

**Report By:**

National TAB  
1329 E. KEMPER ROAD  
SUITE 4210  
CINCINNATI, OH 45246

**NATIONAL**

**TAB**

Comfort. Under control.

**Report: Commissioning**

**Date: 1/1/2022**

# PROJECT

## Shake Shack (Lee's Summit) - Commissioning

2051 NW Lowenstein Drive

Lee's Summit, MO 64081

### **Client**

24 Union Square East, 5th Fl

New York, NY 10003

# National TAB

Project: Shake Shack (Lee's Summit) - Commissioning

## Table Of Contents

Section	Page #
Plumbing Open Action Items	3
Plumbing FIV/FPT Inspections	6



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## Shake Shack (Lee's Summit) - Commissioning

### Project Issue Information

**Issue Name :** PLUMBING: Water heater recovery rate - Master controller wiring issue  
**Description :** Water heater recovery rates are slow, appears master controller is improperly wired to shut-off cold water to water heaters when the heaters are idle  
**Created By :** National TAB **Assigned To :** National TAB - Dan Hertenstein  
**Status :** Open  
**Originated Date :** 11/29/2021 - Dan Hertenstein - National TAB

#### Project Issue Response Details

- **12/03/2021 National TAB - Dan Hertenstein**
  - Master Controller is not Installed. Component missing. Needs to be installed and wired to slave controllers for each of the three hot water heaters







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### Shake Shack (Lee's Summit) - Commissioning

#### CheckList Information

**Name :** FPT PLUMBING HW SINKS **Status :** NotSubmitted  
**Assigned Organization :** National TAB **Asset :**  
**Requesting Organization :** National TAB

#### CheckList Item Details

IS BACKFLOW PREVENTOR CERTIFIED	No
AQUASTAT SETPOINT (RECIRCULATION PUMP OFF ABOVE 130 DEG)	No
TIME CLOCK INSTALLED AND OPERATING FOR RECIRCULATION PUMP	No
HOT WATER HEATER ALARMS INSTALLED AND OPERATING (ALARM BELOW 120 DEG F., SHUT-OFF ALARM ABOVE 125 DEG F.)	No
STATIC WATER PRESSURE SET AT PRV	59 PSI
RUNNING WATER PRESSURE	51 PSI
EXPANSION TANK CHARGE PRESSURE	55 PSI
HW HEATER MAX TEMP	145 DEG F
HW HEATER OPERATING TEMP	145 DEG F
TRIPLE SINK HW TEMP (140 DEG STPT)	142 DEG F
HAND SINK - KITCHEN WORK AREA 3 (110 DEG STPT)	110 DEG F
VEGEGATABLE SINK - KITCHEN WORK AREA 3 (140 DEG STPT)	142 DEG F
HAND SINK - OPEN KITCHEN BACK LINE (110 DEG STPT)	110 DEG F
HAND SINK - OPEN KITCHEN COOKLINE (110 DEG STPT)	110 DEG F
HAND SINK - OPEN KITCHEN HOOD RIGHT (110 DEG STPT)	110 DEG F

MENS RR (110 DEG STPT)

Not tested

WOMENS RR (110 DEG STPT)

Not tested

RUN THE TRIPLE SINK WITH ALL THREE HW HEATERS IN OPERATION, DOES IT MAINTAIN 140+ DEG WATER TEMP

Fail

RUN THE TRIPLE SINK WITH TWO OF THE THREE HW HEATERS IN OPERATION, DOES IT MAINTAIN 140+ DEG WATER TEMP

Fail

RUN THE TRIPLE SINK WITH ONE OF THE THREE HW HEATERS IN OPERATION, DOES IT MAINTAIN 140+ DEG WATER TEMP

Fail

WITH THE HW HEATERS IN IDLE, TURN ON A HAND WASH SINK AND MEASURE THE RESPONSE TIME. ENSURE HW TEMPERATURE IS ACHIEVED WITHIN 5-8 SECONDS.

Fail



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## Shake Shack (Lee's Summit) - Commissioning

### CheckList Information

<b>Name :</b>	FIV-Plumbing Underground	<b>Status :</b>	Submitted
<b>Assigned Organization :</b>	National TAB	<b>Asset :</b>	
<b>Requesting Organization :</b>	National TAB		

### CheckList Item Details

#### WASTE WATER - BELOW GRADE INSTALL DETAILS

Lines, Clean-outs & Vent pipes installed per plan and local code	Yes
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Dishwasher drain, P-Trap and Trap Arm is cast iron a minimum of 10ft from the trap and before the transition to the PVC	Not required per Lee's Summit Plan
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#### AIR PRESSURE TEST

Sanitary Waste	5.8 psi - 45 minutes with no change in pressure
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Grease Waste	4.4 psi - 45 minutes with no change in pressure
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#### INSPECTION

All drain lines have proper drainage pitch to exterior of building	Pass
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City Inspection report	Pass
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## Shake Shack (Lee's Summit) - Commissioning

### CheckList Information

**Name :** (FIV) Roof Drains **Status :** Submitted

**Assigned Organization :** National TAB **Asset :**

**Requesting Organization :** National TAB

### CheckList Item Details

#### ROOF DRAINS

All drains installed per roof plan (number and location)	Pass
<ul style="list-style-type: none"> <li><a href="#">Open</a> roof_drain_locations_LS.PNG</li> </ul>	
Each drain is installed per details or MFG recommendations	Pass
<ul style="list-style-type: none"> <li><a href="#">Open</a> roof_drain_detail_OG.PNG</li> </ul>	
Each roof section has a negative pitch to its assigned roof drain	Pass
Each roof drain is of size and type 3"ORD-1	Pass
Each in wall drain is of size and type 3" ORD-2	Pass
Overflow drain is installed 2" elevation above roof drain height	Pass
Roof hydrant installed per plan and details	Pass
Wall hydrant installed per plan and details	Pass



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## Shake Shack (Lee's Summit) - Commissioning

### CheckList Information

<b>Name :</b>	Domestic Water Installation Verification	<b>Status :</b>	NotSubmitted
<b>Assigned Organization :</b>	National TAB	<b>Asset :</b>	
<b>Requesting Organization :</b>	National TAB		

### CheckList Item Details

#### **COLD WATER LINE**

Double isolation valve is installed, Tagged and has appropriate Certification Test posted on appliance

Pressure Reducer Valve is installed and functional Pass

Water Sanitizer is installed on CW line prior to main distribution line to space and HW line Pass

Expansion tank is installed and set to similar running water pressure as set by the PRV (Minimum 50 PSI operating Pressure is required) Pass

#### **HOT WATER LINE**

HWR line is properly piped to the CW line prior to the hot water heaters Pass

CW/HWR (RETURN) and HW (SUPPLY) lines are piped to each Noritz tankless hot water heaters Pass

Each HW tank has a thermostat controller set to 140 minimum, 145 deg maximum as required to achieve 140 degrees at the triple and prep sinks. Occupied : (Pass) Control :(Pass)  
Set to 145 degree's to deliver 142 at required sinks

Comment

Noritz Master controller is installed with each Noritz thermostat communicating through the controller for proper sequencing and functionality of water heaters Occupied : (Fail) Control :(Fail)  
Master controller not installed

Comment

Hot Water recirculation pump is installed. Pump was installed with water pressure ports for validation of proper waterflow

Comment

Occupied : (Pass) Control :(Pass)

Pump is installed and operational, not pressure ports installed

Unoccupied/Occupied timer clock installed to shut the recirculation pump off during overnight periods

Comment

Occupied : (Pass) Control :(Pass)

Timer clock is internal to the pump to reduce the speed of the recirculation pump during unoccupied periods

Aqua-stat installed and functional and is set by commissioning agent to energize the recirculation pump if the water temperature falls below the setpoint (125 Immersion temperature).

Comment

Occupied : (Fail) Control :(Fail)

Not Installed

Aqua-stat is measuring the water temperature within +/- 2 degrees of actual reading. (actual temperature will vary based on immersion or contact probe that is used)

Comment

Occupied : (Fail) Control :(Fail)

Not Installed

Hot water low temperature alarm is installed if the hot water temperature falls below 120 degree's. Alarm is visible to operating staff in the back kitchen or managers office.

Comment

Occupied : (Fail) Control :(Fail)

Not Installed

All valving, pipes, and appliances are properly supported and insulated.

Comment

Occupied : (Pass) Control :(Pass)

Copper HW return and HW supply lines still require insulation