CLAIMS

What is claimed is:

1. A publicly accessible urban beach entertainment complex, the complex comprising:
   a) a large centerpiece lagoon, the lagoon having a bottom, a perimeter, and a minimum surface area of at least 3,000 m^2 to recreate a tropical lifestyle look and feel, and wherein the lagoon further includes:
      i. at least one bathing zone within the lagoon, wherein the bathing zone comprises a localized disinfection system;
      ii. at least one water sports zone located within the lagoon, the water sports zone comprising a water depth of at least 1.4 meters at its deepest point;
   b) at least one sand beach area and a rest area surrounding the perimeter of the lagoon, wherein the sand of the sand beach area has a light color thereby resembling a tropical beach;
   c) a water supply system, operatively connected to a water supply, for providing filling or make-up water for the lagoon;
   d) a water treatment system arranged and configured for treating the water in the lagoon, and wherein the water treatment system is arranged and configured to:
      i. collect water from the water supply system and store the water in the lagoon;
      ii. during a seven-day interval, treat the water in the lagoon by periodically adding disinfectant agents to the stored water to establish an ORP of at least 500 mV for a period of time dependent on the temperature of the water being treated; and
      iii. activate operation of a mobile suction device to suction a portion of the water proximate the bottom of the lagoon containing settled solids, filter the portion of the water suctioned by the mobile suction device, and return the filtered water to the water in the lagoon, whereby the thickness of the settled solids is minimized;
   e) a physical barrier surrounding at least a portion of the urban beach entertainment complex, the barrier being arranged and configured to limit individual access to the complex or its centerpiece lagoon;

an access control system wherein the access control system is arranged and configured to selectively permit entry of individuals into at least a portion of the urban beach entertainment complex; and

at least one ancillary facility located within the complex, selected from the group of commercial, recreational, educational, cultural, residential, and sports facilities in order to allow different events and activities to be held within the complex.

2. The publicly accessible urban beach entertainment complex of claim 1, wherein at least a portion of the bottom of the lagoon is constructed with a flexible plastic material.

3. The publicly accessible urban beach entertainment complex of claim 1, wherein the plastic material is selected from the group comprising polyvinyl chloride, polyethylene, rubbers, and polypropylene.

4. The publicly accessible urban beach entertainment complex of claim 1, wherein the bottom is constructed with materials to provide layers, comprising plastic liners, shotcrete, and mineral layers the materials forming the bottom help achieve lower costs than conventional swimming pools having a concrete bottom.

5. The publicly accessible urban beach entertainment complex of claim 1, wherein at least a portion of the bottom of the lagoon is constructed with materials having waterproofing and containment properties such as concrete, plaster, stucco, or combinations thereof.

6. The publicly accessible urban beach entertainment complex of claim 1, wherein the bottom is constructed to include two or more of the bottom materials in layers.

7. The publicly accessible urban beach entertainment complex of claim 1, wherein the color of the plastic material is white, light blue or light brown.

8. The publicly accessible urban beach entertainment complex of claim 1, wherein the color of the sand in the sand beach area is selected from the following colors according to the RAL color

scale: RAL 9001, RAL 9002, RAL 9003, RAL 9010, RAL 9016, RAL 9018, RAL 1001, RAL 1014, or RAL 1004.

9. The publicly accessible urban beach entertainment complex of claim 1, further comprising a zero-entry edge having a slope between 5% and 30%, whereby the slope resembles a natural beach edge with a soft slope.

10. The publicly accessible urban beach entertainment complex of claim 1, further comprising a localized disinfection system in the bathing zone whereby an increased chemical concentration is provided in the bathing zone, the localized disinfection system including a dispensing outlet arranged and configured to apply disinfecting chemicals to the water volume within the bathing zone.

11. The publicly accessible urban beach entertainment complex of claim 10, wherein the localized disinfection system includes devices selected from the group comprising nozzles, injectors, jets, piping, and outlets.

12. The publicly accessible urban beach entertainment complex of claim 10, wherein the localized disinfection system is located at the perimeter of the lagoon and generally bounded by the swimming zone, whereby the primary influence of the disinfecting chemicals is mainly within the swimming zone.

13. The publicly accessible urban beach entertainment complex of claim 1, wherein the localized disinfection system includes a plurality of dispensing outlets, with the dispensing outlets being located at the bottom of the lagoon within the swimming zone, whereby the primary influence of the disinfecting chemicals is mainly within the swimming zone.

14. The publicly accessible urban beach entertainment complex of claim 1, wherein the bottom of the lagoon in water sports zone includes a variety of different slopes and depths.

15. The publicly accessible urban beach entertainment complex of claim 1, wherein the water sports zone is arranged and configured mainly for small watercraft to operate within the water sports zone, and wherein the water sports to be practiced in the water sports zone are selected from the group comprising: sailing, boating, canoeing, rowing, kayaking, water skiing, flyboarding, paddleboarding, parasailing, wakeboarding, windsurfing, kiteboarding, and kitesurfing.

16. The publicly accessible urban beach entertainment complex of claim 1, wherein the perimeter of the lagoon includes curved shapes and round corners, whereby the lagoon resembles a natural water body.

17. The publicly accessible urban beach entertainment complex of claim 1, further including tropical vegetation located in the sand beach area and additional rest areas, whereby a tropical setting is created.

18. The publicly accessible urban beach entertainment complex of claim 1, wherein the surface area of the lagoon is in the range of 3,000 m^2 to 200,000 m^2.

19. The publicly accessible urban beach entertainment complex of claim 1, wherein the lagoon has a surface area larger than about 20,000 m2 and does not present a noticeable chemical smell in its majority as in conventional pools that maintain a permanent residual chlorine level of 1 ppm.

20. The publicly accessible urban beach entertainment complex of claim 1, wherein the water supply system is arranged and configured to maintain a water volume in the lagoon of at least 80% of the designed water volume permanently.