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REVISIONS

DATE 8/2/2019
PROJECT NUMBER 9217-000

SHEET TITLE
OFFICE
COMCHECK

SHEET NUMBER
G-003

COMcheck Software Version 4.1.1.0
Envelope Compliance Certificate

Project Information

Energy Code: 90.1 (2013) Standard
Project Title: New Corporate Hangar
Location: Southport, North Carolina
Climate Zone: 3a
Project Type: New Construction
Vertical Storing / Wall Area: 2%

Performance Sim System: EnergyPlus 8.1.0.2008 (EPW: USA_NC_Wilmington Intl.AP.722013_TMY3.epw)

Construction Date: 08/04/19
Owner/Agent: KKKK Airport Drive, Southport, NC 28461
Designer/Contractor: Travis Fence, The Wilson Group, PO Box 5510, Charlotte, NC 28299, (704) 331-9747, travis@twgarchitects.com

Building Area	Floor Area
1. Office Nonresidential	434

Envelope Assemblies	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor
Roof 1: Metal Building, Standing Seam, Single Insulation Layer with Thermal Break (5) [Req. Use 1 - Office]	434	0.0	23.0	0.042	0.041
Floor 1: Stone-Over-Concrete (2) [Req. Use 1 - Office] (a)	87	---	---	0.736	0.730
NORTHEAST Exterior Wall 8: Other Metal Building Wall [Req. Use 1 - Office] (b)	217	---	---	0.077	0.094
Door 2: Insulated Metal, Sliding [Req. Use 1 - Office]	21	---	---	0.933	0.700
SOUTHEAST Exterior Wall 1: Other Metal Building Wall [Req. Use 1 - Office] (b)	366	---	---	0.077	0.084
SOUTHWEST Exterior Wall 2: Other Metal Building Wall [Req. Use 1 - Office] (b)	217	---	---	0.077	0.084
NORTHWEST Exterior Wall 3: Other Metal Building Wall [Req. Use 1 - Office] (b)	398	---	---	0.077	0.094
Window 1: Metal Frame Fixed, Perf. Type, Energy code default, Double Pane with Low-E, Tinted, SHGC 0.50, U-Factor 0.25 [Req. Use 1 - Office]	18	---	---	0.900	0.930

(a) Budget U-factors are used for software compliance calculations. COMcheck will use net code requirements.
(b) U-factor components require supporting documentation for proposed U-factors.
(c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.
(d) Thermal mass back-slab minimum R-3.5 must be installed above the perimeter, and the rest of slab secured to the perimeter.

Project Title: New Corporate Hangar Report date: 06/04/19
Data Filename: P:\9217_SUT Storage Hangar\Drawings\Architectural\ComCheck\SUT Hangar Office ComCheck Page 1 of 10

Envelope Compliance Statement

Completion Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 90.1 (2013) Standard requirements in COMcheck version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Travis Walker Fence - Partner 8/4/19
Name: Title: Travis Walker Fence Date:

Project Title: New Corporate Hangar Report date: 06/04/19
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COMcheck Software Version 4.1.1.0
Inspection Checklist
Energy Code: 90.1 (2013) Standard

Requirements: 0.0% were addressed directly in the COMcheck software. There is the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Req. ID	Plan Review	Compliance	Comments/Assumptions
4.1.1	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	Complies Does Not Not Observable Not Applicable	
4.2.1	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder conductors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	Complies Does Not Not Observable Not Applicable	

Additional Comments/Assumptions:

Project Title: New Corporate Hangar Report date: 06/04/19
Data Filename: P:\9217_SUT Storage Hangar\Drawings\Architectural\ComCheck\SUT Hangar Office ComCheck Page 3 of 10

Section & Req. ID	Inspection / Observation	Plan Verified Value	Field Verified Value	Compliance	Comments/Assumptions
5.3.1.1	Below-grade wall foundation R-value.	R	R	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.1.2	Slab edge insulation R-value.	R	R	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.1.3	Slab edge insulation U-factor.	U	U	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.1.4	Slab edge insulation SHGC value.	SHGC	SHGC	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.1.5	Slab edge insulation U-factor.	U	U	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.1.6	Slab edge insulation SHGC value.	SHGC	SHGC	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.1.7	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.3.1.8	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.3.1.9	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.3.1.10	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.3.1.11	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.3.1.12	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	
5.3.1.13	Exterior wall insulation installed per manufacturer's instructions.			Complies Does Not Not Observable Not Applicable	

Additional Comments/Assumptions:

Project Title: New Corporate Hangar Report date: 06/04/19
Data Filename: P:\9217_SUT Storage Hangar\Drawings\Architectural\ComCheck\SUT Hangar Office ComCheck Page 4 of 10

Section & Req. ID	Inspection / Observation	Plan Verified Value	Field Verified Value	Compliance	Comments/Assumptions
5.3.2	Factory-built and site-assembled fenestrations and doors are labeled or certified as meeting air leakage requirements.			Complies Does Not Not Observable Not Applicable	
5.3.2a	Vertical fenestration U-Factor.	U	U	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.2b	Skylight fenestration U-Factor.	U	U	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.2.1	Vertical fenestration SHGC value.	SHGC	SHGC	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.2.2	Skylight SHGC value.	SHGC	SHGC	Complies Does Not Not Observable Not Applicable	See the Envelope Assemblies table for values.
5.3.2.3	Fenestration products rated (U-factor, SHGC, and VT) in accordance with NFRC or energy code defaults are used.			Complies Does Not Not Observable Not Applicable	
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