

INTERNATIONAL CONFERENCE OF PROJECTS LIFE URBANSTORM AND INTERREG CB CLEANSTORMWATER
STORM WATER SYSTEMS IN THE CONTEXT OF CLIMATE CHANGE ADAPTATION

CLIMATE ACTIONS ON LOCAL LEVEL

FLOODING RISK MANAGEMENT, ACTIONS IN KEILA

09.11.2022

Märt Maripuu

Keila Town Government



KEILA

Pt 1

**SUDS in the Keila
ditch – maintenance
and reconstruction
& other flood control measures**

Pt 2

**Keila song festival
grounds project
& Close-to-nature solutions**

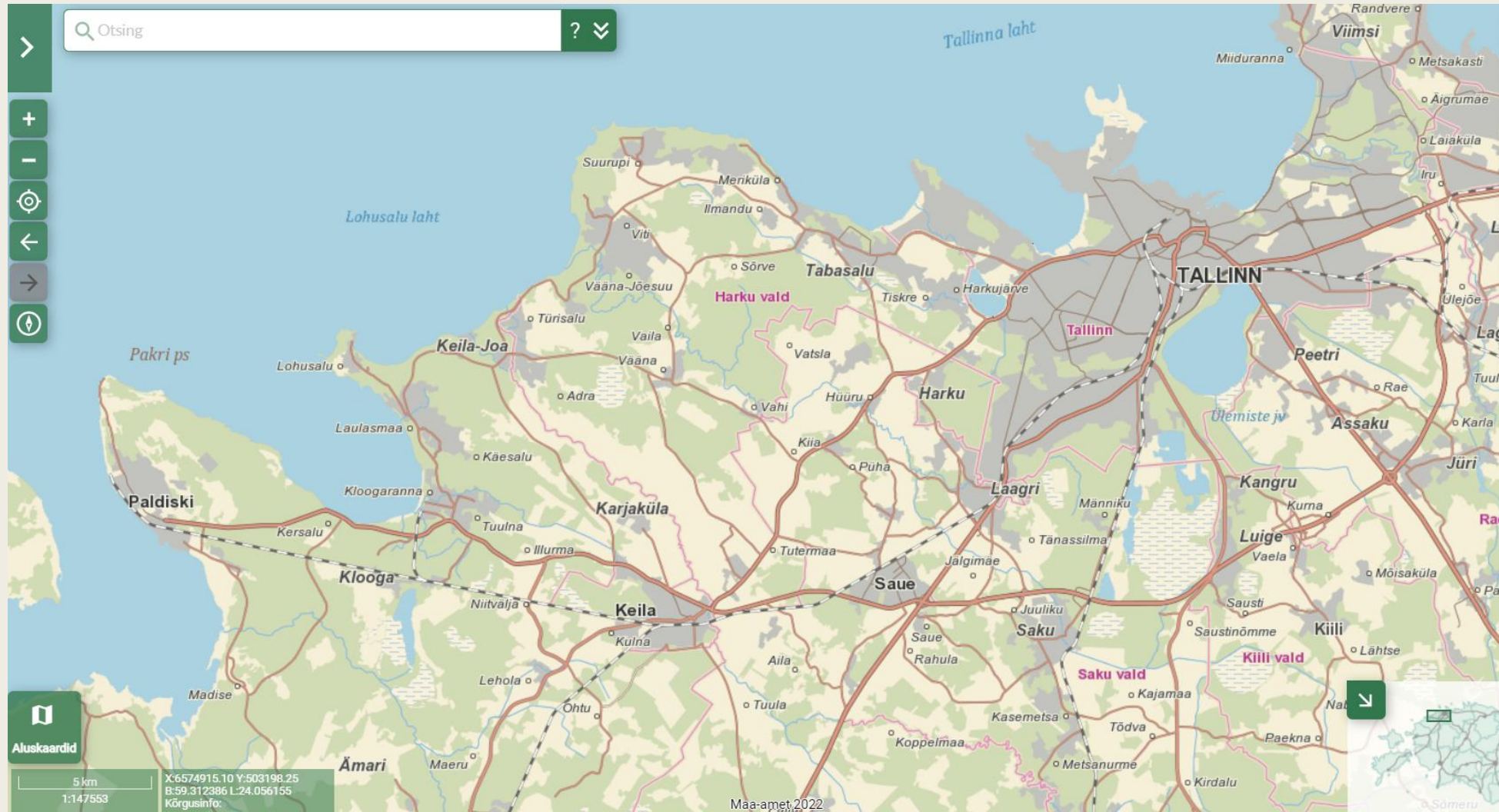
Keila City Flood Risk Study (Eesti Veeprojekt; ELLE OÜ 2020)
Keila City Climate and Energy Efficiency Scheme (Europolis OÜ 2020)

In partnership with Baltic Environmental Forum



KEILA

Risk of flooding in Keila



Risk of flooding in Keila



Risk of flooding in Keila

Measures studies suggested:

1. Maintenance of ditches and culverts in Southern Keila



Renewed ditches, October 2022



Clogged culvert in need of cleaning, August 2022



Clogged culvert in need of cleaning, August 2022

Risk of flooding in Keila

Measures studies suggested:

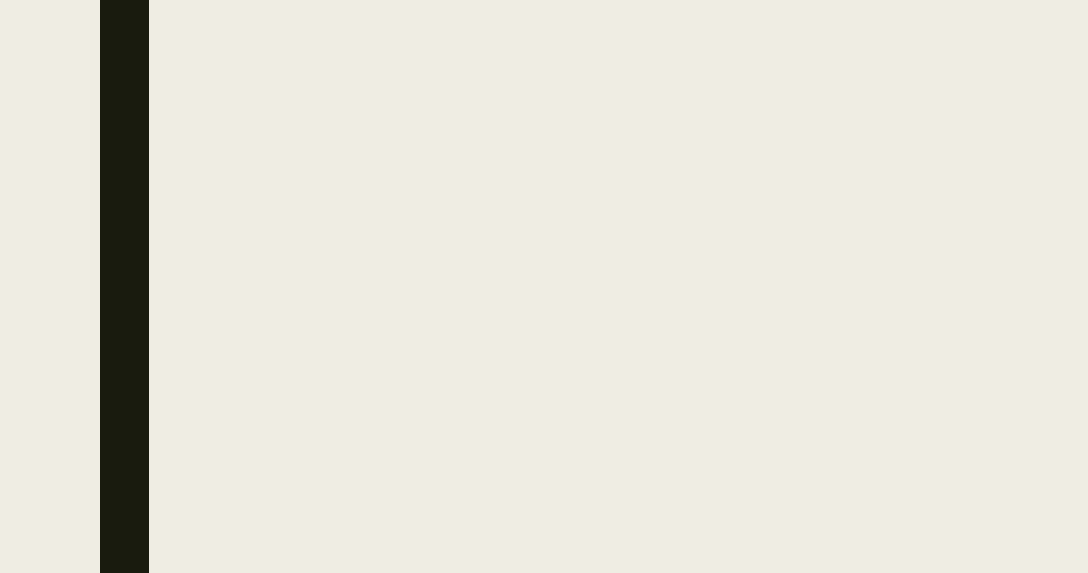
1. Maintenance of ditches and culverts in Southern Keila
2. Jõe park area: Cleaning and deepening ponds and adding a system of shallow gutters and culverts with dampers.



Renewed ditch in Southern Keila, August 2022



Renewed ponds in Jõe park, September 2022



Renewed ditches and culverts
in Southern Keila, October 2022

Risk of flooding in Keila

Measures studies suggested:

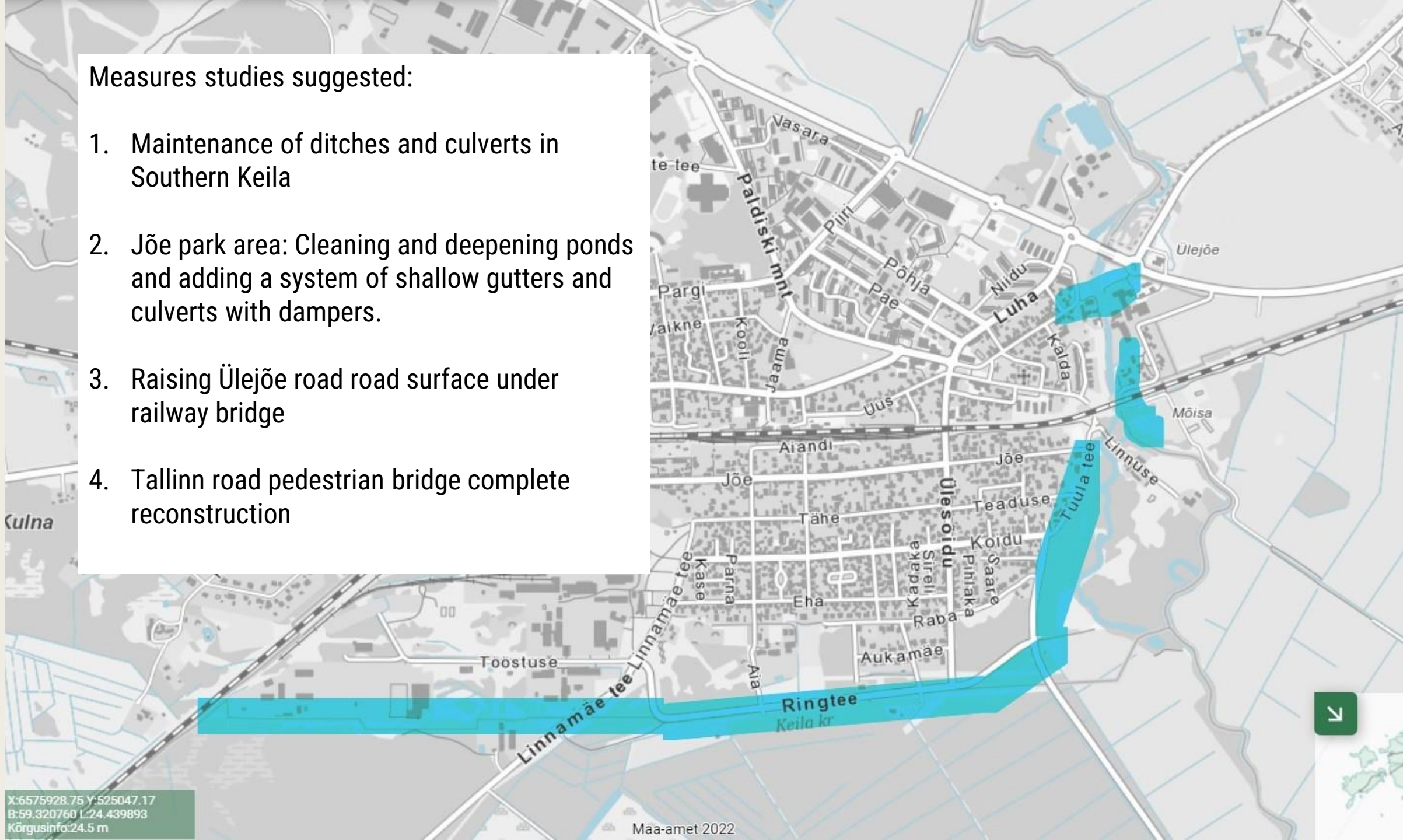
1. Maintenance of ditches and culverts in Southern Keila
2. Jõe park area: Cleaning and deepening ponds and adding a system of shallow gutters and culverts with dampers.
3. Raising Ülejõe road road surface under railway bridge



Under railway bridges, October 2022

Measures studies suggested:

1. Maintenance of ditches and culverts in Southern Keila
2. Jõe park area: Cleaning and deepening ponds and adding a system of shallow gutters and culverts with dampers.
3. Raising Ülejõe road road surface under railway bridge
4. Tallinn road pedestrian bridge complete reconstruction



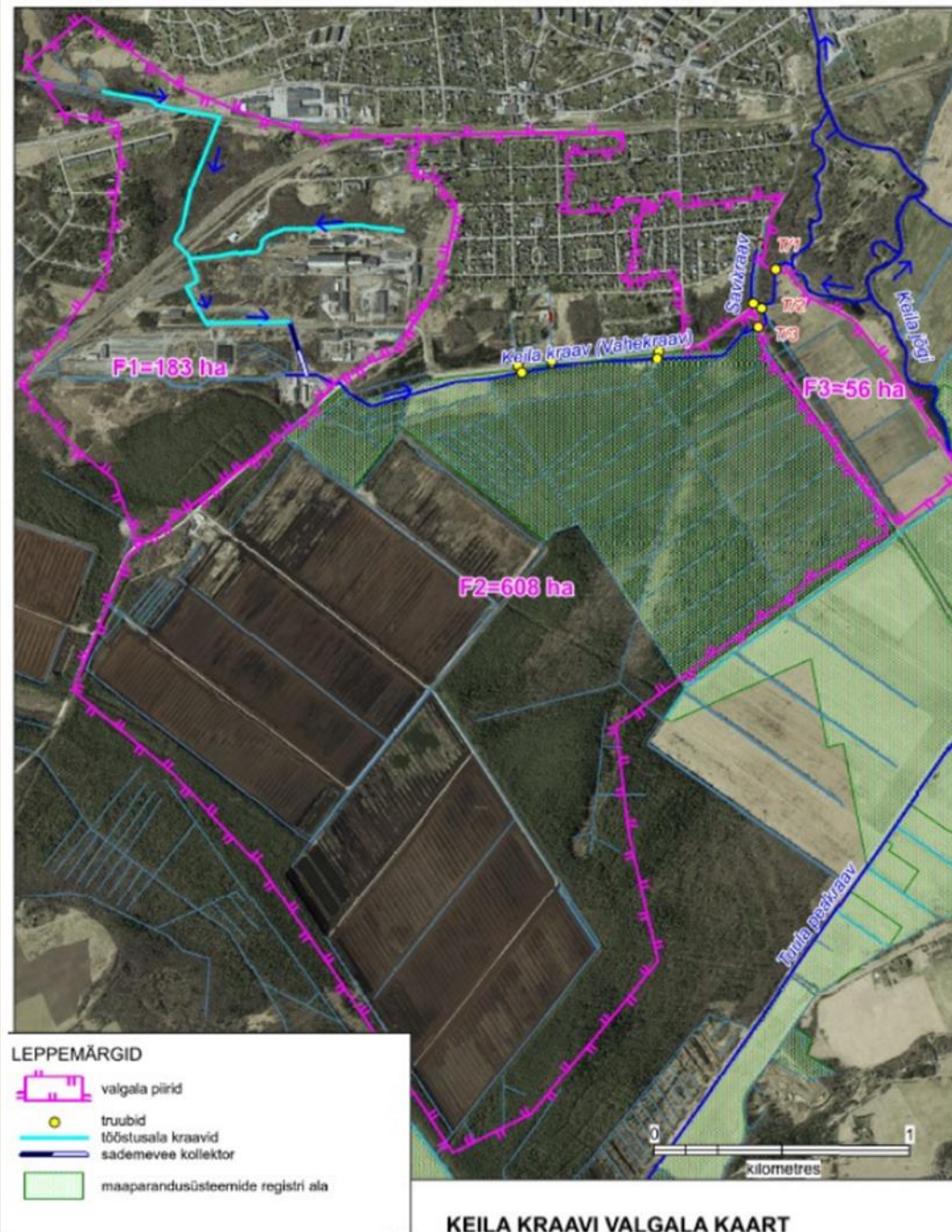


New pedestrian bridge Under construction, November 2022

Risk of flooding in Keila

Keilas little 3-step approach:

- Catch and infiltrate
 - Delay and retain
 - Safe floodways



KEILA KRAAVI VALGALA KAART

Joonis 2 Keila kraavi valgala kaart

Pt 1
SUDS in the Keila
ditch – maintenance
and reconstruction
& other flood control measures

Pt 2
Keila song festival
grounds project
& Close-to-nature solutions

Keila City Flood Risk Study (Eesti Veeprojekt; ELLE OÜ 2020)
Keila City Climate and Energy Efficiency Scheme (Europolis OÜ 2020)

In partnership with Baltic Environmental Forum

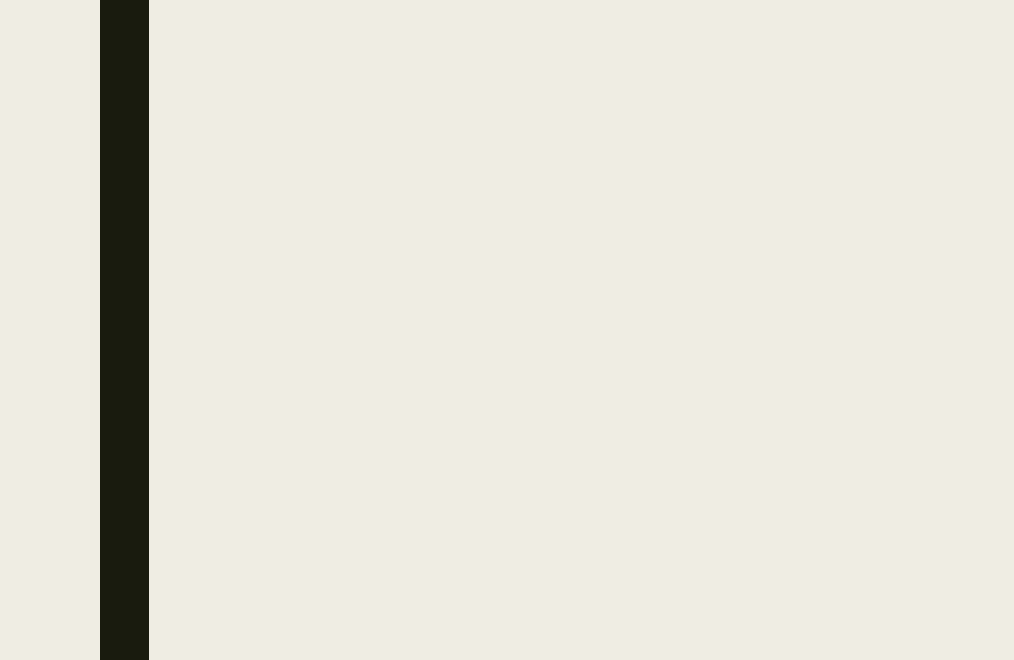


Innovative solutions in early stages of the project



X:6575928.75 Y:525047.17
B:59.320760 L:24.439893
Kõrgusinfo:24.5 m

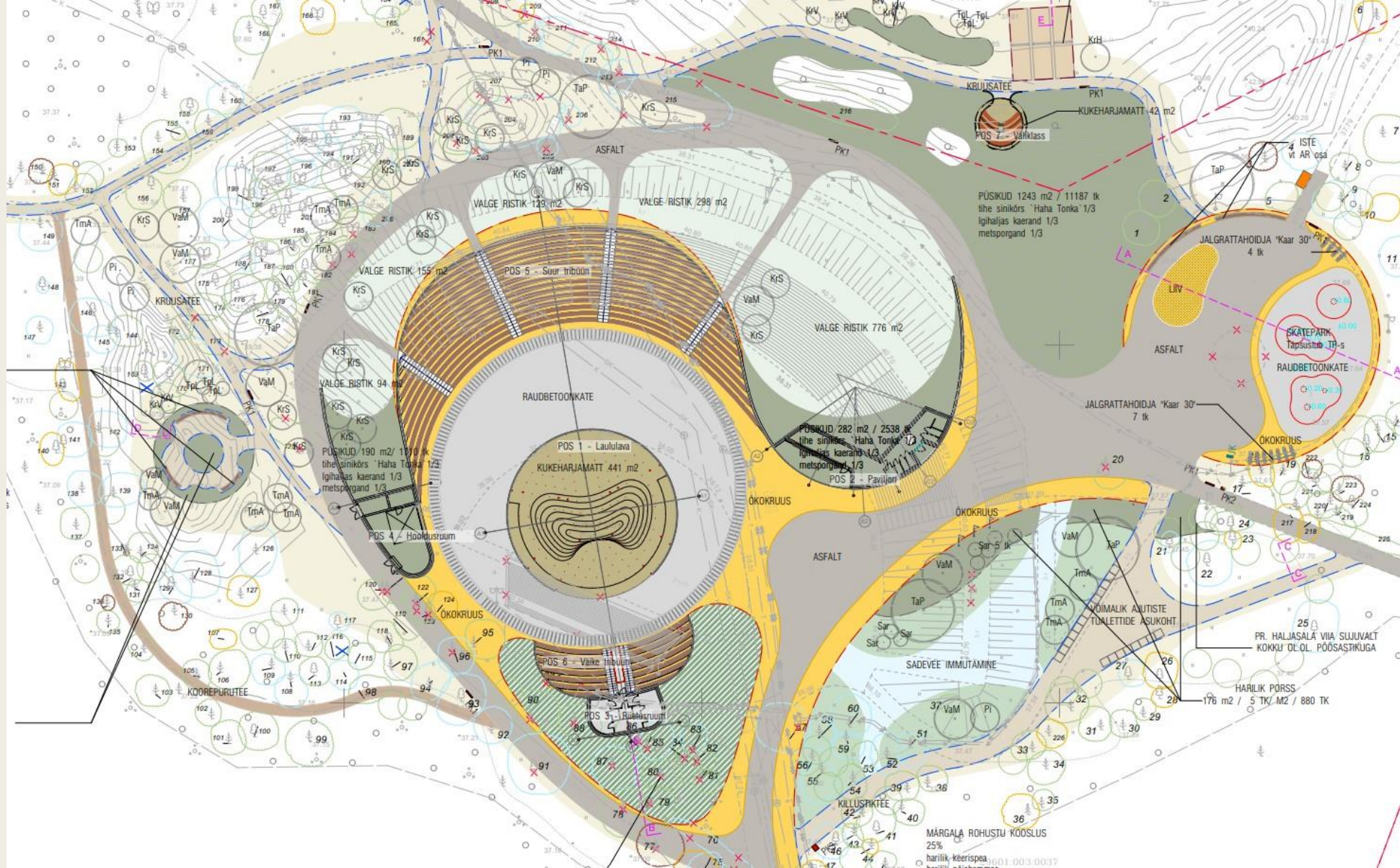
Maa-amet 2022



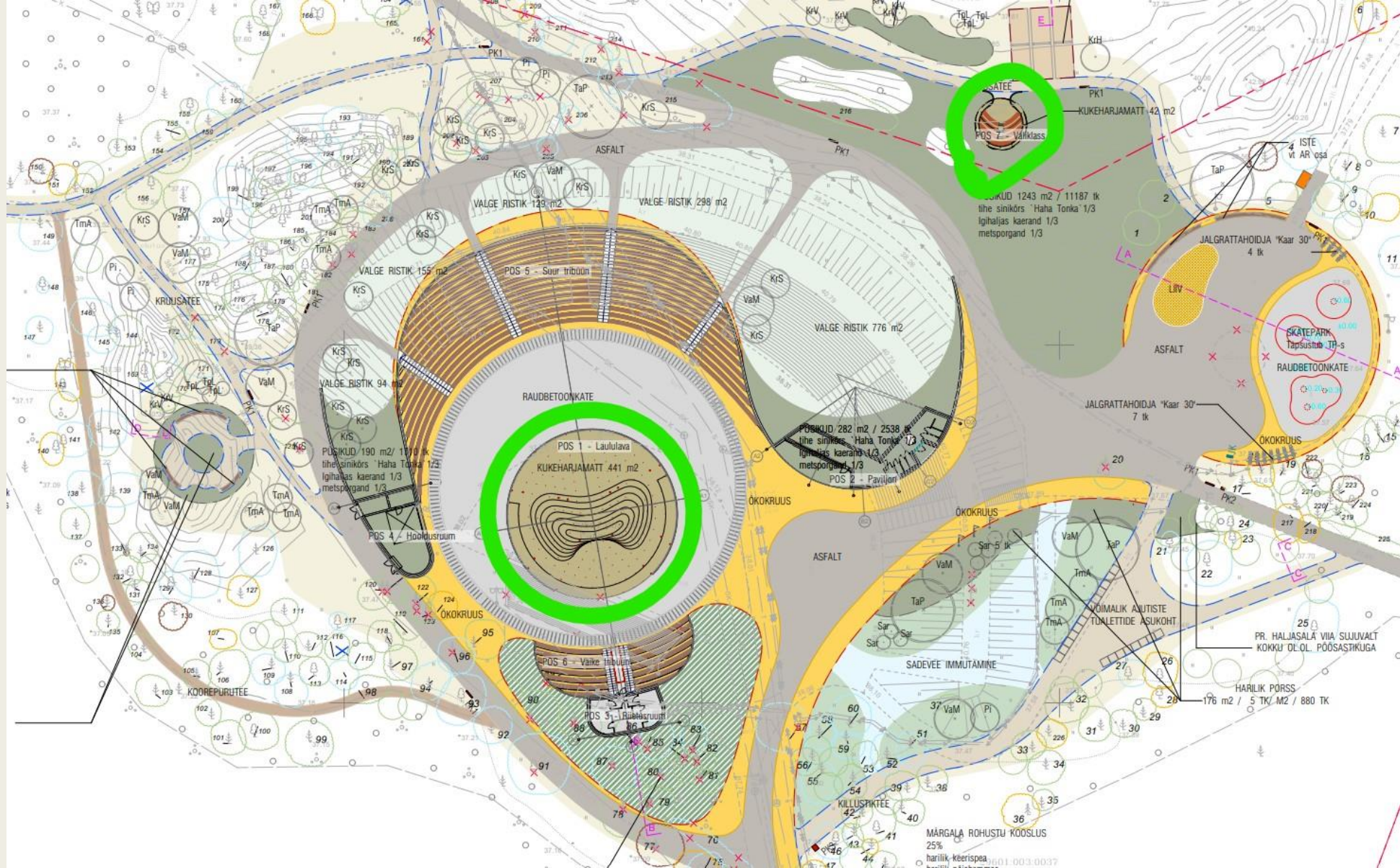
Depreciated Song festival grounds,
April 2021



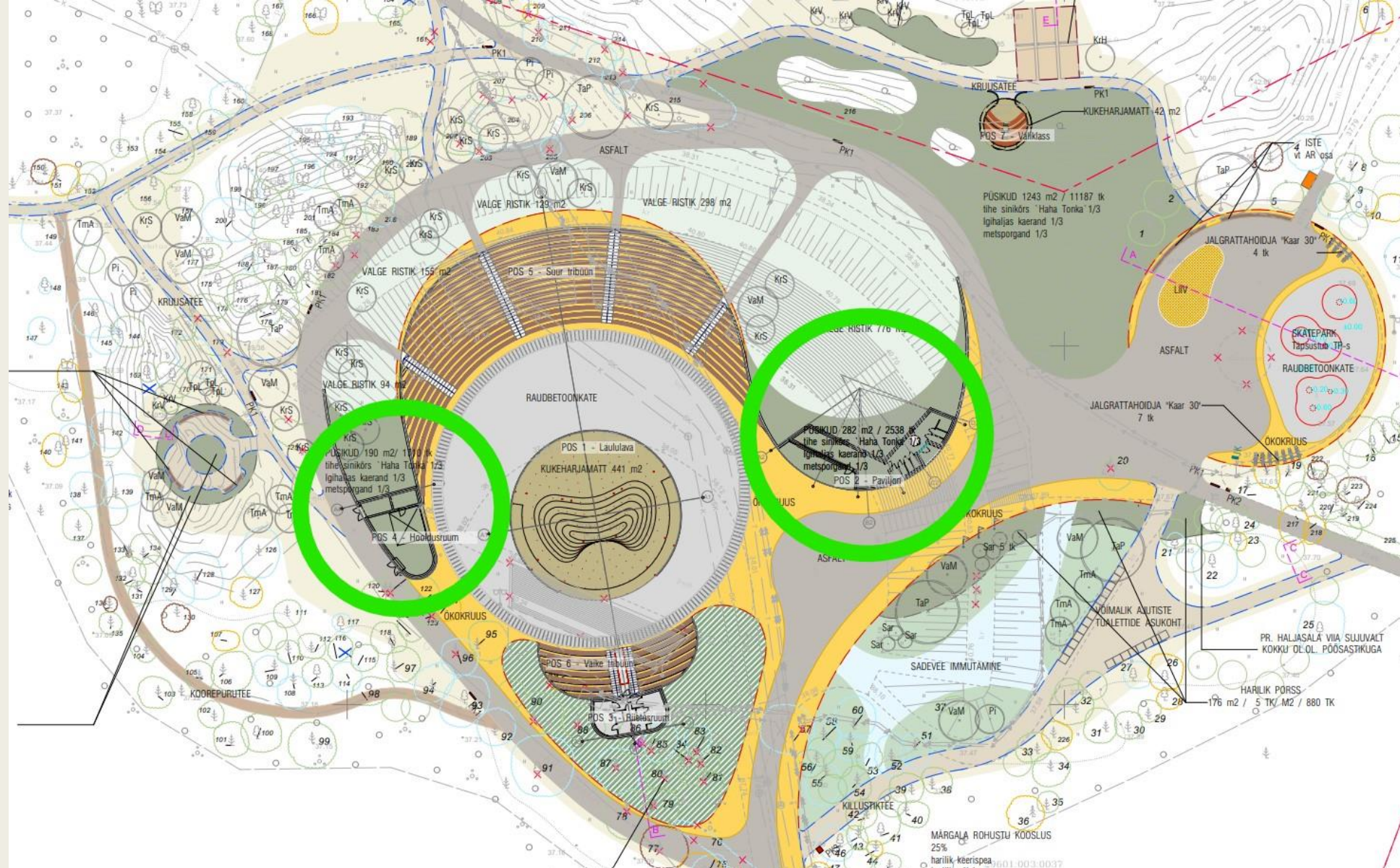
Competition winning design by Molumba OÜ & Lootusprojekt OÜ, May 2021



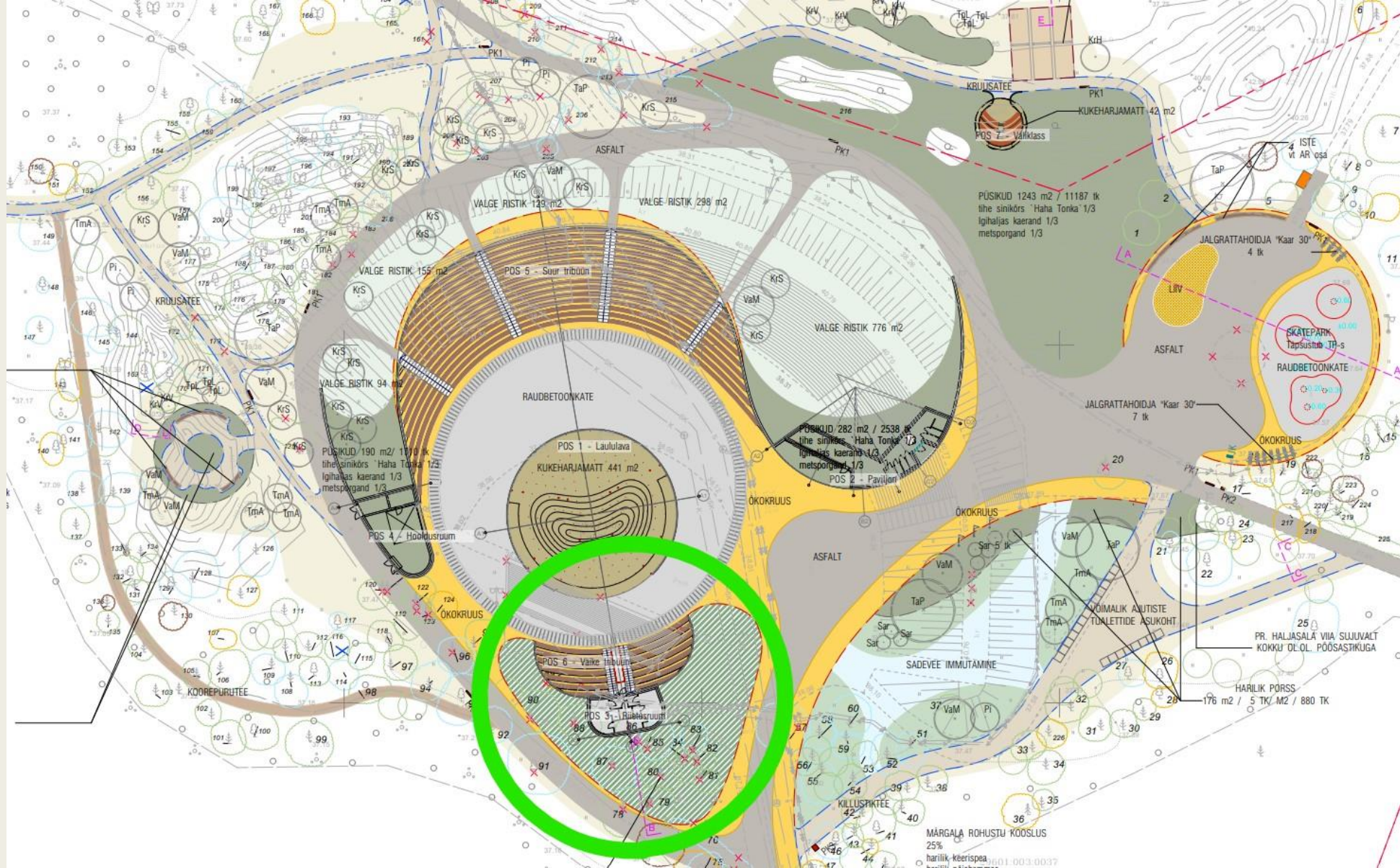
Main design by Molumba OÜ & Lootusprojekt OÜ, February 2022



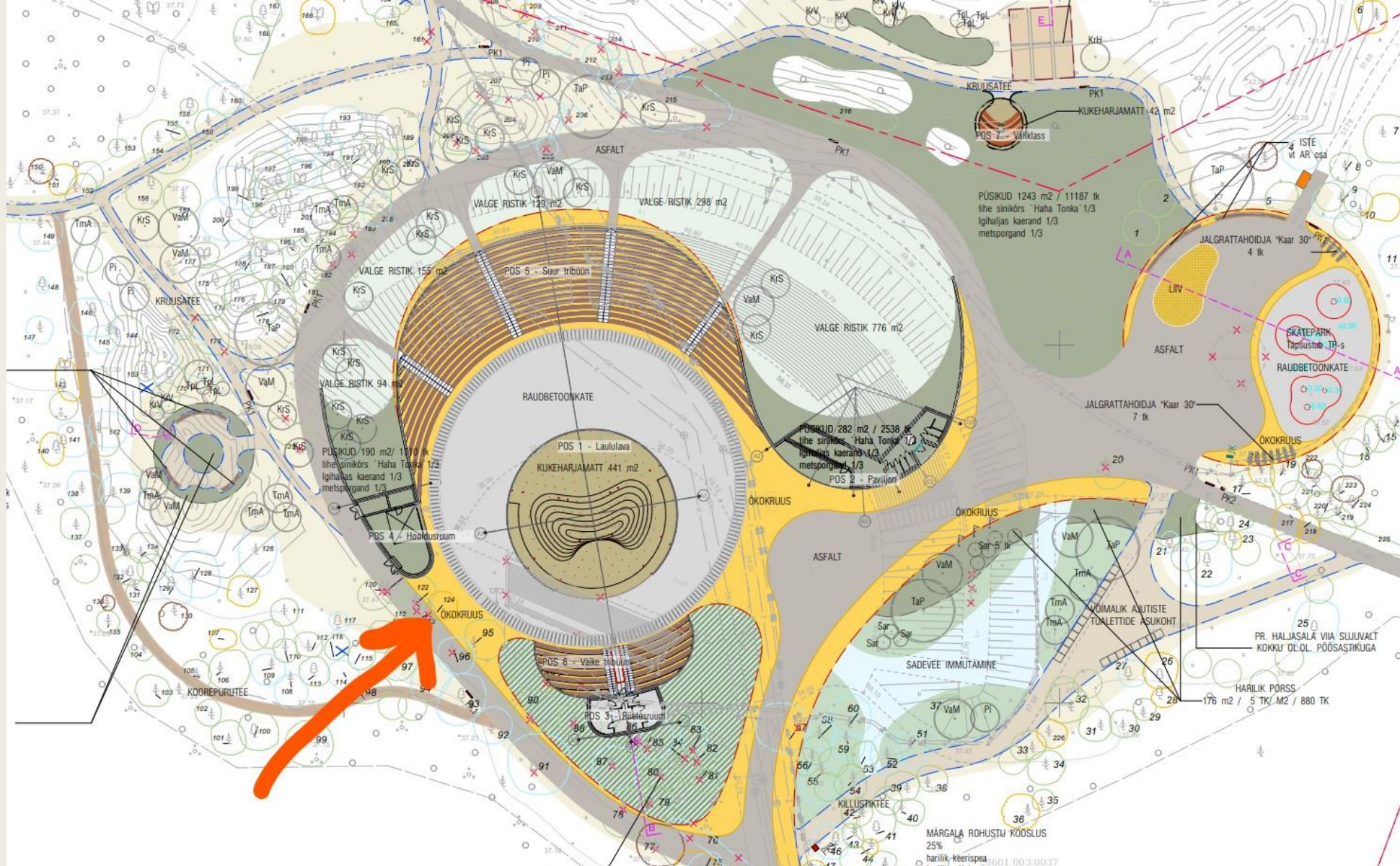
Extensive green roofs 483 m²



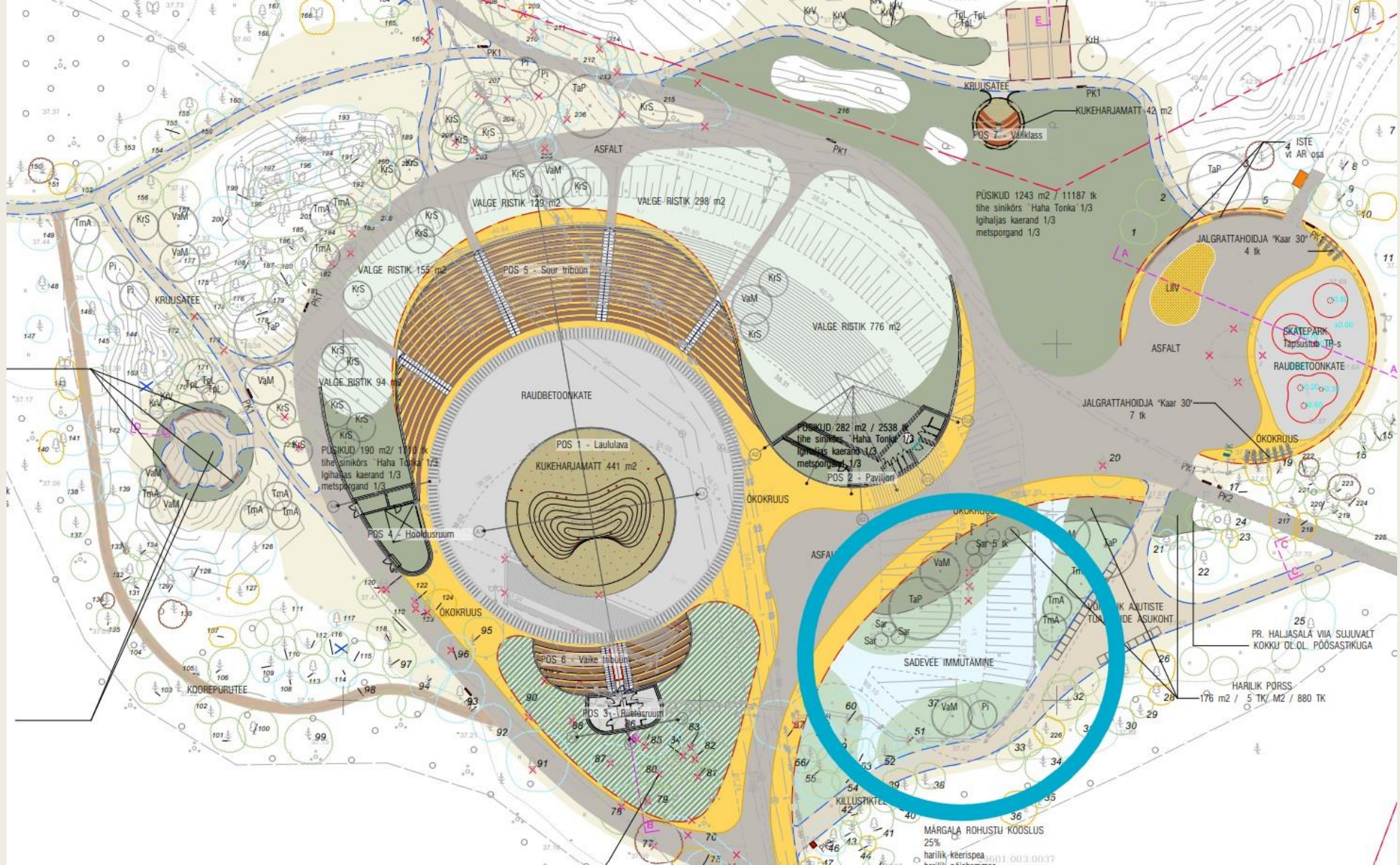
Intensive green roofs 472 m²



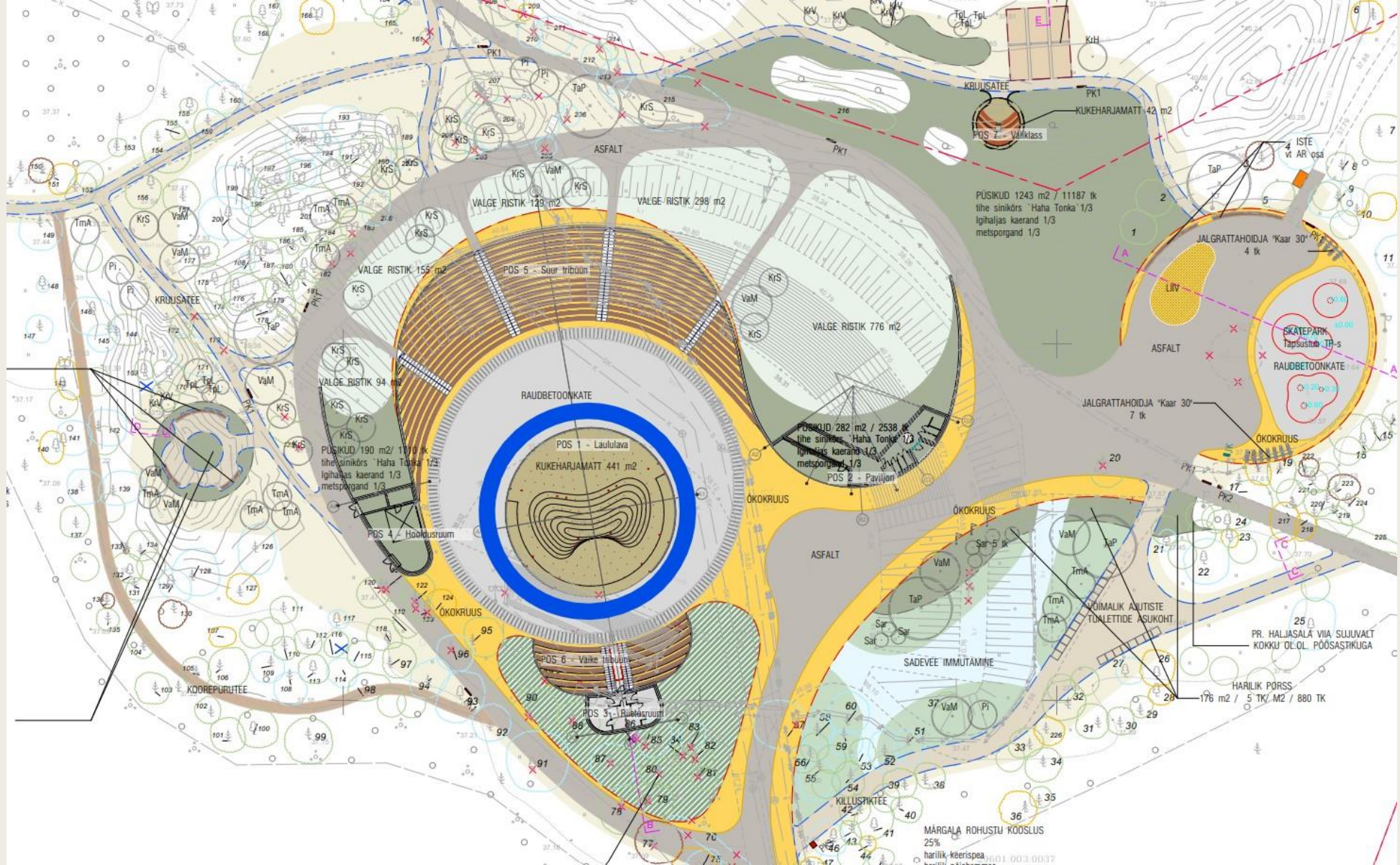
Erosion Control blankets with diferent grasses 540 m²



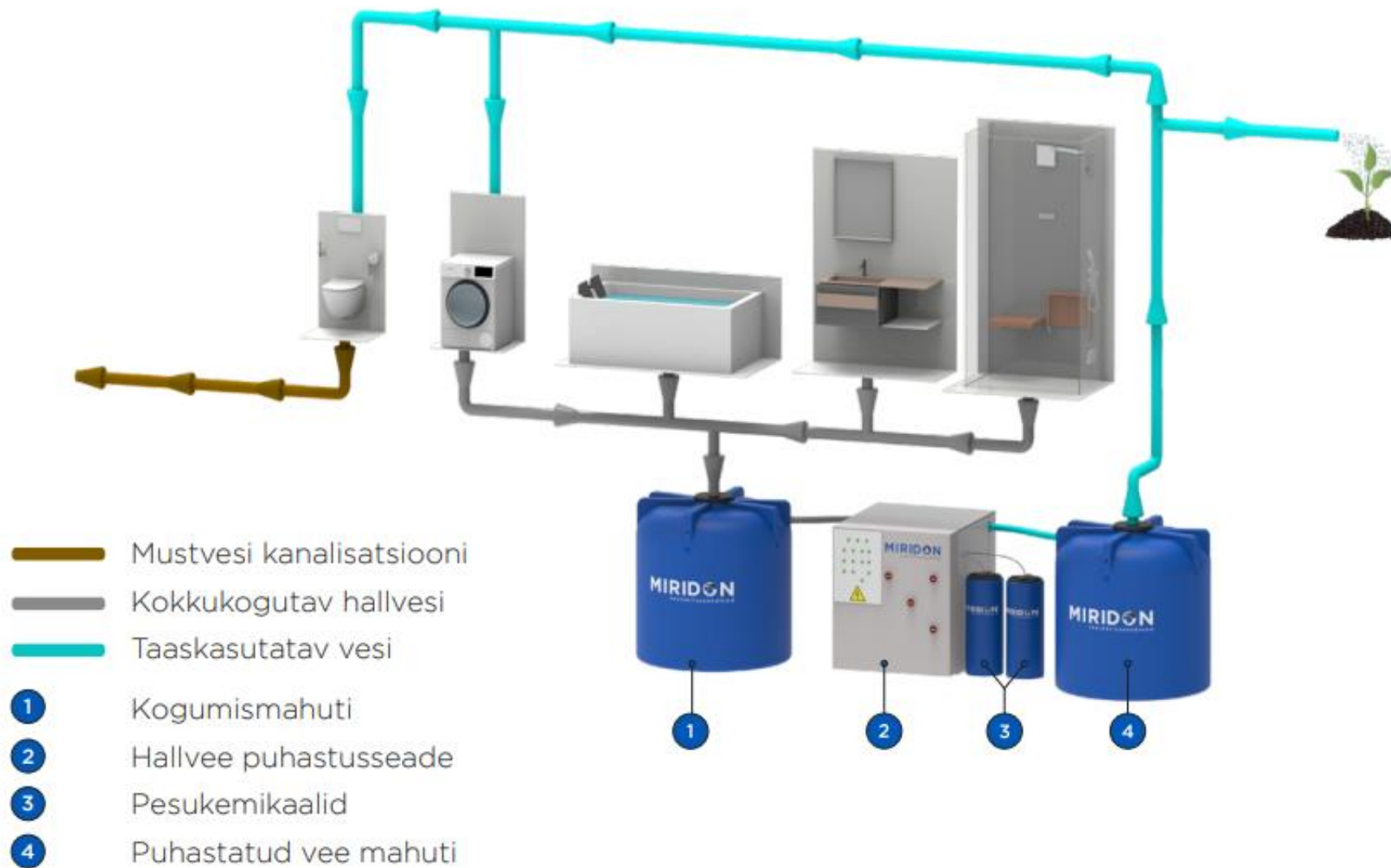
Water permeable surface, Ecogravel or similar.



Water garden.



Rain water collecting and reuse.



Joonis 1. Hallvee taaskasutuse süsteem

Grey water treatment system
Miridon OÜ



<https://youtu.be/20hr1NuNzss>

WasteMate 120, Photo from resellers public page Kleenoil Eesti OÜ

Waste bins in public space compacting mixed packidges and bio waste.



Preliminary design by Molumba OÜ & Lootusprojekt OÜ, October 2021

INTERNATIONAL CONFERENCE OF PROJECTS LIFE URBANSTORM AND INTERREG CB CLEANSTORMWATER
STORM WATER SYSTEMS IN THE CONTEXT OF CLIMATE CHANGE ADAPTATION

CLIMATE ACTIONS ON LOCAL LEVEL

FLOODING RISK MANAGEMENT, ACTIONS IN KEILA

09.11.2022

Märt Maripuu

Keila Town Government



KEILA