

Report By:

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

NATIONAL

TAB

Comfort. Under control.

Report: Commissioning

Date: 3/28/2022

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 # |
|--|--------|
| (FIV) Plumbing Underground, In-Wall, Above Ceiling | 3 |
| (FIV) Domestic Water | 8 |
| (FPT) Domestic Water | 10 |
| PLUMBING - OPEN ISSUES | 12 |





Comfort. Under control.

Shake Shack (Lee's Summit) - Commissioning

CheckList Information

| | | | |
|----------------------------------|--|-----------------|--------------|
| Name : | (FIV) - In Wall, Above Ceiling, & Filtered Water | Status : | NotSubmitted |
| Assigned Organization : | National TAB | Asset : | |
| Requesting Organization : | National TAB | | |

CheckList Item Details

IN-WALL DOMESTIC PLUMBING INSPECTION

| | |
|---|------|
| HW, HWR, & CW lines are routed and sized per plan | Pass |
| All fixtures have been located for through wall penetration to fit all sinks and appliances per plumbing plan and per food equipment plan | Pass |
| HW and HWR return lines are insulated | Pass |
| Lines are supported on the vertical run (1 minimum support) and at the through wall penetration. | Pass |
| Water Hammers are installed at each supply line prior to the through wall valve connection | Pass |
| Maintenance shut off valves are installed and labeled above the wall for the HW and CW supply lines. | Pass |

ABOVE CEILING

| | |
|--|------|
| All lines are routed and sized as per plan | Pass |
| HW & HWR lines are insulated | Pass |
| All lines are labeled | Pass |
| All lines are supported as per details with no sagging of lines between supports | Pass |

FILTER WATER SYSTEM

| | |
|--|------|
| Filter water line is routed and sized per plan | Pass |
| Filtered water lines are labeled | Pass |



Filtering system is installed in proper location

Pass

Filtering system, piping, and valving are installed per detail

Pass

Final water filters are installed

Pass





Comfort. Under control.

Shake Shack (Lee's Summit) - Commissioning

CheckList Information

Name : (FIV) Plumbing Underground **Status :** NotSubmitted

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

CheckList Item Details

WASTE WATER - BELOW GRADE INSTALL DETAILS

| | |
|---|------------------------------------|
| Lines, Clean-outs & Vent pipes installed per plan and local code | Pass |
| Lines are routed and sized as per plan | Pass |
| All drain lines have proper drainage pitch to exterior of building | Pass |
| 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 |

AIR PRESSURE TEST

| | |
|---|---|
| Sanitary Waste (record pressure and time) | 5.8 psi - 45 minutes with no change in pressure |
| Grease Waste (record pressure and time) | 4.4 psi - 45 minutes with no change in pressure |

INSPECTION

| | |
|------------------------|------|
| City Inspection report | Pass |
|------------------------|------|





Comfort. Under control.

Shake Shack (Lee's Summit) - Commissioning

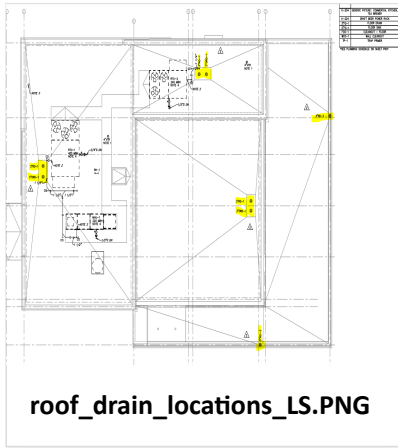
CheckList Information

| | | | |
|----------------------------------|---|-----------------|--------------|
| Name : | (FIV) Roof Drains, Vent Lines, & Hydrants | Status : | NotSubmitted |
| Assigned Organization : | National TAB | Asset : | |
| Requesting Organization : | National TAB | | |

CheckList Item Details

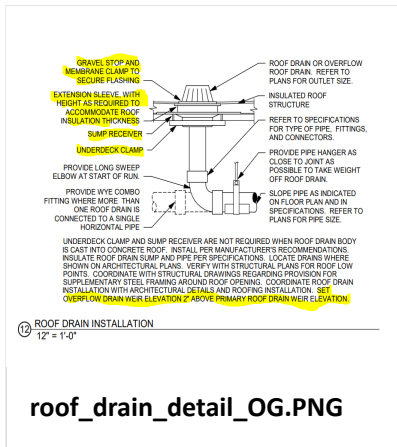
ROOF DRAINS

| | |
|--|------|
| All drains installed per roof plan (number and location) | Pass |
|--|------|



| | |
|---|------|
| Each drain drain is routed and sized per plan | Yes |
| Each drain is installed as per the required details | Pass |





| | |
|--|------|
| Each roof section has a negative pitch along all horizontal runs from it's 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 |
| SANITARY VENT LINES | |
| Vent lines are routed, sized per plan | Pass |
| Horizontal runs have a positive pitch toward the roof vent stack | Pass |
| Vent stack is elevated above the the finished roof per the required distance and details | Pass |
| Vent stacks are filtered | Pass |
| HYDRANTS | |
| Roof hydrant installed per plan and details | Pass |
| Wall hydrant installed per plan and details | Pass |





Comfort. Under control.

Shake Shack (Lee's Summit) - Commissioning

CheckList Information

| | | | |
|----------------------------------|---|-----------------|--------------|
| Name : | (FIV) Sprinkler Room - Domestic Water Installation Verification | Status : | NotSubmitted |
| Assigned Organization : | National TAB | Asset : | |
| Requesting Organization : | National TAB | | |

CheckList Item Details

COLD WATER LINE (SPRINKLER ROOM PIPING AND EQUIPMENT)

| | |
|---|------|
| Double isolation valve is installed, Tagged and has appropriate Certification Test posted on appliance | Pass |
| 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 (SPRINKLER ROOM PIPING AND EQUIPMENT)

| | |
|---|--|
| 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 : (Pass) Control : (Pass) Master controller installed properly |
| Comment | |



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

Occupied : (Pass) Control : (Fail)

Pump is installed and operational, no pressure ports installed

Comment

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

Occupied : (Pass) Control : (Pass)

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

Comment

Aqua-stat is installed and measuring the water temperature within +/- 2 degrees of actual reading.

Occupied : (Fail) Control : (Fail)

Not Installed

Comment

Aqua-stat is set to turn the pump off above 130 Deg F.

Occupied : (Fail) Control : (Fail)

Not Installed, Pump to run continuously during occupied periods

Comment

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.

Occupied : (Fail) Control : (Fail)

Not Installed

Comment

All valving, pipes, and appliances are properly supported

Pass





Comfort. Under control.

Shake Shack (Lee's Summit) - Commissioning

CheckList Information

Name : (FPT) PLUMBING - DOMESTIC WATER **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 Aqua-stat installed/used at this location |
| TIME CLOCK INSTALLED AND OPERATING FOR RECIRCULATION PUMP | Pump to be programmed for Shut-Off during unoccupied Periods (CX team to confirm this has been completed) |
| HOT WATER HEATER ALARMS INSTALLED AND OPERATING (ALARM BELOW 120 DEG F., SHUT-OFF ALARM ABOVE 125 DEG F.) | No Hot Water Temperature alarms were installed |
| STATIC WATER PRESSURE SET AT PRV | 59 PSI |
| RUNNING WATER PRESSURE (50 PSI MINIMUM) | 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 | Pass |
| RUN THE TRIPLE SINK WITH TWO OF THE THREE HW HEATERS IN OPERATION, DOES IT MAINTAIN 140+ DEG WATER TEMP | Pass |
| RUN THE TRIPLE SINK WITH ONE OF THE THREE HW HEATERS IN OPERATION, DOES IT MAINTAIN 140+ DEG WATER TEMP | Pass |
| WITH THE HW HEATERS IN IDLE, TURN ON A HAND WASH SINK AND MEASURE THE RESPONSE TIME. ENSURE HW DEMAND TEMPERATURE ACHIEVED IN A REASONABLE TIME. | Pass |
| GRAVITY TRAP PRIMER | |
| Gravity Trap Primer valve has been installed for restroom and sprinkler room floor drains | Pass |
| Visual confirmation that shut-off valve prior to each primer valve is 100% open and there are no water leaks at the Primer valve and the CW line | Pass |
| The restroom and sprinkler room floor drains of full of water | Pass |





Comfort. Under control.

Shake Shack (Lee's Summit) - Commissioning

CheckList Information

| | | | |
|----------------------------------|------------------------|-----------------|--------------|
| Name : | PLUMBING - OPEN ISSUES | Status : | NotSubmitted |
| Assigned Organization : | National TAB | Asset : | |
| Requesting Organization : | National TAB | | |

CheckList Item Details

| | |
|---|--|
| Mens & Womens hand sinks, no mixing valves installed | Initially, manual mixing valves were installed. Mix valves were removed for restroom hand sinks, equipped with auto-flow faucet sensors. Cx Team to validate if automatic temperature sensors should be installed on these sinks |
| Water lines in sprinkler rooms not insulated | All copper lines in the sprinkler room have not been insulated or labeled |
| Aqua-Stat Not Installed | Aqua-Stat not installed. |
| Water Heater Low Temperature Alarm not Installed | No alarm installed in BOH kitchen to indicate if Water Heaters are not operational |
| Recirculation Pump suction and discharge pressure ports not installed | Cx team could not verify flow of pump without these gauges |
| Recirculation programmed unoccupied period not validated | Cx Team to return to review program of pump to validate it is set up to turn off during unoccupied periods |

