Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 12/12/14

SUBMITTAL DATA

For: Approval

Order #: **Date:** 11/10/2014

Project: PATRIOT CASTLE NAILS

Project #:

Location:

Date
11/10/2014
Project Name
PATRIOT CASTLE NAILS
Project Number
Client / Purchaser

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Submittal Summary Page

Qty	Tag #	Model #	Description
1		ZF048N10N2AAA2	4 Ton, York Sunline Single Packaged R-410A Air Conditioner, 13.0 SEER / 11.0 EER, Single Stage Cooling, 100 MBH Output Aluminized Steel, Single Stage Gas Heat, 1.5 HP Standard Static Belt Drive Blower, 1" Throwaway Filters, 208/230-3-60, Microchannel Condenser Coil, Galvanized Steel Drain Pan
1		2EE04703724	Single Enthalpy Economizer (Downflow or Horizontal Unit) with Hood Kit
1		1RD0410	Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted)

Equipment start-up and commissioning by a factory trained technician is recommended.
Contact your supplying distributor or sales representative for additional information & guidance.

Small Sunline

Single Package R-410A Air Conditioner

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Project Name: **PATRIOT CASTLE NAILS** Unit Model #: **ZF048**

Quantity: **1** System: **ZF048**

No Performance Data Available

Run Performance to view metrics

4 Ton

- York Units are Manufactured at an ISO 9001 Registered Facility and Each Rooftop is Completely Computer-Run Tested Prior to Shipment.

Unit Features

- Unit Cabinet Constructed of Powder Painted Steel, Certified At 1000 Hours Salt Spray Test (ASTM B-117 Standards)
- Through-the-Curb and Through-The-Base Utility Connections
- Either Supply and/or Return can be Field Converted from Vertical to Horizontal Configuration without Cutting Panels.
- Full Perimeter Base Rails with Built in Rigging Capabilities
- Galvanized Steel Drain Pan
- Reciprocating Compressor
- Single Stage Cooling
- Solid Core Liquid Line Filter Driers
- Microchannel Condenser Coil
- 100 MBH Output Aluminized Steel, Single Stage Gas Nominal Heat
- 1.5 HP Standard Static Belt Drive Blower
- Unit Ships with 1" Throwaway Filters with a Standard Filter Rack That Will Accept up to 2" Filters
- Single Point Power Connection
- Short Circuit Current: 5kA RMS Symmetrical

Standard Unit Controller: Simplicity Control Board

- An Integrated Low-Ambient Control, Anti-Short Cycle Protection, Lead-Lag, Fan On and Fan off Delays, Low Voltage Protection, On-Board Diagnostic and Fault Code Display.
- Safety Monitoring - Monitors the High and Low-Pressure Switches, the Freezestats, the Gas Valve, if Applicable, and the Temperature Limit Switch on Gas and Electric Heat Units. The Unit Control Board will Alarm on Ignition Failures, Safety Lockouts and Repeated Limit Switch Trips.

Warranty

- One (1) Year Limited Warranty on the Complete Unit
- Five (5) Year Warranty - Compressors and Electric Heater Elements
- Ten (10) Year Warranty - Aluminized Steel Tubular Heat Exchangers

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Quantity: **1** | System: **ZF048**

Factory Installed Options

ZF048N10N2AAA2

Product Category:	**Z**	York Sunline Single Packaged R-410A Air Conditioner
Product Identifier:	**F**	13.0 SEER / 11.0 EER
Nominal Cooling Capacity:	**048**	4 Ton Single Stage Cooling
Heat Type and Nominal Heat Capacity:	**N10**	100 MBH Output Aluminized Steel, Single Stage Gas Heat
Airflow:	**N**	1.5 HP Standard Static Belt Drive Blower 1" Throwaway Filters
Voltage:	**2**	208/230-3-60
Installation Options:	**A**	
Additional Options:	**AA**	Microchannel Condenser Coil Galvanized Steel Drain Pan
Product Generation:	**2**	

Field Installed Accessories

- 2EE04703724 - Single Enthalpy Economizer (Downflow or Horizontal Unit) with Hood Kit (50.0 lbs)
- 1RD0410 - Barometric Relief Damper with Hood Kit (Downflow Unit or Duct Mounted) (6.0 lbs)

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Unit Model #:

Quantity: **1**

System:

Consolidated Drawing

NOTES:
1. FOR OUTDOOR USE ONLY.
2. WEIGHTS SHOWN ARE FOR COOLING ONLY UNITS.
3. MIN. CLEARANCES TO BE:
   - RIGHT SIDE: 24 [609,6]
   - LEFT SIDE: 24 [609,6] (LESS ECONOMIZER)
     36 [914,4] (WITH ECONOMIZER)
   - FRONT: 24 [609,6] (COOLING/ELECTRIC HEAT)
     32 [812,8] (GAS HEAT)
   - REAR: 12 [304,8] (LESS ECONOMIZER)
     36 [914,4] (WITH ECONOMIZER OR FIXED AIR/MOTORIZED DAMPER)
   - TOP: 72 [1828,8]
   - BOTTOM: 0 [0]
4. FOR SMALLER SERVICE AND OPERATIONAL CLEARANCES CONTACT YOUR APPLICATION ENGINEERING DEPARTMENT.
5. DOWNFLOW DUCTS DESIGNED TO BE ATTACHED TO ACCESSORY ROOF CURB ONLY. IF UNIT IS MOUNTED SIDE SUPPLY, IT IS RECOMMENDED THAT THE DUCTS ARE SUPPORTED BY CROSS BRACES, AS DONE ON ACCESSORY ROOF CURBS.
6. SIDE DUCT FLANGES ARE 0.875" [22,2] HIGH. BOTTOM DUCTS DO NOT HAVE FLANGES.
7. MINIMUM CONDENSATION TRAP HEIGHT SHALL BE 1.5 TIMES THE LOWEST NEGATIVE STATIC.
8. DIMENSIONS IN [ ] ARE IN MILLIMETERS OR KILOGRAMS.
9. OPTIONAL COIL GUARD, GAS HEAT, ECONOMIZER HOOD, DISCONNECT SWITCH, CONVENIENCE OUTLET, AND OUTLET/INLET HOOD SHOWN.

10. EXCEPT XP (HEAT PUMP) UNITS.

DIRECTION OF AIRFLOW

CENTER OF GRAVITY

TONNAGE	UNIT	OPERATING WEIGHT (LBS) (BASE UNIT)	CENTER OF GRAVITY LOCATION (BASE UNIT)		4 POINT CORNER LOADS (LBS) (BASE UNIT)			
			X	Y	A	B	C	D
3	ZF	468 [212]	33 [838,2]	18.25 [463,6]	114 [52]	76 [35]	111 [50]	167 [76]
4	ZF	541 [245]	31.50 [800,1]	18.50 [469,9]	138 [63]	85 [39]	122 [55]	196 [89]
5	ZF	569 [258]	37 [939,8]	15 [381]	105 [48]	86 [39]	170 [77]	208 [94]
6	ZF	640 [290]	37 [939,8]	15 [381]	118 [54]	96 [44]	192 [87]	234 [106]
3	ZR	575 [261]	40 [1016]	20 [508]	132 [60]	125 [57]	155 [70]	164 [74]
4	ZR	585 [265]	40 [1016]	20 [508]	134 [61]	127 [58]	158 [72]	167 [76]
5	ZR	590 [268]	40 [1016]	20 [508]	135 [61]	128 [58]	159 [72]	168 [76]
3	XP	575 [261]	39 [990,6]	20 [508]	135 [61]	121 [55]	151 [69]	168 [76]
4	XP	585 [265]	39 [990,6]	20 [508]	137 [62]	124 [56]	154 [70]	171 [78]
5	XP	590 [268]	39 [990,6]	20 [508]	138 [63]	125 [57]	155 [70]	172 [78]

REAR (PARTIAL VIEW)
(RAIN HOOD NOT SHOWN IN THIS VIEW)

LEFT VIEW

FRONT VIEW

RIGHT VIEW

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Component Locations

Gas/Electric

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Typical Application

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Typical Field Power and Control Wiring

TYPICAL POWER WIRING

TYPICAL COOL/HEAT CONTROL WIRING

COOLING ONLY (24 VOLT THERMOSTAT)

[1]24 VOLT THERMOSTAT. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE A 2 STAGE COOLING THERMOSTAT.

COOLING / HEATING (24 VOLT THERMOSTAT)

[1]24 VOLT THERMOSTAT. TO CONTROL THE ECONOMIZER ON THE SECOND STAGE COOLING OR TO HAVE AN ELECTRIC HEAT ACCESSORY WITH TWO STAGES OF HEAT, USE A 2 STAGE COOL AND HEAT THERMOSTAT.

COOLING / HEATING (ELECTRONIC THERMOSTAT) MULTI STAGE

[1] ELECTRONIC PROGRAMMABLE THERMOSTAT TYPICAL.

[2] SECOND STAGE COOLING IS NOT REQUIRED ON UNITS LESS ECONOMIZER.

[3] SECOND STAGE HEATING IS ONLY REQUIRED ON UNITS WITH A TWO STAGE ELECTRIC HEATER OR 2 STAGE GAS HEAT.

[4] REMOVE JUMPER J2 FROM TERMINALS 4 AND 9 ON JUMPER PLUG CONNECTOR P6 ON UNITS WITH ECONOMIZER. TERMINALS A1 AND A2 PROVIDE A RELAY OUT-PUT TO CLOSE THE OUTDOOR ECONOMIZER DAMPERS WHEN THE THERMOSTAT SWITCHES TO THE SET-BACK POSITION.

COOLING / HEATING (ELECTRONIC THERMOSTAT) SINGLE STAGE

[1]ELECTRONIC PROGRAMMABLE THERMOSTAT TYPICAL. TO CONTROL THE ECONOMIZER ON SECOND STAGE COOLING, USE A 2 STAGE COOL AND HEAT THERMOSTAT.

DCL Dynamic Certification Laboratories

SPECIAL SEISMIC CERTIFICATION
OF NON-STRUCTURAL
COMPONENTS AND SYSTEMS

Johnson Controls

CERTIFICATE OF COMPLIANCE

Dynamic Certification Laboratories has qualified the listed packaged rooftop units as CERTIFIED for seismic applications in accordance with the following codes and standards:

CBC 2010, IBC 2009, ICC-ES AC-156 2010, ASCE 7-05

The following model designations are included in this certification. A complete list of certified models, options, and installation methods are detailed in report number 90300-1108a by Dynamic Certification Laboratories, provided by the equipment manufacturer upon request.

Unitary Product Group Packaged Rooftop Units (UPG)

Seismic Qualification Testing was conducted in accordance with and in strict adherence to the standards set forth within the American Society of Civil Engineers (ASCE 7) by the independent approval agency, Dynamic Certification Laboratories. The above referenced equipment is APPROVED for seismic applications when properly installed and used as intended.

The basis of this certification is through testing of the active and energized components per AC156. This certification covers multiple UPG brands, including York, Johnson Controls, Coleman, Luxaire, Evcon and Fraser-Johnston.

The seismic values are obtained from the Maximum Considered Earthquake Short Period Spectral Response Acceleration, Sds, as determined by the ASCE 7 seismic maps. Various installation locations/isolation configurations are covered under this certification, limited by the Sds value stated in the following table. A seismic importance factor, Ip, of 1.5 applies to this certification to include essential facility requirements and life safety applications for post event functionality. The units are approved for both a rigid and flexible mount configuration.

Maximum Design Sds Values of UPG Packaged Rooftop Units				
Series	**Model**	**Tons**	**Sds (g)**	**Fp/Wp**
XP/XA/J0*XP/T0*	036, 048, 060	3, 4, 5	2.5	1.88
ZF/ZS/J0*ZF/JA*ZF/T0*	036, 048, 060, 072	3, 4, 5, 6	2.5	1.88
ZR/ZK/J0*ZR/T0*	036, 048, 060	3, 4, 5	2.5	1.88

Dynamic Certification Laboratories 1315 Greg Street, Suite 109, Sparks, NV 89431 – ph: 775-358-5085 www.shaketest.com

SPECIAL SEISMIC CERTIFICATION
OF NON-STRUCTURAL
COMPONENTS AND SYSTEMS

CERTIFICATE OF COMPLIANCE

Table of Seismic Design Parameters					
Site Class	**F_a**	**I_p**	**a_p**	**R_p**	**z/h**
D	1.0	1.5	2.5	6.0	1.0

Site and Project Requirements

It is the responsibility of the Design Professional of Record to:

- Provide engineering for the anchorage and restraint of the unit
- Validate Cerftficafton Design Parameters with actual site condiftons
- Provide engineering of all equipment support structures
- Confirm component configurafton

Cerftficafton Issued by: Dynamic Cerftficafton Laboratories
Document Control Number: 90300-1108a-1
Issue Date: 12/19/11

REGISTERED PROFESSIONAL ENGINEER
AHMAD M. ITANI
S5220
EXP. 6/30/2014
STRUCTURAL
STATE OF CALIFORNIA

Dr. Ahmad Itani, SE
Dynamic Cerftficafton Laboratories

Randy Forristall
YORK Unitary Engineering
Johnson Controls, Incorporated