Pre-existing tunnels

The existence of vehicular tunnels in modern infrastructure presents an intriguing opportunity for flood management, particularly through the potential use of their lower sections. This idea came to me while reflecting on how tunnel boring machines—typically used for transportation projects—might be repurposed to address the persistent flooding issues we face year after year. The cumulative volume of unused cavities beneath these tunnels could represent a substantial reservoir for floodwater, offering a practical solution if properly engineered. The next step is to determine whether this concept is not only interesting but also feasible. Admittedly, the plumbing network required to divert, store, and release floodwater could be complex and challenging to design. However, by initiating research and exploring the possibilities now, I can lay the groundwork for future applications in other regions that may benefit from a similar Flood Solution project. Much of this investigation will ultimately rely on the expertise of surveyors and structural engineers, whose knowledge of materials, tunnel integrity, and hydraulic systems is essential. While independent research can provide a foundation, professional input is critical to move from concept to implementation. If successful, applying a secondary function to existing road tunnels—transforming them into dual-purpose structures—could be all we need to create a viable and efficient flood solution. This approach not only maximizes existing infrastructure but also aligns with sustainable urban planning and climate resilience goals.