Council Reference: SEW19/0368 - LN: 84310 PC/mp Your Reference

Health Administration Corporation

NORTH SYDNEY NSW 2059



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Fax (02) 6670 2429 PO Box 816 Murwillumbah NSW 2484

Please address all communications to the General Manager

ABN: 90 178 732 496

Dear Sir/Madam

PO Box 1060

17 December 2019

Works on behalf of the Crown - Connect to Sewer SEW19/0368 - external drainage works for zone 1-10 - hospital CSB building, multi-story carparks and associated speciality medical buildings at Lot 11 DP 1246853; No. 771 Cudgen Road CUDGEN

Issued: 17 December 2019

Please be advised that the Council of Tweed as the Authorised Plumbing Regulator for the Tweed Shire has inspected the hydraulic plumbing and drainage design submitted for the above development and raises no objection to the proposed works subject to the following advisory notes.

- 1. No plumbing and drainage works are to be commenced on the site until a Development Consent has been granted for the works.
- 2. A. A notice of plumbing and drainage work is to be submitted and a permit is to be obtained from Council prior to commencement of any plumbing and drainage work.
  - B. The whole of the plumbing and drainage work is to be completed in accordance with the requirements of the Plumbing Code of Australia and AS/NZS 3500.
- 3. Any work on plumbing or drainage that may impact upon the structural integrity of the building is only to be carried out after consultation with a Structural Engineer or the Principal Certifying Authority for the project.
- 4. Council is to be given 24 hours notice for any of the following inspections prior to the next stage of construction:
  - a. internal drainage, prior to slab preparation.
  - b. water plumbing rough in, prior to the erection of brick work or any wall sheeting.
  - c. external drainage prior to backfilling.
  - d. completion of work and prior to occupation of the building.
- 5. Any rainwater tanks to be installed are to be connected in accordance with Council's 'Rainwater Tank' policy document and all associated pipe work is to be installed in accordance with Australian Standard AS3500.1.
- 6. Any drainage lines affected by the proposal are to be relocated to Council's satisfaction. Inspection of drainage works prior to covering is required.



- 7. Dual flush water closet suites are to be installed in accordance with Local Government Water and Sewerage and Drainage Regulations 1993.
- Back flow prevention devices shall be installed wherever cross connection occurs or is likely to occur. The type of device shall be determined in accordance with AS 3500.1 and shall be maintained in working order and inspected for operational function at intervals not exceeding 12 months in accordance with Section 4.7.2 of this Standard.
- 9. The overflow relief gully is to be located clear of the building and at a level not less than 150mm below the lowest fixture within the building and 75mm above finished ground level.
- 10. All new hot water installations shall deliver hot water at the outlet of sanitary fixtures used primarily for personal hygiene purposes at a temperature not exceeding:-
  - \* 43.5°C for childhood centres, primary and secondary schools and nursing homes or similar facilities for aged, sick or disabled persons; and
  - \* 50°C in all other buildings.

A certificate certifying compliance with the above is to be submitted to Council by the licensed plumber on completion of works.

- 11. Any discharge of a pollutant greater than or differing (in constitution) from domestic usage requires the submission of an application for a trade waste licence. Such application to be made prior to release of the approved building plans and/or prior to any use or occupation of the premises, whichever occurs earlier.
- 12. Any installation involving trade waste shall have a hose tap provided adjacent to the grease arrestor and to be fitted with a reduced pressure zone device for the purpose of back flow prevention.
- 13. On completion of works a Certificate of Compliance, in the prescribed form, is to be submitted to both Council and the person for whom the work was carried out.
- 14. On completion of any sanitary plumbing and drainage work a works as executed plan is to be completed on the prescribed form supplied by Council and a copy of such plan is to be submitted to both Council and the owner of the land or owners agent.

The reasons for the imposition of conditions are to ensure compliance with the Local Government Act and Regulations.

For further information regarding this matter please contact Council's Building and Environmental Health Unit.

Yours faithfully

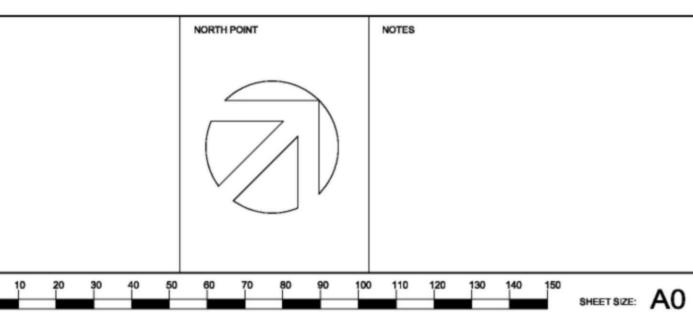
Phil Clark BUILDING SURVEYOR

S68 Local Government ACT 1993 Sewer Approval Plumbing and Drainage Works under Pts 1 2 of AS3500 - Plumbing Drainage SEW19/0368

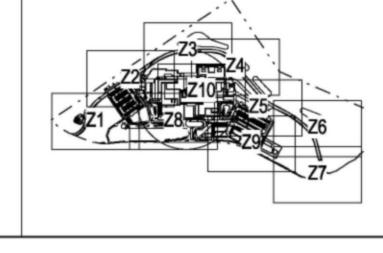
**TWEED** SHIRE COUNCIL

	PIPING SYSTEMS		PIPING SYSTEMS		PIPING SYSTEMS
ABBREV	DESCRIPTION	ABBREV	DESCRIPTION	ABBREV	DESCRIPTION
CW	COLD WATER- [ABOVE GROUND]	SDGCV[B]	SANITARY DRAINAGE-VENT CHAMBER GREASE [BELOW GROUND]	GRV	SANITARY PLUMBING-VENT RELIEF GREASE [ABOVE GROUND]
CW[B]	COLD WATER- [BELOW GROUND]	SDHCV	SANITARY DRAINAGE-VENT CHAMBER HIGH TEMP [ABOVE GROUND]	HRV	SANITARY PLUMBING-VENT RELIEF HIGH TEMP [ABOVE GROUND]
ROD	COLD WATER-REVERSE OSMOSIS DIALYSYS [ABOVE GROUND]	SDHCV[B]	SANITARY DRAINAGE-VENT CHAMBER HIGH TEMP [BELOW GROUND]	LRV	SANITARY PLUMBING-VENT RELIEF LAB [ABOVE GROUND]
ROG	COLD WATER-REVERSE OSMOSIS GENERAL [ABOVE GROUND]	SDLCV	SANITARY DRAINAGE-VENT CHAMBER LAB [ABOVE GROUND]	RRV	SANITARY PLUMBING-VENT RELIEF RADIOACTIVE [ABOVE GROUND]
RO1	COLD WATER-REVERSE OSMOSIS TYPE 1 [ABOVE GROUND]	SDLCV[B]	SANITARY DRAINAGE-VENT CHAMBER LAB [BELOW GROUND]	SV	SANITARY PLUMBING-VENT STACK [ABOVE GROUND]
RO2	COLD WATER-REVERSE OSMOSIS TYPE 2 [ABOVE GROUND]	SDRCV	SANITARY DRAINAGE-VENT CHAMBER RADIOACTIVE [ABOVE GROUND]	SP	SANITARY PLUMBING-WASTE WATER [ABOVE GROUND]
RO3	COLD WATER-REVERSE OSMOSIS TYPE 3 [ABOVE GROUND]	SDRCV[B]	SANITARY DRAINAGE-VENT CHAMBER RADIOACTIVE [BELOW GROUND]	SPD	SANITARY PLUMBING-WASTE WATER DECONTAMINATION [ABOVE
FHR	FIRE-FIGHTING WATER-HOSE REEL [ABOVE GROUND]	SDDV	SANITARY DRAINAGE-VENT DECONTAMINATION [ABOVE GROUND]		GROUND]
FHR[B]	FIRE-FIGHTING WATER-HOSE REEL [BELOW GROUND]	SDDV[B]	SANITARY DRAINAGE-VENT DECONTAMINATION [BELOW GROUND]	SPG	SANITARY PLUMBING-WASTE WATER GREASE [ABOVE GROUND]
FH	FIRE-FIGHTING WATER-HYDRANT [ABOVE GROUND]	SDGV	SANITARY DRAINAGE-VENT GREASE [ABOVE GROUND]	SPH	SANITARY PLUMBING-WASTE WATER HIGH TEMP [ABOVE GROUND]
FH[B]	FIRE-FIGHTING WATER-HYDRANT [BELOW GROUND]	SDGV[B]	SANITARY DRAINAGE-VENT GREASE [BELOW GROUND]	SPL	SANITARY PLUMBING-WASTE WATER LAB [ABOVE GROUND]
FS	FIRE-FIGHTING WATER-SERVICE [ABOVE GROUND]	SDHV	SANITARY DRAINAGE-VENT HIGH TEMP [ABOVE GROUND]	SPM	SANITARY PLUMBING-WASTE WATER MID TEMP [ABOVE GROUND]
FS[B]	FIRE-FIGHTING WATER-SERVICE [BELOW GROUND]	SDHV[B]	SANITARY DRAINAGE-VENT HIGH TEMP [BELOW GROUND]	SPR	SANITARY PLUMBING-WASTE WATER RADIOACTIVE [ABOVE GROUND]
LPG	GAS-LIQUID PETROLEUM [ABOVE GROUND]	SDLV	SANITARY DRAINAGE-VENT LAB [ABOVE GROUND]	DGH	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY HELIPAD [ABOVE
LPG[B]	GAS-LIQUID PETROLEUM [BELOW GROUND]	SDLV[B]	SANITARY DRAINAGE-VENT LAB [BELOW GROUND]		GROUND]
NG	GAS-NATURAL [ABOVE GROUND]	SDRV	SANITARY DRAINAGE-VENT RADIOACTIVE [ABOVE GROUND]	DGH[B]	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY HELIPAD [BELOW
NG[B]	GAS-NATURAL [BELOW GROUND]	SDRV[B]	SANITARY DRAINAGE-VENT RADIOACTIVE [BELOW GROUND]		GROUND]
HW	HEATED WATER- [ABOVE GROUND]	SD	SANITARY DRAINAGE-WASTE WATER [ABOVE GROUND]	DGOF	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY OVERFLOW [ABOVE
HW[B]	HEATED WATER- [BELOW GROUND]	SD[B]	SANITARY DRAINAGE-WASTE WATER [BELOW GROUND]		GROUND]
FLUE	HEATED WATER-FLUE [ABOVE GROUND]	SDD	SANITARY DRAINAGE-WASTE WATER DECONTAMINATION [ABOVE	DGOF[B]	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY OVERFLOW [BELOW
HWP	HEATED WATER-PRIMARY SUPPLY [ABOVE GROUND]	000	GROUND]	000	GROUND]
HWP[B]	HEATED WATER-PRIMARY SUPPLY [BELOW GROUND]	SDD[B]	SANITARY DRAINAGE-WASTE WATER DECONTAMINATION [BELOW	DGR	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY ROOF METAL DECK [ABOVE GROUND]
HWR	HEATED WATER-RETURN [ABOVE GROUND]		GROUND]	DP	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY ROOF METAL DECK
HWR[B]	HEATED WATER-RETURN [BELOW GROUND]	SDG	SANITARY DRAINAGE-WASTE WATER GREASE [ABOVE GROUND]	DP	EXTERNAL DOWNPIPE [ABOVE GROUND]
WWR	HEATED WATER-RETURN WARM [ABOVE GROUND]	SDG[B]	SANITARY DRAINAGE-WASTE WATER GREASE [BELOW GROUND]	DGSTW	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY STORMWATER
ww	HEATED WATER-WARM [ABOVE GROUND]	SDH	SANITARY DRAINAGE-WASTE WATER HIGH TEMP [ABOVE GROUND]	Deerin	[ABOVE GROUND]
NDCW	NON-DRINKING WATER-COLD [ABOVE GROUND]	SDH[B]	SANITARY DRAINAGE-WASTE WATER HIGH TEMP [BELOW GROUND]	DGSTW[B]	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY STORMWATER
NDCW[B]	NON-DRINKING WATER-COLD [BELOW GROUND]	SDL	SANITARY DRAINAGE-WASTE WATER LAB [ABOVE GROUND]		[BELOW GROUND]
SOCW	NON-DRINKING WATER-COLD SOFTENED [ABOVE GROUND]	SDL[B]	SANITARY DRAINAGE-WASTE WATER LAB [BELOW GROUND]	DGRM	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY STORMWATER PUMP
NDHW	NON-DRINKING WATER-HEATED [ABOVE GROUND]	SDM	SANITARY DRAINAGE-WASTE WATER MID TEMP [ABOVE GROUND]		RISING MAIN [ABOVE GROUND]
NDHW[B]	NON-DRINKING WATER-HEATED [BELOW GROUND]	SDM[B]	SANITARY DRAINAGE-WASTE WATER MID TEMP [BELOW GROUND]	DGRM[B]	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY STORMWATER PUMP
NPDWP	NON-DRINKING WATER-HEATED PRIMARY SUPPLY [ABOVE GROUND]	SDR	SANITARY DRAINAGE-WASTE WATER RADIOACTIVE [ABOVE GROUND]		RISING MAIN [BELOW GROUND]
NDHWP[B]	NON-DRINKING WATER-HEATED PRIMARY SUPPLY [BELOW GROUND]	SDR[B]	SANITARY DRAINAGE-WASTE WATER RADIOACTIVE [BELOW GROUND]	DGSL[B]	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY SUB-SOIL [BELOW
NDHWR	NON-DRINKING WATER-HEATED RETURN [ABOVE GROUND]	SDSD	SANITARY PLUMBING-SUCTION DRAIN DECONTAMINATION [ABOVE	DOSLDM	GROUND]
NDHWR[B]	NON-DRINKING WATER-HEATED RETURN [BELOW GROUND]		GROUND]	DGSLRM	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY SUB-SOIL PUMP RISING MAIN [ABOVE GROUND]
SOHW	NON-DRINKING WATER-HEATED REFORM [BELOW GROUND]	SDSG	SANITARY PLUMBING-SUCTION DRAIN GREASE [ABOVE GROUND]	DGSLRM[B]	SURFACE AND SUBSURFACE DRAINAGE-GRAVITY SUB-SOIL PUMP
NDU	NON-DRINKING WATER-UNTREATED [ABOVE GROUND]	SPV	SANITARY PLUMBING-VENT [ABOVE GROUND]	DOOLIVIED	RISING MAIN [BELOW GROUND]
NDU[B]	NON-DRINKING WATER-UNTREATED [BELOW GROUND]	GCRV	SANITARY PLUMBING-VENT CROSS GREASE [ABOVE GROUND]	DSOF	SURFACE AND SUBSURFACE DRAINAGE-SIPHONIC OVERFLOW [ABOVE
SDPRM	SANITARY DRAINAGE-PUMP RISING MAIN [ABOVE GROUND]	HCRV	SANITARY PLUMBING-VENT CROSS HIGH TEMP [ABOVE GROUND]		GROUND]
SDPRM[B]	SANITARY DRAINAGE-PUMP RISING MAIN [BELOW GROUND]	LCRV	SANITARY PLUMBING-VENT CROSS LAB [ABOVE GROUND]	DSOF[B]	SURFACE AND SUBSURFACE DRAINAGE-SIPHONIC OVERFLOW [BELOW
SDP Kivilbj	SANITARY DRAINAGE-SUCTION DRAIN [ABOVE GROUND]	RCRV	SANITARY PLUMBING-VENT CROSS RADIOACTIVE [ABOVE GROUND]		GROUND]
	SANITARY DRAINAGE-SUCTION DRAIN [ABOVE GROUND]	CRV	SANITARY PLUMBING-VENT CROSS RELIEF [ABOVE GROUND]	DSR	SURFACE AND SUBSURFACE DRAINAGE-SIPHONIC ROOF METAL DECK
SDS[B] SDSG	SANITARY DRAINAGE-SUCTION DRAIN [BELOW GROUND] SANITARY DRAINAGE-SUCTION DRAIN GREASE [ABOVE GROUND]	DCRV	SANITARY PLUMBING-VENT CROSS RELIEF DECONTAMINATION [ABOVE		[ABOVE GROUND]
			GROUND]	DSSTW	SURFACE AND SUBSURFACE DRAINAGE-SIPHONIC STORMWATER
SDSG[B] SDV	SANITARY DRAINAGE-SUCTION DRAIN GREASE [BELOW GROUND]	SPDV	SANITARY PLUMBING-VENT DECONTAMINATION [ABOVE GROUND]	Deerster	
	SANITARY DRAINAGE-VENT [ABOVE GROUND]	SPGV	SANITARY PLUMBING-VENT GREASE [ABOVE GROUND]	DSSTW[B]	SURFACE AND SUBSURFACE DRAINAGE-SIPHONIC STORMWATER [BELOW GROUND]
SDV[B]	SANITARY DRAINAGE-VENT [BELOW GROUND]	SPHV	SANITARY PLUMBING-VENT HIGH TEMP [ABOVE GROUND]		
SDCV	SANITARY DRAINAGE-VENT CHAMBER [ABOVE GROUND]	SPLV	SANITARY PLUMBING-VENT LAB [ABOVE GROUND]	uCW[B]	UTILITY-COLD WATER [BELOW GROUND]
SDCV[B] SDDCV	SANITARY DRAINAGE-VENT CHAMBER [BELOW GROUND] SANITARY DRAINAGE-VENT CHAMBER DECONTAMINATION [ABOVE	PRB	SANITARY PLUMBING-VENT PRESSURE RELIEF BYPASS [ABOVE GROUND]	uNG[B] uSD[B]	UTILITY-NATURAL GAS [BELOW GROUND] UTILITY-SANITARY DRAINAGE [BELOW GROUND]
	GROUND]	SPRV	SANITARY PLUMBING-VENT RADIOACTIVE [ABOVE GROUND]		
SDDCV[B]	SANITARY DRAINAGE-VENT CHAMBER DECONTAMINATION [BELOW	RV	SANITARY PLUMBING-VENT RELIEF [ABOVE GROUND]		
00 0 0 · ·	GROUND]	DRV	SANITARY PLUMBING-VENT RELIEF DECONTAMINATION [ABOVE		
SDGCV	SANITARY DRAINAGE-VENT CHAMBER GREASE [ABOVE GROUND]		GROUND]		

TRACKING TABLE - HYDRAULIC DESIGN (EW)					
SERVICE	REQUEST SENT		RES	RESPONSE RECEIVED	
	DATE	CORRESPONDENCE	DATE	CORRESPONDENCE	
BMCS					
CIVIL - STORMWATER CONNECTIONS					
DRY FIRE					
ELECTRICAL - COMMS					
ELECTRICAL - POWER					
IRRIGATION			5/12/2019	EMAIL	
SIPHONIC DRAINAGE					
STRUCTURAL - CONDUITS IN SLAB					
STRUCTURAL - PENETRATIONS					
STRUCTURAL - PLANT WEIGHT					
τ					



# TWEED VALLEY HOSPITAL DEVELOPMENT SITE SERVICES INFRASTRUCTURE Powell St & Florence Street, Tweed Heads NSW 2485 HYDRAULIC SERVICES



ISSUED FOR REVIEW ISSUED FOR REVIEW PART 5 - CONTRACT DOCUMENTATION

## SYMBOLS

PIPELINES	
	PIPE RISING UP
	SERVICE
HEX	
Size	SIZE
	PIPE DROPPING DOWN
	GREASE ARRESTOR VENT PIPE
	GREASE SUCTION
	GREASE WASTE
	GREASE WASTE RELIEF VENT
	GREASE WASTE VENT PIPE
	SPRINKLERS TEST DRAIN
	SIPHONIC DRAINAGE PIPE
	STORMWATER DRAINAGE
	SUB-SOIL DRAINAGE
	SUB-SOIL RISING MAIN
	SEWER DRAINAGE
	SEWER RISING MAIN
	SEWER DRAINAGE STACK
	RELIEF VENT
	STACK VENT
	SEWER CHAMBER VENT
	TRADE WASTE
	TRADE WASTE RELIEF VENT
	TRADE WASTE VENT PIPE
	VENT PIPE
	OVERFLOW
	DIESEL EXHAUST
	FLUE
	NATURAL GAS
	FIRE HYDRANT SERVICE
	FIRE HOSE REEL SERVICE
	POTABLE COLD WATER RISING MAIN
	POTABLE COLD WATER SERVICE
	POTABLE HOT WATER SERVICE
	POTABLE HOT WATER FLOW
	POTABLE HOT WATER RETURN
	POTABLE WARM WATER RETURN
	RECYCLED COLD WATER
	IRRIGATION
е —	EXISTING SERVICE
—X—e—X—	EXISTING SERVICE TO BE REMOVED
	CONCRETE ENCASE PIPEWORK
	INSULATED PIPEWORK
Ŋ	PIPE DROP TO OR RISE FROM
-	PIPE TEE DROP
	PIPE TEE RISE
E VERT	ELECTRICAL WIRING IN CONDUIT
	VERTICAL PIPE RISER IN DRAINAGE
	FLOW DIRECTIONAL ARROWS ON ALL
1.65%	PIPING SERVICES
	PIPE FALL

#### VALVES (SCHEMATIC)

101	BALL VALVE
<b>—</b>	GATE VALVE
——M——	STOP TAP
W	DOUBLE CHECK VALVE IN WATER PIPELINES
— K —	CHECK VALVE IN WATER PIPELINES
	REFLUX VALVE IN DRAINAGE PIPELINE
<b>2</b>	PRESSURE REDUCTION VALVE
R	PRESSURE LIMITING VALVE
V1	SWING CHECK VALVE WITH 3mm HOLE IN FLAP
	STAD VALVE
X a	SOLENOID VALVE
X	MOTORIZED VALVE
<b>e</b>	REDUCED PRESSURE ZONE DEVICE
	GAS REGULATOR

VALVES	(SCHEMATIC)
	a arrithment in a

뉵	BASIN, SINK OR BATH TAP SET
jé –	BASIN - LEVER TYPE
⊈	SHOWER TAP SET & SHOWER ROSE
+	RIGHT ANGLE STOP TAP
+ нт	HOSE TAP
<del></del> внт	HW & CW BREECHED HOSE TAPS
⋈+	HOSE TAP WITH STOP TAP ON PIPE
<	EYE WASH

#### SYSTEM ACCESSORIES

	JALO
	PUMP
Line of the	FILTER
	CLEAROUT
	FLANGED JOINT
	UNION
	PIPELINE TERMINATED WITH BLANK FLANGE
]	PIPELINE CAPPED OFF
	TEST POINT
=;⊨==	ORIFICE PLATE
C	CAMLOCK CONNECTION OUTLET
¥	3-WAY VALVE
2	AIR ADMITTANCE VALVE
P	PRESSURE GAUGE
Ŷ	TEMPERATURE GAUGE
4	STRAINER
	OVERFLOW GULLY
GM WM or	WATER / GAS METER
Q	BOUNDARY TRAP
O FW	FLOOR WASTE
O SFW	SEALED FLOOR WASTE
O KFW	KITCHEN FLOOR WASTE
O PL/FW	PLANT ROOM FLOOR WASTE
O GFW	GARBAGE FLOOR WASTE WITH SS BASKET
C RO	ROOF OUTLET / RAIN WATER OUTLET (STORMWATER)
PDO	PLANTER DRAIN OUTLET
🗉 SO	SIPHONIC DRAINAGE OUTLET
E SRO	SIDE ROOF OUTLET (STORMWATER)
Ó	SEWER MANHOLE OR STORMWATER MANHOLE (CIRCULAR ACCESS CHAMBER)
•	AUTHORITY MAIN (SCHEMATIC)
$\square$	PUMP ELECTRICAL PANEL
$\asymp$	PENETRATION CORE THROUGH STRUCTURAL ELEMEN
	STORMWATER PIT WITH COVER (BOLT DOWN)
	STORMWATER PIT WITH GRATE
=	DOWN PIPE SPREADER NEW
	DRAINAGE CELL PLAN AREA
	DRAINAGE CELL TOP RL
	VERTICAL INSTALLATION BOTTOM RL
$\Rightarrow$	OVERLAND FLOW DIRECTIONAL ARROW
¥	ANNUBAR TEST POINT
Ť	FIRE HOSE REEL
• Ø	FIRE HYDRANT

### ABBREVIATIONS

VALVES

ALVES	DICHT ANCI E STOD TAD
ता ता	RIGHT ANGLE STOP TAP BREECHED HOSE TAP
ï	BALL VALVE
/	CHECK VALVE
CV .	DOUBLE CHECK VALVE
DCV BV	DOUBLE DETECTOR CHECK VALVE GAS BAYONET VALVE (WALL OR FLOOR MOUNTED)
V	GATE VALVE (WALL OK FLOOK MOONTED)
	GATE VALVE FOR BOILER
	GATE VALVE FOR DE - HUMIDIFIER
Г 	HOSE TAP
₹V ⊣T	NON-RETURN VALVE PLANTER HOSE TAP
	PRESSURE LIMITING VALVE
RV	PRESSURE REDUCTION VALVE
Z	REDUCED PRESSURE ZONE DEVICE
ST	RECESSED STOP TAP
/ TAD	REFLUX VALVE BALANCING VALVE (STAD)
	STOP VALVE (STAD)
	THERMOSTATIC MIXING VALVE
	THERMOSTATIC MIXING VALVE / VALVE CONTROL GROUP
	TEMPERATURE & PRESSURE RELIEF VALVE
3	VALVE BOX
NITARY	PLUMBING AND DRAINAGE
	BOUNDARY TRAP
0	CLEAROUT CONDENSATE DRAIN
	CROSS RELIEF VENT
ST	CONDENSATE STACK
/P	CONDENSATE VENT PIPE
ST ST	DOWN PIPE
STUr	DRAINAGE STACK DRAINAGE STACK URINAL
ΓU	DRAINAGE TURN UP
STD	FIRE SPRINKLER TEST DRAIN
A	GREASE ARRESTOR
AV	GREASE ARRESTOR VENT
0	GRAVEL DRAIN GUTTER OUTLET
s	GREASE SUCTION
N	GREASE WASTE
	GREASE WASTE RELIEF VENT
NST	GREASE WASTE STACK
NV D	GREASE WASTE VENT PIPE HEAVY DUTY COVER OR GRATE WITH FRAME
, ,	CLASS D, (GAS TIGHT FOR SEWERAGE
	SYSTEMS) CONFORMING TO AS 3996-1992.
).	INSPECTION OPENING
G	KERB ENTRY
D	LONGITUDINAL TRENCH GRATE MEDIUM DUTY COVER OR GRATE WITH FRAME
	CLASS C, (GAS TIGHT FOR SEWERAGE
	SYSTEMS) CONFORMING TO AS 3996-1992.
G	OVERFLOW GULLY
F	OVERFLOW
5 00	OIL SEPARATOR PLANTER DRAIN OUTLET
GW	PUMP GREASE WASTE
C	RAINWATER OUTLET
/	RELIEF VENT
/P	REFLUX VALVE PIT
CV DP	SEWER CHAMBER VENT SIPHONIC DRAINAGE PIPE
ИH	SEWER MANHOLE
)	SIPHONIC OUTLET
	SOIL PIPE
P Ur RM	SOIL PIPE URINAL SEWER RISING MAIN
RO SO	SIDE ROOF OUTLET
SRM	SUB-SOIL RISING MAIN
NP	STORMWATER PIT
WP/BD	STORMWATER PIT WITH BOLT DOWN COVER
ST TW	SOIL STACK STORMWATER
/	STORMWATER STACK VENT
WP	STORMWATER PIT
3	TRENCH GRATE
V	TRADE WASTE
WRV WV	TRADE WASTE RELIEF VENT
**	TRADE WASTE VENT PIPE VENT PIPE
Р	WASTE PIPE
ST	WASTE STACK

	DRAV
Dwg No.	
PG-HY-DWG-SSI-0000900-PDF	EARLY V
PG-HY-DWG-SSI-1000901-PDF	EARLY V
PG-HY-DWG-SSI-1000902-PDF	EARLY V
PG-HY-DWG-SSI-1000911-PDF	EARLYV
PG-HY-DWG-SSI-1000912-PDF	EARLY V
PG-HY-DWG-SSI-1000913-PDF	EARLYV
PG-HY-DWG-SSI-1000914-PDF	EARLYV
PG-HY-DWG-SSI-1000915-PDF	EARLY V
PG-HY-DWG-SSI-1000916-PDF	EARLY V
PG-HY-DWG-SSI-1000917-PDF	EARLY V
PG-HY-DWG-SSI-1000918-PDF	EARLY V
PG-HY-DWG-SSI-1000919-PDF	EARLY V
PG-HY-DWG-SSI-1000920-PDF	EARLY V
PG-HY-DWG-SSI-1000931-PDF	EARLY V
PG-HY-DWG-SSI-1000932-PDF	EARLY V
PG-HY-DWG-SSI-1000933-PDF	EARLY V
PG-HY-DWG-SSI-1000934-PDF	EARLY V
PG-HY-DWG-SSI-1000935-PDF	EARLYV
PG-HY-DWG-SSI-1000936-PDF	EARLY V
PG-HY-DWG-SSI-1000937-PDF	EARLY V
PG-HY-DWG-SSI-1000938-PDF	EARLY V
PG-HY-DWG-SSI-1000939-PDF	EARLY V
PG-HY-DWG-SSI-1000940-PDF	EARLY V
PG-HY-DWG-SSI-1000951-PDF	FARLYV





CLIENT



ARCHITECT



PCW	IPING SYSTEMS POTABLE COLD WATER	
PCWRM	POTABLE COLD WATER RISING MAIN	
D	DRAIN	
PHW	POTABLE HOT WATER	
R	RELIEF	
PTCW		
	PUMPED POTABLE COLD WATER	
PWW	POTABLE WARM WATER	
FLUID FL	ow	
FU	FIXTURE UNITS	
kPa	PRESSURE IN KILOPASCALS	
L/s	FLOW IN LITRES PER SECOND	
LU	LOADING UNITS	
m HEAD	PRESSURE IN METRES HEAD	
m/s	VELOCITY OF FLOW IN METRES PER SECOND	
	<u>S &amp; FITTINGS</u>	
AAV	AIR ADMITTANCE VALVE	
AB AShr	ACCESSIBLE BASIN	
AShr	ACCESSIBLE SHOWER ACCESSIBLE WATER CLOSET	
B	BASIN	
BFW	BASKET FLOOR WASTE	
Bth	BATH	
Bth(Shr)		
BWU	BOILING WATER UNIT	
CWM	CLOTHES WASHING MACHINE	
DS	DOUBLE BOWL SINK	
DWM	DISHWASHING MACHINE	
FW	FLOOR WASTE	
GCT	GAS COOK TOP	
GCTO	GAS COOK TOP & OVEN UPRIGHT GARBAGE FLOOR WASTE	
GFW GM	GAS METER	
GWO	GAS WALL OVEN	
HWU	HOT WATER UNIT	
IM	ICE MACHINE	
KFW	KITCHEN FLOOR WASTE	
LS	LINE STRAINER	
PL/FW	PLANT DRAIN/FLOOR WASTE	
S	SINK	
SBth	SPA BATH	
	SAFETY SHOWER EYEWASH	
Shr	SHOWER	
SSFW	STAINLESS STEEL FLOOR WASTE	
T	TUB	
TD TD/AC	TUNDISH TUNDISH FOR AIR CONDITIONING UNIT	
TTD	TRAPPED TUNDISH	
TMV	THERMOSTATIC MIXING VALVE	
Ur	URINAL	
UrMBC	URINAL MICROWAVE BEAM CONTROL UNIT	
UV	ULTRA VIOLET	
ŬŴ	UTENSIL WASHER	
VM	VENDING MACHINE	
WC	WATER CLOSET	
WG	WATER GUN	
WM	WATER METER	

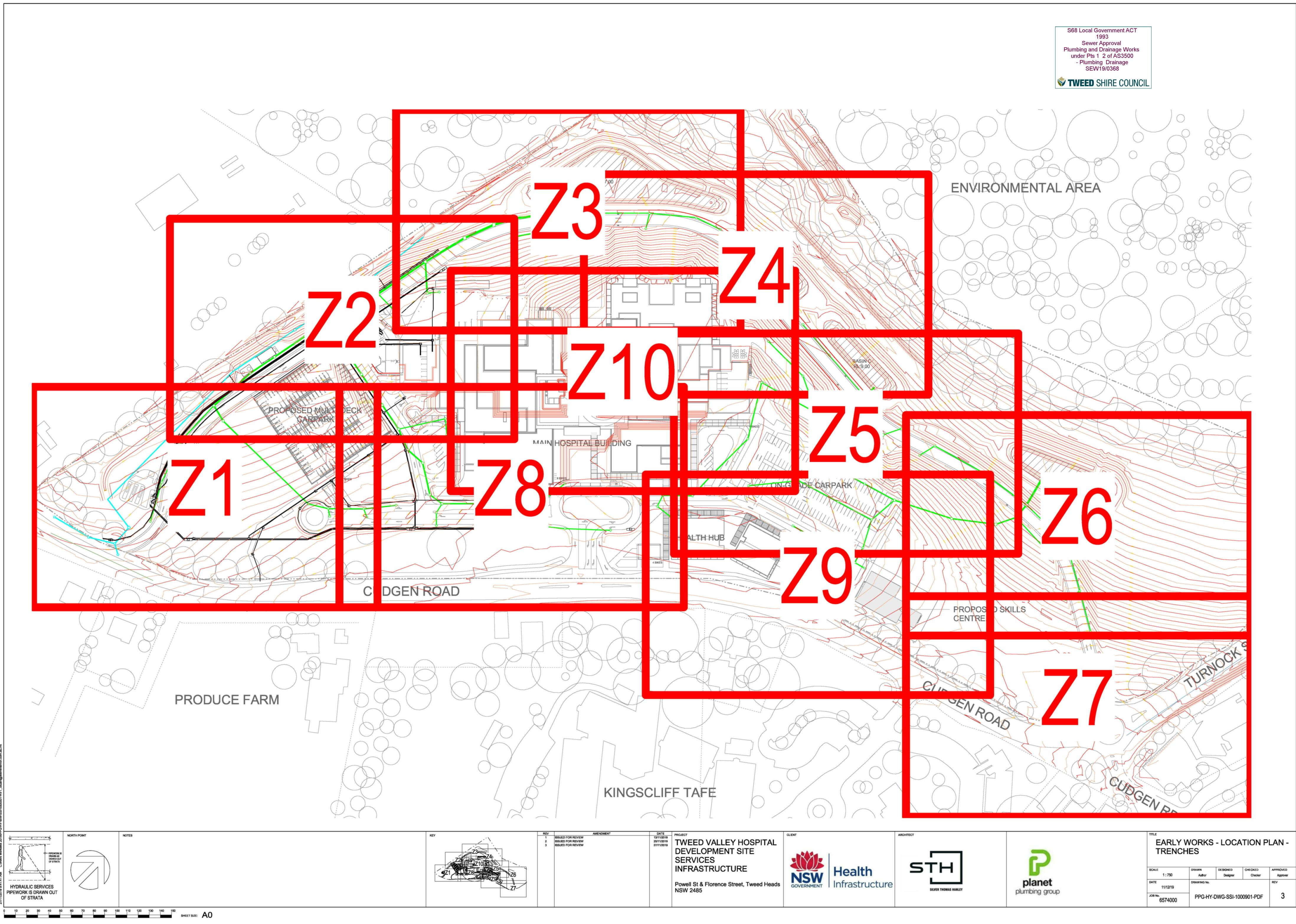
GAS PIPIN	NG SYSTEMS
GM	GAS METER
kW	KILOWATT
MJ/hr	MEGAJOULE PER HOUR
NG	NATURAL GAS
NGTP	NATURAL GAS TAIL PIPE
FIRE PRO	TECTION PIPING SYSTEMS
DE	DIESEL EXHAUST
FH	FIRE HYDRANT
FHR	FIRE HOSE REEL
FS	FIRE SPRINKLER
IFS	INCOMING FIRE SPRINKLER
MATERIA	
Br	BRASS
CI	CAST IRON
CICL	CAST IRON CEMENT LINED
CONC	CONCRETE
CP	CHROMIUM PLATED
Cu	COPPER
DICL	DUCTILE IRON CEMENT LINED
FRC	FIBRE REINFORCED CEMENT
GMS	GALVANISED MILD STEEL
HDPE PE	HIGH DENSITY POLYETHYLENE POLYETHYLENE
PP	POLYPROPYLENE
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RHS	RECTANGULAR HOLLOW SECTION
S/S	STAINLESS STEEL
uPVC	UNPLASTICISED POLYVINYL CHLORIDE
0.00	
LEVELS	
AHD	AUSTRALIAN HEIGHT DATUM
CL	CEILING LEVEL
FFL	FINISHED FLOOR LEVEL
GL	GROUND LEVEL
H/L	HIGH LEVEL
L	INVERT LEVEL
L/L	LOW LEVEL
M/L	MID LEVEL
RL	REDUCED LEVEL
U/S	UNDERSIDE
USFL	UNDERSIDE FLOOR
ТК	TOP OF KERB
MISCELL	
A/C	AIR CONDITIONING
[B]	PIPE BELOW GROUND
B/P	BELOW PLANTER
C/L	CENTRE LINE
CIC	CAST IN COLUMN
CIS	CAST IN SLAB
DIA	DIAMETER
DRW	DRAWING
DTB	DROPPING TO BELOW
ECP	PUMP ELECTRICAL CONTROL PANEL
EJ	EXPANSION JOINT
EX	EXISTING PIPELINE FALL
FALL	
GRD HP	GROUND HIGH POINT
JU	JUMP UP
MPC	MULTI PART COVER
MPG	MULTI PART GRATE
NTS	NOT TO SCALE
RFB	RISING FROM BELOW
SQ	SQUARE
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL

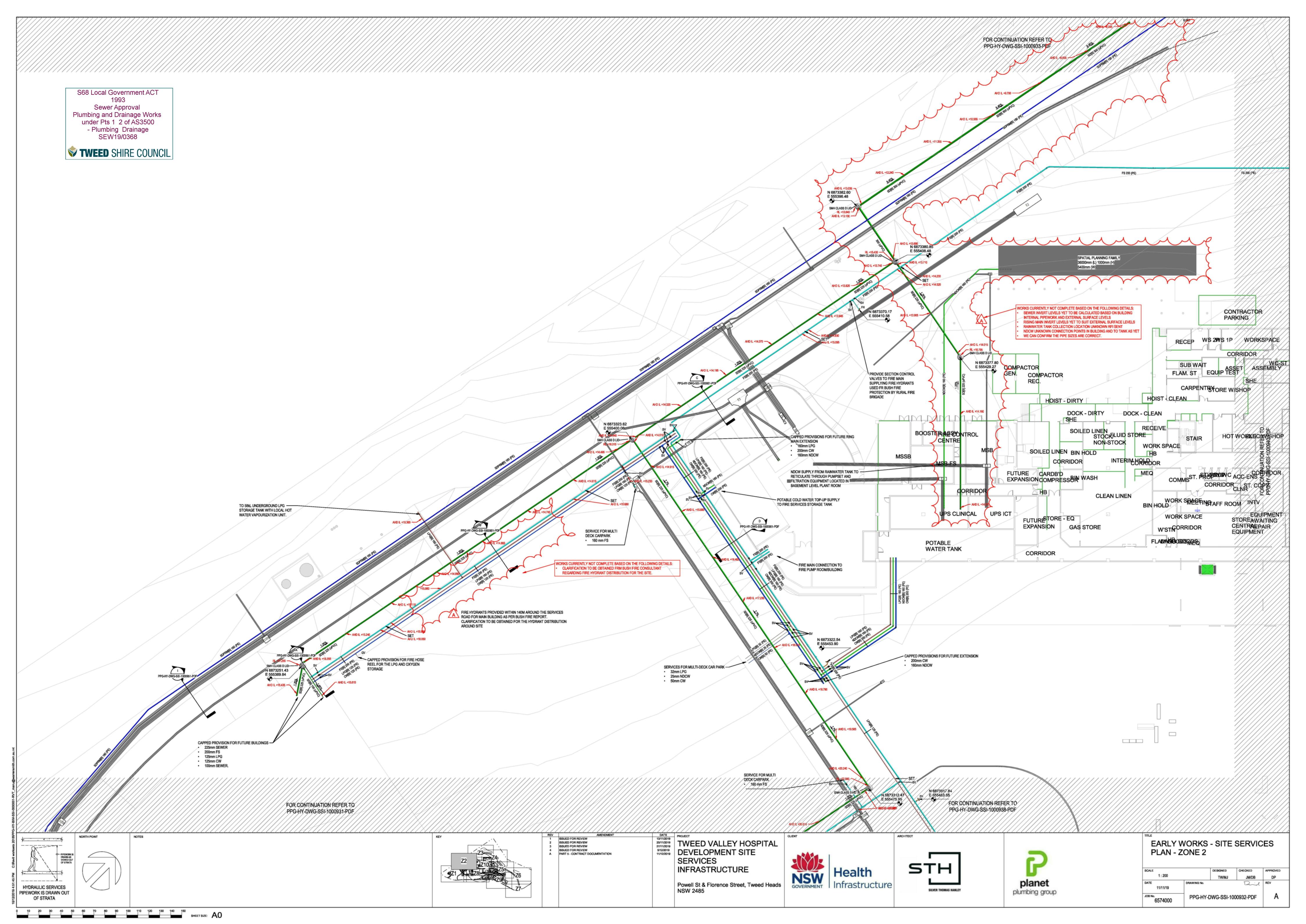
DRAWING LIST			
Dwg No. Drawing Title			
PPG-HY-DWG-SSI-0000900-PDF	EARLY WORKS - TITLE SHEET		
PPG-HY-DWG-SSI-1000901-PDF	EARLY WORKS - LOCATION PLAN - TRENCHES		
PPG-HY-DWG-SSI-1000902-PDF	EARLY WORKS - LOCATION PLAN - SERVICES		
PPG-HY-DWG-SSI-1000911-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 1		
PPG-HY-DWG-SSI-1000912-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 2		
PPG-HY-DWG-SSI-1000913-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 3		
PPG-HY-DWG-SSI-1000914-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 4		
PPG-HY-DWG-SSI-1000915-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 5		
PPG-HY-DWG-SSI-1000916-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 6		
PPG-HY-DWG-SSI-1000917-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 7		
PPG-HY-DWG-SSI-1000918-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 8		
PPG-HY-DWG-SSI-1000919-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 9		
PPG-HY-DWG-SSI-1000920-PDF	EARLY WORKS - SITE TRENCH PLAN - ZONE 10		
PPG-HY-DWG-SSI-1000931-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 1		
PPG-HY-DWG-SSI-1000932-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 2		
PPG-HY-DWG-SSI-1000933-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 3		
PPG-HY-DWG-SSI-1000934-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 4		
PPG-HY-DWG-SSI-1000935-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 5		
PPG-HY-DWG-SSI-1000936-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 6		
PPG-HY-DWG-SSI-1000937-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 7		
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PPG-HY-DWG-SSI-1000939-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 9		
PPG-HY-DWG-SSI-1000940-PDF	EARLY WORKS - SITE SERVICES PLAN - ZONE 10		
PPG-HY-DWG-SSI-1000951-PDF	EARLY WORKS - TRENCH SECTION DETAIL 1		

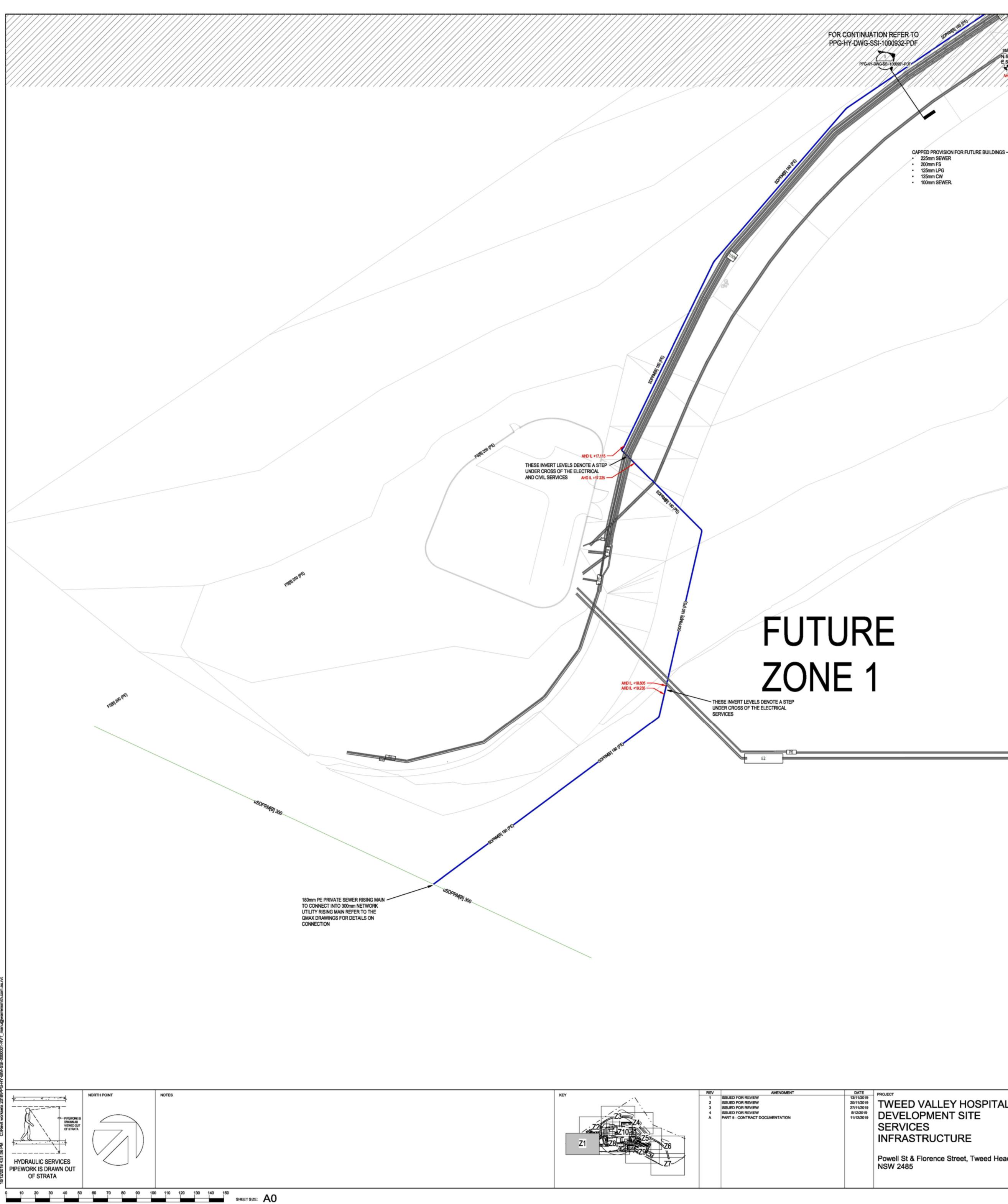


# EARLY WORKS - TITLE SHEET

SCALE		DESIGNED	CHECKED	APPROVED
1:100		TW	Die	DP
DATE 11/12/19	DRAWING No.			REV
<sup>јов №.</sup> 6574000	PPG-HY-D	Α		







KEY	REV	AMENDMENT	DATE	PROJECT
	1	ISSUED FOR REVIEW	13/11/2019	
	2	ISSUED FOR REVIEW	20/11/2019	TWEE
	3	ISSUED FOR REVIEW	27/11/2019	
	4	ISSUED FOR REVIEW	5/12/2019	
23	A	PART 5 - CONTRACT DOCUMENTATION	11/12/2019	DEVE
				SEDV/
				SERV
				INCOA
Z1 Z8 76				INFRA
29 N				
				Powell St
77-				
~L/				NSW 248

EED VALLEY HOSPITAL ELOPMENT SITE VICES RASTRUCTURE

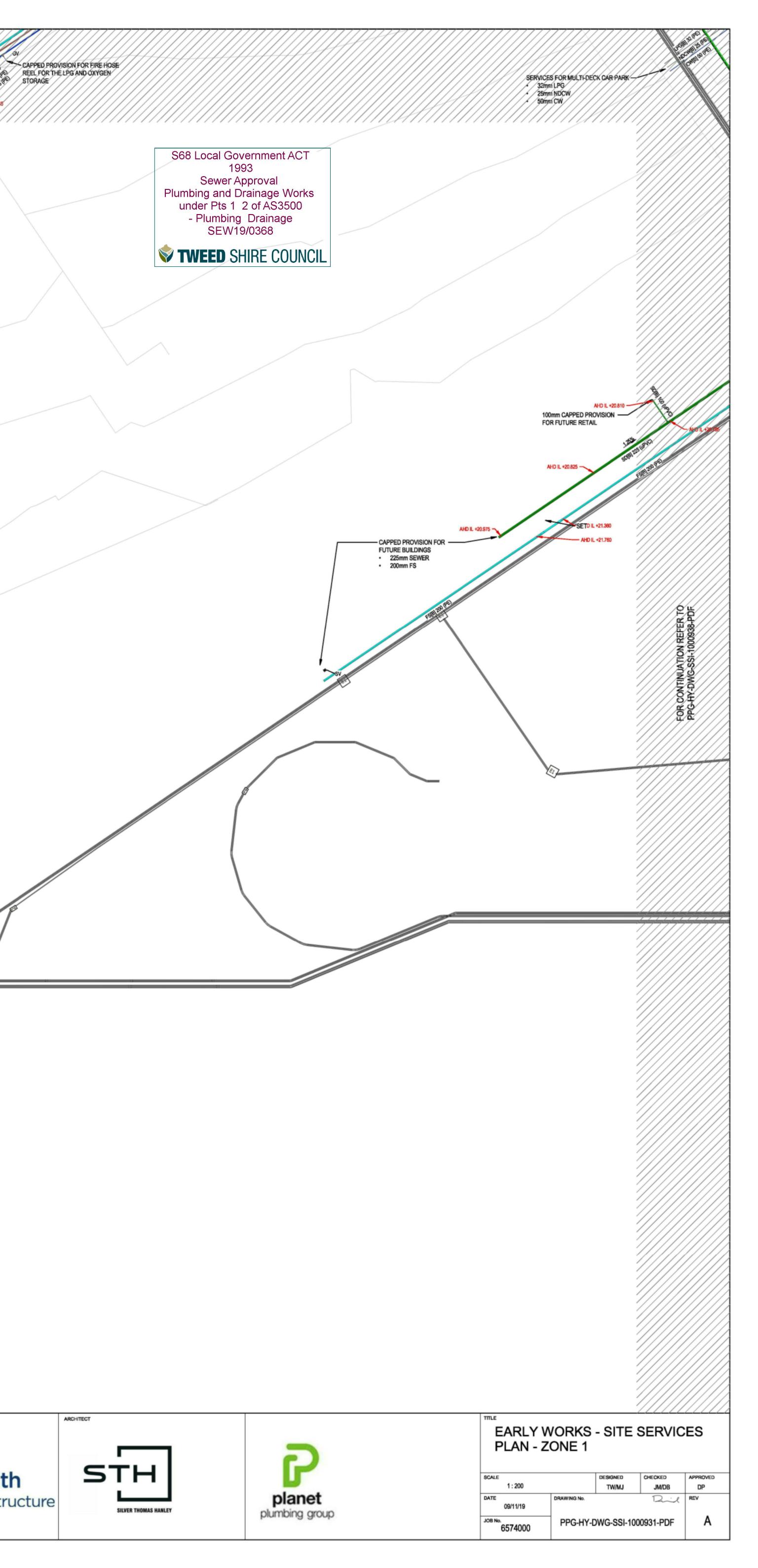


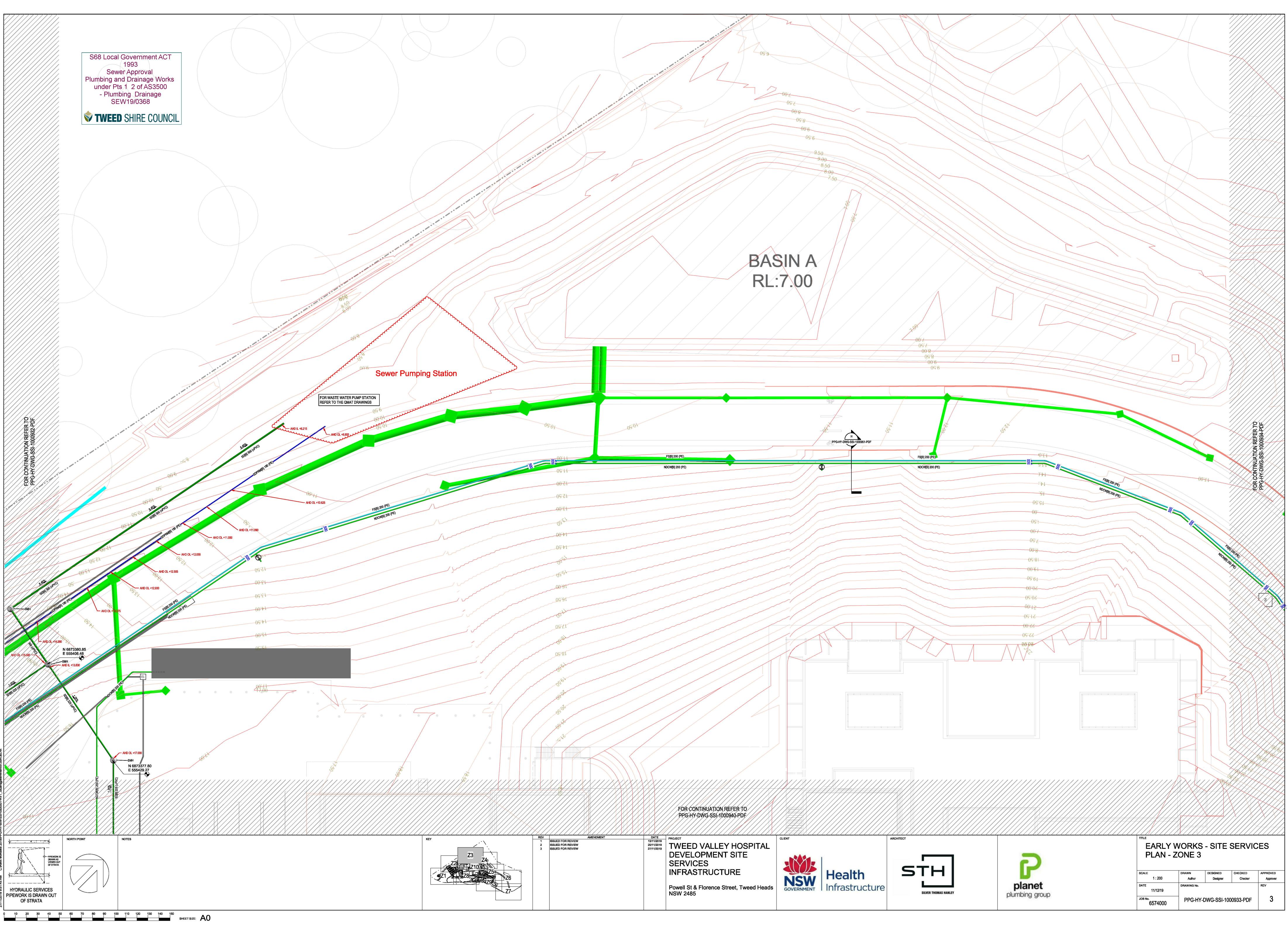
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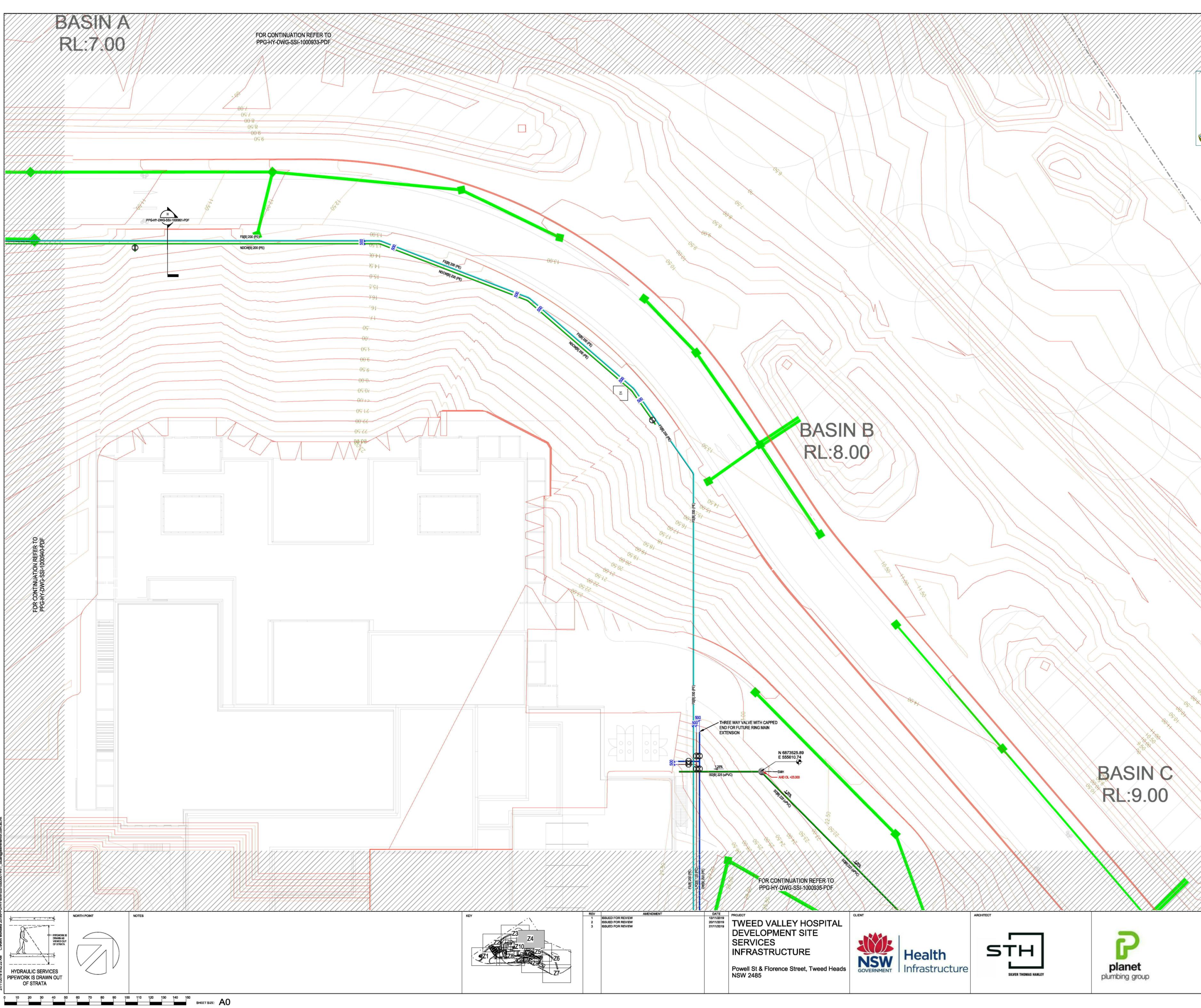


ARCHITECT

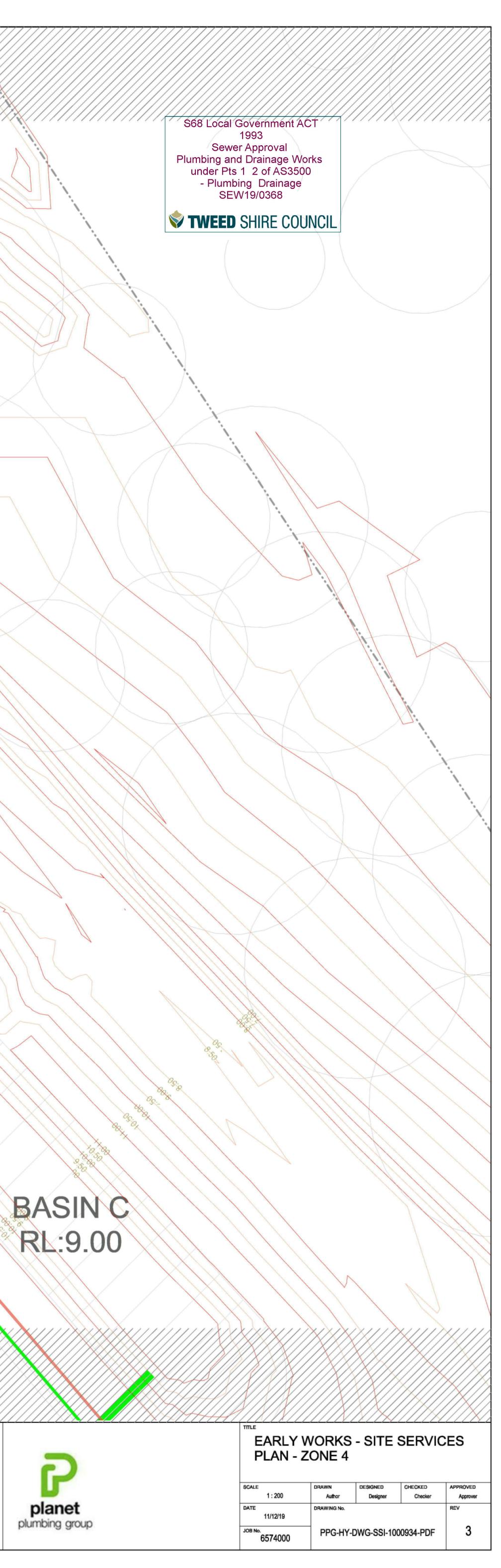
CAPPED PROVISION FOR FIRE HOSE REEL FOR THE LPG AND OXYGEN STORAGE

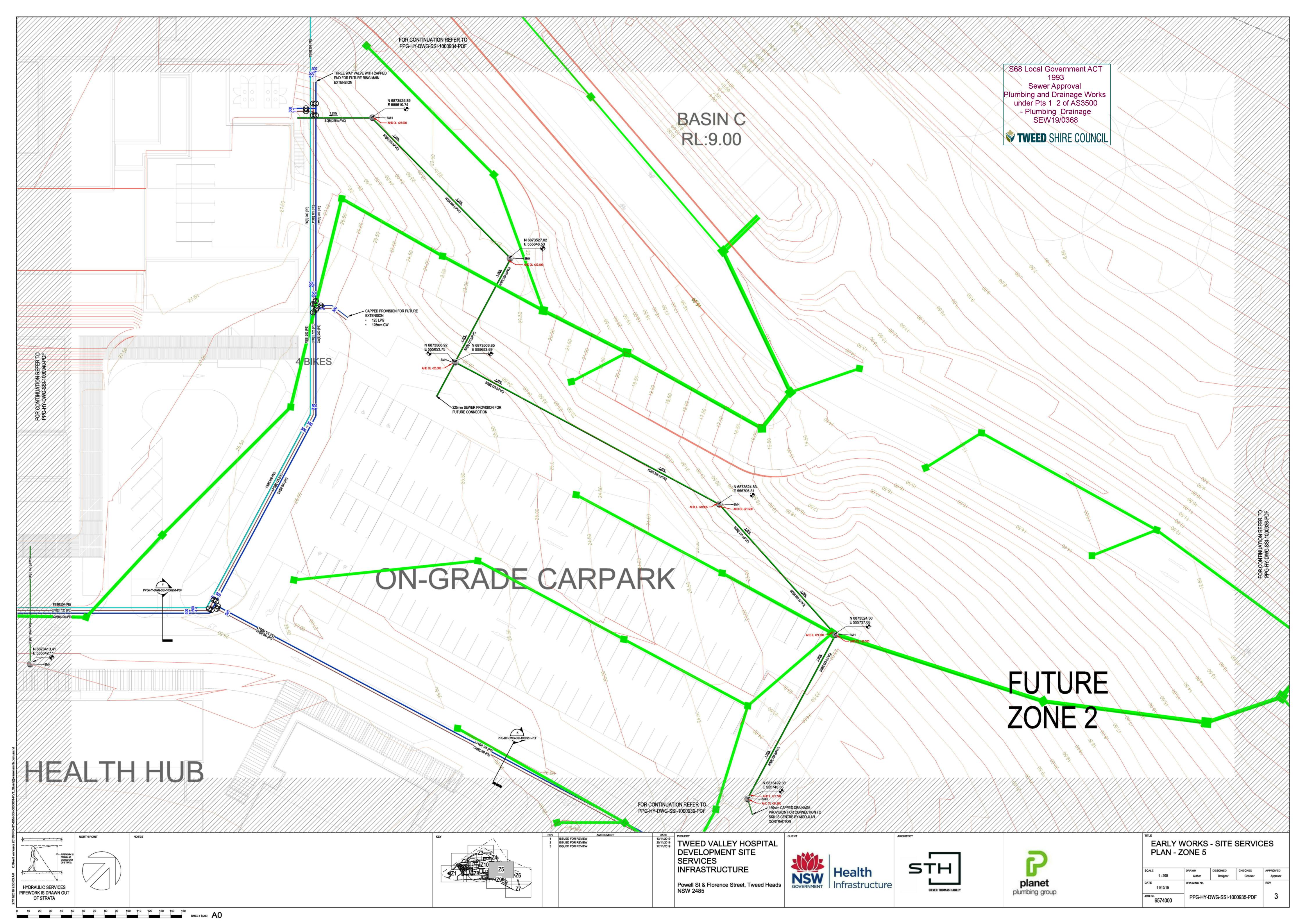


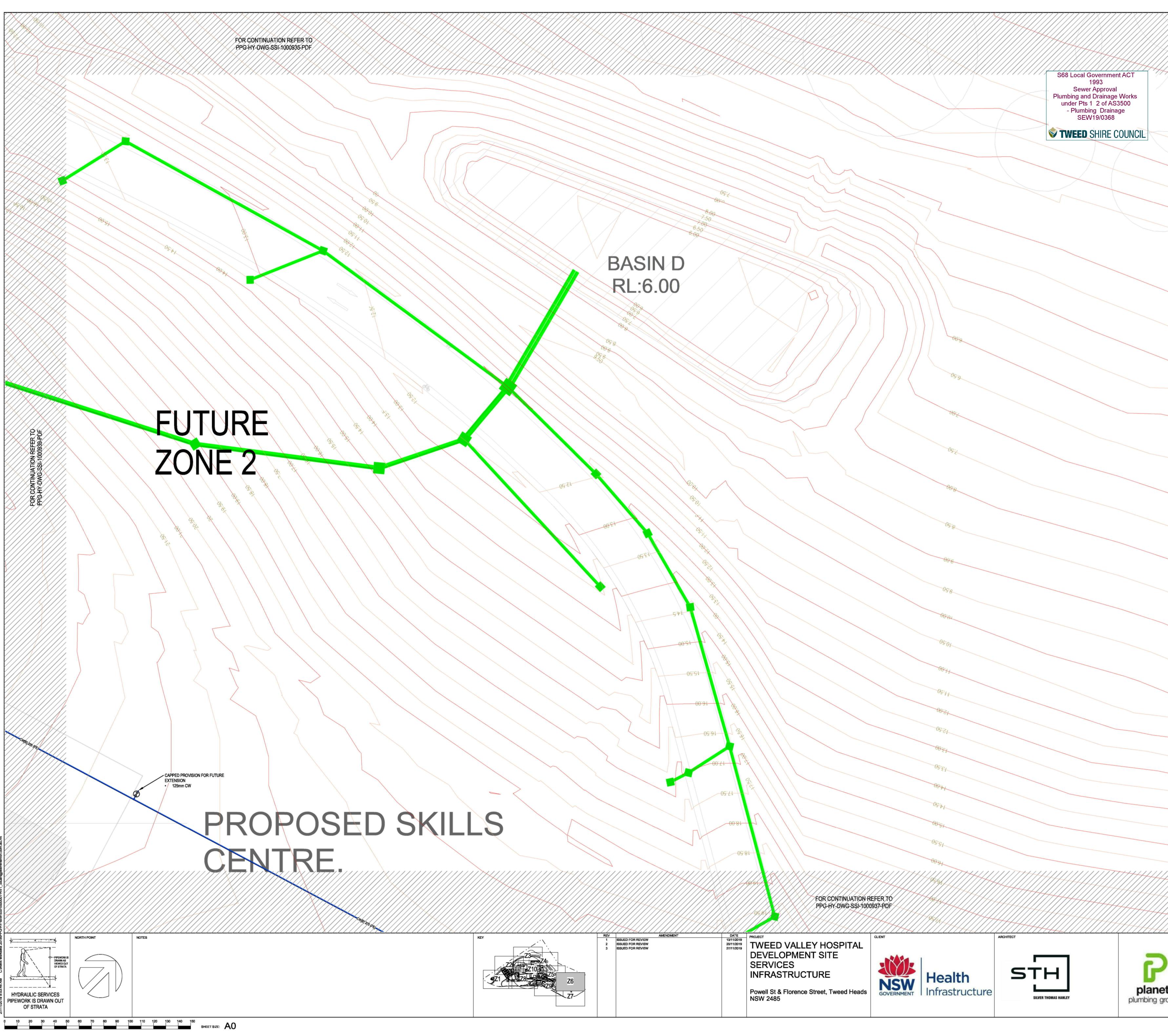




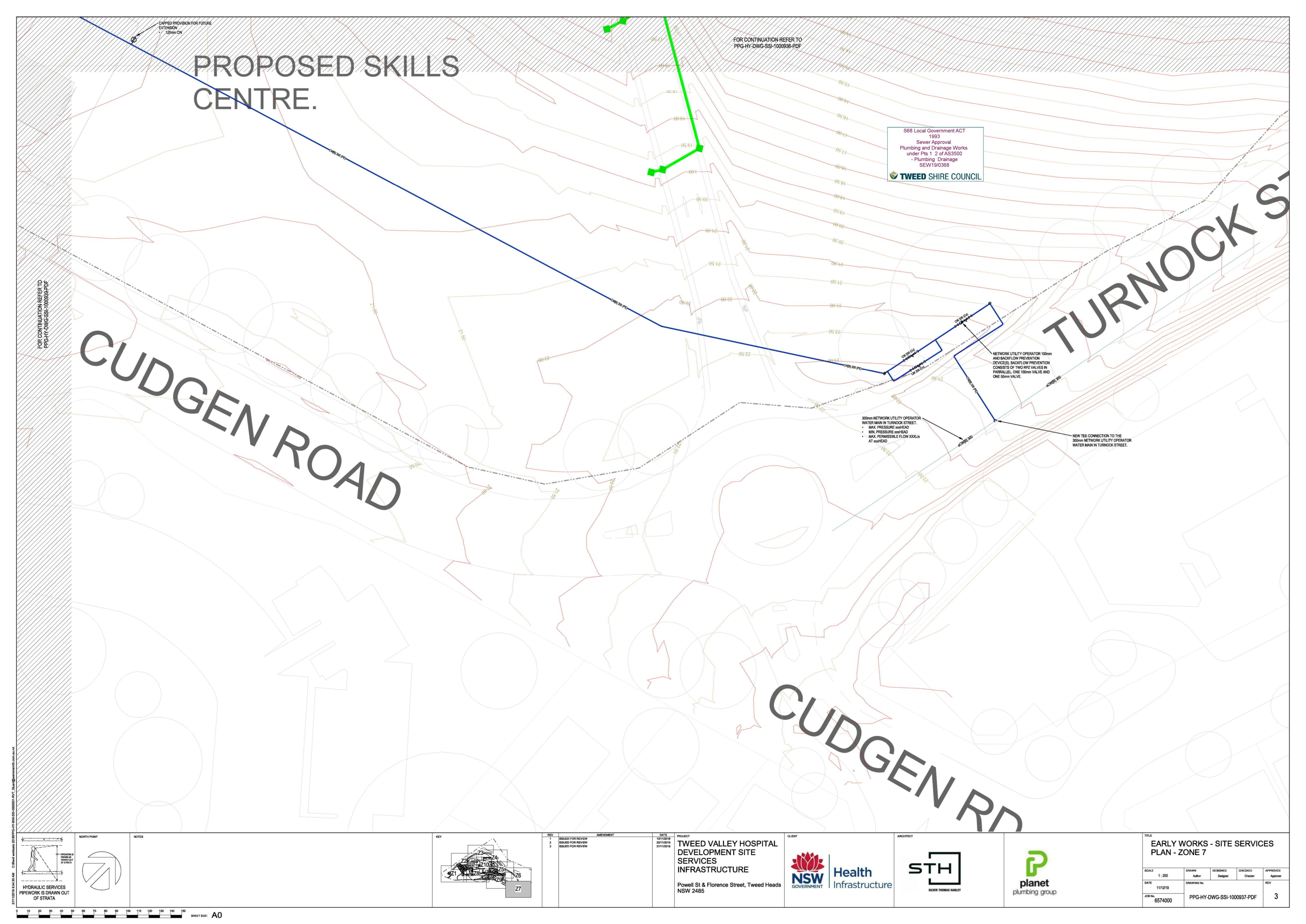
BASIN B RL:8.00 N 6873525.89 E 555610.74 - AHD OL +23.000 FOR CONTINUATION REFER TO PPG-HY-DWG-SSI-1000935-PDF DATE 13/11/2019 20/11/2019 27/11/2019 27/11/2019 TWEED VALLEY HOSPITAL DEVELOPMENT SITE SERVICES INFRASTRUCTURE CLIENT ARCHITECT STH **NSW** GOVERNMENT Health Infrastructure planet plumbing group Powell St & Florence Street, Tweed Heads NSW 2485 SILVER THOMAS HANLEY

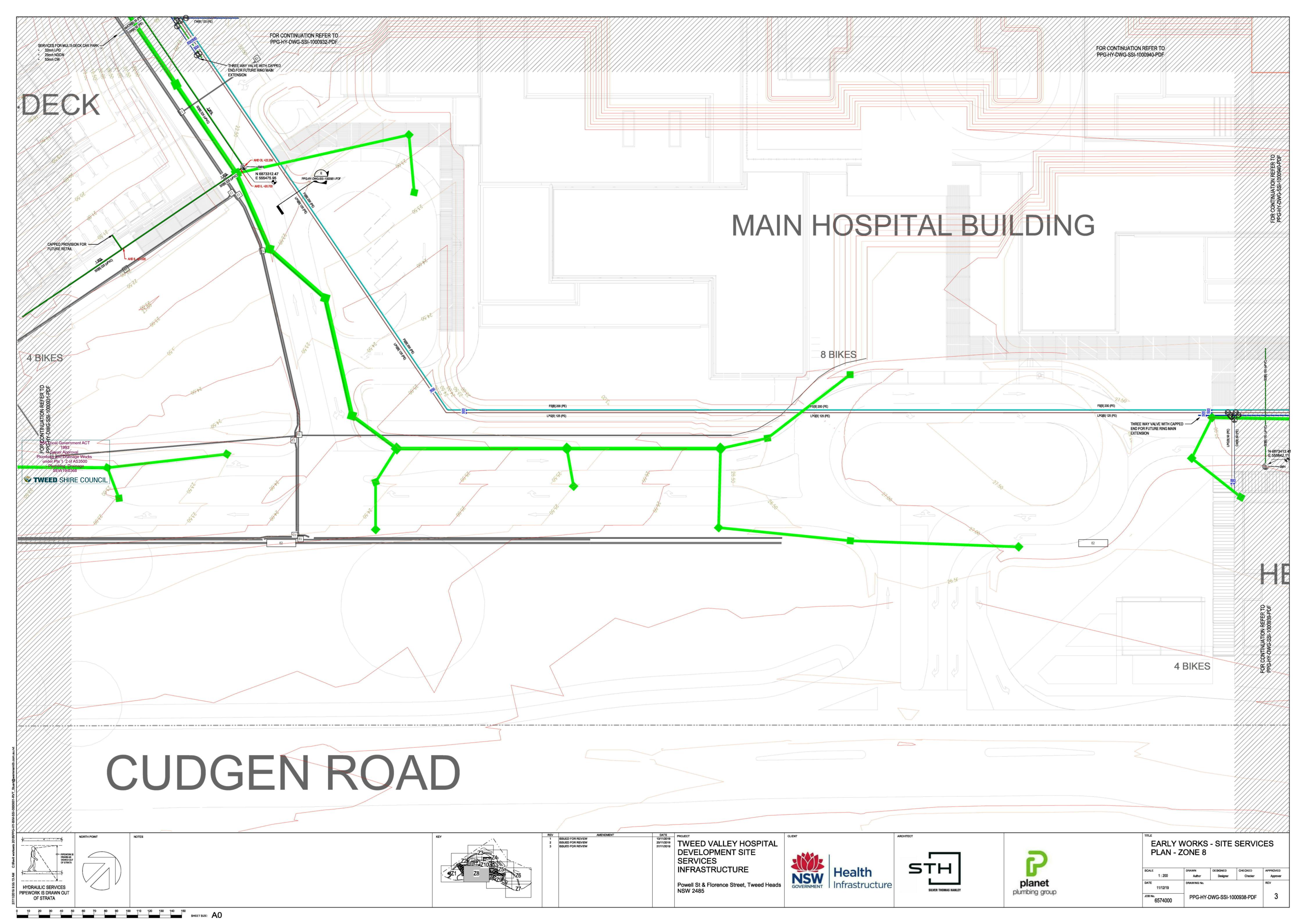


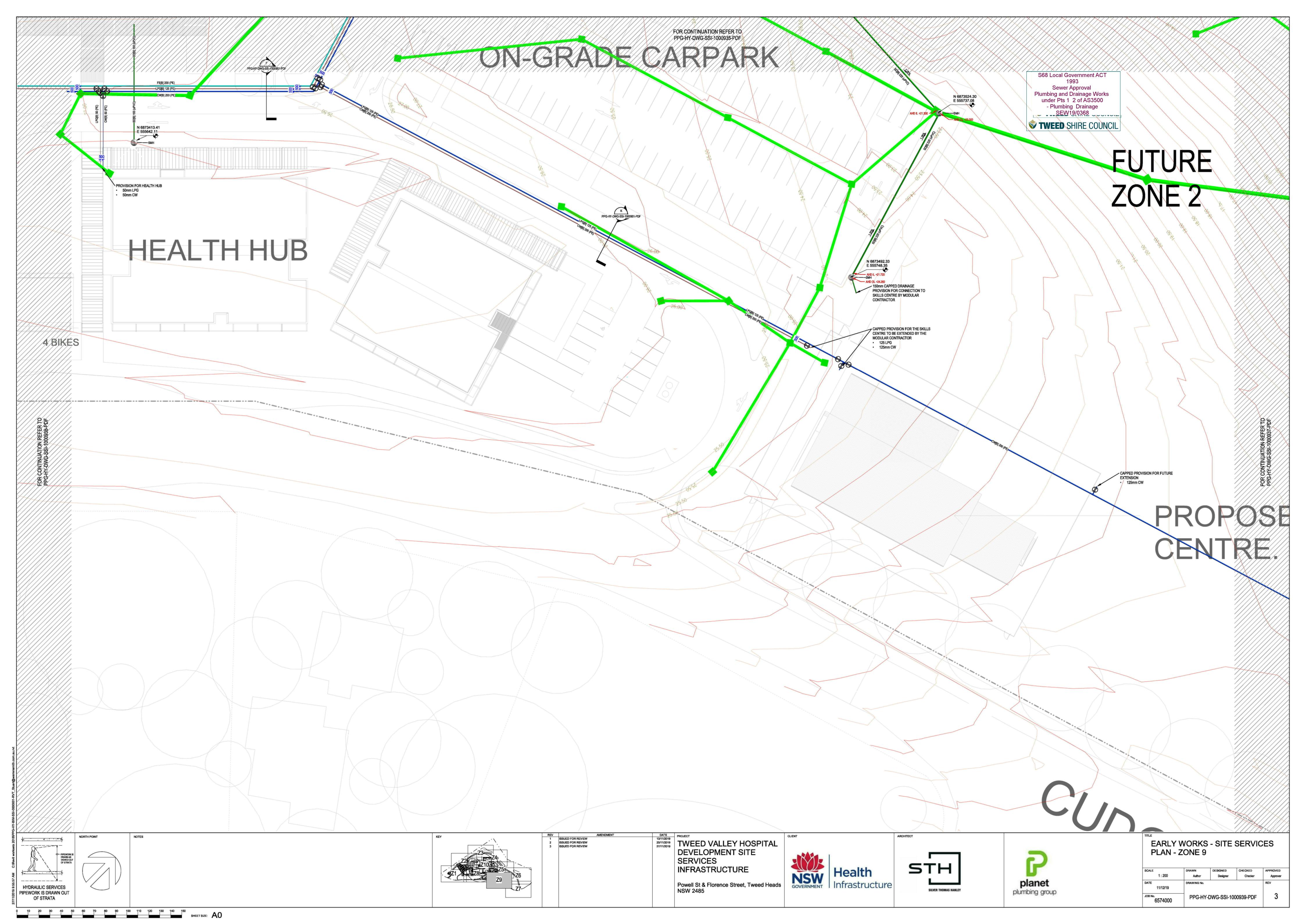


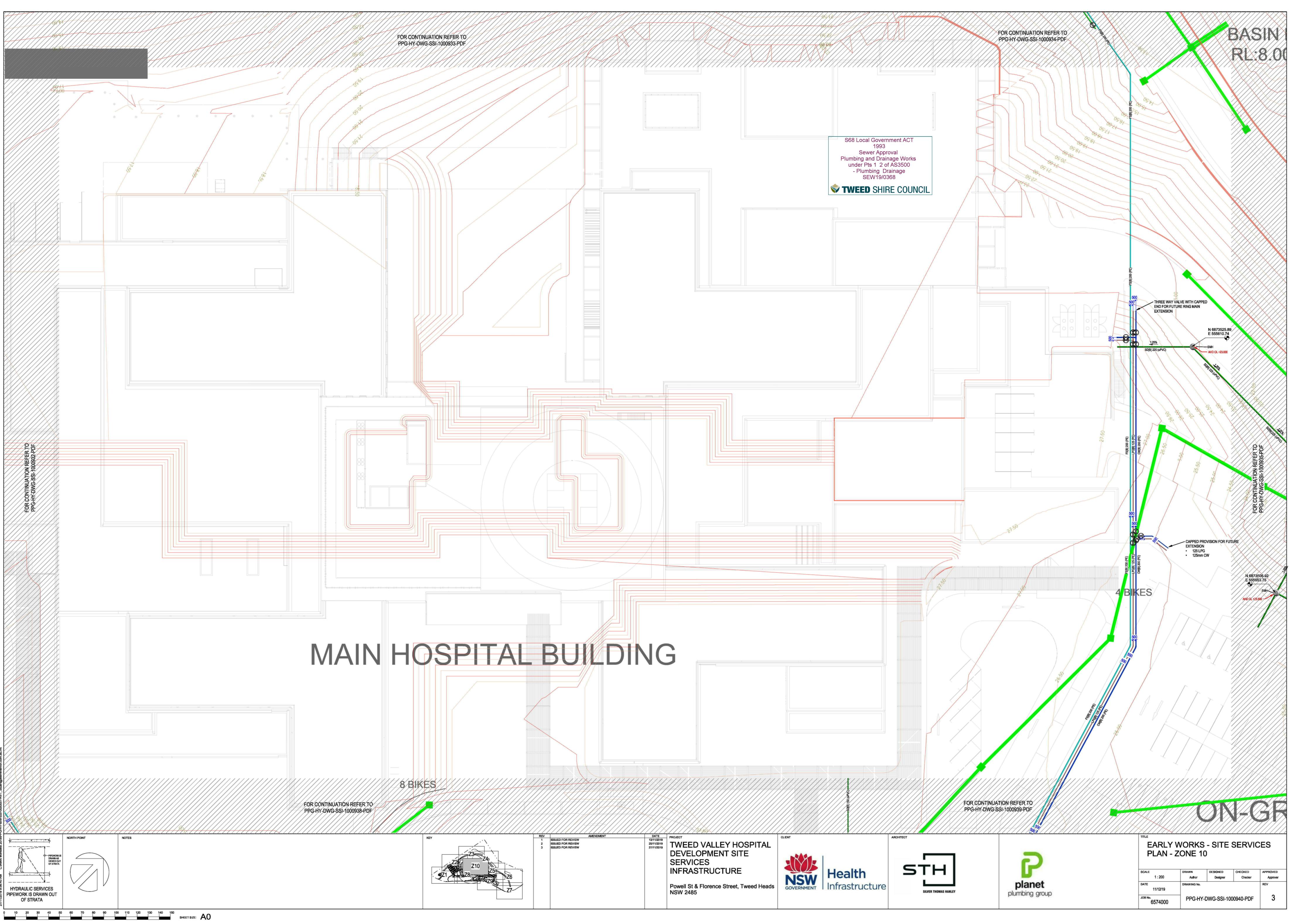


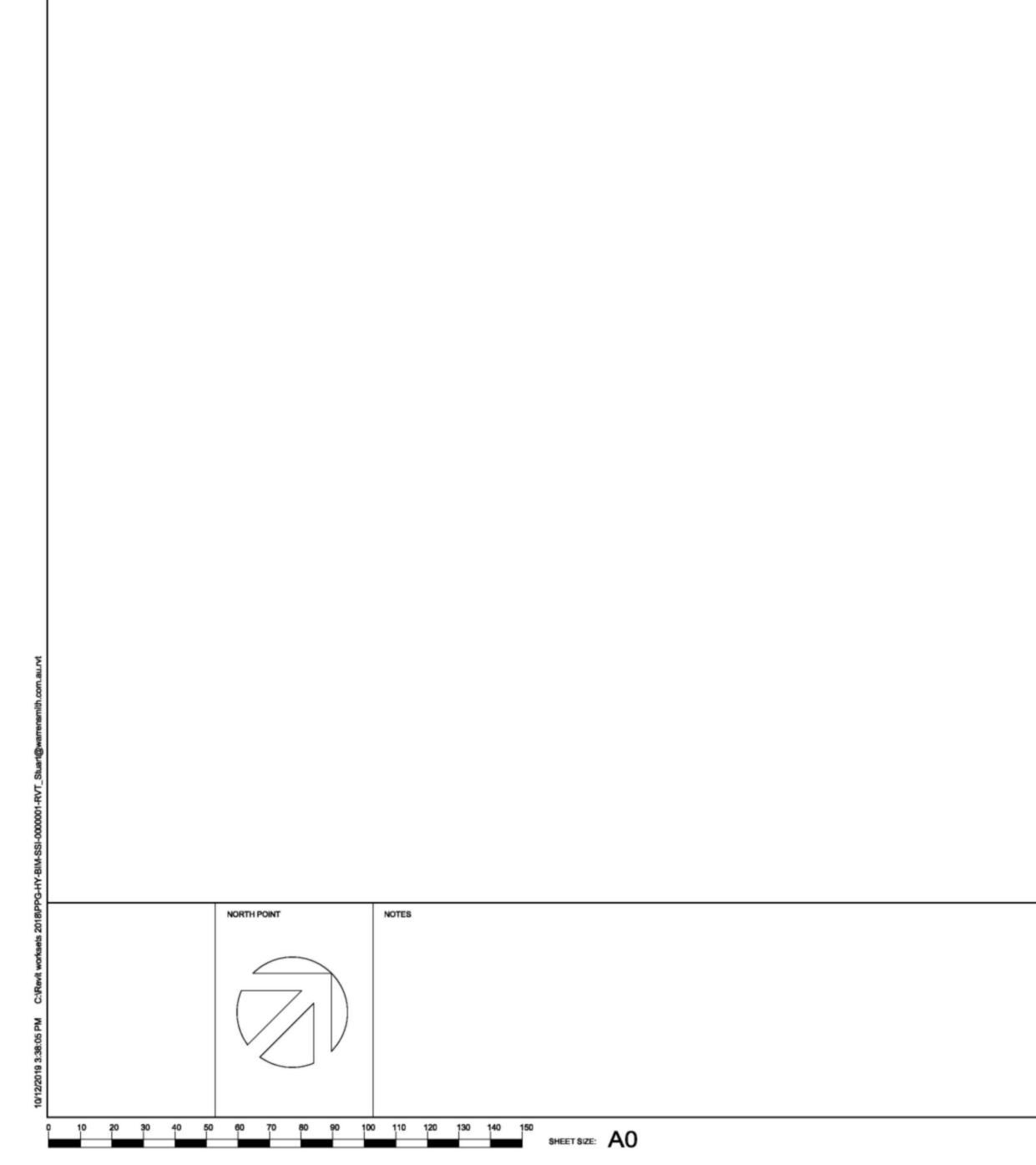
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	The EARLY WORKS - SITE SERVICES PLAN - ZONE 6
	EARLY WORKS - SITE SERVICES
	EARLY WORKS - SITE SERVICES
	EARLY WORKS - SITE SERVICES PLAN - ZONE 6
	EARLY WORKS - SITE SERVICES   PLAN - ZONE 6 DRAWN DESIGNED CHECKED APPROVED   SCALE DRAWN Author Designer CHECKED Approver   1: 200 Author Designer Checker Approver   DATE DRAWING No. REV

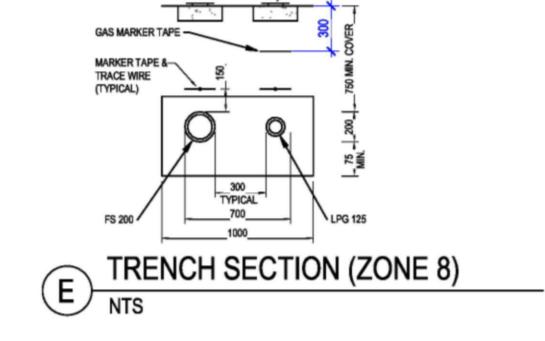




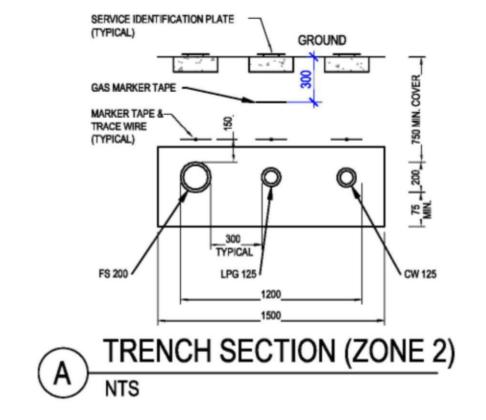


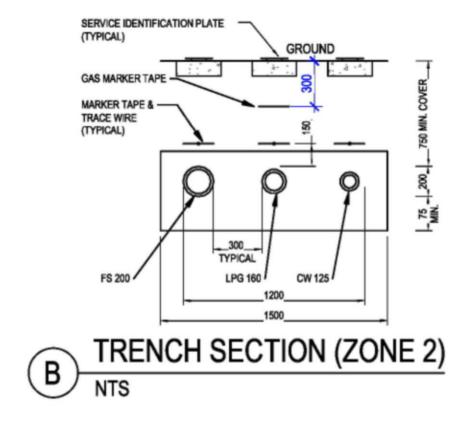


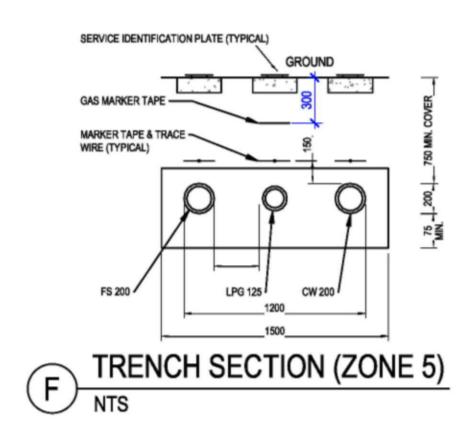


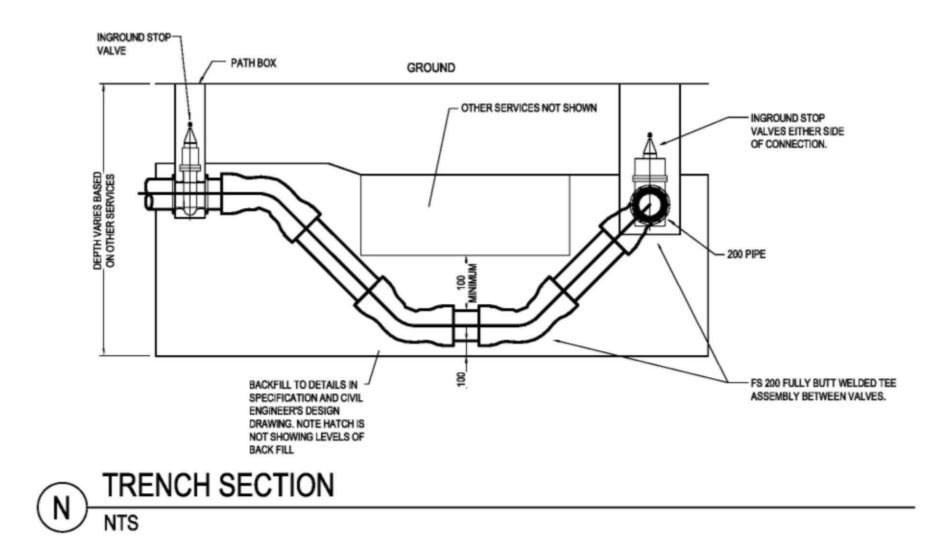


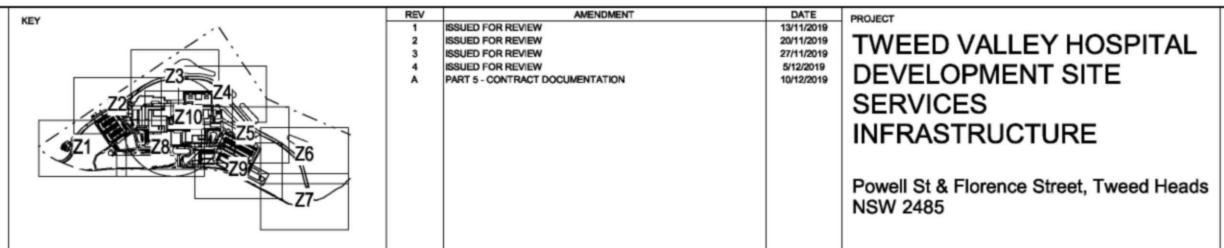
GROUND









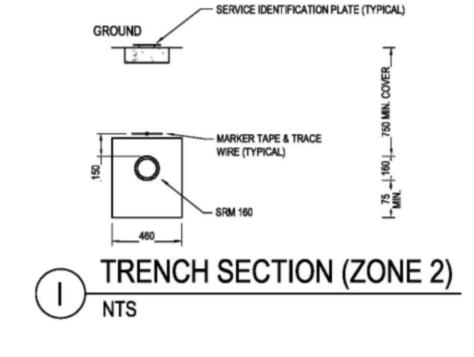


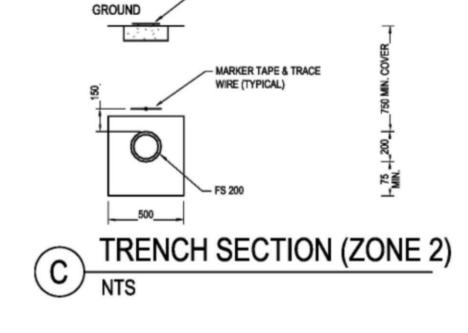
INFRASTRUCTURE





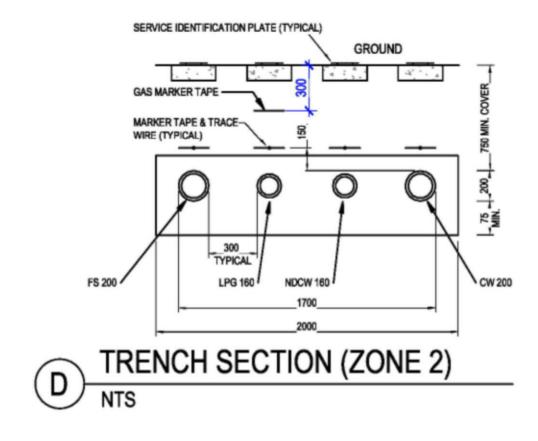


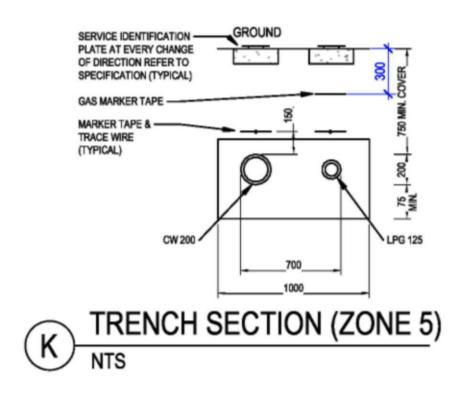




- SERVICE IDENTIFICATION PLATE (TYPICAL)







#### TITLE EARLY WORKS - TRENCH SECTION DETAIL 1

<sup>јов №.</sup> 6574000	PPG-HY	PPG-HY-DWG-SSI-1000951-PDF			
DATE 11/12/19	DRAWING No.	DRAWING No.			
NTS		TW	JM	DP	
SCALE		DESIGNED	CHECKED	APPROVED	