14/04/2020	FOR DETAILS OF SERVICES SEE SHEET 1	

PLAN DRAWN DATE: 14/04/2020 VERSION: 03 SHEET 3 OF 5 SHEETS

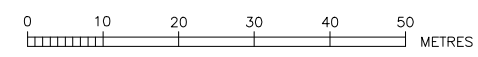


MCA NORTH (ZONE 56)



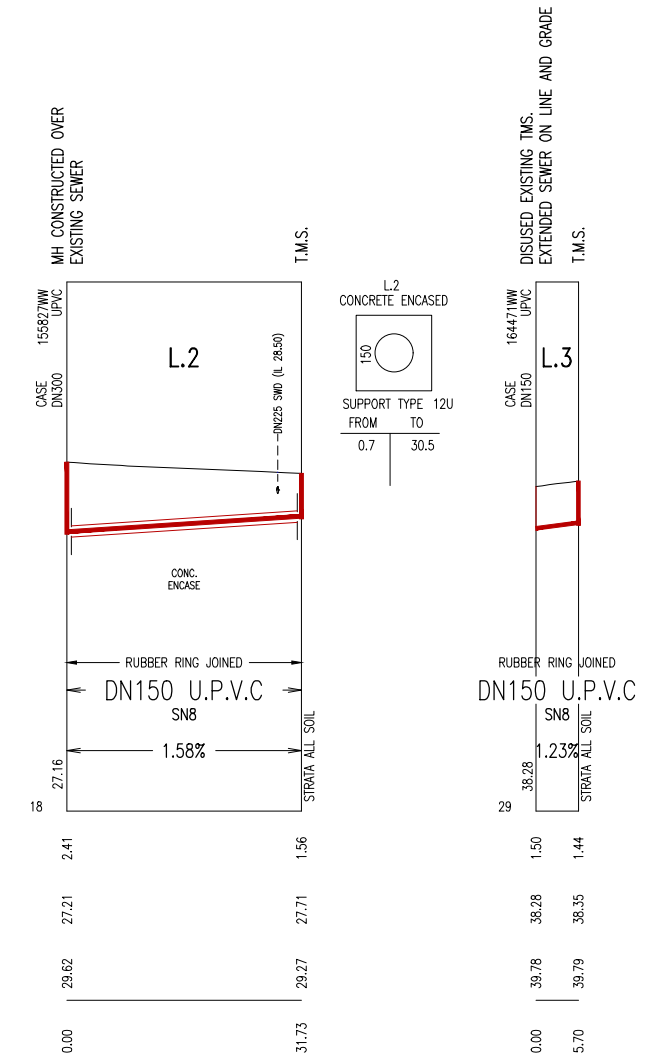
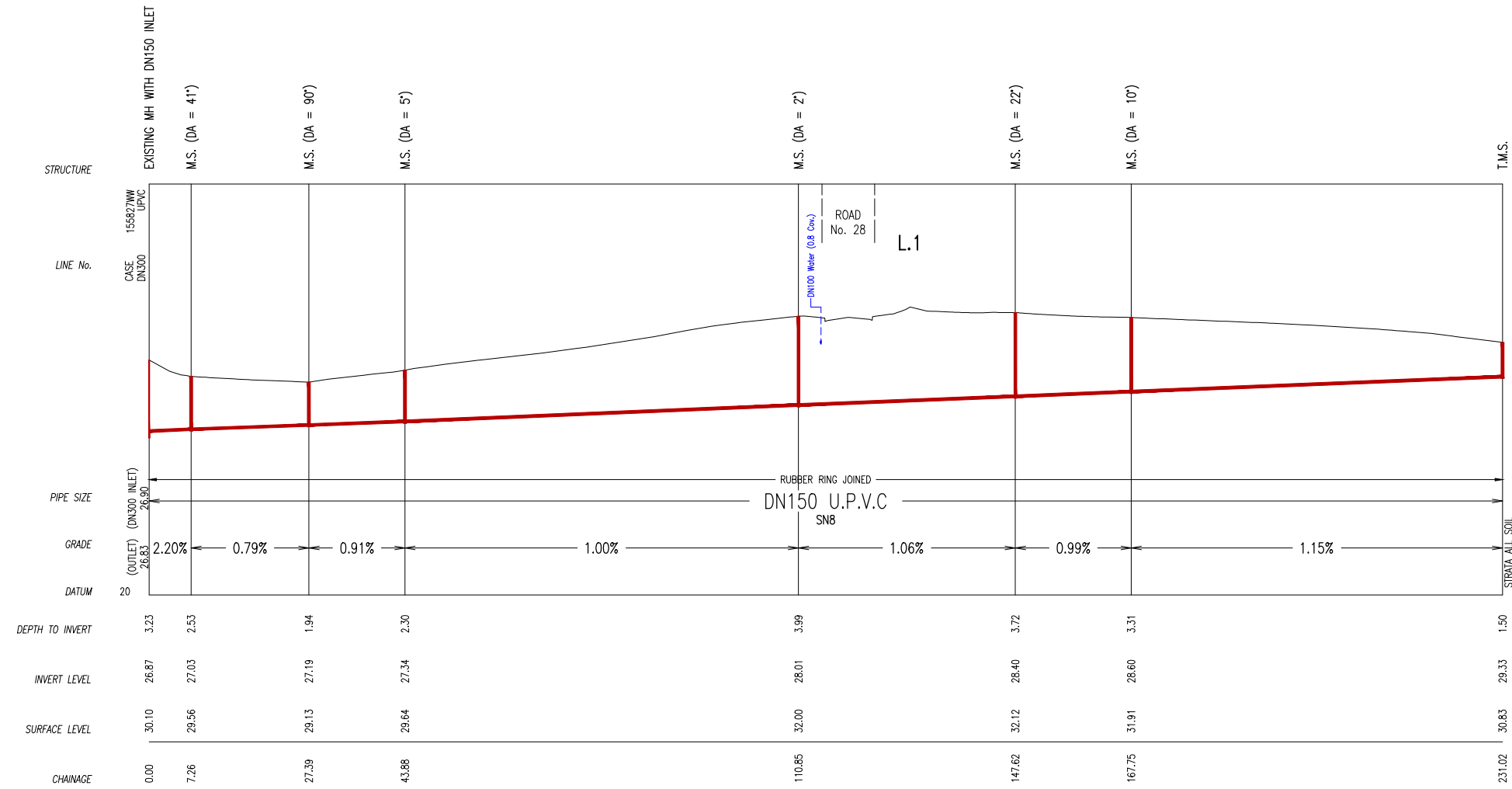
⊕ - PCS PROVIDED ON EXISTING SEWER.

PLEASE NOTE SITE SPECIFIC  
COMPACTION SPECIFICATION AND  
CONSTRUCTION NOTE - SHEET 1



WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	NORTH RICHMOND JOINT VENTURE	<b>Sydney WATER</b>	Case No. 177968WW   SHT 4 OF 5 SHTS.
W.S.C.	CALIBRE PROFESSIONAL SERVICES PTY LTD		
CONSTRUCTOR	JONSHAN PTY LTD	FOR DETAILS OF SERVICES SEE SHEET 1	
COMPLETED	22/01/2020		
W.A.C. PREPARED	14/04/2020	SYDNEY WATER CORPORATION	
DESIGNER	CALIBRE PROFESSIONAL SERVICES PTY LTD	FOR DETAILS OF SERVICES SEE SHEET 1	
I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS			

PLAN DRAWN DATE: 14/04/2020 VERSION: 03 SHEET 4 OF 5 SHEETS



MAINTENANCE STRUCTURE SCHEDULE							
LINE NO.	CHAINAGE	TYPE	DN RISER	COVER CLASS	MATERIAL (PVC, CAST IN-SITU, ETC)	MS DEFLECTION ANGLE	COMMENTS (BRAND, DTC, OTHER INFO)
1	0.00	EXISTING MH	1.200	N/A	N/A	N/A	N/A
1	7.26	MS	0.225	B	UPVC	41	'POO PIT' TYPE OR EQUIV.
1	27.39	MS	0.225	B	UPVC	90	'POO PIT' TYPE OR EQUIV.
1	43.88	MS	0.225	B	UPVC	5	'AMYROO' TYPE OR EQUIV.
1	110.85	MS	0.225	B	UPVC	2	'AMYROO' TYPE OR EQUIV.
1	147.62	MS	0.225	B	UPVC	22	'AMYROO' TYPE OR EQUIV.
1	167.75	MS	0.225	B	UPVC	10	'AMYROO' TYPE OR EQUIV.
1	231.02	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
2	0.00	MH	1.200	B	CAST IN-SITU	N/A	DTC-2202
2	31.73	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.
3	0.00	MS	0.225	B	UPVC	0	'AMYROO' TYPE OR EQUIV.
3	5.70	TMS	0.225	B	UPVC	N/A	'AMYROO' TYPE OR EQUIV.

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WORK AS CONSTRUCTED CERTIFICATION		SYDNEY WATER CORPORATION	
DEVELOPER	NORTH RICHMOND JOINT VENTURE		
W.S.C.	CAIBRE PROFESSIONAL SERVICES PTY LTD		
CONSTRUCTOR	JONSHAN PTY LTD	Case No. 177968WW	SHT 5 OF 5 SHTS.
COMPLETED	22/01/2020	SYDNEY WATER CORPORATION I CERTIFY THAT THE WORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE WORK AS CONSTRUCTED DRAWINGS	
W.A.C. PREPARED	14/04/2020		
DESIGNER	CAIBRE PROFESSIONAL SERVICES PTY LTD.	FOR DETAILS OF SERVICES SEE SHEET 1	