



NOTES:

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b. AURECON SURVEY DATA DATED:
22 JULY 2024 – 24 AUGUST 2024
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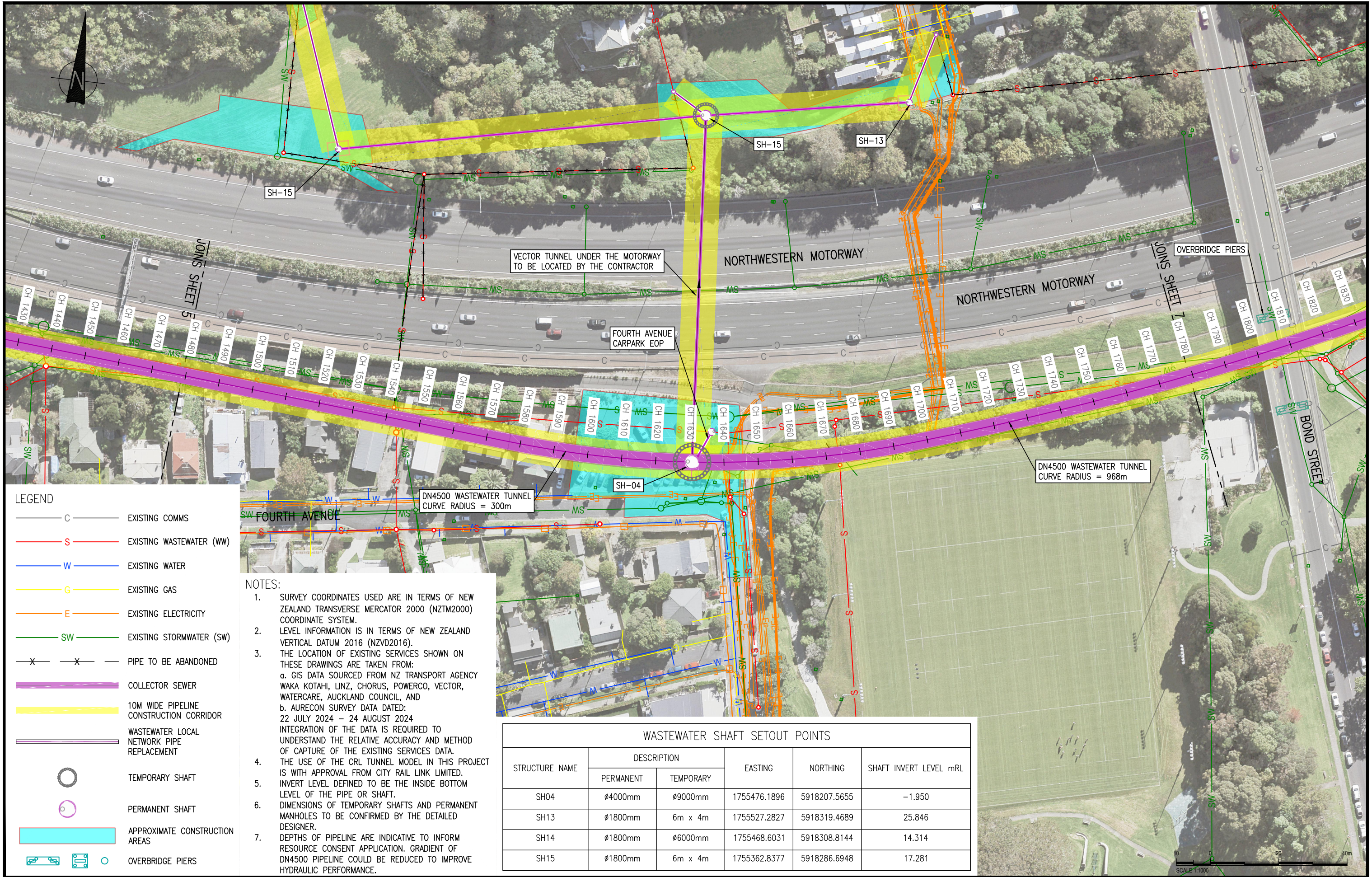
WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH05	ø3500mm	ø3500mm	1755194.1135	5918226.5743	-3.365
Pr. WWMH 23	ø1050mm	TBC BY CONTRACTOR	1755009.7179	5918168.2911	16.150
Pr. WWMH 24	ø1050mm	ø6000mm	1755194.3213	5918159.8748	15.200

				DESIGNED					
				DES. APPROVED					
				DRAWN	J.FERNANDEZ	07-25			
3	25.07.25	ISSUE FOR INFORMATION	JF	MC	DWG. APPROVED				
2	28.05.25	ISSUE FOR INFORMATION	JF	MC	WSL DESIGN MGMT.	J.STOKES	07-25		
1	16.05.25	ISSUE FOR INFORMATION	JF	MC	WSL PROJ. LEAD	J.STOKES	07-25		
ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE			

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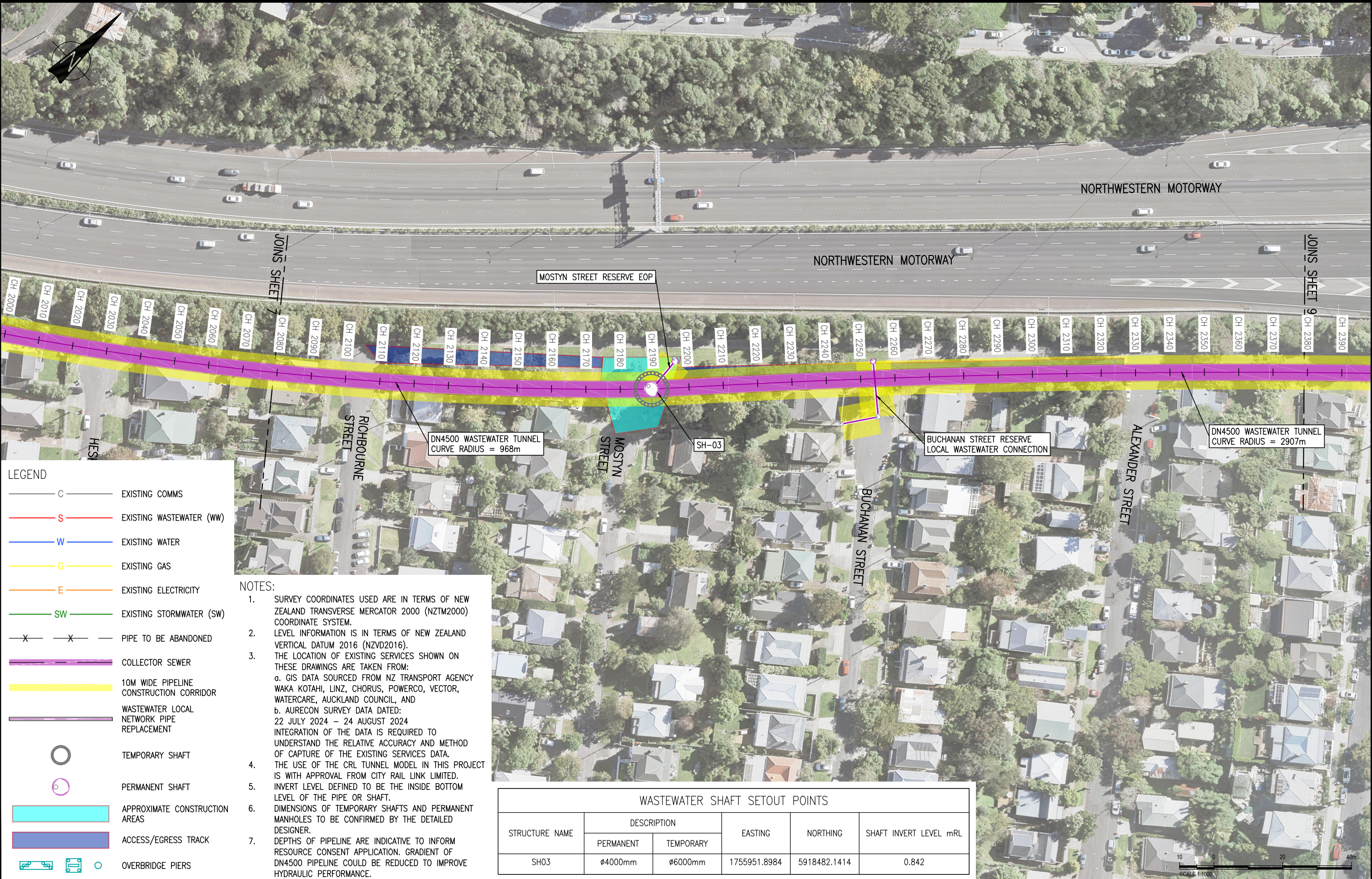
MOTIONS COLLECTOR SEWER
CIVIL
PLAN (DN4500 TBM OPTION) – SHEET 5

CAD FILE	2014581.206	DATE	25-07-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	-
REF No.	-		
DWG No.	2014581.206	ISSUE	3





					DESIGNED			 Watercare COPYRIGHT - This drawing, the design concept, remain the exclusive property of Watercare Services Limited and may not be used without approval. Copyright reserved.	MOTIONS COLLECTOR SEWER CIVIL PLAN (DN4500 TBM OPTION) – SHEET 7	CAD FILE 2014581.208	DATE 16-05-2025
					DES. APPROVED					ORIGINAL SCALE A3 1:1000	CONTRACT No. —
					DRAWN	J.FERNANDEZ	05-25			REF No. —	
					DWG. APPROVED					DWG No. 2014581.208	ISSUE 1
					WSL DESIGN MGMT.	J.STOKES	05-25				
1	16.05.25	ISSUE FOR INFORMATION	JF	MC	WSL PROJ. LEAD	J.STOKES	05-25				
ISSUE	DATE	AMENDMENT	BY	APPD.		BY	DATE				



LEGEND

C

EXISTING COMMS

S

EXISTING WASTEWATER (WW)

W

EXISTING WATER

G

EXISTING GAS

E

EXISTING ELECTRICITY

SW

EXISTING STORMWATER (SW)

X

PIPE TO BE ABANDONED

COLLECTOR SEWER

10M WIDE PIPELINE CONSTRUCTION CORRIDOR

WASTEWATER LOCAL NETWORK PIPE REPLACEMENT

TEMPORARY SHAFT

PERMANENT SHAFT

APPROXIMATE CONSTRUCTION AREAS

ACCESS/EGRESS TRACK

OVERBRIDGE PIERS

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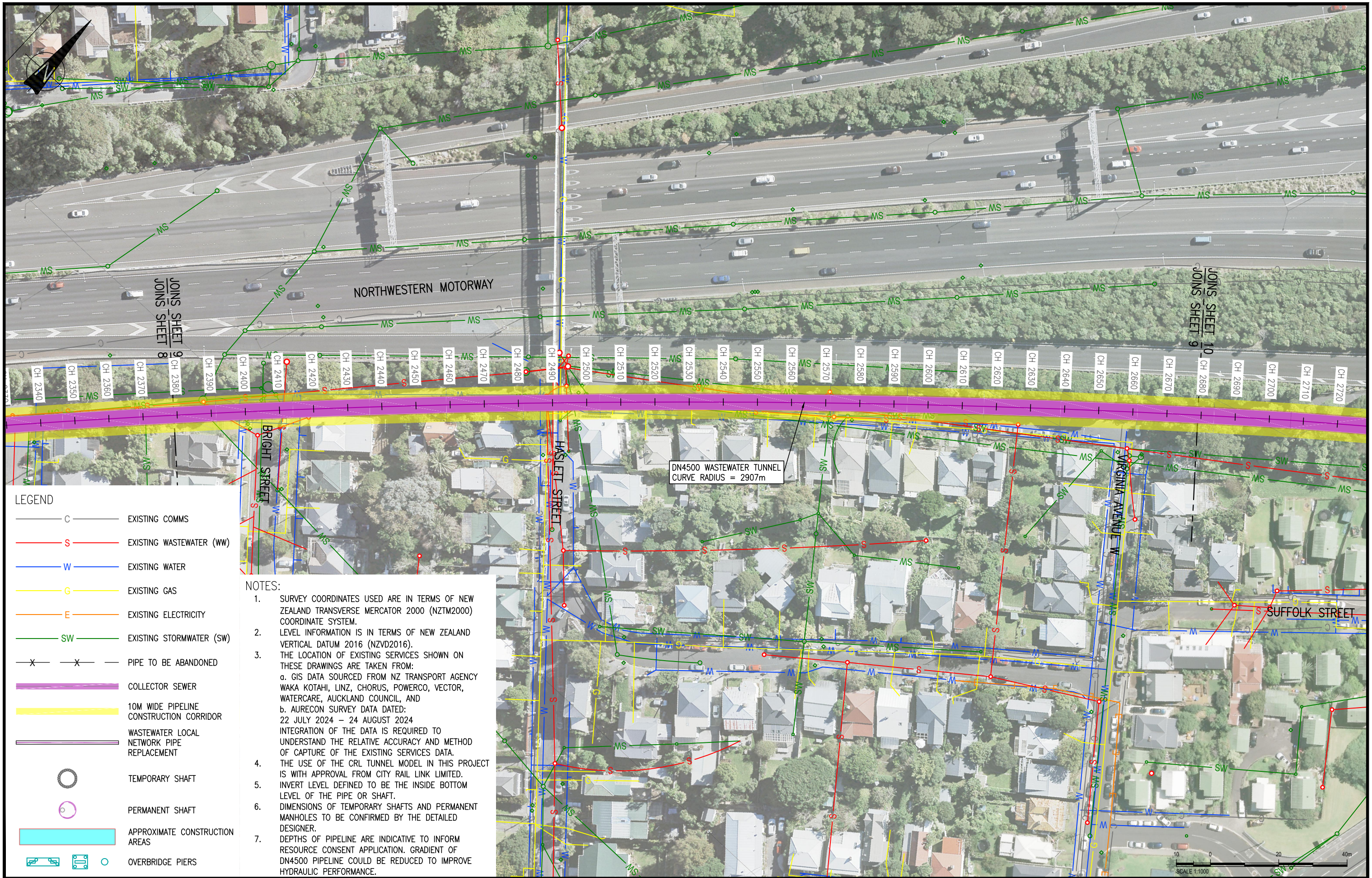
WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH03	ø4000mm	ø6000mm	1755951.8984	5918482.1414	0.842

						DESIGNED		
						DES. APPROVED		
						DRAWN	J.FERNANDEZ	05-25
						DWG. APPROVED		
						WSL DESIGN MGMT.	J.STOKES	05-25
						WSL PROJ. LEAD	J.STOKES	05-25
1	16.05.25	ISSUE FOR INFORMATION	JF	MC				
ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE		

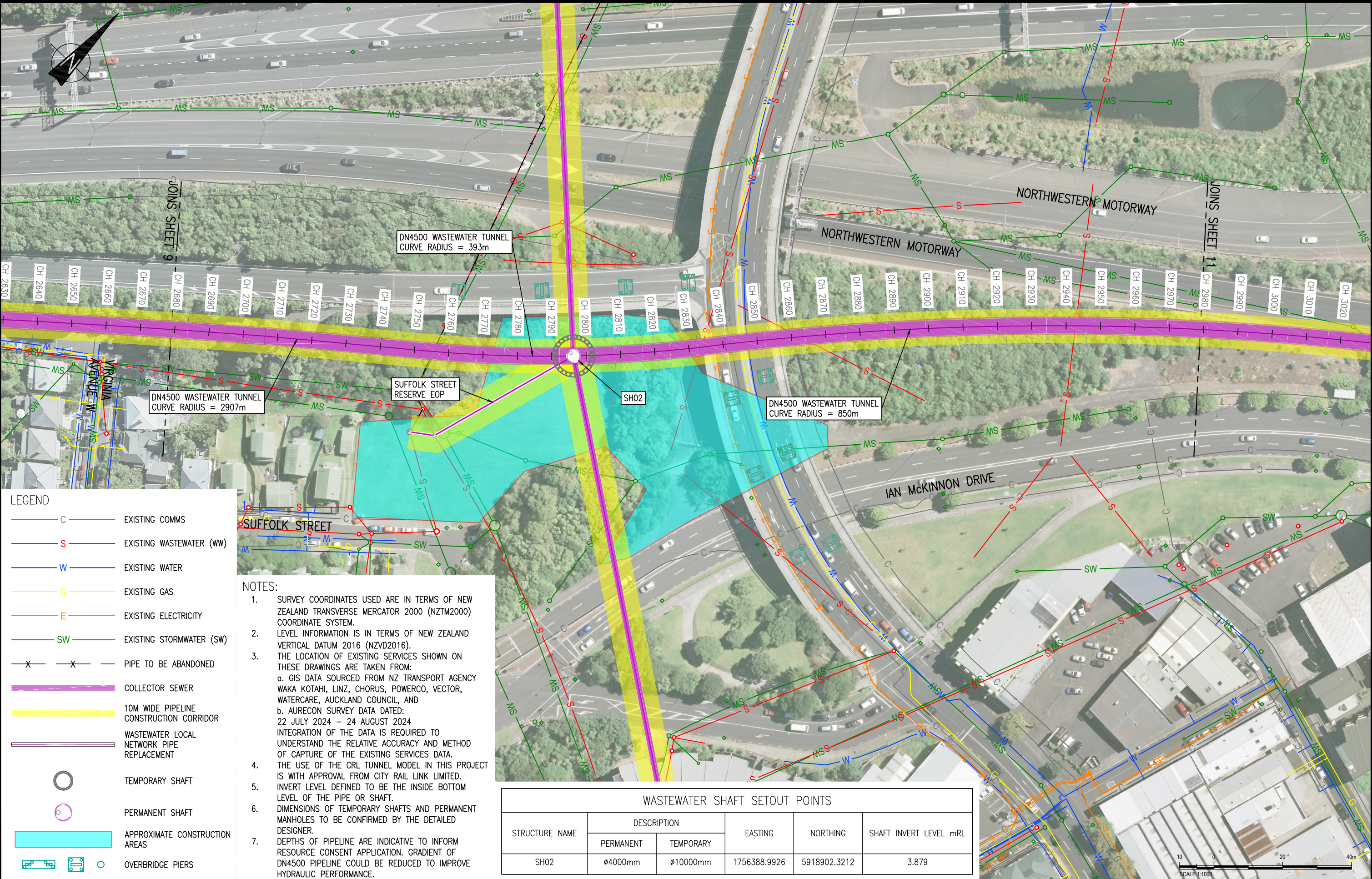
MOTIONS COLLECTOR SEWER
CIVIL
PLAN (DN4500 TBM OPTION) – SHEET 8

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CAD FILE	2014581.209	DATE	16-05-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	—
REF No.	—		
DWG No.	2014581.209	ISSUE	1



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LEGEND

C

EXISTING COMMS

S

EXISTING WASTEWATER (WW)

W

EXISTING WATER

G

EXISTING GAS

E

EXISTING ELECTRICITY

SW

EXISTING STORMWATER (SW)

X

PIPE TO BE ABANDONED

COLLECTOR SEWER

10M WIDE PIPELINE CONSTRUCTION CORRIDOR

WASTEWATER LOCAL NETWORK PIPE REPLACEMENT

TEMPORARY SHAFT

PERMANENT SHAFT

APPROXIMATE CONSTRUCTION AREAS

OVERBRIDGE PIERS

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WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH02	ø4000mm	ø10000mm	1756388.9926	5918902.3212	3.879

				DESIGNED		
				DES. APPROVED		
				DRAWN	J.FERNANDEZ	05-25
				DWG. APPROVED		
				WSL DESIGN MGMT.	J.STOKES	05-25
				WSL PROJ. LEAD	J.STOKES	05-25
1	16.05.25	ISSUE FOR INFORMATION	JF	MC		
ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE

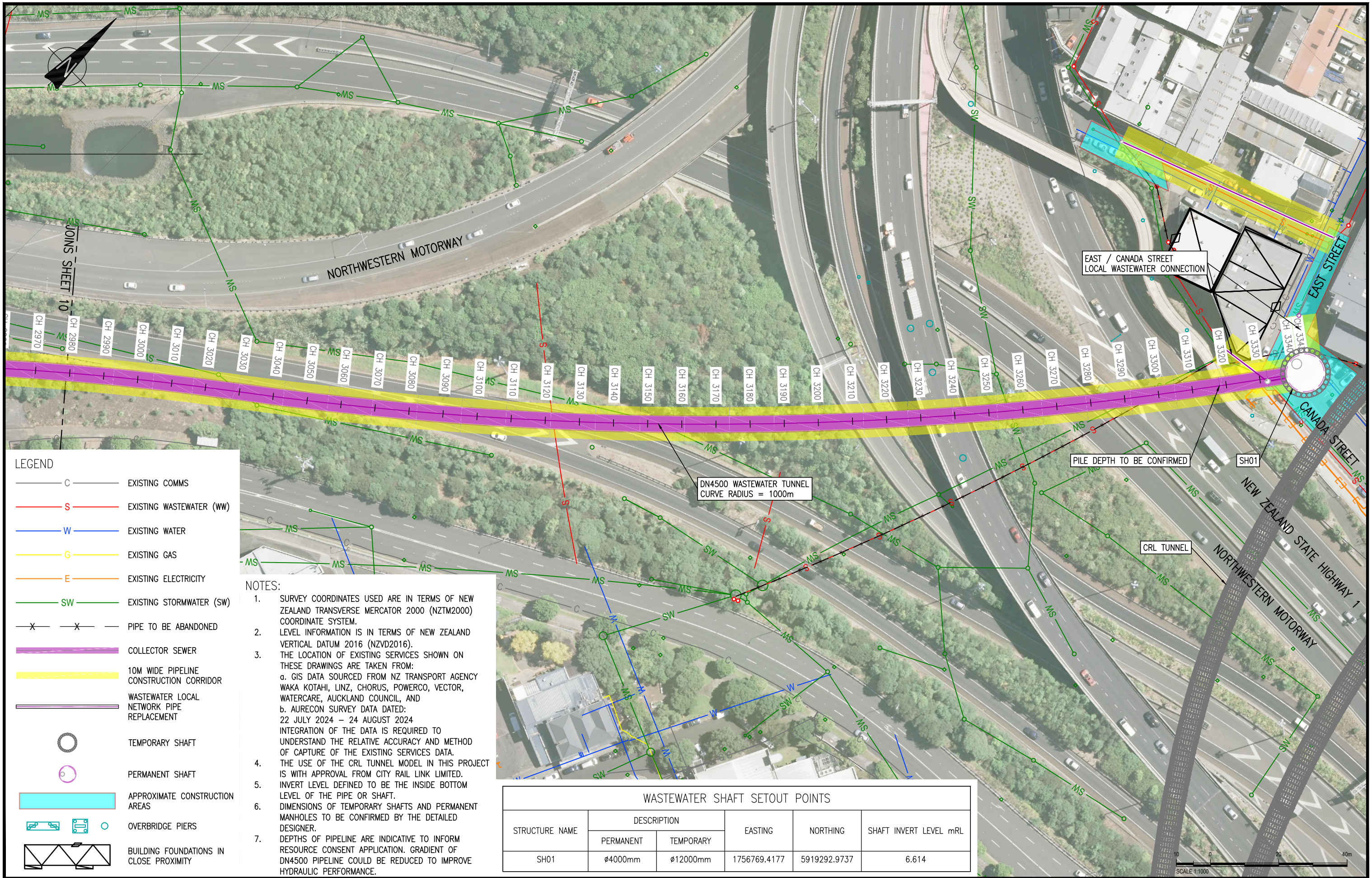
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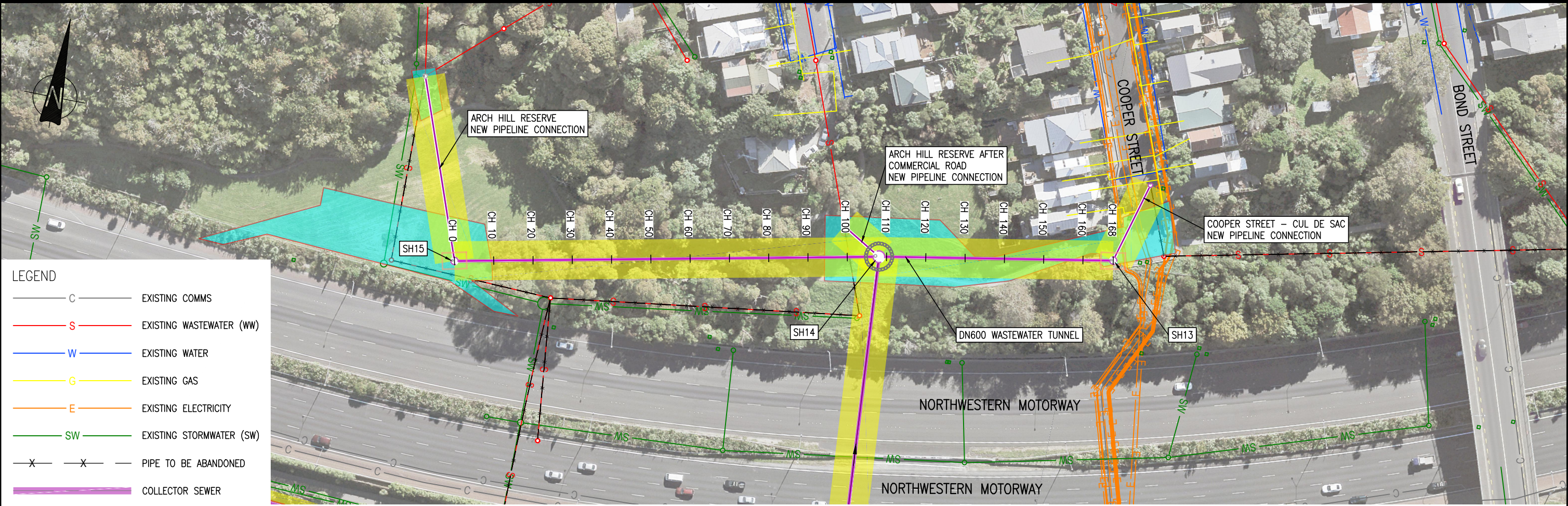
MOTIONS COLLECTOR SEWER

CIVIL

PLAN (DN4500 TBM OPTION) – SHEET 10

CAD FILE	2014581.211	DATE	16-05-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	—
REF No.	—		
DWG No.	2014581.211	ISSUE	1





LEGEND

C

EXISTING COMMS

S

EXISTING WASTEWATER (WW)

W

EXISTING WATER

G

EXISTING GAS

E

EXISTING ELECTRICITY

SW

EXISTING STORMWATER (SW)

X

PIPE TO BE ABANDONED

COLLECTOR SEWER

10M WIDE PIPELINE CONSTRUCTION CORRIDOR

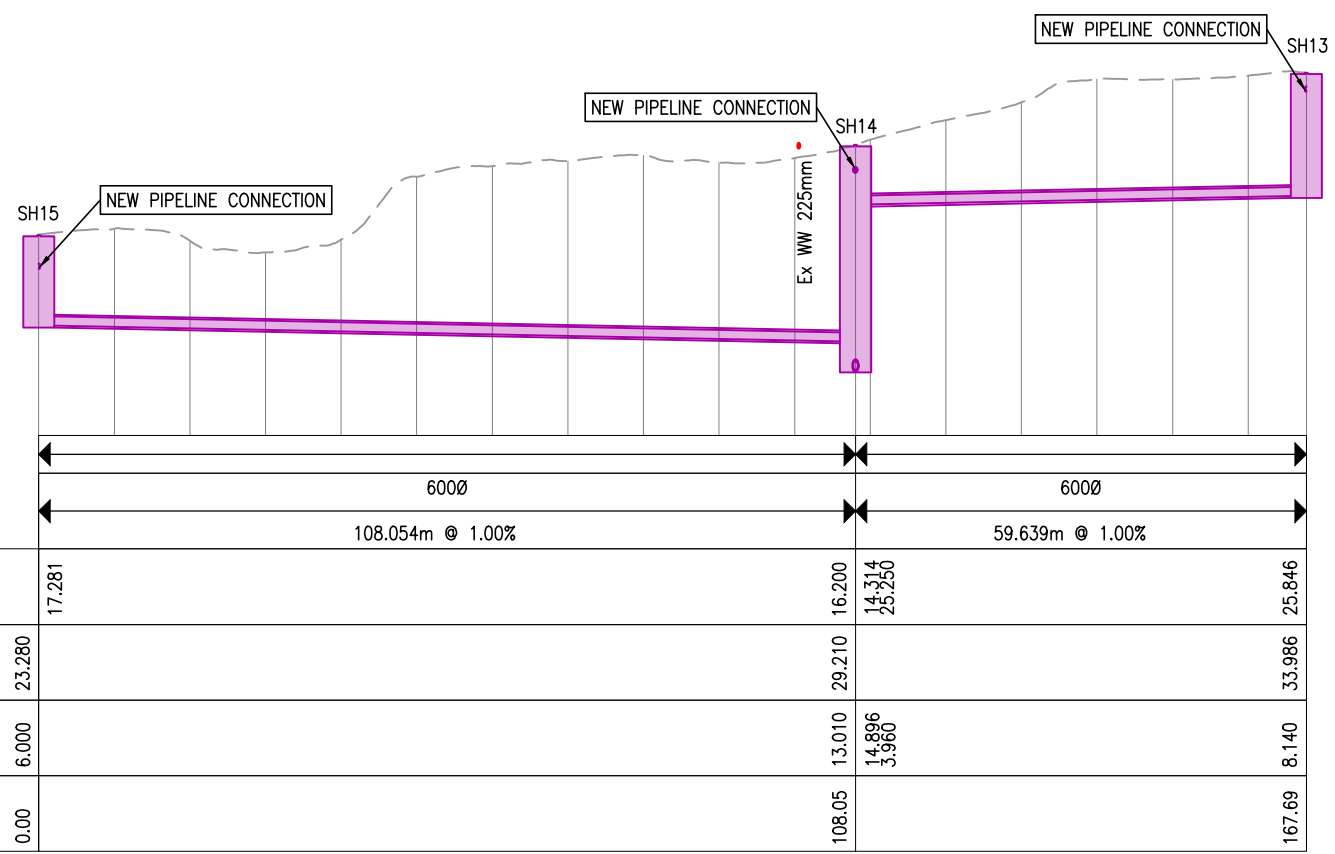
WASTEWATER LOCAL NETWORK PIPE REPLACEMENT

TEMPORARY SHAFT

PERMANENT SHAFT

APPROXIMATE CONSTRUCTION AREAS

OVERBRIDGE PIERS



WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH13	ø1800mm	6m x 4m	1755527.2827	5918319.4689	25.846
SH14	ø3000mm	ø6000mm	1755468.6031	5918308.8144	14.314
SH15	ø1800mm	6m x 4m	1755362.8377	5918286.6948	17.281

- NOTES:
1.

SURVEY COORDINATES USED ARE IN TERMS OF NEW ZEALAND TRANSVERSE MERCATOR 2000 (NZTM2000) COORDINATE SYSTEM.
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LEVEL INFORMATION IS IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016 (NZVD2016).
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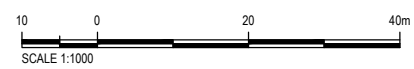
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6.

DIMENSIONS OF TEMPORARY SHAFTS AND PERMANENT MANHOLES TO BE CONFIRMED BY THE DETAILED DESIGNER.

DATUM 10.00
PIPE HOR RADI
PIPE DATA

		1000mm @ 1.00%		5000mm @ 1.00%	
INVERT LEVEL ⁵		17.281		16.200	14.314
					25.250
EXISTING SURFACE LEVEL	23.280			29.210	
					33.986
DEPTH TO INVERT	6.000			13.010	14.896
					3.960
CHAINAGE	0.00			108.05	
					167.69

LONG SECTION (SH15 – SH14 – SH13)
SCALES: HORIZONTAL 1:1000 VERTICAL 1:500



					DESIGNED				
					DES. APPROVED				
					DRAWN	J.FERNANDEZ	05-25		
					DWG. APPROVED				
					WSL DESIGN MGMT.	J.STOKES	05-25		
					WSL PROJ. LEAD	J.STOKES	05-25		
1	16.05.25	ISSUE FOR INFORMATION	JF	MC					
ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE			

MOTIONS COLLECTOR SEWER

CIVIL

BRANCH PLAN AND LONG SECTION – SHEET 1

CAD FILE	2014581.213	DATE	16-05-2025
ORIGINAL SCALE	A3	CONTRACT No.	—
	1:1000		
REF No.	—		
DWG No.	2014581.213	ISSUE	1