

Summary of Changes to WBP Template v1.4 June 2021

Service Water Heating

1. Fixed issue with cell M20 on SWH tab not populating
2. Fixed typo of kWh instead of kW in cell I20 on SWH tab.
3. Made cell I22 editable on the SWH tab as efficiency units will vary

HVAC

4. Removed System 2 – VRF from listboxes on General HVAC tab as this was a relict from an older version of the program.
5. Added a listbox to the baseline HVAC column in Table 9.2 that can be overwritten. The reason is because without the exact system type text the lookups on the Baseline Air-Side HVAC tab do not work. (4/20/2021 added Sys 2 – ASHP to the listbox)
6. Modified formatting for EER to have at least 1 decimal shown.
7. Table 10.1, wrapped heating text so that it is more visible.

Envelope

8. Fixed the error with Fen U-value not populating on the Shading and Fenestration tab.

668 =IF(D68=""Unconditioned",L68,IF(S68<=0,S68,""))

1
2

Instructions: Describe each unique fenestration assembly on a separate row in the following table. Please refer to the column header notes for information about information not applicable to the project, simply enter "N/A". Baseline information will autogenerate for new construction.

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Table 4.2: Vertical Glazing

General Information			Baseline-ASHRAE 90.1-2013				Prop
Building ID	New or Existing Construction	Space-Conditioning Category	Description	Assembly U-factor	SHGC	VT	
<p>Helpful Hints</p> <ul style="list-style-type: none"> New/Existing vertical glazing Select a description Assembly U-factor and SHGC from Table 5.5-1 through 5.5-8 per Table G3.1#5(b) (SHGC): Please note that this is not equivalent to the shading coefficient (SC) 							
Aces North Haven	Existing	Nonresidential	Metal framing fixed		0.40	1.10	

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Add Rows Delete Rows

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Table 4.3: Skylights

General Information			Baseline-ASHRAE 90.1-2013				Prop
Building ID	New or Existing Construction	Space-Conditioning Category	Description	Assembly U-factor	SHGC	VT	Desc

2a - Schedules 2b - EFH Calculator 3 - Multifamily Details 4 - Shading and Fenestration 5 - Opaque Assemblies 6a - Light

9. Fixed error in slab on grade table on Opaque Assemblies, was not populating beyond first row.
10. Fixed error with population of baseline for heated slab.
11. Modified reference A6.1 shown below.

Table 5.6: Slab-On-Grade Floors

General Information			Baseline-ASHRAE 90.1-2013	
Building ID	New or Existing Construction	Space-Conditioning Category	Heated/ Unheated	Assembly F-factor
<p>Helpful Hints</p> <ul style="list-style-type: none"> Describe the Baseline slab-on-grade floor construction (for example: unheated 6" (150 mm) concrete slab poured directly on the earth with no insulation). New/Existing/Additional slab-on-grade floors: unheated 6" concrete slab as defined in A6.1 with F-factor from appropriate Tables 5.5-1 through 5.5-8 per Table G3.1#5(b) 				
Burns Latino Studies Academy	Existing	Nonresidential	Unheated	6" concrete slabs with R-15 insulation for 24 in. with an F-factor of 0.520

5 - Opaque Assemblies 6a - Lighting Counts 6b - General Lighting 7 - Process Loads 8 - Service Water Heating 9 - Gene

A6. SLAB-ON-GRADE FLOORS

A6.1 General. For the purpose of Section A1.2, the base assembly is a slab floor of 6 in. concrete poured directly on to the earth, the bottom of the slab is at grade line, and soil conductivity is 0.75 Btu/h-ft²-°F. In contrast to the U-factor for floors, the **F-factor** for slab-on-grade floors is expressed per linear foot of building perimeter. **F-factors** are provided for unheated slabs and for heated slabs. Unheated slab-on-grade floors do not have heating elements, and heated slab-on-grade floors do have heating elements within or beneath the slab. **F-factors** are provided for three insulation configurations:

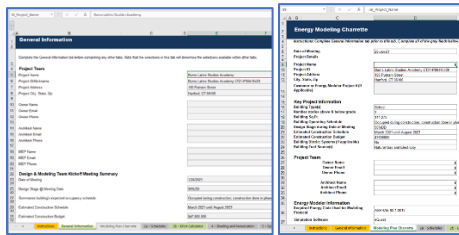
Modeling Plan Charette tab:

12. Fixed the listboxes for Measure Type and Subtype

Identified Eligible EEMs to be Pursued for Incentives
Refer to Inspection Requirements tab and maintain similar nomenclature. Modeler to refer to program guidelines for eligible measures. Delete & add rows as necessary. Renewable energy systems, such as photovoltaic solar panels, and CHP are not incentivized under the Whole Building Program and should be excluded from both the baseline and proposed energy models or otherwise modeled as energy neutral. Refer to Section 3.5 and Example 3-4 of the WBP EMG V3.0 for additional reference and note the approach taken at the bottom of this document.

#	Measure Name	Measure Type	Measure Subtype	Measure Specific Goals & Notes
1	Roof			
2	Windows	Measure Type		
3	Doors			
4	Walls (some areas)			
5	CEILING/MECH/PLUMBING/...			

13. Fixed Project Name reference as it was not linking.



14. Fixed the Construction budget formatting, it did not have \$ or ,000's in the MPC.

VS.

67 75% or 2163, 207600, anticipate final model to be based on 20% CD

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69 Simulation program eQuest 7175

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72 Simulation weather file Hartford, CT TMY2 (HARTFOCT.bin)

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75 Climate zone 5A

81 **Compliant energy simulation software.** The energy simulation software used for this project has all capabilities described in EITHER section "G2 Simulation General Requirements" in Appendix G of ASHRAE 90.1 OR the analogous section of the alternative qualifying energy code used.

82

Instructions General Information Modeling Plan Charette 2a - Schedules 2b - EFLH Calculator 4 - Shading and Fenestration 5 - Opaque Assen

Lighting

15. Changed language to Enter "Multiple" on the Lighting Counts tab

Thermal Block Description (e.g. space name(s) from drawings, thermal block name from model, etc.)	Lighting Plans Dwg#	Multiplier	Space Type (90.1-2013 Table 9.6.1) Select "Multiple" if there are several space types within a thermal block, and enter weighted average baseline LPD.	Room Height corridor enter v fe
		-	Audience Seating/Gymnasium	
		-	Classroom/Lecture Hall/Training Room in All Other	
		-	Conference/Meeting/Multipurpose Room	
		-	Copy/Print Room	
		-	Corridor/All Other	

... 6a - Lighting Counts 6b - General Lighting 7 - Process Loads 8 - Service Water Heating 9 -

16. Typo shown below was fixed.

"ON" Occupancy Sensor Type Requirement Per 90.1-2013 Table 9.6.1 column (b) & (c)	"ON" Occupancy Sensor Exception? If Yes, please explain at end of row.
Required	No
Required	
Required	
Required	
Required	

Process Loads

17. Sum equation didn't expand to include all entries, same for other calcs here as well. This was fixed in the first table on the Process Loads tab.

E52 =SUM(\$E\$34:\$E\$37)

Building ID	Space Type	Total Space Type Area (sq ft)	Equipment Power Density (W/sq ft)	Equipment Included in Power Density	Baseline Modeled Identically	Measure #
Burns Latino Studies	Audience Seating/Auditorium	5,026	0.75		Yes	
Academy	Classroom/Lecture Hall/Training Room in All Other	47,274	0.59		Yes	
Burns Latino Studies	Corridor/All Other	66,135	0.69		Yes	
Burns Latino Studies	Dining Area/Cafeteria/Fast Food	4,048	1.37		Yes	
Academy	Audience Seating/Gymnasium	4,176	0.67		Yes	
Burns Latino Studies	Food Preparation Area	2,239	1.32		Yes	
Academy	Technical/Mechanical Room	3,709	0.69		Yes	
Burns Latino Studies	Office/Classroom < 250 sq ft	6,620	1.67		Yes	
Burns Latino Studies	Storage Room/50 sq ft and < 1,000 sq ft	2,586	0.31		Yes	
Academy	Storage Room/50 sq ft	2,666	0.31		Yes	
Burns Latino Studies	Computer Room	498	2.00			
Academy						
Burns Latino Studies						
Academy						
Burns Latino Studies						
Academy						
Burns Latino Studies						
Academy						
Burns Latino Studies						
Academy						
Totals		62,300	0.61			

7 - Process Loads 8 - Service Water Heating 9 - General HVAC 10a - Baseline Air-Side HVAC 10b - Propose