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July 11, 2023

Greg Bloemberg
City of Scottsdale
Planning and Development Services
7447 E. Indian School, Road
Suite 105
Scottsdale, AZ 85251

Re 2021 IgCC Development Review (DR) Checklist

To Mr. Bloemberg,

In reference to Development Review Board (DRB) project # 229-PA-2020, also known as Scottsdale City Center located at the SE corner of Scottsdale Road and Camelback Road, this letter summarizes our anticipated 2021 International Green Construction Code (IgCC) compliance methods. The Scottsdale IgCC checklist for the DR process addresses the following 4 areas:

- Heat Island Mitigation
- Energy Compliance Path
- Onsite Renewable Energy System
- Refuse and Recycling Collection

Please reference the supporting documents included in this summary letter as well as additional drawings and documents included in the complete DR submittal package. This documentation addresses item #20 on the DRB Development Application Checklist.

Heat Island Mitigation

Please refer to the attached **IgCC Worksheet - Site heat Island Mitigation** form for the draft calculations demonstrating compliance. The worksheet will be updated for future plan review submittals.

Energy Compliance Path

The energy model analysis demonstrating performance-based compliance is currently in progress. It will be further developed throughout the design and documentation phases to ensure compliance with the 2021 IECC. The full energy model analysis will be included in future permit review submissions.

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Onsite Renewable Energy System

In accordance with the 2022 City of Scottsdale Amendments to the International Green Construction Code, 2021 Edition (Ordinance No. 4576, Resolution No. 12505), this project will seek approval to replace on-site renewable energy generation by equivalent annual energy savings via Section 701.3, Exception 3. This energy savings approach will be developed and documented in the performance-based energy model analysis.

Refuse and Recycling Collection

Overall project refuse and recycling plans are illustrated on sheet 25.1. This plan indicates separate trash and recycling collection areas for the residential and the retail/restaurant uses.

For the multi-family residential units, the kitchen base cabinet design will include the required trash and recycling bins as part of the interior millwork design. Final detailing of these base cabinets will be included in the permit submittal drawings. Additionally, each residential floor is served by trash chutes for bulk collection at the ground level.

Built-in trash and recycling containers will be provided in residential common areas, including the mail room and resident amenity spaces. Final detailing of these base cabinets will be included in the permit submittal drawings.

Thank you,

Joseph Lamb, AIA, NCARB
Associate / Architect

City of Scottsdale
 Planning, Neighborhoods and Transportation
IGCC Worksheet - Site Heat Island Mitigation
 2021 International Green Construction Code (IgCC)

Project Name Scottsdale City Center

Date 07/11/2023

Completed by Dustin Simmons, Landscape Architect

Joseph Lamb, Architect

Firm Name SmithGroup

IgCC Section 501.3.5.1 requires not less than 50 percent of site hardscape to be provided with one or any combination of options in the table below. Where trees are used to provide shade, shade coverage shall include only those hardscape areas directly beneath the trees based on a ten year growth canopy. The effective shade coverage on the hardscape shall be the arithmetic mean of the shade coverage calculated at 10 am, noon, and 3 pm on summer solstice. Shaded areas shall be shown on the construction documents demonstrating compliance with this section.

Site Hardscape Location		Site Mitigation Options (check <input checked="" type="checkbox"/> where applicable)				Hardscape Area (sq. ft.)	% of Total Site Hardscape Area
		Hardscape Areas with an initial Solar Reflectance Value (SRI) ≥ 0.29 (see Table 1 next page)	Parking Areas under buildings or shade structures	Hardscape Areas shaded by Trees	Permeable Paving (percolation rate ≥ 2 gal/min per sq. ft.) including porous and open-grid pavers		
1	FULL SITE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		54,103 SF	79.1%
2							
3							
4							
5							
6							
Protected Site Hardscape areas (1 thru 6 above)						54,103 SF	
Unprotected Site Area (areas not included above)						14,290 SF	
Total Site Hardscape Area (Protected and Unprotected)						68,393 SF	
Total Percentage of Protected Site Hardscape Area (Protected Hardscape Area ÷ Total Hardscape Area)							79.1%

Table 1 - Solar Reflectance for Standard Paving materials

Paving Material	SRI	Reflectance	Emissivity
Typical new gray concrete	35	0.35	0.9
Typical weathered* gray concrete	19	0.20	0.9
Typical new white concrete	86	0.7	0.9
Typical weathered* white concrete	45	0.4	0.9
New asphalt	0	0.05	0.9
Weathered asphalt	6	0.10	0.9
* Reflectance of surfaces can be maintained with cleaning. Typical pressure washing of cementitious materials can restore reflectance close to original value. Weathered values are based on no cleaning.			