



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

- NOTES:
1.

SURVEY COORDINATES USED ARE IN TERMS OF NEW ZEALAND TRANSVERSE MERCATOR 2000 (NZTM2000) COORDINATE SYSTEM.
2.

LEVEL INFORMATION IS IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016 (NZVD2016).
3.

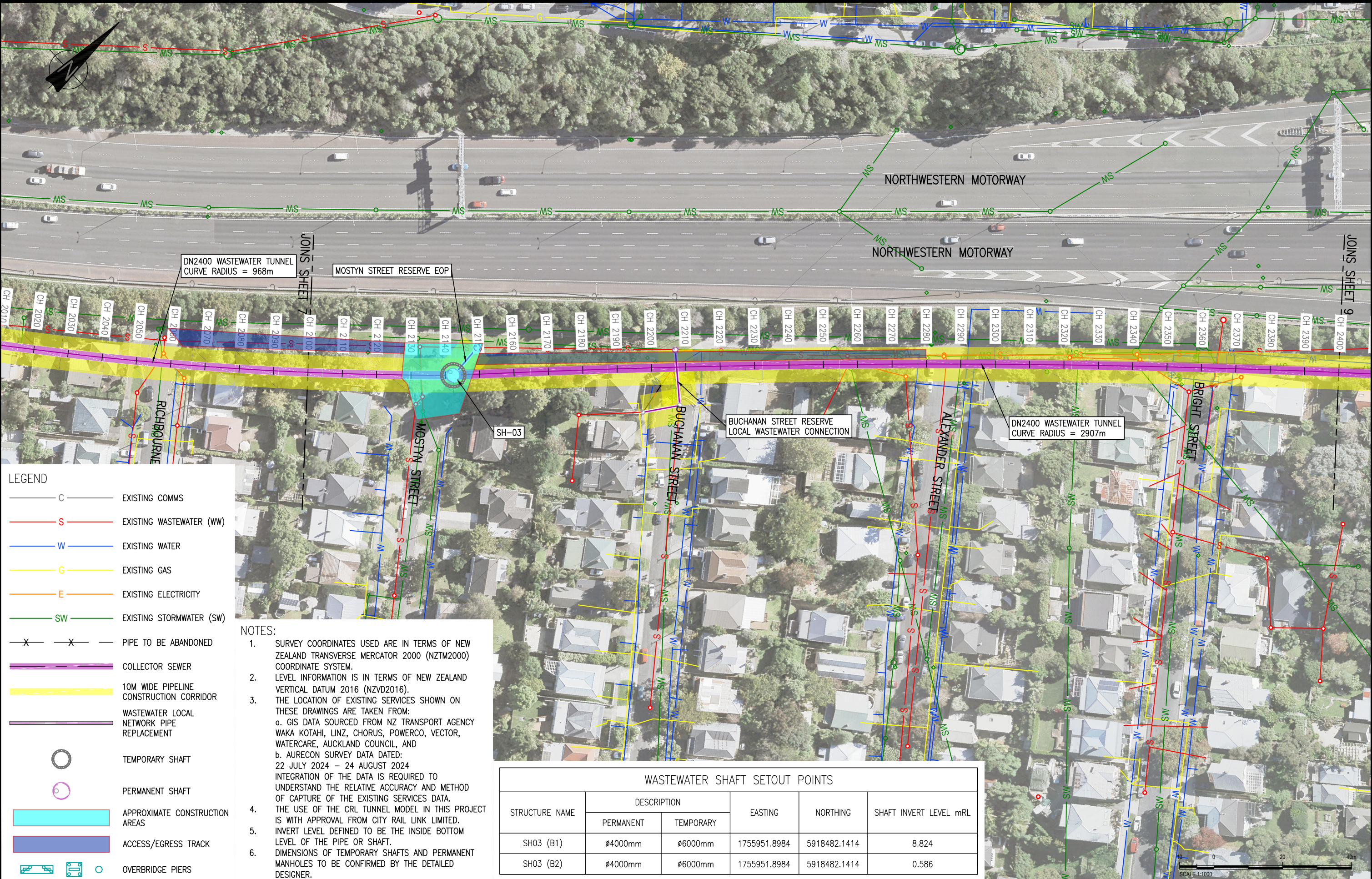
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INVERT LEVEL DEFINED TO BE THE INSIDE BOTTOM LEVEL OF THE PIPE OR SHAFT.
6.

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

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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

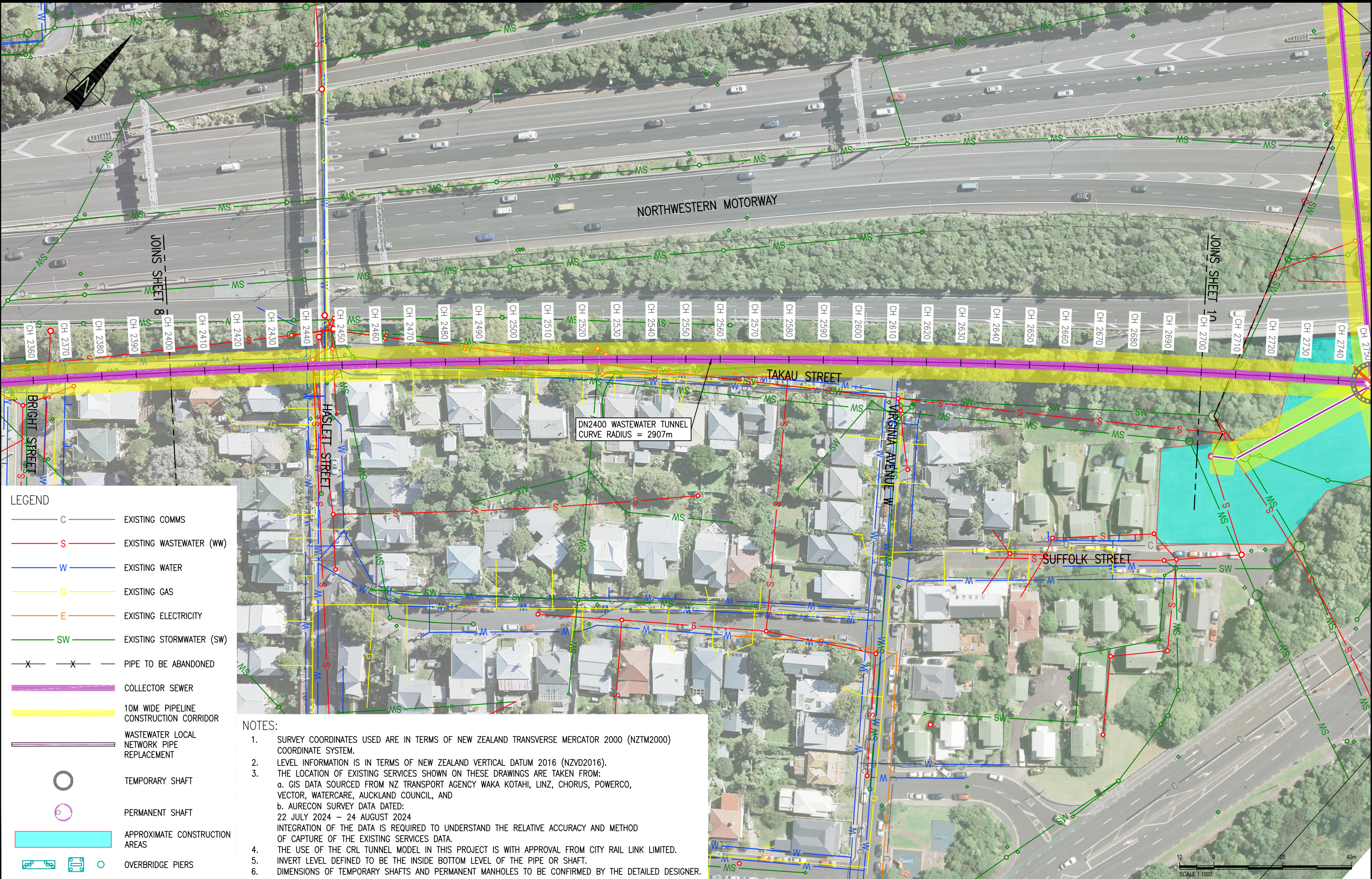
APPROXIMATE CONSTRUCTION AREAS

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 (B1)	ø4000mm	ø6000mm	1755951.8984	5918482.1414	8.824
SH03 (B2)	ø4000mm	ø6000mm	1755951.8984	5918482.1414	0.586



LEGEND

- C — EXISTING COMMS
- S — EXISTING WASTEWATER (WW)
- W — EXISTING WATER
- G — EXISTING GAS
- E — EXISTING ELECTRICITY
- SW — EXISTING STORMWATER (SW)
- X — 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

NOTES:

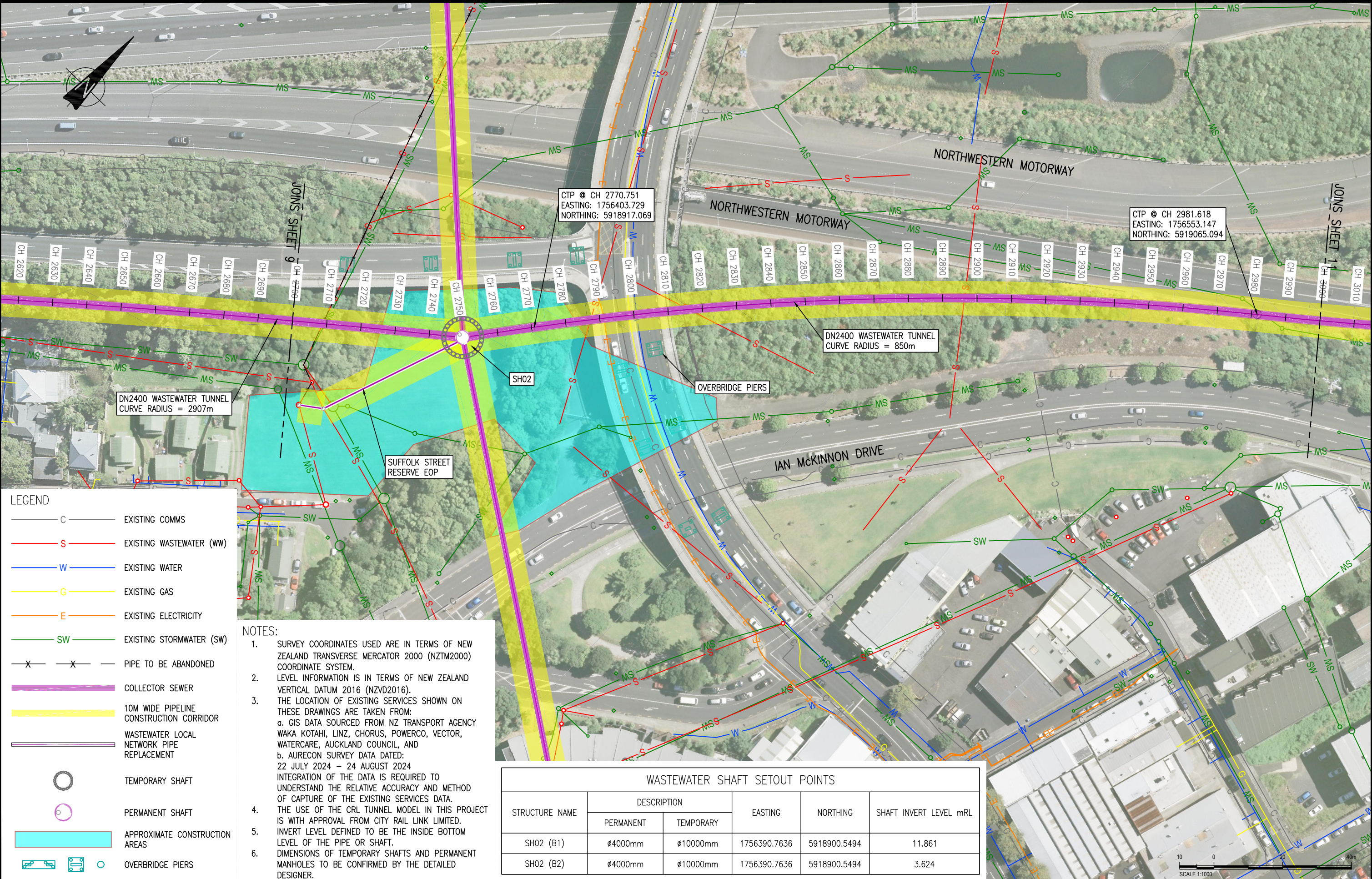
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					DESIGNED	R.GHORBANNEJAD	05-25
					DES. APPROVED	M.COBDLICK	05-25
					DRAWN	C.LACAMBRA	05-25
					DWG. APPROVED	M.COBDLICK	05-25
					WSL DESIGN MGMT.	J.STOKES	05-25
					WSL PROJ. LEAD	J.STOKES	05-25
1	22.04.25	ISSUE FOR INFORMATION	JF	MC			
ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE	



MOTIONS COLLECTOR SEWER
CIVIL
PLAN AND LONG SECTION (DN2400 PIPE JACKING) – SHEET 14

CAD FILE	2014581.116	DATE	22-04-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	—
REF No.	—		
DWG No.	2014581.116	ISSUE	1



LEGEND

C

EXISTING COMMS

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EXISTING WASTEWATER (WW)

W

EXISTING WATER

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PERMANENT SHAFT

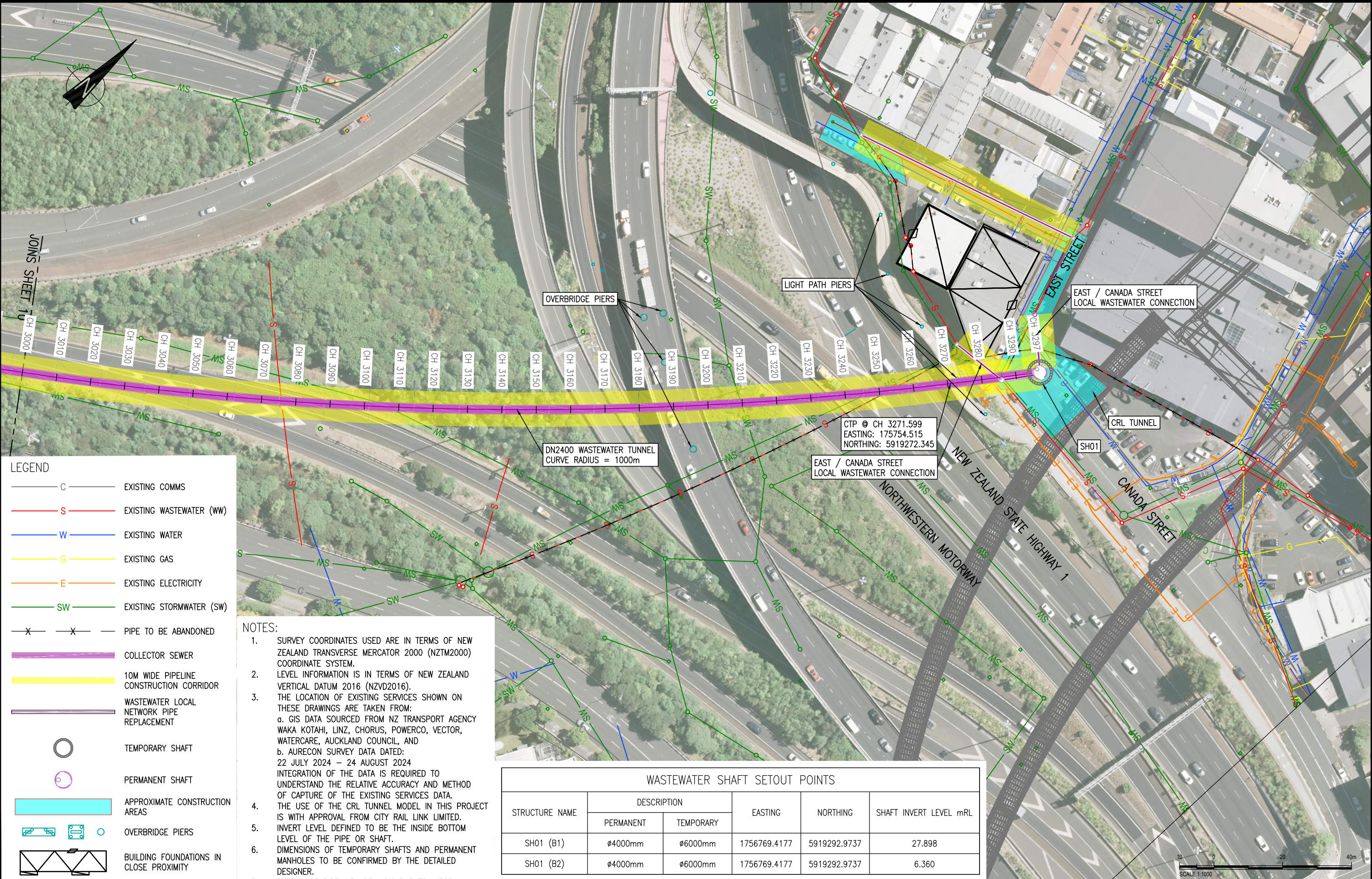
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WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH02 (B1)	ø4000mm	ø10000mm	1756390.7636	5918900.5494	11.861
SH02 (B2)	ø4000mm	ø10000mm	1756390.7636	5918900.5494	3.624



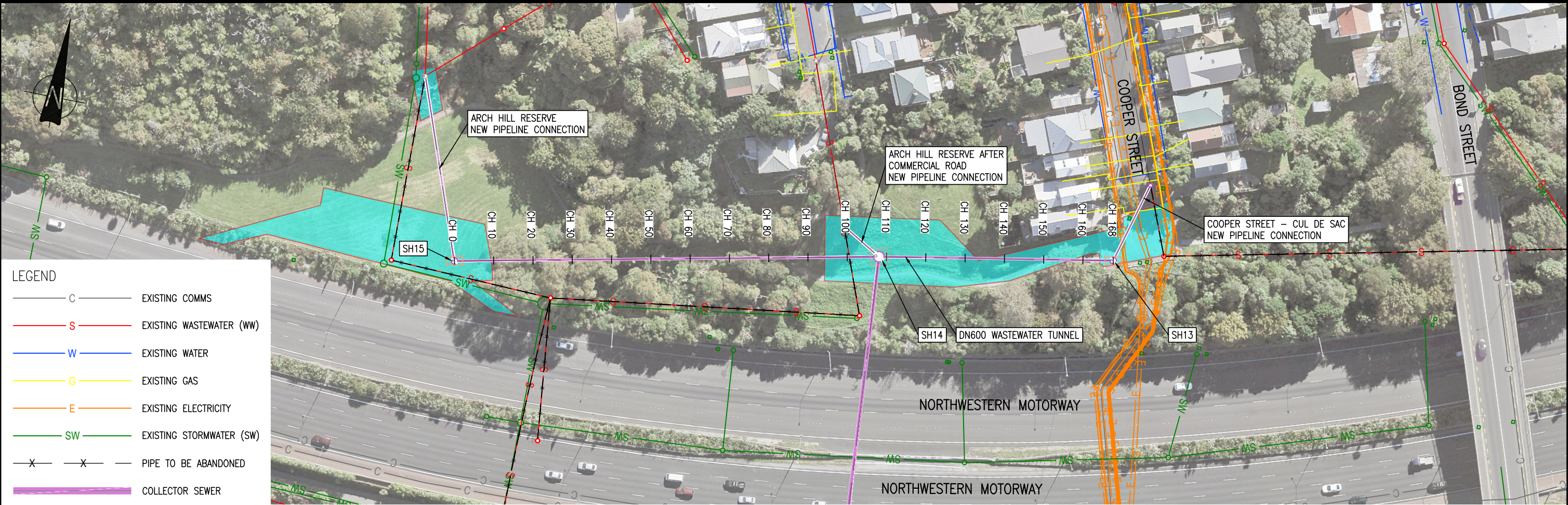
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- X — PIPE TO BE ABANDONED
- Collector Sewer
- 10m Wide Pipeline Construction Corridor
- Wastewater Local Network Pipe Replacement
- Temporary Shaft
- Permanent Shaft
- Approximate Construction Areas
- Overbridge Piers
- Building Foundations in Close Proximity

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STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH01 (B1)	ø4000mm	ø6000mm	1756769.4177	5919292.9737	27.898
SH01 (B2)	ø4000mm	ø6000mm	1756769.4177	5919292.9737	6.360



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

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10M WIDE PIPELINE CONSTRUCTION CORRIDOR

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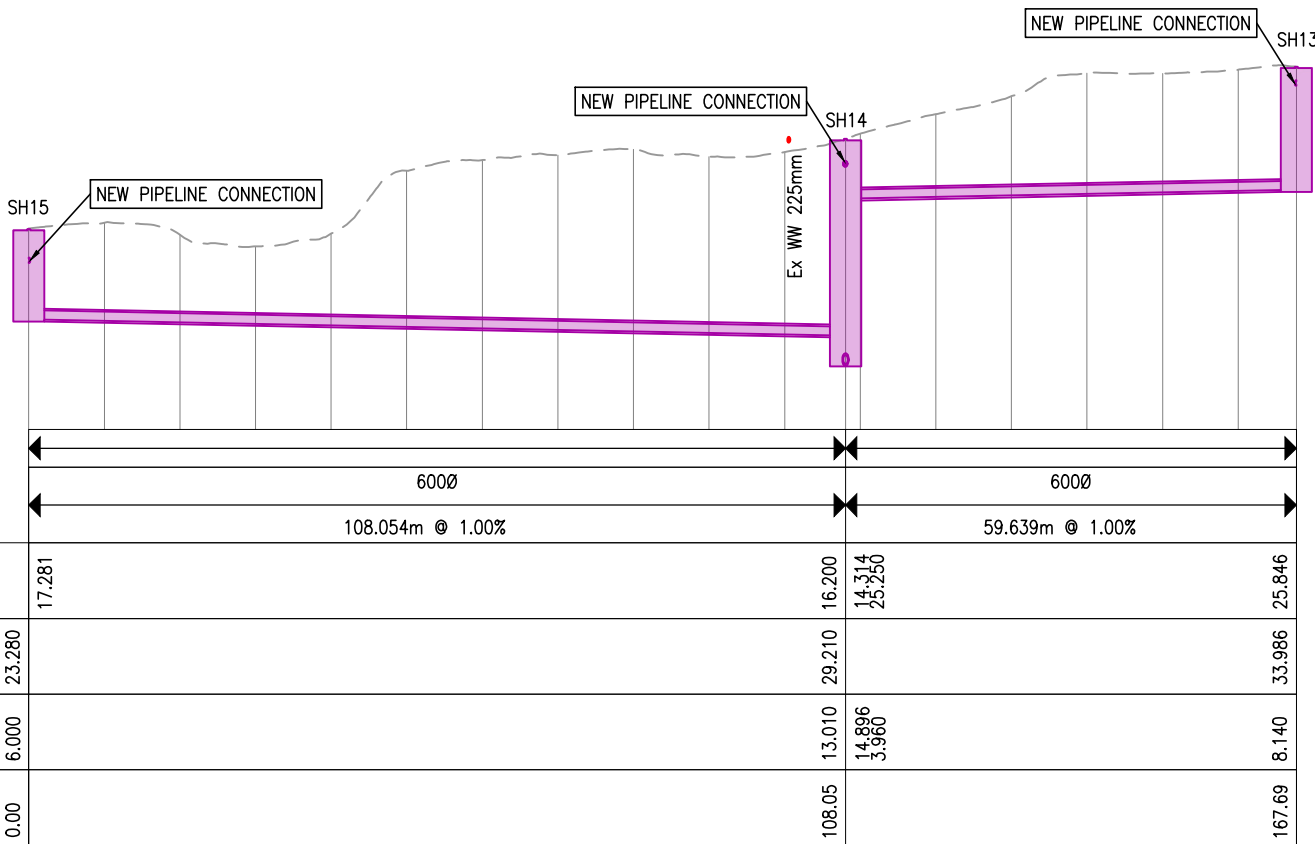
WASTEWATER LOCAL NETWORK PIPE REPLACEMENT

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

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DATUM 10.00
PIPE HOR RADI
PIPE DATA

INVERT LEVEL ⁵	17.281	16.200	14.314	25.846
EXISTING SURFACE LEVEL	23.280	29.210		33.986
DEPTH TO INVERT	6.000	13.010	14.896	8.140
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

WSL PROJ. LEAD

J.STOKES

05-25

ISSUE

DATE

AMENDMENT

BY

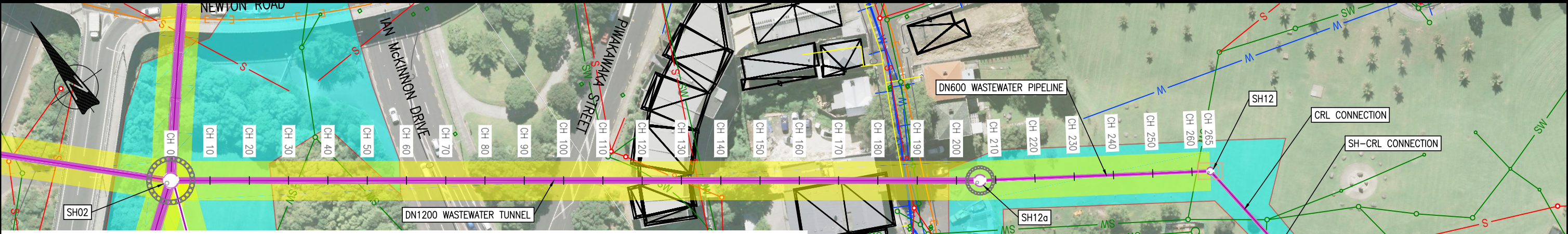
APPD.

BY

DATE

MOTIONS COLLECTOR SEWER
CIVIL
BRANCH PLAN AND LONG SECTION – SHEET 1

CAD FILE	2014581.122	DATE	16-05-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	—
REF No.	—		
DWG No.	2014581.122	ISSUE	1

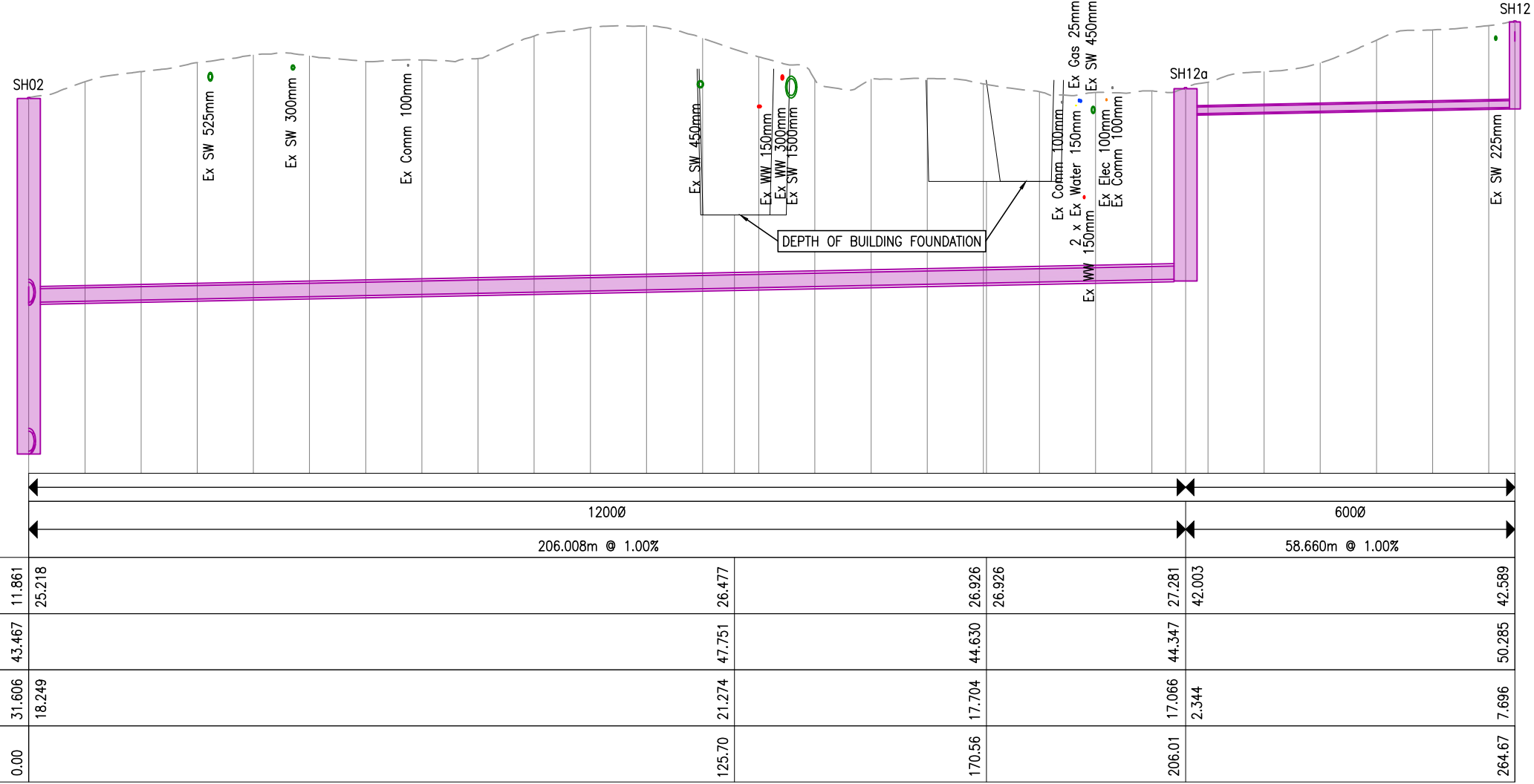


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- OVERBRIDGE PIERS
- BUILDING FOUNDATIONS IN CLOSE PROXIMITY

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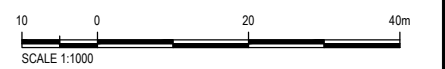
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STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH02	ø4000mm	ø10000	1756390.7636	5918900.5494	11.861
SH12	ø1800mm	6m x 4m	1756609.1105	5918751.0395	42.589
SH12a	ø3000mm	ø6000mm	1756559.6750	5918782.6170	27.281



DATUM 10.00
PIPE HOR RADI
PIPE DATA

	SH02		SH12a		SH12
INVERT LEVEL ⁵	11.861	25.218	27.281	42.003	42.589
EXISTING SURFACE LEVEL	43.467		44.347		50.285
DEPTH TO INVERT	31.606	18.249	17.066	2.344	7.696
CHAINAGE	0.00		206.01		264.67

LONG SECTION (SH02 – SH12a – SH12)
SCALES: HORIZONTAL 1:1000 VERTICAL 1:500



				DESIGNED					MOTIONS COLLECTOR SEWER		CAD FILE 2014581.124		DATE 16-05-2025		
				DES. APPROVED					CIVIL		ORIGINAL SCALE A3 1:1000		CONTRACT No. —		
				DRAWN J.FERNANDEZ		05-25					REF No. —				
				DWG. APPROVED							DWG No. 2014581.124		ISSUE 1		
				WSL DESIGN MGMT. J.STOKES		05-25		COPYRIGHT – This drawing, the design concept, remain the exclusive property of Watercare Services Limited and may not be used without approval. Copyright reserved.		BRANCH PLAN AND LONG SECTION (OPTION B1) – SHEET 3					
				WSL PROJ. LEAD J.STOKES		05-25									
1	16.05.25	ISSUE FOR INFORMATION	JF	MC	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

OVERBRIDGE PIERS

BUILDING FOUNDATIONS IN CLOSE PROXIMITY

- NOTES:
1.

SURVEY COORDINATES USED ARE IN TERMS OF NEW ZEALAND TRANSVERSE MERCATOR 2000 (NZTM2000) COORDINATE SYSTEM.
2.

LEVEL INFORMATION IS IN TERMS OF NEW ZEALAND VERTICAL DATUM 2016 (NZVD2016).
3.

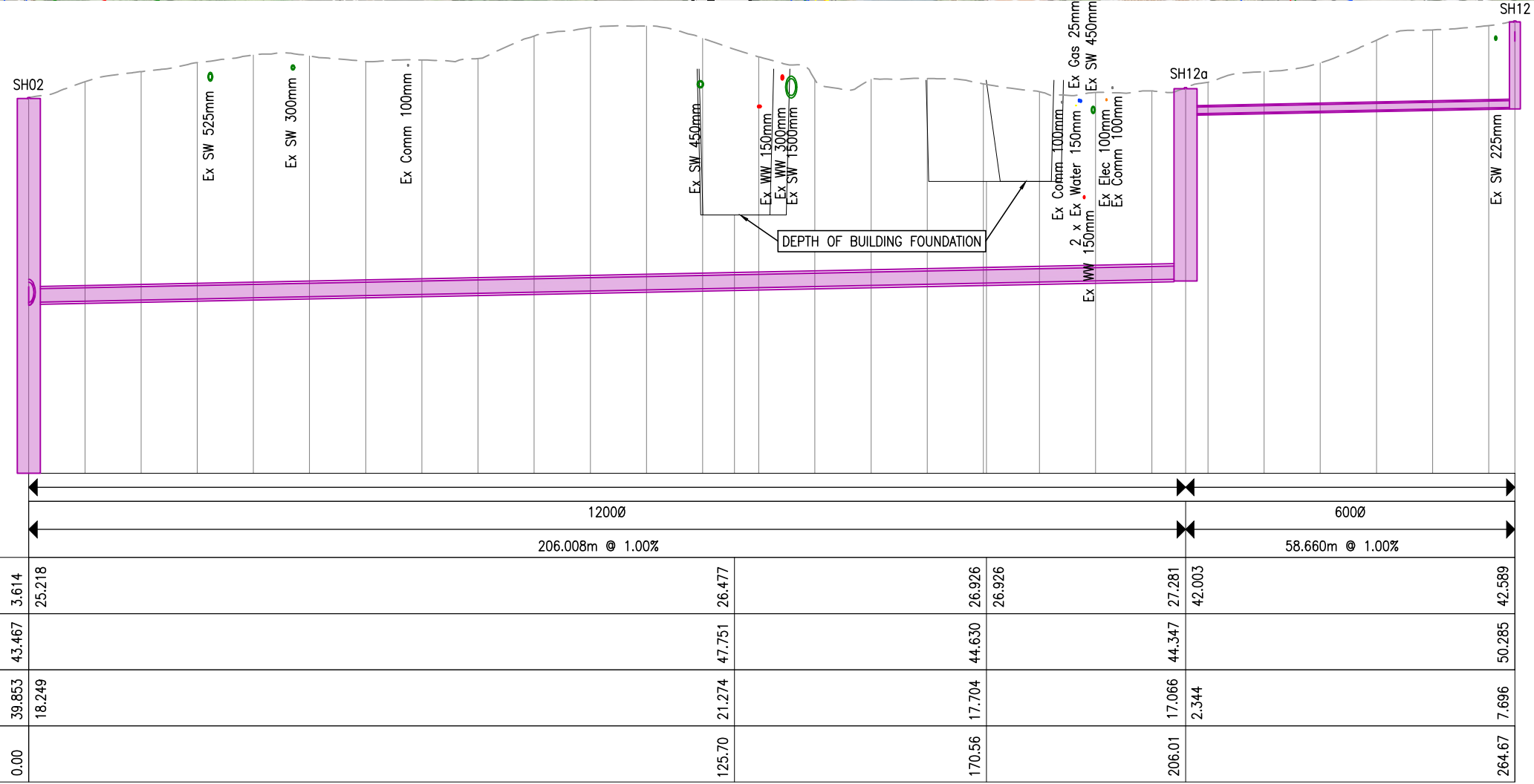
THE LOCATION OF EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE TAKEN FROM:
a. GIS DATA SOURCED FROM NZ TRANSPORT AGENCY WAKA KOTAHĪ, LINZ, CHORUS, POWERCO, VECTOR, WATERCARE, AUCKLAND COUNCIL, AND
b. AURECON SURVEY DATA DATED:
22 JULY 2024 – 24 AUGUST 2024
INTEGRATION OF THE DATA IS REQUIRED TO UNDERSTAND THE RELATIVE ACCURACY AND METHOD OF CAPTURE OF THE EXISTING SERVICES DATA.
4.

THE USE OF THE CRL TUNNEL MODEL IN THIS PROJECT IS WITH APPROVAL FROM CITY RAIL LINK LIMITED.
5.

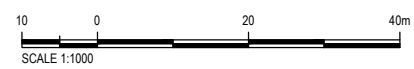
INVERT LEVEL DEFINED TO BE THE INSIDE BOTTOM LEVEL OF THE PIPE OR SHAFT.
6.

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

WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH02	ø4000mm	ø10000	1756390.7636	5918900.5494	3.614
SH12	ø1800mm	6m x 4m	1756609.1105	5918751.0395	42.589
SH12a	ø3000mm	ø6000mm	1756559.6750	5918782.6170	27.281



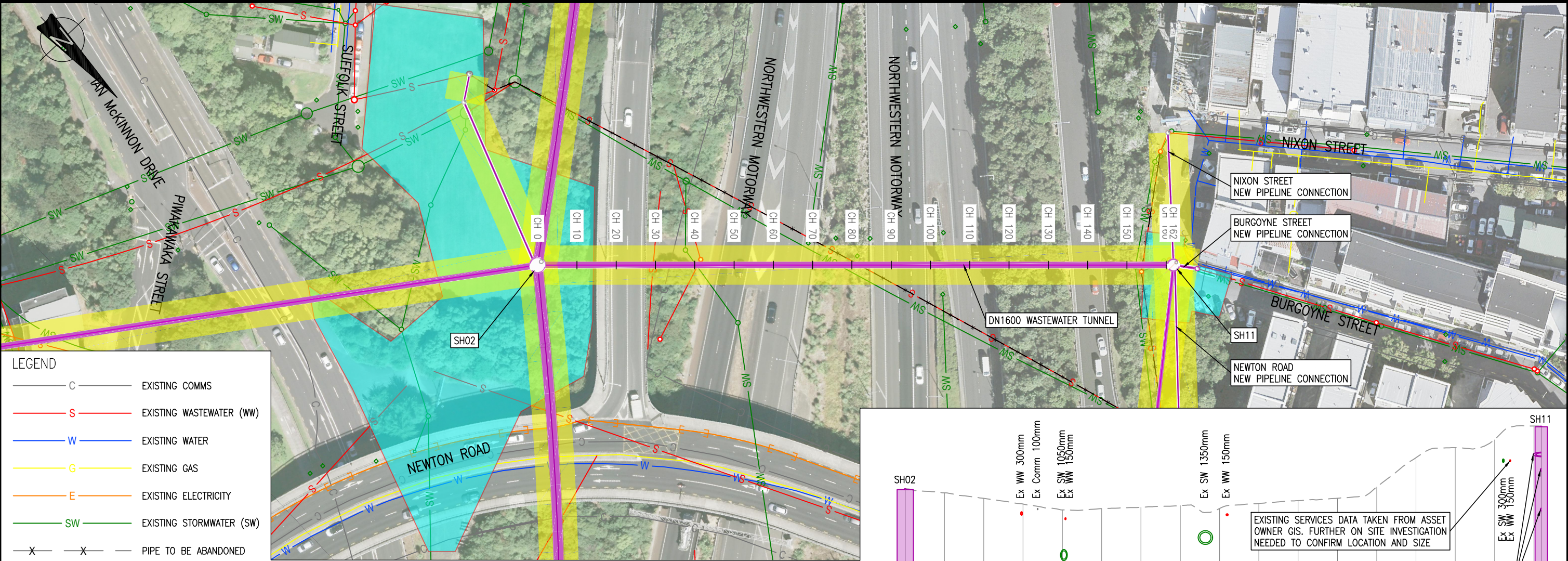
LONG SECTION (SH02 – SH12a – SH12)
SCALES: HORIZONTAL 1:1000 VERTICAL 1:500



					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 (OPTION B2) – SHEET 4

CAD FILE	2014581.125	DATE	16-05-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	—
REF No.	—		
DWG No.	2014581.125	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

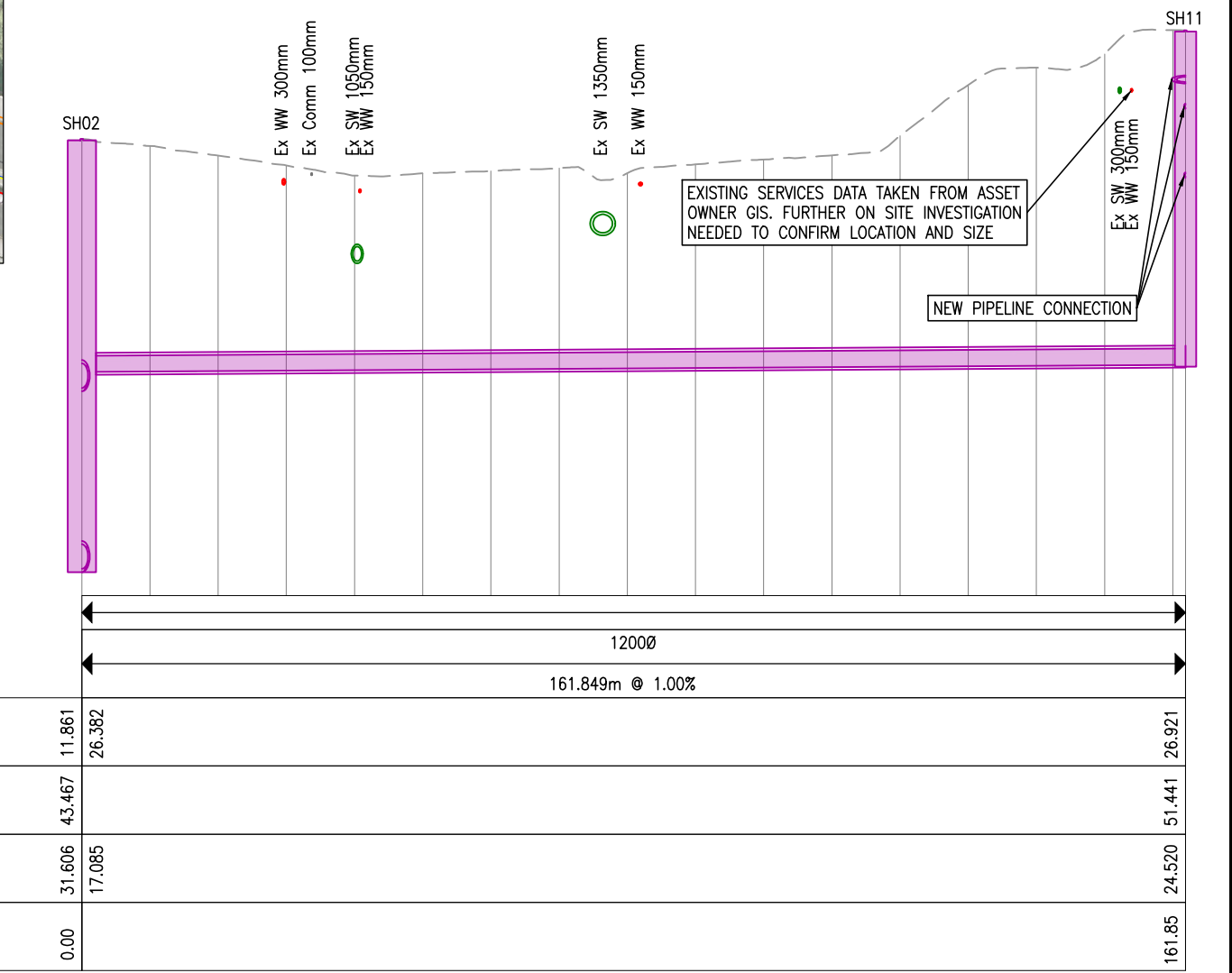
TEMPORARY SHAFT

PERMANENT SHAFT

APPROXIMATE CONSTRUCTION AREAS

OVERBRIDGE PIERS

WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH02	ø4000mm	ø10000mm	1756390.7636	5918900.5494	11.861
SH11	ø3000mm	ø6000mm	1756273.4725	5919012.0745	26.921



- NOTES:
1.

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2.

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3.

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INTEGRATION OF THE DATA IS REQUIRED TO UNDERSTAND THE RELATIVE ACCURACY AND METHOD OF CAPTURE OF THE EXISTING SERVICES DATA.
4.

THE USE OF THE CRL TUNNEL MODEL IN THIS PROJECT IS WITH APPROVAL FROM CITY RAIL LINK LIMITED.
5.

INVERT LEVEL DEFINED TO BE THE INSIDE BOTTOM LEVEL OF THE PIPE OR SHAFT.
6.

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

DATUM 10.00

PIPE HOR RADI

PIPE DATA

INVERT LEVEL ⁵	11.861	26.382	26.921
EXISTING SURFACE LEVEL	43.467		51.441
DEPTH TO INVERT	31.606	17.085	24.520
CHAINAGE	0.00		161.85

LONG SECTION (SH02 – SH11)

SCALES: HORIZONTAL 1:1000 VERTICAL 1:500

SCALE 1:1000

				DESIGNED		
				DES. APPROVED		
				DRAWN	J.FERNANDEZ	05-25
				DWG. APPROVED		
				WSL DESIGN MGMT.	J.STOKES	05-25
				WSL PROJ. LEAD	J.STOKES	05-25
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ISSUE	DATE	AMENDMENT	BY	APPD.	BY	DATE

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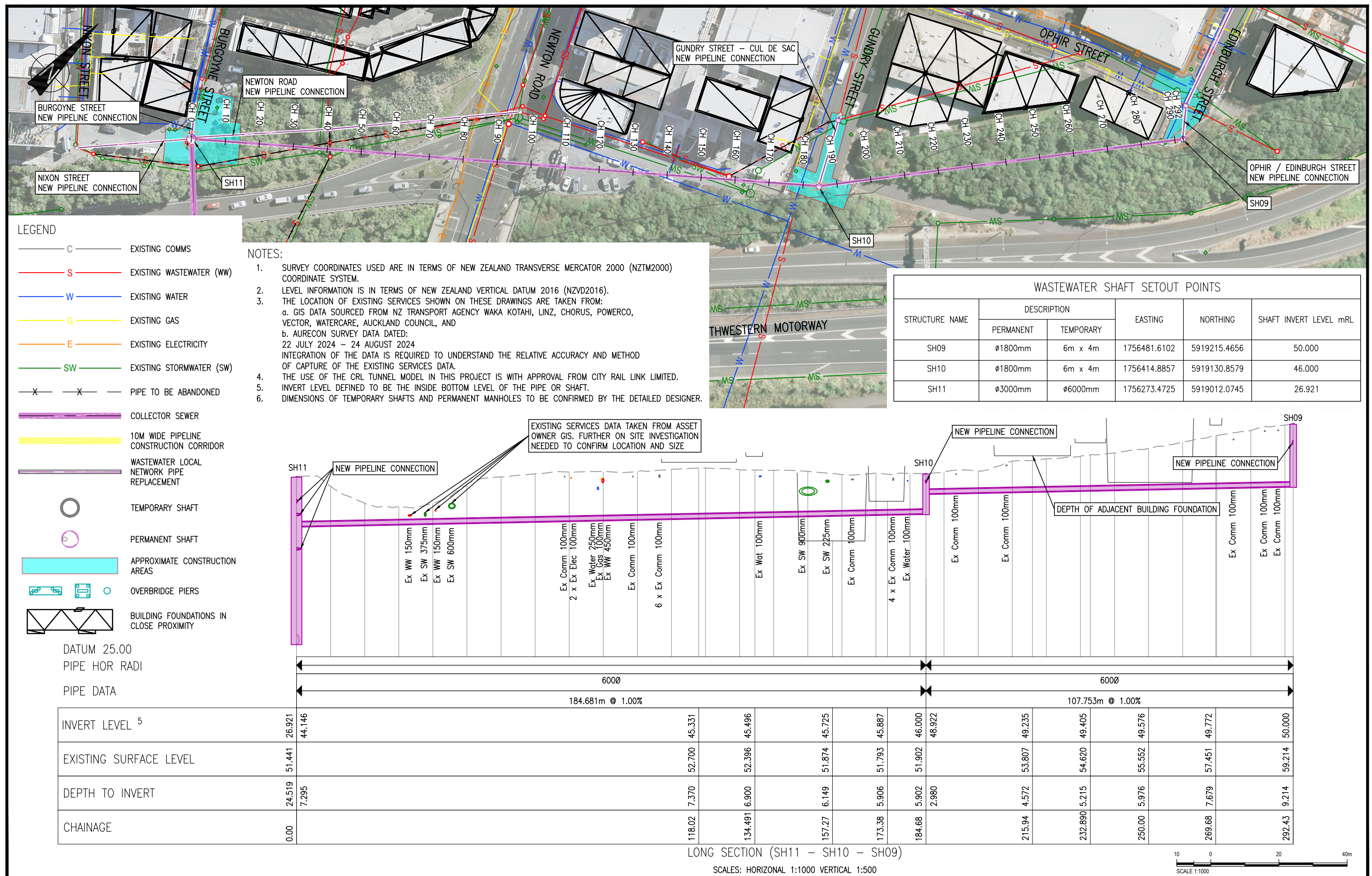
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MOTIONS COLLECTOR SEWER

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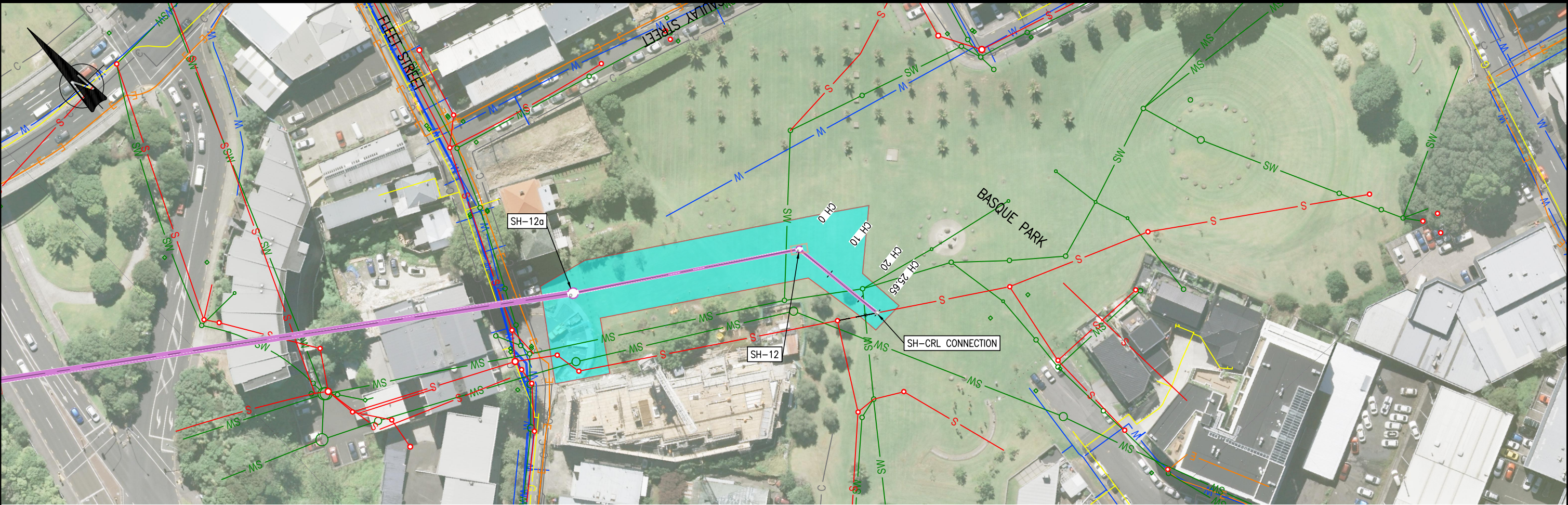
BRANCH PLAN AND LONG SECTION (OPTION B1) – SHEET 5

CAD FILE	2014581.126	DATE	16-05-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	–
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DWG No.	2014581.126	ISSUE	1



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						DES. APPROVED				ORIGINAL SCALE A3	CONTRACT No.
						DRAWN	J.FERNANDEZ	05-25		1:1000	—
						DWG. APPROVED				REF No.	
						WSL DESIGN MGMT.	J.STOKES	05-25		—	
						WSL PROJ. LEAD	J.STOKES	05-25		DWG No.	ISSUE
1	16.05.25	ISSUE FOR INFORMATION	JF	MC					2014581.128	1	
ISSUE	DATE	AMENDMENT	BY	APPD.			BY	DATE			

MOTIONS COLLECTOR SEWER
CIVIL
BRANCH PLAN AND LONG SECTION – SHEET 5



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

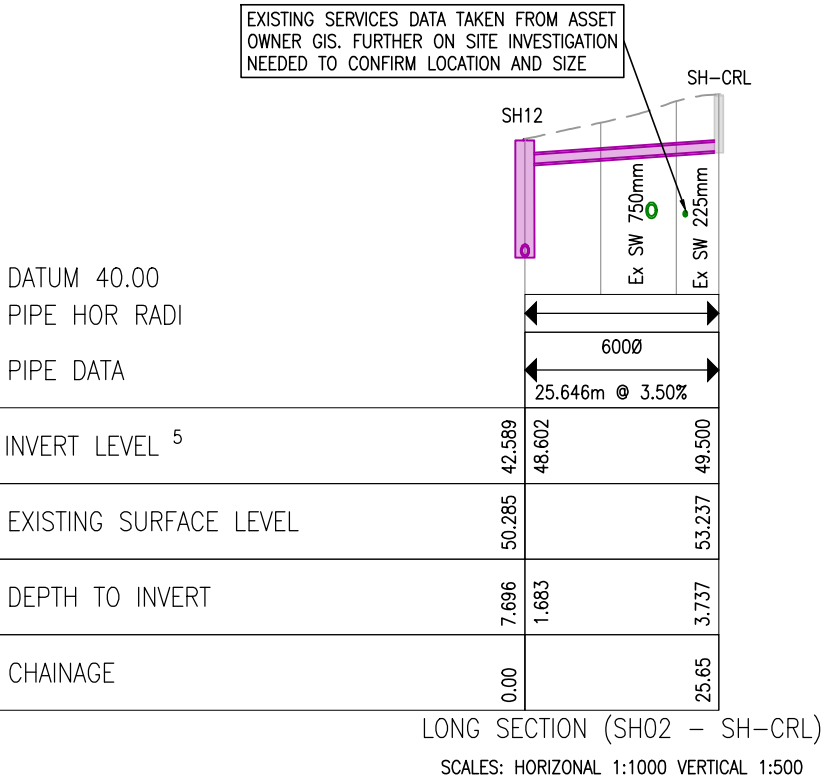
WASTEWATER LOCAL NETWORK PIPE REPLACEMENT

TEMPORARY SHAFT

PERMANENT SHAFT

APPROXIMATE CONSTRUCTION AREAS

OVERBRIDGE PIERS



WASTEWATER SHAFT SETOUT POINTS					
STRUCTURE NAME	DESCRIPTION		EASTING	NORTHING	SHAFT INVERT LEVEL mRL
	PERMANENT	TEMPORARY			
SH12	ø1800mm	6m x 4m	1756609.1105	5918751.0395	42.589
SH-CRL	ø1050mm	—	1756612.3715	5918725.6022	49.500

- NOTES:
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6.

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



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					DES. APPROVED		
					DRAWN	J.FERNANDEZ	05-25
					DWG. APPROVED		
					WSL DESIGN MGMT.	J.STOKES	05-25
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MOTIONS COLLECTOR SEWER

CIVIL

SH-CRL CONNECTION

CAD FILE	2014581.129	DATE	16-05-2025
ORIGINAL SCALE	A3 1:1000	CONTRACT No.	—
REF No.	—		
DWG No.	2014581.129	ISSUE	1