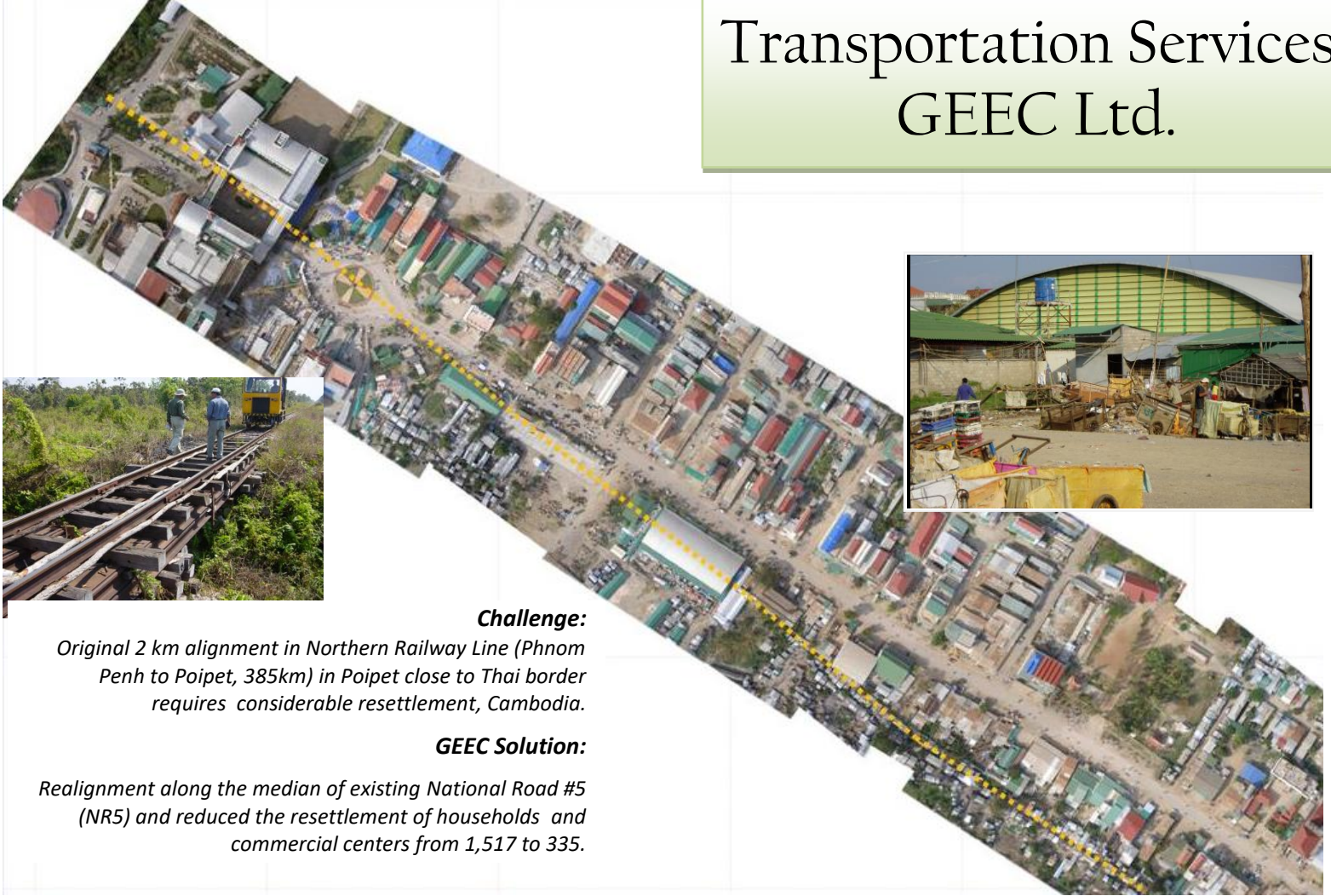


Transportation Services GEEC Ltd.



Challenge:

Original 2 km alignment in Northern Railway Line (Phnom Penh to Poipet, 385km) in Poipet close to Thai border requires considerable resettlement, Cambodia.

GEEC Solution:

Realignment along the median of existing National Road #5 (NR5) and reduced the resettlement of households and commercial centers from 1,517 to 335.

An efficient network of multi-modal transport systems (roads, rails etc.) bring together the economy of a nation vibrant and prosperous. The primary goal of transport industry is to transport goods and commuting people in enhancing the proper functioning and continued prosperity of a nation.

GEEC assists its clients in ensuring the efficiency and safety of transportation routes by providing engineering and consulting services for feasibility study, detailed design, and construction supervision of roads, railways, and waterways.

Challenge:

Steep gradient (30-35%) made it difficult to comply with geometric standards for major road, Kabul-Jalalabad Road, Afghanistan.

GEEC Solution:

Used hairpin to realign the existing road based on the actual site condition in order to comply with major road geometric standard.



Challenge:

One million cubic meter of visible contour of slumped earth in Navdonak Landslide, Dushanbe-Kyrgyz Border Road, Tajikistan.

GEEC Solution:

Analyze geological structure and geotechnical parameters, designed soil excavation with provision of extensive drainage system, slope stabilization work while preserving natural beauty of the area.



Through its global involvement in a wide range of transportation engineering projects in varied discipline, GEEC has gained the experience necessary to handle simple to very complex project that may arise during feasibility, detailed design, and construction or maintenance of a transportation system.



Challenge:

Lighting, ventilation, and drainage systems are partly functioning, Salang Tunnel, Afghanistan.

GEEC Solution:

Extensive repairs and costs are outlined to tunnel walls, drainage, lighting, ventilation, and emergency systems.

A Base of Experience

With about a decade of experience in providing Civil and Transportation engineering services, GEEC Ltd. has developed special expertise in road, bridge, and railway engineering including landslide and rockfall protection, avalanches assessment, slope stabilization, and retaining structures. The company's scope of services includes route alignment, capacity analysis, site reconnaissance, condition, roughness, and topographic

surveys, axle load survey, traffic surveys, subsurface investigation, safety audits, data analysis, environmental, social, and economic evaluation, engineering design, and construction supervision.

Challenge:

Low slab height, seasonal flood washed away the slab, piers are standing, Bagrami-Surkhrod Road, Afghanistan.

GEEC Solution:

Designed with increased slab height and larger middle span to avoid flood debris damaging the slab and piers.



approaches have been used to reduce the costs and schedules, increased the efficiency of construction activities and long-term performance of infrastructure.

GEEC Ltd.

GEEC Ltd. is a multidisciplinary consulting firm established in Toronto and maintains a Certificate of Authorization from Professional Engineers of Ontario. The key element of its strategy is the ability to combine the latest worldwide professional advances with a thorough knowledge of the local socio-economic conditions to reach solutions that are optimal, cost effective and reflects local needs.

GEEC works closely with development partners, other engineers, and government authorities around the world. The senior technical specialist have developed expertise in identifying and incorporating engineering, environmental, and socioeconomic concerns regarding safety, cost-effective solution, and efficient operations. The company serves as a lead firm, as a specialist subconsultant to other engineering firms, or as a technical specialist providing third party consultation directly to the project owner as appropriate.

Optimizing Budget

Constructing, rehabilitating, and maintaining a nation's transportation infrastructure is one of the greatest challenges facing government at all levels.

GEEC provides consulting and engineering services tailored to meet the engineering, geotechnical, economics, social and environmental demands of transportation system development and maintenance, while advising client decision-makers on the optimum expenditure of limited funds.

Meeting New Challenges

GEEC's expertise is recognized in the industry as a result of a wide range of the application of innovative methods and

techniques in highway, railway, and waterway engineering.

Many of these approaches have helped to set the state of the art designs of railways, highways, and waterways. These



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