

# HIGH PERFORMANCE NEW CONSTRUCTION

## Exhibit E – Reference Building (RB) Modeling Information

Following ANSI/ASHRAE/IESNA 90.1 “Energy Standard for Buildings Except Low-Rise Residential Buildings” as modified by Supplementary Standard SB-10 Division 3 revised June 27, 2011

1) Building Envelope Details (ASHRAE 90.1-2010 Section 5.5 and OBC 2006 Supplementary Standard SB-10 Division 3)

a) Compliance Path Selected:

Prescriptive Path (OBC Supplementary Standard - SB5.5)

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b) Opaque Elements

What Building Envelope Requirements Table was used? (SB5.5-?)

Note: Where electric space heating is used, the building envelope shall comply with the requirements of Table SB5.5-7 of this Supplementary Standard, regardless of its climatic location.

What Building Type was selected?

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What U-value was used for Roofs?

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What U-value was used for Walls, Above Grade?

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What U-value was used for Walls, Below Grade?

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What U-value was used for Floors?

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What U-value was used for Slab on Grade Floors?

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What U-value was used for Opaque Doors?

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c) Fenestration

What is the percentage of wall area is modelled for Fenestration?

Note: Vertical Fenestration may be modeled between 0-40% of wall area

What U-value was used for vertical fenestration?

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What SHGC was used for vertical fenestration?

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What is the percentage of roof area is modelled for Skylights?

Note: Skylights may be modeled between 0-5% of roof area

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What type of Skylight is modeled?

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What U-value was used for Skylights?

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What SHGC was used for Skylights?

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3) Lighting System (ASHRAE 90.1-2010 Section 9)

a) Compliance Path Selected:

Building Area Method (Section 9.5) *or*

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Space-by-space Method (Section 9.6)

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b) If 9.5

Table 9.5.1 was used for Interior Lighting (Y/N)

If “Y”, please provide the Lighting Power Density and Building Area Type used for the RB

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If 9.6

Table 9.6.1 was used for Interior Lighting (Y/N)

If “Y”, please provide the list of Spaces, the Lighting Power Density for each space, the Area Factor for each space, and the Lighting Power Allowance for each space.

Attached? (Y/N)

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4) Heating, Ventilating and Air-Conditioning Systems (ASHRAE 90.1-2010 Section 6.5)

Following Section 11 - Energy Cost Budget Method

a) What Budget System Type was selected?

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b) Table 6.8.1 A to 6.8.1 G were used to determine RB HVAC equipment efficiencies (Y/N)

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If “Y”, please provide a list of HVAC equipment and the efficiency specified in the energy model for the RB.

Attached? (Y/N)

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Note: The equipment efficiencies used in the RB from ASHRAE 90.1-2010 must comply with Article 1.1.1.4 of OBC 2006 Supplementary Standard SB-10 where test procedure must be compliant with Ontario Regulation.

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5) Service Water Heating Systems (ASHRAE 90.1-2010 Section 7.5)  
Following Section 11 - Energy Cost Budget Method

a) Table 7.8 was used to determine RB SWH equipment efficiencies? (Y/N) \_\_\_\_\_

If "Y", please provide the list of SWH equipment and the efficiency specified in the energy model for the RB.

Attached? (Y/N) \_\_\_\_\_

Note: The equipment efficiencies used in the RB from ASHRAE 90.1-2010 must comply with Article 1.1.1.5 of OBC 2006 Supplementary Standard SB-10 where test procedure must be compliant with Ontario Regulation.