CLAIMS

What is claimed is:

1. A construction method for creating a swimming lagoon with a beach access at a retail site, the retail site premises include a shopping mall with a big-box store or a standalone big-box store and an adjacent parking lot, the big-box store is vacant, the land parcel on which the retail site premises are located has a property perimeter, and the big-box store has a foundation and is located within the area of the retail site, the method comprising:

a. demolishing at least part of the retail site premises comprising the vacant building and/or the parking lot, wherein the demolition process includes excavating at least a 15 cm to 5 meter layer of the foundation of the vacant building and/or parking lot;

b. excavating material having a volume of at least 4,000 m3 from an area within the retail site premises comprising the vacant building and/or the parking lot;

c. forming a basin for a large water body having a surface area of at least 3,000 m2 and a minimum depth of at least 1.4 meters at its deepest point, wherein earthworks for the basin are created within the property perimeter, and wherein the basin includes a basin perimeter and a bottom;

d. constructing water containment walls on at least one section of the basin perimeter to form a waterfront perimeter, and covering the bottom of the basin with a non-permeable material, wherein the shape of the waterfront perimeter is curved and the basin has a maximum width of 300 meters;

e. constructing a sloped access area on at least one section of the basin perimeter to form a beach access into the large water body; and

f. constructing one or more barriers around the basin perimeter to cordon off an area to establish a controlled access area, wherein the controlled access area includes a beach access perimeter, and the barriers include at least one access point to selectively allow users

into the controlled access area, whereby the users allowed entry into the controlled access area are able to use the beach access.

2. The construction method of claim 1, wherein the area about the basin perimeter not located within the controlled access area forms an open access area which may be freely accessed by users.

3. The construction method of claim 1, further comprising building restaurants, kiosks, stores, cafes, and bars in the vicinity of the waterfront perimeter.

4. The construction method of claim 1, wherein the demolition process comprises excavation with machinery up to a depth of 20 centimeters over the design excavation level, where the final 20 cm are excavated manually.

5. The construction method of claim 1, wherein step b) comprises excavating material having a volume of at least 7,000 m3.

6. The construction method of claim 1, wherein step c) comprises forming a basin for a large water body having a surface area of at least 5,000 m2.

7. The construction method of claim 1, wherein

- when the soil type has more than a 12% material passing under a N°200 mesh (opening of 0.075 mm), the bottom soil must be compacted to achieve a 95% Modified Proctor Density, also referred to as the Maximum Dry Compacted Density
- when the soil type has less than a 12% material passing under a N°200 mesh (opening of 0.075 mm), the soil must be compacted to achieve no less than 80% of its Relative Density.

8. The construction method of claim 1, further comprising placing sand in the surroundings of the beach area.

9. The construction method of claim 1, the beach access having a sloped transition into the basin of between 5% and 30%

10. The construction method of claim 1, whereby the lagoon is used for swimming, for the practice of water sports, and for housing shows and events.

11. The construction method of claim 1, wherein the sloped access area is constructed with a support slab to provide structural stability to such area.

12. The construction method of claim 1, wherein the open access area has at least one point with a 120° unobstructed view of the water surface, with a beach-free radius of 50 meters, whereby user experience is maximized and noise from the beach area is minimized.

13. The construction method of claim 1, wherein the non-permeable material that covers the bottom of the basin comprises a plastic liner of at least 1 mm of thickness.

14. The construction method of claim 1, wherein the swimming lagoon is man-made, and has shapes that tends to imitate natural geometries.

15. The construction method of claim 1, wherein separate access points are included, for both controlled access areas and open access areas, so that visitors can participate in either one or both areas depending on their purpose for visiting the retail site and the swimming lagoon.

16. The construction method of claim 1, wherein the controlled access area is designed so that the total beach area to swimming lagoon area ratio is 1:2.

17. The construction method of claim 1, wherein the surroundings of the swimming lagoon include the use of amphitheaters to hold events such as concerts and festivals, among others.

18. The construction method of claim 1, wherein a screen is provided in the vicinity of the swimming lagoon to broadcast content and house events and shows.

19. The construction method of claim 1, wherein the swimming lagoon is illuminated through a lighting system.

20. A construction method for creating a swimming lagoon at a retail site, the retail site having a vacant building and a parking lot within its premises, the land parcel on which the retail site premises are located has a property perimeter, and the vacant building has a foundation and is located within the vicinity of the retail site, the method comprising:

a. demolishing at least part of the retail site premises comprising the vacant building and the parking lot, wherein the demolition process includes excavating at least a 15 cm to 5 meter layer of the foundation of the vacant building and/or parking lot;

b. excavating material having a volume of at least 4,000 m3 from an area within the retail site premises comprising the vacant building and/or the parking lot;

c. forming a basin for a large water body having a surface area of at least 3,000 m2 and a minimum depth of at least 1.4 meters at its deepest point, wherein the earthworks for the basin are created within the property perimeter, and wherein the basin includes a basin perimeter and a bottom;

d. constructing water containment walls on at least one section of the basin perimeter to form a waterfront perimeter, and

e. covering the bottom of the basin with a non-permeable material, wherein the shape of the waterfront perimeter is curved and the basin has a maximum width of 300 meters.

21. The method of claim 20, further comprising:

a. constructing one section of the waterfront perimeter and basin perimeter to form a sloped access area in at least one section of the basin perimeter to form a beach access into the large water body; the beach access area including one or more barriers to cordon off the beach access area, thereby establishing a controlled access area, and wherein the controlled access area includes at least one access point to selectively allow users into the controlled access area; and

b. constructing various amenities adjacent at least a portion of the waterfront perimeter, wherein the amenities are selected from the list of: entertainment, restaurant, educational, cultural, sports, retail shopping and other commercial facilities.

CLAIMS

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b. excavating material having a volume of at least 4,000 m3 from an area within the retail site premises comprising the vacant building and/or the parking lot;

c. forming a basin for a large water body having a surface area of at least 3,000 m2 and a minimum depth of at least 1.4 meters at its deepest point, wherein earthworks for the basin are created within the property perimeter, and wherein the basin includes a basin perimeter and a bottom;

d. constructing water containment walls on at least one section of the basin perimeter to form a waterfront perimeter, and covering the bottom of the basin with a non-permeable material, wherein the shape of the waterfront perimeter is curved and the basin has a maximum width of 300 meters;

e. constructing a sloped access area on at least one section of the basin perimeter to form a beach access into the large water body; and

f. constructing one or more barriers around the basin perimeter to cordon off an area to establish a controlled access area, wherein the controlled access area includes a beach access perimeter, and the barriers include at least one access point to selectively allow users into the controlled access area, whereby the users allowed entry into the controlled access area are able to use the beach access.

2. The construction method of claim 1, wherein the area about the basin perimeter not located within the controlled access area forms an open access area which may be freely accessed by users.

3. The construction method of claim 1, further comprising building restaurants, kiosks, stores, cafes, and bars in the vicinity of the waterfront perimeter.

4. The construction method of claim 1, wherein the demolition process comprises excavation with machinery up to a depth of 20 centimeters over the design excavation level, where the final 20 cm are excavated manually.

5. The construction method of claim 1, wherein step b) comprises excavating material having a volume of at least 7,000 m3.

6. The construction method of claim 1, wherein step c) comprises forming a basin for a large water body having a surface area of at least 5,000 m2.

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9. The construction method of claim 1, the beach access having a sloped transition into the basin of between 5% and 30%.

10. The construction method of claim 1, whereby the lagoon is used for swimming, for the practice of water sports, and for housing shows and events.

11. The construction method of claim 1, wherein the sloped access area is constructed with a support slab to provide structural stability to such area.

12. The construction method of claim 1, wherein the open access area has at least one point with a 120° unobstructed view of the water surface, with a beach-free radius of 50 meters, whereby user experience is maximized and noise from the beach area is minimized.

13. The construction method of claim 1, wherein the non-permeable material that covers the bottom of the basin comprises a plastic liner of at least 1 mm of thickness.

14. The construction method of claim 1, wherein the swimming lagoon is man-made, and has shapes that tend to imitate natural geometries.

15. The construction method of claim 1, wherein separate access points are included, for both controlled access areas and open access areas, so that visitors can participate in either one or both areas depending on their purpose for visiting the retail site and the swimming lagoon.

16. The construction method of claim 1, wherein the controlled access area is designed so that the total beach area to swimming lagoon area ratio is 1:2.

17. The construction method of claim 1, wherein the surroundings of the swimming lagoon include the use of amphitheaters to hold events such as concerts and festivals, among others.

18. The construction method of claim 1, wherein a screen is provided in the vicinity of the swimming lagoon to broadcast content and house events and shows.

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20. A construction method for creating a swimming lagoon at a retail site, the retail site having a vacant building and a parking lot within its premises, the land parcel on which the retail site premises are located has a property perimeter, and the vacant building has a foundation and is located within the vicinity of the retail site, the method comprising:

a. demolishing at least part of the retail site premises comprising the vacant building and the parking lot, wherein the demolition process includes excavating at least a 15 cm to 5 meter layer of the foundation of the vacant building and/or parking lot;

b. excavating material having a volume of at least 4,000 m3 from an area within the retail site premises comprising the vacant building and/or the parking lot;

c. forming a basin for a large water body having a surface area of at least 3,000 m2 and a minimum depth of at least 1.4 meters at its deepest point, wherein the earthworks for the basin are created within the property perimeter, and wherein the basin includes a basin perimeter and a bottom;

d. constructing water containment walls on at least one section of the basin perimeter to form a waterfront perimeter, and

e. covering the bottom of the basin with a non-permeable material, wherein the shape of the waterfront perimeter is curved and the basin has a maximum width of 300 meters.

21. The method of claim 20, further comprising:

a. constructing one section of the waterfront perimeter and basin perimeter to form a sloped access area in at least one section of the basin perimeter to form a beach access into the large water body; the beach access area including one or more barriers to cordon off the beach access area, thereby establishing a controlled access area, and wherein the controlled access area includes at least one access point to selectively allow users into the controlled access area; and

b. constructing various amenities adjacent at least a portion of the waterfront perimeter, wherein the amenities are selected from the list of: entertainment, restaurant, educational, cultural, sports, retail shopping and other commercial facilities.