



BUS STATION NIVY IN BRATISLAVA, SLOVAKIA

MÁRIA BIHUŇOVÁ – Slovak University of Agriculture in Nitra
Faculty of Horticulture and Landscape Engineering

PETER PASEČNÝ – Authorised Landscape Architect
2ka, sro



With the support of the
Erasmus+ Programme
of the European Union

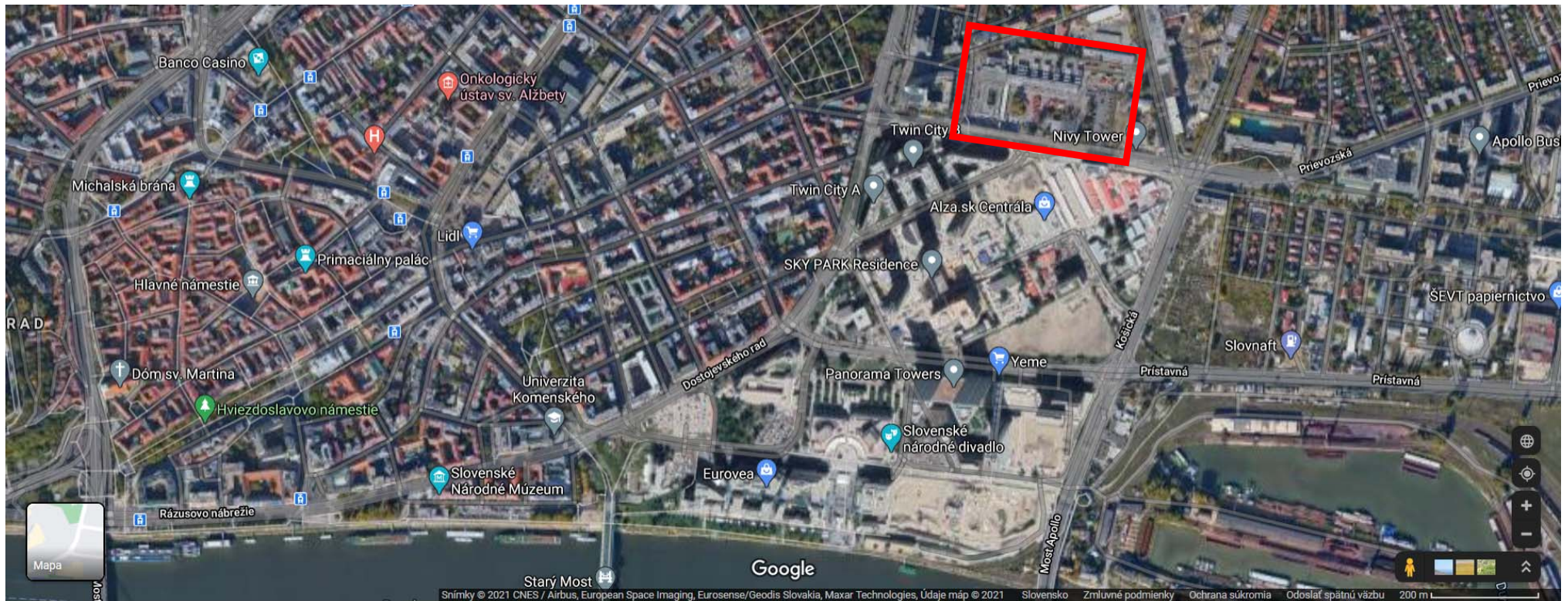


20th of April, 2021

SLOVAKIA: BRATISLAVA



LOCALISATION IN THE URBAN STRUCTURE



PREVIOUS BUS STATION NIVY (AREAL VIEW)



BASIC INFORMATION

PROJECT STARTS:

2013 ARCHITECTURAL PROJECT

2017 LANDSCAPE AND GREENERY DESIGN

REALISATION:

2019 BEGINNING OF THE CONSTRUCTION

2021 END OF THE CONSTRUCTION AND OPENING

Development
Name:

**Nové Nivy Zone
(Zóna Nové Nivy), Bratislava**

Development
Address:

Mlynské Nivy / Prievozská, Bratislava

Client:

HB Reavis Slovakia a.s.
Construction



Reported by:

2ka, s.r.o.,



Ing. Peter Pasečný,
Ing. Ivana Pasečná, PhD.
Mgr. Veronika Gežík, PhD.

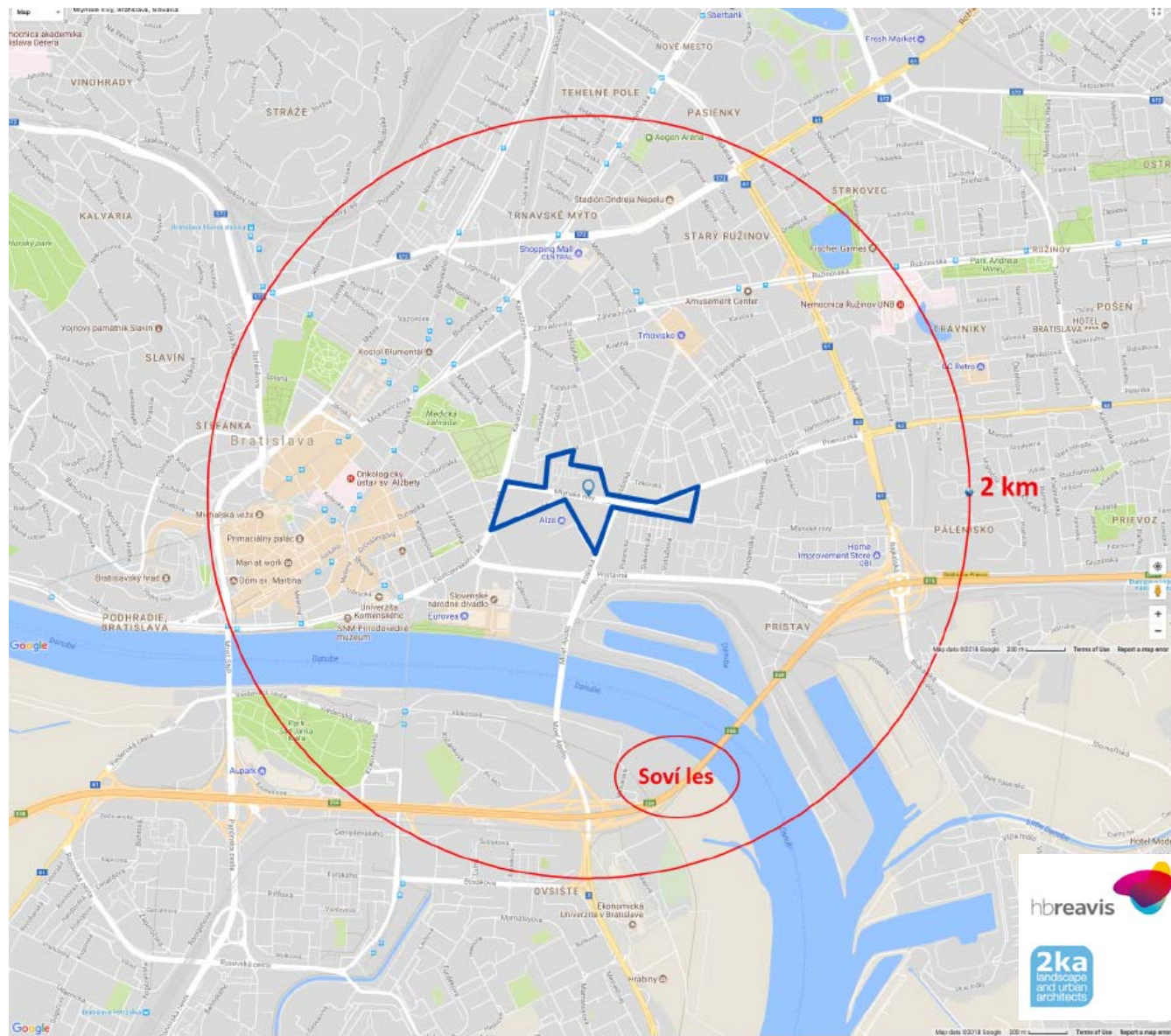


Fig. Map showing protected areas in 2 km radius of the development sit. Source: www.google.sk/maps + 2ka s.r.o.

GREEN INFRASTRUCTURE PLAN



ARCHITECTURAL DESIGN OF BUS STATION NIVY (AREAL VIEW)





hb reavis



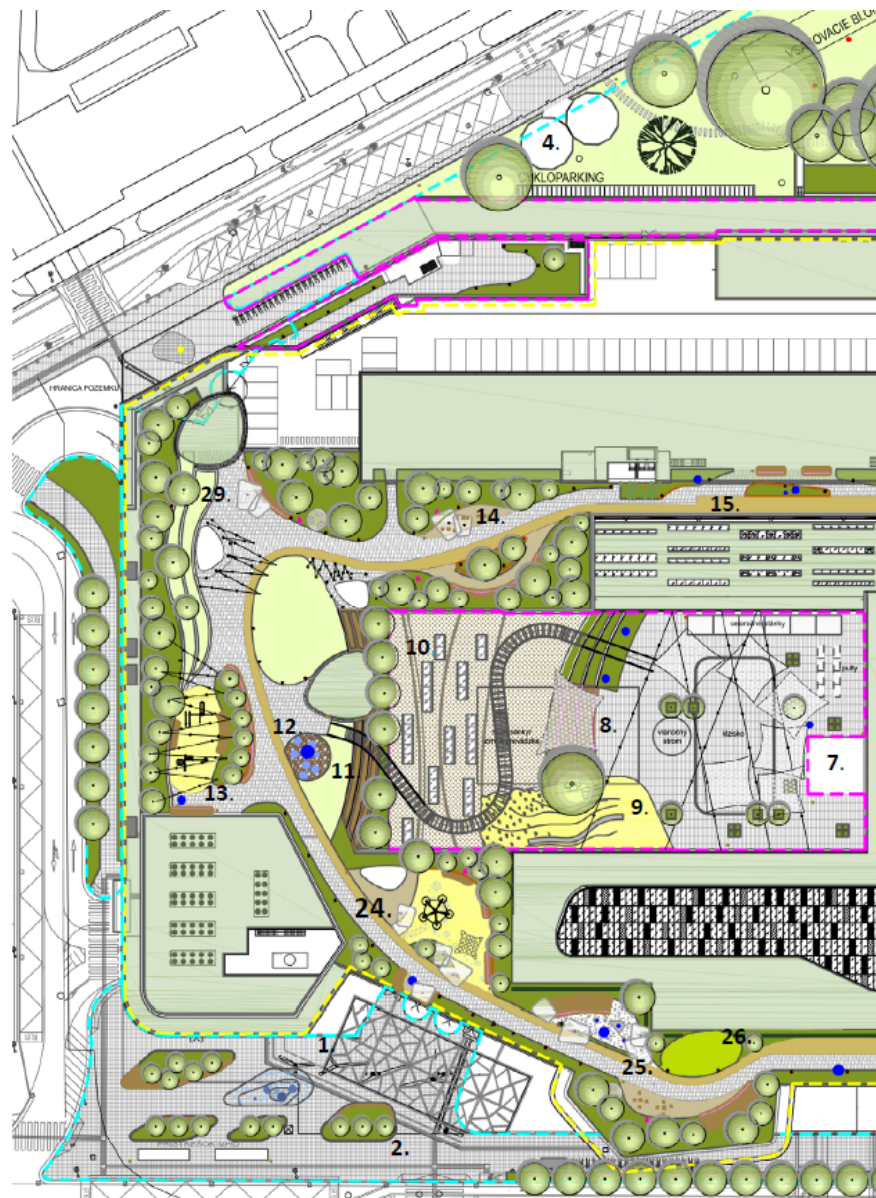
VIEW TO THE ROOF GARDENS AND NIVY TOWER – THE HIGHEST BUILDING IN SLOVAKIA

LEGENDA

1. vodný prvok v dlažbe - trisky
2. zeleň pred hlavným vstupom do AS Nivy v nádobách s integrovaným mobiliárom
3. alej ulice Mlynské Nivy
4. cykloodom
5. park Páričkova
6. technologický Hub na 3NP
7. Plaza 3NP / tieniace prvky, mobilné nádoby
8. pobytové stupne / drevo
9. ihrisko v teréne / terénne šmýkačky
10. extenzívna lúka vo svahu
11. pobytové stupne / drevo
12. labyrint / geologická náučná hra
13. fitness prvky
14. šachy
15. bežecká dráha / v zime bežkárska trať
16. pergoly nad bežeckou dráhou
17. bouldrovacia stena
18. voľný výbeh pre psy
19. komunitná záhrada / hriadky
20. včelín
21. sedenie / gril, tieniace prvky
22. fitness prvky
23. basketbal
24. tematické ihrisko
25. malé ihrisko / vodné hry
26. umelý golfový trávnik s jamkami
27. petanque
28. terénna modelácia / vlny
29. pobytové stupne / trávnik

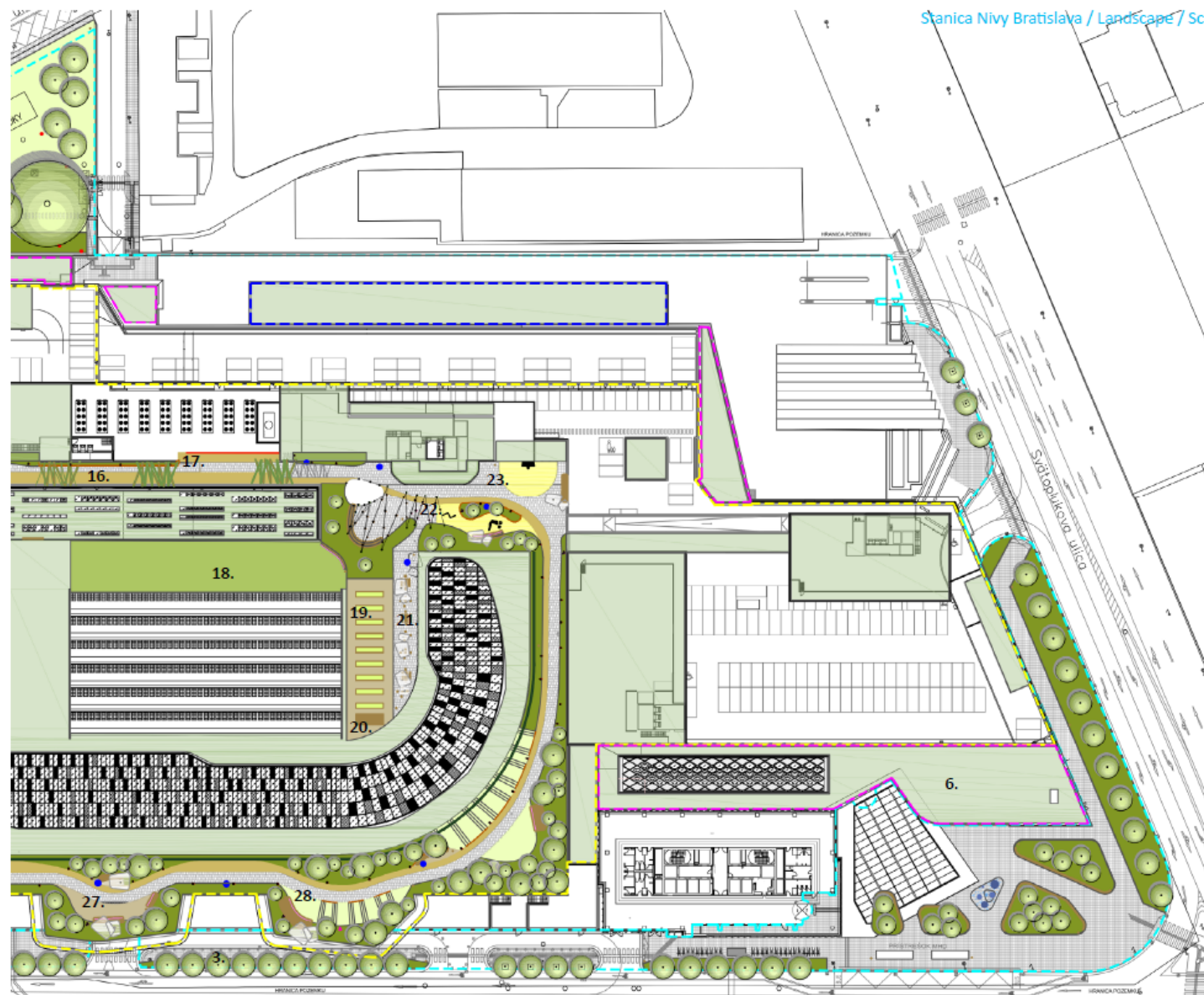


M 1:800



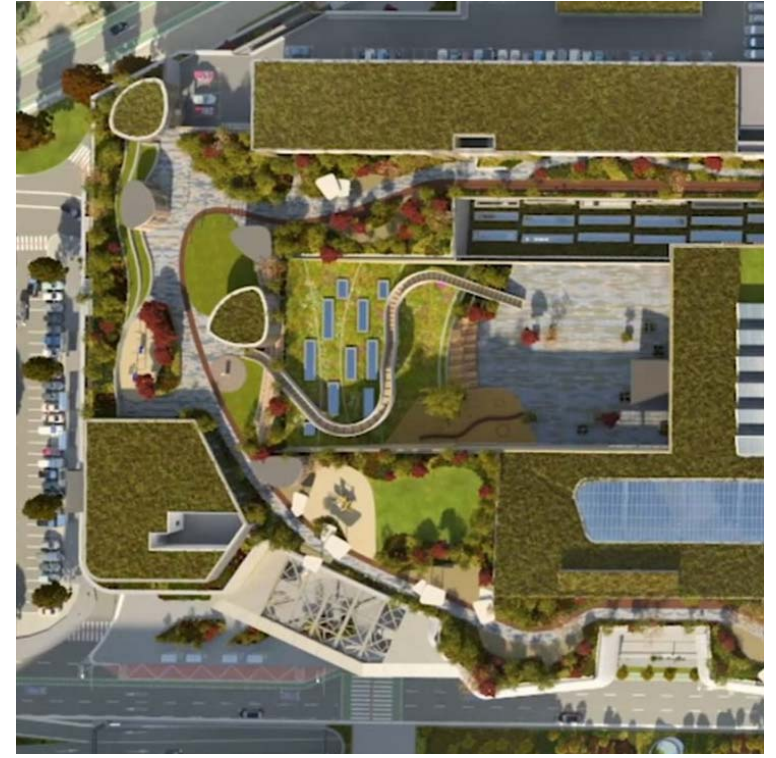
LEGENDA

1. vodný prvok v dlažbe - trisky
2. zeleň pred hlavným vstupom do AS Nivy v nádobách s integrovaným mobiliárom
3. alej ulice Mlynské Nivy
4. cykloodom
5. park Páričkova
6. technologický Hub na 3NP
7. Plaza 3NP / tieniace prvky, mobilné nádoby
8. pobytové stupne / drevo
9. ihrisko v teréne / terénne šmýkačky
10. extenzívna lúka vo svahu
11. pobytové stupne / drevo
12. labyrint / geologická náučná hra
13. fitness prvky
14. šachy
15. bežecká dráha / v zime bežkárska trať
16. pergoly nad bežeckou dráhou
17. bouldrovacia stena
18. voľný výbeh pre psy
19. komunitná záhrada / hriadky
20. včelín
21. sedenie / gril, tieniace prvky
22. fitness prvky
23. basketbal
24. tematické ihrisko
25. malé ihrisko / vodné hry
26. umelý golfový trávnik s jamkami
27. petanque
28. terénna modelácia / vlny
29. pobytové stupne / trávnik





PUBLIC ACCESSIBLE ROOF GARDEN (WITH RUNNING TRACK, PETANQUE FIELD, PLAYGROUND WITH WATER FEATURES, COMMUNITY GARDEN, BARBECUE AREA, SPORT FACILITIES AND MANY OTHER ATTRACTIONS)



GREEN ROOF GARDEN ACCESSIBLE FROM THE SHOPPING MALL, BUT ALSO FROM THE STREET

7. SUBSTRÁTOVÁ MAPA_3NP / 5NP

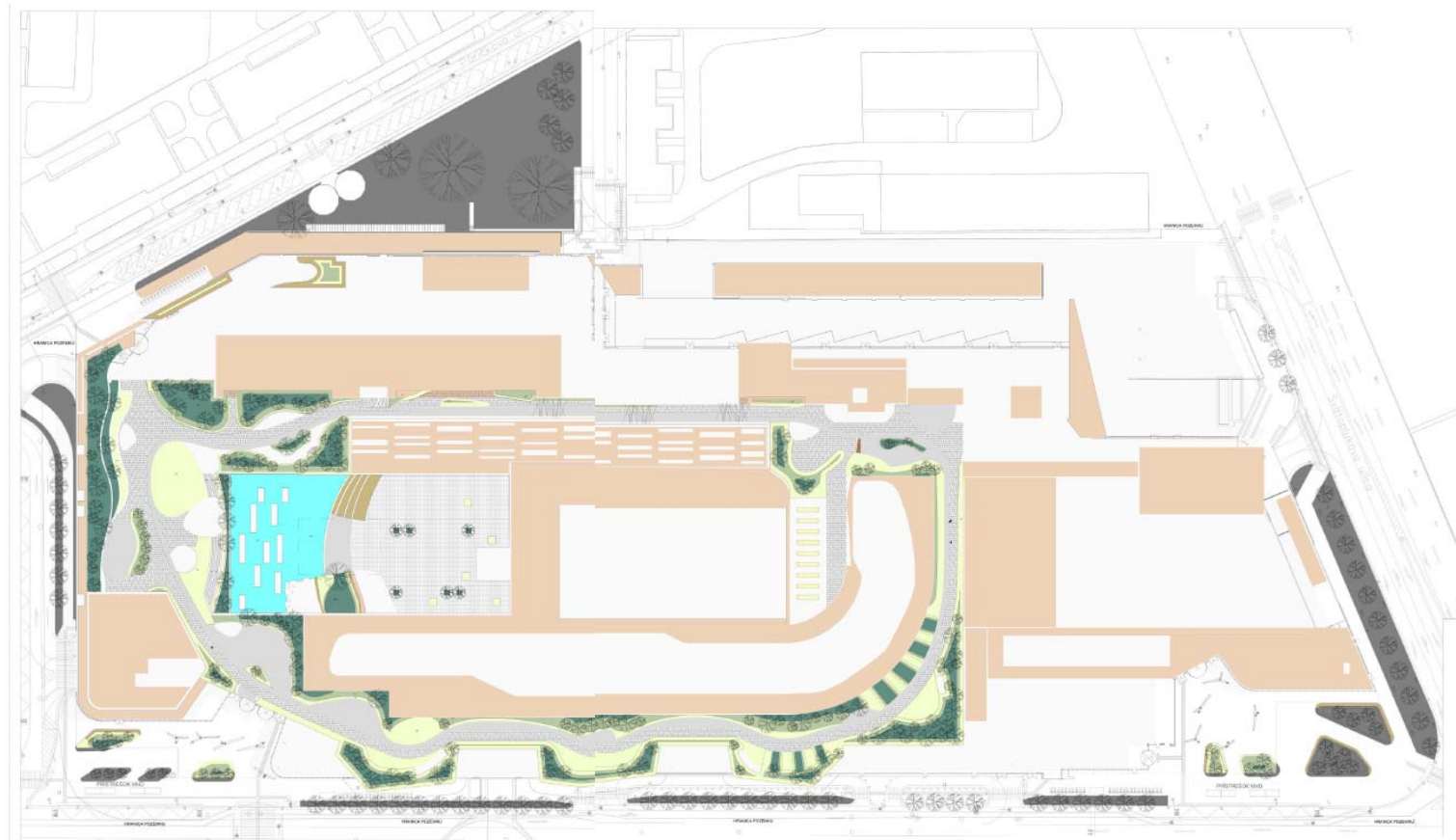
LEGENDA

Minimálna výška substrátov pre vegetačné prvky na konštrukcii

80	rozchodníky - jednovrstevný extenzívny substrát 80 mm - sklon strechy 0 - 5° (0-9%) hmotnosť 100-140 kg/m ² alebo 1.0-1.4 kN/m ² , súčiniteľ odtoku 0,4-0,3
<130	šikmá strecha - rozchodníky, byliny, trávny - jednovrstevný extenzívny substrát 130 mm + protisklizový systém, sklon strechy 5-35° (9-70%) - hmotnosť 160-190 kg/m ² resp. 1,6-1,9 kN/m ² 130 mm, súčiniteľ odtoku 0,5-0,3
250	záhony nízkych trvaliek, trávnik - jednovrstevný intenzívny/trávnikový substrát 250 mm, sklon strechy 0 - 5° (0-9%) - hmotnosť 320-570 kg/m ² resp. 3,2-5,7 kN/m ² , súčiniteľ odtoku 0,3-0,05
500	záhony trvaliek, nízkych kerov a okrasných tráv - intenzívny substrát 250 mm + podkladový substrát 250 mm, sklon strechy 0 - 5° (0-9%) - hmotnosť 600 - 700 kg/m ² resp. 6 - 7 kN/m ² , súčiniteľ odtoku 0,05-0,03
750	záhony krov - intenzívny substrát 250 mm + podkladový substrát 500 mm, sklon strechy 0 - 5° (0-9%) - hmotnosť 900-1000 kg/m ² resp. 9 - 10 kN/m ² , súčiniteľ odtoku 0,05-0,01
1000	záhony krov s výsadbou stromov s malou korunou - intenzívny substrát 250 mm + podkladový substrát 750 mm, sklon strechy 0 - 5° (0-9%) - hmotnosť 1150-1250 kg/m ² , súčiniteľ odtoku 0,05-0,01
	rastlý terén
	spevnené plochy

hbreavis

2ka
landscape
and urban
architects

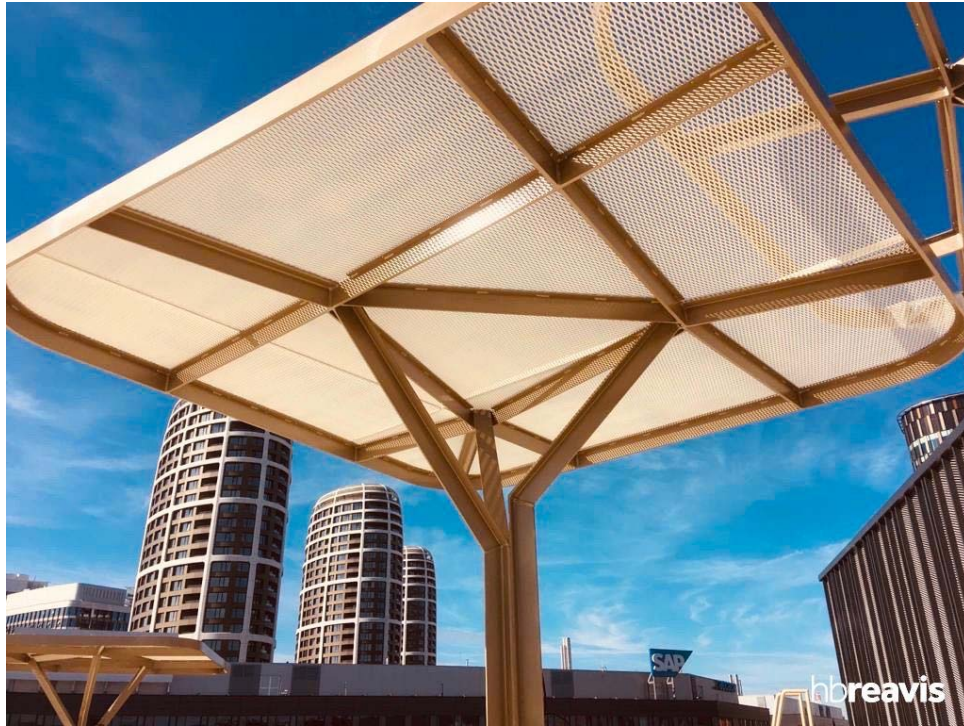


This table is showing proposed ecological recommendations in individual **landscape designs**:

Most important ecological recommendations	Description	Twin City Tower A1, Twin City A (A2, A3, A4)	Twin City C - MNC	Stanica Nivy / Mail – MNX, Nivy Tower	Korner
		• = applicable			
Increase in biodiversity	Use of low flowering meadows instead of lawns		•	•	
	Bio-retention swales (with extensive perennials)		•	•	
	providing wildlife corridors and connections between green spaces (bush or shrubbery provides a physical barrier for people, but allows for small animals to pass under)	•	•	•	
Type of planting	Group planting instead of solitary planting	•	•	•	
Ecological management of rainwater	Using permeable hardscape surfaces such as mineral concrete, permeable paving, gravel		•	•	
	using retention vegetation stripes (flowerbeds with extensive perennials)		•	•	
Use of attested domestic or attested foreign origin species - „close to the nature" type of landscaping	At least 50% of total planted species should be attested native species .	•	•		•
	Use of suitable Urban trees : <i>e.g. Acer ginnala, Koelreuteria paniculata (is considered very suitable in climate category, drought resistance), Pyrus calleryana 'Chanticleer' (foreign attested species, has smaller fruits, climate resistance in both drought tolerance and hardiness), Robinia pseudoaccacia 'Frisia', Amelanchier arborea (drought tolerant and very suitable in climate category hardiness), Corylus colurna (suitable based on the assessment of climate resistance in both categories drought tolerance, hardiness), Betula utilis 'Doorenbos', Populus simonii (suitable in the category hardiness), (attested foreign species, aesthetic quality argument - (Pyrus calleryana 'Chanticleer', Prunus subhirtella 'Fukubana'), interesting seasonal variation, similar site character, suitable in urban environment), Fraxinus angustifolia 'Raywood', Alnus incana (very suitable based on the assessment of climate resistance in both categories drought tolerance, hardiness), Carpinus betulus (domestic species, drought tolerant and as very suitable in the climate category hardiness).</i>	•	•	•	•
Creating new habitats	Increasing the amount of greenery	•	•	•	•

Maximizing usage of green roofs	Stormwater management (In summer, green roofs can retain 70-90% of the precipitation that falls on them, reduce the amount of stormwater runoff), moderation of urban heat island effect, improved air quality (the plants can capture airborne pollutants, atmospheric deposition, and also filter noxious gases), new amenity spaces, noise reduction, urban agriculture.	•	•	•	•
Green facades	Reduction of the urban heat island effect , green walls - plants can create enough turbulence to break vertical airflow, which slows and cools down the air, improved exterior air quality , green walls mitigate air pollution , green walls to provide thermal insulation for buildings, improved indoor air quality, noise reduction , increased biodiversity , urban agriculture , onsite wastewater treatment			•	
„Nature friendly“ maintenance of greenery	Manual, non-chemical weed control of flower beds	•	•	•	•
	Organic maintenance methods and cut back on lawns (low meadows instead of lawns, avoiding chemical fertilizers)		•	•	
Green accessible for building users	Appropriate walking distance to access green areas	•	•	•	
Connected green areas spaces	We recommend creating of wildlife movement/migration routes by supporting connectivity (meadows, grass or other green zones along the paths or trees at regular intervals).	•	•	•	

Tab. Table showing list of the most important ecological recommendations. Source: 2ka, s.r.o.



SHADING ELEMENT IN THE SHAPE OF THE TREE

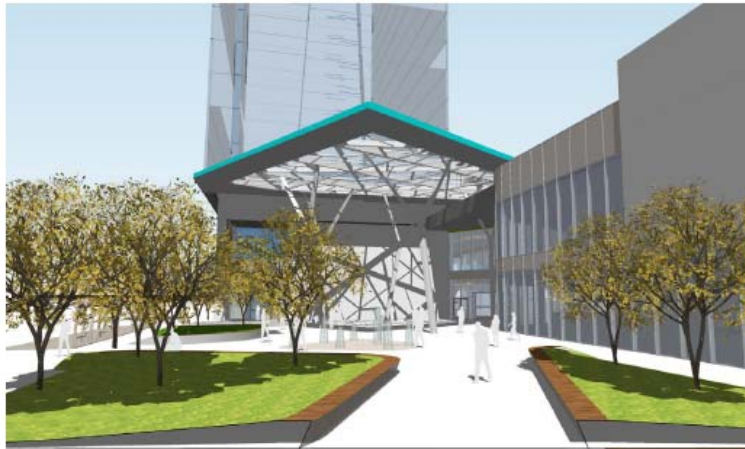
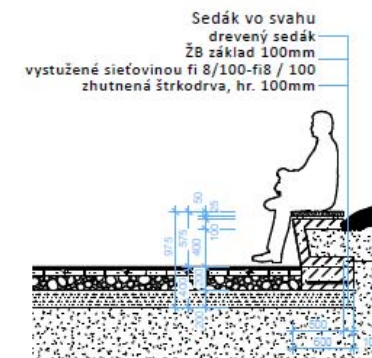


3.10 Kvetináče / sedenie

kvetináče_LA

sedáky výmera: 138 bm

Materiálové riešenie kvetináča: konštrukcia
sedáka pozostáva z nosnej železobetónovej
časti a z drevenej konštrukcie sedáka





TRAFFIC





Fig. Visualization of Nové Nivy Zone. Source: HB Reavis

BREEAM®

**Communities International
(level Excellent)**

THANK YOU FOR YOUR ATTENTION

MÁRIA BIHUŇOVÁ

Slovak University of Agriculture in Nitra

email: bihunova.maria@gmail.com