Water Management Plan

Collecting and using rainwater is an important way to conserve resources. Rainwater can be used for watering plants and after purification even for cleaning drinking. However, it is important that the water quality is appropriate for the intended use.

Rainwater in the majority of its volume is at Brumlovka locality led from the buildings into retention cisterns (placed underground on the side of the buildings) or is kept on the roof and then gradually released into drain system. Water accumulated in some of these cisterns is used for irrigation as it is connected to an automatic irrigation system.

- 09/2022

Brumlovka.

Rainwater infrastructure on our premises includes:

- **permeable pavements** (and squares) – traditional cobbles and natural stone are used as a standard material for all pavements and public areas

- **green roofs** - most of our buildings are partially covered with vegetation and a growing greenery, absorbing rainwater, providing insulation, creating a habitat for wildlife and helping to lower urban air temperatures and mitigate the heat island effect

- **blue roofs** - most buildings´ roofs in the location are designed explicitly to provide temporary rain water storage and then gradual release into drain system

- **retention ponds and river, bioswale** - there is 1 retention pond followed by river and 1 bioswale based in the location, both used to manage stormwater runoff, protection against flooding and to serve as an erosion control

- **rain water cisterns** - there are 6 water cisterns placed in the location to capture the rainwater from roofs. Captured rainwater is used to water the greenery around the buildings and parks or the cisterns provide temporary rain water storage and then gradually release it into drain system.

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Permeable pavements (and squares)

Brumlovka.


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Traditional cobbles (called Prague mosaic) and natural stone in the pavements help to retain the rainwater longer and distribute better in the underground soil. Prague mosaic or natural stones are used as a standard material for all the paths and squares within the project.
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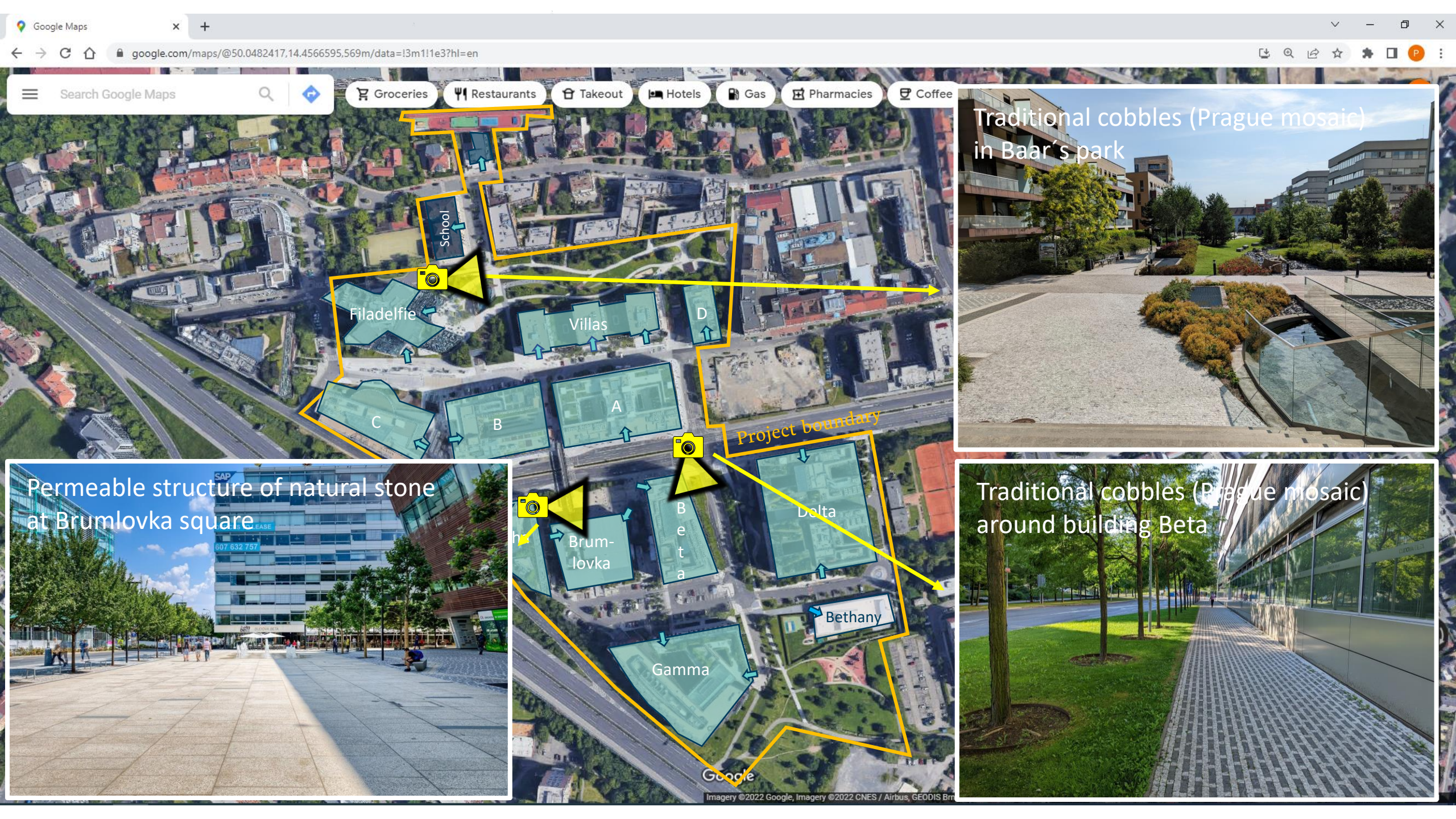
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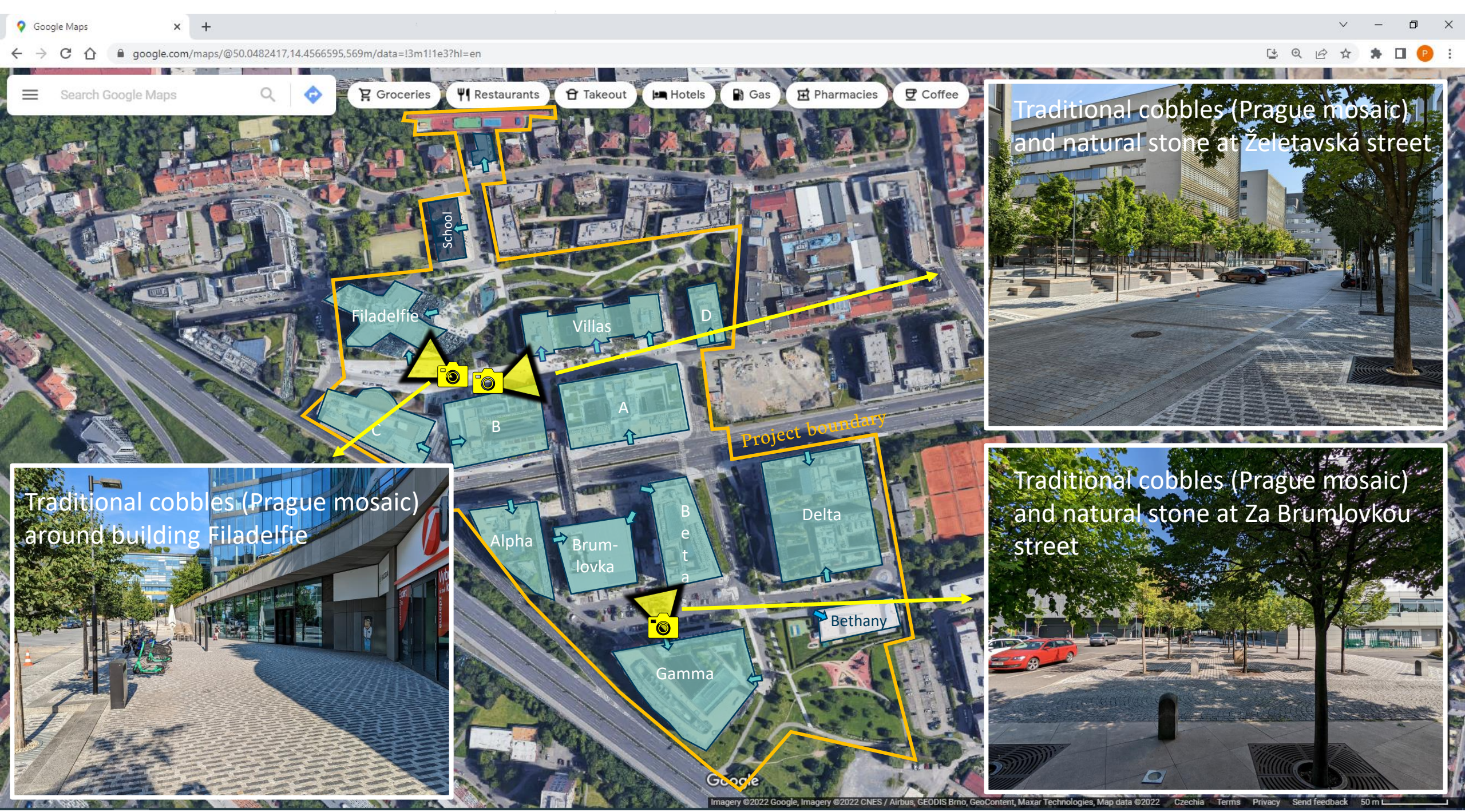
Traditional cobbles (Prague mosaic)
in Baar´s park
Permeable structure of natural stone
at Brumlovka square
Traditional cobbles (Prague mosaic)
around building Beta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Traditional cobbles (Prague mosaic) and natural stone at Želetavská street
Traditional cobbles (Prague mosaic) around building Filadelfie
Traditional cobbles (Prague mosaic) and natural stone at Za Brumlovkou street
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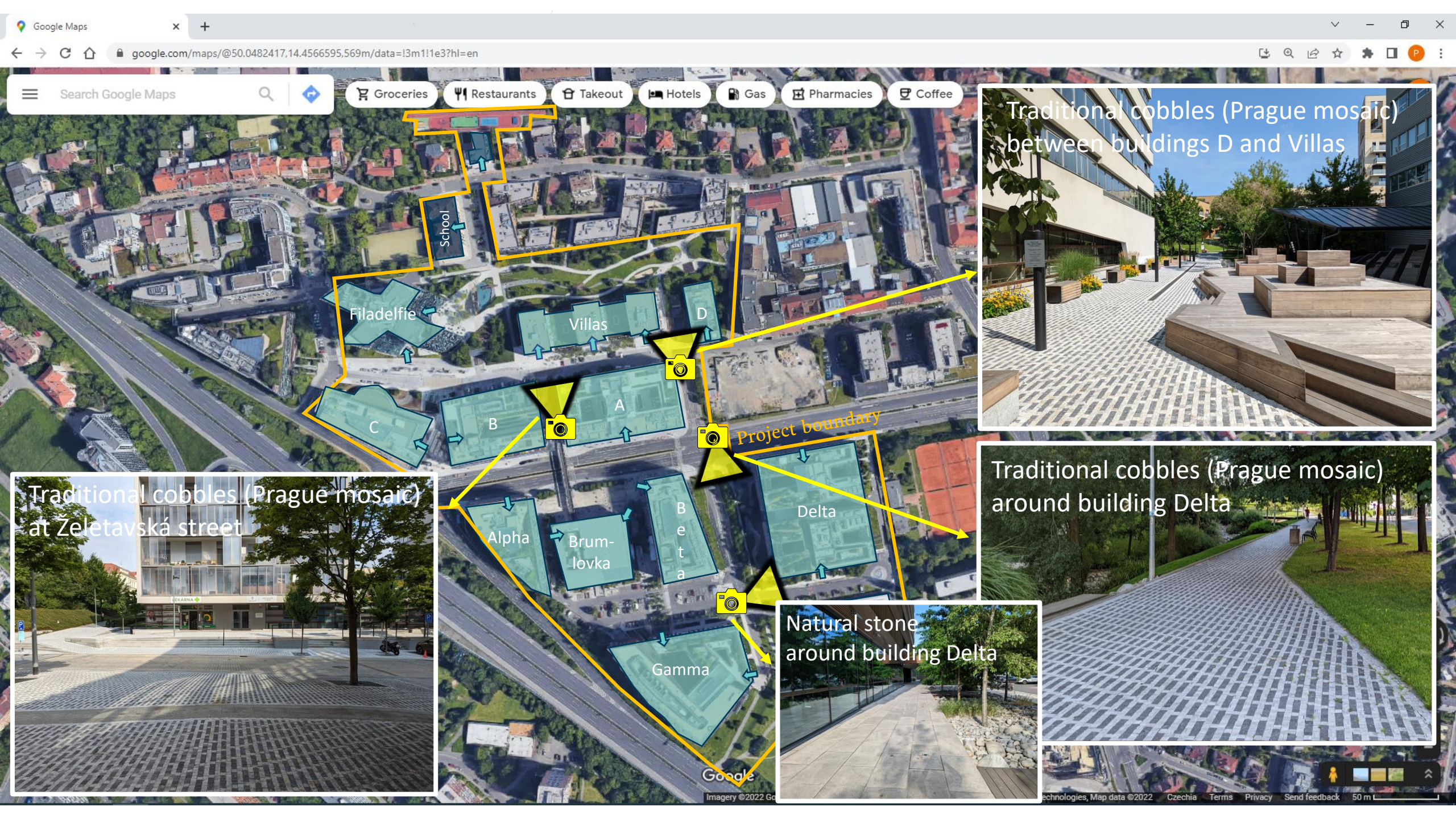
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Natural stone around building Delta
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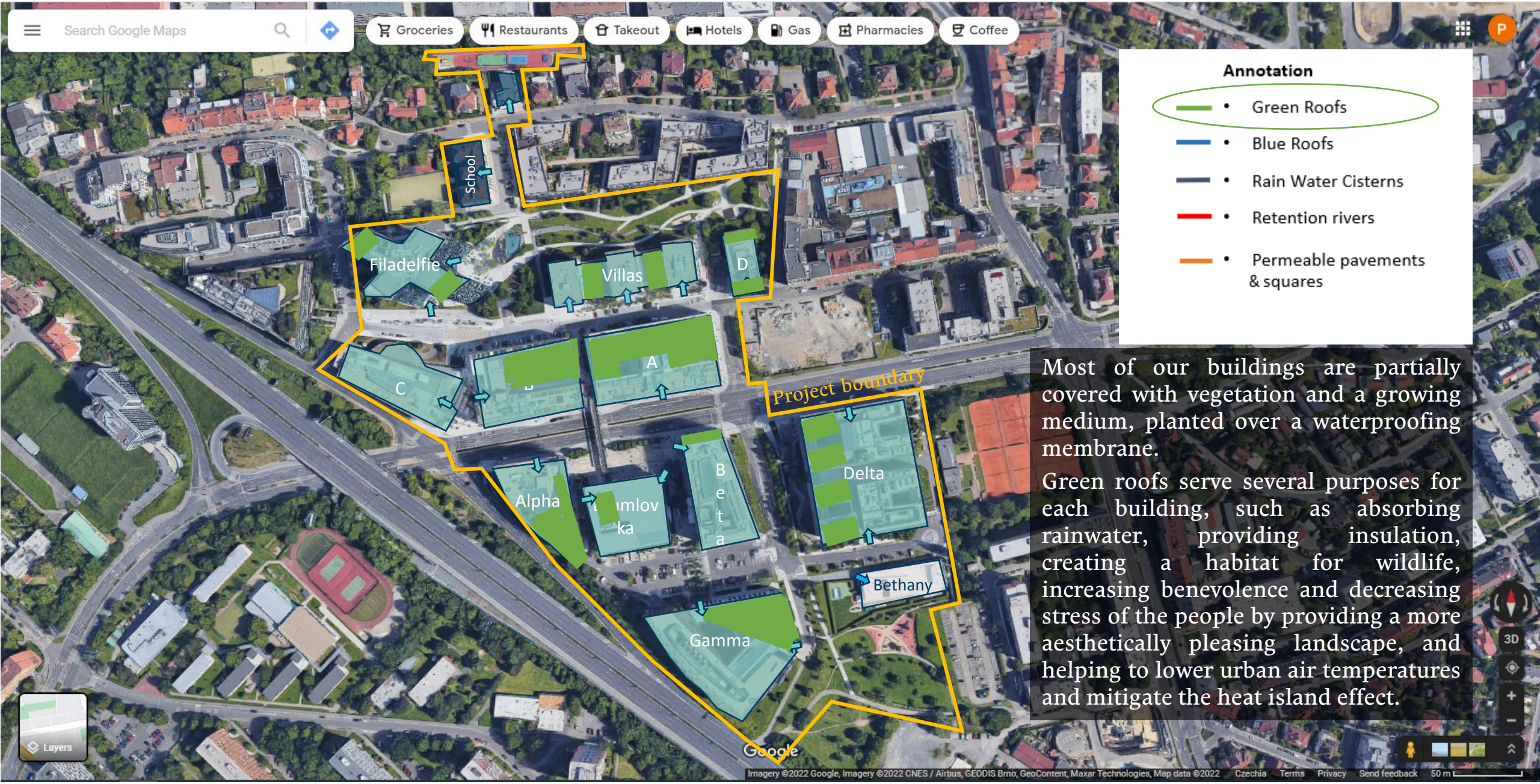
Green roofs

Brumlovka.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Most of our buildings are partially covered with vegetation and a growing medium, planted over a waterproofing membrane.
Green roofs serve several purposes for each building, such as absorbing rainwater, providing insulation, creating a habitat for wildlife, increasing benevolence and decreasing stress of the people by providing a more aesthetically pleasing landscape, and helping to lower urban air temperatures and mitigate the heat island effect.
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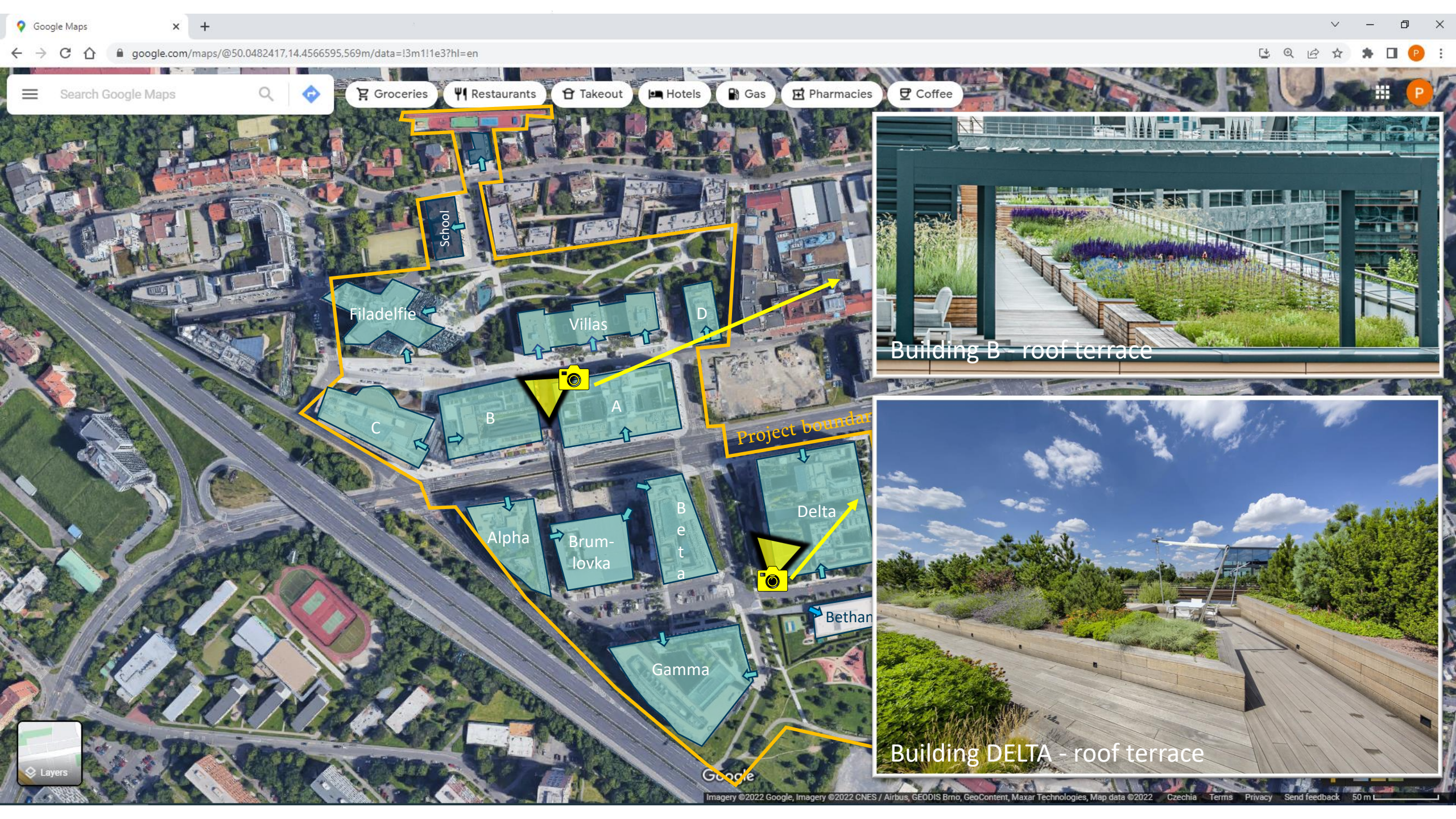
Building A - roof terrace

Building Alpha - roof terrace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Building B - roof terrace
Building DELTA - roof terrace
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Building FILADELFIE - roof terrace
PASSERINVEST
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Building GAMMA - roof terrace
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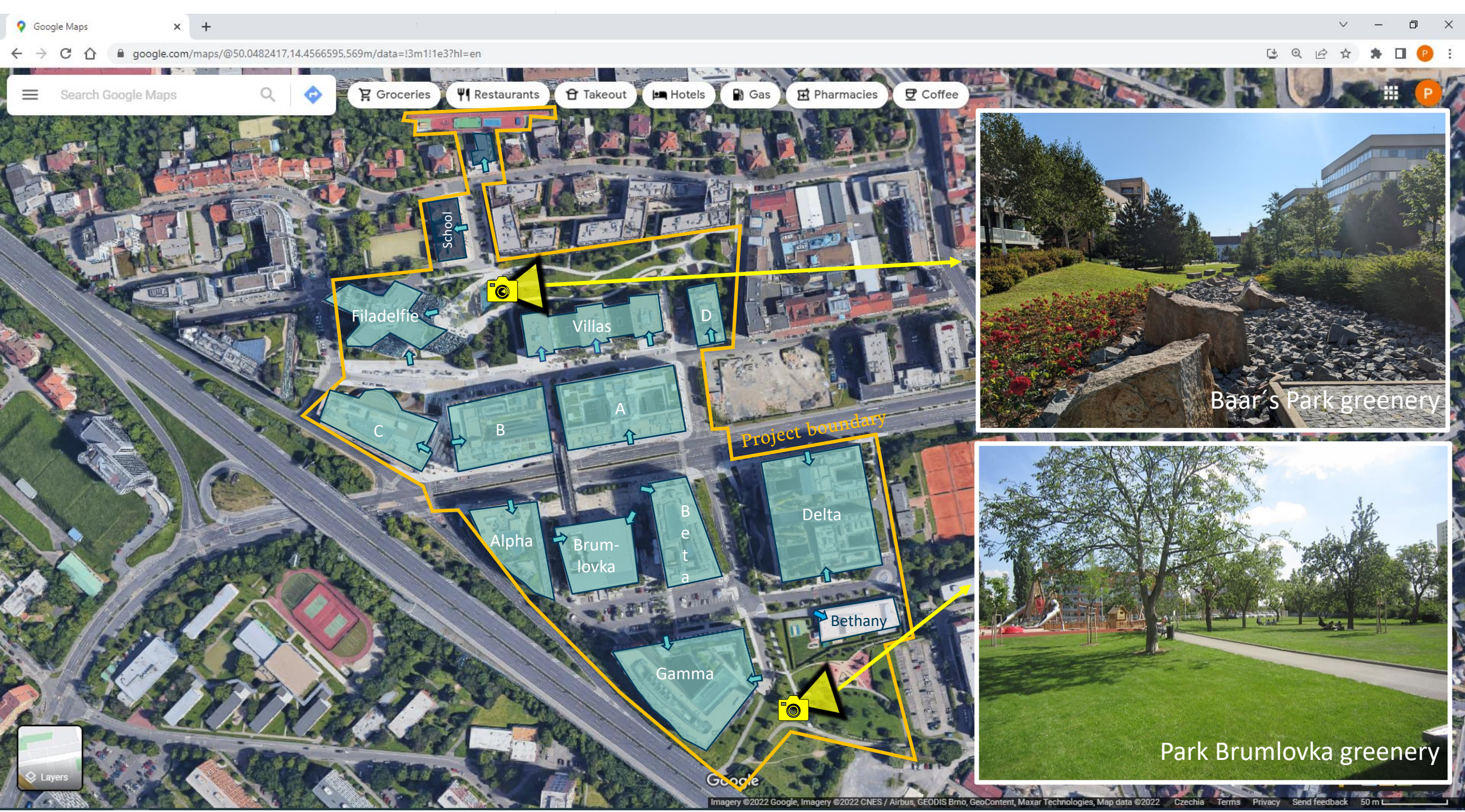
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Baar´s Park greenery

Park Brumlovka greenery

Blue roofs

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Most buildings´ roofs in the location are designed explicitly to provide temporary rain water storage and then gradual release into drain system (or the water simply evaporates). „Blue roofs“ are usually covered with tiles or pebbles, parts of our green roofs covered by tiles or wood also serve as blue roof.
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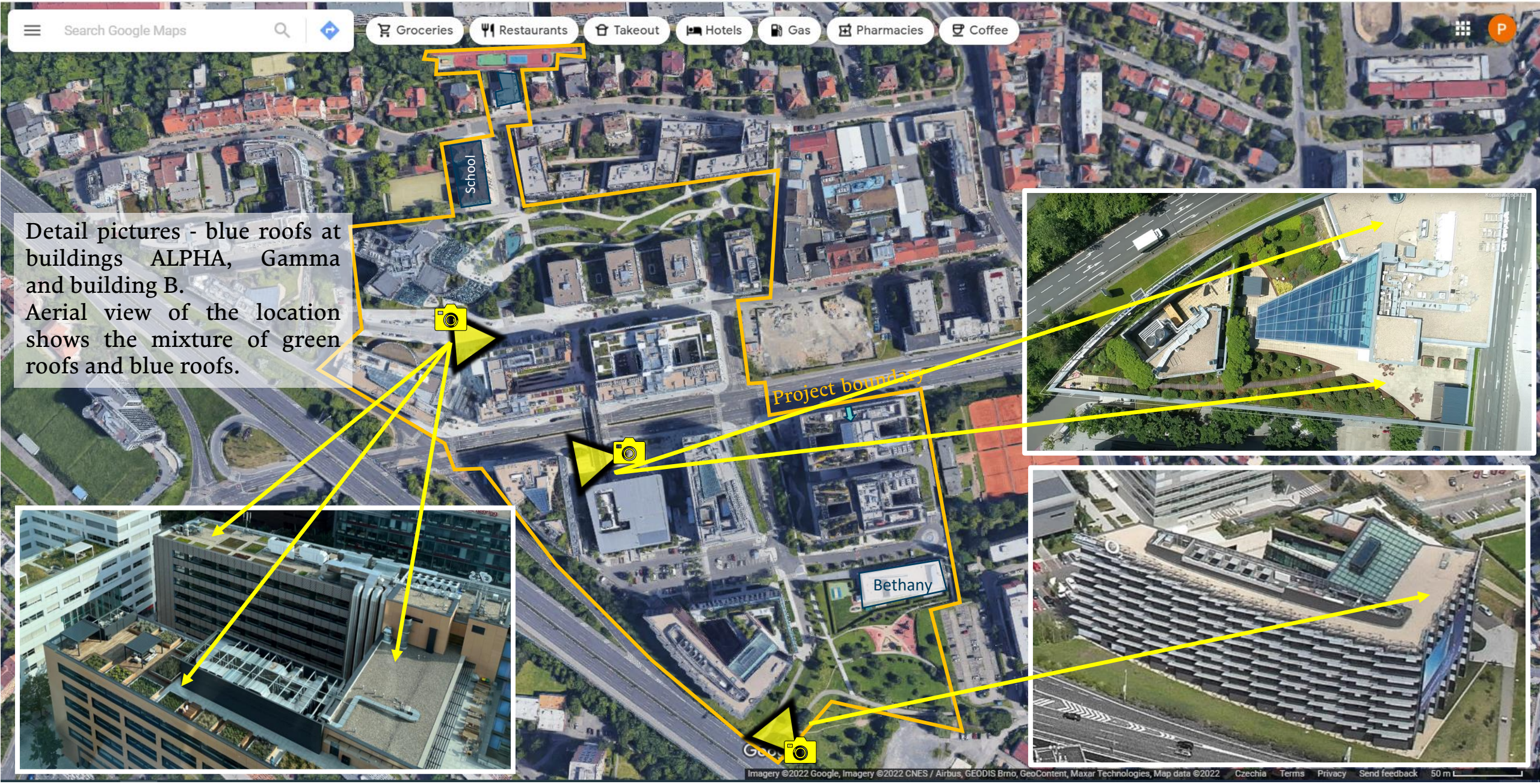
Detail pictures - blue roofs at buildings ALPHA, Gamma and building B.
Aerial view of the location shows the mixture of green roofs and blue roofs.



Retention pond followed by river & bioswale

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There is 1 retention pond and river and 1 bioswale based in the location. Both used to manage stormwater runoff, protection against flooding and to serve as an erosion control.
Bioswale in Baar´s Park temporarily stores water after a storm, but eventually empties out to a downstream water body and soil.
Retention river by building Delta collects the stormwater and then gradually releases it into drain system. This feature is also a great source of greenery and habitat for many species including frogs and dragonflies.
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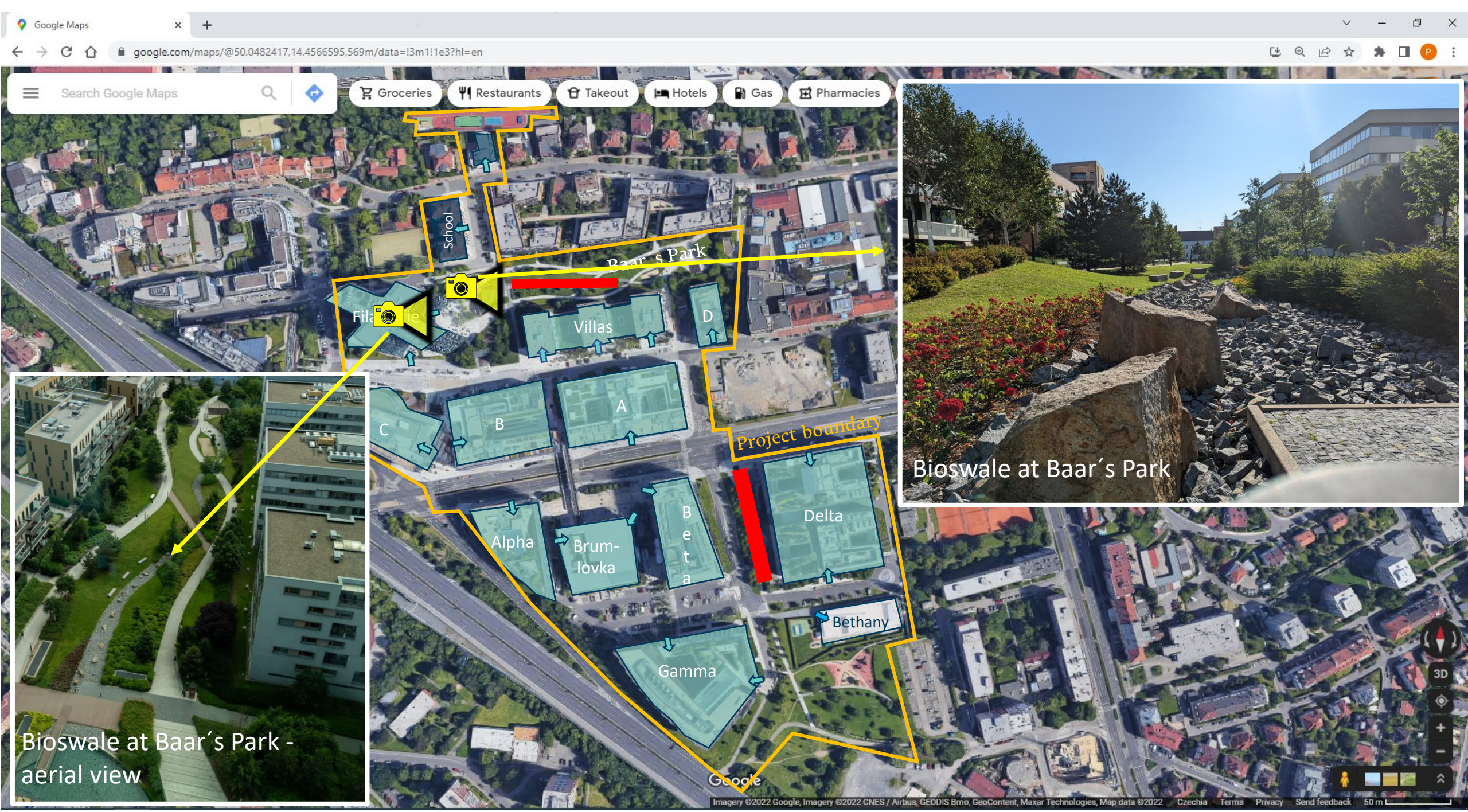
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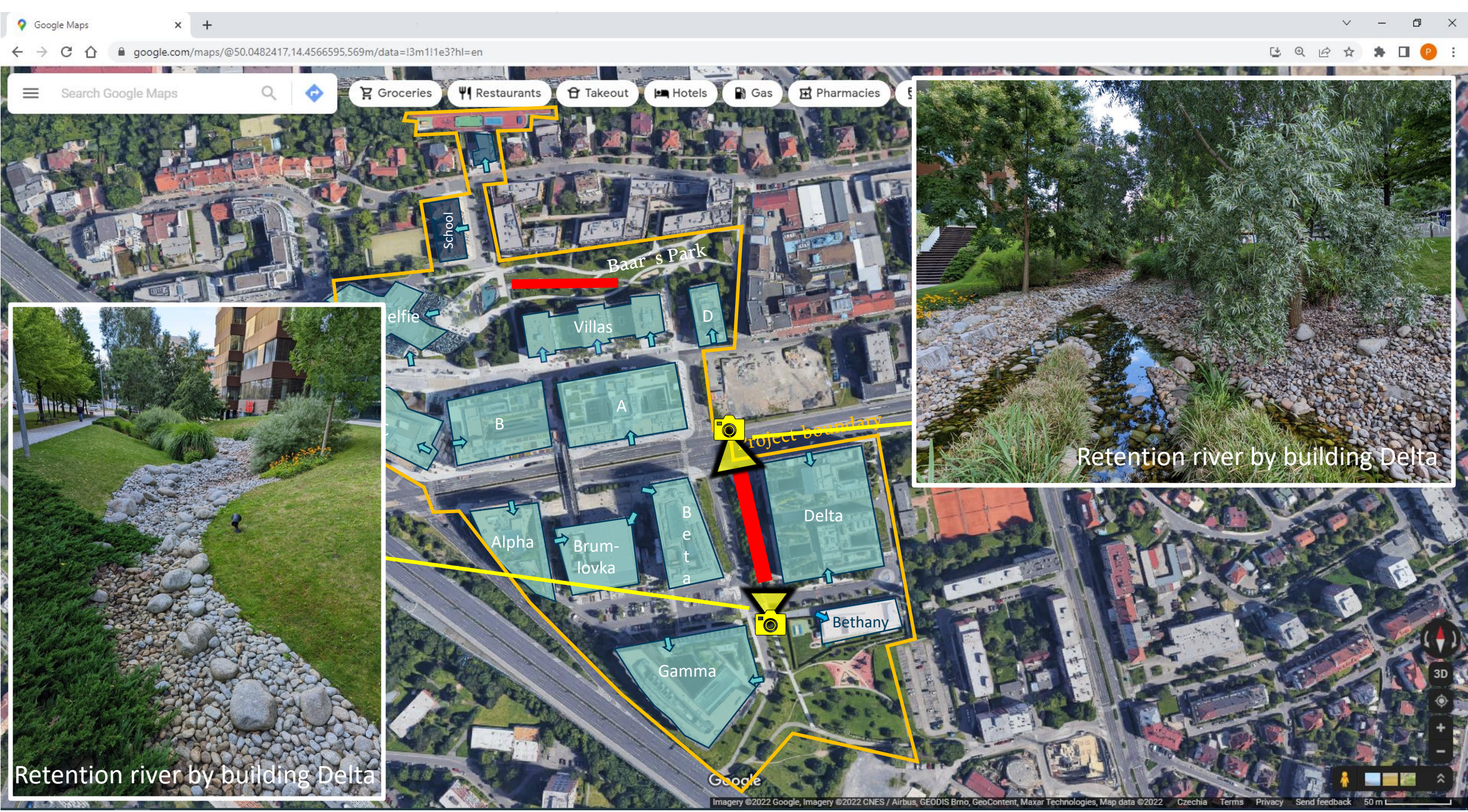
Bioswale at Baar´s Park
Bioswale at Baar´s Park - aerial view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Retention river by building Delta
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Rain water cisterns

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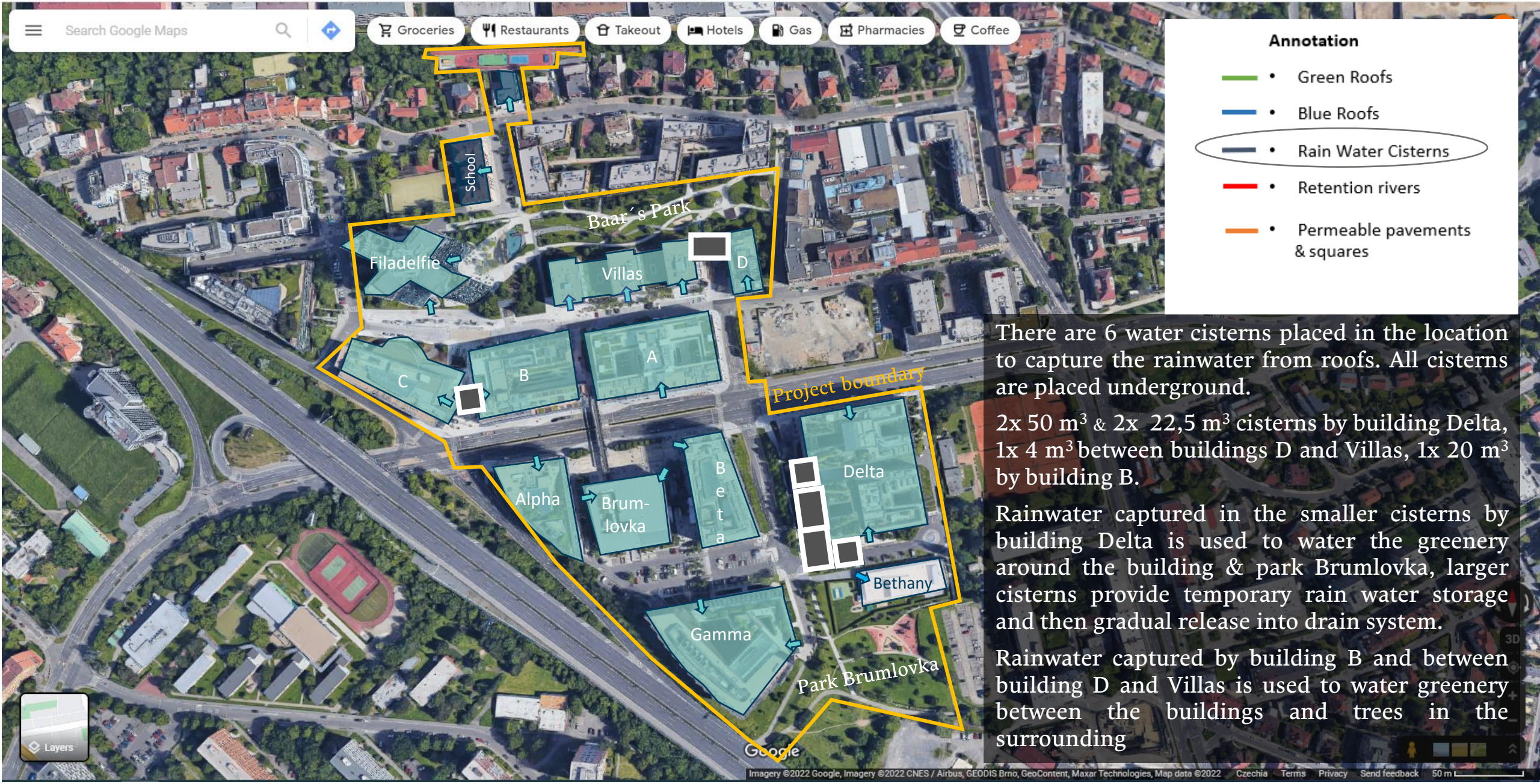
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There are 6 water cisterns placed in the location to capture the rainwater from roofs. All cisterns are placed underground.
2x 50 m³ & 2x 22,5 m³ cisterns by building Delta, 1x 4 m³ between buildings D and Villas, 1x 20 m³ by building B.
Rainwater captured in the smaller cisterns by building Delta is used to water the greenery around the building & park Brumlovka, larger cisterns provide temporary rain water storage and then gradual release into drain system.
Rainwater captured by building B and between building D and Villas is used to water greenery between the buildings and trees in the surrounding
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