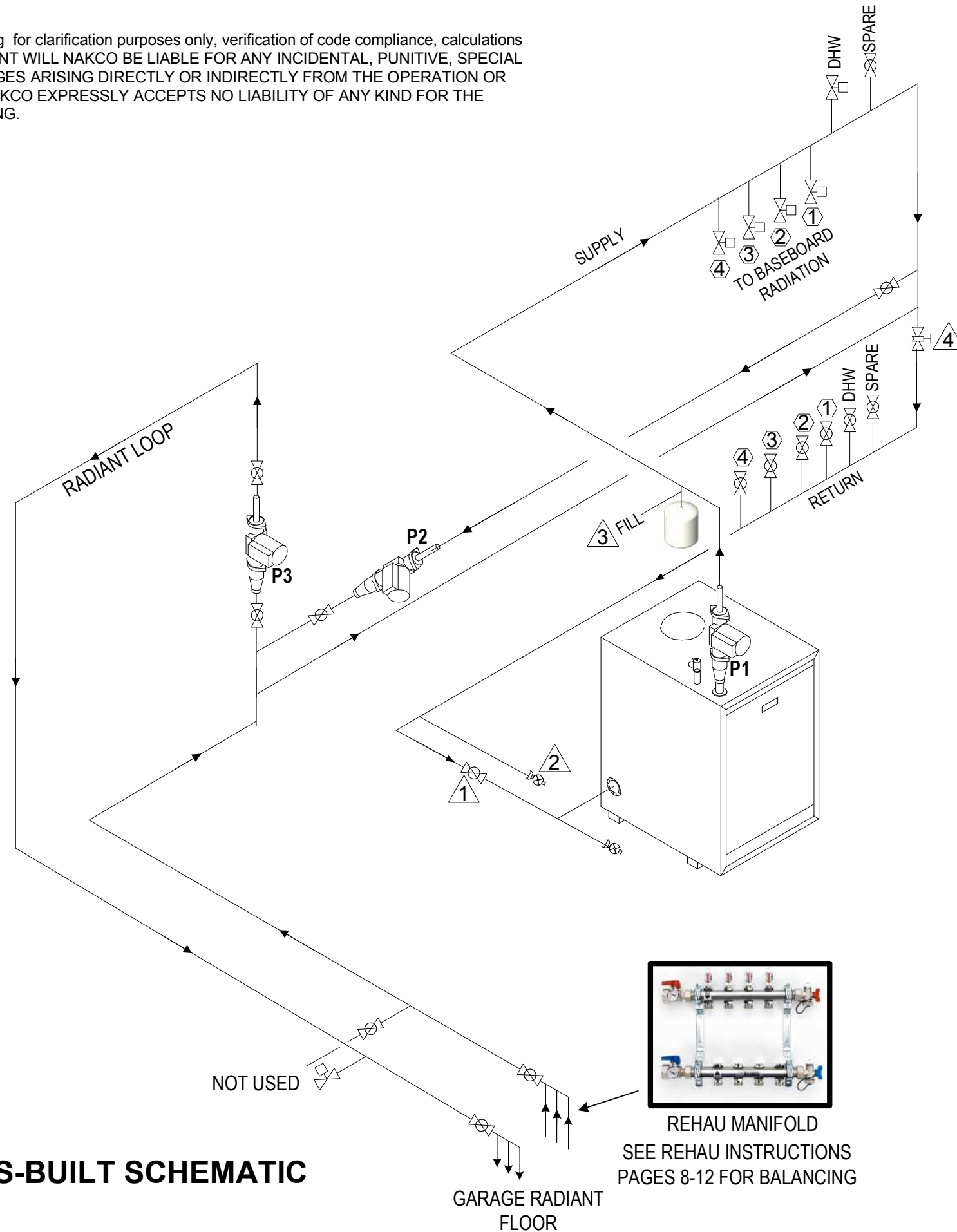


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HYDRONIC AS-BUILT SCHEMATIC

LEGEND

- HOSE BIB
- BALL VALVE
- 24 VOLT ZONE VALVE
- CIRCUIT SETTER
- BOILER PUMP
P1
- INJECTION PUMP
P2
- RADIANT SYSTEM PUMP
P3

HOUSE ZONES

- ① UNIT B - WITH HALLWAY
- ② UNIT B - BATHROOM & BEDROOM
- ③ UNIT A - 2 BEDROOMS & BATH
- ④ UNIT A - LIVING RM & KITCHEN

BLEED AIR FROM SYSTEM

- ① SHUT VALVE TO BLOW DOWN SYSTEM
- ② CONNECT GARDEN HOSE TO OUTSIDE
- ③ OPEN FILL VALVE FULLY
- ④ CLOSE CIRCUIT SETTER

WITH BOILER COOLED DOWN & ELECTRICAL SHUTOFF TO SYSTEM, SHUT OFF ALL VALVES & THEN INDIVIDUALLY MANUALLY BLOW DOWN EACH LOOP. NOTE: THIS IS AN OVERVIEW & DEMONSTRATES THE BEST WAY TO BLEED AIR FROM THE SYSTEM & ONLY IS IN PART. A QUALIFIED TECHNICIAN SHOULD PERFORM THIS PROCEDURE.

PROJECT ZONES - CIRCULATORS & PIPING

OWNER LINDA & BRETT SHEAHAN

AS-BUILT SCHEMATIC

Revision: None

PROJECT

OWNER

system

REVISION

None



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MECHANICAL CONSULTANT

100% INDIAN OWNED COMPANY

Scale: N/A

Drawn by: jn

Date: 6.3.20

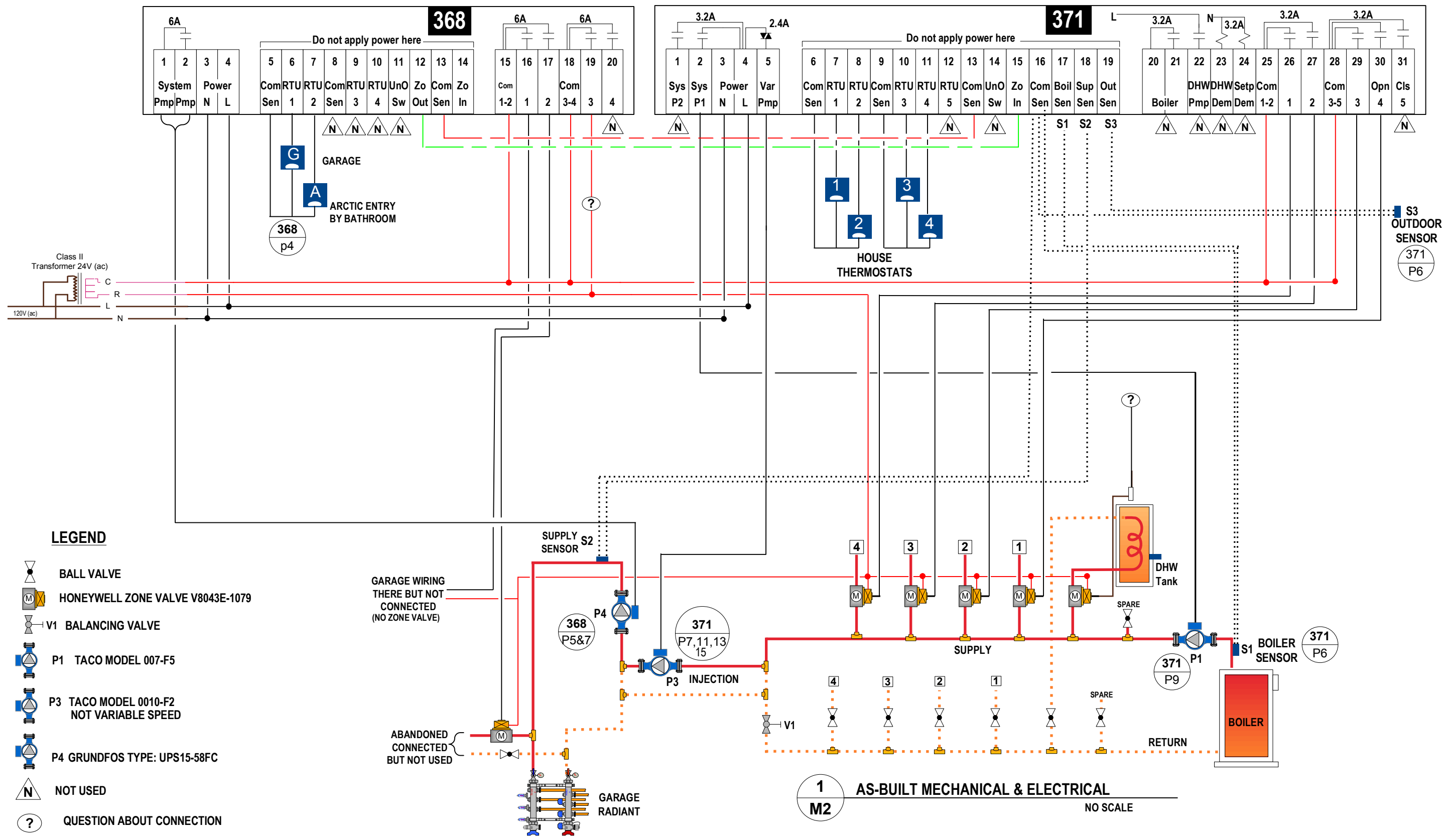
Job No.

Contents: MONOFLO

Category Sheet

M

1



PROJECT: **TEKMAR MECHANICAL & ELECTRICAL**
 OWNER: **LINDA & BRETT SHEAHAN**
 system: **AS-BUILT SCHEMATIC**
 REVISION: None

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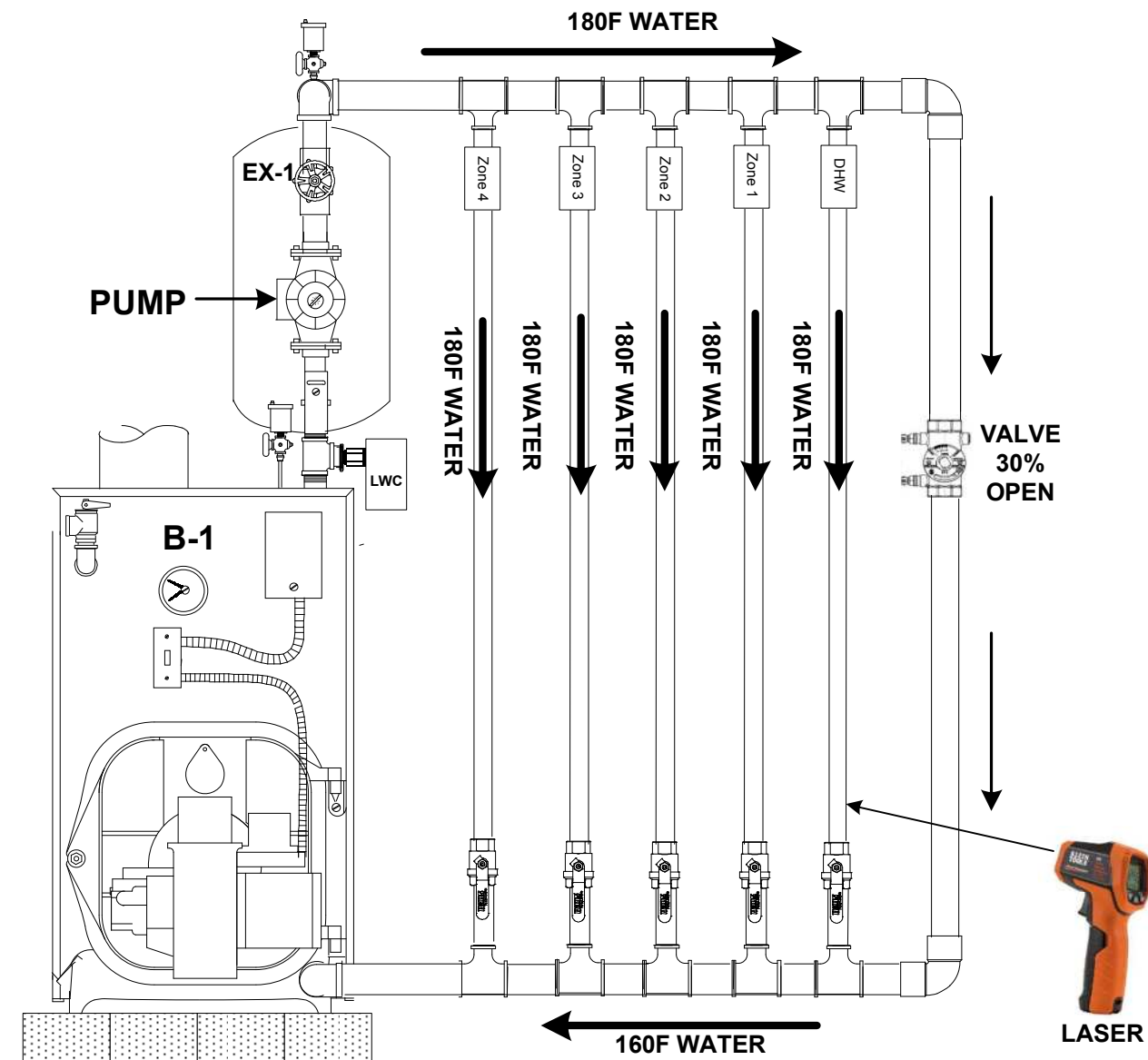
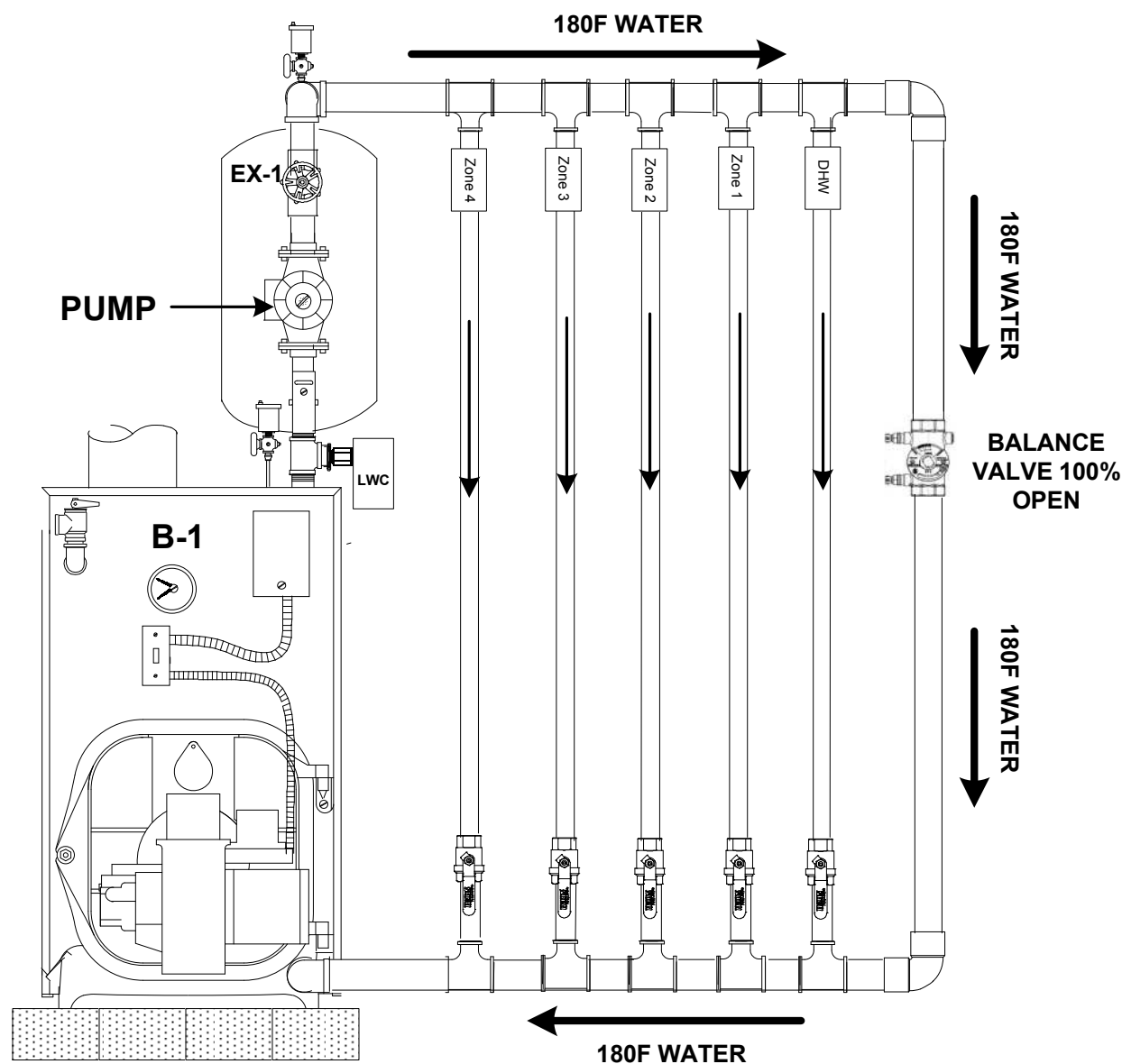
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 Drawn by: jn
 Date: 6.17.20
 Job No.
 Contents:
 Category Sheet
M 2

BALANCING HYDRONIC BOILER PIPING FOR TEMPERATURE & CORRECT FLOW

CONDENSED EXAMPLES SHOWN WITHOUT CONNECTED TO BASEBOARD RADIATION

THIS BOILER HAS THE BALANCE VALVE 100% OPEN. BECAUSE OF THAT THE PUMP WANTS TO PUSH (CIRCULATE) THE WATER TO THE LEAST RESISTANCE WHICH IS THE LARGER PIPE WITH VERY LITTLE FLOW THROUGH THE SMALLER PIPES. WHEN THIS HAPPENS VERY LITTLE HOT WATER TEMPERATURE GOES TO THE BASEBOARD AND HW HEATER.

THIS BOILER HAS THE BALANCE VALVE 30% OPEN. BECAUSE OF THAT THE PUMP NOW WANTS TO PUSH THE WATER MORE THROUGH THE SMALLER PIPES AND LESS THROUGH THE LARGER PIPE WHICH PROVIDES GOOD TEMPERATURE AND FLOW TO BASEBOARD HEATERS



THE BEST WAY TO BALANCE THE FLOW IS TO A THIS INFRARED LASER THERMOMETER WITH ALL ZONES OPEN ON THE RETURN SIDE OF THE ZONES TO GET A 20 DEGREE DROP IN TEMPERATURE FROM BOILER SET POINT TEMPERATURE

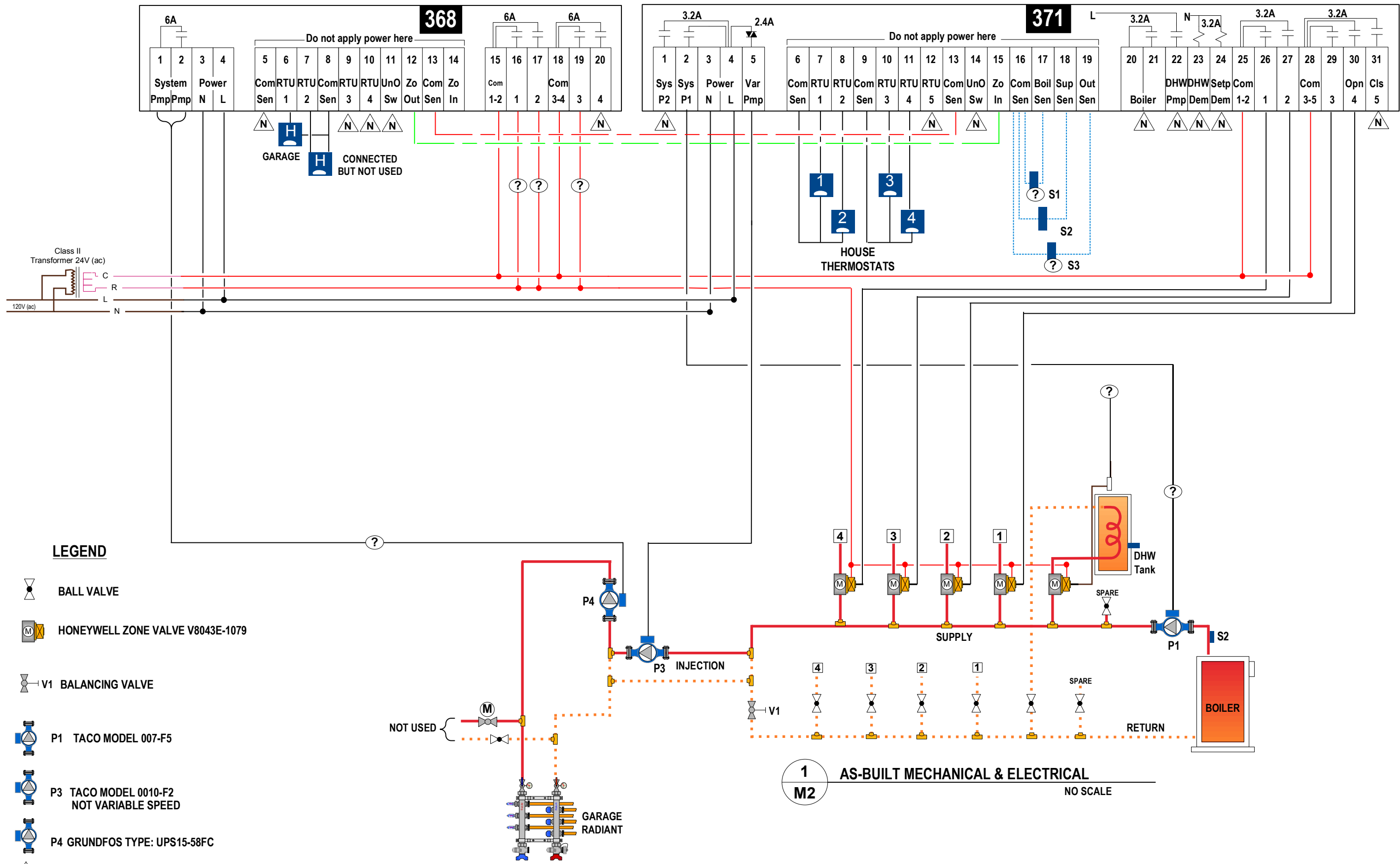
PROJECT: BALANCING OF BOILER CIRCUITS
 OWNER: LINDA & BRETT SHEAHAN
 system REVISION: AS-BUILT SCHEMATIC
 Note

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







Scale: N/A
 Drawn by: jn
 Date: 6.10.20
 Job No.
 Contents:

Category Sheet
M 3

Revision: None



LEGEND

-  BALL VALVE
-  HONEYWELL ZONE VALVE V8043E-1079
-  V1 BALANCING VALVE
-  P1 TACO MODEL 007-F5
-  P3 TACO MODEL 0010-F2 NOT VARIABLE SPEED
-  P4 GRUNDFOS TYPE: UPS15-58FC
-  NOT USED
-  QUESTIONS NEEDED TO BE ANSWERED ON THE JOB

1 AS-BUILT MECHANICAL & ELECTRICAL
M2 NO SCALE

BALANCING OF BOILER CIRCUITS
LINDA & BRETT SHEAHAN
 OWNER


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PROJECT	OWNER
system	REVISION
Scale: N/A	Drawn by: jn
Date: 6.10.20	Job No.
Contents:	Category
Sheet	M 3

Revision: None
 Revision: None