Objectives:
The construction of the bridge will demonstrate the combine use of GFRP bars with internally post-tensioned CFRP tendons.

Background:
FRP composite materials are currently applied to existing construction. An area of primary interest is bridge decks where deflection control and shear capacity are of primary importance.

Structural Analysis:
The structural analysis of the bridge deck is carried out for an HS20-44 truck, according to AASHTO specifications.

Anticipated Benefits:
Combination of post-tensioned and unstressed reinforcement will increase the ultimate flexural and shear strengths as well as performance under serviceability load conditions.