

COMcheck Software Version COMcheckWeb
Envelope Compliance Certificate

Project Information

Energy Code: 90.1 (2013) Standard
 Project Title: 40454-07 Cornelius, NC (Envelope)
 Project Type: New Construction
 Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site: West Catawba Avenue, Cornelius, North Carolina 28562
 Owner/Agent: ALDI Inc., 1985 Old Union Church Road, Salisbury, North Carolina 28146, 704.642.0023
 Designer/Contractor: ms consultants, inc., 2221 Schrock Road, Columbus, Ohio 43229, 614.898.7100

Building Area

Building Area	Floor Area
1-Retail - Grocery (Retail) - Nonresidential	22478

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor
Roof: Insulation Entirely Above Deck, Cool Roof performance data NA, [Bldg. Use 1 - Retail - Grocery]	21490	---	25.0	0.039	0.036
Floor: Unheated Slab-On-Grade Fully Insulated (Uniform R-value across perimeter + under entire slab), [Bldg. Use 1 - Retail - Grocery] (c)	21099	---	10.0	0.390	0.360
NORTH Short Wall Back: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Retail - Grocery]	1826	14.8	11.5	0.050	0.077
Door 109A: Insulated Metal, Swinging, [Bldg. Use 1 - Retail - Grocery]	20	---	---	0.167	0.700
EAST Dock Wall Front: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Retail - Grocery]	241	14.8	11.5	0.050	0.077
Door 109B: Insulated Metal, Non-Swinging, [Bldg. Use 1 - Retail - Grocery]	66	---	---	0.110	0.500
SOUTHEAST Long Wall Front: Steel-Framed, 16in. o.c., [Bldg. Use 1 - Retail - Grocery]	3238	14.8	11.5	0.050	0.077
Storefront above door: Other Window: Fixed, Perf. Specs.: Product ID GL-2, SHGC 0.30, PF 0.46, VT 0.48, [Bldg. Use 1 - Retail - Grocery] (c)	80	---	---	0.290	0.350
Storefront Door 101A: Uninsulated Double-Layer Metal, Perf. Specs.: Product ID GL-2, SHGC 0.30, PF 1.18, VT 0.48, [Bldg. Use 1 - Retail - Grocery] (c)	119	---	---	0.280	0.770
Storefront Type A: Other Window: Fixed, Perf. Specs.: Product ID GL-2, SHGC 0.30, PF 0.98, VT 0.48, [Bldg. Use 1 - Retail - Grocery] (c)	16	---	---	0.290	0.350
Storefront Type C: Other Window: Fixed, Perf. Specs.: Product ID GL-2, SHGC 0.30, PF 0.98, VT 0.48, [Bldg. Use 1 - Retail - Grocery] (c)	62	---	---	0.290	0.350

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Exterior Lighting Compliance Certificate

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Allowed Exterior Lighting Power

Area/Surface Category	B Quantity	C Allowed Watts	D Tradable Wattage	E Allowed Watts (B X C)
Entry canopy	1308 ft2	0.25	Yes	327
Parking area	34817 ft2	0.06	Yes	2088
Walkway < 10 feet wide	300 ft of	0.7	Yes	210
Total Tradable Watts (a) =				2785
Total Allowed Watts =				2785
Total Allowed Supplemental Watts (b) =				600

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

Proposed Exterior Lighting Power

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps / Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Main entry (7 ft of door width), Tradable Wattage				
L1: L1: Other	1	13	44	572
L2: L2: Other	1	6	25	150
Parking area (34817 ft2), Tradable Wattage				
L3: L3: LED Roadway-Parking Unit 110W	1	13	117	1521
Walkway < 10 feet wide (300 ft of walkway length), Tradable Wattage				
L4: L4: Other	1	6	25	150
Total Tradable Watts =				1773

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 90.1 (2013) Standard requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

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Project Information

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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 90.1 (2013) Standard requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

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Project Information

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Mechanical Compliance Statement

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

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COMcheck Software Version COMcheckWeb
Interior Lighting Compliance Certificate

Project Information

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Allowed Interior Lighting Power

Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Retail - Grocery (Retail)	22478	1.20	26972
Total Allowed Watts =			26972

Proposed Interior Lighting Power

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps / Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Retail - Grocery (Retail)				
L1: L1: Other	1	5	85	792
L2: L2: Other	1	2	44	88
L4: L4: Other	1	17	44	748
L7: L7: Other	1	1	23	23
D4: D4: Other	1	11	54	594
B6: B6: Other	1	17	72	1224
B8: B8: Other	1	14	72	1008
D4L: D4L: Other	1	12	34	408
D4: D4: Other	1	2	54	108
D6: D6: Other	1	5	72	360
W4: W4: Other	1	18	34	612
W8: W8: Other	1	14	72	1008
s1: s1: Other	1	8	28	224
s2: s2: Other	1	16	45	720
Total Proposed Watts =				7917

Interior Lighting Compliance Statement

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COMcheck Software Version COMcheckWeb
Mechanical Compliance Certificate

Project Information

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Mechanical Systems List

Quantity System Type & Description

- RTU-1 (Single Zone): Heating: 1 each - Other, Gas, Capacity = 405 kBtu/h. No minimum efficiency requirement applies. Cooling: 1 each - Single Package DX Unit, Capacity = 287 kBtu/h, Air-Cooled Condenser, No Economizer, Economizer exception: Open Gas Refrigeration. Proposed Efficiency = 11.30 SEER, Required Efficiency: 9.80 EER + 11.4 IEER. Fan System: FAN SYSTEM 1 - Compliance (Motor nameplate HP method) - Passes. Fans: RTU 1 Supply, Constant Volume, 2575 CFM, 0.5 fan efficiency grade.
- HVAC System (Single Zone): Heating: 1 each - Central Furnace, Gas, Capacity = 65 kBtu/h. Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00% Et (or 78% AFUE). Cooling: 1 each - Single Package DX Unit, Capacity = 24 kBtu/h, Air-Cooled Condenser. Proposed Efficiency = 13.00 SEER, Required Efficiency: 13.00 SEER. Fan System: FAN SYSTEM 2 | RTU-2 - Compliance (Motor nameplate HP method) - Passes. Fans: FAN 2 Supply, Constant Volume, 600 CFM, 0.3 motor nameplate hp, 50.0 fan efficiency grade.
- HVAC System (Single Zone): Heating: 1 each - Other, Electric, Capacity = 12 kBtu/h. No minimum efficiency requirement applies. Cooling: 1 each - Split System, Capacity = 9 kBtu/h, Air-Cooled Condenser. Proposed Efficiency = 20.00 SEER, Required Efficiency: 13.00 SEER. Fan System: FAN SYSTEM 3 | RTU-3 - Compliance (Motor nameplate HP method) - Passes. Fans: FAN 3 Supply, Constant Volume, 600 CFM, 0.1 motor nameplate hp, 50.0 fan efficiency grade.
- Water Heater: Electric Storage Water Heater, Capacity: 20 gallons. No minimum efficiency requirement applies.

Mechanical Compliance Statement

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Jason E. Christoff, PE
 Name - Title

Signature

06/19/19
 Date

Jason E. Christoff, PE
 Name - Title

Signature

06/19/19
 Date

Issued:	Date:
A Client Review Set	05/07/19
B Permit Set	06/12/19
C Client Review Set	02/07/20
D Bid Set	02/10/20
Revisions:	Date:
Building Response 1	06/20/19

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DRAWN BY: MEM

REVIEWED BY: KFF

Seal

PROFESSIONAL OF RECORD:
 JASON E. CHRISTOFF No. 039391
 EXP. DATE: 12/31/2020

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 (704) 642-0023
 (704) 642-0078 fax

ALDI Inc. Store #: 154
 Cornelius, NC
 20101 West Catawba Avenue
 Cornelius, NC 28031
 Mecklenburg County
 Project Name & Location:

COMcheck

Drawing Name:

Prototype Rls. 12/10/18	Project No. 40452-07
Type: LHSD-V8ER	G-003
Scale: As Noted	Drawing No.