

Report By:

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Report: TAB Report
Function: Test, Adjust, & Balance
Date: 07/29/2025
Completed By: National TAB

PROJECT

07-28-25 WAWA #5470 JACKSONVILLE, FL

11381 NORMANDY BLVD

JACKSONVILLE, FL 32221

Client

Wawa
260 West Baltimore Pike
Wawa, PA 19063

National TAB

Project: 07-28-25 WAWA #5470 JACKSONVILLE, FL

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Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units) w/ Diffusers

Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

General Exhaust Fans w/ Grilles

The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

Ceiling Exhaust Fans

The ceiling exhaust fans were measured using a flow hood. If speed adjustment was provided, the fan speed was adjusted to within design tolerance. Any equipment that fell outside of this tolerance is noted throughout the report.

Final Building Tests

After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report.

CheckList List

- 01: RTU's/AHU's
- 02: LENNOX SETUP PARAMETERS
- 03: SENSOR WIRING (LENNOX)
- 04: EF'S
- 05: CLOSEOUT CHECKS



07-28-25 WAWA #5470 JACKSONVILLE, FL

CheckList Information

Name : 01: RTU's/AHU's **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 07/24/2025 - Natasha Louw - National TAB

Completed Date : 07/29/2025 - Ian Fuller - National TAB

CheckList Item Details

RTU's/AHU's

All diffusers and grilles are installed and match design?	Pass
---	------

Comment:

Clean filters installed?	Pass
--------------------------	------

Comment:

Economizers are assembled and functional?	Pass
---	------

Comment:

Motors are all operating below the FLA rating?	Pass
--	------

Comment:

Are belts tight?	N/A
------------------	-----

Comment:

If direct drive unit is the speed controller working?	Pass
---	------

Comment:

Is gas piping installed and valves turned on?	N/A
---	-----

Comment:

Condensate drains are installed?

Pass

Comment:

Unit free of noticeable noise and vibration

Pass

Comment:

Final outside air damper position is marked with permanent marker?

Pass

Comment:

COMPLETED

No alarms present?

Pass

Comment:

Any noticeable duct leakage?

Pass

Comment:

Total supply and OA flows are balanced within +/-5% and supply & return diffusers within +/-10%?

Pass

Comment:

IN TEST MODE, TEST THE FOLLOWING:

Cooling mode is operational? Record EAT/LAT for each unit:

Comment:

RTU1: 57/70 RTU2: 51/68 RTU3: 56/73

Heating mode is operational? Record EAT/LAT for each unit:

Comment:

RTU1: 79/74 RTU2: N/A RTU3: 80/76

Dehumidification mode is operational? (Feel dehumidification coil with your hand. Is it hot?) Record EAT/LAT for each unit:

Comment:

RTU1: 69/72 RTU2: 64/71 RTU3: 67/73



07-28-25 WAWA #5470 JACKSONVILLE, FL

CheckList Information

Name : 02: LENNOX SETUP PARAMETERS **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 07/24/2025 - Natasha Louw - National TAB

Completed Date : 07/29/2025 - Ian Fuller - National TAB

CheckList Item Details

UNIT ID CONFIGURATIONS

BACNET CONFIGURATION: GO TO SETTINGS>GENERAL>CONFIGURATION ID1 POSITION 5 SET TO "N". Pass

Comment:

NETWORK CONFIGURATION: GO TO SETUP>NETWORK INTEGRATION, SET TO BACNET IP Pass

Comment:

DO THIS ON UNITS

CONTROL MODE: SET CONTROL MODE TO ROOM SENSOR: CO2, TEMP & HUMIDITY (PER UNIT, AS NEEDED). Pass

Comment:

INDIVIDUAL PARAMETER CONFIGURATIONS (MECHANICAL CONTRACTOR TO DEFINE / AS APPLICABLE):

PARAMETER 105 DEHUMID MODE: 7 NO CONDITIONS Pass

Comment:

Set rtu1 no cond

PARAMETER 106 DEHUMID SETPOINT: 50, THIS IS A CENTERED SET POINT (+/-) Yes

Comment:

PARAMETER 107 DEHUMID DEADBAND: 3 (DEFAULT) THIS IS THE ACTUAL +/- VALUE

Pass

Comment:

PARAMETER 117 CO2 DAMPER MAX OPEN: 50%

Pass

Comment:

PARAMETER 118 CO2 START OPEN PPM: 1500

Pass

Comment:

PARAMETER 119 CO2 MAX OPEN PPM: 1500

Pass

Comment:

PARAMETER 137 OCCHET SET POINT: 68 (BACK UP)

Pass

Comment:

PARAMETER 131 SET TO THE SAME % AS THE MINMIUM OA DAMPER SETPOINT

Comment:

PARAMETER 139 OCC COOLING SET POINT: 72 (BACK UP)

Pass

Comment:

PARAMETER 154 OCC BLOWER MODE: ON-CONTINUOUS 1

Pass

Comment:

CFM VALUES / MSAV FAN SPEEDS (AIR BALANCER TO DEFINE / IF APPLICABLE):

OA DAMPER SET TO SAME POSITION IN ALL FAN SPEEDS?

Pass

Comment:

ALL FAN SPEEDS SET TO THE SAME CFM VALUE (ENTER SETPOINTS BELOW)

Pass

Comment:

RTU1: 67% RTU2: 87% RTU3: 62%

HEAT CFM VALUE: PER THE HVAC SCHEDULE

Pass

Comment:

HIGH COOL CFM VALUE: THE HIGH COOL CFM VALUE

Pass

Comment:

LOW COOL CFM VALUE: MATCH THE HIGH COOL CFM VALUE

Pass

Comment:

VENTILATION CFM VALUE: MATCH THE HIGH COOL CFM VALUE

Pass

Comment:



07-28-25 WAWA #5470 JACKSONVILLE, FL

CheckList Information

Name : 03: SENSOR WIRING (LENNOX) **Status :** Completed
Assigned Organization : National TAB **Asset :**
Requesting Organization : National TAB
Created Date : 07/24/2025 - Natasha Louw - National TAB
Completed Date : 07/29/2025 - Ian Fuller - National TAB

CheckList Item Details

COMBINATION TEMPERATURE/HUMIDITY SENSOR

Sensors are installed where shown on the drawing? Pass

Comment:

2 conductor shielded cable has one wire landed to Vin, one to GND, and the shield wire is not connected. Pass

Comment:

For second shielded cable, one wire is landed to Vout and the shield wire is not connected. Pass

Comment:

Verify that the CORE or Prodigy controller is sensing a relative humidity (record the reading) Pass

Comment:

RTU1: 57% RTU2: 58% RTU3: 60%



07-28-25 WAWA #5470 JACKSONVILLE, FL

CheckList Information

Name : 04: EF'S **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 07/24/2025 - Natasha Louw - National TAB

Completed Date : 07/29/2025 - Ian Fuller - National TAB

CheckList Item Details

EF's

Rotation is correct?	Pass
----------------------	------

Comment:

Belts are tight (if applicable)?	N/A
----------------------------------	-----

Comment:

Speed controller installed and functional (if applicable)?	Pass
--	------

Comment:

There is no major leakage around base of fan?	Pass
---	------

Comment:

Is the motor operating below the motor FLA rating?	Pass
--	------

Comment:

Back draft damper installed and can it fully open?	Pass
--	------

Comment:

(RESOLVED) DAMPER CAN NOT FULLY CLOSE

Unit free of noticeable noise and vibration?

Pass

Comment:

Total exhaust flow balanced within +/-5% and grilles are within +/-10%?

Pass

Comment:



07-28-25 WAWA #5470 JACKSONVILLE, FL

CheckList Information

Name : 05: CLOSEOUT CHECKS **Status :** Completed

Assigned Organization : National TAB **Asset :**

Requesting Organization : National TAB

Created Date : 07/24/2025 - Natasha Louw - National TAB

Completed Date : 07/29/2025 - Ian Fuller - National TAB

CheckList Item Details

SPACE COMFORT

Is space free of drafting? Pass

Comment:

Is space comfortable in all areas? Pass

Comment:

Is the space free of ventilation noise? Pass

Comment:

BUILDING PRESSURE

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative) Pass

Comment:

AVG: 0.0101"

National TAB

Project: 07-28-25 WAWA #5470 JACKSONVILLE, FL

System/Unit: AHU/RTU



Asset: RTU1

AREA: CORE

Unit Data		
	Design	Actual
MFG	LENNOX ENLIGHT	LENNOX
Serial Num	-	5624L02672
Model Num	LCT102H4E	LCT102H4EG2Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	3400	3445
SF RPM	-	1190
RA CFM	2900	2947
OA CFM	500	498
RL Voltage	-	207/207/206
RL Amperage	-	2.7/2.7/2.7
SF System SetPt	-	67%
OA Damper Position	-	38%
OA Damper Type	-	MOTORIZED DAMPER

Motor Data		
	Design	Actual
Motor MFG	-	EBMPAPST
Frame	-	N/A
Horsepower	3.75	3.8
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	208	200-240
Rated Amperage	-	8.7
Service Factor	-	N/A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.28"
Fan Suction SP	-	-0.76"
Fan Discharge SP	-	0.24"
Total ESP	0.5"	0.52"
Fan Total SP	-	1.0"

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Completed By: Ian Fuller on 07/29/2025

Unit Data - PHOTO LOG



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Project:07-28-25 WAWA #5470 JACKSONVILLE, FL

AHU/RTU



Diffuser Supply (GRD)

RTU1/CORE

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	RETAIL	LD-1	10"	350	1	414	375	354	101.1
SGRD2	RETAIL	LD-1	10"	325	1	395	358	330	101.5
SGRD3	RETAIL	LD-1	10"	325	1	363	329	352	108.3
SGRD4	MENS RR	CD-3	6"	75	1	105	95	82	109.3
SGRD5	REAR VESTIBULE	CD-3	6"	100	1	82	74	90	90.0
SGRD6	WOMENS RR	CD-3	6"	50	1	60	54	51	102.0
SGRD7	RETAIL	LD-1	10"	325	1	323	292	295	90.8
SGRD8	RETAIL	LD-1	10"	325	1	382	346	341	104.9
SGRD9	DELIVERY VESTIBULE	CD-1	8"	200	1	362	209	216	108.0
SGRD10	RETAIL	LD-1	10"	350	1	40\	283	371	106.0
SGRD11	RETAIL	LD-1	10"	350	1		369	361	103.1
SGRD12	RETAIL	LD-1	10"	325	1		349	293	90.2
SGRD13	ASSOCIATES	CD-1	8"	150	1		130	149	99.3
SGRD14	OFFICE	CD-1	8"	150	1		189	160	106.7
Total				3400		2486	3452	3445	101.32%

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Project: 07-28-25 WAWA #5470 JACKSONVILLE, FL

System/Unit: AHU/RTU



Asset: RTU2

AREA:DELI

Unit Data		
	Design	Actual
MFG	LENNOX ENLIGHT	LENNOX
Serial Num	-	5624L02674
Model Num	LCT150H4E	LCT150H4EN2Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	5000	5010
SF RPM	-	1548
RA CFM	4250	4221
OA CFM	750	789
RL Voltage	-	207/206/207
RL Amperage	-	5.6/5.7/5.7
SF System SetPt	-	87%
OA Damper Position	-	50%
OA Damper Type	-	MOTORIZED DAMPER

Motor Data		
	Design	Actual
Motor MFG	-	EBMPAPST
Frame	-	N/A
Horsepower	3.75	3.8
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	208	200-240
Rated Amperage	-	8.7
Service Factor	-	N/A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.24"
Fan Suction SP	-	-0.96"
Fan Discharge SP	-	0.30"
Total ESP	0.5"	0.54"
Fan Total SP	-	1.26"

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DDD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

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Unit Data - PHOTO LOG



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Project:07-28-25 WAWA #5470 JACKSONVILLE, FL

AHU/RTU



Diffuser Supply (GRD)

RTU2/DELI

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	FOOD SERVICE 1	LD-1	12"	500	1	861	913	464	92.8
SGRD2	FOOD SERVICE 1	LD-1	12"	500	1	540	573	531	106.2
SGRD3	FOOD SERVICE 1	LD-1	12"	500	1	638	677	531	106.2
SGRD4	FOOD SERVICE 2	LD-1	12"	500	1	327	347	513	102.6
SGRD5	FOOD SERVICE 2	LD-1	12"	500	1	76	81	477	95.4
SGRD6	FOOD SERVICE 2	LD-1	12"	500	1	532	564	482	96.4
SGRD7	BACKROOM	CD-1	10"	425	1	338	359	460	108.2
SGRD8	BACKROOM	CD-1	10"	425	1	319	338	419	98.6
SGRD9	WASHROOM	CD-1	12"	525	1	534	567	496	94.5
SGRD10	BOH	CD-1	6"	75	1	108	115	82	109.3
SGRD11	ELECTRICAL ROOM	CD-1	12"	550	1	474	503	555	100.9
Total				5000		4747	5037	5010	100.2%

Diffuser Ret/Exh (GRD)

RTU2/DELI

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FOOD SERVICE 1	G-1	14"	900	1	858	858	858	95.3
EGRD2	FOOD SERVICE 2	G-1	14"	800	1	758	758	758	94.8
EGRD3	FOOD SERVICE 2	G-1	14"	800	1	807	807	807	100.9
EGRD4	FOOD SERVICE 2	G-1	14"	850	1	848	848	848	99.8
EGRD5	BACKROOM	G-1	14"	900	1	891	891	891	99.0
Total				4250		4162	4162	4162	97.93%

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Project: 07-28-25 WAWA #5470 JACKSONVILLE, FL

System/Unit: AHU/RTU



Asset: RTU3

AREA:RETAIL

Unit Data		
	Design	Actual
MFG	LENNOX ENLIGHT	LENNOX ENLIGHT
Serial Num	-	5624K00726
Model Num	LCT092H4E	LCT092H4EG1Y
Type	RTU	RTU
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	1
OA Filter Size 1	-	23X14
Num Final Filter 1	-	4
Final Filter Size 1	-	20X25X2

Test Data		
	Design	Actual
SF CFM	3000	3032
SF RPM	-	1364
RA CFM	2550	2549
OA CFM	450	483
RL Voltage	-	208/207/207
RL Amperage	-	2.5/2.4/2.4
SF System SetPt	-	62%
OA Damper Position	-	35%
OA Damper Type	-	MOTORIZED DAMPER

Motor Data		
	Design	Actual
Motor MFG	-	EBMPAPST
Frame	-	N/A
Horsepower	3.75	3.8
Motor Rpm	-	N/A
Phase	3	3
Rated Voltage	208	200-240
Rated Amperage	-	8.7
Service Factor	-	N/A

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.20"
Fan Suction SP	-	-0.55"
Fan Discharge SP	-	0.32"
Total ESP	0.5"	0.52"
Fan Total SP	-	0.87"

Drive Data	
	Actual
Motor Sheave Size	DD
Motor Bore Size	DD
Motor Sheave SetPt	DD
Fan Sheave Size	DD
Fan Sheave Bore	DD
Belt CL Distance	DD
Num of Belts	DD
Belt Size	DD

Completed By: Ian Fuller on 07/29/2025

Unit Data - PHOTO LOG



07/29/2025

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Project:07-28-25 WAWA #5470 JACKSONVILLE, FL

AHU/RTU



Diffuser Supply (GRD)

RTU3/RETAIL

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
SGRD1	FRONT VERSTIBULE	CD-2	12"	500	1	691	589	548	109.6
SGRD2	RETAIL AREA	LD-1	10"	350	1	338	288	360	102.9
SGRD3	RETAIL AREA	LD-1	10"	350	1	446	380	351	100.3
SGRD4	RETAIL AREA	LD-1	10"	350	1	438	374	336	96.0
SGRD5	COFFEE	LD-1	10"	350	1	319	272	343	98.0
SGRD6	COFFEE	LD-1	10"	350	1	402	343	377	107.7
SGRD7	SPECIALTY BEVERAGE	LD-1	10"	350	1	538	459	348	99.4
SGRD8	SPECIALTY BEVERAGE	LD-1	10"	400	1	398	339	369	92.3
Total				3000		3570	3044	3032	101.07%

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Project: 07-28-25 WAWA #5470 JACKSONVILLE, FL

System/Unit: FAN - Exhaust



Asset: EF1

AREA:BOH

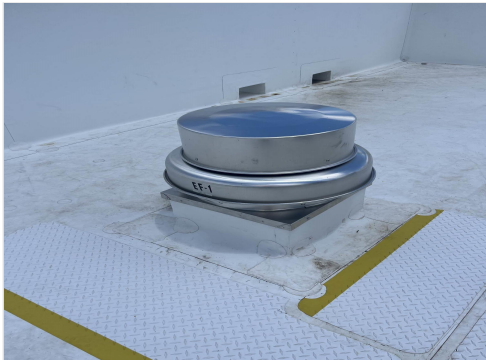
Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	G-140	G-140-B-4-1-22-X
Serial Num	-	27049719
Type	DOWNBLAST	DOWBLAST
Configuration	VERTICAL	VERTICAL

Test Data		
	Design	Actual
CFM	1200	1215
Fan RPM	818	HIGH
Fan Rotation	-	CCW
System SetPt	-	HIGH
RL Voltage	-	122
RL Amperage	-	3.2
Total ESP	0.375"	0.39"
Fan Inlet SP	-	-0.39"
Fan Discharge SP	-	ATM

Motor Data		
	Design	Actual
Motor MFG	-	N/A
Frame	-	48Y
Horsepower	0.25	0.25
Motor Rpm	-	1140
Phase	1	1
Voltage (rated)	120	115
Amperage (rated)	-	3.2
Service Factor	-	1.0

Completed By: Ian Fuller on 07/29/2025

Unit Data - PHOTO LOG



07/29/2025

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Project:07-28-25 WAWA #5470 JACKSONVILLE, FL

FAN - Exhaust



Diffuser Ret/Exh (GRD)

EF1/BOH

Asset									
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	CFM(2)	FINAL CFM	% to design
EGRD1	FOOD SERVICE	G-1	8"	200	1	204	156	199	99.5
EGRD2	FOOD SERVICE	G-1	8"	200	1	201	164	197	98.5
EGRD3	FOOD SERVICE	G-1	8"	200	1	222	184	208	104.0
EGRD4	WASHROOM	G-1	8"	200	1	304	251	209	104.5
EGRD5	BOH	G-1	6"	100	1	111	92	98	98.0
EGRD6	BOH	G-1	6"	50	1	198	155	52	104.0
EGRD7	MENS RR	G-3	6"	100	1	117	82	103	103.0
EGRD8	MENS RR	G-3	6"	50	1	113	87	55	110.0
EGRD9	WOMENS RR	G-3	6"	100	1	90	67	94	94.0
Total				1200		1560	1238	1215	101.25%

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Project: 07-28-25 WAWA #5470 JACKSONVILLE, FL

System/Unit: FAN - Exhaust



Asset: EF2

AREA:WALK IN REFRIGERATOR

Unit Data		
	Design	Actual
MFG	GREENHECK	GREENHECK
Model Num	CSP-B110	CSP-B110
Serial Num	-	N/A
Type	INLINE	INLINE
Configuration	HORIZONTAL	HORIZONTAL

Test Data		
	Design	Actual
CFM	60	55
Fan RPM	584	N/A
Fan Rotation	-	N/A
Motor RPM	-	N/A
System SetPt	-	N/A
RL Voltage	-	N/A
RL Amperage	-	N/A
Total ESP	0.125"	N/A
Fan Inlet SP	-	N/A
Fan Discharge SP	-	N/A

Motor Data		
	Design	Actual
Motor MFG	-	N/A
Frame	-	N/A
Horsepower	21W	N/A
Motor Rpm	-	N/A
Phase	1	N/A
Voltage (rated)	120	N/A
Amperage (rated)	-	N/A
Service Factor	-	N/A

Completed By: Ian Fuller on 07/29/2025

Notes:
UNABLE TO ACCESS MOTOR TO GET MOTOR DATA / TEST DATA. IT IS INSIDE A HARD WALL.

Written By: Ian Fuller on 07/29/2025

Unit Data - PHOTO LOG



07/29/2025