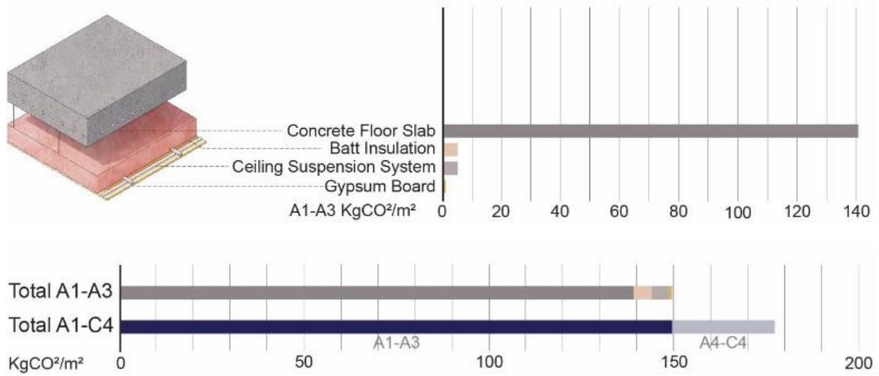
APPENDIX A **FLOOR ASSEMBLY 03**

F03: Results Summary

Metrics	Results
Description	**Parking Garage Insulated Dropped Ceiling (Heated Plenum)**
Effective R-value	RSI-4.6 m^2K/W | R-26.1 $ft^{2\cdot}°F\cdot h/BTU$
Embodied Carbon per m^2 of Enclosure (A1-A3)	149.8 $kgCO_2/m^2$
Biogenic Carbon per m^2 of Enclosure	0 $kgCO_2/m^2$



F03: Assembly Effective R-value Calculation

Description	t_{SI}	t_{IP}	k	C (USI)	$RSI_{effective}$	$R_{effective}$	$R_{nominal}$
Units	mm	in	W/mK	W/m^2K	m^2K/W	$ft^{2\cdot}°F\cdot h/BTU$	$ft^{2\cdot}°F\cdot h/BTU$
Interior air film					0.11	0.61	
Concrete floor slab	254.00	10.00	1.60	6.30	0.16	0.90	
Mineral fiber batt insulation	152.40	6.00	-	-	4.22	23.94	25.20
Metal ceiling tile suspension system	-	-	-	-	-	-	
Ceiling tile	12.70	0.50	0.16	-	0.08	0.45	
Exterior air film					0.03	0.17	
TOTALS	**419.1**	**16.50**			**4.60**	**26.10**	**25.20**

F03: Embodied Carbon Emissions (A1 to A3 Life Stages) for 9m² Assembly Area

Category	Material	Description (from EPD)	Thickness	Material Volume	Carbon Emissions (A1-A3)	% of total
Units			mm	m^3	kgCO2e	%
	Concrete Floor Slab	Ready-mix concrete, 35MPa GU cem. with air entr. 0-14% FA/SC (CRMCA)	254 (10")	2.29	1030.02	76.41%
Structure		Reinforcement steel (rebar), generic, 60% recycled content, A615	-	0.023	241.77	17.93%
Interior insulation	Batt Insulation	Mineral fiber batt insulation	152.4 (6")	1.37 m3	41.53	3.08%
Suspension system	Ceiling Tile Suspension System	Supraseal XL (Armstrong)	-	0.0041 m3	8.7	0.65%
Finish	Gypsum Board	Gypsum plaster board, regular, generic, 6.5-25 mm, 10.725 kg/m2 (for 12.5 mm), 858 kg/m3	12.7 (0.5")	0.114 m3	26.04	1.93%
				TOTAL	**1348.06**	100.0%

**Software auto-calculates the impact based on the area provided.*

F03: Environmental Emissions (A1 to C4 Life Stages) for 9m² Assembly Area

Lifecycle Stage		**A1 to C4**	A1-A3	A4-A5	B1-B5	C1-C4	A1-A3 Contribution to total
Category	Units	**Total**	Construction Materials	Transport to Site & Construction	Material Replacement & Refurbishment	Deconstruction	%
Global Warming	kg CO2e	**1,593.13**	1,348.10	135.55	40.16	69.32	84.62%
Acidification	kg SO	**6.68**	6.03	0.21	0.18	0.26	90.32%
Eutrophication	kg Ne	**2.01**	1.84	0.09	0.01	0.063	91.63%
Ozone Depletion	kg CFC11e	**0.00008**	0.00003	0.000031	0.000002	0.000016	39.73%
Formation of Tropospheric Ozone	kg O3e	**108.84**	96.99	2.55	2.92	6.38	89.12%
Fossil Fuel Primary Energy	MJ	**540,188.81**	115,355.13	2,013.06	421,775.51	1045.11	21.35%
Biogenic Carbon Storage	kg CO2e	**0**	0	0	0	0	