



**Residential Plans Examiner Review Form For
HVAC Load Calculations and Duct System Design**

City of Hampton, VA

REQUIRED ATTACHMENTS Contractor or Engineer: _____ Master Mechanical Tradesman Number : _____ Project Address: _____	Manual J1 Form (with worksheets A & B) _____ Manual J1AE Form (with worksheets A & B) _____ Manual D Friction Rate Worksheet _____ Duct Distribution System Layout/sketch (cfm per diffuser size) _____ Proposed Equipment Model Numbers _____
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HVAC System Design Criteria (ICC-IRC 1401.3)

Design Conditions			
Winter Design	Degrees Fahrenheit	Summer Design	Degrees Fahrenheit
Outdoor:	_____ ° F	Outdoor:	_____ ° F
Indoor:	_____ ° F	Indoor:	_____ ° F
Total Heat Loss	_____ Btu/h	Sensible Heat Gain	_____ Btu/h
		Latent Heat Gain	_____ Btu/h
		Total Heat Gain	_____ Btu/h
General Building Information			
Orientation(front door faces) _____ (North, East, West, South, Northeast, Northwest, Southeast, Southwest)		Window Type _____	
Number of Bedrooms: _____		Insulation R-Values Attic Wall Floor	
Floor area (square feet) _____		System Type: RTU Split PKG	
Number of Occupants: _____		Eave Overhang Depth _____ Ft.	
Envelope Tightness Estimate _____ (Tight, Semi-tight, Average, Semi-loose, Loose)		Number of Skylights: _____	
SEER: _____ EER: _____ HSPF: _____		System Cooling Btu/h: _____	
		System Heating Btu/h: _____	
COP: _____ AFUE: _____			

HVAC DUCT DISTRIBUTION SYSTEM DESIGN (ICC-IRC 1601.1)

Design Airflow _____ CFM # Supply Air Grilles _____ #Return Air Grilles: _____

Equipment Design ESP _____ IWC OEM Blower tables _____ Total Device Pressure Losses _____ IWC Cumulative total of dampers, registers, filters, etc. _____ Available Static Pressure(ASP) _____ IWC Equipment Design ESP-Total Device Pressure Losses _____	Total Effective Length (TEL) Supply _____ Ft. Return _____ Ft. Total(TEL) _____ Ft.
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Friction Rate (ASPx100) _____ = _____ IWC
TEL

Duct Material: _____
Sheetmetal, Lined metal, Ductboard, Flex (ducts marked by type)

I declare the load calculation, equipment selection and duct distribution design is accurate and rigorously performed to the best of my ability. I understand the claims made on these form will be subject to inspection and verification.

Printed Name: _____ Date: _____

Contractor'/Engineer's Signature _____