

Country / City Toronto, Canada
University / School University of Toronto; John H. Daniels Faculty of Architecture, Landscape Architecture, and Design
Academic year 2020
Title of the project Perspective Park
Authors Gal Kaufman and Morgan Quinn

TECHNICAL DOSSIER

Title of the project	Perspective Park
Authors	Gal Kaufman and Morgan Quinn
Title of the course	Comprehensive Studio
Academic year	2020
Teaching Staff	Behnaz Asadi, Megan Esopenko, and Francesco Matire
Department/Section/Program of belonging	Master of Landscape Architecture
University/School	John H. Daniels Faculty of Architecture, Landscape Architecture, and Design at the University of Toronto



Written statement, short description of the project in English, no more than 250 words

Mainstream messaging around climate change focuses on reducing the emissions of greenhouse gases such as CO₂. The automobile is a major contributor of CO₂, and many individuals are doing their part by cycling instead of driving. Yet, the infrastructure in many North American cities has not kept pace with the rise of cycling's popularity. Cyclists are forced to either risk mixing with the vehicular traffic, or overrun routes through parks and mixed-use trails. Our design makes use of remnant space found next to a rail line by employing a series of elevated and ground-level paths to provide both a dedicated cycle track for commuters and a park for pedestrians. The paths incorporate green-roof systems for vegetation, benches for resting, and twist through the site to maintain a grade less than 5%. This configuration allows cyclists to travel at speed, while the pedestrian wanders safely through the canopy above. However, by designing with wood-based materials these structures would do more than just encourage cycling, they remove CO₂ from the air. Not only does wood take less energy to produce, thus emitting less greenhouse gases, it also sequesters CO₂. Based on an estimate of material volume, our design would produce a volume of CO₂ equivalent to that emitted by 2,695 cars and 969 cars in a year if made from steel or concrete respectively. Instead, the wood in our design would remove the same amount of CO_v that 398 cars would produce in a year.

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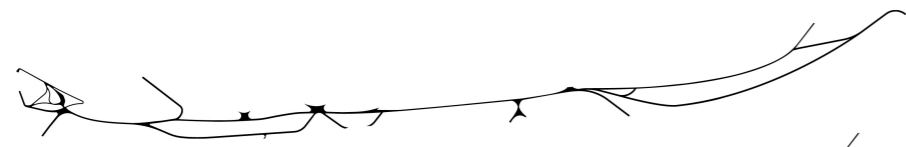
CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020
SCHOOL PRIZE



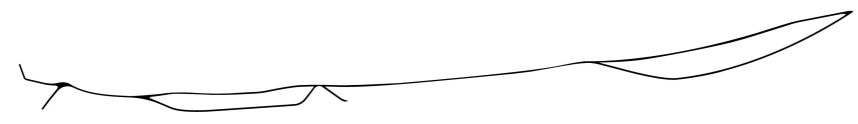
PEDESTRIAN



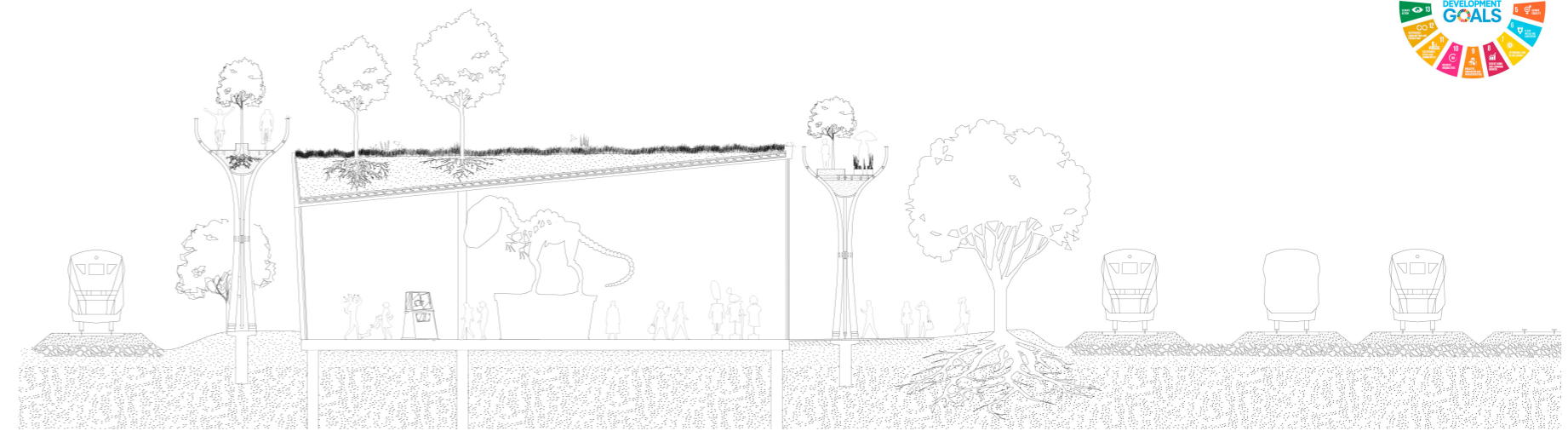
CYCLIST



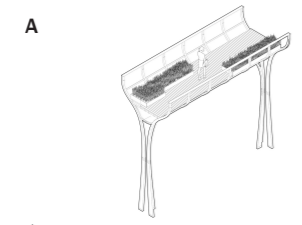
NORDIC SKIING



EARTHWORKS + STRUCTURE



A Elevated Pedestrian Path with Planters



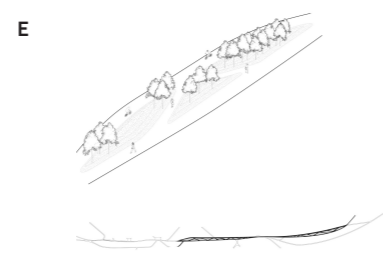
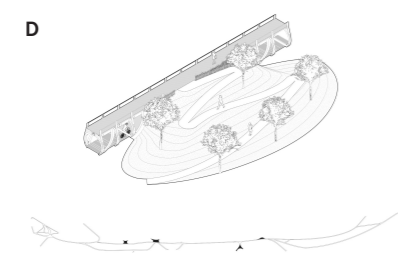
B Dedicated Raised Cycle Path

C Overlapping Pedestrian-Cycle Paths

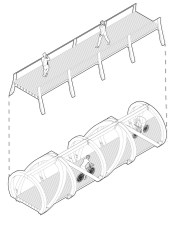


D Community Access Node

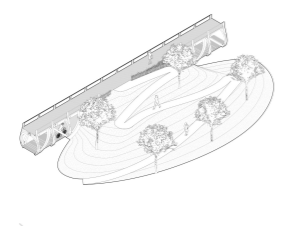
E Braided Communal Paths



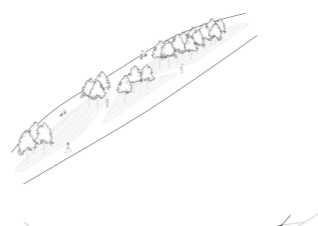
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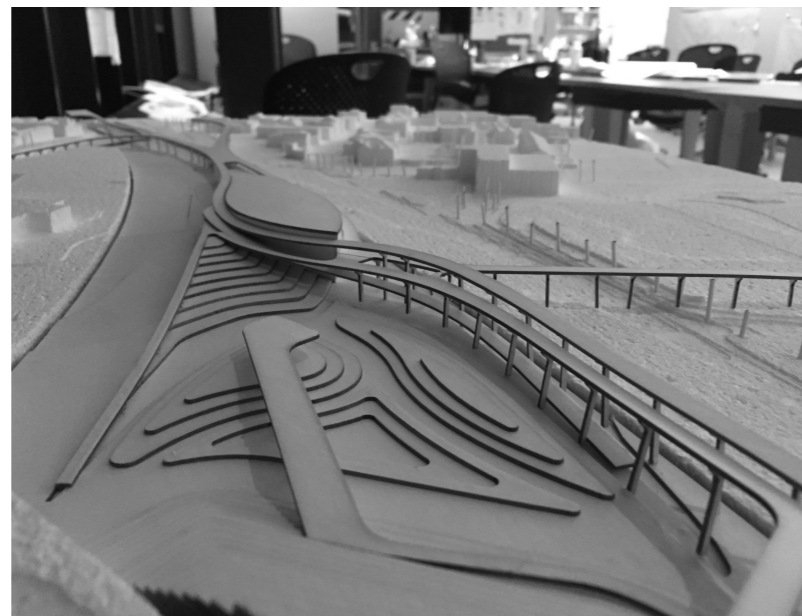
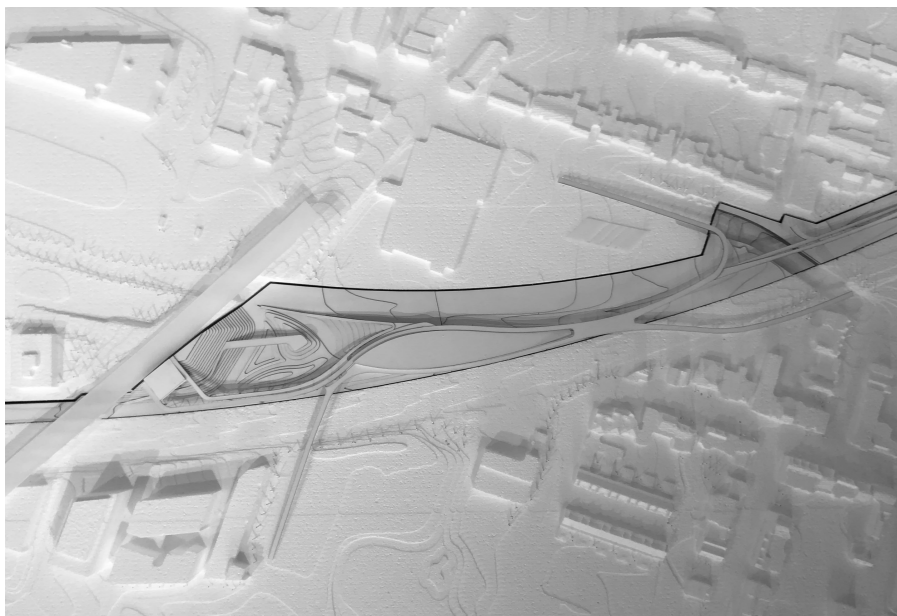
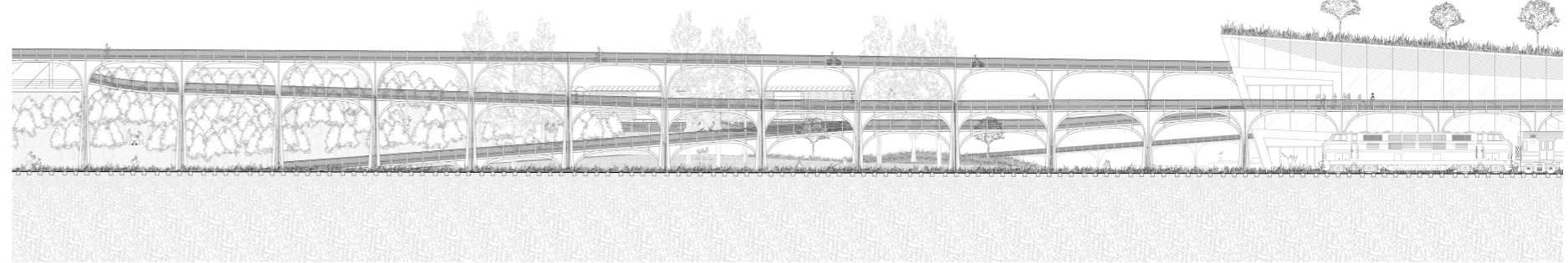
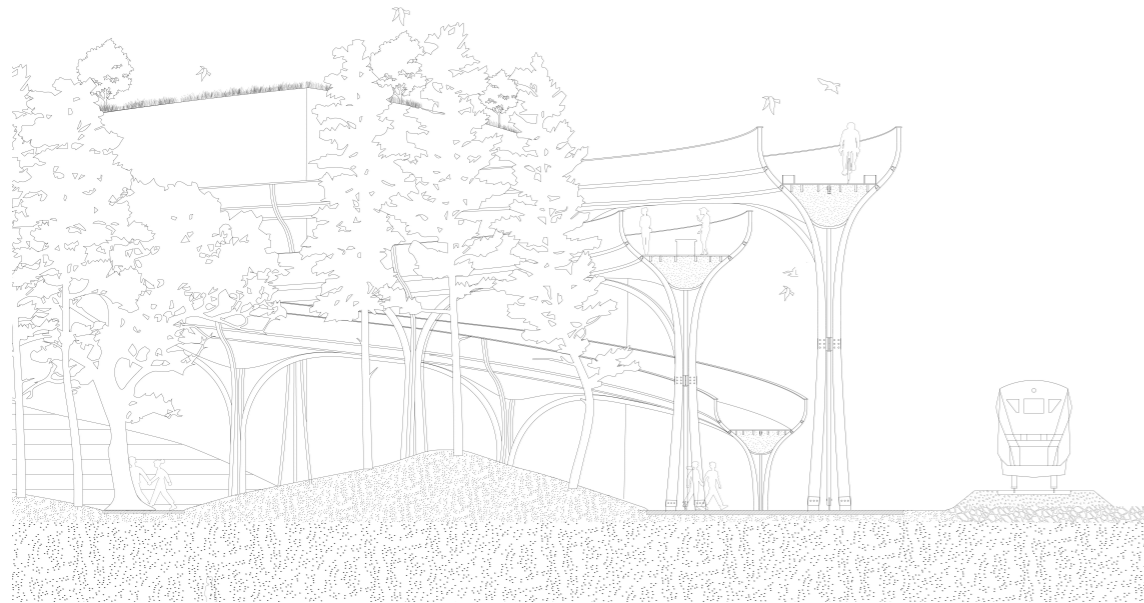
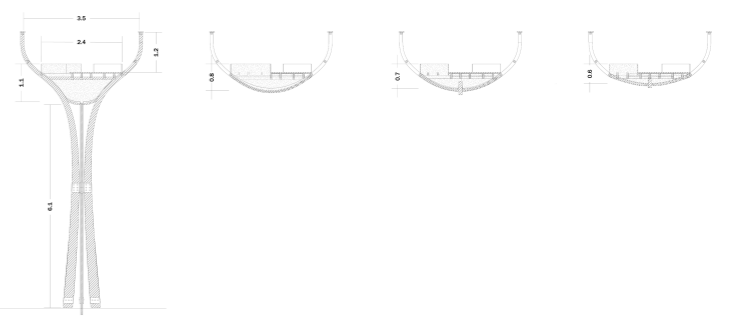
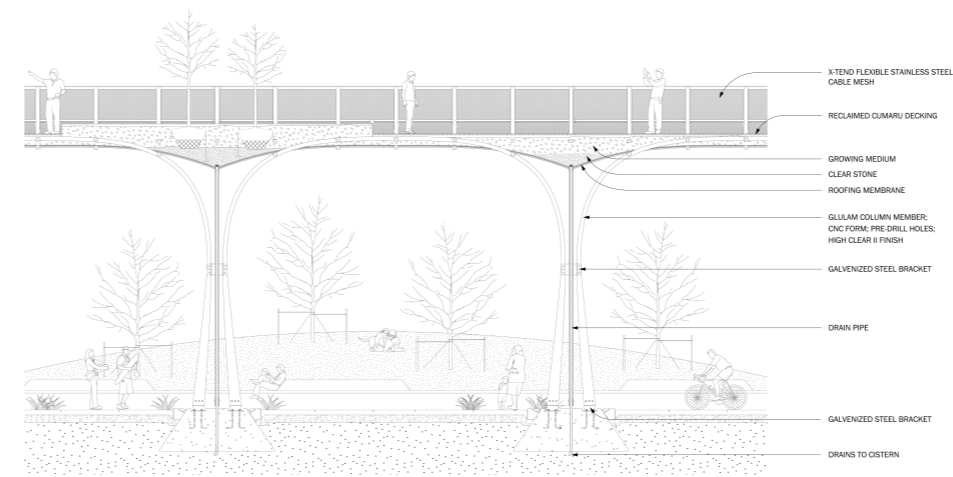
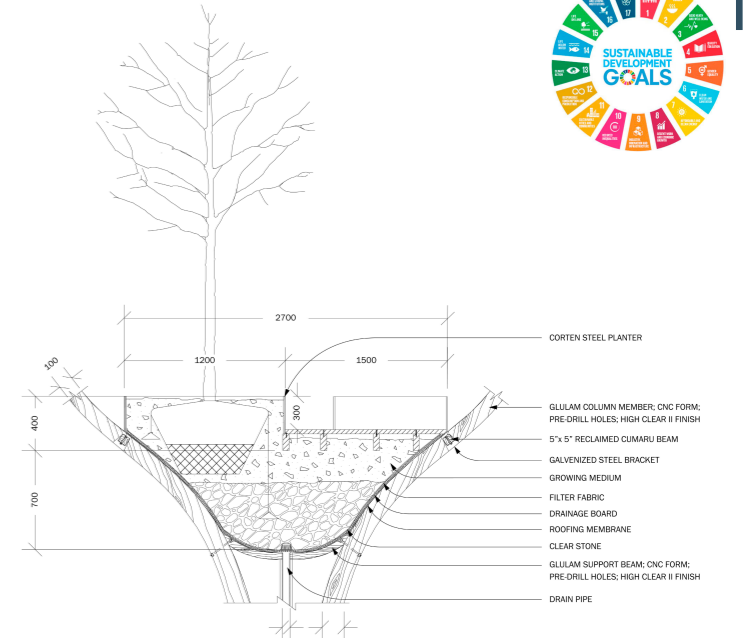
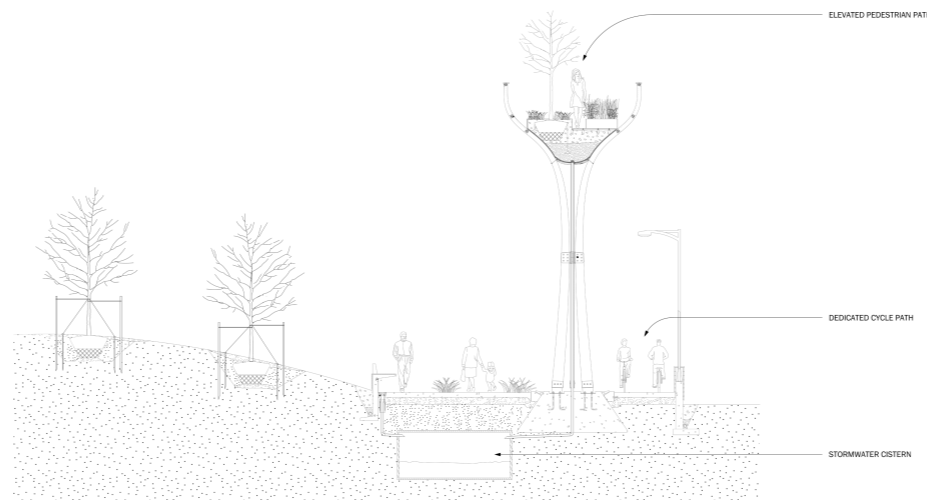
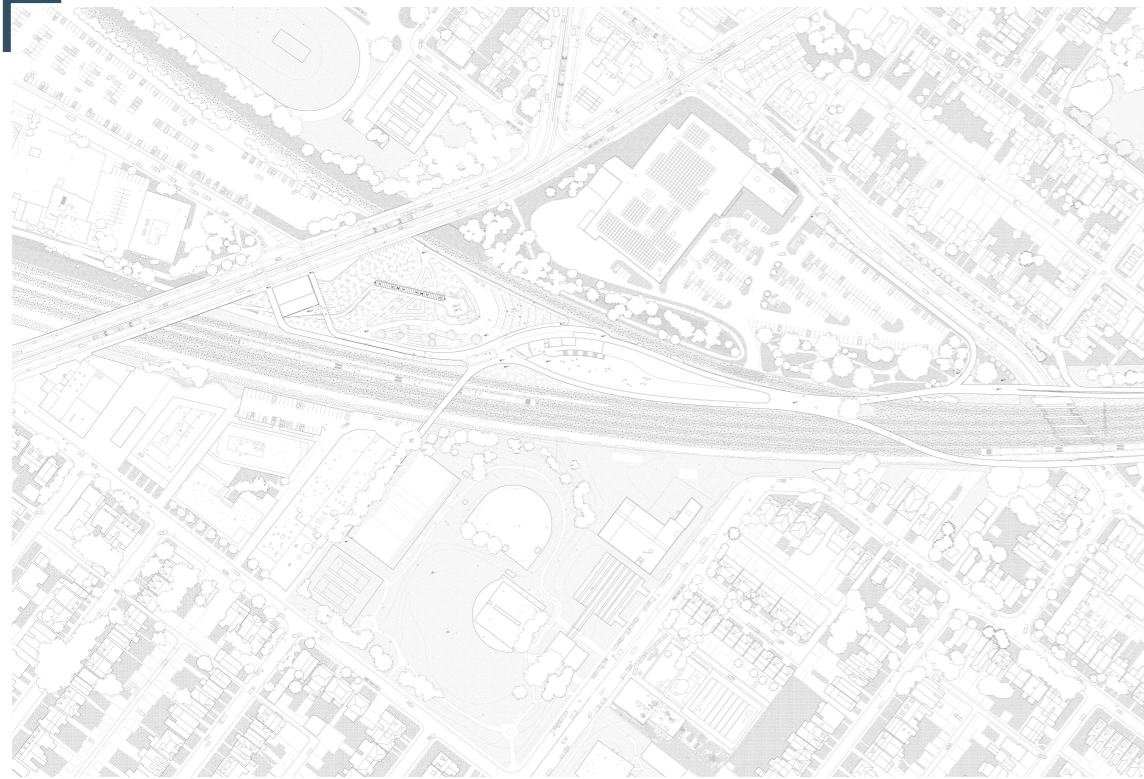


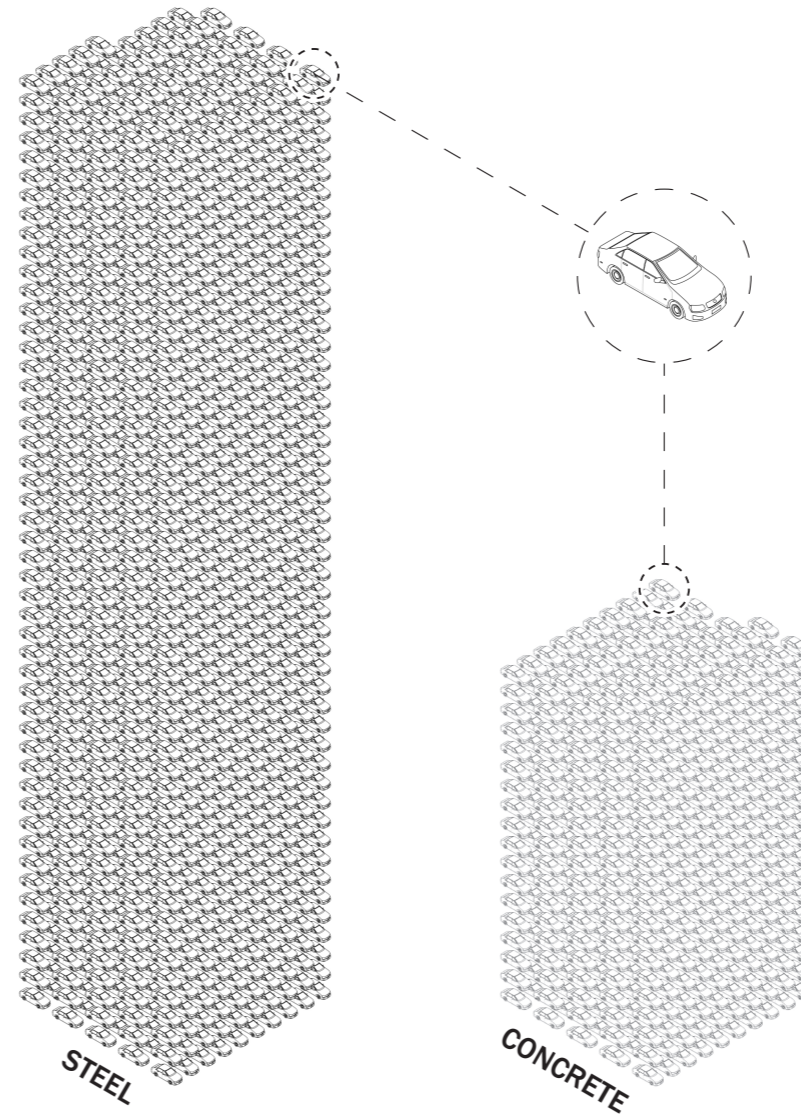
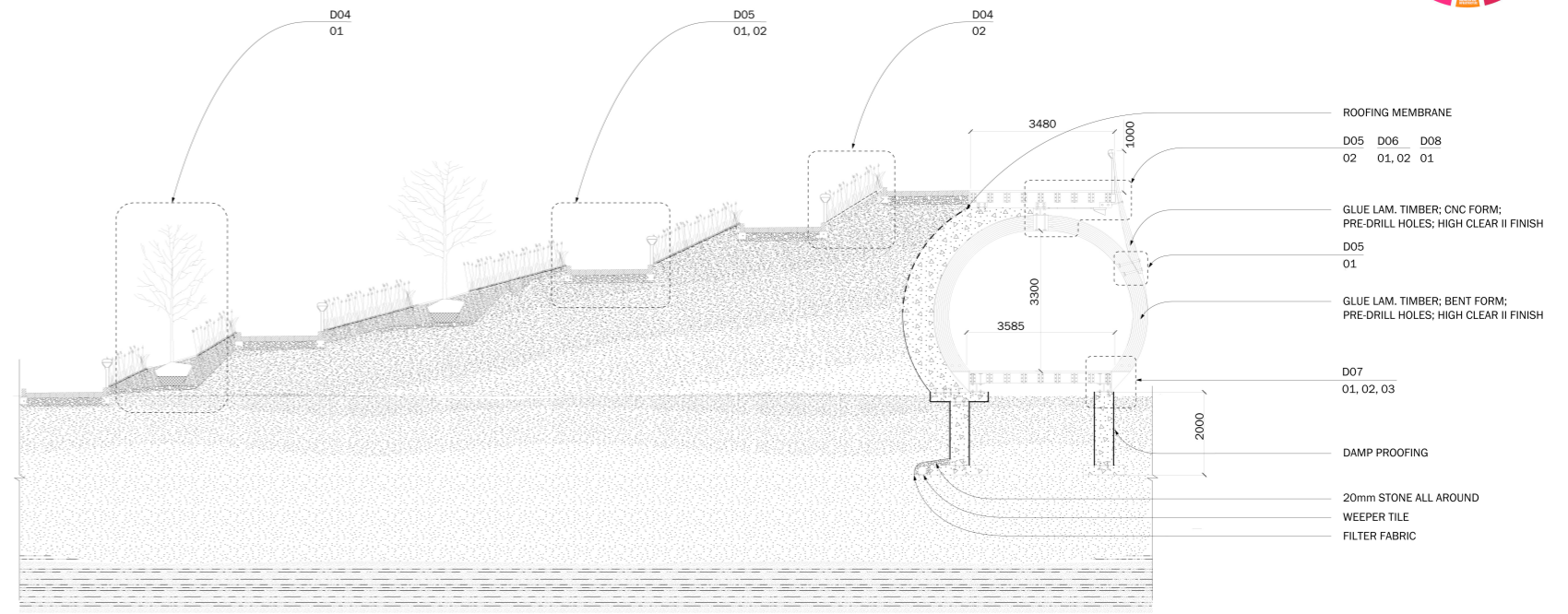
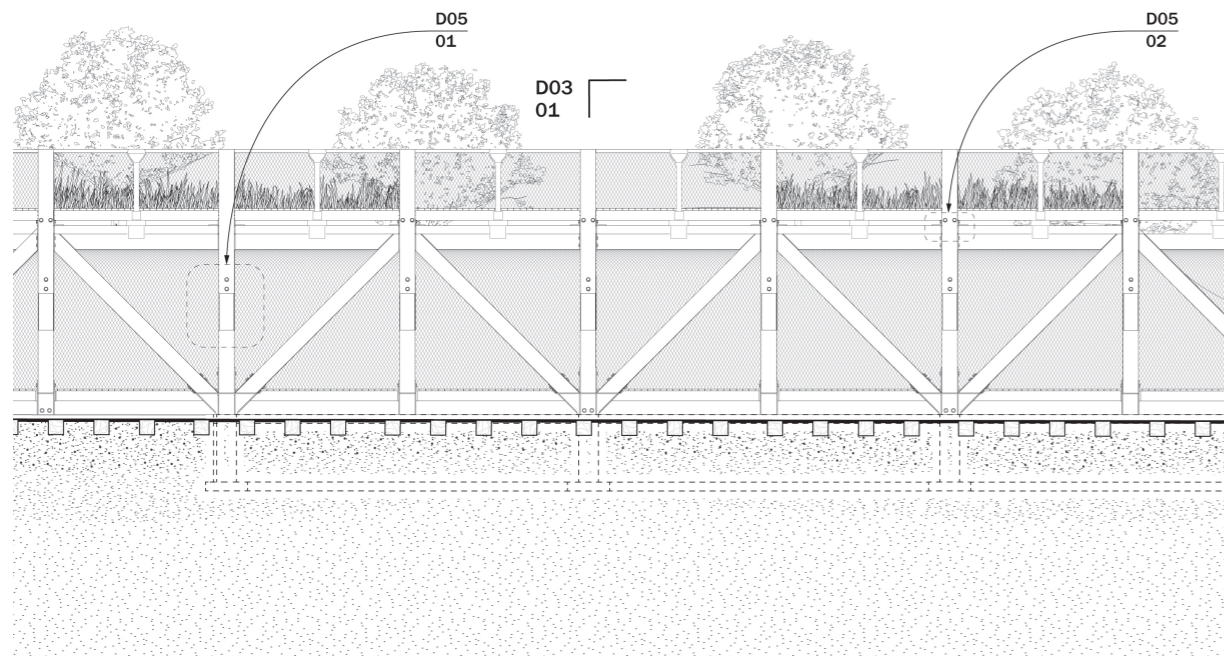
D



E







TYPOLOGY	LENGTH (m)	VOLUME PER		
		9m UNIT (m ³)	UNITS	VOLUME (m ³)
ELEVATED PEDESTRIAN PATH	1374	2.62	153	400
ELEVATED CYCLE PATH	545	2.62	61	159
OVERLAPPING PEDESTRIAN-CYCLIST PATH	816	15.54	91	1,409
			TOTAL	1,968

MATERIAL	DENSITY (kg/m ³)	WEIGHT (kg)	EMBODIED ENERGY (MJ)	EQUIVALENT CO ₂ PRODUCTION (t)	EQUIVALENT CARS PER YEAR
CONCRETE	2371	4,665,675	58,320,938	4,458	969
STEEL	7850	15,447,300	162,196,654	12,398	2,695
WOOD	450	885,514	1,771,028	-1,832	-398

