



**SYMBOL LEGEND:**

AAV	AUTO AIR VENT
ABV	AUTO BYPASS VALVE
CS	COMMISSIONING SET
CV	CHECK VALVE
DCV	DOUBLE CHECK VALVE
F&R	FLOW AND RETURN
FC	FLEXIBLE CONNECTION
FBST	FILTERBALL STRAINER
GC	GAS COCK
HTG	HEATING
IV	ISOLATION VALVE
LSV	LOCK SHIELD VALVE
MCW	MAINS COLD WATER
PG	PRESSURE GAUGE
T	TEMPERATURE GAUGE
TP	TEST POINT
TS	TEMPERATURE SENSOR

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  - INDICATIVE SCHEMATIC DOES NOT DETAIL ALL PIPELINE/PLANT ACCESSORIES FOR FEASIBILITY REVIEW PURPOSES ONLY.
  - INDICATIVE SCHEME FOR ROOF MOUNTED AIR COOLED CHILLER TO COLLEGE BUILDING ROOF AND REMOVAL OF EXISTING BASEMENT PLANT ROOM CHILLERS; NEW SECONDARY CHILLED WATER CIRCUIT TO SERVE EXISTING BASEMENT PLANT ROOM CHILLED WATER LOW LOSS HEADER; EXISTING BASEMENT PLANT ROOM CHILLED WATER LOW LOSS HEADER; NEW SECONDARY CHILLED WATER PUMP SET AND RISER FOR RESEARCH BLOCK, LIBRARY LEVEL A, FUTURE G2 REFURBISHMENT, PHILIPS BUILDING AREAS TBC.
  - EXISTING CHILLERS REPORTED NOT FULLY LOADED AT LESS THAN 150kW ASSUME 125kW PEAK LOAD. INITIAL PEAK COOLING LOAD LEVEL A & RESEARCH BUILDING AT 30kW & 135kW RESPECTIVELY. TOTAL CONNECTED LOAD 290kW SAY 250kW PEAK LOAD.
  - ROOF MOUNTED CHILLER PUMP SET, PRESSURISATION UNIT, BUFFER VESSEL LOCATION TO ROOF LEVEL/4TH FLOOR TO BE AGREED WITH SOAS SUBJECT TO FINAL CHILLER SELECTION ROOF SPACE PROVISION
  - CHILLED WATER PIPEWORK BASED ON CHILLED WATER FLOW & RETURN TEMPERATURES 6 & 12°C RESPECTIVELY. FINAL CHW PIPEWORK SIZES TO BE AGREED WITH SOAS R.E. FLOOR AREAS EXPECTING FUTURE COOLING PROVISION.
  - BUFFER VESSEL SIZING SUBJECT TO SYSTEM WATER CONTENT.
  - CHILLED WATER PIPEWORK TO BE HEAVYWEIGHT STEEL TUBE FLANGED JOINTS 65mm & ABOVE. SCREWED JOINTS 50mm & BELOW.
  - RETENTION OF THE CHILLED WATER LOW LOSS HEADER AND PUMP SETS TO THE BASEMENT PLANT AREA RETAINS THE OPTION TO INSTALL NEW BASEMENT CHILLER PLANT IN THE FUTURE SHOULD COOLING LOAD EXCEED TO ROOF MOUNTED CHILLER COOLING DUTY.

PRELIMINARY

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Rev	Date	Details	By	Chd

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Project  
**SOAS UNIVERSITY of LONDON**  
**RESEARCH BLOCK CHILED WATER AND VENTILATION FEASIBILITY**

Client  
**SOAS UNIVERSITY of LONDON**

Architect  
**KENDALL KINGSCOTT**

Title  
**RESEARCH BLOCK**  
**INDICATIVE CHW SCHEMATIC**

Scale	NTS @ A1	Drawing no.	5974/M200
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