

**COMcheck Software Version 4.1.1.0**  
**Interior Lighting Compliance Certificate**

**Project Information**  
 Energy Code: 2015 IECC  
 Project Title: BELLA TERRA MONTESSORI SCHOOL  
 Project Type: New Construction

Construction Site: 23421 FM 1093 RD, RICHMOND, TX 77406  
 Owner/Agent: RADIAN, 134 ELDRIDGE ROOD SUITE A, SUGAR LAND, TX 77478  
 Designer/Contractor: ASEENGINEERING, 25329 BUDDER RD, SPRING, TX 77380

**Additional Efficiency Package(s)**  
 Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

**Allowed Interior Lighting Power**

A Area Category	B Floor Area (ft <sup>2</sup> )	C Allowed Watts / ft <sup>2</sup>	D Allowed Watts (B X C)
1-School (School/University)	17697	0.78	13857
Total Allowed Watts = 13857			

**Proposed Interior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-School (School/University)				
LED 1: A: 2x4 PRISMATIC: Other:	1	210	40	8505
LED 2: B: 2x4 PARABOLIC: Other:	1	15	40	608
LED 3: C: 1x4 PRISMATIC: Other:	1	12	18	216
LED 4: D: INCANDESCENT DOWN LIGHT: Other:	1	56	18	986
LED 5: F: METAL HALIDE HIGH BAY: Other:	1	10	230	2300
Total Proposed Watts =				12614

**Interior Lighting PASSES: Design 9% better than code**

**Interior Lighting Compliance Statement**  
 Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

CHRIS L. SARMIENTO  
 Name - Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: 05/24/19

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**COMcheck Software Version 4.1.1.0**  
**Exterior Lighting Compliance Certificate**

**Project Information**  
 Energy Code: 2015 IECC  
 Project Title: BELLA TERRA MONTESSORI SCHOOL  
 Project Type: New Construction  
 Exterior Lighting Zone: 2 (Residential mixed use area)

Construction Site: 23421 FM 1093 RD, RICHMOND, TX 77406  
 Owner/Agent: RADIAN, 134 ELDRIDGE ROOD SUITE A, SUGAR LAND, TX 77478  
 Designer/Contractor: ASEENGINEERING, 25329 BUDDER RD, SPRING, TX 77380

**Allowed Exterior Lighting Power**

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
PARKING (Parking area)	30461 ft <sup>2</sup>	0.06	Yes	1828
Total Tradable Watts (a) =				1828
Total Allowed Watts =				1828
Total Allowed Supplemental Watts (b) =				600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.  
 (b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

**Proposed Exterior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
PARKING (Parking area 30461 ft <sup>2</sup> ): Tradable Wattage				
LED 1: Other:	1	4	258	1032
LED 2: Other:	1	6	16	96
LED 3: Other:	1	1	60	60
LED 4: Other:	1	51	18	898
Total Tradable Proposed Watts =				2086

**Exterior Lighting PASSES: Design 14% better than code**

**Exterior Lighting Compliance Statement**  
 Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.1.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

CHRIS L. SARMIENTO  
 Name - Title: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: 05/24/19

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**COMcheck Software Version 4.1.1.0**  
**Inspection Checklist**  
 Energy Code: 2015 IECC

Requirements: 28.0% 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 (PR4)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C103.2 (PR8)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C406 (PR9)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> 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	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 (EL15)	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.1 (EL18)	Occupancy sensors installed in required spaces.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.1 (EL23)	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.2 (EL22)	Automatic controls to shut off all building lighting installed in all buildings.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.3 (EL16)	Daylight zones provided with individual controls that control the lights independent of general area lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.2.3 (EL20)	Primary sidelighted areas are equipped with required lighting controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.3 (EL21)	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.4 (EL4)	Separate lighting control devices for specific uses installed per approved lighting plans.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.4 (EL8)	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.2.5 (EL25)	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<b>Exception:</b> Requirement does not apply.
C405.3 (EL6)	Exit signs do not exceed 5 watts per face.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

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Section # & Req-ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5 (F17)	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C405.4.1 (F18)	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Interior Lighting fixture schedule for values.
C405.5.1 (F19)	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Exterior Lighting fixture schedule for values.
C408.2.5 (F16)	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.
C408.3 (F33)	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	Requirement will be met.

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TEXAS ENGINEER FIRM REGISTRATION #F-15201

**ASEENGINEERING**  
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 DSN: EV  
 CHK: CS  
 JOB NO: 190000

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NO.	DESCRIPTION	DATE
1	FINAL SCHEME	02.01.19
2	REV FINAL SCHEME	02.07.19
3	PERMIT	05.24.19

**Radian**  
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CHRIS L. SARMIENTO  
 105835  
 LICENSED PROFESSIONAL ENGINEER  
 Date Signed: 05/24/19

Project No. 1801.74  
 Date 02/11/19  
 Drawn by JG  
 Checked by NL

Sheet No. **E6.1**

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