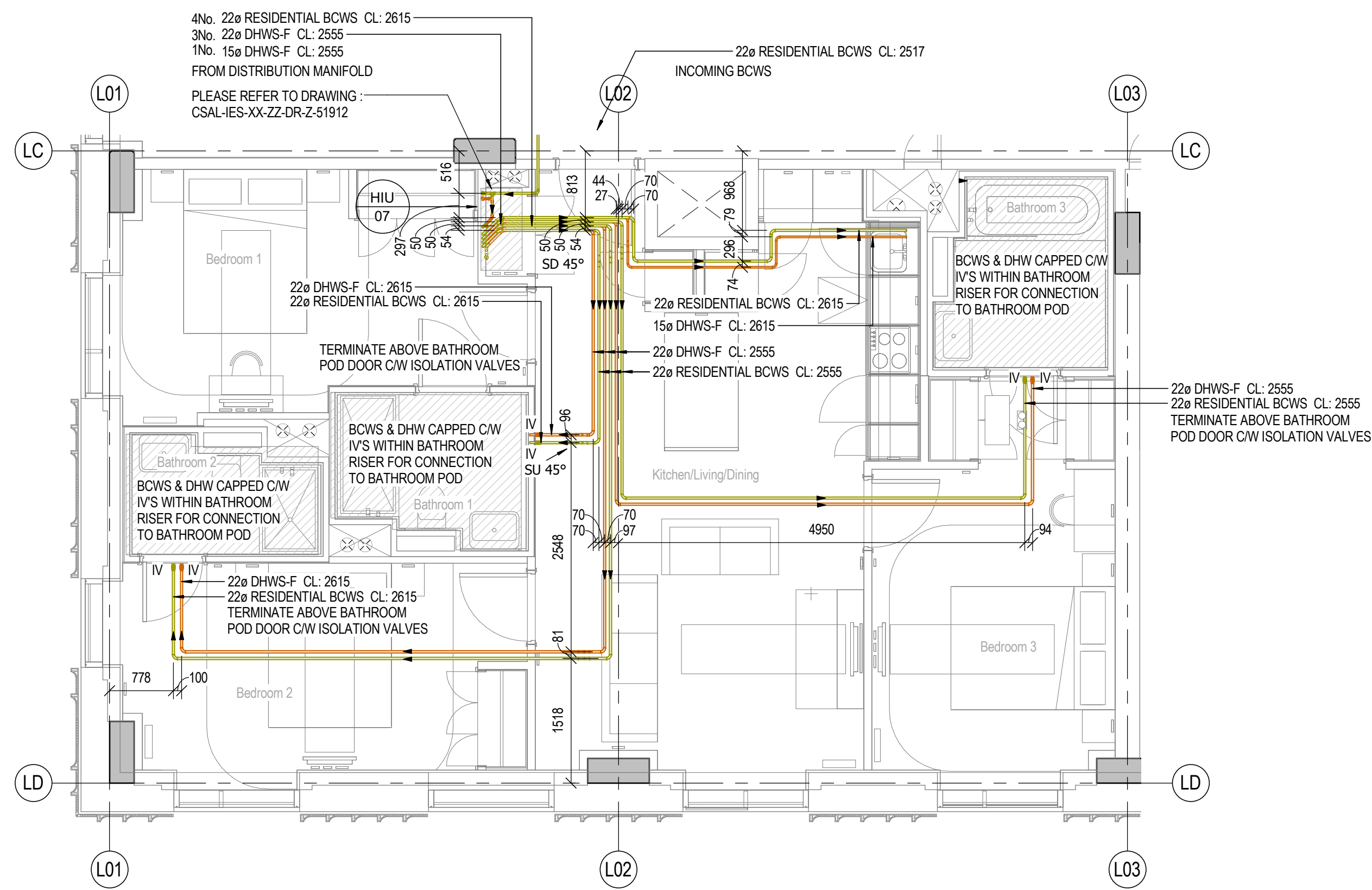
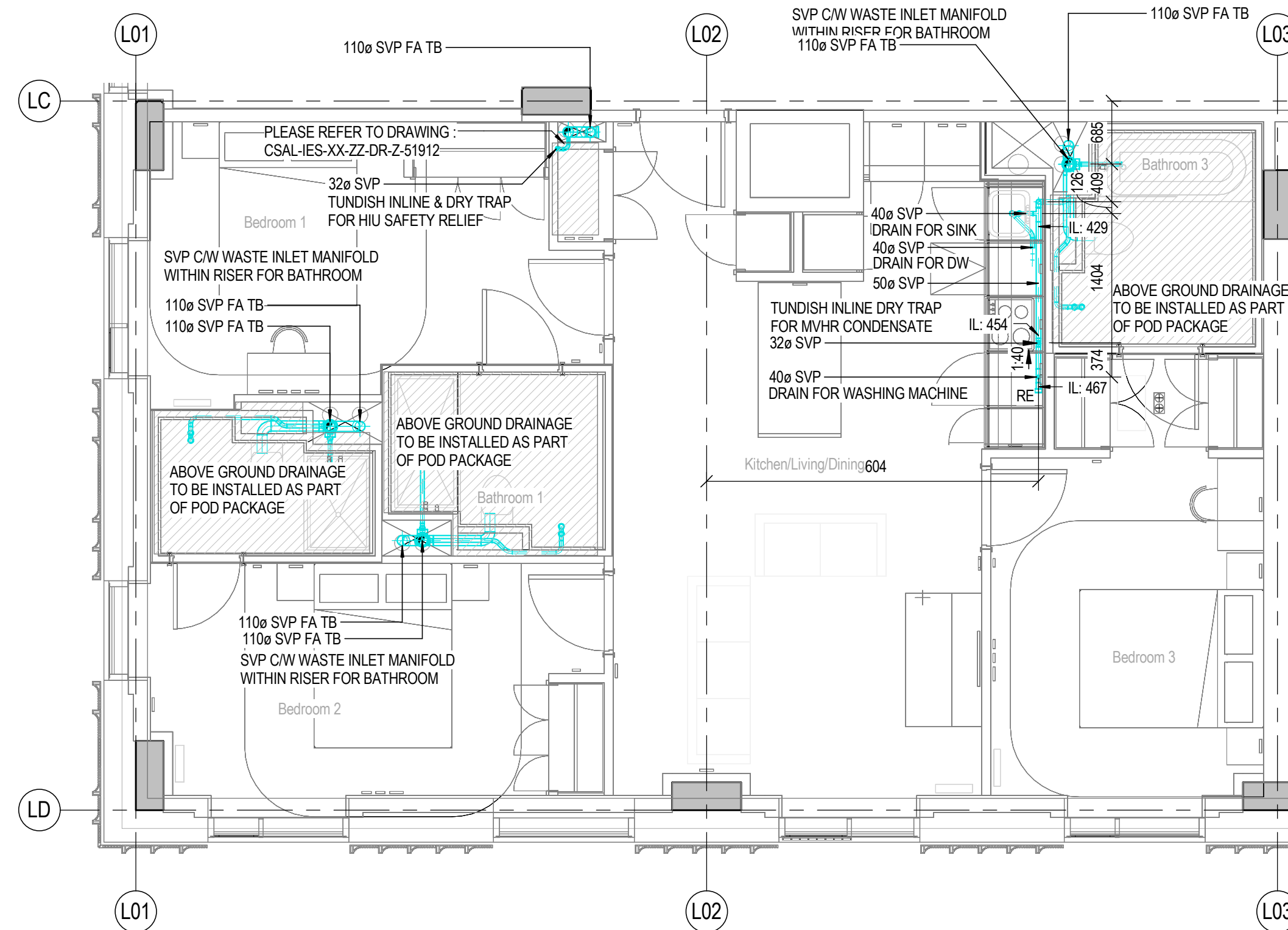
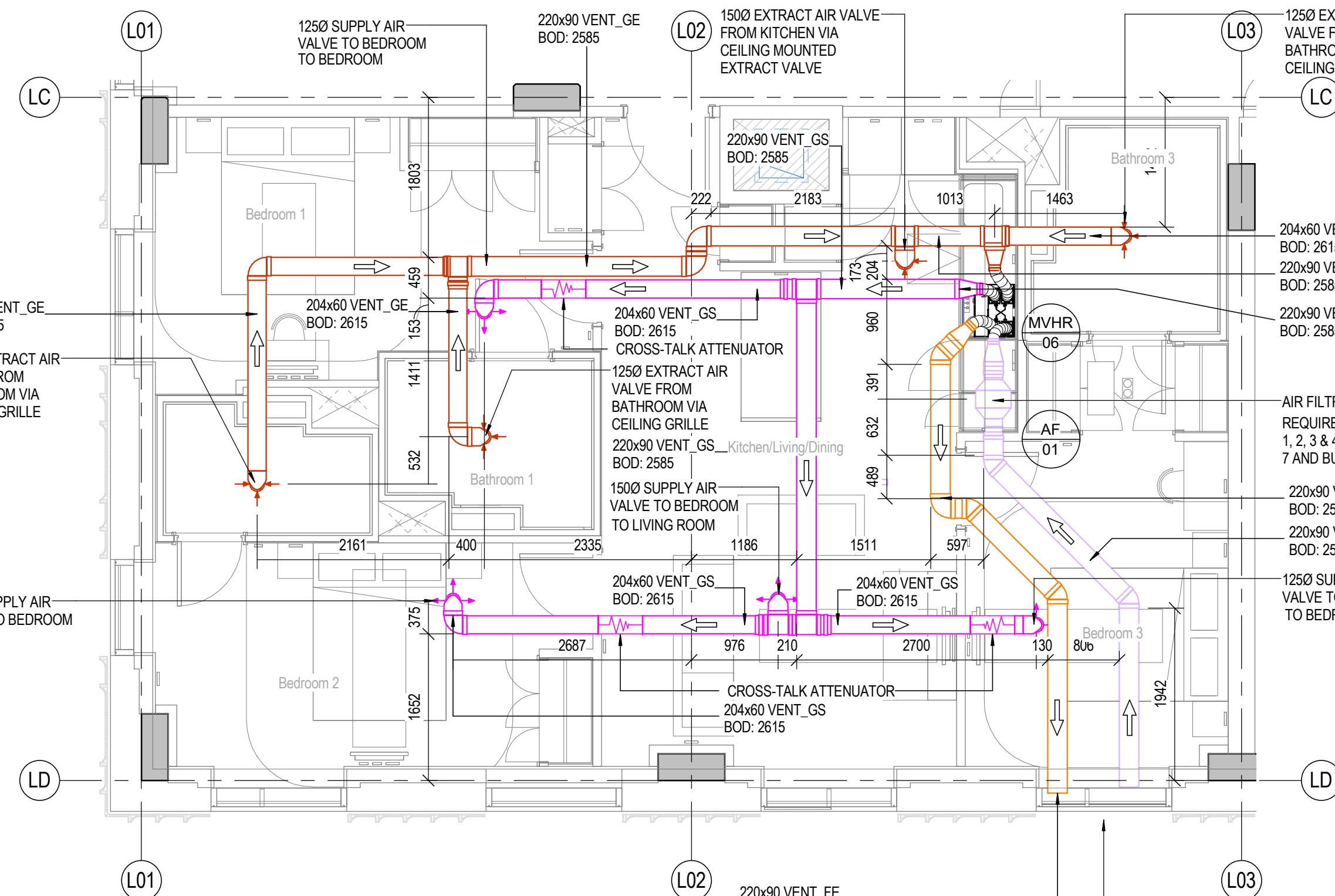




1 L1 - WATER SERVICES - TYPICAL 3BED APARTMENT LAYOUT 3B-L1
1:50



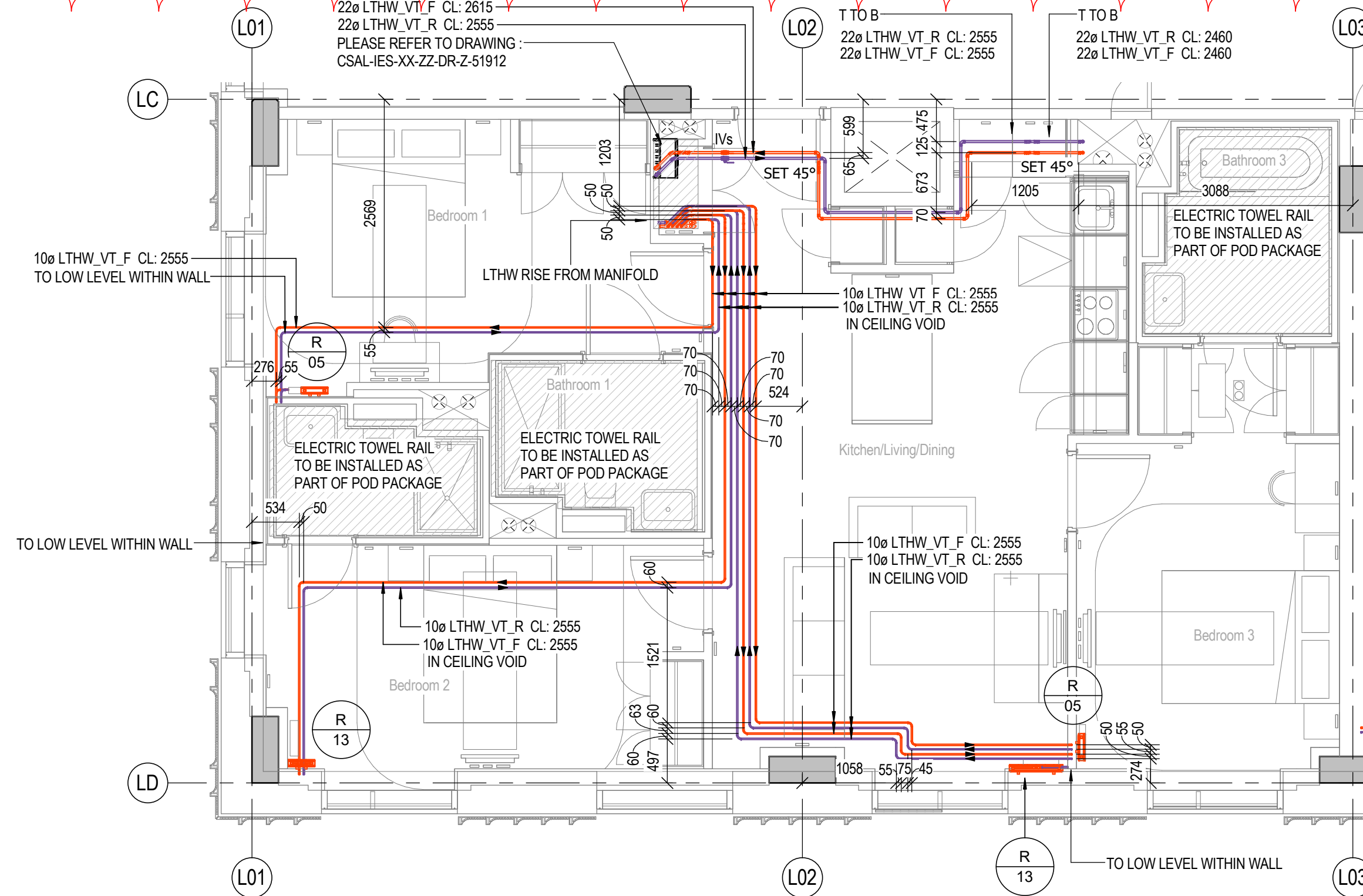
2 L1 - ABOVE GROUND DRAINAGE - TYPICAL 3BED APARTMENT LAYOUT 3B-L1
1:50



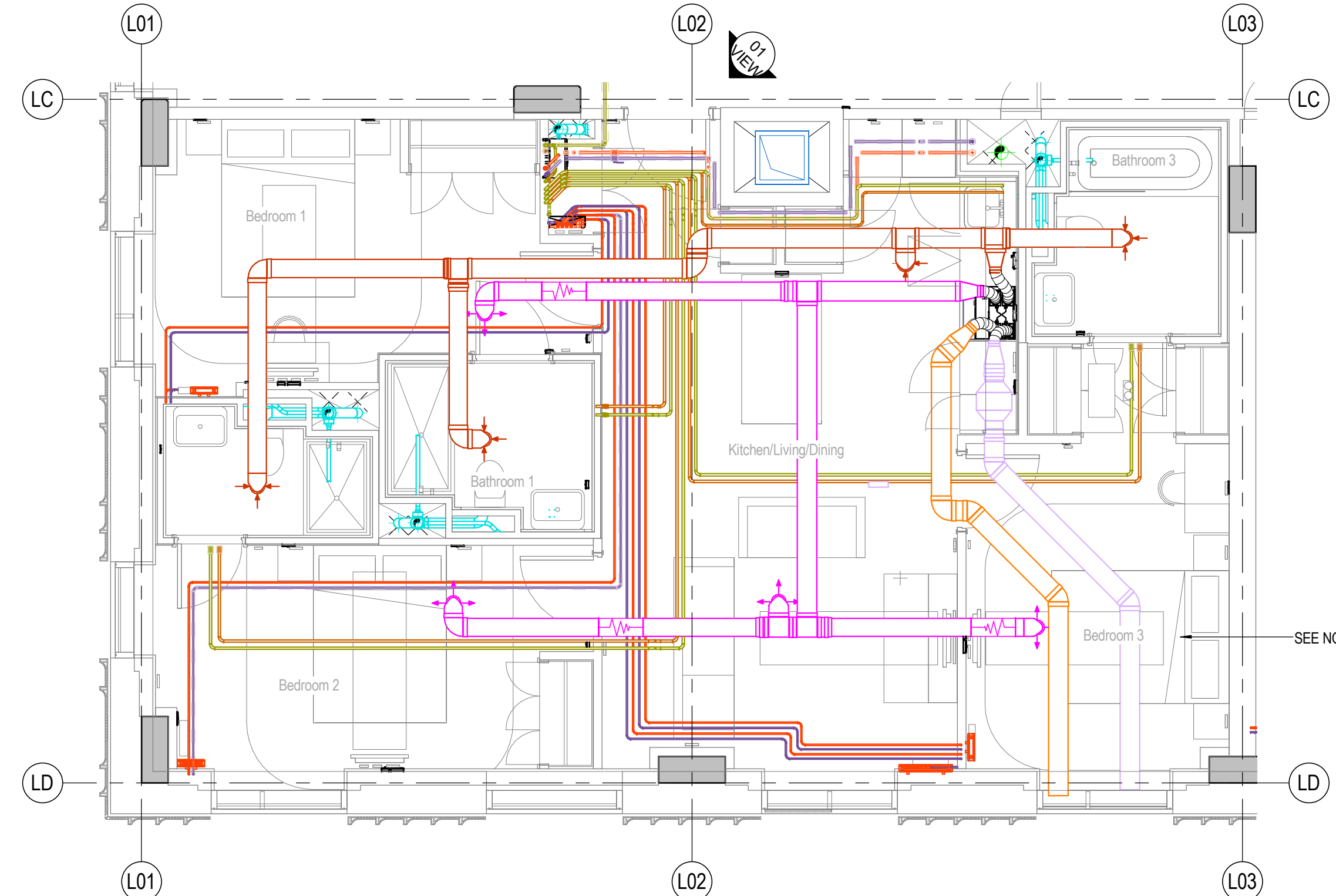
3 L1 - VENTILATION - TYPICAL 3BED APARTMENT LAYOUT 3B-L1
1:50



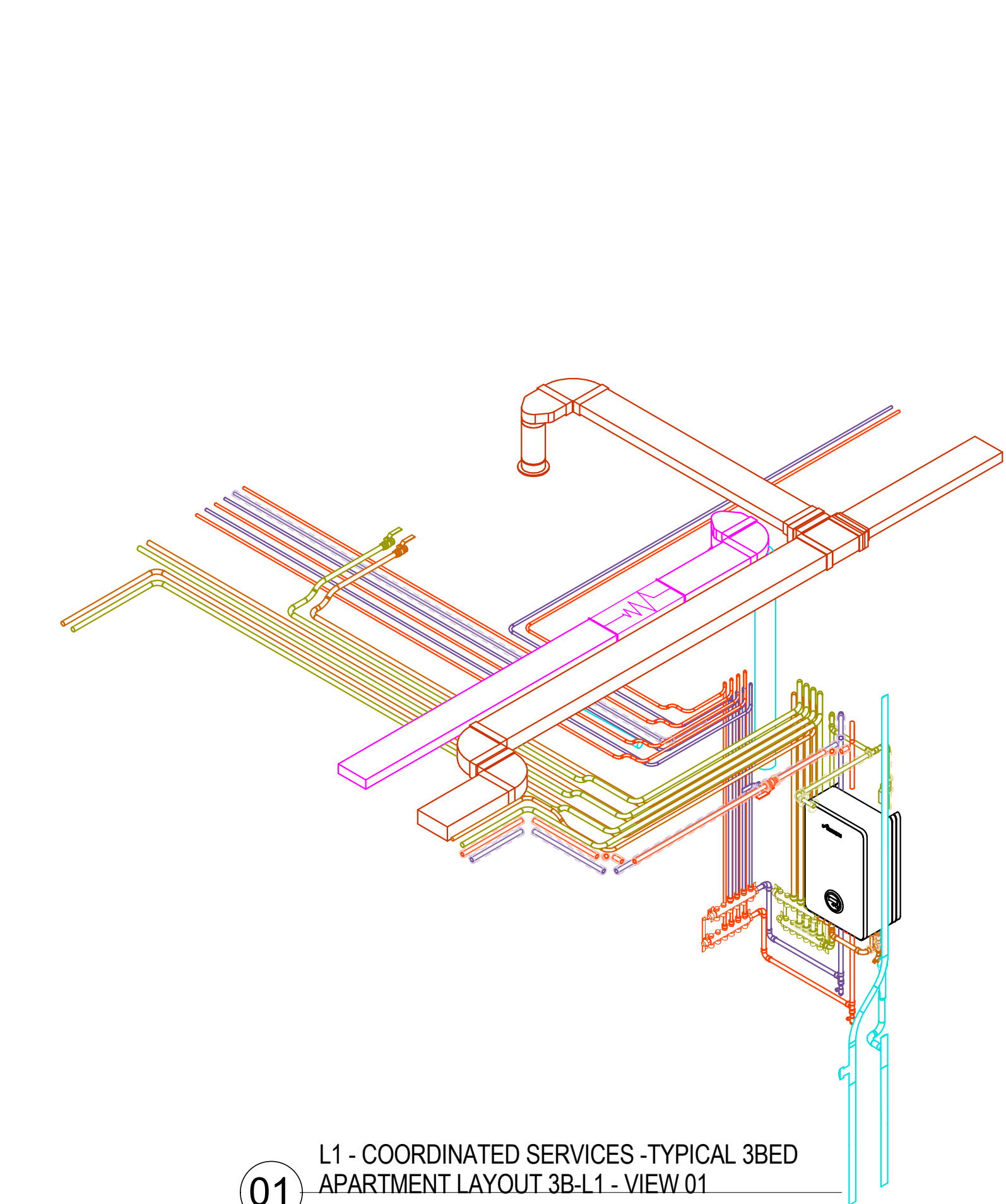
4 L1 - SPRINKLER - TYPICAL 3BED APARTMENT LAYOUT 3B-L1
1:50



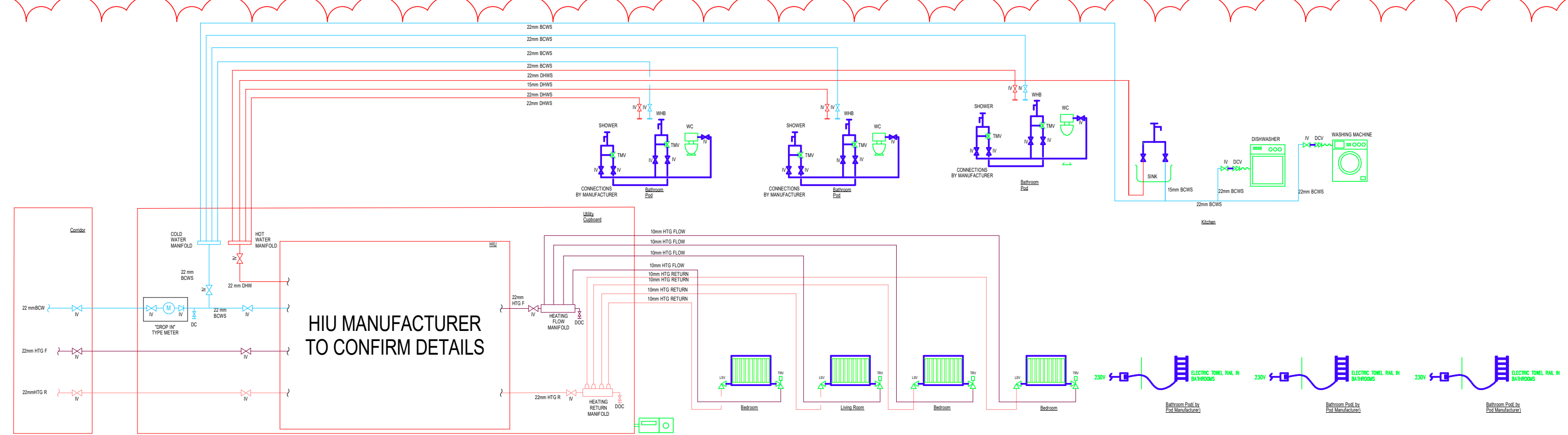
5 L1 - HEATING - TYPICAL 3BED APARTMENT LAYOUT 3B-L1
1:50



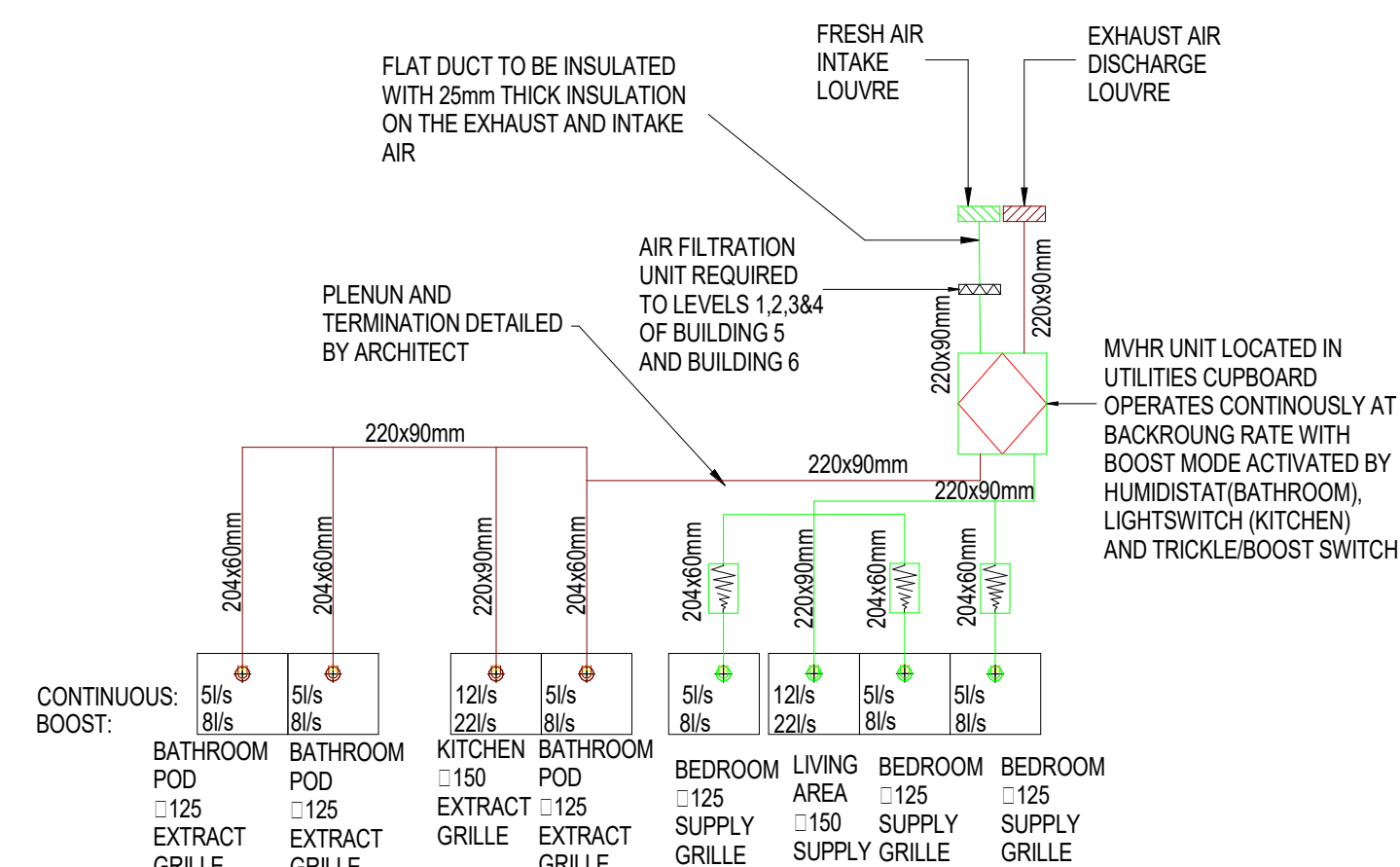
6 L1 - COORDINATED SERVICES - TYPICAL 3BED APARTMENT LAYOUT 3B-L1
1:50



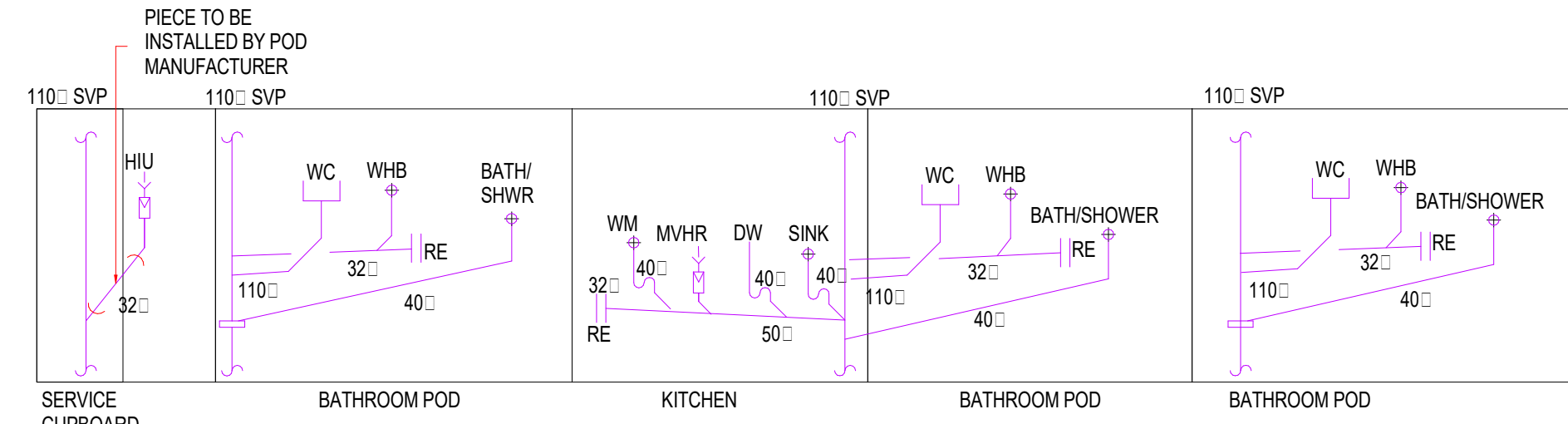
01 L1 - COORDINATED SERVICES - TYPICAL 3BED APARTMENT LAYOUT 3B-L1 - VIEW 01



TYPICAL THREE BED APARTMENT DOMESTIC WATER SERVICES SCHEMATIC

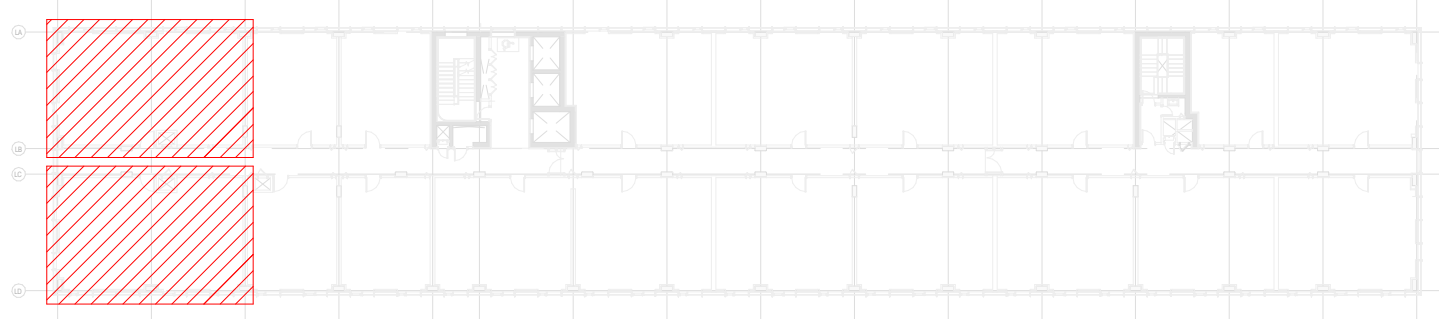


TYPICAL THREE BED APARTMENT VENTILATION SCHEMATIC



TYPICAL THREE BED APARTMENT ABOVE GROUND DRAINAGE SCHEMATIC

KEY PLAN:



INSULATION TABLE:

SERVICE	PIPE MATERIAL	PIPE DIAMETER	INSULATION THICKNESS	INSULATION THICKNESS
LTHW FAR	COPPER	a15	25 mm	
	STEEL	a15	30 mm	MINERAL WOOL
		a20-a50	40 mm	
		a55 & ABOVE	50 mm	
BOWS	COPPER	a15-a35	25 mm	
		a42-a54	30 mm	MINERAL WOOL
		a67-a108	40 mm	
		a133-a159	40 mm	
DHWS FAR	STAINL. STEEL	a159 & ABOVE	50 mm	
	COPPER	a15-a22	25 mm	
		a28-a42	30 mm	MINERAL WOOL
		a54-a159	40 mm	
	STAINL. STEEL	a159 & ABOVE	50 mm	

REFERENCE DRAWINGS & MODELS	REV
ARCHITECTURAL	CSAL-FCBS-ZL-ZZ-M3-A-0001
STRUCTURAL	CSAL-FCBS-ZF-ZZ-M3-A-L-FACADE
	CSAL-CUR-ZL-XX-M3-S-0001

GENERAL	
FA	FROM ABOVE
TA	TO ABOVE
FB	FROM BELOW
TB	TO BELOW
HL	HIGH LEVEL
LL	LOW LEVEL
MD	MID LEVEL
OTL	DROP TO LOW LEVEL
RTL	RISE TO HIGH LEVEL
SU	SET UP
SD	SET DOWN
FFL	FINISHED FLOOR LEVEL
SSL	STRUCTURAL SLAB LEVEL
AFLL	ABOVE FINISHED FLOOR LEVEL
CL	LEVEL TO UNDERSIDE FROM FFL
CL	LEVEL TO CENTRE FROM FFL
BOB	BOTTOM OF DUCT FROM FFL
BOCT	BOTTOM OF CONTAINMENT FROM FFL

MECHANICAL	
LTHW F	LOW TEMPERATURE HOT WATER FLOW
LTHW R	LOW TEMPERATURE HOT WATER RETURN
DRYR	DRY RISER
VRF	VARIABLE REFRIGERANT FLOW
IV	ISOLATION VALVE
NRV	NON RETURN VALVE
DCV	DOUBLE CHECK VALVE
DPV	DIFFERENTIAL PRESSURE VALVE
OPCV	DIFFERENTIAL PRESSURE CONTROL VALVE
3PMV	3 PORT MOTORISED VALVE
FOCV	FIXED ORIFICE DOUBLE REGULATING VALVE
2PMV	2 PORT MOTORISED VALVE
PCV	PRESSURE INDEPENDENT CONTROL VALVE
STR	STRAINER
OP	ORIFICE PLATE/METERING STATION
CS	COMMISSIONING STATION
TEST	TEST POINT
TP	GAUGES (T-TEMPERATURE, P-PRESSURE)
S	SENSOR
M	METER
FCU	FAN COIL UNIT
DAC	DRY AIR COOLER
AB	AIR BOTTLE
NC	NORMALLY CLOSED
FC	FLEXIBLE CONNECTION
DC	DRAIN COCK
AV	AIR VENT
HE	HEAT EXCHANGER
ROX	RADIATOR
PCV	PRESSURE CONTROL VALVE
GV	GATE VALVE
PRV	PRESSURE REDUCING VALVE
AAV	AUTOMATIC AIR VENT
MHR	MECHANICAL VENTILATION WITH HEAT RECOVERY

WATER SERVICES	
BOWS	BOOSTED COLD WATER SERVICE
CAT 5	BOOSTED COLD WATER SERVICE CAT-5
HWS	HOT WATER SERVICE FLOW
HWSR	HOT WATER SERVICE RETURN
MWS	MANS COLD WATER SERVICE
IV	ISOLATING VALVE
DRV	DOUBLE REGULATING VALVE FOR HWS
	BALANCING ULTRA LOW FLOW TYPE
NRV	NON RETURN VALVE
PRV	PRESSURE REDUCING VALVE
DCV	DOUBLE CHECK VALVE
DOC	DRAIN COCK
DP	TEST & DRAIN POINT
FS	FLOW SWITCH
PG	PRESSURE GAUGE
M	THAMES WATER METER

DRAINAGE	
AAV	AUTO AIR VENT
AP	ACCESS CAP
AP	ACCESS PANEL
FG	FLOOR GALLY
RE	RODDING EYE
RWP	RAINWATER PIPE
SS	STUB STACK
SVP	SOIL VENT PIPE
GSVP	GROUND SOIL VENT PIPE
MSVP	MEZZANINE SOIL VENT PIPE
RSVP	RETAIL SOIL VENT PIPE
SVP	SOIL WASTE PIPE
WP	WASTE PIPE
D	DRAINAGE
BGD	BELOW GROUND DRAINAGE
SKK	KITCHEN SINK
SKK	KITCHEN SINK
DW	DISH WASHER
WM	WASHIN MACHINE
WHB	WASH HAND BASIN
WC	WATER CLOSET
SHR	SHOWER
BTH	BATH
TXX	FALL

LEGEND	
AIR VALVE	
CROSS TALK ATTENUATOR	
DOUBLE CHECK VALVE	
DRAIN COCK	
FLUSHING VALVE	
HEAT INTERFACE UNIT	
HEAT METER	
ISOLATING VALVE	
METER	
METER STATION	
ON/OFF VALVE	
PANTRY	
PRESSURE ABSORBER (W/ NRV)	
PRESSURE GAUGE	
PRESSURE RELIEF VALVE	
RODDING EYE	
STRAINER	
TEMPERATURE GAUGE	
TEST POINT	
THERMOSTATIC VALVE	

REV	DESCRIPTION	DATE
001	CONTRACT ISSUE	11.06.19
002	REVISION	11.06.19

CHK	CHK	CHK	CHK
OK	OK	OK	OK
OK	OK	OK	OK
OK	OK	OK	OK

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client approval	A	Approved	client approval	A	Approved

client main contractor	SISK

consultant/structural	CWC

project	Circle Square

Zone:	ZL
Level:	ZZ
Service:	Apartment Mechanical Services
	3 Bed Type L1

Contract Issue