

発表題目:東京湾横断高潮防潮堤 (東京湾潮小路)

Storm surge barrier across Tokyo Bay (Tokyo Bay passageway)

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羽田から幕張まで東京湾を横断する、長さ30kmの「東京湾横断高潮防潮堤」。その設置を提案する。愛称を「東京湾潮小路」としたい。東京東部低地のゼロメートル地帯を高潮水害から護る。これが目的である。

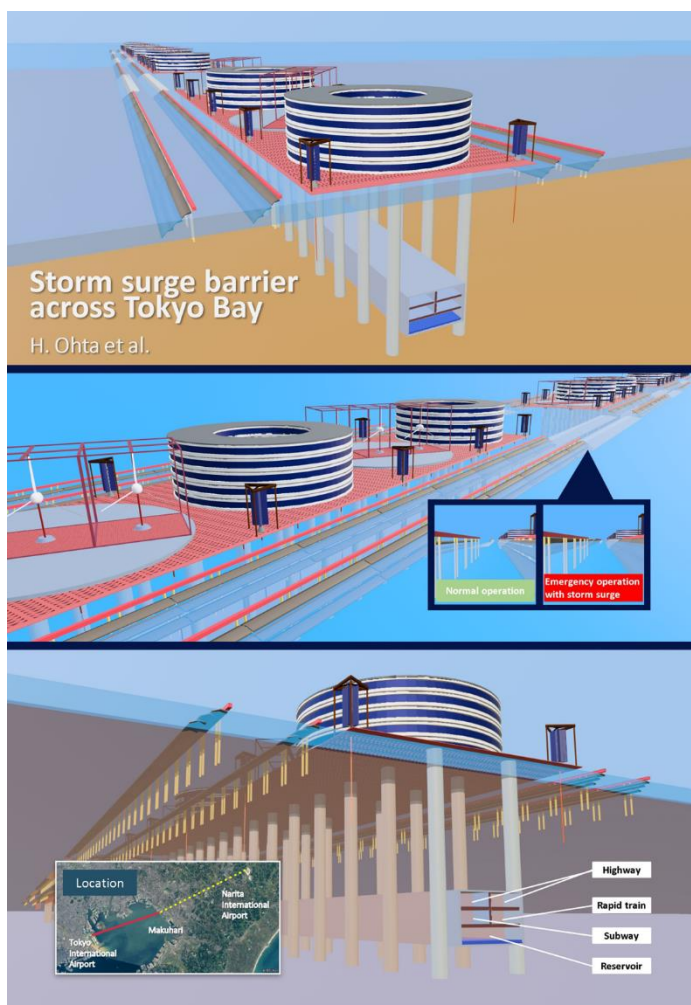
防潮堤の基礎部にあたる海拔マイナス100m深さの硬い地盤に、長さ30kmのトンネル状の地下遊水池を併設したい。万が一ゼロメートル地帯の地下鉄に海水が流入した場合、一時的にその水を地下遊水池に落とし込み、地下鉄から人々が避難する時間を稼ぐのが、遊水池の目的である。

高速道路・高速鉄道・地下鉄を、遊水池に沿って建設し、羽田ー成田両空港の一体運用をしたい。防潮堤のうえに50m級風車を並べて風力で発電し、無風時には海水を地下遊水池に落とし込み水力発電をする。

高潮防潮堤は、窓用の遮光ブラインド型としたい。平常時には水平になって海水の自由な移動を許し、高潮時にはブラインドが閉じて海水の移動を阻止する。航路部分は解放水域が必要なので、平常時には海底に伏せており、高潮時には立ち上がるフラット型のゲートを設置したい。ブラインド型ゲートは斜めに傾斜しており、太陽光を浴びて広大な藻場を形成する。多種多様な魚種の稚魚の生活空間が生まれ、東京湾の自然環境保護に資すると期待できる。

直径150mのバウムクーヘン型の5階建てビルを、並び立つ風車の間に建設することも考えられる。ビルを8等分し、一区画500坪x5階建て(床面積2500坪)の豪華邸宅を、300億円で販売したい。自家用ヨットハーバー・自家用ビーチ・自家用養魚場を備え、屋上に500坪の庭園をもつセキュリティ万全の邸宅である。アジア各国の超お金持ちのための高級住宅として、相当な需要が期待できる。企業の社屋兼保養施設としての需要も、期待できそうである。

夢物語ではあるが、実現の可能性を追求してみたい。



Storm surge barrier across Tokyo Bay (Tokyo Bay passageway)

This document is to propose an installation of a 30km-long "Tokyo Bay Transverse Storm Surge Seawall" across Tokyo Bay from Haneda to Makuhari.

I like to nickname it "Tokyo Bay Shiokoji", or Tidal Pathway. The purpose of this wall is to protect the Zero-Meter Zone in the eastern lowlands of municipal Tokyo from storm surge flooding.

The plan is to install a 30km-long-tunnel-shaped underground reservoir in the hard ground at a depth of 100m below sea level where the base of the seawall is located. The point is that, in an unlikely event, seawater starts to flow into the subway railroads at the zero-meter zone, then the Pathway diverts water and has the reservoir temporarily store it, hence giving people time to evacuate from the subway systems.

Additionally, we can build expressways, high-speed railways and subways along the reservoir to help both Haneda and Narita Airports operate in an integrated manner. Also, a set of 50m-class wind turbines are to be lined up on the seawall to generate electricity from wind, and when there is no wind, seawater is dumped into an underground reservoir to generate hydroelectric power.

The storm surge embankment would be of the type like blackout blind for windows. During normal times, the blind is set horizontal, allowing seawater to move freely, and during high tides, the blind is set to close to prevent seawater from moving. Since the steamship route requires open water, we need to have a flat gate that lies on the seabed during normal times and rises during high tides. The blind type gate is slanted diagonally and receives sunlight, forming a vast seaweed bed. I believe this would create a great living space for the fry of a wide variety of fish species, and contribute to protecting the natural environment of Tokyo Bay.

It is also conceivable to construct five-story Baumkuchen-shaped buildings with a diameter of 150 m between the rows of windmills. The building could be divided into 8 equal parts. We could sell them as luxurious residences of 5 stories with each 500 tsubo floor, or 1,650 square meters. Total floor area would be 2,500 tsubo, or 8,250 square meters for 30 billion yen. They could be highly secure residences with private yacht harbors, beaches, fish farms, and 500-tsubo (1,650 square meter) gardens on the roofs. Considerable demand is expected from the super-rich in Asian countries. It seems likely that there would be demand, too, for the buildings as company office buildings combined with recreational facilities.

This might end up with just a pipe dream, but I dare to pursue the possibility of making it a dream-come-true reality.

“Translated by the secretariat”