

path
finder user guide



©

Welcome to Pathfinder 3.0!

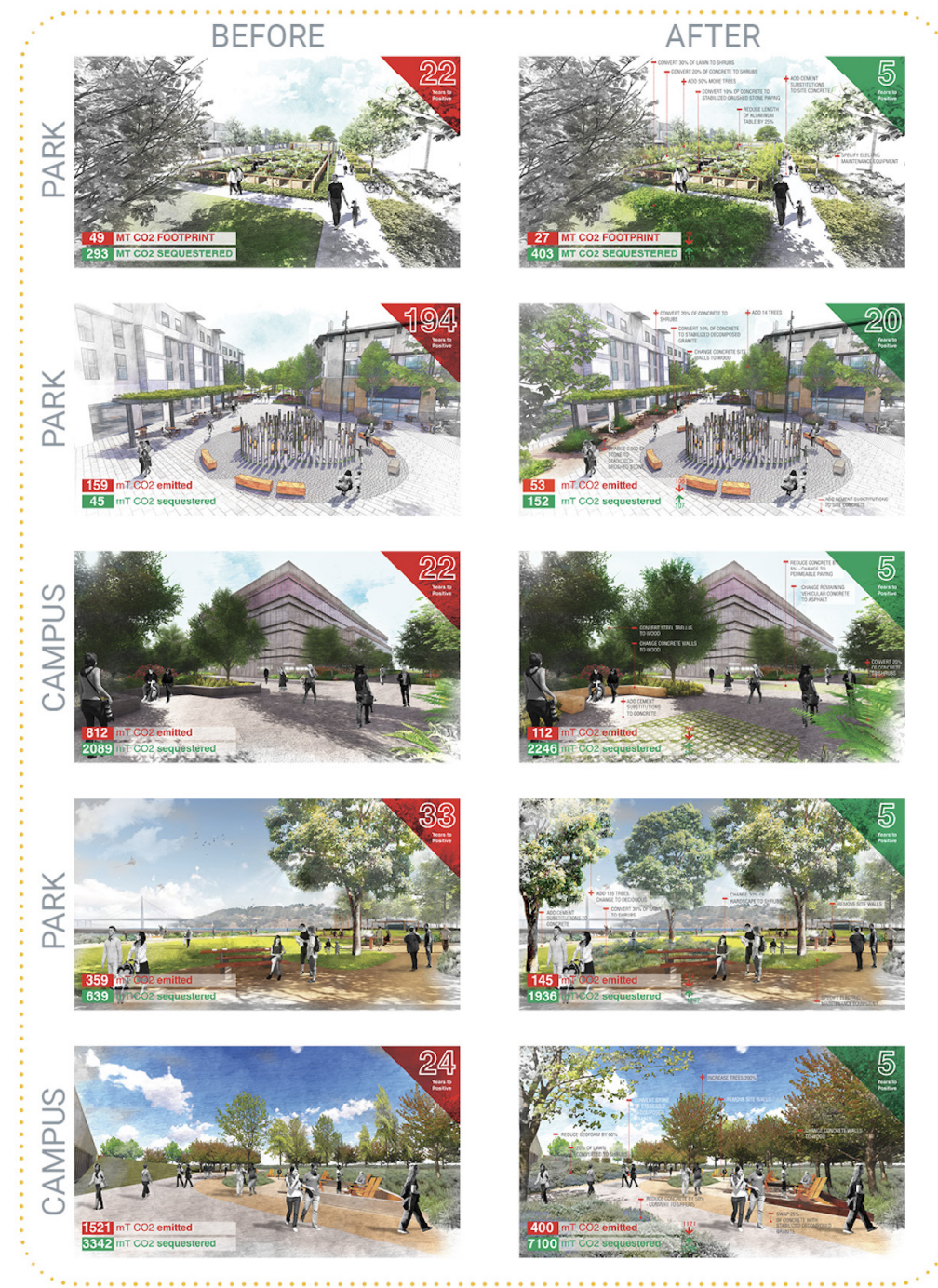
This is your guide to:

1. Understand how to meet the Climate Positive Design Challenge
2. Learn about related tools and suggested use
3. Explore each step and feature in Pathfinder 3.0

Let's get started



Targets are based on a 2019 industry study by CPD which assessed project improvement potential.



Use **Pathfinder** to meet the Climate Positive Design Challenge targets.



The **Climate Positive Design Challenge** is a voluntary industry program managed by Climate Positive Design that reports progress on meeting the UNFCCC Paris Agreement and IPCC 1.5°C Special Report goals.

The Challenge tracks emissions reductions and sequestration increases on projects in the exterior built and natural environment logged in the **Pathfinder** application. Established in 2019, the program set the following targets for how many years each project type would strive to offset its own emissions:

years to
climate positive design

5

parks, gardens,
campus, etc.

20

plazas and
streetscapes

25

infrastructure

For a complete list of project types see: <https://climatepositivedesign.com/advocacy/>

set your goals

Carbon Conscience > Climate Positive Design Roadmap

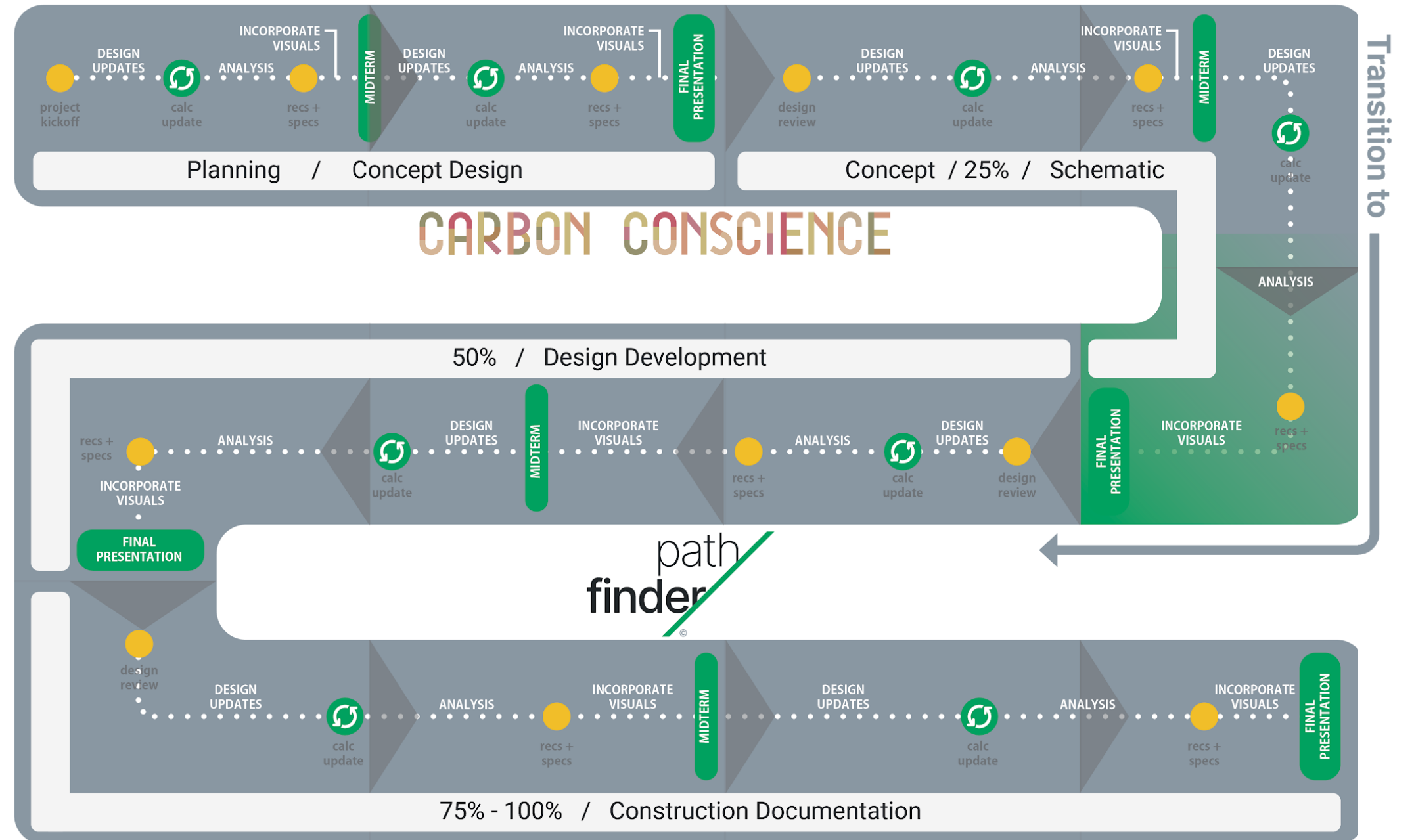
If your project is in an early master planning stage, consider starting your analysis in Carbon Conscience before transitioning into Pathfinder.

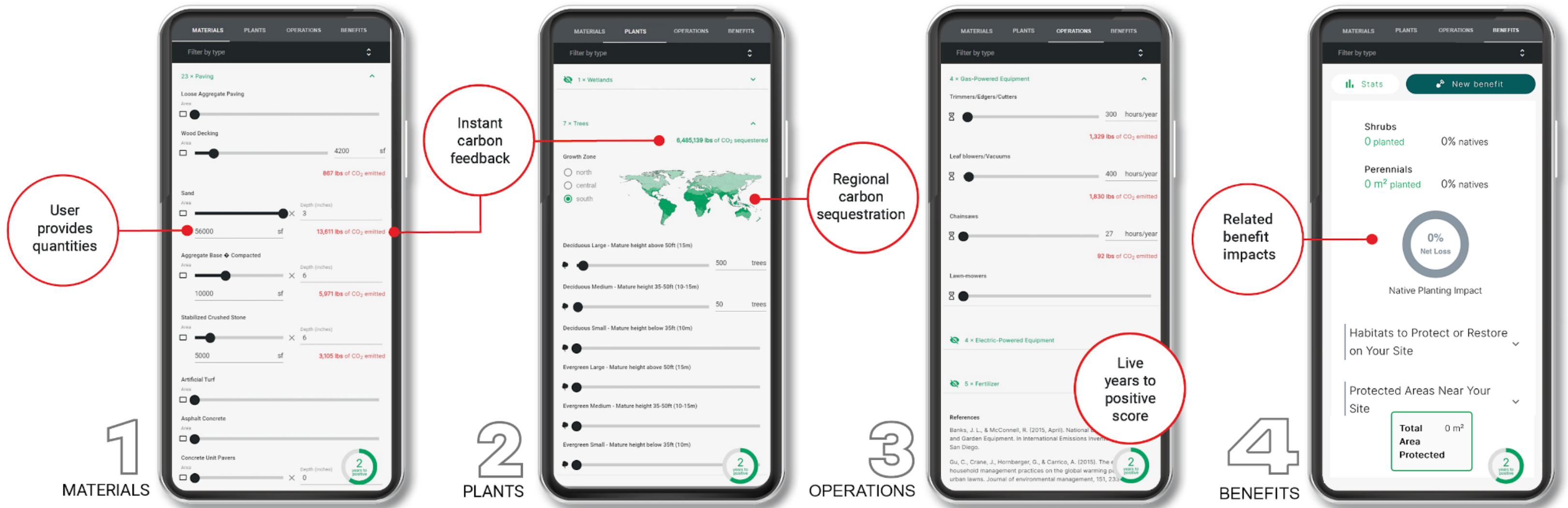
[Carbon Conscience](#) is an application for evaluating potential carbon impacts of urban design when quantity takeoffs are not yet available.

If your project concept already has general quantities, you can begin in Pathfinder.

[Pathfinder 3.0](#) aligns with the Carbon Conscience dataset, and is meant to be used from Concept (25% Design) through Construction Documentation (100% Design).

Use Pathfinder during each phase of design to set project goals, test design ideas, iterate, refine and measure the final project impacts.





Pathfinder is a free, accessible, life-cycle assessment (LCA) tool for landscape architects, designers, planners, and engineers to calculate the greenhouse gas emissions, carbon sequestration and related benefits associated with exterior built environment projects.

how pathfinder works



Get started using the Pathfinder

By using the Pathfinder, learn how to reduce carbon footprints and sequester more carbon. By participating, you can actively contribute to climate change solutions.

Click here!

Use Pathfinder

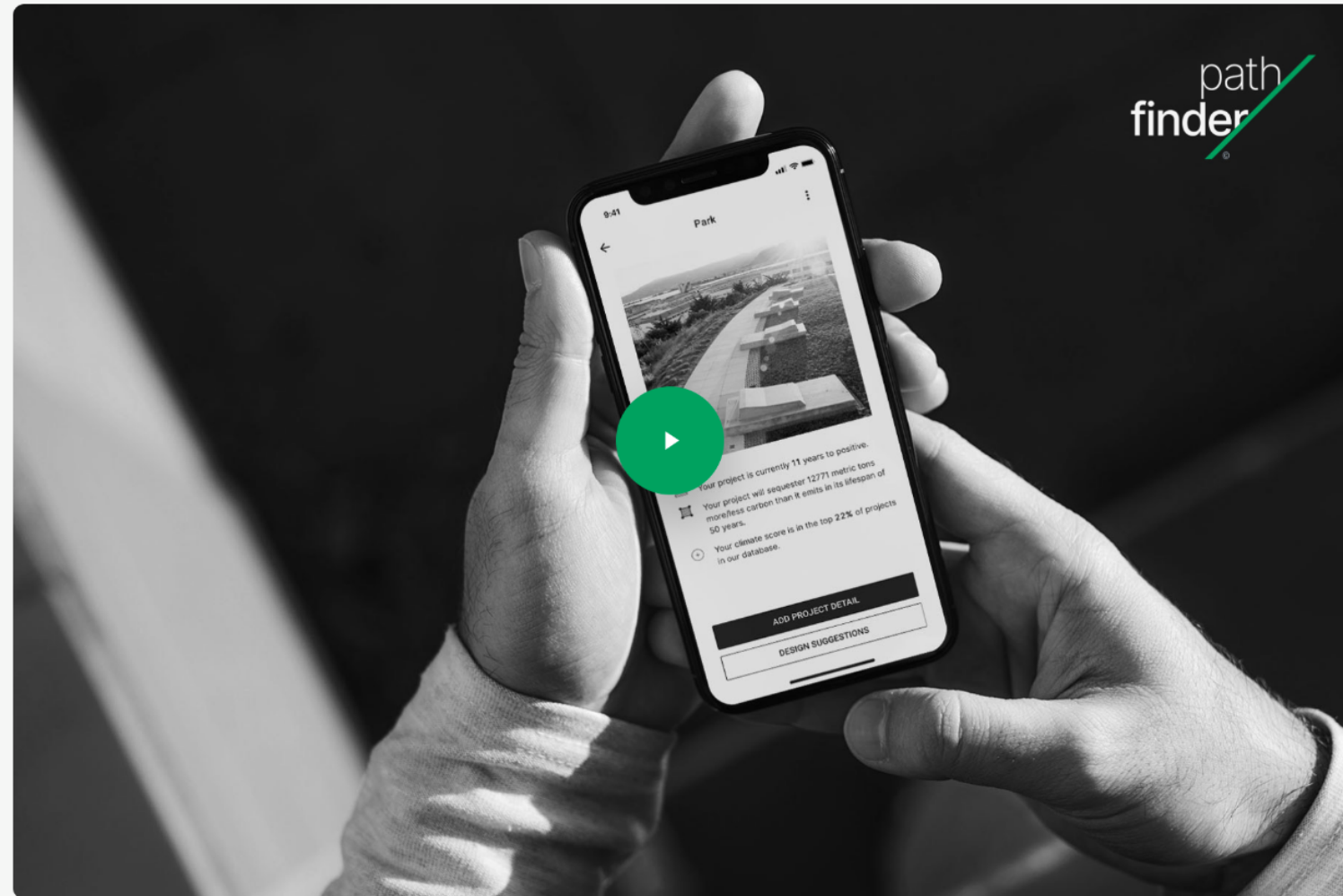
Sign-up for Pathfinder updates below.

First Name*

Last Name*

Email*

Sign Up For Notifications



Click above to play the Pathfinder App demo

Navigate to <https://climatepositivedesign.com/education/> to watch the demo video, and **click Use Pathfinder** to get started.

begin using pathfinder



Enter the project location **1**

3 Click each boundary point of your site and close the polygon

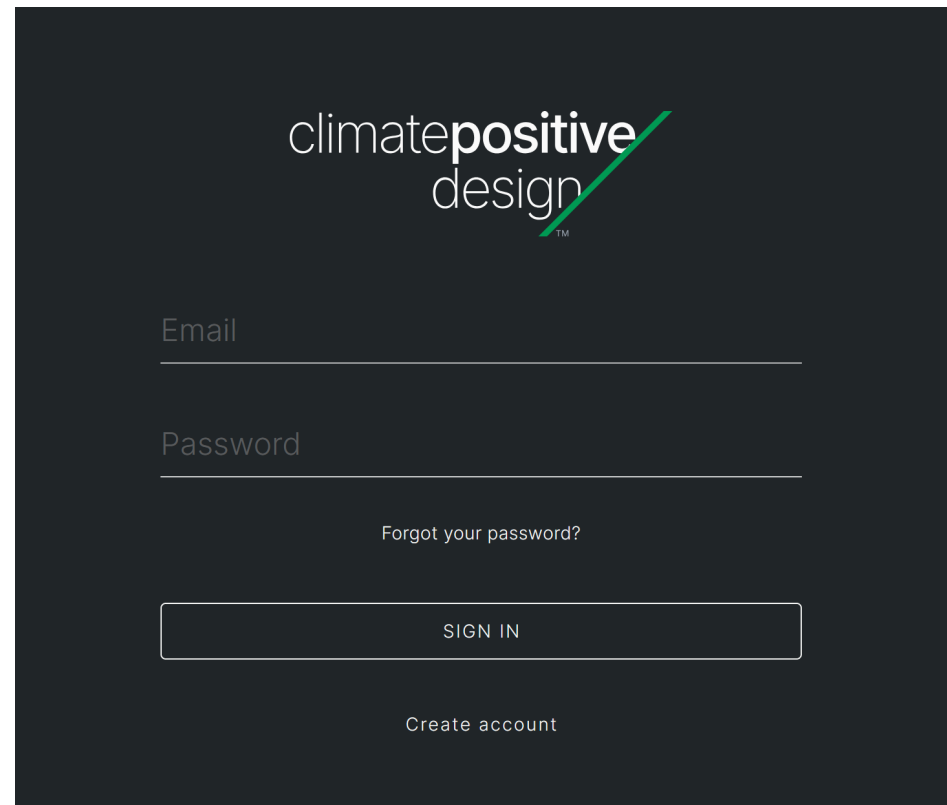
Click the polygon button to define your site boundary **2**

5 Approve area or type in refined one, excluding building footprints

4 Check the circle to advance

Enter an address or location to find your site. Click the polygon button to draw the boundary of your site. When done, click the checkmark and adjust the area and units as needed. When set, click Continue with existing value.

define your site boundary



climatepositive
design

Email

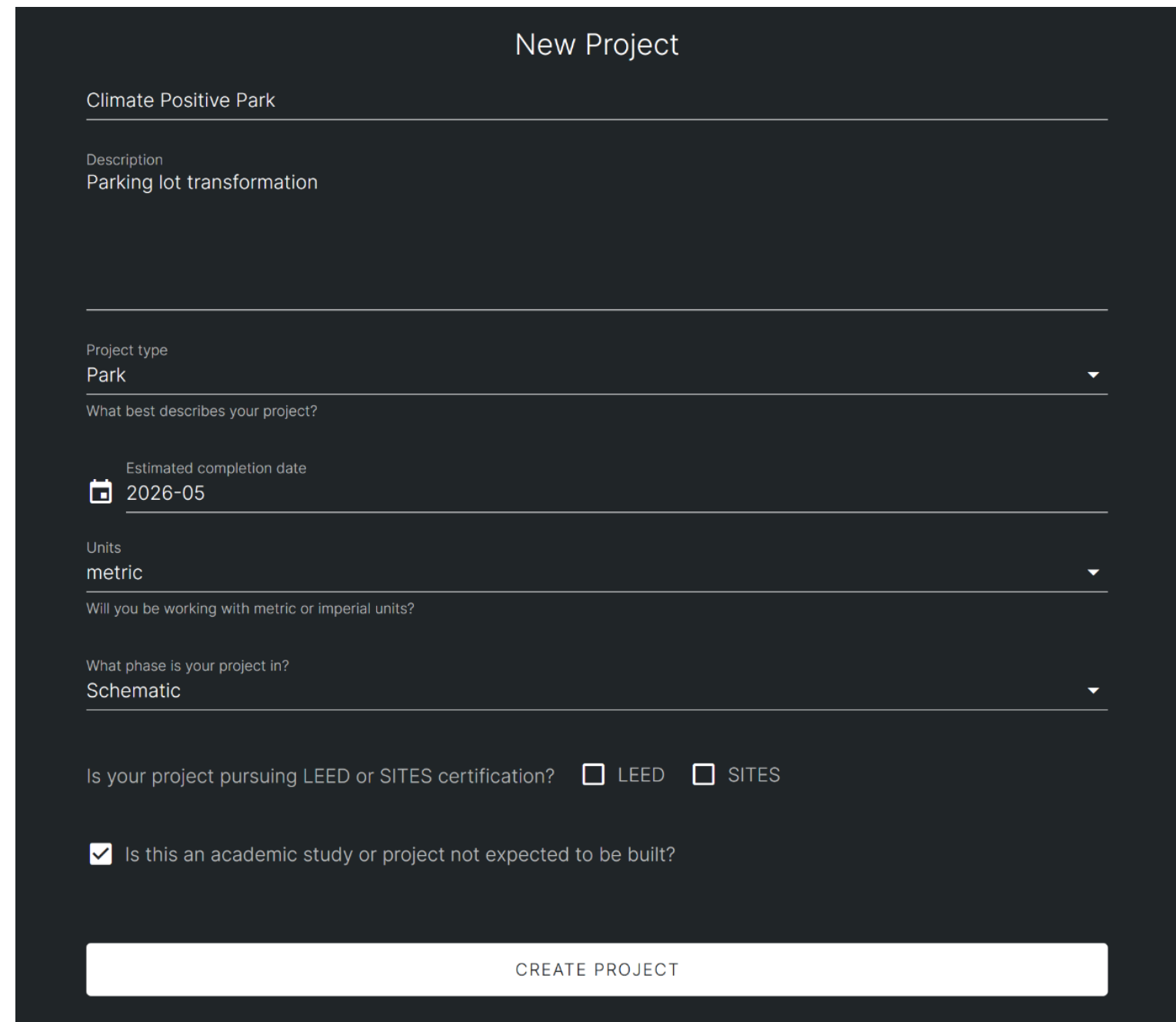
Password

Forgot your password?

SIGN IN

Create account

Sign in or create an account.



New Project

Climate Positive Park

Description
Parking lot transformation

Project type
Park

What best describes your project?

Estimated completion date
2026-05

Units
metric

Will you be working with metric or imperial units?

What phase is your project in?
Schematic

Is your project pursuing LEED or SITES certification? LEED SITES

Is this an academic study or project not expected to be built?

CREATE PROJECT

Name and describe your project, select the Project Type, estimated completion date, units, and current design phase. Select any certification pursued, and remember to check the academic / study box if the project is not currently expected to be built, so that the data is not included in aggregated global exterior built environment projections.

set up your account and project

The screenshot shows the Pathfinder software interface. At the top left is the Pathfinder logo. The main header reads 'CLIMATE POSITIVE PARK' with a gear icon. Below it, the subtitle is 'Parking lot transformation'. A central modal dialog titled 'Versions' is open, prompting the user to 'Let's create your first version'. It explains that versions track project data and offers two options: 'Baseline Design' (selected with a green radio button and a green arrow pointing to it) and 'Design Alternative'. The 'Baseline Design' option includes instructions to establish a business-as-usual approach. Below the options, there are input fields for 'Name' (filled with 'Business As Usual') and 'Description' (filled with 'Typical park design'). A 'Create' button is at the bottom right of the modal. In the background, a 'Project Information' section is visible with tags for 'Park', 'May 2026', 'metric units', '9,877 sq metres', and 'Schematic'. A callout box on the right explains the purpose of a Baseline Design.

←

CLIMATE POSITIVE PARK ⚙️

Parking lot transformation

Versions

Let's create your first version

Versions are used to track the data for your project.

Baseline Design ←

Select Baseline Design to establish a business as usual approach before applying Climate Positive Design changes.

Design Alternative

Select Design Alternative to input data for a proposed design.

Name
Business As Usual

Description
Typical park design

Create

Project Information

Park May 2026 metric units

9,877 sq metres Schematic

Create a **Baseline Design** business-as-usual version of your project. You can create multiple Baseline Design versions. **Select one as the primary Baseline Design** to compare to your Primary Design Alternative

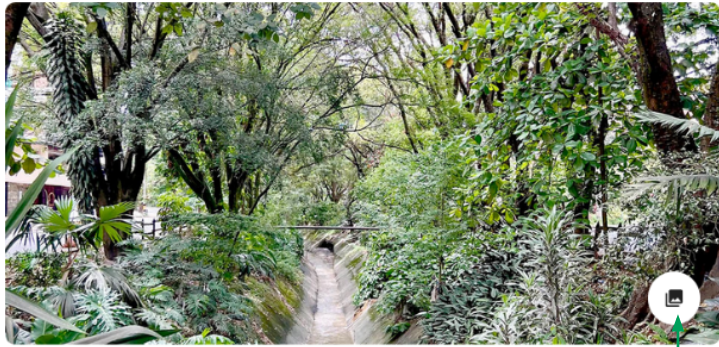
create a baseline

New projects are automatically created in Pathfinder 3.0

Duplicate any Baseline or Design version to modify elements and compare.
Click to change to Design Alternative, Baseline, or to make primary version.

CLIMATE POSITIVE PARK ⚙️

Parking lot transformation



Project Information

Park May 2026 metric units millimetres

9,877 sq metres Schematic

Site Geolocation Data

[+ Add Biodiversity Site Conditions](#)

Magdalena Valley montane forests (Tropical & Subtropical Moist Broadleaf Forests)

Annual Potential ETo: 1,739.00 mm

[Refresh Project Conditions](#)

Versions

- Business As Usual (3.0) Baseline Design** ⚙️
Last modified 26th September 2024
Typical park design

+ Add detail
Primary baseline
View scorecard
- 200% Sequestration Increase (3.0) Design Alternative** ⚙️
Last modified 26th September 2024
Typical park design

+ Add detail
Primary design
View scorecard
- 50% Emissions Reduction (3.0) Design Alternative** ⚙️
Last modified 27th September 2024
Typical park design

+ Add detail
Make primary design
View scorecard

Create new version

⚙️

- ✖ Delete version
- 📄 Duplicate version
- 🔄 Make this a design alternative

Click here to change your project image

Click to adjust project info and redraw site polygon.

Add existing biodiversity site conditions info.

Site data, see Benefits for more info.

Establish one Baseline Design alternative as Primary for comparison to the Primary Design Alternative on the scorecard

Establish one Design Alternative as Primary

View scorecard at any time

Add and update elements

Create new version of your project, whether Baseline or Design Alternative

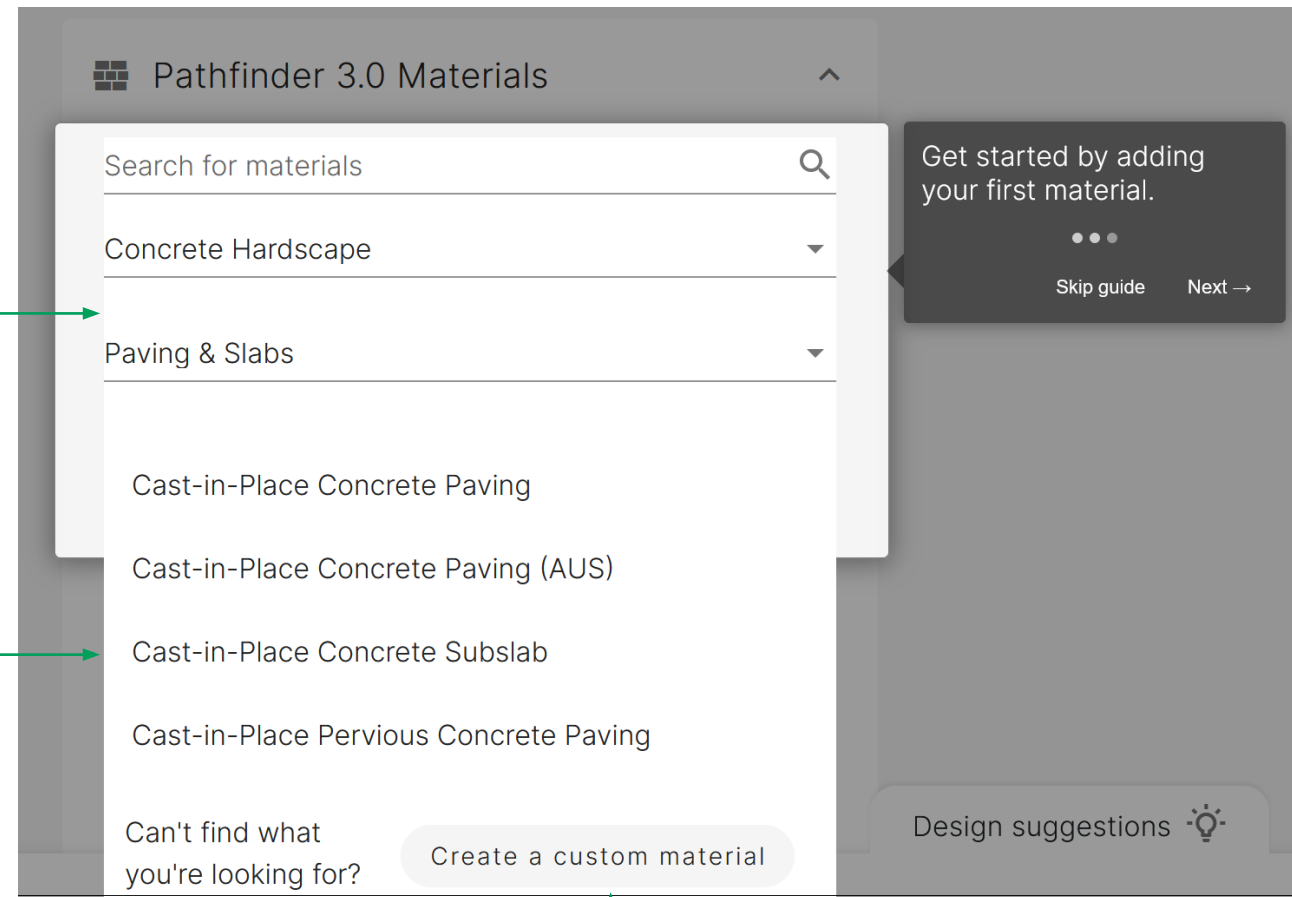
review your project page

In the Materials tab, search for or select material categories and subcategories.

1

Select each material that is part of the design.

2



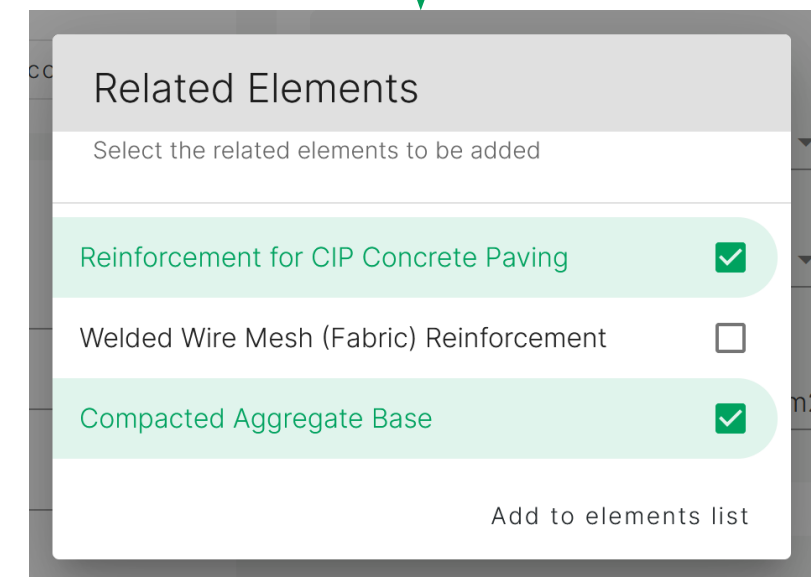
4

Create custom elements for your project as needed. See next page for more information.



3

Pathfinder will suggest related elements. Select all that will be included in the design.



If you'd like to add a specific material, or an assembly detailed in your project, Create a custom material.

Pathfinder 3.0 Materials

Search for materials

Category

Search or select a category to load available materials
The materials will be sorted from least to most emissions.

Can't find what you're looking for? Create a custom material

1

Enter the GWP CO₂E per unit. This can be found on the product EPD.

2

Note: If you're creating an assembly, sum the GWP of all constituent parts, per the unit measured.

New custom material

Name
Custom Low-Carbon Concrete Mix

Category
Concrete Hardscape

CO₂e per unit
218 kgCO₂e per

Element measured by
length x width x height

Select up to 3 dimension sets

Cancel

Area
1000

m
m2
ha
m3
kg
tonne

Select the unit of measurement. See EPD at right.

3

An Environmental Product Declaration (EPD) contains information about the environmental performance or impact of any product or material over its lifetime. Search for EPDs on [EC3](#) and other EPD databases.

Company Name
Environmental Product Declaration
Mix - Plant

This Environmental Product Declaration (EPD) reports the impacts for 1 m³ of ready mixed concrete mix, for use in business-to-business (B2B) communication meeting the following specifications:

- ASTM C94: Ready-Mixed Concrete
- UNSPSC Code 30111505: Ready Mix Concrete
- CSA A23.1/A23.2: Concrete Materials and Methods of Concrete Construction
- CSI Division 03-30-00: Cast-in-Place Concrete

COMPANY
Company name
Address

PLANT
Plant name
Address

EPD PROGRAM OPERATOR
EPD Program Operator name
Address

DATE OF ISSUE
09/20/2024 (valid for 5 years until 09/20/2029)
(Portable plant validity is limited to location specified)

ENVIRONMENTAL IMPACTS

Declared Product:
Mix 330P75E1 • CONCRETE 30 Plant
Description: 3IN LN 3000 PSI 25FA 1" 3-5SL
Compressive strength: 3000 PSI at 28 days

Declared Unit: 1 m³ of concrete (1 cyd)

Global Warming Potential (kg CO ₂ -eq)	218 (167)
Ozone Depletion Potential (kg CFC-11-eq)	4.68E-6 (3.57E-6)
Acidification Potential (kg SO ₂ -eq)	1.09 (0.83)
Eutrophication Potential (kg N-eq)	0.09 (0.07)
Photochemical Ozone Creation Potential (kg O ₃ -eq)	24.2 (18.5)
Abiotic Depletion, non-fossil (kg Sb-eq)	7.01E-5 (5.36E-5)
Abiotic Depletion, fossil (MJ)	1,510 (1,154)
Total Waste Disposed (kg)	0.21 (0.16)
Consumption of Freshwater (m ³)	2.80 (2.14)

Product Components: natural aggregate (ASTM C33), Portland cement (ASTM C150), fly ash (ASTM C618), batch water (ASTM C1602), admixture (ASTM C494)

Additional detail and impacts are reported on page three of this EPD

ISO 21930:2017 Sustainability in Building Construction — Environmental Declaration of Building Products: serves as the core PCR
PCR for Concrete, NSF International, February 2024 v2.3 (including deviation) – extension, serves as the sub-category PCR

Unit
GWP

Total emissions from materials, including transportation, installation/ construction and replacements

The screenshot displays the 'MATERIALS' tab of the Pathfinder software. At the top, a navigation bar includes 'MATERIALS', 'PLANTS', 'OPERATIONS', and 'BENEFITS'. Below this, a summary shows 'Total material impact: 192,597 kgCO₂e'. The main content area is divided into three sections: 'Concrete Hardscape', 'Reinforcement for CIP Concrete Paving', and 'Aggregate & Asphalt Hardscape'. Each section contains detailed settings for transportation options, materials, and dimensions, along with a calculated emission value for that element.

Material Element	Area (m ²)	Depth (mm)	Emissions (kgCO ₂ e)
Concrete Hardscape (Cast-in-Place Concrete Paving)	1000	120	133,818
Reinforcement for CIP Concrete Paving	1000	13	51,552
Aggregate & Asphalt Hardscape (Compacted Aggregate Base)	1000	150	7,227
Total Material Impact			192,597

Switch between Materials, Plants, Operations and Benefits at any time.

View or add internal reference notes to your element as needed.

Details and information

Options

Emissions of the element, including transportation, installation and replacements.

keep adding materials

Select type of transportation of the element to the site

Select material type

Enter dimensions / quantity and units

Click for climate positive design suggestions

The screenshot displays the Path Finder software interface. At the top, a navigation bar contains 'MATERIALS', 'PLANTS', 'OPERATIONS', and 'BENEFITS'. Below this, a summary shows 'Total material impact: 192,597 kgCO₂e'. The main content is divided into sections for 'Concrete Hardscape' and 'Aggregate & Asphalt Hardscape'. Each section contains input fields for 'Transportation Option', 'Transportation Distance', 'Material', 'Replacement Over 60 YRS.', 'Area', and 'Depth'. The 'Concrete Hardscape' section includes a 'Switch dimensions' button and a 'Design suggestions' button at the bottom. The 'Aggregate & Asphalt Hardscape' section also includes a 'Switch dimensions' button. The interface uses sliders and dropdown menus for user input.

2 Switch dimension type as needed, i.e. length X width X height vs area X depth vs volume.

5 Choose the distance that the material will be transported to the site.

6 Enter the number of expected replacements of the element over the 60-year life of the project.

Materials can be added multiple times as different elements, with different dimensions and variables. For example, add a 4" slab of type 1 concrete and a 5" slab. Or add the total volume of type 1 concrete.

keep adding materials

Total emissions and sequestration from plants, including nursery emissions, transportation, installation/construction and replacements.

Project statistics are updated here. Click to view scorecard.

8

The screenshot shows the Pathfinder 3.0 interface with the following sections:

- Version Stats:** Your project will sequester 304 tonnes more carbon than it emits in its estimated lifespan. Your project is expected to reach climate positive in 16 years, in 2042. Your positive score is in the lower 49th percentile of projects in our database. [View scorecard]
- Pathfinder 3.0 Plants:** Search for plants. Ecosystems - Existing To Protect: Boreal Forest, Dry Forest (Mediterranean), Dry Meadows, Forested or Shrubby Peat Swamp, Mangrove Forest, Prairie Grassland, Subtropical Humid Forest, Temperate Continental Forest, Temperate Oceanic Rainforest.
- Ecosystems - Existing To Protect:** Tropical Dry Deciduous. Area: 2500 m2. Emissions: 99,964 kgCO₂e, 3,879 kgCO₂e.
- Ecosystem Restoration:** Tropical Dry Deciduous. Transportation Option: Assume 100% Truck (Typical). Transportation Distance: Local (160km or 100mi radius from site). Nursery: Plug Planting & Whip Tree (1cm (0.5" caliper) Plan). Target Condition: Good. Area: 3000 m2. Emissions: 14,112 kgCO₂e, 115,261 kgCO₂e.
- Trees:** Deciduous Large Tree. Transportation Option: Assume 100% Truck (Typical). Transportation Distance: Local (160km or 100mi radius from site). Nursery: Container Tree Planting (5cm (2") caliper). Native Plants: 70%. Units: 100 quantity. Emissions: 3,693 kgCO₂e, 382,805 kgCO₂e.
- Perennials / Perennial Grasses:** Perennials / Perennial Grasses. Transportation Option: Assume 100% Truck (Typical). Transportation Distance: Local (160km or 100mi radius from site). Nursery: Low-intensity Container Planting (#1 cont., 333m). Native Plants: 50%. Perennials: Percent of Cover: 80. Area: 500 m2. Emissions: 5,241 kgCO₂e, 17,390 kgCO₂e.
- Total plant impact:** 496,289 kgCO₂e
- Growing Season Duration:** Shorter, Moderate (selected), Longer. Includes a world map.
- References:** Design suggestions. 4). Balancing carbon sequestration and GHG emissions in a constructed wetland. Ecological

2

Select the Growing Season Duration zone of your site. Click to enlarge the map.

Select each planting category and element, including Trees and Ecosystems to protect and restore, Perennials, Shrubs, and Lawn.

1

3

Add the area of each existing habitat to be protected, or to be restored, from the UN FAO ecosystem types.

Select transportation type and distance. Select type of nursery stock specified. Enter area or quantity of plants.

4

5

Ecosystem Restoration Target Condition:
 - Good closely mimics a native ecosystem in structural and functional diversity, species mix and spacing.
 - Moderate somewhat mimics the native ecosystem.

6

Select the percentage of all plants of this type that are native.

Click for climate positive design suggestions.

7



Pathfinder calculates the number of years until the plant sequestration offsets the emissions of the project. The target Years to Positive depends on the project type, see the [Climate Positive Design Challenge](#).

add plants

Total emissions from operations over the 60-year life of the project.

The screenshot shows the 'OPERATIONS' tab in the Pathfinder 3.0 interface. At the top, a navigation bar includes 'MATERIALS', 'PLANTS', 'OPERATIONS', and 'BENEFITS'. The main content area is divided into several sections:

- Version Stats:** Displays project carbon sequestration (292 tonnes) and climate positive year (2043).
- Pathfinder 3.0 Operations:** A sidebar menu with 'Landscape Water Use', 'Maintenance Equipment', and 'Soil Amendments & Mulch'.
- Total Operational Impact:** Shows a total of 118,477 kgCO₂e.
- Maintenance Equipment:** Includes a slider for 'Electric Leaf Blowers / Vacuums' with 'Power' set to 120 watts and 'Hours Used Annually' set to 200 hours, resulting in 957 kgCO₂e.
- Landscape Water Use:** Contains two sections:
 - Moderate Water Use:** 'Trees' with 'Drip Irrigation - Pressure Compensated', 'Area' set to 500 m², resulting in 34,780 kgCO₂e and 28,983,333 L.
 - Low Water Use:** 'Groundcover' with 'Micro Spray Irrigation', 'Area' set to 2000 m², resulting in 71,547 kgCO₂e and 59,622,857 L.
- Soil Amendments & Mulch:** Includes sliders for 'Number Of Fertilizer Applications In 1st Year' (10) and 'Annual Fertilizer Application Frequency After 1st Year' (2).
- NPK Fertilizer Application:** Shows 'N per area' (0.2 kg/sf), 'P per area' (0.06 kg/sf), 'K per area' (0.06 kg/sf), and 'Application area' (5000 m²), resulting in 11,193 kgCO₂e.

Select Operations category and element.

1

2

Enter power and annual usage of maintenance equipment.

3

Create an element for each hydrozone in the project. Select plant and irrigation type. Pathfinder calculates the projected water used over the 60-year life of the project, and the emissions of that water.

4

See Benefits - Water for further information about water use.

5

Add expected fertilizer frequency, quantity and contents.

6

Click for climate positive design suggestions.

add operations

Access the Biodiversity Site Conditions - Existing form from the Project or Benefits: Biodiversity page. May be edited at any time, but only one form is applied to all versions of the project.

Enter areas of existing ecosystems on site, from the [UN FAO Global Ecological Zones](#) classification.

Add existing general landscape planting including shrubs, groundcovers, perennials, annuals, etc., and indicate the percentage of all existing plants that are native to the site's ecoregion (see Benefits tab, Biodiversity).

Add turf lawn areas, selecting which type of management the turf receives, and indicate the percentage of turf that is native.

Add existing trees of each size and type, and indicate the percentage of each that is native.

add biodiversity site conditions: existing

1

5

7

8

9

2

3

4

6

10

Biodiversity Site Conditions - Existing

Total Site Area: 9,877 sq metres

Enter the following existing site information, by: Area Percentage

Hardscape and Buildings: 5,877 m²

Ecosystem

Ecosystem	Area	Condition
<input type="checkbox"/> Boreal Forest	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Dry Forest (Mediterranean)	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Dry Meadows	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Forested or Shrubby Peat Swamp	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Mangrove Forest	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Prairie Grassland	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Subtropical Humid Forest	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Temperate Continental Forest	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input checked="" type="checkbox"/> Tropical Dry Deciduous	2000 m²	<input checked="" type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input checked="" type="checkbox"/> Tropical Moist Deciduous	1000 m²	<input type="radio"/> G <input checked="" type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Temperate Oceanic Rainforest	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Tropical Rainforest	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Tropical Shrublands	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P
<input type="checkbox"/> Temperate Wetland and Salt Marsh	0 m²	<input type="radio"/> G <input type="radio"/> M <input type="radio"/> P

General

General	Area	% Native
<input checked="" type="checkbox"/> General Planting (shrubs, groundcover, etc)	500 m²	20%

Lawn

Lawn	Area	% Native
<input checked="" type="checkbox"/> High Management	500 m²	0%
<input type="checkbox"/> Moderate Management	0 m²	%
<input type="checkbox"/> Low Management	0 m²	%
<input type="checkbox"/> No-mow	0 m²	%

Trees

Trees	Quantity	% Native
<input checked="" type="checkbox"/> Deciduous Large	150	50%
<input type="checkbox"/> Deciduous Medium		%
<input type="checkbox"/> Deciduous Small		%
<input type="checkbox"/> Evergreen Large		%
<input type="checkbox"/> Evergreen Medium		%
<input type="checkbox"/> Evergreen Small		%

Buttons: Discard, Save

Enter pre-demolition and pre-construction existing site condition information, in order to calculate biodiversity impacts for your design.

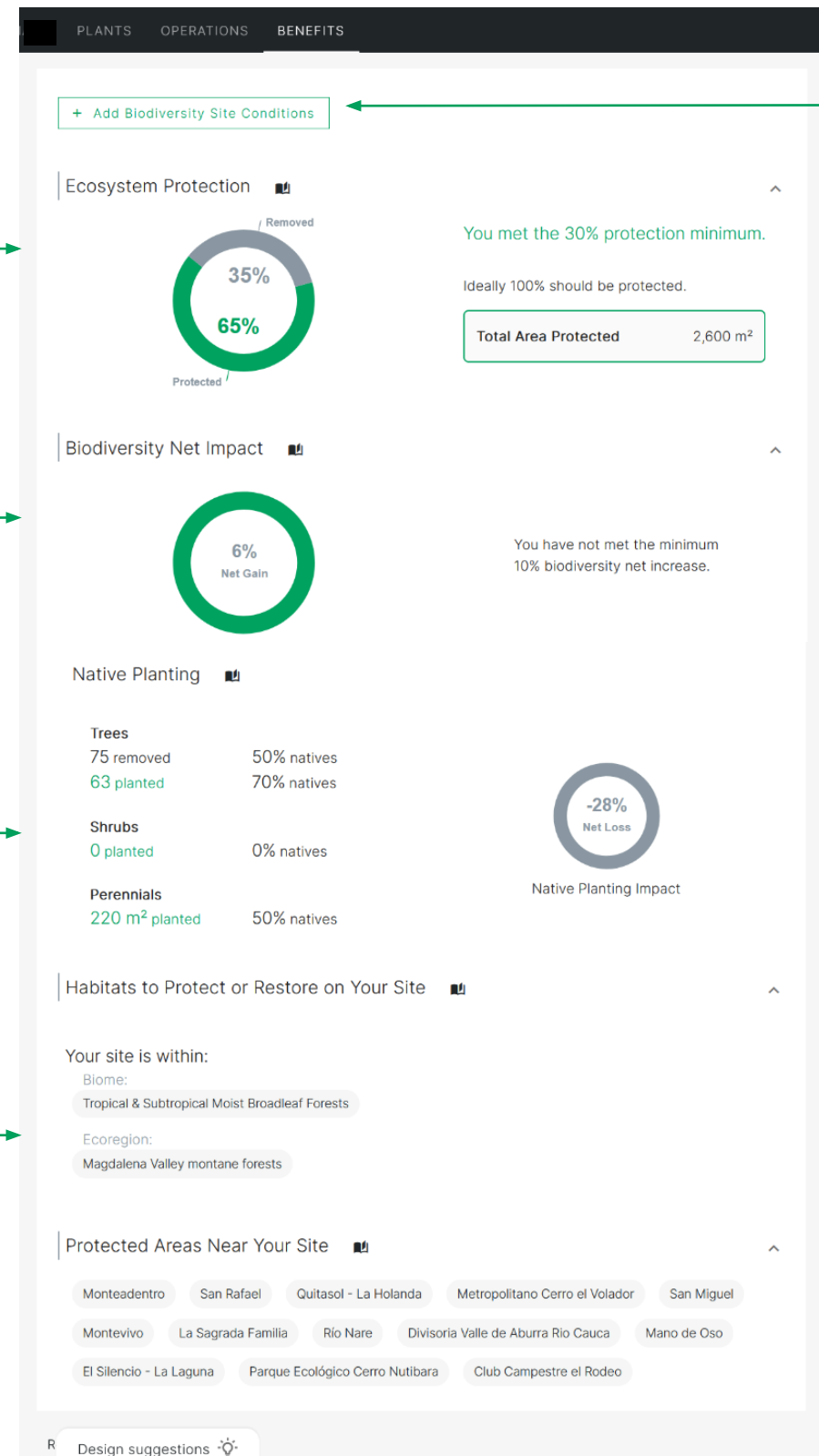
Select whether to enter information in areas, or in percentage of the total site (including building areas).

Enter total area of existing hardscape and buildings. All remaining area is considered planting area.

Select condition, compared to an optimal, healthy native ecosystem:

- Good (G) is close to optimal
- Moderate (M) shows some impacts
- Poor (P) ecosystem shows heavy impacts of human interference, invasive species, browsing and/or climate change

The sum of all areas or percentages entered must equal the Total Site Area



Areas of removed and protected ecosystems are compared.

2

The final quantity and condition of native ecosystems and planting is compared to the existing conditions. Existing ecosystems and trees are given greater weight than new planting. See Methodology Report for further information.

4

The final quantity and condition of native trees, shrubs and perennials are compared to the existing conditions. Existing native trees are given greater weight than new planting.

6

The project site falls within this biome and ecoregion, according to the [RESOLVE Ecoregions and Biomes](#) map. These can be used to determine native habitats and species.

7

1

3

5

8

Add existing biodiversity site conditions info to calculate biodiversity impacts.

Per 30x30 goals, protect a minimum of 30% of existing ecosystems. Ideally 100% of good condition native ecosystems should be protected to avoid harming biodiversity.

Per biodiversity net gain goals, increase biodiversity by at least 10% from the existing site condition.

See the [World Database of Protected Areas](#) for protected areas near your site, such as those below within 10 miles (16km), resources below. It may be possible to provide habitat for fauna to migrate to your site from nearby protected areas, via wildlife corridors or a patchwork of habitat sites.

1

To calculate annual water usage, enter Landscape Water Use elements in Operations, including areas with no irrigation, and water features, pools and spas.

PLANTS OPERATIONS **BENEFITS**

Evapotranspiration At Project Site

Average Annual Potential Evapotranspiration	174 cm
---	--------

Landscape Water Use

Total Planted Area	2,500 m ²
Annual Baseline	4,347,500 L/yr
Maximum Water Allowance	3,043,250 L/yr
Annual Site Water Usage	1,476,770 L/yr

66%
Reduction From Baseline

Congratulations! You've exceeded the minimum 30% water use reduction.

Design suggestions

2

Potential Evapotranspiration (PET) is the amount of evaporation from land and surfaces, and transpiration from plants that would occur if soil moisture were unlimited. This is used to determine the maximum amount of irrigation water that may be required at a site.

3

Sum of all Landscape Water Use areas added in Operations.

4

Calculated from the site's potential evapotranspiration and the Landscape Water Use elements added in Operations.

5

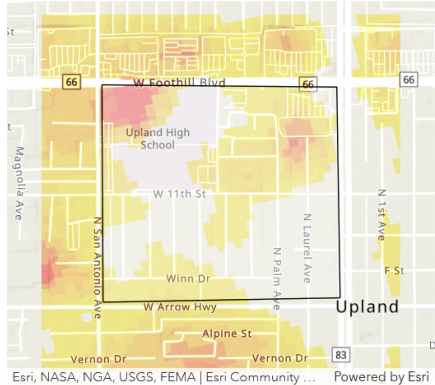
Reduce water use from the annual baseline by at least 30%, per US EPA WaterSense.

PLANTS OPERATIONS BENEFITS

Heat Island (US Only)

The project site is located within a **severe heat zone**.

For the health of site occupants, maximize planted areas, shade with trees and structures, and optimize the solar reflectance of materials to provide up to 10°F (5.7°C) of cooling.



Total Area of Buildings
Area: 207500 m²

Total Site Area (beyond buildings)
450,029.22 m²

Shade

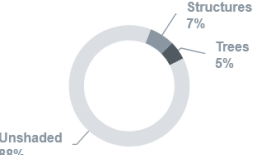
Select the broad biome of the project site:

- forest Target 40-60% urban forest canopy
- grassland Target 20% urban forest canopy
- desert Target 15% urban forest canopy

Total Area Shaded By Trees
22,695 m²

Total Area of Shade Structures
Area: 30000 m²

Only 5% of the site is shaded by trees. Consider adding structures and trees to provide more shade.



1

Within the US, sites with a heat measure of 4 or 5 out of 5 per map [Heat Severity - USA 2022](#) are indicated as severe heat areas.

2

Enter the total area of all buildings on the site in the proposed design.

3

Choose the broad biome that most closely matches your site area. Tree canopy targets are based upon these broad biomes.

4

Calculated from all trees entered in Plants tab.

5

Enter total area of shade structures in the designed landscape, including awnings, arcades, and free-standing structures, soft or rigid.

6

Add more trees to your design in the Plants tab to reach the canopy target.

Within the US, the US Government's [Climate and Economic Justice Screening Tool](#) provides environmental, infrastructural, and demographic information about the site area. Overburdened and underserved communities are marginalized by underinvestment and overburdened by pollution.



PLANTS OPERATIONS BENEFITS

Overburdened and Underserved Communities (US Only)

The project is located within an **underserved community**, according to the US Government's Climate and Economic Justice Screening Tool.

Select if your site is located in an underserved community outside the United States, as defined by local authorities.

Community Engagement Spectrum

INCREASING LEVEL OF PUBLIC ENGAGEMENT

INFORM	CONSULT	INVOLVE	COLLABORATE	CO-DESIGN
Provide the public with objective information to assist with understanding problems, alternatives, opportunities and/or solutions.	Obtain public feedback on analysis, decisions and/or alternatives.	Work directly with the public to ensure their concerns and aspirations are consistently understood and considered.	Partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	Place final decision making in the hands of the public.
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Select highest level of public engagement intended or achieved

If your site is in an underserved community, extra care should be taken to collaborate with and support the local community, throughout the planning and design process.



Select if your site falls within an overburdened and underserved community outside the USA, as designated by NGOs, local, national, or international authorities.



Adapted from the Spectrum of Public Participation, developed by the [International Association for Public Participation](#).



Select the highest level of public engagement intended or achieved during the planning, design and construction process. Ideally projects are designed with greater community engagement (right side of the spectrum), especially when located in overburdened and underserved communities.

Click View scorecard at any time for updated project results

Net Impact: green text and negative number means the project will sequester more carbon than emitted over 60 years. Black text and positive number means the project will emit more carbon than sequestered.

Climate Positive Design Scorecard

Project Name **Climate Positive Park**
Type of Project **Park**

CARBON IMPACT

Net Impact over 60 years -737 Metric Tons

Total Embodied Emissions 192,597 kgCO₂e

Total Biogenic Sequestration 940,828 kgCO₂e

Total Operational Emissions 11,193 kgCO₂e

Total Carbon Stored 103,962,300 kgCO₂e

PROJECT AREA

Total Area 9,877 m² (0.99 ha)

Planted Area 0 m² (0% of total area)

Emissions per Area 21 kgCO₂e/m²

Sequestration per Area 95 kgCO₂e/m²

Project Emissions

BENEFITS

Biodiversity

65% Existing Native Ecosystem Preserved

38% Biodiversity Net Impact

Water

66% Water Use Reduction from Baseline

IMPROVEMENTS

Baseline Project Name:

62% Total Emissions Reduction

214% Total Sequestration Increase

Cooling

Not Designated Severe Heat Zone

15% of Project Site Shaded

Equity

N/A* Designated Underserved Community

Project Impact 11 years to positive

< 1 2 > Download as pdf

Emissions and Sequestration per unit area

Graph of emissions sources by category

Benefits impacts. Green scores have met the targets.

Improvement comparison to the Primary Baseline version

Impact over the life of the project. Gray represents emissions, green sequestration.

Details of materials, operations, plants and benefits are included on page 2

Climate Positive Design Scorecard

Project Name **Climate Positive Park**
Type of Project **Park**

<p>CARBON IMPACT</p> <p>Embodied Carbon Emissions</p> <hr/> <p>Aggregate Asphalt Hardscape</p> <table border="0" style="width: 100%;"> <tr> <td>Compacted Aggregate Base</td> <td style="text-align: right;">7,227 kgCO₂e</td> </tr> <tr> <td style="text-align: right;">Subtotal</td> <td style="text-align: right;">7,227 kgCO₂e</td> </tr> </table> <p>Concrete Hardscape</p> <table border="0" style="width: 100%;"> <tr> <td>Cast-in-Place Concrete Paving</td> <td style="text-align: right;">133,818 kgCO₂e</td> </tr> <tr> <td>Reinforcement for CIP Concrete Paving</td> <td style="text-align: right;">51,553 kgCO₂e</td> </tr> <tr> <td style="text-align: right;">Subtotal</td> <td style="text-align: right;">185,371 kgCO₂e</td> </tr> </table> <p>Total Embodied Carbon 192,597 kgCO₂e</p> <p>Biogenic Sequestration</p> <hr/> <p>Ecosystem Restoration</p> <table border="0" style="width: 100%;"> <tr> <td>Tropical Dry Deciduous</td> <td style="text-align: right; color: green;">165,210 kgCO₂e</td> </tr> <tr> <td style="text-align: right;">Subtotal</td> <td style="text-align: right; 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* N/A: Not Applicable based on location or no data entered.

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N/A : Not applicable based on location or no data entered.

Green text represents sequestration and targets met.

Download the scorecard as a pdf.

My Projects

GARDEN 0 years to positive

Demolition Study

Demo

GARDEN 0 years to positive

Bridge Project

PARK 11 years to positive

Climate Positive Park

Parking lot transformation

PARK 0 years to positive

Airport

Parking lot transformation

PARK 0 years to positive

Roof Garden

New project

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Your Organization

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Click to access a project

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view all projects or start a new one

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