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KERAMIDA Inc. (KERAMIDA) was engaged by The Macerich Company (Macerich) to provide limited assurance greenhouse gas (GHG) verification of their 2023 Scope 1, 2, and 3 GHG emissions inventory. Scope 3 sources included in this verification scope were,

- Category 1, Purchased goods and services
- Category 2, Capital goods
- Category 3, Fuel- and energy-related activities
- Category 5, Waste
- Category 6, Business travel
- Category 7, Employee commuting
- Category 13, Downstream leased assets

Also included in this verification scope was energy usage, renewable energy usage, water, and waste. Note that for Category 1, only office supplies were included within purchased goods and services and all other items were determined by Macerich management to be immaterial. The data and calculations being verified covers the period of January 1, 2023 to December 31, 2023. The calculation of the GHG inventory is the sole responsibility of Macerich using guidance per US Environmental Protection Agency, GHG Protocol standards, and other accepted guidance documents.

Statement of Independence

KERAMIDA affirms our independence from Macerich and is free from bias and conflicts of interest related to the assurance of the environmental data.

Verification Assurance Opinion

Based on the process and procedures conducted, there is no evidence that the GHG emissions calculations and verified data are not a fair representation of the actual GHG emissions data and information.

In KERAMIDA's opinion, Macerich has established an appropriate system for collecting, calculating and analyzing quantitative data and information for the GHG emissions for the stated time period, scope and level of assurance.

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KERAMIDA's Approach

Verification was conducted in accordance with ISO 14064-3: 2019 *Specification with guidance for the validation and verification of greenhouse gas assertion*.

Validation scope of the reporting company GHG emissions

- Organizational boundaries: Operational Control Approach

Time Period

- January 1, 2023 to December 31, 2023

Level of Assurance

- Limited
- Materiality Threshold: 5% as suggested by ISO 14064-3 (2019).

KERAMIDA's Methodology and Procedure

Procedure performed during the verification

- Interviews with key personnel involved in the process of compiling, calculating, and preparing the emissions data report and energy data;
- Review of evidence and data in support of key disclosures in the emissions report, energy, water usage, and waste disclosure;
- Review of a variety of data analytics to check the reasonableness of the data and calculations;
- A variety of re-calculation procedures to confirm stated quantities;
- Evaluated the reasonableness of any assumptions used in support of disclosures;
- Reviewed how disclosures were presented and determine if they were representative of data and operations.

This verification statement, including the opinion expressed herein, is provided to Macerich and is solely for their benefit in accordance with the terms of our agreement.

KERAMIDA, Inc,



Albert Chung, PhD, PE
Senior Vice President
Accredited Lead GHG Verifier (CA/OR/WA)



Albert Lu, MS.ENE
Senior Sustainability Engineer
Accredited GHG Verifier (CA)



Brady Koetting, CPA
Senior Sustainability Assurance Manager

Table 1. Data Verified by KERAMIDA

Scope 1	CO2 e (MT)
Total	28,470
Natural Gas	14,449
Mobile Combustion - Diesel	23
Mobile Combustion - Gasoline	818
Fuel Cell	11,000
Fugitive Emissions (Refrigeration)	2,147
Stationary Combustion	34
Scope 2	CO2 e (MT)
(Location-based) Total	44,189
(Market-based) Total	15,791
Electricity (location-based)	43,374
Electricity (market-based)	14,976
Steam	815
Solar	0
Scope 3	CO2 e (MT)
(Location-based) Total	188,575
(Market-based) Total	187,159
Purchased Goods & Services	1,630
Capital Goods	16,921
Fuel and Energy Related Services WTT + T&D	21,198
Business Travel (Air Flights + Rail)	183
Employee Commuting (Commute)	1,178
Upstream Leased Assets (Electricity) (Location-based)	18
Upstream Leased Assets (Electricity) (Market-based)	19
Downstream Leased Assets (Natural Gas)	4,243
Downstream Leased Assets (Electricity)	129,309
Downstream Leased Assets (Refrigerants)	131
Downstream Leased Assets (Stationary Combustion)	0
Waste (Landfill)	11,995
Waste (Recycling)	1,584
Waste (Compost)	185
Energy Consumption	Values (various units)
Total Electricity (Scope 1, 2, and 3)	538,155,366 kWh
Total Natural Gas Purchased	2,620,684 CCF
Total Gasoline Purchased	89,522 Gallons