

Project Information

Energy Code: 2018 IECC

Project Title:

Location: Silsbee, Texas

Climate Zone: 2a
Project Type: Addition
Vertical Glazing / Wall Area: 6%

Construction Site: Owner/Agent:

222 DUrdin Ronald Jones

Silsbee, Texas 77656 Architectural Alliance Incorporated

350 Pine Street, Suite 720 Beaumont, Texas 77701

Designer/Contractor:

409-866-7196

rjones@architect-aia.com

Building Area Floor Area

1-Office : Nonresidential 14340

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)
Roof: Attic Roof, Wood Joists, [Bldg. Use 1 - Office]	14340	30.0	0.0	0.034	0.027
Floor: Unheated Slab-On-Grade, [Bldg. Use 1 - Office] (c)	574			0.730	0.730
<u>NORTH</u>					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	2427	19.0	0.0	0.067	0.064
Window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Solargray + Solarban 60, SHGC 0.29, PF 0.27, [Bldg. Use 1 - Office] (b)	147			0.270	0.500
Window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Solargray + solarban 60, SHGC 0.29, PF 0.47, [Bldg. Use 1 - Office] (b)	104			0.270	0.500
Window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Solargray + solarban 60, SHGC 0.29, PF 1.00, [Bldg. Use 1 - Office] (b)	39			0.170	0.500
Window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Solargray $+$ solarban 60, SHGC 0.29, PF 1.00, [Bldg. Use 1 - Office] (b)	173			0.270	0.500
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Solargray + solarban 60, SHGC 0.29, [Bldg. Use 1 - Office] (b)	42			0.270	0.830
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	42			0.150	0.610
EAST					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	1677	19.0	0.0	0.067	0.064
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	42			0.150	0.610
<u>SOUTH</u>					
Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office]	2227	19.0	0.0	0.067	0.064
Door: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	63			0.150	0.610

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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor _(a)
WEST Ext. Wall: Wood-Framed, 16in. o.c., [Bldg. Use 1 - Office] Door: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	1677 21	19.0	0.0	0.067 0.150	0.064 0.610

- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
- (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
- (c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

Envelope PASSES: Design 5% better than code

Envelope Compliance Statement

Compliance 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 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Ronald M. Jones, AIA	Architect		February 28, 2022
Name - Title		Signature	Date

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Allowed Interior Lighting Power

Proposed Interior Lighting Power

Interior Lighting TBD: No lighting fixtures specified

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COMcheck Software Version COMcheckWeb Exterior Lighting Compliance Certificate

Project Information

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Project Title:

Project Type: Addition

Exterior Lighting Zone 0 (Unspecified)

Construction Site: Owner/Agent:

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Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
		Total Tradable Watts (a) =		0
		Total Allowed Watts = 0		0
	Total Allov	wed Supplemer	ntal Watts (b) =	350

Designer/Contractor:

Proposed Exterior Lighting Power

Exterior Lighting TBD: Exterior lighting zone not specified (see project screen)

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⁽a) Wattage tradeoffs are only allowed between tradable areas/surfaces.

⁽b) A supplemental allowance equal to 350 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

COM*check* **Software Version COM***check***Web Mechanical Compliance Certificate**

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Silsbee, Texas 77656	Architectural Alliance Incorporated						
	350 Pine Street, Suite 720						
	Beaumont, Texas 77701						
	409-866-7196 rjones@architect-aia.com						
	rjones@architect-ala.com						
Mechanical Systems List							
Quantity System Type & Description	ı						
Machanical Compliance State	amant						
Mechanical Compliance Statement							
	nechanical design represented in this docum						
	specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been						
	designed to meet the 2018 IECC requirements in COM <i>check</i> Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.						
Name Title	Cincatona	Data					
Name - Title	Signature	Date					

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COMcheck Software Version COMcheckWeb Inspection Checklist Energy Code: 2018 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in 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.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR1] 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	
C402.4.1 [PR10] ¹	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.1 [PR11] ¹	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C402.4.2 [PR14] ¹	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent.	□Complies □Does Not □Not Observable □Not Applicable	

Additional Comments/Assumptions:

	1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2 [FO4] ²	Slab edge insulation installed per manufacturer's instructions.	\square Complies \square Does Not	
C303.2.1 [FO6] ¹	Exterior insulation protected against damage, sunlight, moisture, wind,	\square Complies \square Does Not	
	landscaping and equipment maintenance activities.	□Not Observable □Not Applicable	
C105 [FO3] ²	and R-value consistent with insulation	\square Complies \square Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.2.4 [FO7] ²	FO7] ² Slab insulation extending away from		See the Envelope Assemblies table for values.
	huilding is covered by pavement or	□Not Observable □Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12] ²	Fenestration products rated in accordance with NFRC.	\square Complies \square Does Not	
		□Not Observable □Not Applicable	
C303.1.3 [FR13] ¹	Fenestration products are certified as to performance labels or certificates	□Complies □Does Not	
	provided.	□Not Observable □Not Applicable	
C402.4.3 [FR10] ¹	Vertical fenestration SHGC value.	□Complies □Does Not	See the Envelope Assemblies table for values.
		□Not Observable □Not Applicable	
C402.4.3, C402.4.3.	Installed vertical fenestration U-factor and SHGC consistent with label	□Complies □Does Not	See the Envelope Assemblies table for values.
4 [FR8] ¹	specifications and as reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.5.1 [FR16] ¹	The building envelope contains a continuous air barrier that is sealed in	□Complies □Does Not	
	an approved manner and either constructed or tested in an approved manner. Air barrier penetrations are sealed in an approved manner.	□Not Observable □Not Applicable	
C402.5.2, C402.5.4	Factory-built fenestration and doors are labeled as meeting air leakage	□Complies □Does Not	
[FR18] ³	requirements.	□Not Observable □Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5, C403.2.4. 3 [ME3] ³	motorized dampers that automatically	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section #	Insulation Inspection	Complies?	Comments/Assumptions
& Req.ID C303.1	Roof insulation installed per	☐Complies	
[IN3] ¹	manufacturer's instructions. Blown or	Does Not	
	poured loose-fill insulation is installed only where the roof slope is <=3 in	□Not Observable	
	12.	□Not Applicable	
C402.2.1 [IN20] ¹	Insulation installed on a suspended ceiling having ceiling tiles is not being	☐Complies ☐Does Not	
[INZO]	specified for roor/ceiling assemblies.	□Not Observable	
	Continuous insulation board installed in 2 or more layers with edge joints	□Not Observable □Not Applicable	
	offset between layers.		
C303.1 [IN10] ²	Building envelope insulation is labeled with R-value or insulation certificate	☐Complies ☐Does Not	
[IIVIO]	providing R-value and other relevant	□Not Observable	
	data.	□Not Applicable	
C303.2	Above-grade wall insulation installed	Complies	
[IN7] ¹	per manufacturer's instructions.	□Does Not □Not Observable	
		□Not Observable □Not Applicable	
C303.2.1	Exterior insulation is protected from	☐Complies	
[IN14] ²	damage with a protective material. Verification for exposed foundation	□Does Not	
	insulation may need to occur during Foundation Inspection.	□Not Observable □Not Applicable	
C105 [IN6] ¹	Installed above-grade wall insulation type and R-value consistent with	□Complies □Does Not	See the Envelope Assemblies table for values.
[INO]	insulation specifications reported in	□Does Not □Not Observable	
	plans and COMcheck reports.	□Not Obscrvable □Not Applicable	
C402.2.3		Complies	See the Envelope Assemblies table for values.
[IN8] ²	value consistent with insulation specifications reported in plans and	□Does Not □Not Observable	
	COMcheck reports.	□Not Observable □Not Applicable	
C402.2.6	Radiant panels and associated	☐Complies	
[IN18] ³	components, designed for heat transfer from the panel surfaces to the	□Does Not	
	occupants or indoor space are	□Not Observable □Not Applicable	
C402.3	insulated with a minimum of R-3.5. High-albedo roofs satisfy one of the		
[IN5] ³	following: 3-year-aged solar	Does Not	
	reflectance >= 0.55 and thermal emittance >= 0.75 or 3-year-aged	□Not Observable	
	solar reflectance index $>= 64.0$.	□Not Applicable	
C105 [IN2] ¹	Installed roof insulation type and R-value consistent with insulation	☐Complies ☐Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and	□Not Observable	
	COMcheck reports. For some ceiling systems, verification may need to	□Not Applicable	
C402 F 1	occur during Framing Inspection.	Complies	
C402.5.1. 1	All sources of air leakage in the building thermal envelope are sealed,	☐Complies ☐Does Not	
[IN1] ¹	caulked, gasketed, weather stripped or wrapped with moisture vapor-	□Not Observable	
	permeable wrapping material to	□Not Applicable	
	minimize air leakage.	I I	

1 High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.5.6 [FI37] ¹	dock cargo door openings and provide	□Complies □Does Not	
		□Not Observable □Not Applicable	
C402.5.8 [FI26] ³	envelope to limit infiltration and be IC	□Complies □Does Not	
		□Not Observable □Not Applicable	

3	1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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