



PROJECT PORTFOLIO




SAVE ON BUILDING.
WITHOUT COMPROMISE.

Authorised Partner



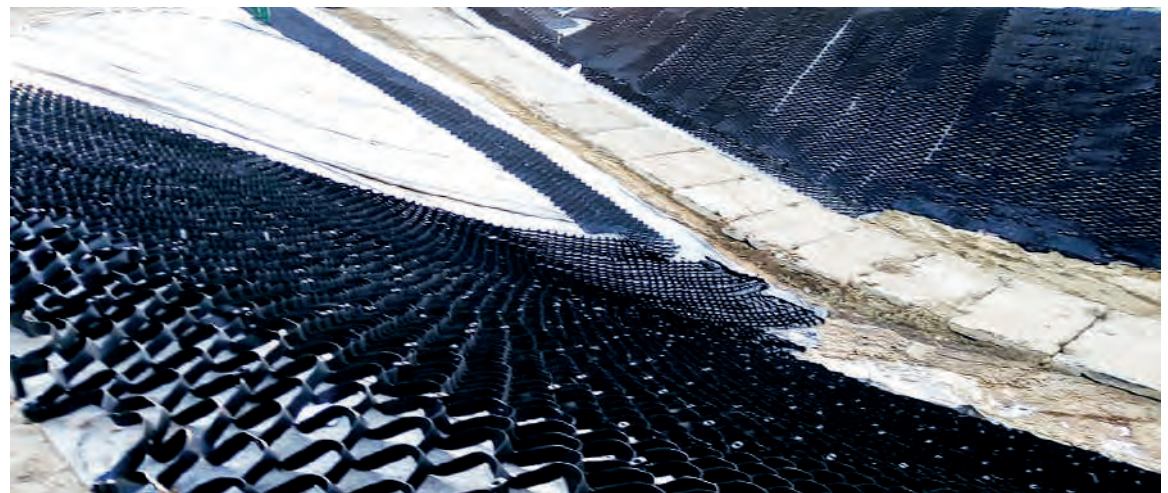
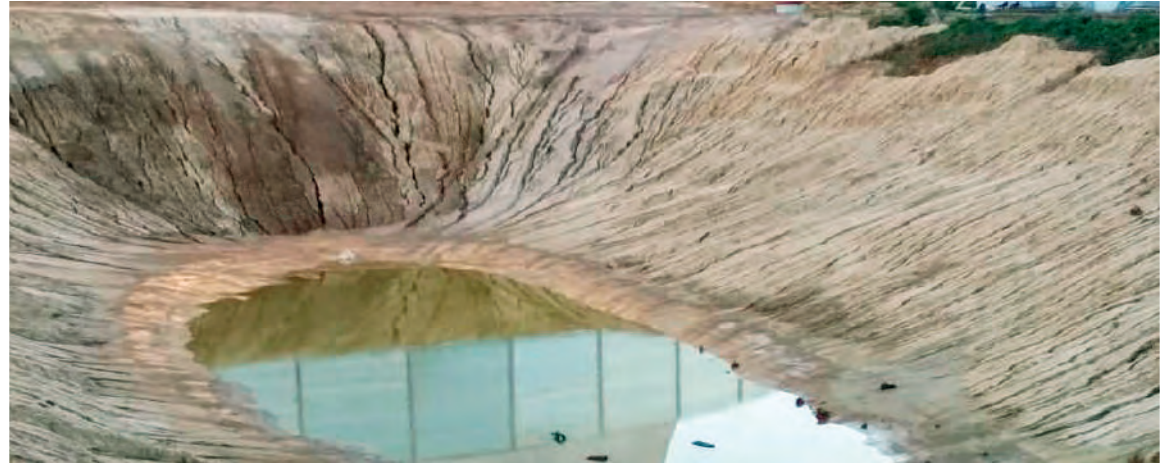
STRENGTHENING OF A DAM OUTLET AT A HYDRO POWER PLANT

-  Moscow, Russia
-  Hydraulic engineering
-  Slope reinforcement
-  Total area: 2 650 m²
-  October 2018 – January 2019

Client: PJSC Mosenergo


RESULTS:


1. 15% reduction in cost of reinforcement in comparison with the original design solution.
2. Improvement of the construction's reliability: the filling material does not fall out of the cells.
3. Lower operating costs. No correctional work on the aggregate material required.







SLOPE REINFORCEMENT AT A PRIVATE ESTATE

 Berendeyevo Tsarstvo,
Serpukhov region, Moscow oblast, Russia

 Civil engineering

 Slope reinforcement

 Total area: 350 m²

 August 2019

RESULTS:

1. Total cost reduction by 15%.
2. Compliance with the requirements of the original design project thanks to the use of innovative technology.
3. Abandonment of large construction equipment.
4. Increased environmental friendliness.



REINFORCEMENT OF SLOPES ALONG THE ROAD

-  Vietnam
-  Road construction
-  Slope reinforcement
-  Total area: 3 500 m²
-  2018






RESULTS:

1. Total cost reduction by 14%.
2. Supply cost reduction by 21,6%.
3. Slope reinforcement and the anchor system allow to prevent erosion and landslides.
4. Construction with appliance of GEOSTEP® operates once installed in contrast with constructions made of geomats which starts operating only after formation of a stable plant root system (1-2 months after installation).





THE MOSCOW AUTOMOBILE RING ROAD (MKAD)

-  Moscow, Russia
-  Road construction
-  Slope reinforcement
-  Total area: 1 500 m²
-  2018

Client: Moscow State-financed Entity Avtomobilniye dorogi

RESULTS:

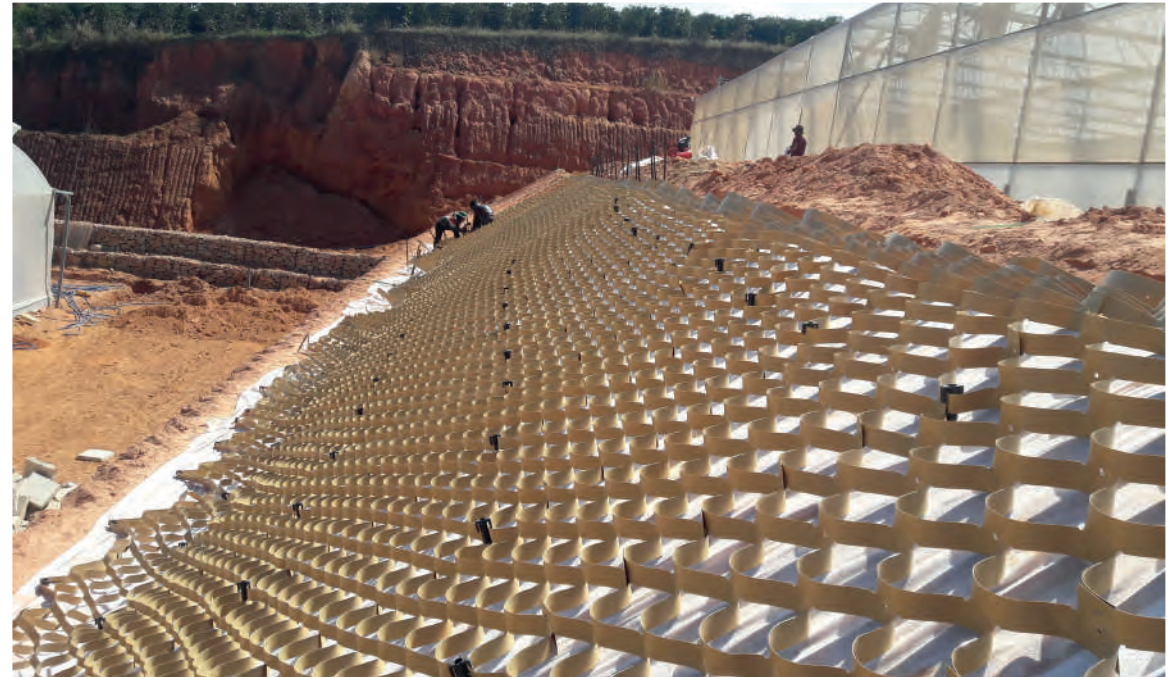
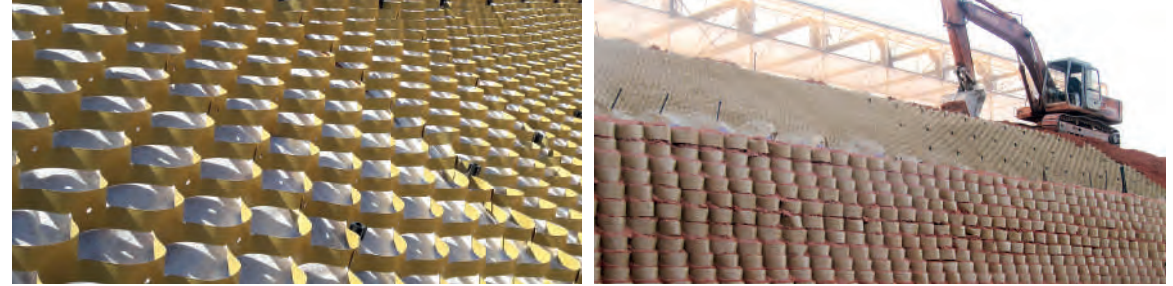
1. Total cost reduction by 6%: savings on protective works.
2. Reduced materials consumption:
crushed stone layer thickness reduced from 20 to 15 cm,
cell height reduced from 15 to 10 cm.
3. Reduction of operating costs by 99%:
the design does not need any additional maintenance
and correction works.
4. Increase of the design durability for more than 12 years.
5. Aesthetic appearance during the entire life cycle.

CONSTRUCTION OF AN AGRICULTURAL SITE

-  Vietnam
-  Agriculture
-  Retaining wall
-  Total area: 1 350 m²
-  2017–2018






RESULTS:

1. Total cost reduction on reinforced concrete by 81%, or gabions by 57%: substantial savings on construction.
2. Material cost reduction by 84% (reinforced concrete), or by 23% (gabions).
3. Reduced labor intensity by 75% due to ease of installation and lack of additional equipment and mechanisms.
4. Reduced installation time by 83% (reinforced concrete) or 94% (gabions).





RAILWAY EMBANKMENT REINFORCEMENT OF THE MOSCOW CENTRAL CIRCLE

-  Moscow, Russia
-  Railway construction
-  Slope reinforcement
-  Total area: 2 100 m²
-  2016

Client: Russian Railways (RZD)


RESULTS:


1. Total cost reduction by 8,4%.
2. Supply cost reduction by 31%.
3. Slope reinforcement with appliance of a three-dimensional structure and an anchoring system prevents erosion of the foundation soil (washaway and earth slides).
4. Construction with appliance of GEOSTEP® is operational as soon as it is installed in contrast with constructions made of geomats, which start operating only after a stable plant root system is formed (1-2 months after installation).



INFRASTRUCTURE DEVELOPMENT OF A TANK FARM

 Port of Novorossiysk, Russia

 Oil and gas

 Slope reinforcement

 Total area: 3 400 m²

 2016

Client: JSC Transneft






RESULTS:

1. Total cost reduction by 10%:
substantial savings on slope reinforcement.
2. Increase in mounting speed by 15%:
large length of the winding allows to strengthen the slope from the sole to the edge with 1 piece.
3. Operating cost reduction by 50%:
crushed stone does not wash out, minimum correction works needed.





ROADS IN OPEN MINES

-  Russia
-  Mining
-  Paved road surface for heavy machinery (up to 400 t)
-  Total area: 10 000 m²
-  June 2019



RESULTS:

1. Improved transport and operational qualities of career roads, reducing the cost of their maintenance and repair up to 25%.
2. Increased strength and evenness of the road.
3. Improved grip, no spillage.
4. Increased speed and productivity of dump trucks up to 3%.



CONSTRUCTION OF THE CENTRAL RING ROAD OF THE MOSCOW REGION. LAUNCH COMPLEX #3

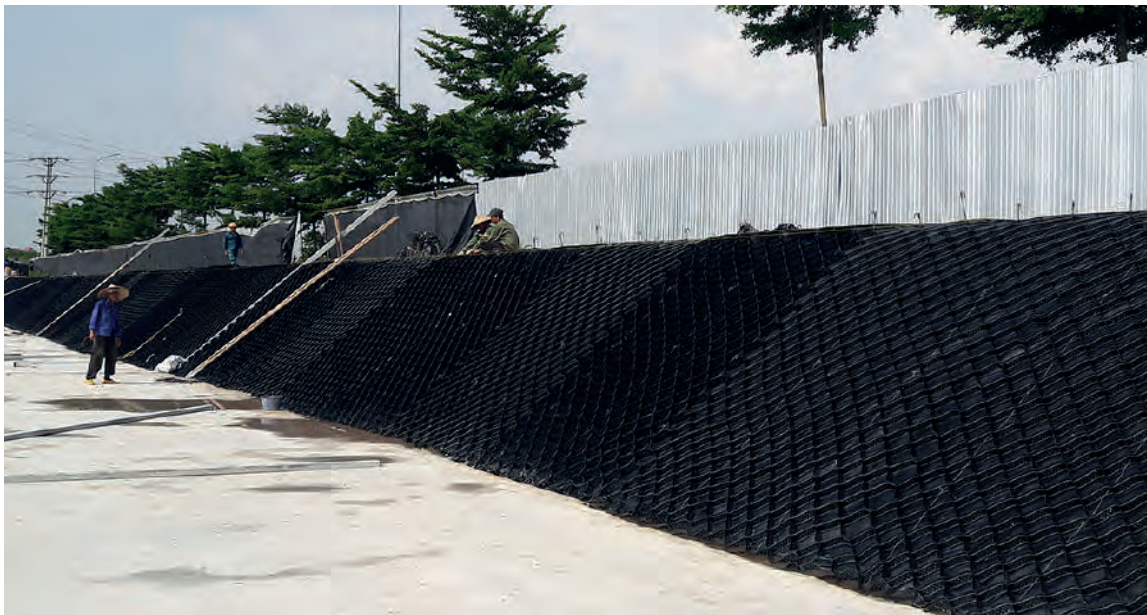
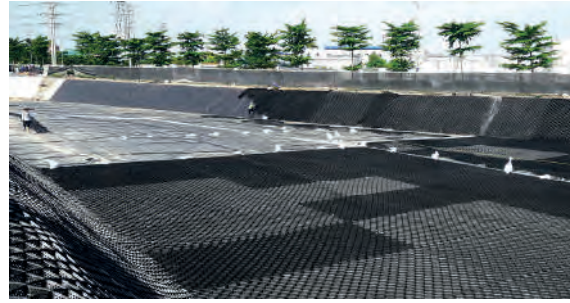
-  Moscow region, Russia
-  Road construction
-  Slope reinforcement
-  Total area: more than 100 000 m²
-  2018–2019

Client: State Corporation AVTODOR



RESULTS:

1. Prevention of slope erosion.
2. Minimisation of costs for subsequent operation.










SUMP TANK FOR WATER TREATMENT STATION

-  Vietnam
-  Hydraulic engineering
-  Water reservoir base
-  Total area: 6 100 m²
-  February – October 2018

RESULTS:

1. Total cost reduction by 68%.
2. Reduction of labor intensity by 92%: a construction made of three-dimensional geocells is easy and quick to manually mount, does not require special equipment or tools. When concrete is poured, GEOCORD® is used as a formwork and helps to avoid unnecessary costs for boards. Polyamide cords and GEOCORD® serve as armature, which also allows for significant savings.
3. Construction period shorter by 50%.

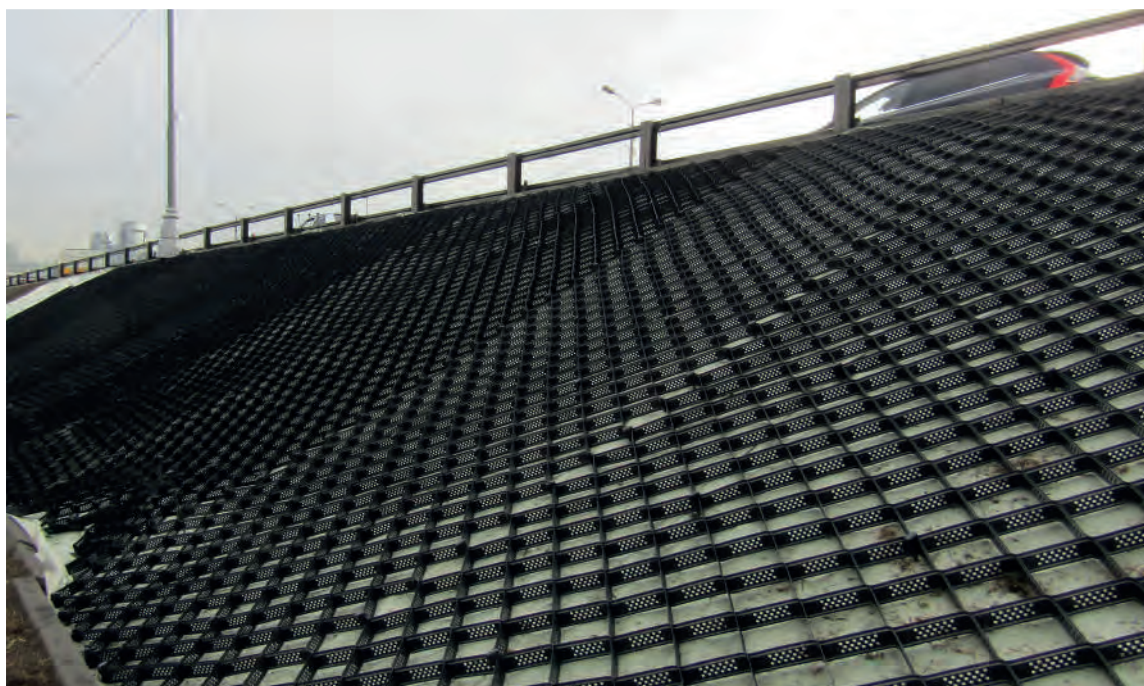
THE MOSCOW AUTOMOBILE RING ROAD (MKAD)

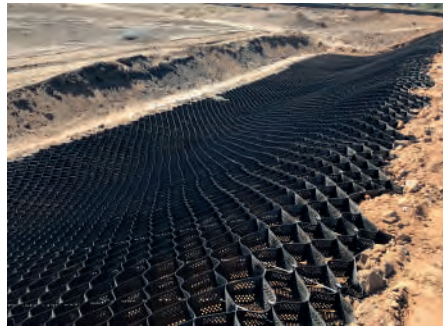
-  Moscow, Russia
-  Road construction
-  Slope reinforcement
-  Total area: 2 800 m²
-  2018

Client: Moscow State-financed Entity Avtomobilniye dorogi


RESULTS:

1. Total cost reduction by 48%.
2. The period between repairs increased from 3 to 12 years.
3. Increase in capital repairs period up to 24 years.
4. The construction does not need any additional maintenance or correction works.
5. Aesthetic appearance during the entire life cycle.






EVAPORATION PONDS AT THE ASTRAKHAN GRES POWER PLANT

 Astrakhan region, Russia

 Hydraulic engineering

 Slope stabilization

 Total area: 30 000 m²



 August – November 2018

Client: LUKOIL-Astrakhanenergo LLC

RESULTS:

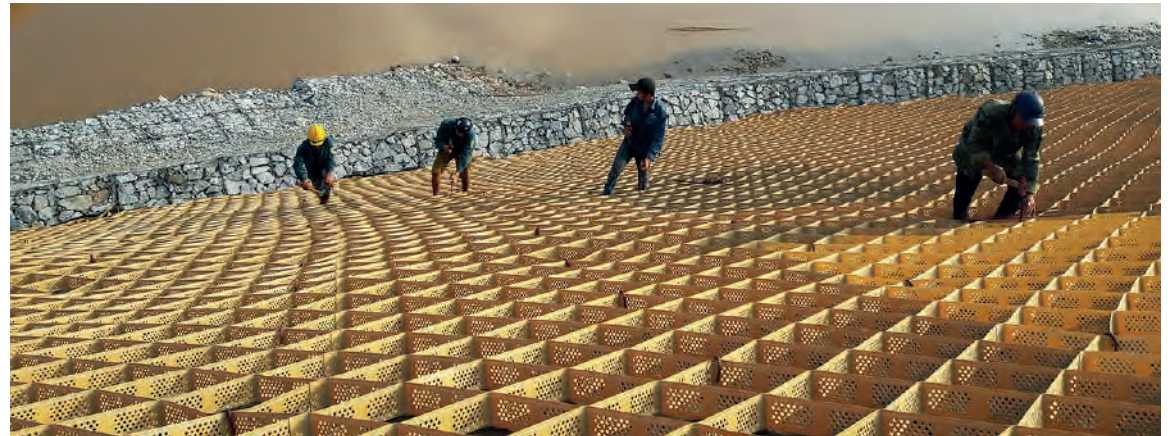
1. Cost reduction by 158 885 USD.
2. The restraint cable system that was used instead of traditional anchors does not damage the geomembrane and ensures the safety of the waterproofing layer.
3. Using GEOCORD® allows for increasing the steepness of the slope to 1:1, which reduces the volume of earthworks and building materials by 20-30%.
4. Labour costs decreased by 4 times, labor costs of machinery and mechanisms decreased by 8.5 times.
5. Application of GEOCORD® and GEOFORCE® composite anchors ensures resistance to vandalism.
6. Use of local soil as a filler material for geocells saved the cost of transportation of crushed stone, and contributed to the preservation of the environment and road network of the region.

BANK PROTECTION IN THE DOWNSTREAM OF A HPP

-  Vietnam
-  Hydraulic engineering
-  River bank protection
-  Total area: 10 400 m²
-  June – November 2018

RESULTS:

1. Total cost reduction by 84%.
2. Decrease in labour intensity by 83%.
3. 10 times shorter construction period.
4. Reliable protection against erosion: geocells help to avoid erosion of foundation soil and prevent soil washout under heavy rains conditions.
5. Longevity and low cost of repairing works: the service life of the structure is 75 years (as long as the installation requirements are met). The repairing works can be carried out by adding filling material to the geocells.





CONSTRUCTION OF AN AGRICULTURAL SITE

 Vietnam

 Agriculture

 Retaining wall

 Length: 250 m, height: 4 m






 2017–2018

RESULTS:

1. Total cost reduction on reinforced concrete by 81%, or gabions by 57%: substantial savings on construction.
2. Material cost reduction by 84% (reinforced concrete), or by 23% (gabions).
3. Reduced labour intensity by 75% due to ease of installation and lack of additional equipment and mechanisms.
4. Reduced installation time by 83% (reinforced concrete) or 94% (gabions).



TECHNOLOGICAL ROADS IN UNDERGROUND MINES

-  Russia
-  Mining
-  Paved road surface
-  Width: 6 m, length: 6180 m
-  2018

Client: FOSAGRO S.A.

RESULTS:





1. Total cost reduction by 51%.
2. Work complexity reduced by 63.5%: the structure of voluminous geogrids is easily and quickly mounted manually, does not require special equipment and tools.
3. 10 times higher construction speed: exclusion of production sites from the transport scheme for no more than 8 hours.
4. Resistance to rutting: avoids additional road maintenance costs.
5. The speed of technology does not decrease thanks to a flat surface without holes and ruts.



STANDARD GEOCELL[®]



RECONSTRUCTION AND OVERHAUL OF FEDERAL ROADS IN MOSCOW AND THE MOSCOW REGION



-  Moscow, Russia
-  Road construction
-  Slope reinforcement
-  Total area: more than 100 000 m²
-  2016–2018

Client: Moscow State-financed Entity Avtomobilniye dorogi and others

RESULTS:

1. Cost reduction by 48%.
2. The period between repairs increased from 3 to 12 years.
3. Increase in capital repairs period up to 24 years.
4. The construction does not need any additional maintenance or correction works.

RAILWAY EMBANKMENT REINFORCEMENT OF THE MOSCOW CENTRAL CIRCLE

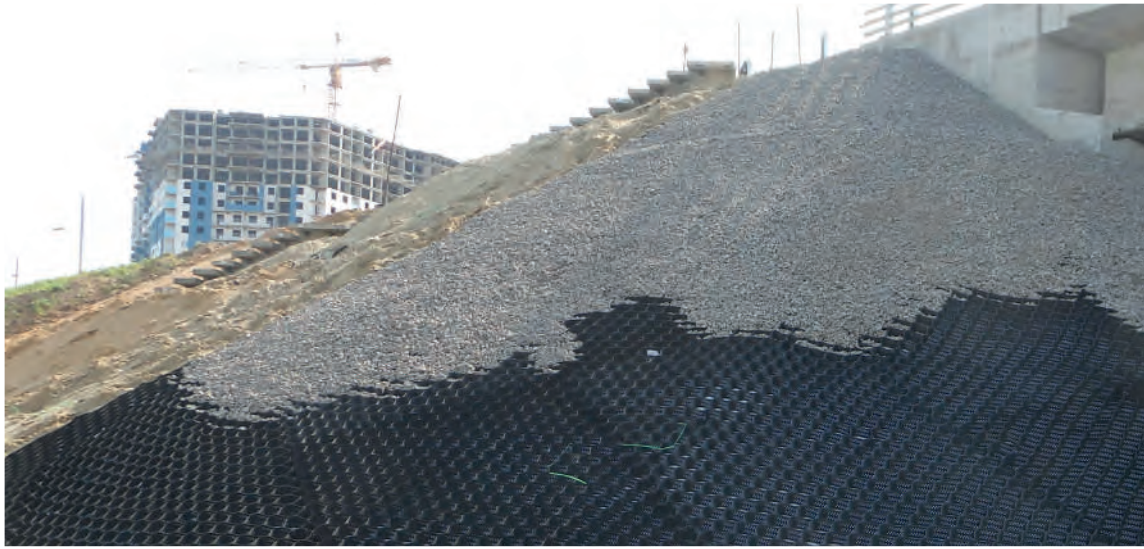
-  Moscow, Russia
-  Railway construction
-  Slope reinforcement
-  Total area: 35 000 m²
-  2016

Client: Russian Railways (RZD)

RESULTS:


1. Increased speed of work by 20%.
2. Cost reduction by 15%.
3. Reduction in the volume of earthworks by 15%.





RECONSTRUCTION OF THE M-8 KHOLMOGORY HIGHWAY. BYPASSING THE VILLAGE OF TARASOVKA

 Moscow region, Russia

 Road construction

 Slope reinforcement

 Total area: 2 500 m²



 2015

Client: ROSAVTODOR

RESULTS:

1. Increased speed of work by 20%.
2. Cost reduction by 15%.

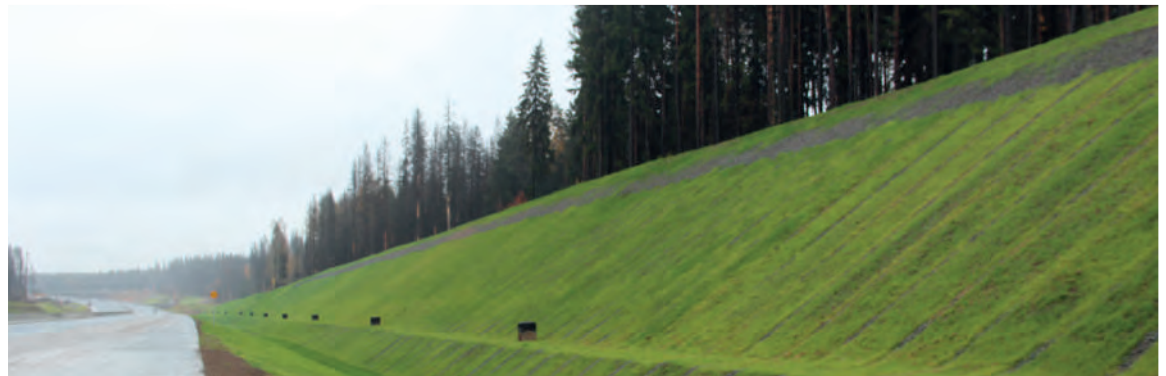
SLOPES OF THE M11 HIGHWAY (MOSCOW – SAINT PETERSBURG)

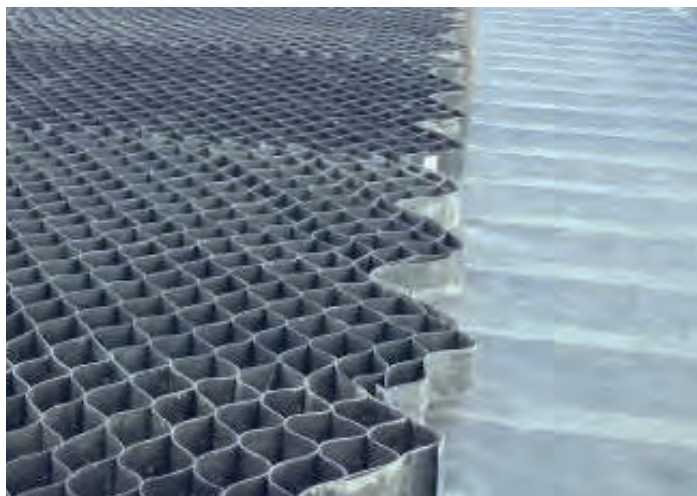
-  Moscow region, Russia
-  Road construction
-  Reinforcement of the slopes of deep grooves (more than 12 m)
-  Total area: more than 400 000 m²
-  2013–2014

Client: State Corporation AVTODOR






RESULTS:

1. Prevention of slope erosion.
2. Minimization of costs for subsequent operation.





COMPRESSOR PLANT VORKUTINSKAYA – COMPRESSOR PLANT YARYNSKAYA HIGHWAY, SYSTEM OF BOVANENKOVO – UKHTA GAS PIPELINES






-  Russia
-  Road construction, oil and gas
-  Paved road surface, slope reinforcement
-  Total area: more than 1 000 000 m²
-  2013–2014

Client: PJSC Gazprom

RESULTS:

1. Road construction without pit reclamations and a temporary plank road.
2. Lower construction costs by 15%.
3. Reduced construction time by 10%.

SRTO – TORZHOK GAS PIPELINE SYSTEM, TECHNOLOGICAL LONG-DISTANCE HIGHWAY

-  Russia
-  Road construction, oil and gas
-  Paved road surface, slope reinforcement
-  Total area: more than 5 000 000 m²
-  2005–2011

Client: PJSC Gazprom






RESULTS:

1. Road construction without pit reclamations and a temporary plank road.
2. Lower construction costs by 15%.
3. Reduced construction time by 10%.





RECONSTRUCTION OF THE RAILWAY BRIDGE ACROSS THE RIVER TYSYA ON THE RYAZAN-KUSTAREVKA SECTION OF THE MOSCOW RAILWAY (237 KM)

-  Russia
-  Railway construction
-  Embankment on the approaches to the bridges with horizontal and vertical reinforcement of the dredge
-  Total area: more than 10 000 m²
-  2006

Client: Russian Railways (RZD)

RESULTS:

1. Prevention of pits before the bridge.
2. Rolling stock is able to pass the bridge without reducing speed.
3. Reduced bottom settling of the embankment.
4. Acceleration of the consolidation of the embankment.

LANDSCAPING OF A COTTAGE VILLAGE



Moscow region, Russia



Civil engineering



Reinforcement of the cottage's adjacent territory,
paved road surface



Total area: more than 100 000 m²



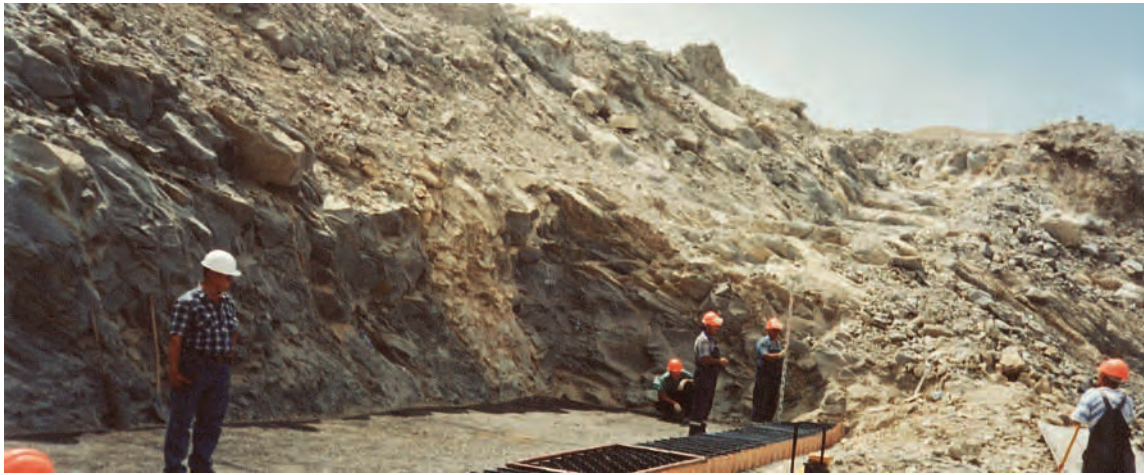
2005

Client: Istra Park LLC


RESULTS:


1. Project cost reduction by 50% in comparison with asphalt structures.
2. Increased service life of roads and adjacent territories from 5 years to 25 years.
3. Abandonment of large construction equipment.
4. Increased environmental friendliness.





BEREGOVAYA COMPRESSOR STATION, THE BLUE STREAM GAS PIPELINE AS PART OF THE RUSSIA – TURKEY GAS PIPELINE

 Krasnodar region, Russia

 Oil and gas

 Retaining wall

 Length: more than 100 m

 2002–2003

Client: PJSC Gazprom

RESULTS:

1. Reduced construction time by 15%.
2. Lower construction costs by 20%.
3. Possibility to equip the compressor station without fear of soil slipping.

ELIMINATION OF CLOSURE EMBANKMENT EROSION FROM THE ZAPOLYARNOYE – URENGOY GAS PIPELINE, LINES ##1, 2, 3



Yamalo-Nenets Autonomous Okrug



Oil and gas



Reinforcement of gas pipeline closure embankments



Total area: 1 250 000 m²

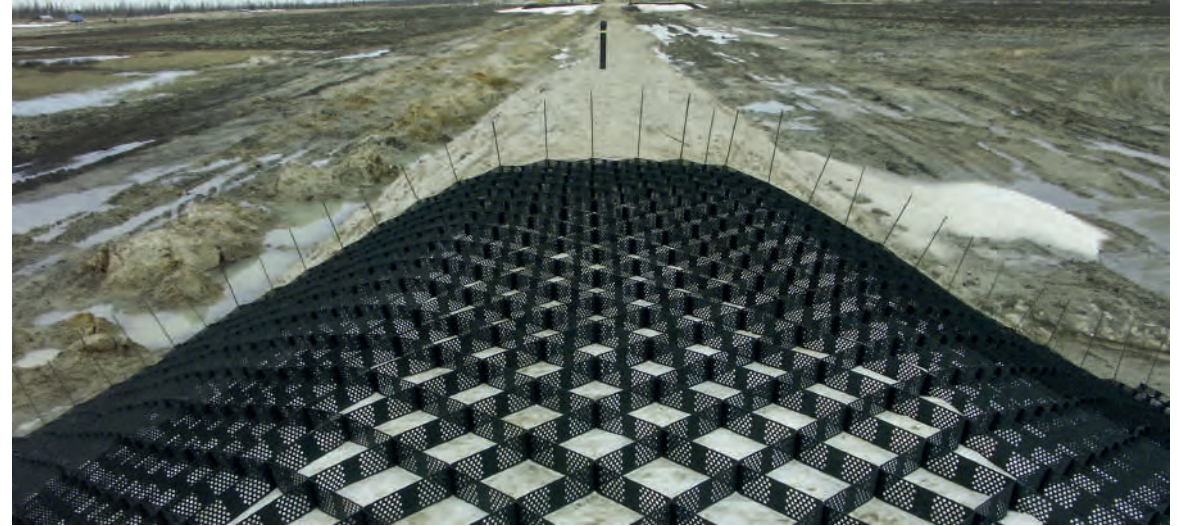


2000–2005

Client: PJSC Gazprom






RESULTS:

1. Elimination of the consequences of the destruction of closure embankments by flood waters.
2. Long-term highly effective engineering protection for the pipeline's closure embankments.
3. Minimised risks of emergency situations at the gas pipeline.
4. Improved reliability of the closure embankment structure.





THE ZAPOLYARNOYE – URENGOY GAS PIPELINE, LINES ##1, 2, 3

-  Yamalo-Nenets Autonomous Okrug
-  Oil and gas
-  Strengthening of the gas pipeline outfalls
-  Total area: 200 000 m²
-  2000–2005

Client: PJSC Gazprom

RESULTS:

1. Elimination of the consequences of the destruction of closure embankments by flood waters.
2. Long-term highly effective engineering protection for the pipeline's closure embankments.
3. Minimised risks of emergency situations at the gas pipeline.
4. Improved reliability of the closure embankment structure.



ENGINEERING OF THE ZAPOLYARNY OIL AND GAS CONDENSATE FIELD

 Yamalo-Nenets Autonomous Okrug

 Oil and gas

 Reinforcement of surface drainage structures

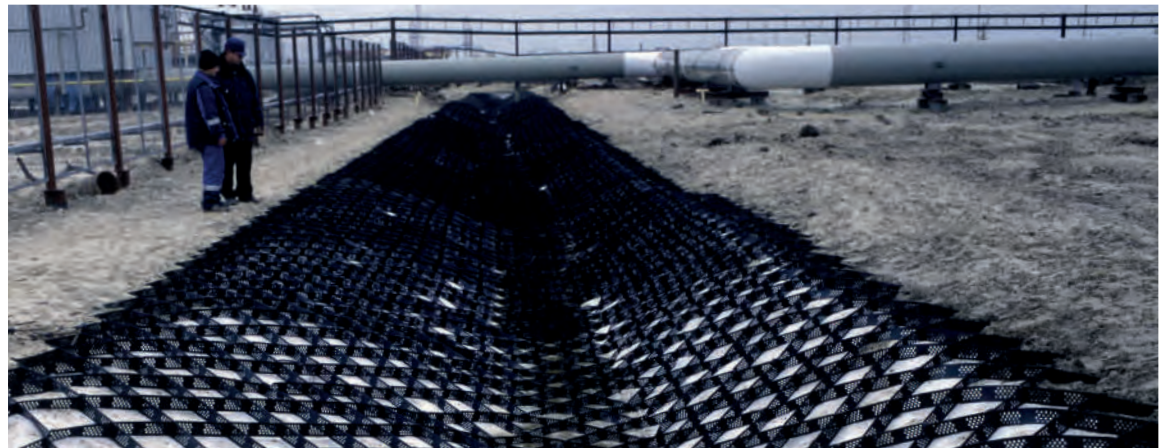
 Total area: 240 000 m²

 2000–2005

Client: PJSC Gazprom






RESULTS:

1. Effective strengthening of the channel of watercourses.
2. Reduced costs for the construction of watercourses by 20%(in comparison with concrete structures).
3. Reduction of construction time by 40%.
4. Minimisation of costs for subsequent operation.





THE ZAPOLYARNOYE – URENGOY GAS PIPELINE, LINES ##1, 2, 3

-  Yamalo-Nenets Autonomous Okrug
-  Oil and gas
-  Strengthening of waterways and water crossings across a gas pipeline
-  Total area: 300 000 m²
-  2000–2005


Client: PJSC Gazprom

RESULTS:

1. Long-term highly effective engineering protection for the pipeline's closure embankments..
2. Improving reliability of the construction.

THE ZAPOLYARNOYE – URENGOY GAS PIPELINE, LINES ##1, 2, 3

 Yamalo-Nenets Autonomous Okrug

 Oil and gas

 River bank protection

 Total area: 1 250 000 m²

 2000–2005

Client: PJSC Gazprom

RESULTS:






1. Prevention of flooding.
2. Long-term highly effective engineering protection for the pipeline's closure embankments.
3. Improved reliability of the construction.



FLEXIBLE CONCRETE SLABS GEOSOTY



EXPANSION AND RECONSTRUCTION OF 500 KV OUTDOOR SWITCHGEAR OF THE POMARY SUBSTATION

-  The Mari El Republic, Russia
-  Power plant engineering
-  Reinforcement of watercourses
-  Total area: 345 m²
-  2012

Client: PJSC FSK EES


RESULTS:

1. Effective strengthening of the channel of watercourses.
2. Reduction of construction time by 50%.
3. Minimisation of costs for subsequent operation.




THE ZAPOLYARNOYE – URENGOY GAS PIPELINE, LINES ##1, 2, 3

 Yamalo-Nenets Autonomous Okrug

 Oil and gas

 Reinforcement of gas pipeline closure embankments

 Total area: 1 250 000 m²

 2000–2005

Client: PJSC Gazprom

RESULTS:


1. Elimination of the consequences of the destruction of closure embankments by flood waters.
2. Long-term highly effective engineering protection for the pipeline's closure embankments.
3. The design is resistant to frost.
4. Minimised risks of emergency situations at the gas pipeline.
5. Improved reliability of the closure embankment structure.







ENGINEERING OF THE ZAPOLYARNY OIL AND GAS CONDENSATE FIELD

 Yamalo-Nenets Autonomous Okrug

 Oil and gas

 Reinforcement of watercourses

 Total area: more than 10 000 m²

 2005–2006


Client: PJSC Gazprom


RESULTS:


1. Effective strengthening of the channel of watercourses.
2. The design is resistant to frost.
3. Reduction of construction time by 50%.
4. Minimisation of costs for subsequent operation.

THE ZAPOLYARNOYE – URENGOY GAS PIPELINE, LINES ##1, 2, 3

 Yamalo-Nenets Autonomous Okrug

 Oil and gas

 Reinforcement of watercourses

 Total area: more than 10 000 m²

 2005–2006

RESULTS:

1. Effective strengthening of the channel of watercourses.
2. The design is resistant to frost.
3. Reduction of construction time by 50%.
4. Minimisation of costs for subsequent operation.







Authorised Partner



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