

Tel Aviv University

# Science Promenade

Designing landscape with Green Building principles

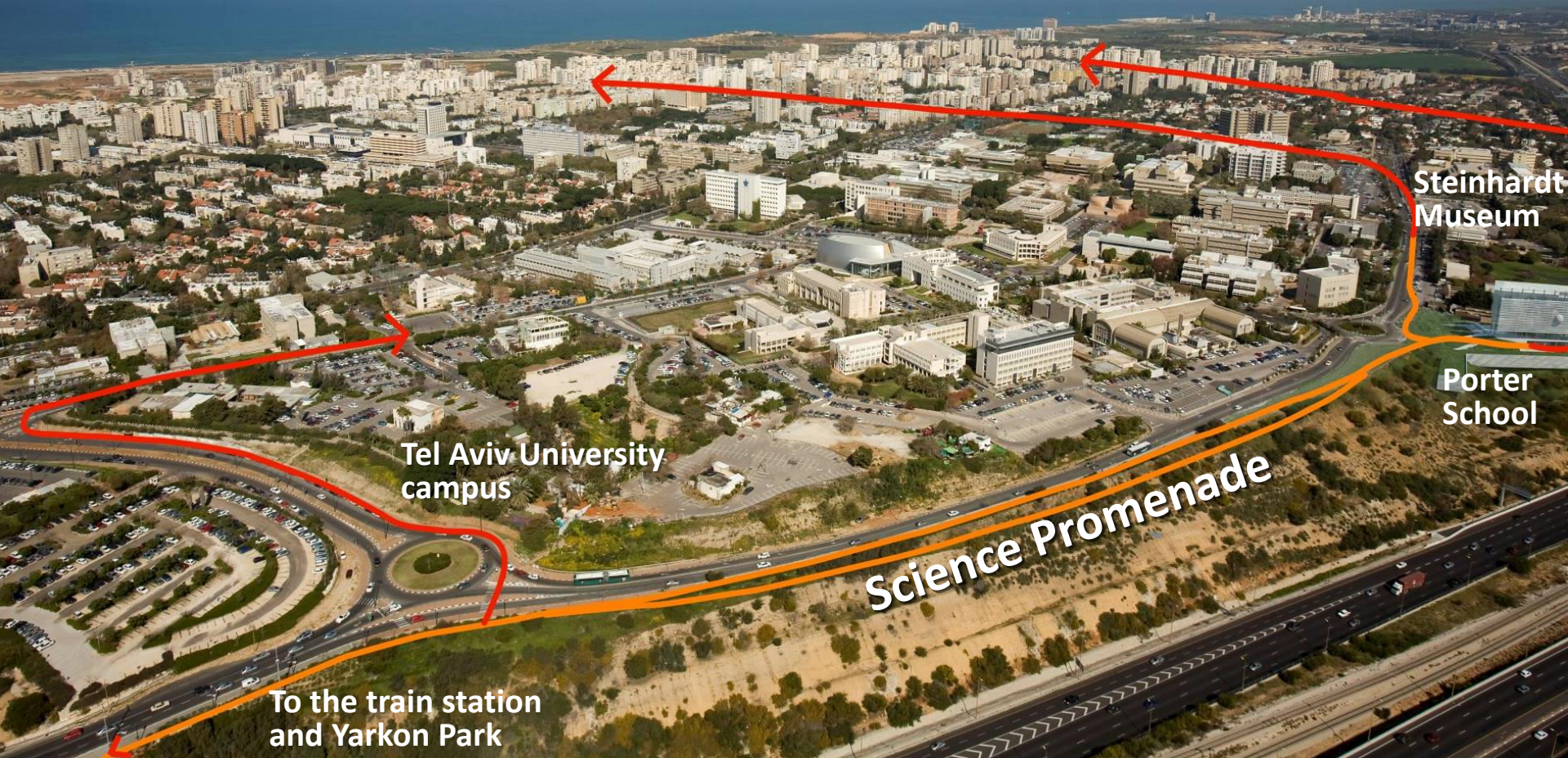


surrounding





The **Science Promenade** enables a pleasant connection for both pedestrians and cyclists from the university train station to the campus on the highest spot in the city, overlooking the Yarkon River Park and offering a breathtaking view all over the Tel Aviv metropolitan area.



Tel Aviv University campus

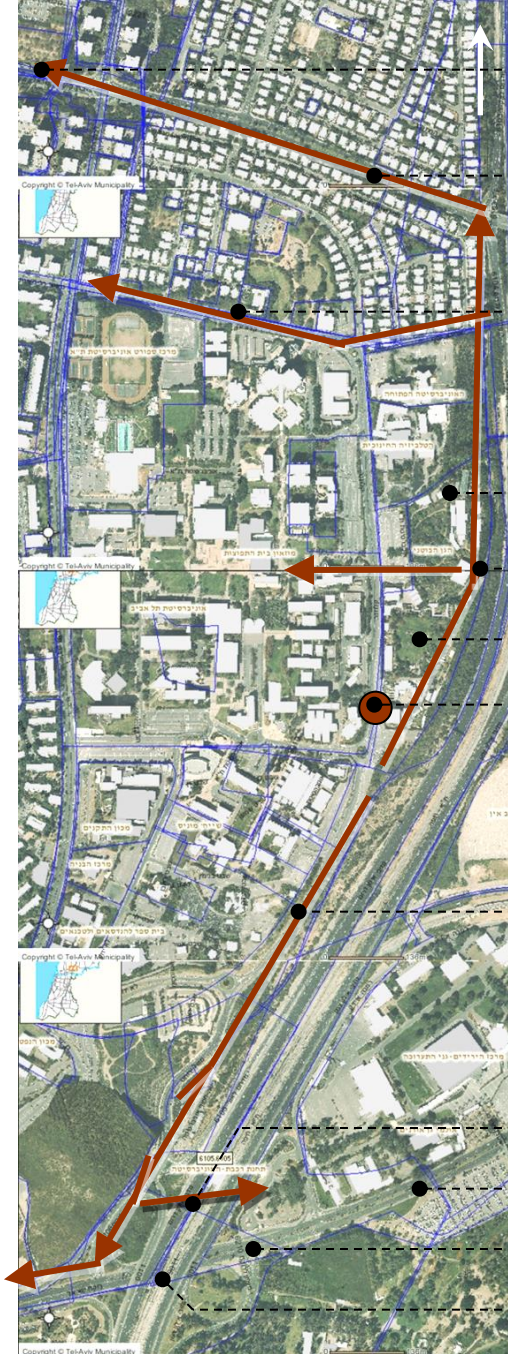
Steinhardt Museum

Porter School

Science Promenade

To the train station and Yarkon Park





Connection to the sea shore

KKL Avenue

Klachkin Street

Zoological Garden

Connection to Tel Aviv University

Botanical Garden

Porter School of Environmental Studies

Science Promenade

Underground path

University train station

Rokach Avenue

Connection to Yarkon Park





University Art Gallery

Natural Collections Building

Steinhardt Museum

Botanical Garden

Zoo

Porter School of Environmental Studies

Science Promenade

Palmach House

Yitzhak Rabin Center

Eretz Israel Museum

Council for a Beautiful Israel




Yarkon Park

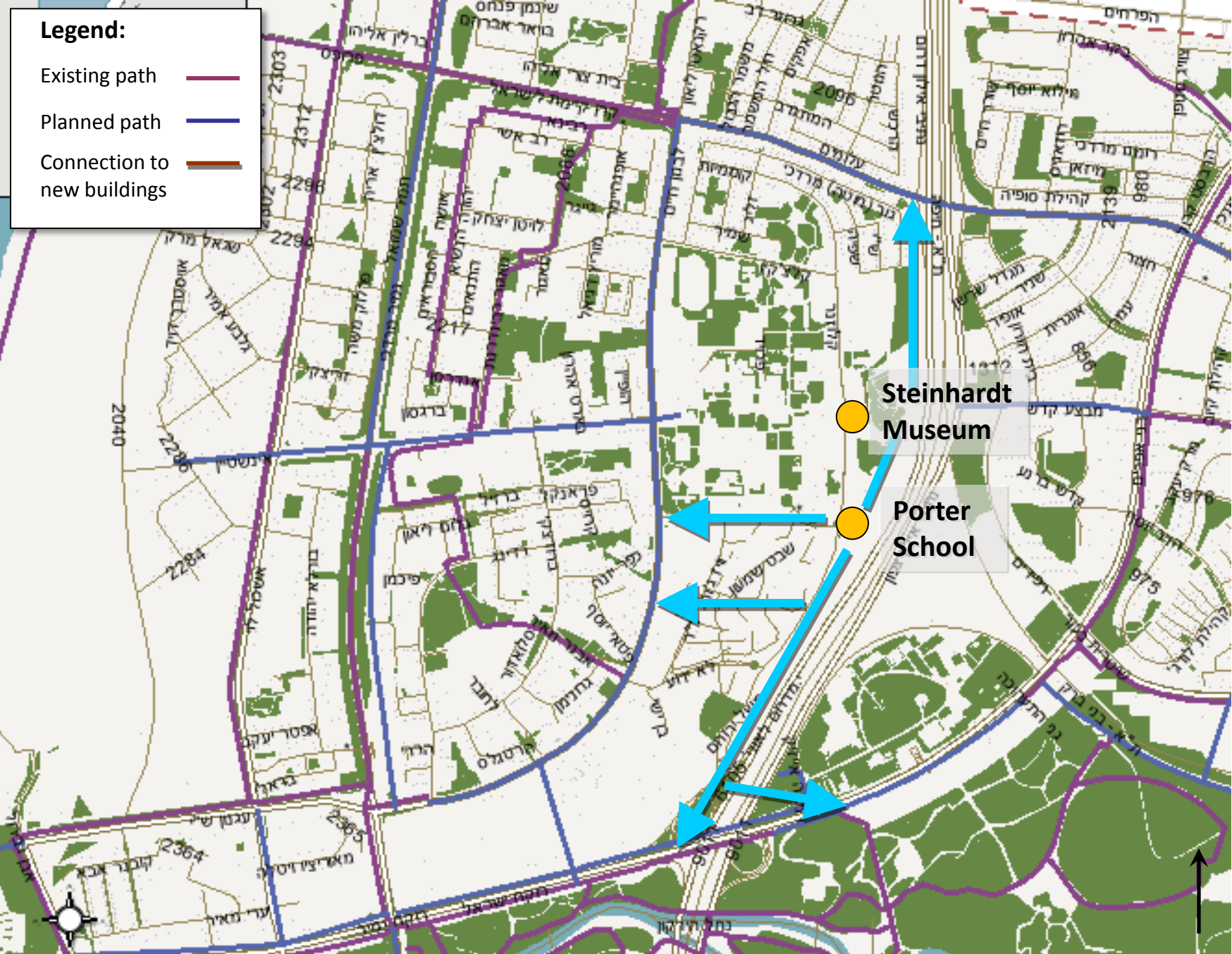
Image © 2010 DigitalGlobe

תאריך תמונה: 5 פבר 2010 11:50:32 צ' 31.50'22.01'34 מז' 41 גובה



**Legend:**

- Existing path 
- Planned path 
- Connection to new buildings 





existing  
situation











## Opportunities

- Improving the walking connection between the university train station and the campus
- Creating a combined bicycle and pedestrian path for students, university personnel, visitors and local residents
- Views towards Ramat Gan and Yarkon Park



## Obstacles:

- Strong background noise from Ayalon Highway
- Shallow soil cover above the sandstone rock
- Steep ridge with partial inclination of more than 1:2
- View towards a huge construction area

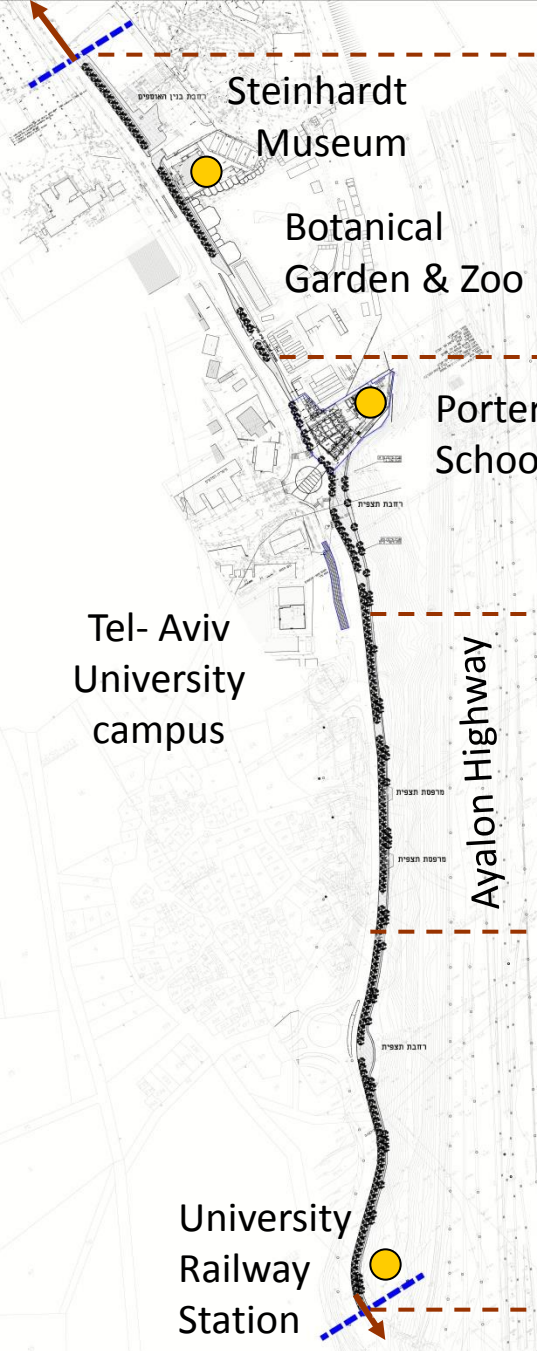




# View from the planning site towards Yarkon Park







Northern part:  
Parking areas



Central wide part:  
occasionally used as  
additional parking area



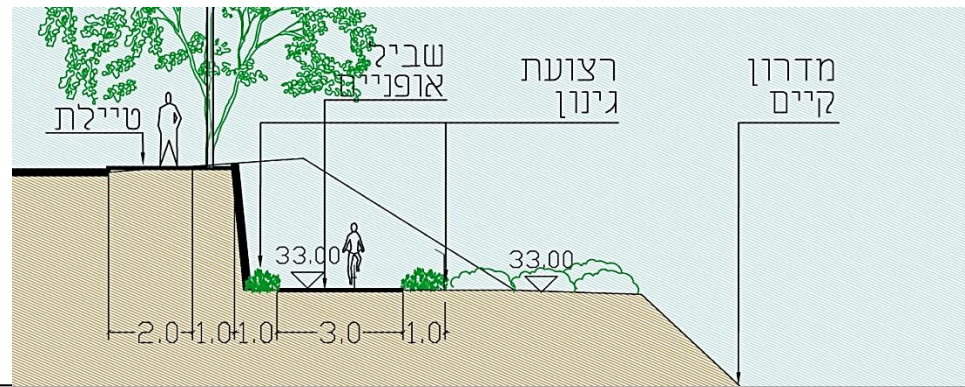
Central narrow part  
2.5 m width sidewalk  
steep slope



Southern part  
2.50 m sidewalk  
leveled slope



design proposal  
2011





Connection to the train station and Yarkon Park

Lower path for biking and jogging

Planned promenade including shaded elements and trees

Shaded viewpoints with sculptural environmental/scientific elements

Planned: Continuation of bike path to Steinhardt Museum

Porter School

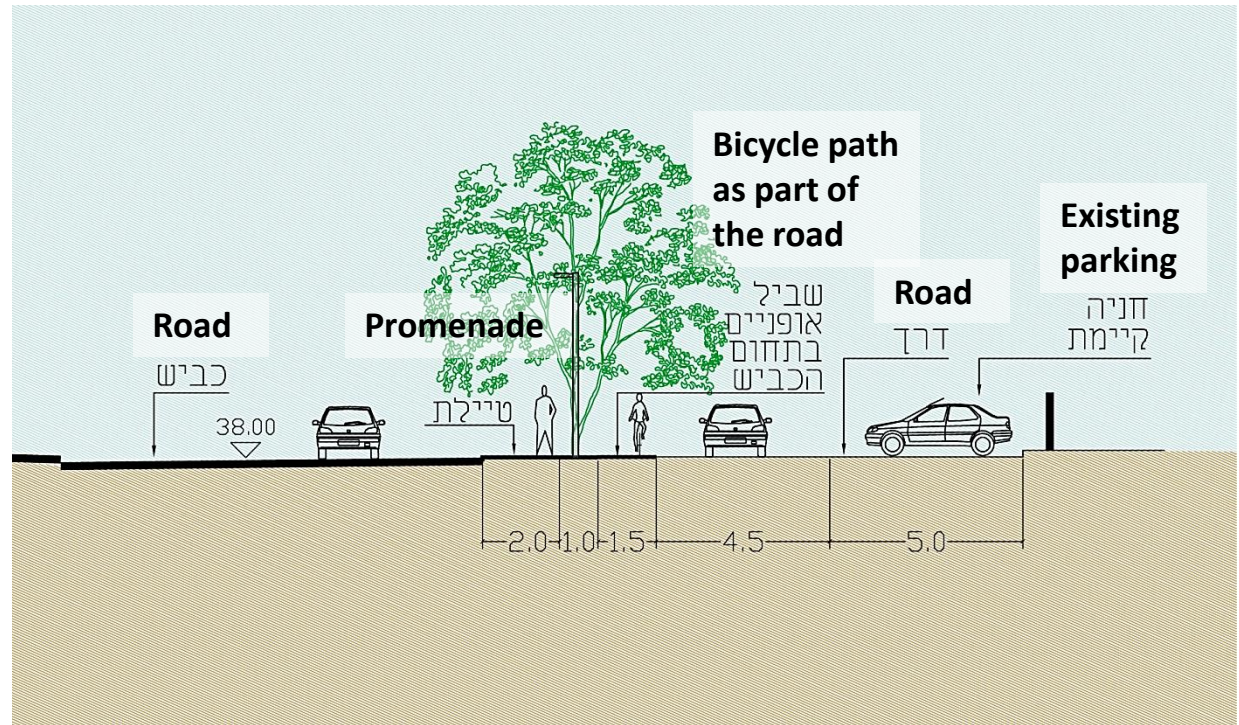
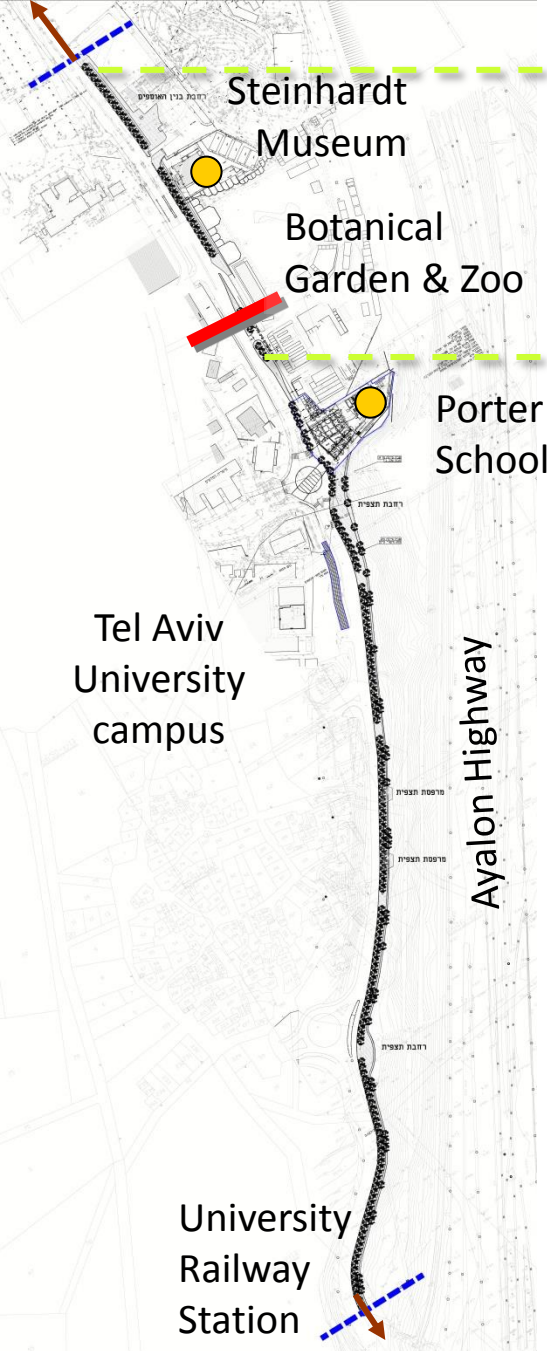




# Northern part

The promenade as an extension of the existing sidewalk, the bicycle path as part of the existing service road.

In this part some existing parking spaces will be canceled.

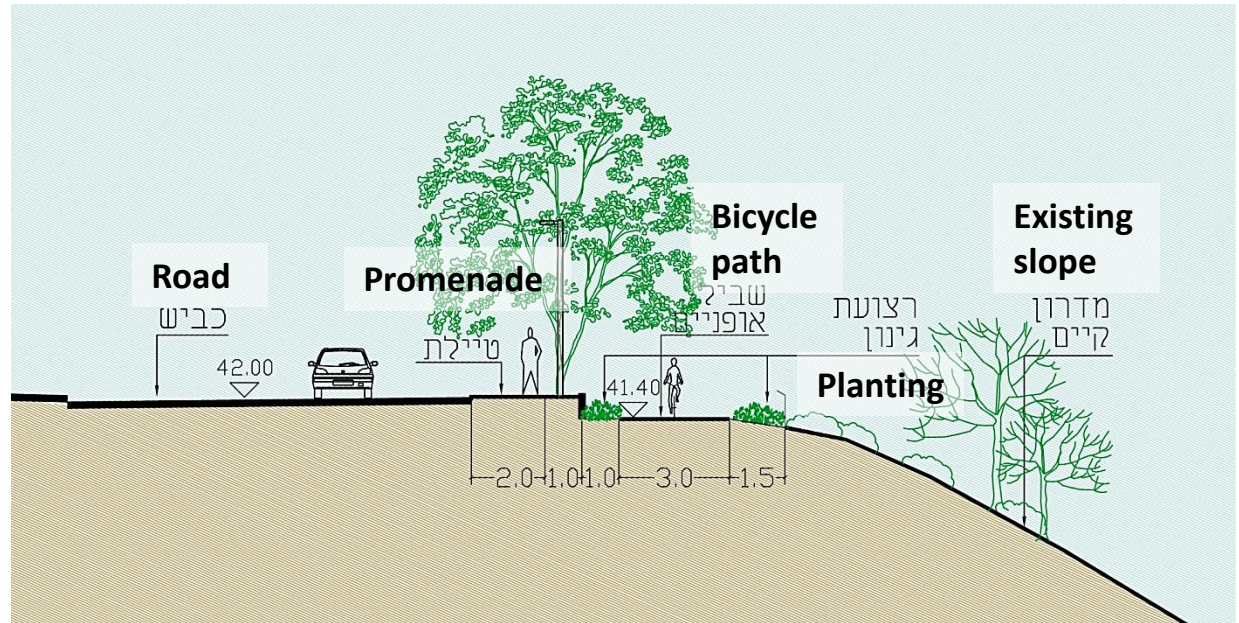




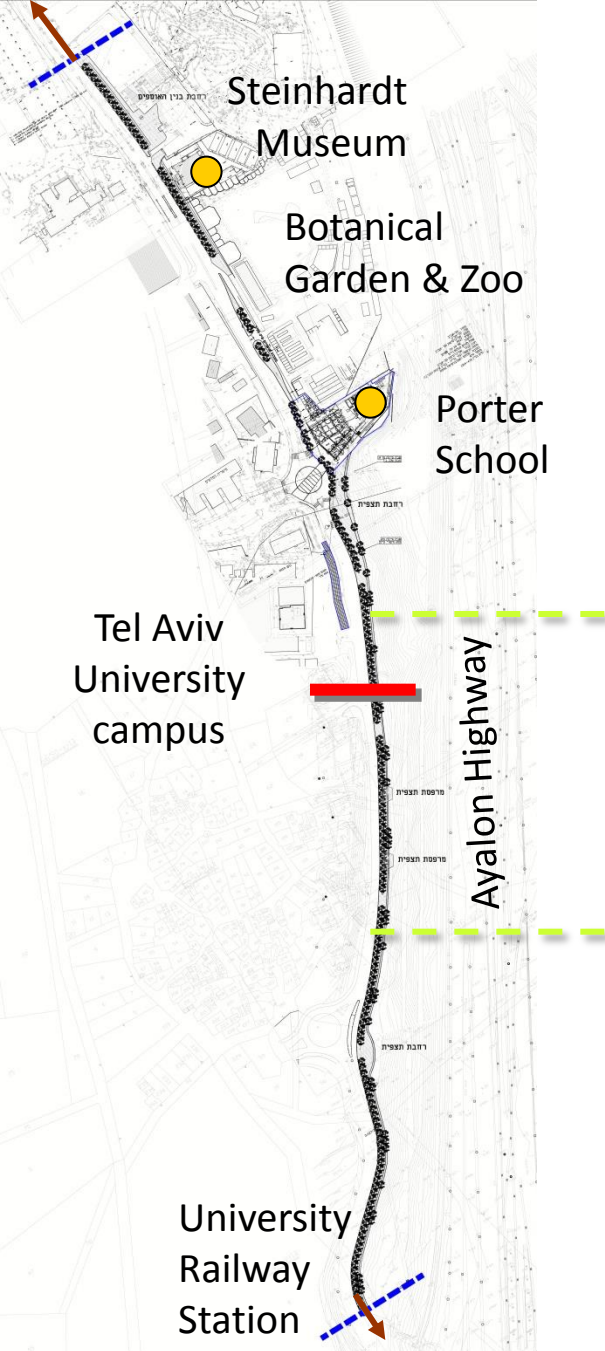
# Central part



The promenade as an extension of the existing sidewalk.  
 A low wall separating between the bicycle path and the promenade.

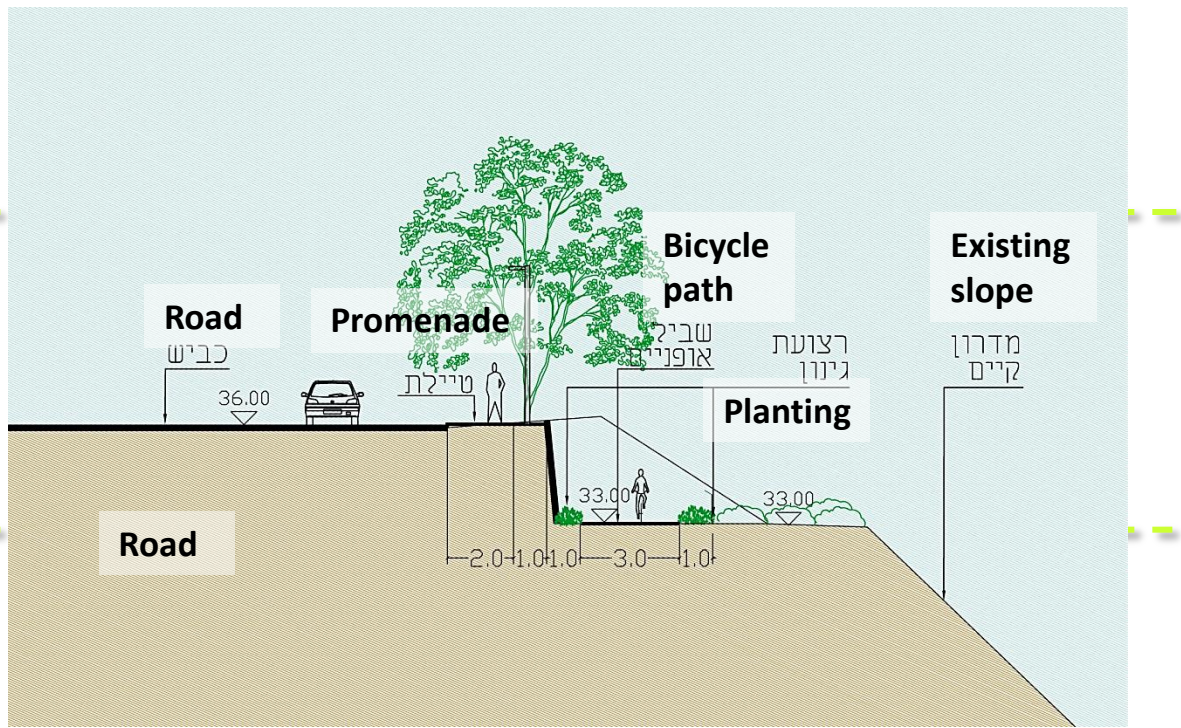






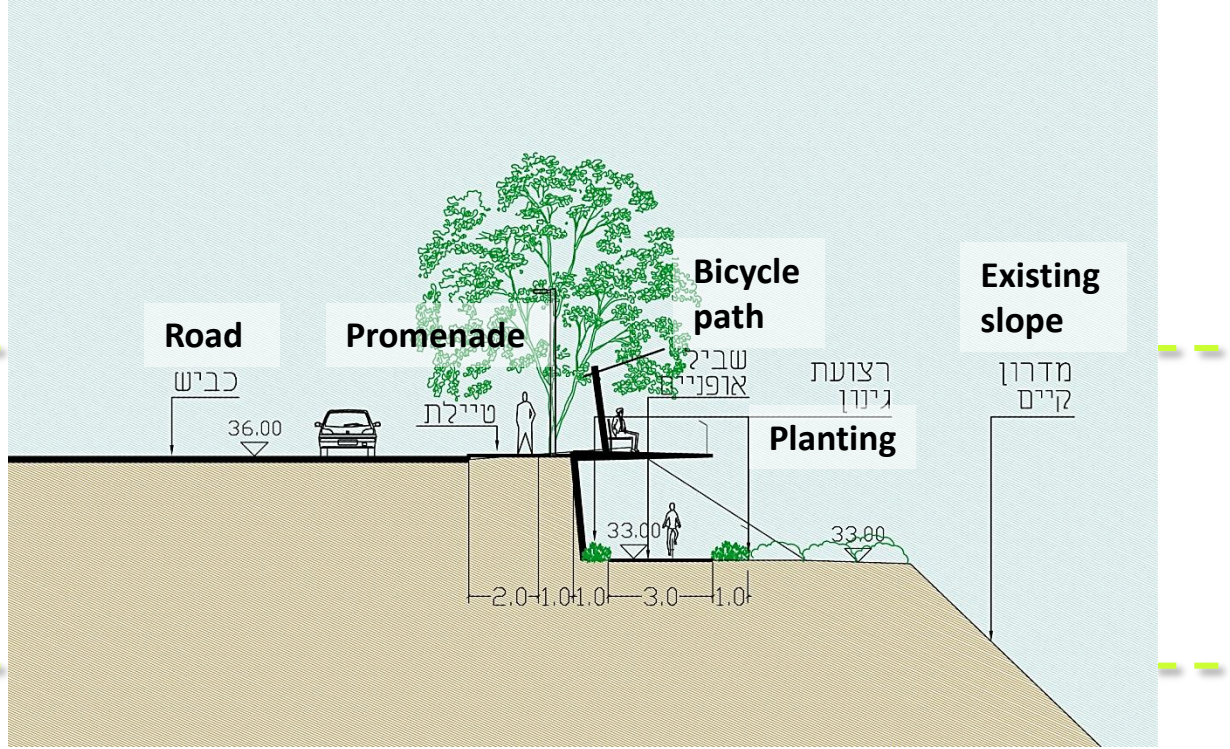
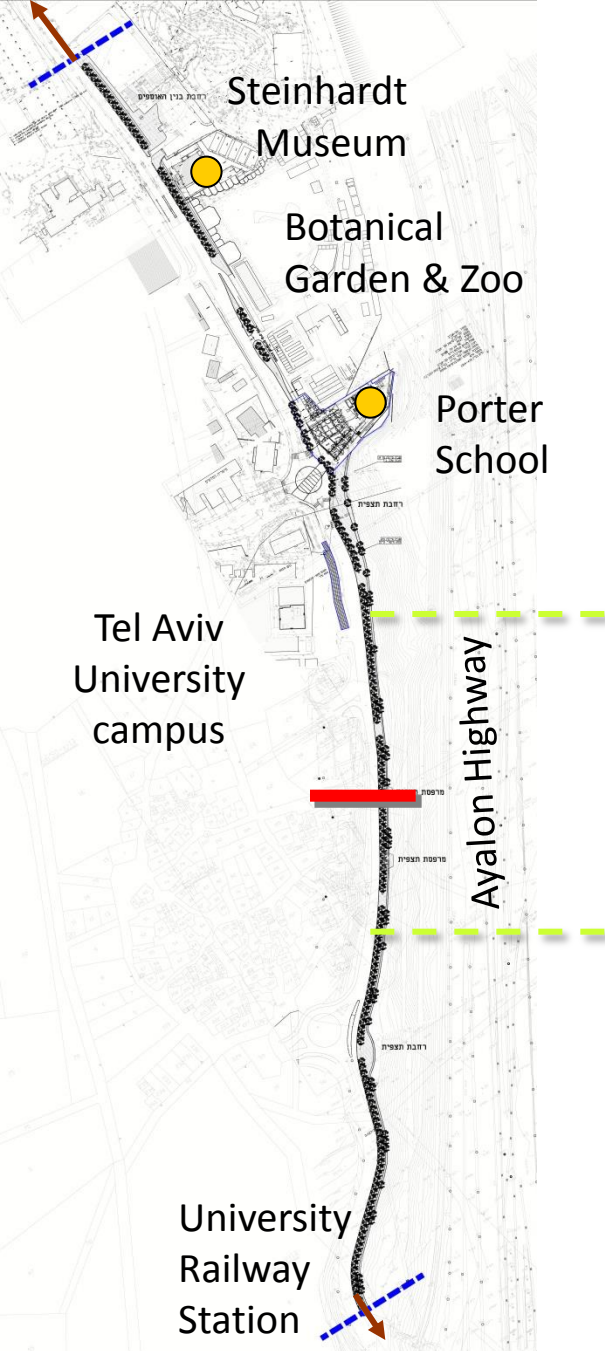
## Narrow part

The promenade as an extension of the existing sidewalk.  
The bicycle path is in a lower level.





# Narrow part - Viewpoint



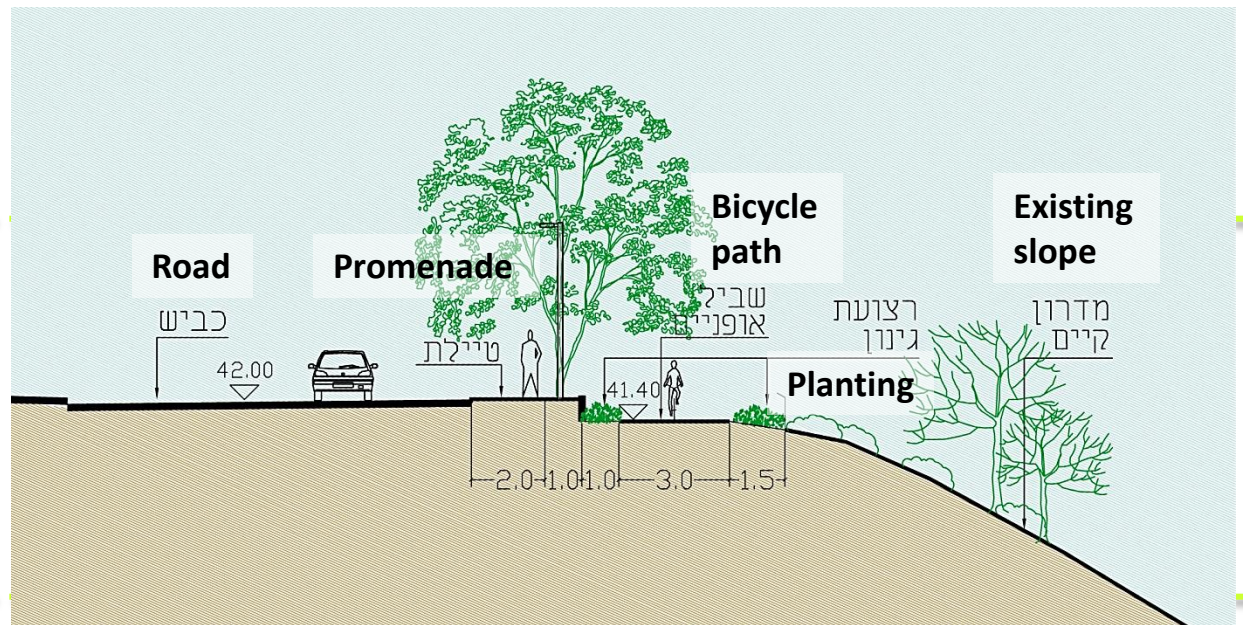
A viewpoint balcony will be placed in a few points, and the bicycle path will go underneath it. Scientific/ Environmental sculptures will be placed in these extensions.





## Southern part

The promenade is an extension of the existing sidewalk and the plane surface beside it.





case studies

science landscapes





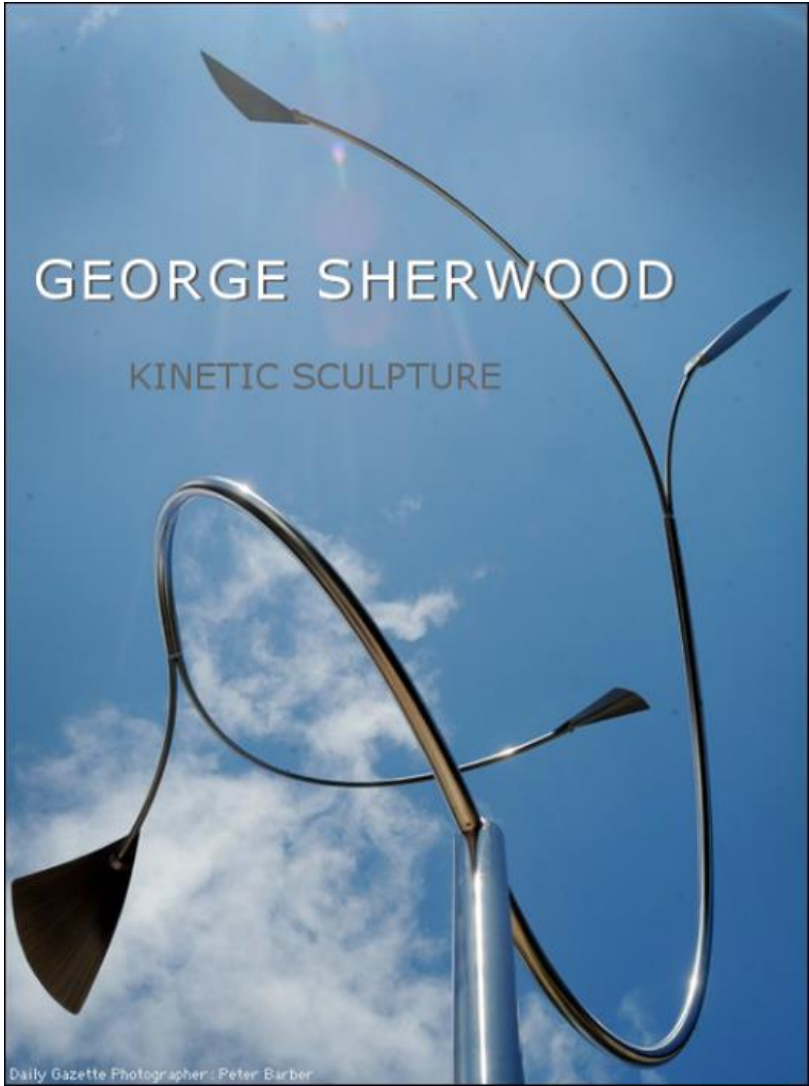
# Kinetic sculptures



Mark Baltes-dandelion



B. Flip-dynamic blue kite forms



George sherwood- kinetic sculpture



Anthony Howe-Rooster Rings



# Solar sculptures





# Charles Clore Garden of Science







design concept  
"genesis"



## Science Promenade: Design concept

The proposed promenade stretches along the sandstone cliff overlooking the Yarkon Park and the metropolitan landscape of Tel Aviv.

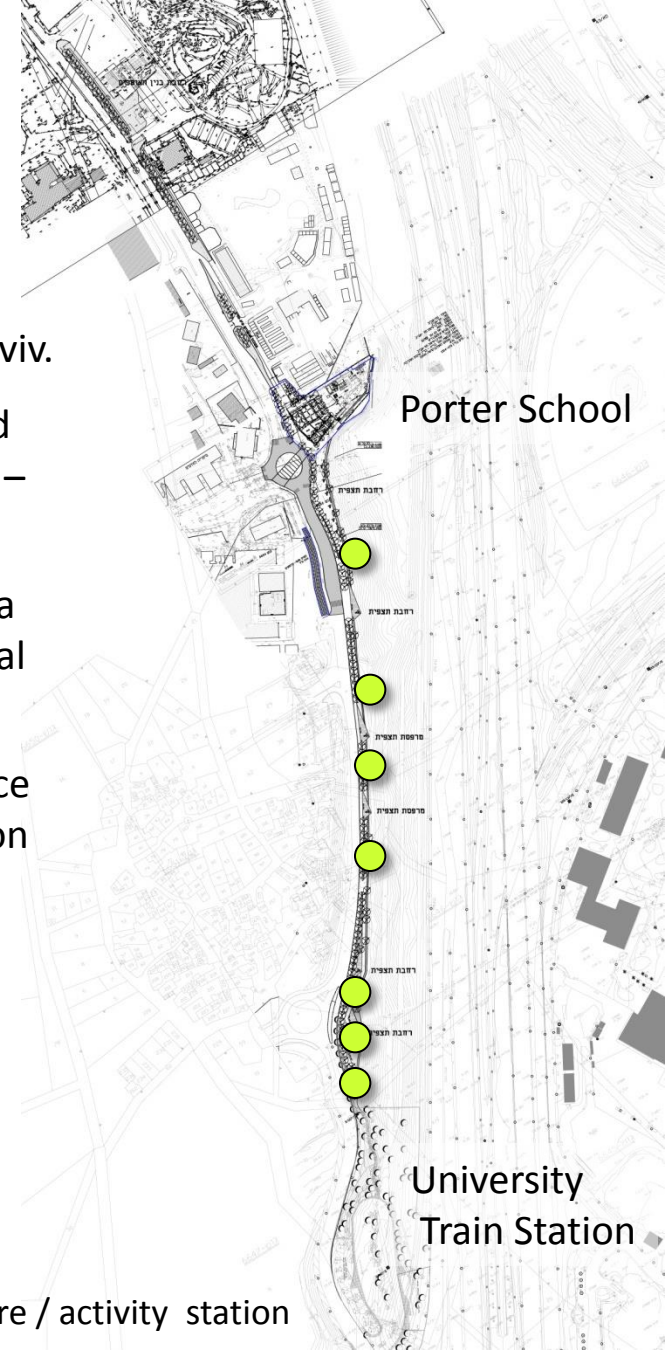
It functions as a pedestrian connection between the train station and the university campus at the Porter School of Environmental Studies – a distance of 600 m.

It is also a promenade for strolling, biking and recreation, as part of a bigger network of bicycle routes and pedestrian trails in the municipal region.

The idea is to create an interactive place where people can experience the different stations and be part of an ongoing process of exploration learning.

Public participation may include:

- Competitions of artists and designers for each station
- Temporary exhibitions in the stations
- School classes sitting areas
- Places for sport activities related to energy



● Sculpture / activity station



# Theme stations

Based on the seven days of the Creation (Genesis 1)



Humans

Living creatures

Sun

Moon

Vegetation

Water

Light

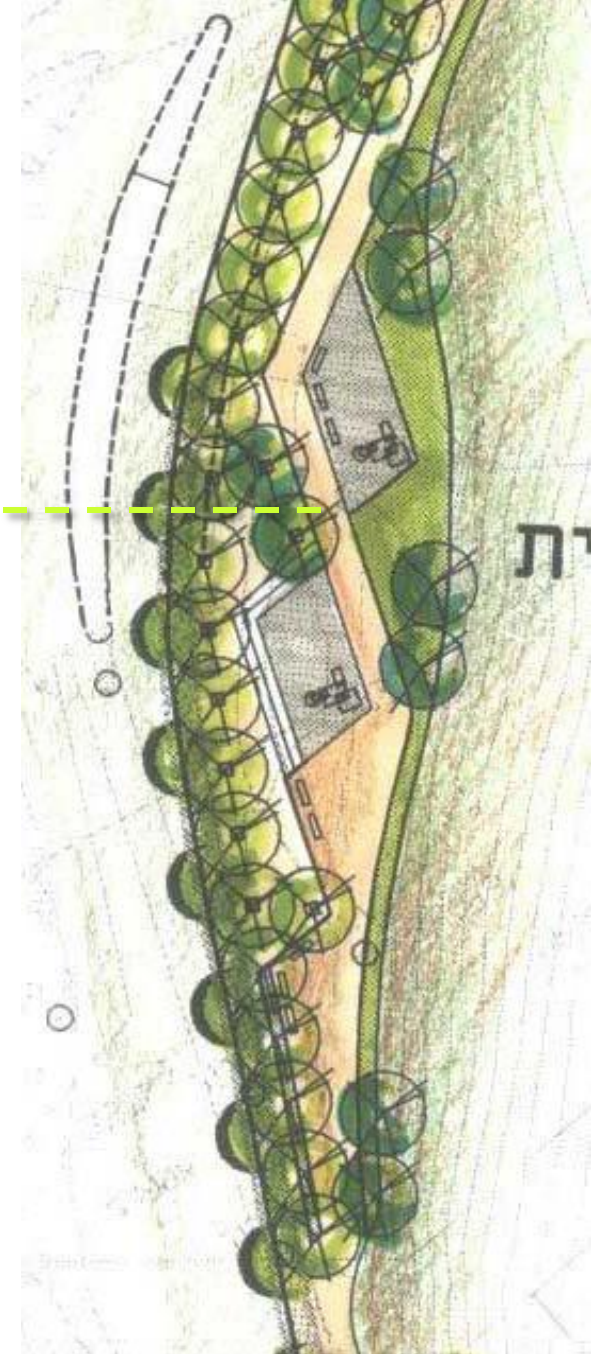


# Light

In the beginning God created the heaven and the earth.

And God said: 'Let there be light.' And there was light.

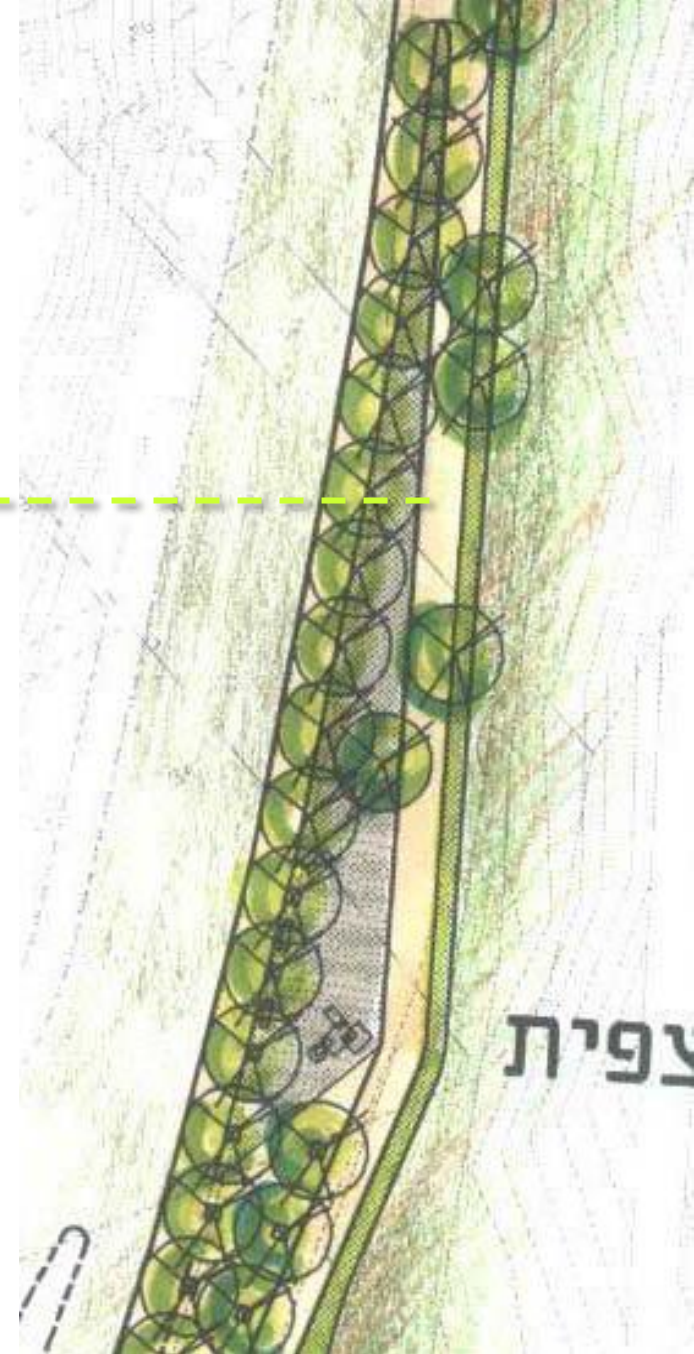
וַיֹּאמֶר אֱלֹהִים, יְהִי אֹר; וַיְהִי-אֹר.



## Water

And God said: 'Let there be a firmament in the midst of the waters, and let it divide the waters from the waters.'

וַיֹּאמֶר אֱלֹהִים, יְהִי רָקִיעַ בְּתוֹךְ הַמַּיִם, וַיְהִי מַבְדִּיל,  
בֵּין מַיִם לַמַּיִם





## Vegetation

And God said: 'Let the earth put forth grass, herb yielding seed, and fruit-tree bearing fruit after its kind, wherein is the seed thereof, upon the earth.'

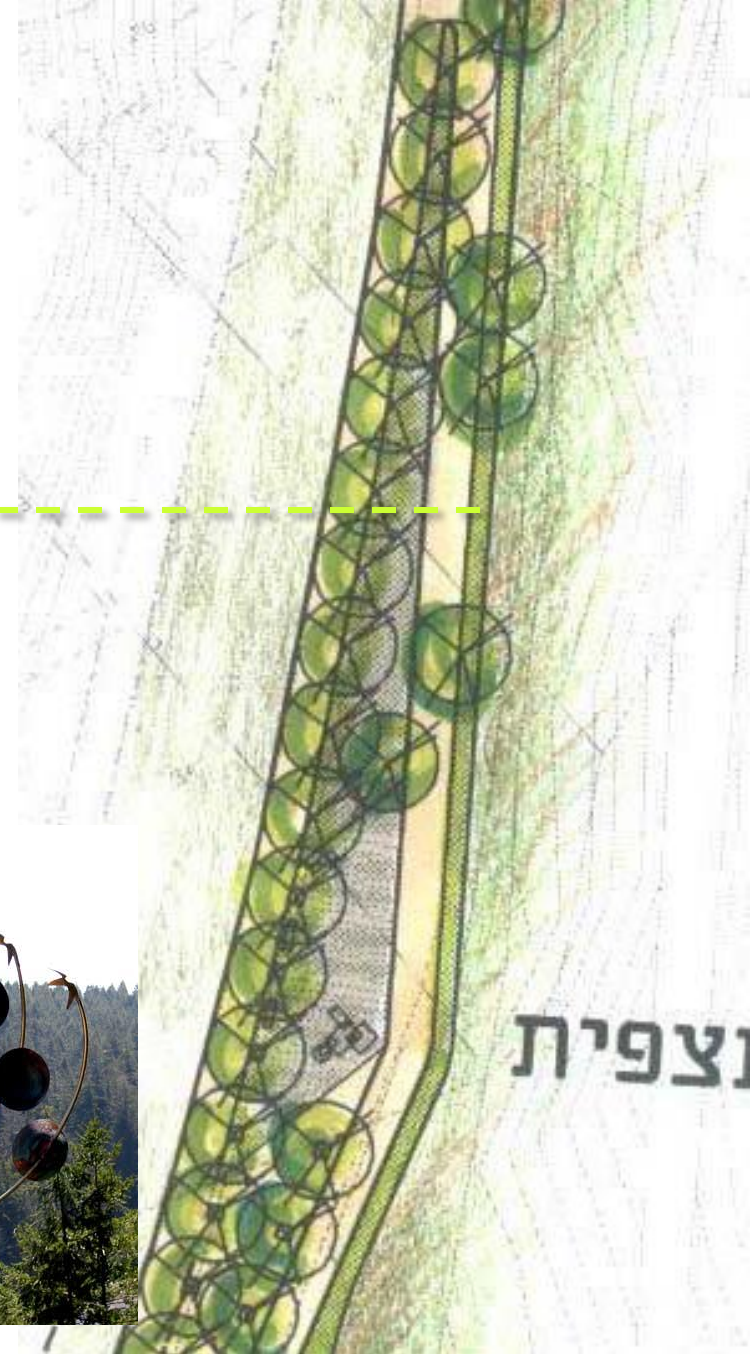
וַיֹּאמֶר אֱלֹהִים, תְּדַשָּׂא הָאָרֶץ דְּשָׂא עֵשֶׂב מְזֵרִיעַ זֶרַע, עֵץ  
פְּרִי עֹשֶׂה פְּרִי לְמִינוֹ, אֲשֶׁר זֶרְעוֹ-בוֹ עַל-הָאָרֶץ; וַיְהִי-כֵן.



## Sun and Moon

And God made the two great lights: the greater light to rule the day, and the lesser light to rule the night; and the stars

וַיַּעַשׂ אֱלֹהִים, אֶת-שְׁנֵי הַמָּאֲרוֹת הַגְּדֹלִים: אֶת-הַמָּאֹר  
הַגָּדֹל, לְמַמְשָׁלֵת הַיּוֹם, וְאֶת-הַמָּאֹר הַקָּטָן לְמַמְשָׁלֵת  
הַלַּיְלָה, וְאֵת הַכּוֹכָבִים

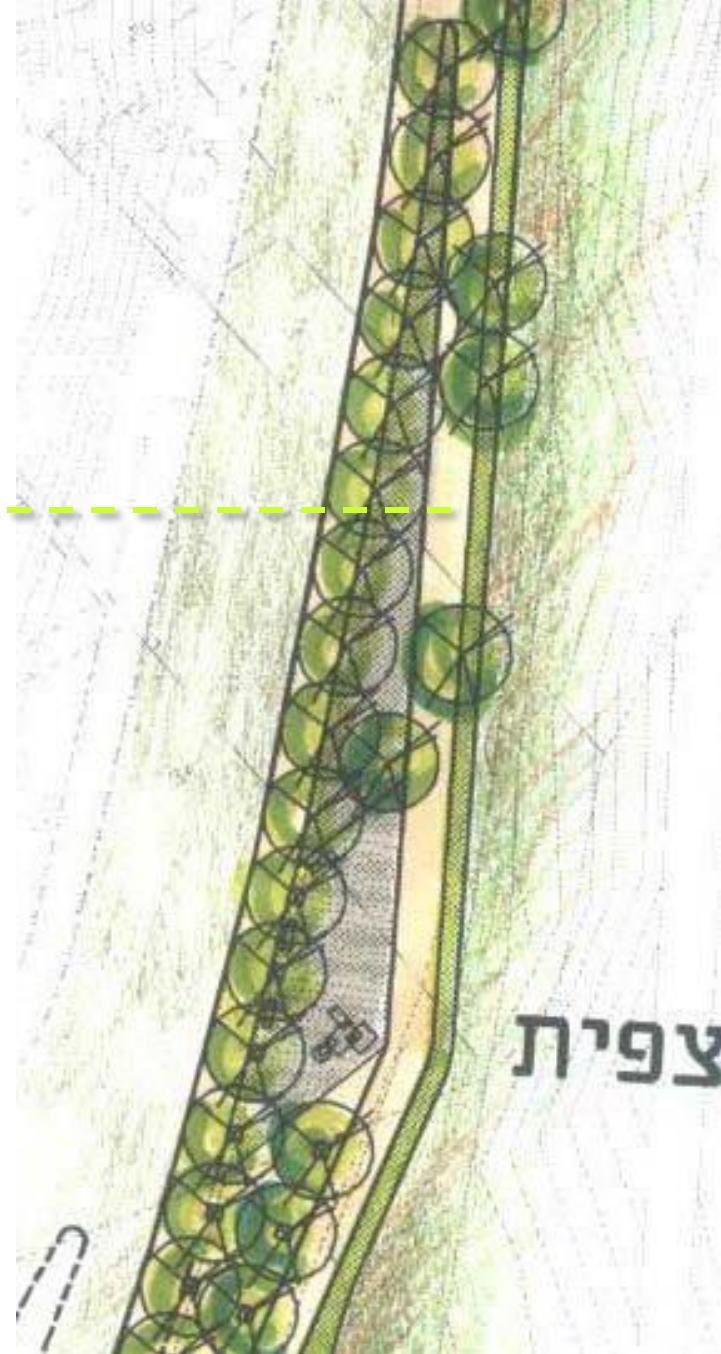




## Living creatures

And God said: 'Let the waters swarm with swarms of living creatures, and let fowl fly above the earth in the open firmament of heaven.'

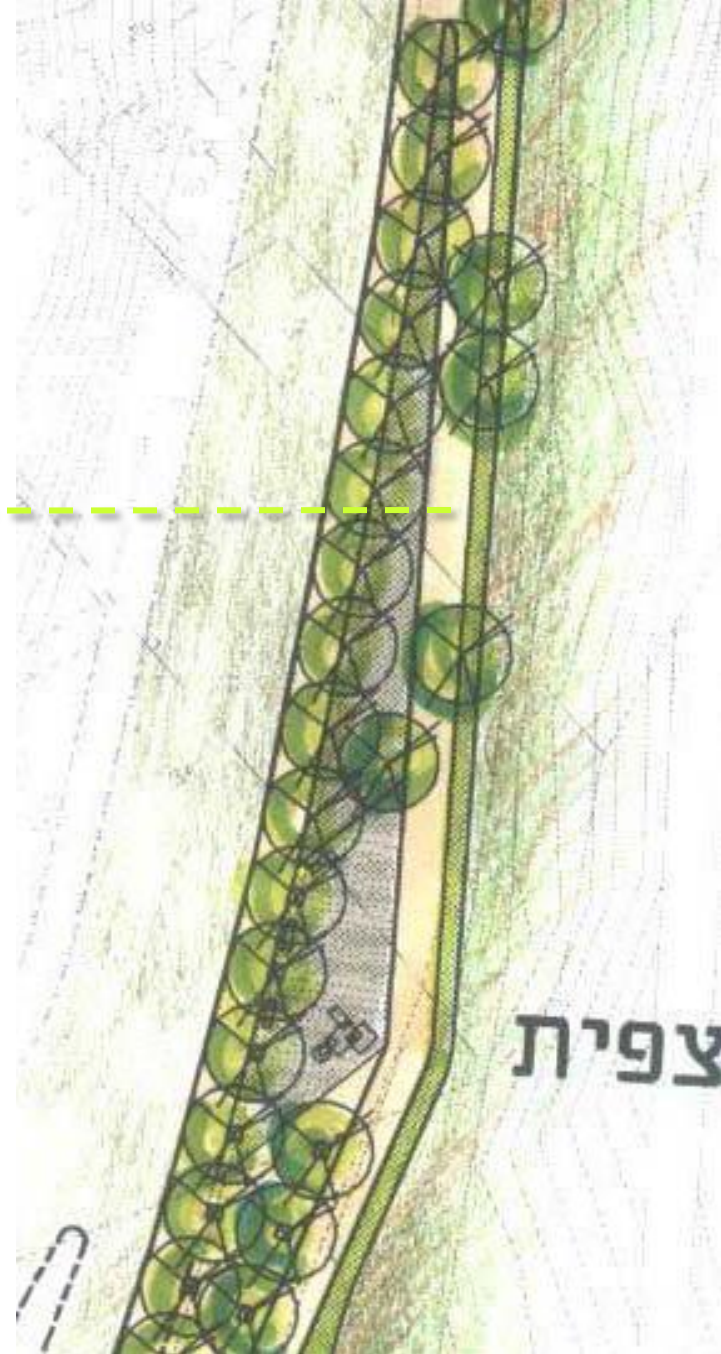
וַיֹּאמֶר אֱלֹהִים--יִשְׂרְצוּ הַמַּיִם, שָׂרָץ נֶפֶשׁ חַיָּה; וְעוֹף  
יְעוּפֵף עַל-הָאָרֶץ, עַל-פְּנֵי רְקִיעַ הַשָּׁמַיִם.



# Humans

And God created man in His own image, in the image of God  
created He him; male and female created He them

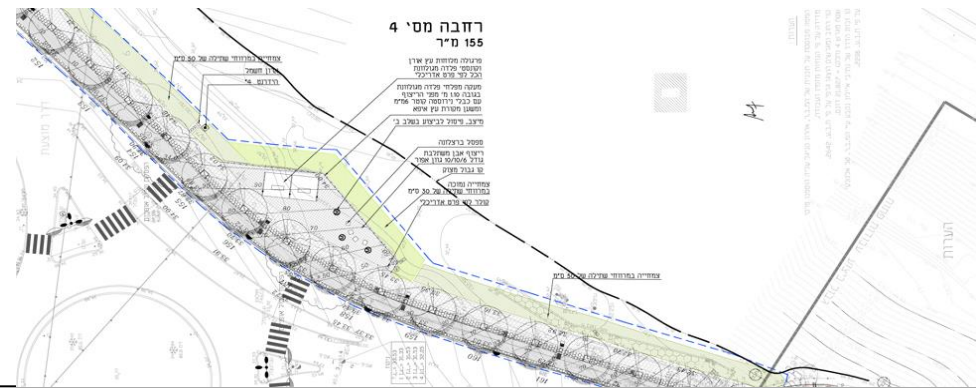
וַיִּבְרָא אֱלֹהִים אֶת-הָאָדָם בְּצַלְמוֹ, בְּצֶלֶם אֱלֹהִים בָּרָא  
אֹתוֹ





# Landscape plan

2012



**Porter School of  
Environmental  
Studies**

**Viewpoint 1**

**Viewpoint 2**

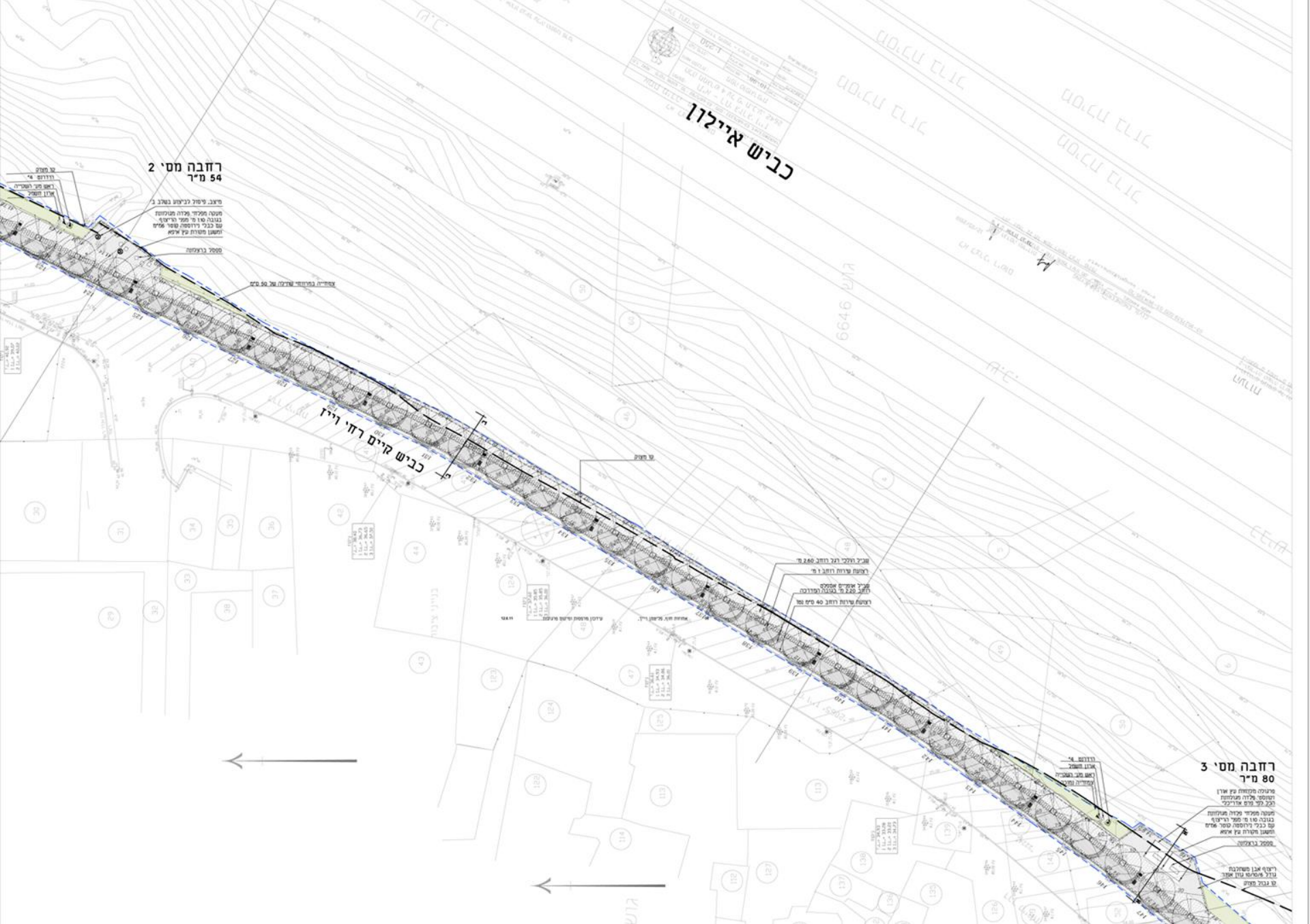
**Viewpoint 3**

**Viewpoint 4**

**To the university  
train station** →

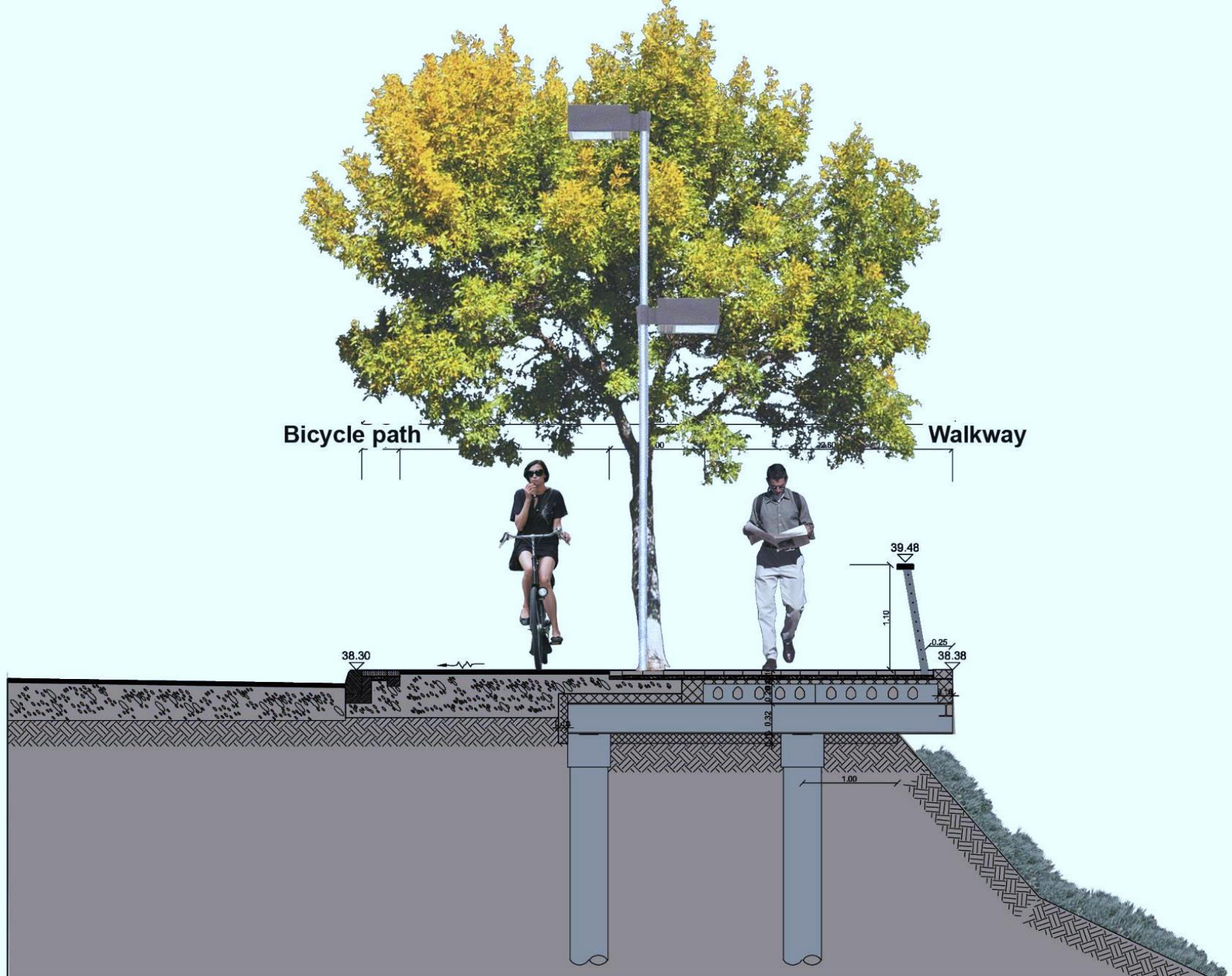












Bicycle path

Walkway

38.30

39.48

38.38





illustrations  
before & after







Science Promenade

Braudo - Maoz Landscape Architecture Ltd.

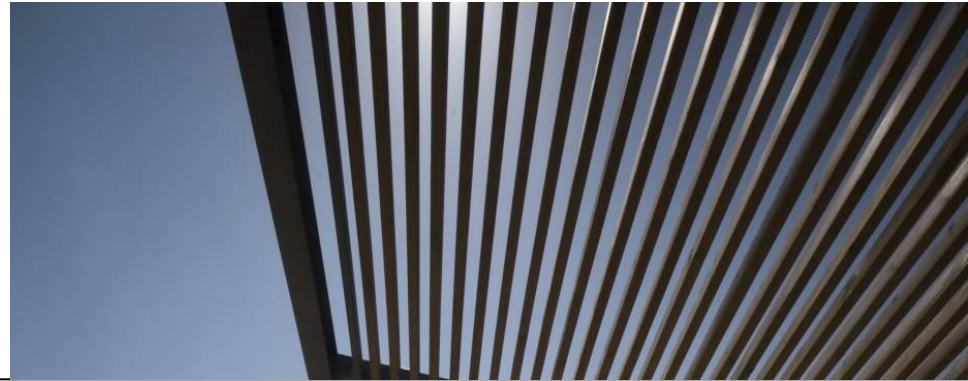








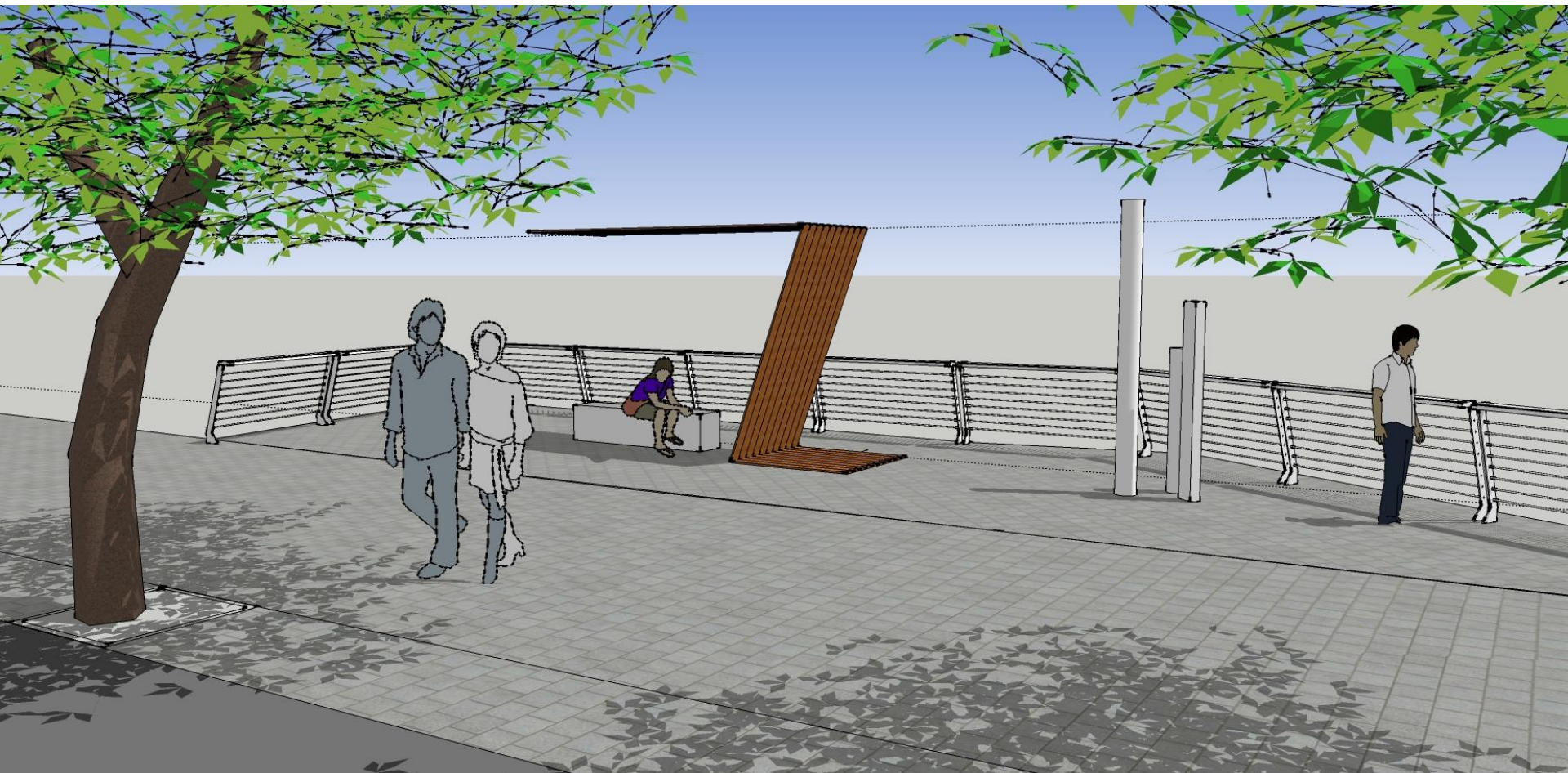
Pergola  
alternatives









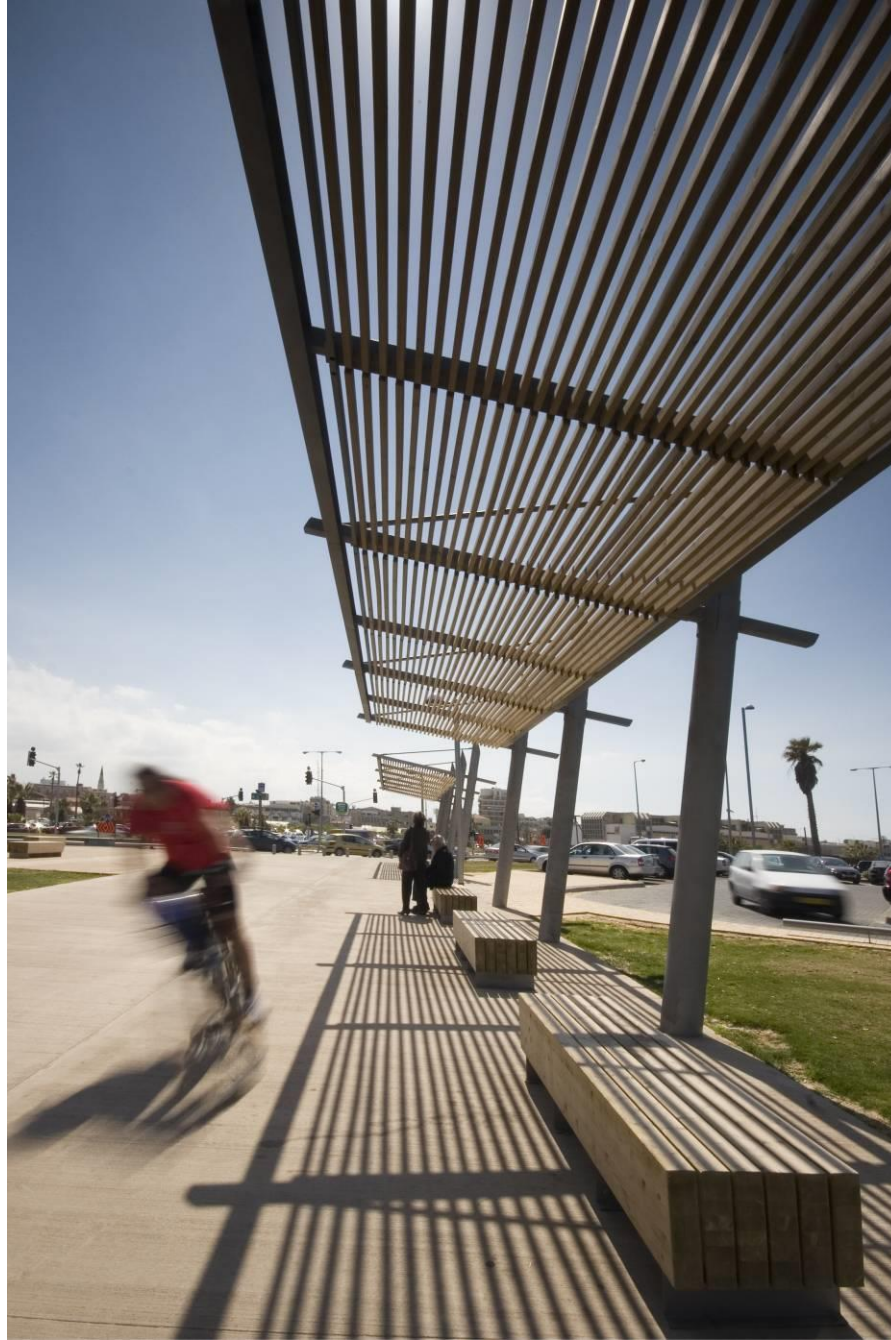


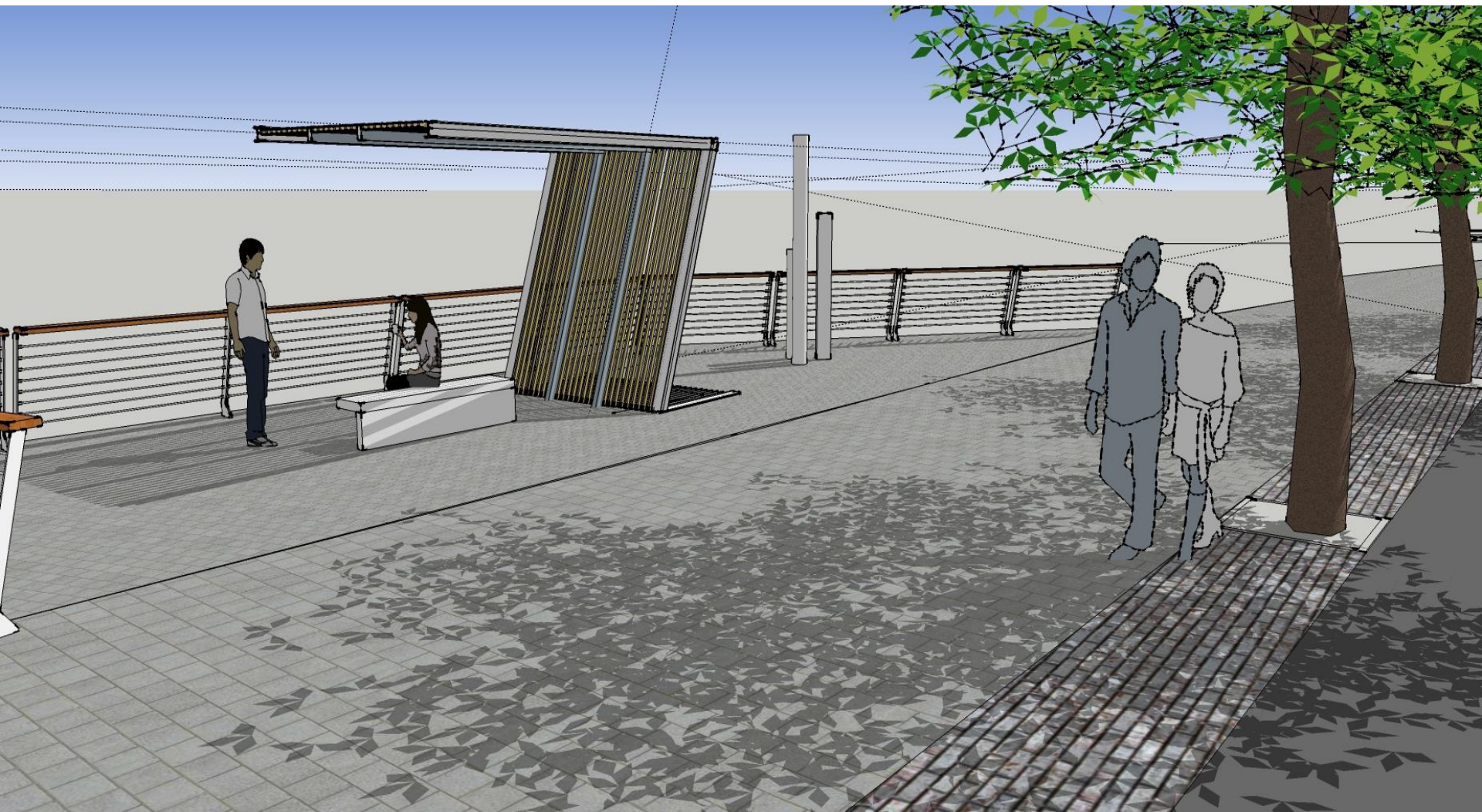












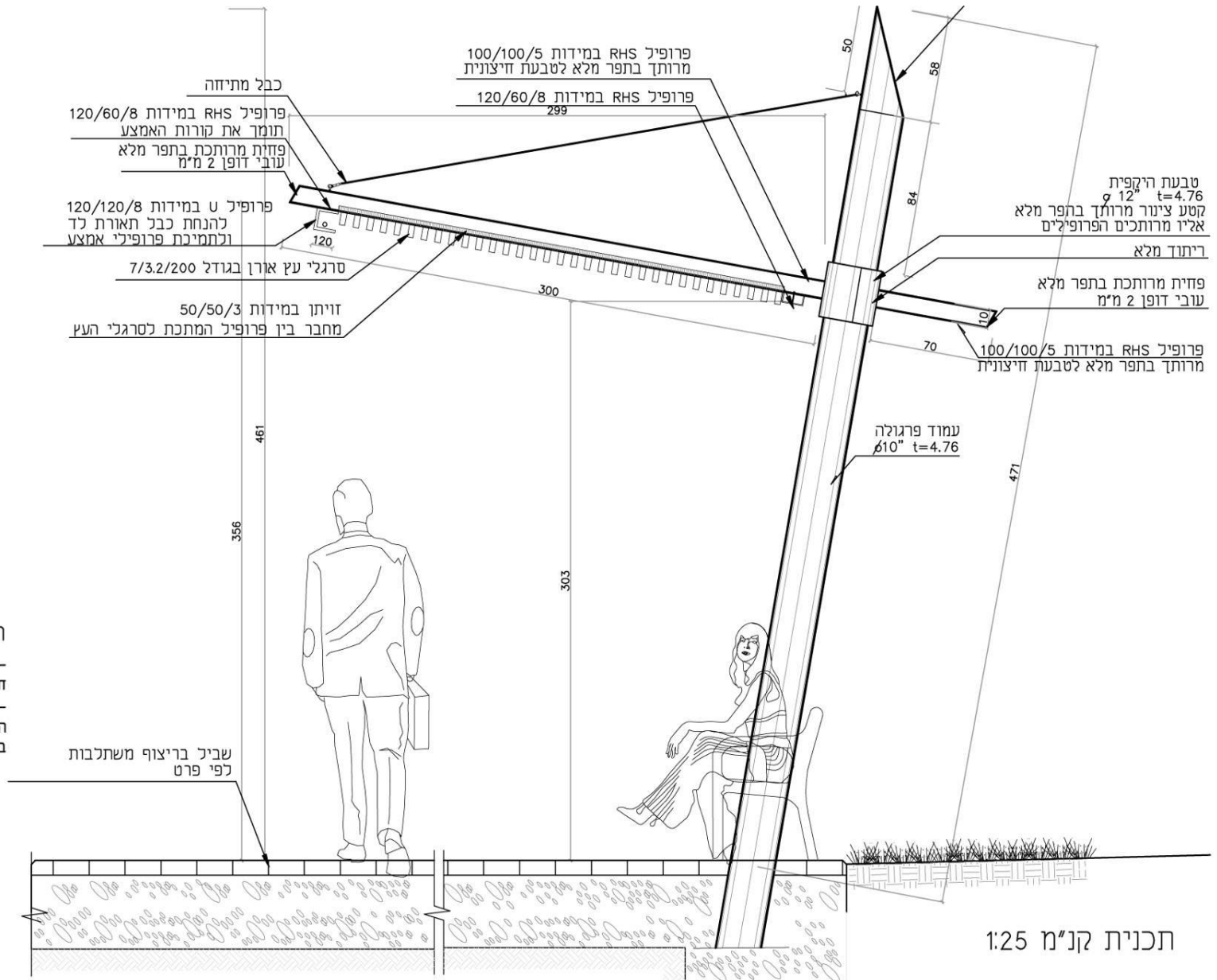








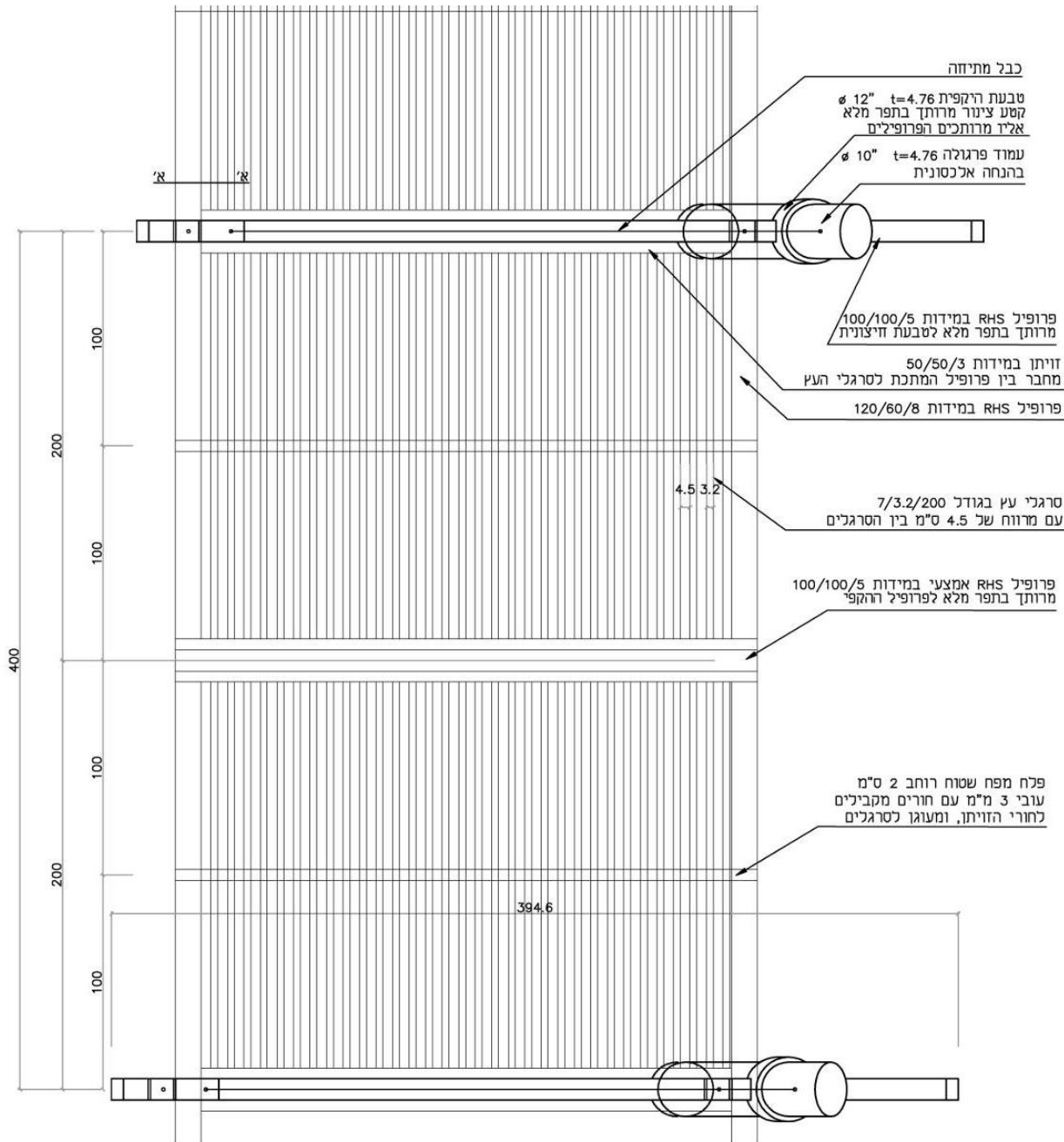




**הערה:**

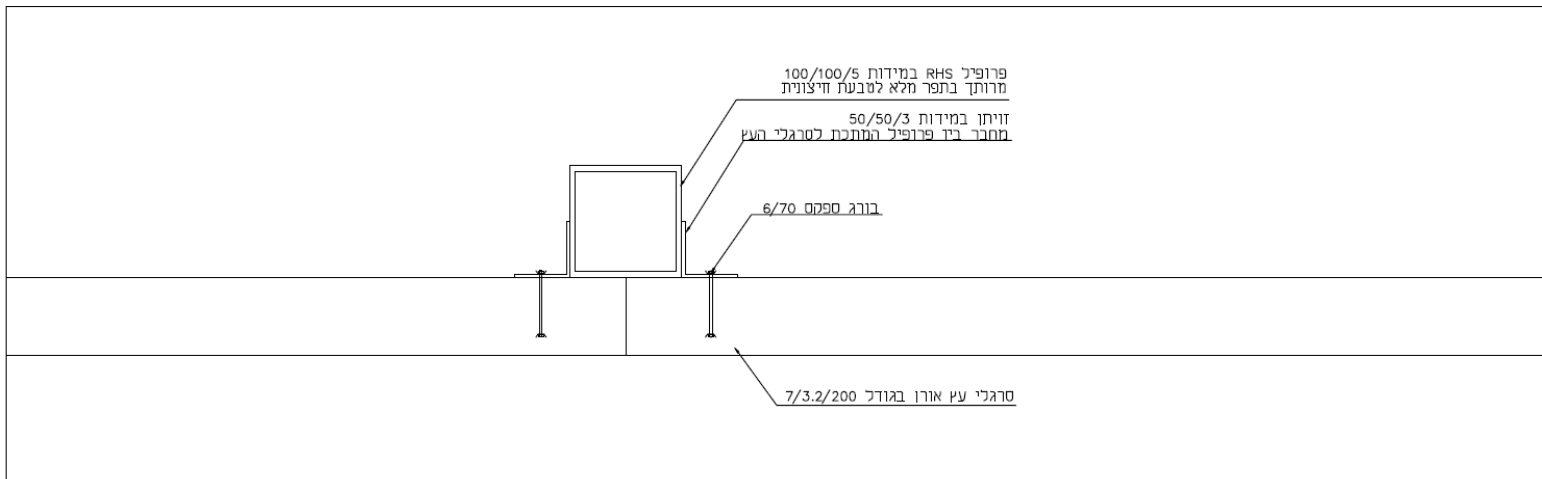
-כל האלמנטים ממחכת יעברו טיפול חוץ ופנים בצביעת משלוניקה ראה מפרט  
 -בכל יחידת פרגולה יבוצע באחד העמודים האמצעיים דלת גישה ללוח תאורת לד בדומה לפרט דלת בעמוד תאורה

שבייל בריצוף משתלבות לפי פרט

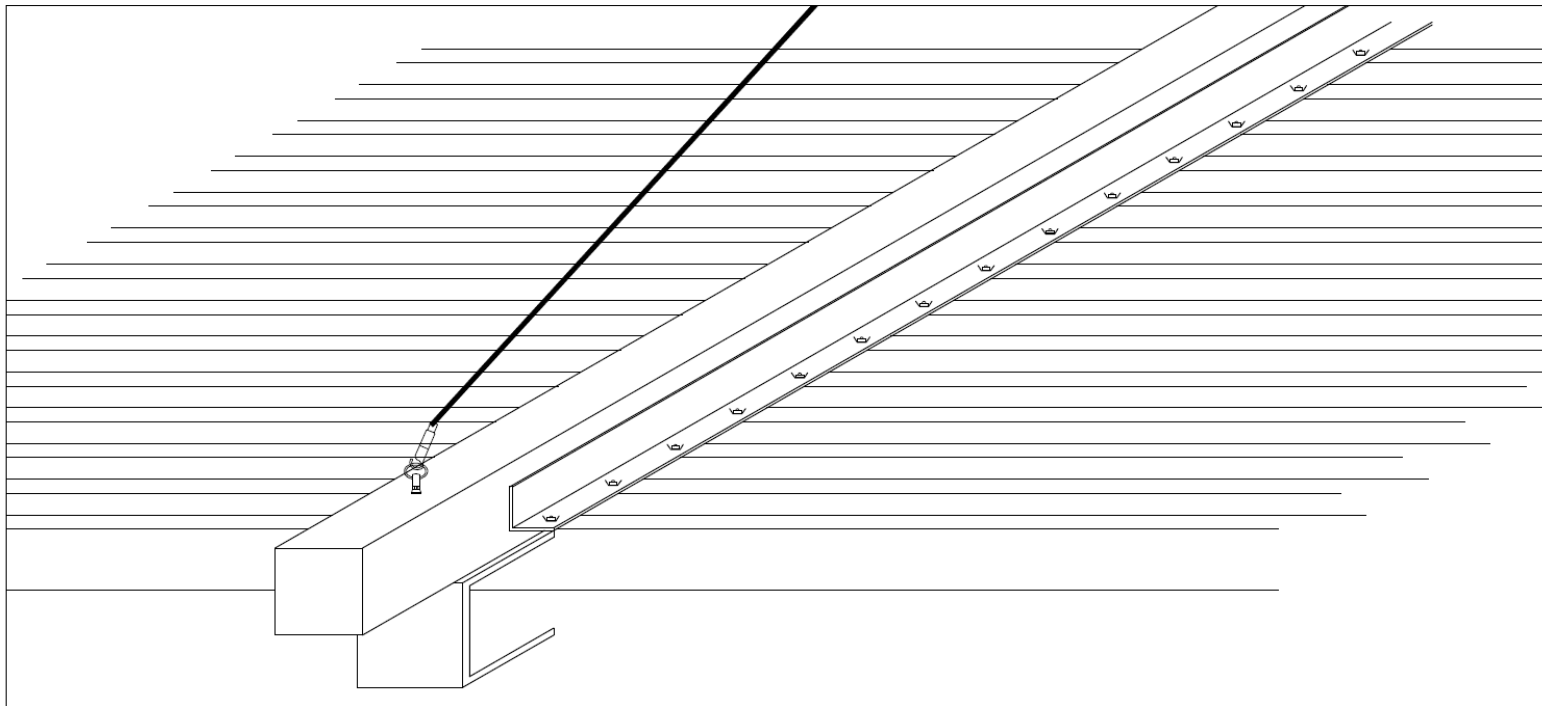


תכנית קנ"מ 1:25

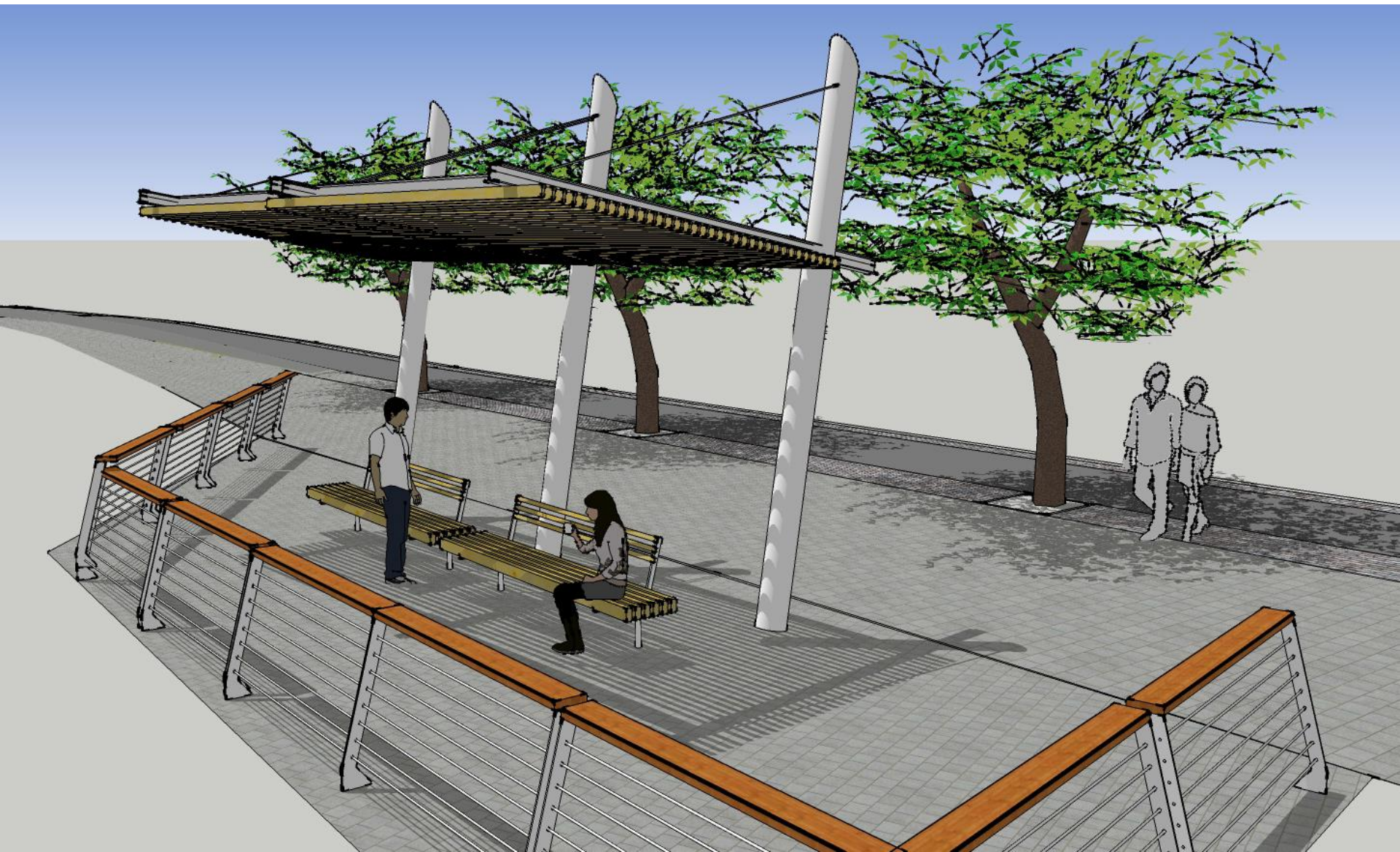




חיבור קורות העץ לקורות פלדה קנ"מ 1:50



איזומטריה



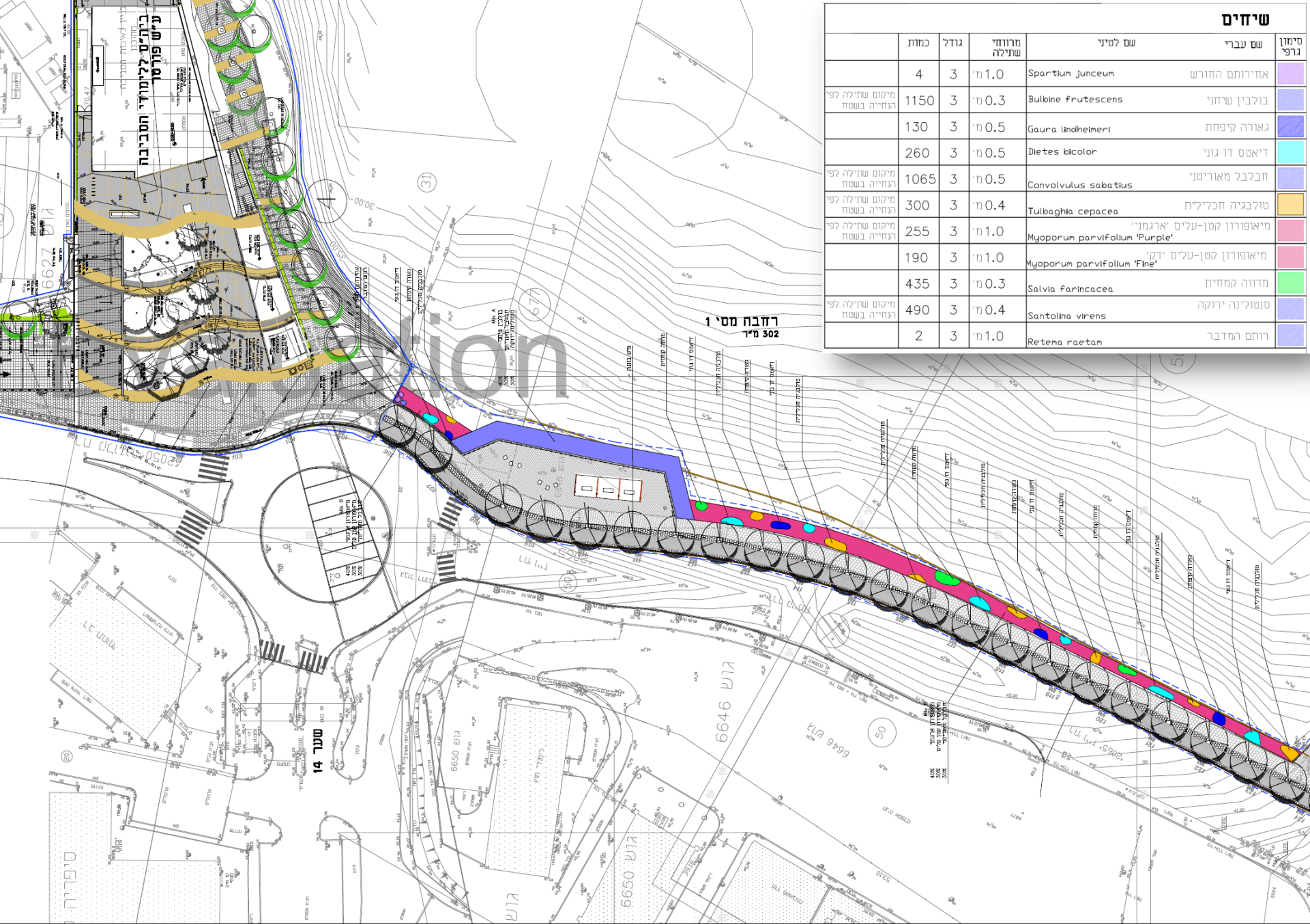


## Vegetation plan

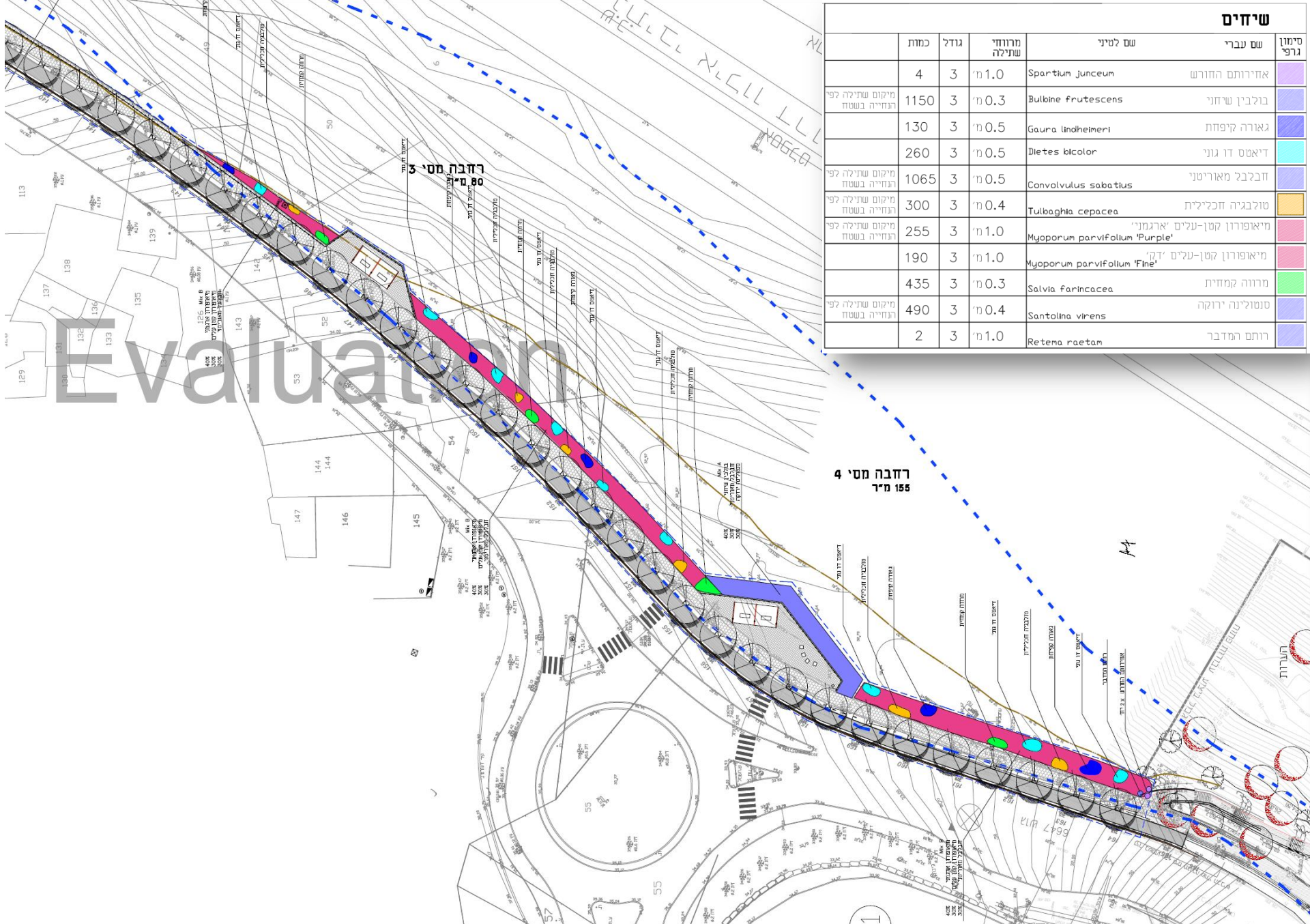








סימון גרפי	שם עברי	שם לטיני	מרווחי שתילה	גודל	כמות
	אזיריתם החורש	<i>Spartium junceum</i>	1.0 מ'	3	4
	בולבין שיחני	<i>Bulbine frutescens</i>	0.3 מ'	3	1150
	גאורה קיפוחת	<i>Gaura lindheimeri</i>	0.5 מ'	3	130
	דיאטס דו גוני	<i>Diets bicolor</i>	0.5 מ'	3	260
	חבלבל מאיריטי	<i>Convolvulus sabatius</i>	0.5 מ'	3	1065
	טולבגיה חכלילית	<i>Tulbaghia cepacea</i>	0.4 מ'	3	300
	מיאפורון קטן-עלים 'ארגמני'	<i>Myoporum parvifolium 'Purple'</i>	1.0 מ'	3	255
	מיאפורון קטן-עלים 'דק'	<i>Myoporum parvifolium 'Fine'</i>	1.0 מ'	3	190
	מרווה קמחית	<i>Salvia farinacea</i>	0.3 מ'	3	435
	סנטוליה ירקה	<i>Santolina virens</i>	0.4 מ'	3	490
	רותם המדבר	<i>Retena raetam</i>	1.0 מ'	3	2



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Science Promenade

**Celtis Bungeana**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Retama raetam**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Spartium junceum**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Salvia farinacea**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Tulbaghia cepacia**

Braudo - Maoz Landscape Architecture Ltd.









Science Promenade

**Gaura lindheimeri**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Bulbine frutescens**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Convolvulus sabatius**

Braudo - Maoz Landscape Architecture Ltd.





Science Promenade

**Santolona virens**

Braudo - Maoz Landscape Architecture Ltd.





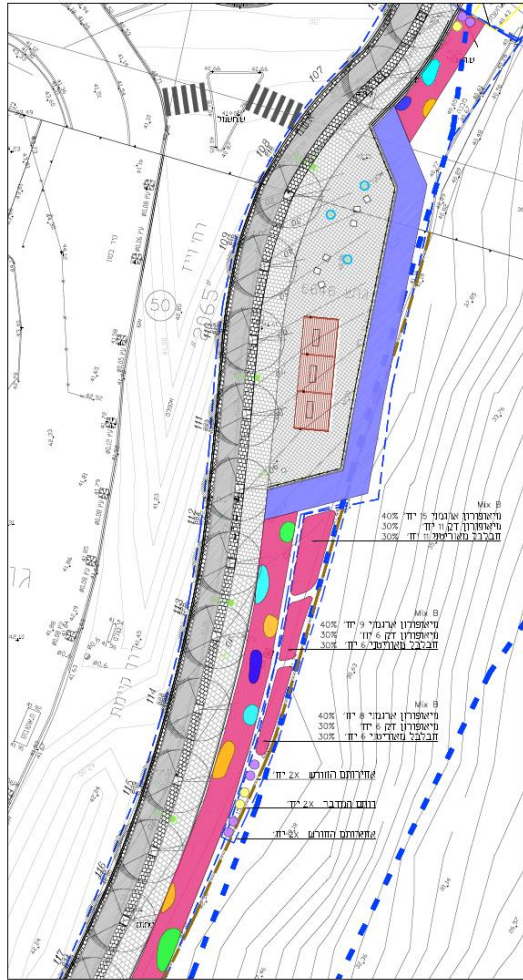
Science Promenade

**Myoporum parvifolium**

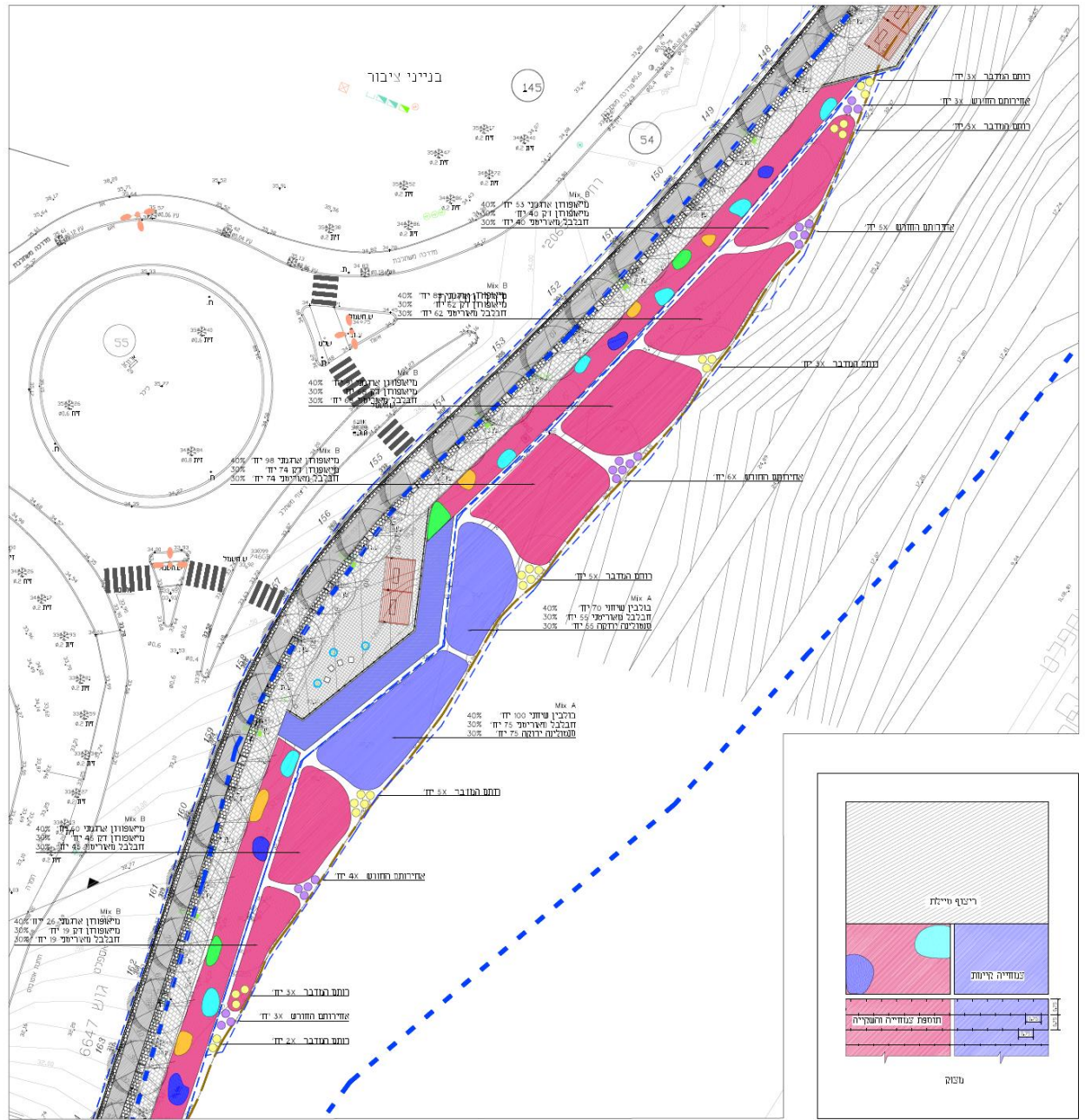
Braudo - Maoz Landscape Architecture Ltd.



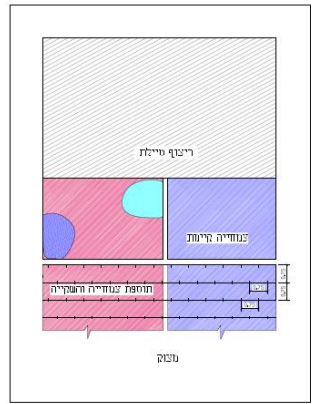
שיחים - שלב ב						
מידות גרפי	שם עברי	שם לטיני	מרחיב	גודל כמות	נורמט	העמיקה בשטח
	רחם העדבר		1.0 מ	4	25	נורמט
	אזריתים חורש		0.75 מ	4	170	נורמט
	חבלבב נאירויני		0.75 מ	4	461	נורמט
	ניאפורון קאן-עגלים 'ירנעני'		0.75 מ	4	443	נורמט
	ניאפורון קאן-עגלים דק		0.75 מ	4	331	נורמט
	סנטולילנה ירוקה		0.75 מ	4	130	נורמט
	רחם העדבר		1.0 מ	4	26	נורמט



אזור א



אזור ב



סכמה פריסת טפטפות



Completion







Science Promenade

**After planting**

Braudo - Maoz Landscape Architecture Ltd.









Science Promenade

**Near Porter School**

Braudo - Maoz Landscape Architecture Ltd.













Science Promenade

# Pedestrian and bicycle paths

Braudo - Maoz Landscape Architecture Ltd.









Science Promenade

**Night view**

Braudo - Maoz Landscape Architecture Ltd.