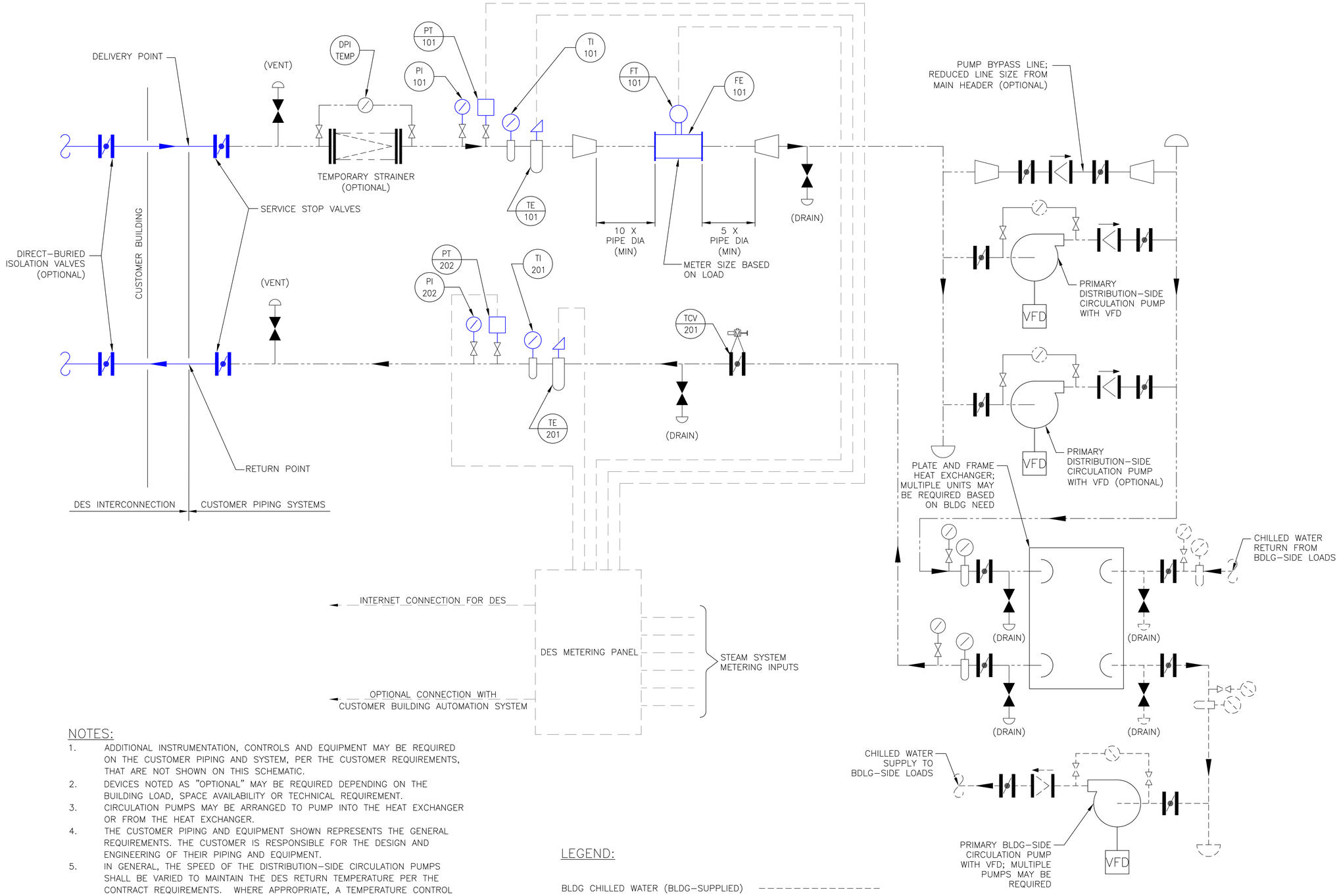

NOTES:

1. ADDITIONAL INSTRUMENTATION, CONTROLS AND EQUIPMENT MAY BE REQUIRED ON THE CUSTOMER PIPING AND SYSTEM, PER THE CUSTOMER REQUIREMENTS, THAT ARE NOT SHOWN ON THIS SCHEMATIC.
2. DEVICES NOTED AS "OPTIONAL" MAY BE REQUIRED DEPENDING ON THE BUILDING LOAD, SPACE AVAILABILITY OR TECHNICAL REQUIREMENT.
3. CIRCULATION PUMPS MAY BE ARRANGED TO PUMP INTO THE HEAT EXCHANGER OR FROM THE HEAT EXCHANGER.
4. THE CUSTOMER PIPING AND EQUIPMENT SHOWN REPRESENTS THE GENERAL REQUIREMENTS. THE CUSTOMER IS RESPONSIBLE FOR THE DESIGN AND ENGINEERING OF THEIR PIPING AND EQUIPMENT.
5. IN GENERAL, THE SPEED OF THE DISTRIBUTION-SIDE CIRCULATION PUMPS SHALL BE VARIED TO MAINTAIN THE DES RETURN TEMPERATURE PER THE CONTRACT REQUIREMENTS. WHERE APPROPRIATE, A TEMPERATURE CONTROL VALVE (TCV-201) MAY BE ADDED TO FACILITATE TEMPERATURE CONTROL; IN SUCH CASES, THE TCV WILL MODULATE TO MAINTAIN DES RETURN TEMPERATURE AND THE PUMP SPEED WILL VARY TO MAINTAIN THE TCV POSITION.
6. THE SPEED OF THE BLDG-SIDE CIRCULATION PUMPS SHALL BE VARIED TO MAINTAIN THE BUILDING SUPPLY TEMPERATURE. TO MINIMIZE PUMPING ENERGY AND TO RESULT IN LOW HEAT EXCHANGER APPROACH TEMPERATURES, THE FLOW RATES ON EACH SIDE OF THE HEAT EXCHANGER SHOULD BE SIMILAR FOR MOST LOAD CONDITIONS.
7. DES INSTRUMENTS SHALL BE INSTALLED SUCH THAT THEY REMAIN ACCESSIBLE ON ALL SIDES WITH ADEQUATE CLEARANCES FOR ANNUAL CALIBRATION AND VERIFICATION BY DES PERSONNEL.

LEGEND:

- BLDG CHILLED WATER (BLDG-SUPPLIED)
- DES CHILLED WATER (DES-SUPPLIED)
- DES CHILLED WATER (BLDG-SUPPLIED)
- EQUIPMENT (BLDG-SUPPLIED)
- INSTRUMENTATION (DES-SUPPLIED)

PRELIMINARY - NOT FOR CONSTRUCTION

PLOT DATE : 10/06/2021

THERMAL ENGINEERING GROUP, INC.
105 HAZEL PATH COURT, SUITE 2 ■ HENDERSONVILLE, TN

METRO NASHVILLE
DISTRICT ENERGY SYSTEM

TYPICAL CHILLED WATER
DE-COUPLED CUSTOMER CONNECTION

Metro Nashville DISTRICT ENERGY SYSTEM

DES PROJECT NO. 863

REVISIONS

NO.	DATE	DESCRIPTION

DRAWN BY:	APP'D. BY:	CHECKED:
KLJ		
DATE:	DATE:	DATE:
10/06/21		

PROJECT NO.
863

DRAWING NO.
SK-01