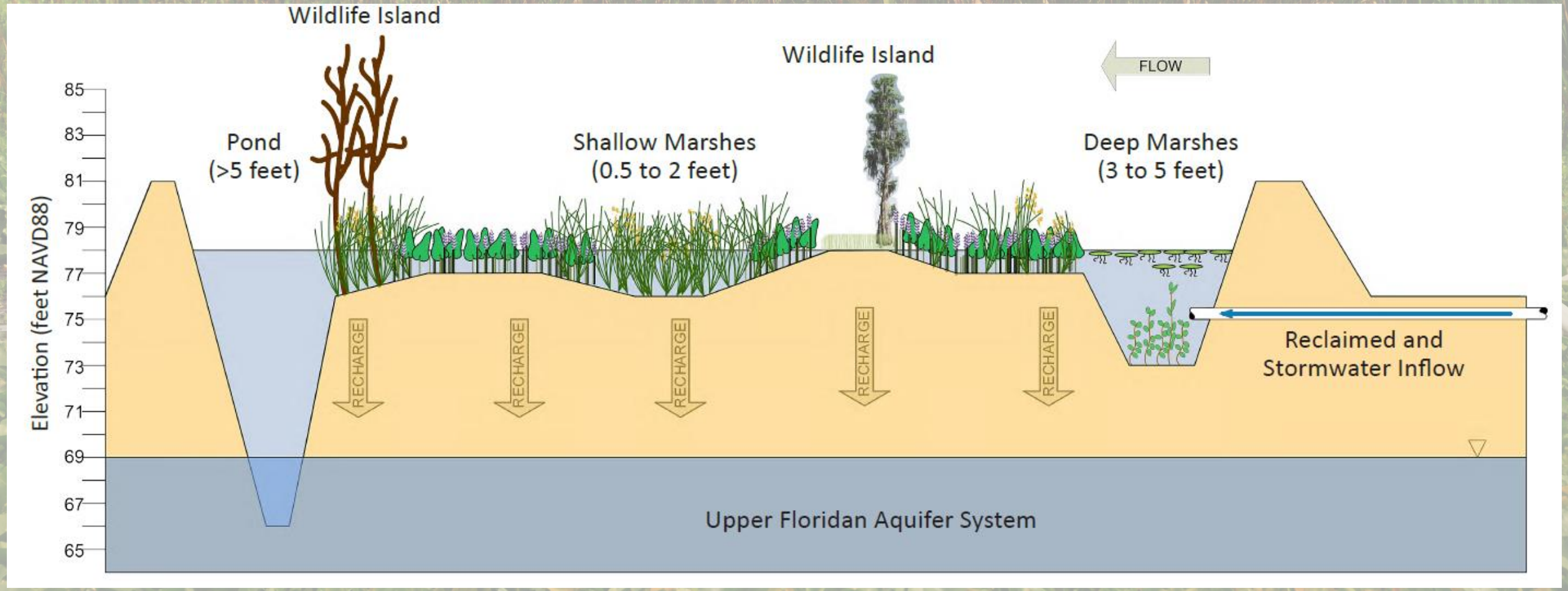

OCALA WETLAND
Recharge Park
OCALA


OCALA
Pine Oaks Club House and Golf Course Parking
Inlet Deep Marsh
Asphalt Path
NW 19th Avenue
Shallow Marsh
Asphalt Path
Asphalt Path
Pine Oaks Golf Course
Shallow Marsh
Open Water Pond
Boardwalk
Boardwalk
Overlook
Asphalt Path
Overlook
Inlet Deep Marsh
Open Water Pond
Boardwalk
Overlook
Shallow Marsh
Parking Area
Asphalt Path
Education Building
Shallow Marsh
N
NW 21st Street
ch2m


Wildlife Island
Wildlife Island
FLOW
Pond
(>5 feet)
Shallow Marshes
(0.5 to 2 feet)
Deep Marshes
(3 to 5 feet)
Elevation (feet NAVD88)
85
83
81
79
77
75
73
71
69
67
65
RECHARGE
RECHARGE
RECHARGE
RECHARGE
RECHARGE
Reclaimed and
Stormwater Inflow
Upper Floridan Aquifer System


29,000 lbs. of TN/year

- **St. Johns River Water Management District (SJRWMD):** $2 Million
- **Florida Department of Environmental Protection (FDEP):** $2 Million
- **319 (h) Non-point Source Education:** $319,208.16
- **FDEP RTP**: $200,000
- **FDEP RTP**: $400,000


77 PUBLIC
PRESENTATIONS


3552 Contacts

Naturally reducing & removing pollutants from stormwater

The Ocala Wetland Recharge Park incorporates treated wastewater and stormwater from the Old City Yard, a drainage retention area (DRA), that is located near the park and has historically flooded during heavy rain events. The park captures this water, therefore reducing regional flooding. Stormwater can contain many contaminants like nitrogen and phosphorus from fertilizers, pet and yard waste, oil, grease, heavy metals, vehicle coolants, bacteria and litter. These stormwater contaminants are the leading cause of water pollution. By sending this water to the Ocala Wetland Recharge Park, the total nitrogen can be reduced to nearly undetectable levels, and the total phosphorus will be greatly reduced. This freshly cleaned water will improve water quality and boost regional groundwater supplies.

Follow us on Facebook & Instagram
@ocalawetlandrechargepark

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OCALA
Water Resources

2105 NW 21st Street
Ocala, FL | 352-351-6772

Ocala Style Magazine
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Recharge, replenish, restore. The Ocala Wetland Recharge Park was created with the purpose of recharging the Upper Floridian aquifer with an average of 3 million gallons of naturally filtered stormwater and treated wastewater every day. Beyond water recharge, the park is creating a wetland ecosystem for wildlife and plant species while also providing the community with recreational opportunities and a place to connect with nature. Learn more about this monument to the environ... **See More**

OCALASTYLE.COM
A Park with a Purpose
Real People | Real Stories | Real Ocala

Learn More

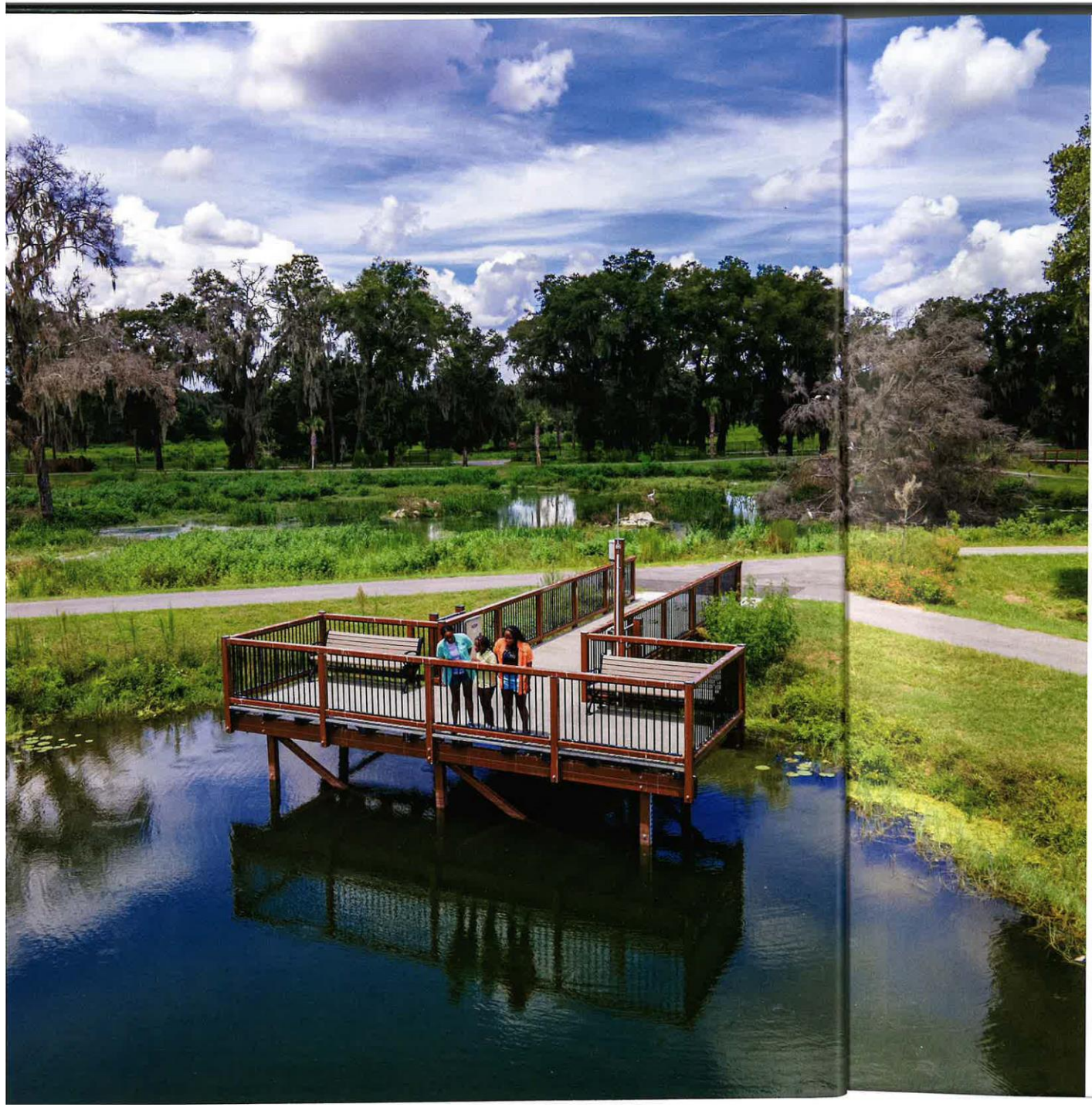
417

55 Comments 97 Shares

A Park with a Purpose

How the City of Ocala is making strides to replenish one of our most essential resources through the creation of a monument to the natural world.

Photography by Dave Miller



Water is the driving force of all nature. It is vital to the survival of every single human, animal and plant on the earth. On our most elemental level, water makes up 70 percent of the human body. It covers 71 percent of our planet's surface and is an essential element of both our natural ecosystem and our social system. It regulates our climate, allowing some ecosystems to flourish, and is a major limiting factor for others. Water is the key to our food supply and creates essential habitats for wildlife. We rely on fresh water for our most basic needs of drinking, cooking, bathing, and sanitation. We also delight in its more ethereal benefits, such as recreation, healing and relaxation. Water is a magical, moving, living part of the earth and a resource that we depend upon in ways we seldom think about. But think about it, we must.

"All the water that will ever be is, right now." *National Geographic* magazine proclaimed this in their 1993 "Water" themed issue. Their point in making such a stark statement is that the earth's supply of water is limited. Our population continues to grow and, as it does, the demand for water increases, as does the quantity of waste water we produce. Therefore, at some time, we will reach a point where the demand will exceed the available fresh water supply. And this is not centuries into the future. We are closer to that point than most of us might imagine. However, the quote is also often used to express that although water is a finite resource, it is a renewable one.

The Local Picture

Florida is surrounded on three sides by water and has a multitude of surface streams, lakes, wetlands and coastline. This creates a perception of abundant and seemingly infinite water supplies. In reality, there is a critical need for us to conserve those supplies and plan for how we will meet our future needs.

According to the Florida Office of Economic & Demographic Research, over the next 20 years the statewide demand for water is projected to be 7.5 billion gallons a day as the population increases to a projected 25.2 million people. The City of Ocala currently consumes on average 12 million gallons of water a day and 6 million of that is used for irrigation, which contributes to water pollution through runoff. As our local population rises, so too does the usage and pollution.

Throughout the state, communities like ours have been grappling with crafting solutions to the impending issue. Dee Ann Miller, spokeswoman for the Florida Department of Environmental Protection, explained that expanding supplies in the future will require a combination of approaches, including "the use of existing water supplies, water conservation and the development of additional alternative water supplies as well as projects that recharge our aquifers."

The City of Ocala has been working proactively on several projects to not only meet the future demand, but also protect our wildlife and natural resources. City leaders have demonstrated their forward-thinking strategy with a project that addresses both of those issues by creating a system that improves water quality while increasing groundwater supplies. The Ocala Wetland Recharge Park located near Lillian Bryant Park, at 2105 Northwest 21st Street, is a

NONPOINT POLLUTION

States report that nonpoint source pollution is the leading remaining cause of water quality problems. Nonpoint pollution results from runoff caused by large amounts of water, like a storm or a garden hose being left on. As runoff moves, it picks up and carries away natural and human-made pollutants.

The effects of nonpoint source pollutants on specific waters vary and may not always be fully assessed. However, we know that these pollutants have harmful effects on drinking water supplies, recreation, fisheries and wildlife.

1. Driveways can hold on to harmful chemicals. Running a hose on your driveway or rain can wash those chemicals into the watershed.
2. Stormwater collects many pollutants. These often find their way directly into our watershed.
3. Litter is an issue 365 days a year. Trash that overflows from bins or thrown out of vehicles can cause storm drain blockages and find their way into our waterways!
4. Pet waste left on the ground can wash into nearby water bodies spreading bacteria, disease and additional nutrient pollution. Pick up after your pets.
5. While you are laying out on the shore, make sure to pick up all your trash. Trash can make its way into the waterways, be consumed by wildlife or clog up storm drain systems.
6. Grass clippings and leaf litter are a problem when they are carried away from the lawn. They can clog storm water systems, waterways and transport excess fertilizers and pesticides that can lead to watershed pollution.
7. Fishing line is a serious threat to our aquatic life. The line can get wrapped around aquatic animal bodies, cause deformities, lacerations, amputations and even death.
8. Never dump oil or other automotive liquids on the ground or down the drain. Many of these chemicals along with oil are toxic to plants and animals, and can seep into the aquifer, contaminating water supplies.

OCALA WETLAND Recharge Park

OCALA

Special thanks to Pinellas County for providing the graphic used on this sign.


BENTHIC MACROINVERTEBRATES
Benthic (meaning "bottom-dwelling") macroinvertebrates are small aquatic animals and aquatic larval stages of insects living among stones, logs, sediments and aquatic environments. They lack a backbone and are visible without the aid of a microscope. Often these species can be used to determine the quality of the water, as they can be very intolerant to pollution. An abundance of species that are pollution sensitive and somewhat tolerant to pollution is an indicator that this is a healthy water body, as they couldn't survive with heavy pollution.
Although visible to the naked eye, these species rely on camouflage and hiding to prevent them being spotted by potential predators. The likelihood of seeing these creatures without digging in the muck is relatively low.
Pollution Tolerant
Pollution Sensitive
Dragonfly
Damselfly
Caddisfly
Midge Larva
Stonefly
Mayfly
OCALA WETLAND Recharge Park
OCALA

AMBITIOUS AMPHIBIANS

The Ocala Wetland Recharge Park is home to a vast array of habitats that can meet the needs of many amphibian species. Check out some of our resident hoppers, leapers and walkers.

Bullfrog
Lithobates catesbeianus
Size: 3 - 6 inches

The body of this aquatic (water dwelling) frog is greenish with a whitish belly. The back and belly have a dark net-like pattern. Their call is described as a deep, rumbling bass, often described as sounding like, "jug o' rum."

Green Tree Frog
Hyla cinereal
Size: 1 – 2.5 inches

These arboreal (tree dwelling) frogs are easily identified by the whitish stripes that run down both sides of their backs, usually with dark black borders. Their call is a raspy "brek-ek-ek-ek-ek-ek" and can be repeated up to 75 times per minute.

Eastern Spadefoot Toad
Scaphiopus holbrookii
Size: 1.75 - 2.25 inches

These plump terrestrial toads range in color from olive to brown to dark brown. Unlike most frogs and toads in North America, which have round or horizontal pupils, Spadefoot toads have vertical ones. Spadefoots spend a majority of their time 12 inches beneath the ground and they get there by using their built in "spades" or sickle shaped structure on their hind feet. Their call is a low pitched and drawn out "mwaaaaaaaah".

Southern Toad
Anaxyrus terrestris
Size: 1.5 - 3 inches

A toad is a particular kind of frog. This terrestrial (land dwelling) toad has tan to reddish brown, dark brown or even gray warty skin. Each of their dark spots contains one or two warts. Their call is a combination of hum and whistles.

Squirrel Treefrog
Hyla squirella
Size: 1 – 1.5 inches

These arboreal frogs can be tan, green, gray or brown and may have splotches. Their call is raspy and sounds like a duck.

Photos by Steve A. Johnson (University of Florida)

OCALA WETLAND Recharge Park

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NOT A DUCK!

There are many different species of waterfowl that will fulfill their habitat needs at the Ocala Wetland Recharge Park, but not all of them are ducks! These species are commonly confused with their quacking comrades, but they lack all of the traits to be called a duck.

Sora: *Porzana carolina*

This camouflaged and highly elusive bird is actually very common throughout North America. When seen they have a distinct bright yellow bill. Loud noises startle these birds, and their response to being frightened is to let out a distinct whinnying call.

Pied-billed Grebe: *Podilymbus podiceps*

These small diving birds can be found all over Florida and over their thick bills to eat crustaceans, fish, amphibians and invertebrates. Keep an eye out as these birds are heavy, seen in flight but are often hiding amongst vegetation.

Purple Gallinule: *Porphyrio martinica*

Purple Gallinules are highly recognized for their distinct and attractive plumage. They are often seen walking across the tops of water lilies and other floating vegetation on their long toes and long legs as they hunt for frogs and benthic macroinvertebrates.

Common Gallinule: *Gallinula galeata*

These birds are often heard before they are seen. Listen closely for an interesting sound of clucking and whinnying coming from the thick vegetation. Gallinule chicks have spurs (called a pollex) on the tips of their wings that are used to climb into the nest and onto vegetation.

American Coot: *Fulica americana*

Although many people think this water bird would have webbed feet, it actually doesn't! Instead they have broad lobes of thick skin on each of their long toes. These help the American Coot easily move in water, on mucky ground and on dry land.

OCALA WETLAND Recharge Park

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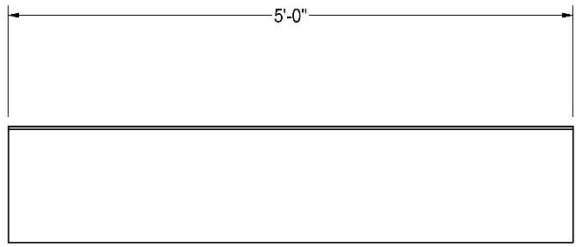

PLAN VIEW
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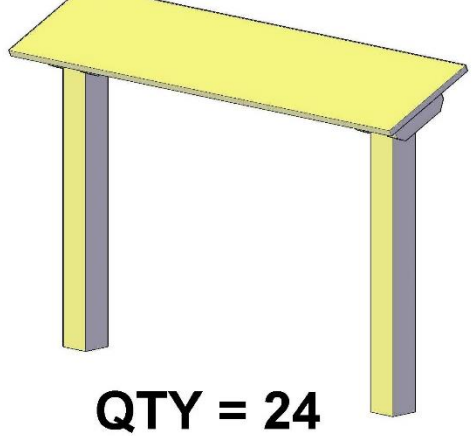

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FRONT RIGHT ISOMETRIC
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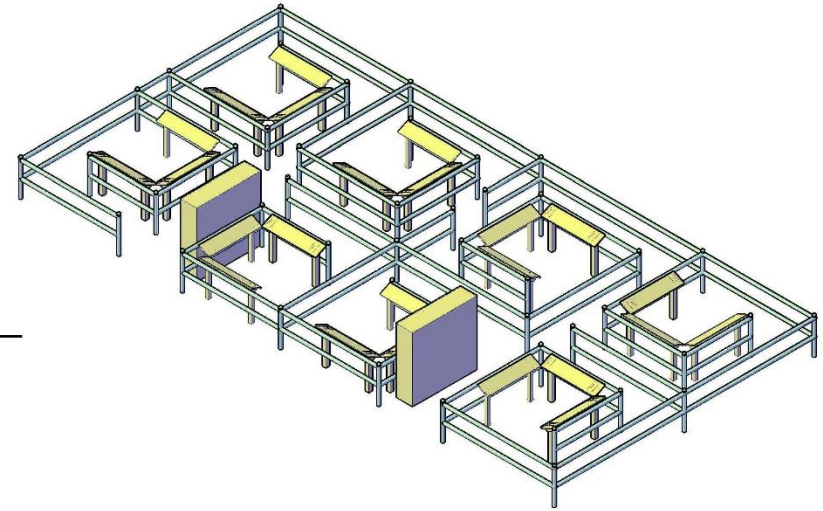

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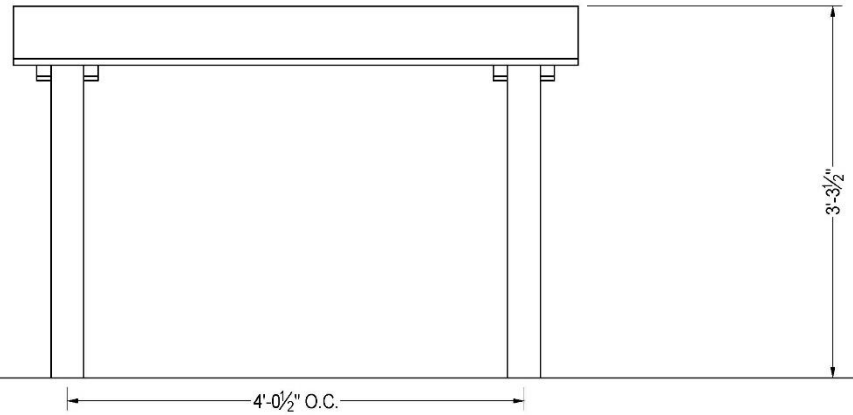

FRONT ELEVATION
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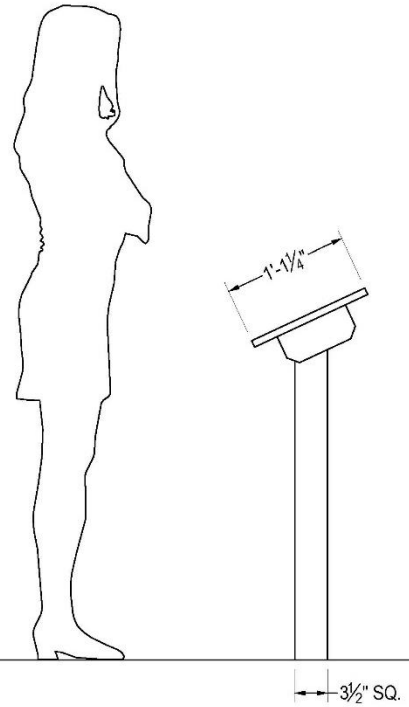

SIDE ELEVATION
SCALE: 3/4" = 1'-0"

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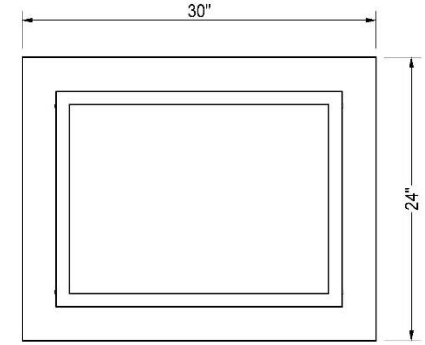
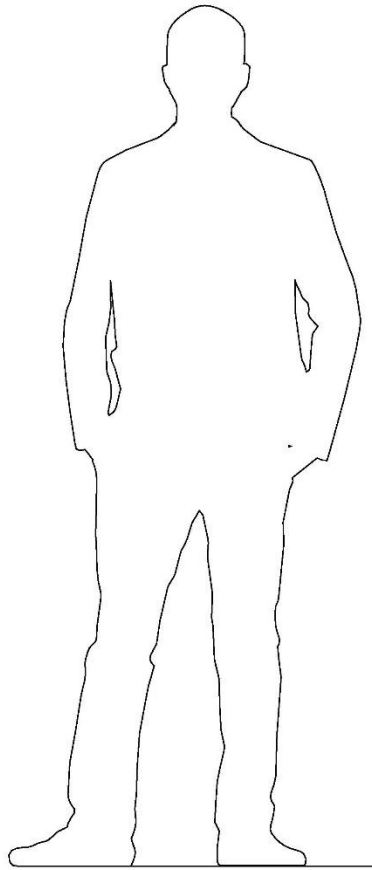
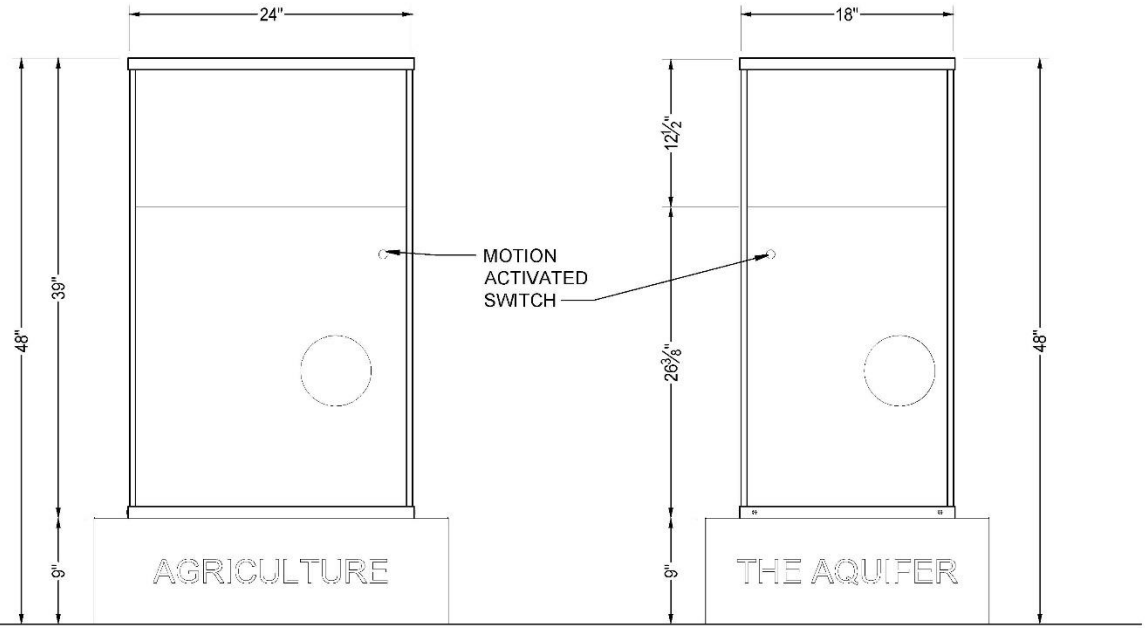


PLAN VIEW

SCALE: 1" = 1'-0"



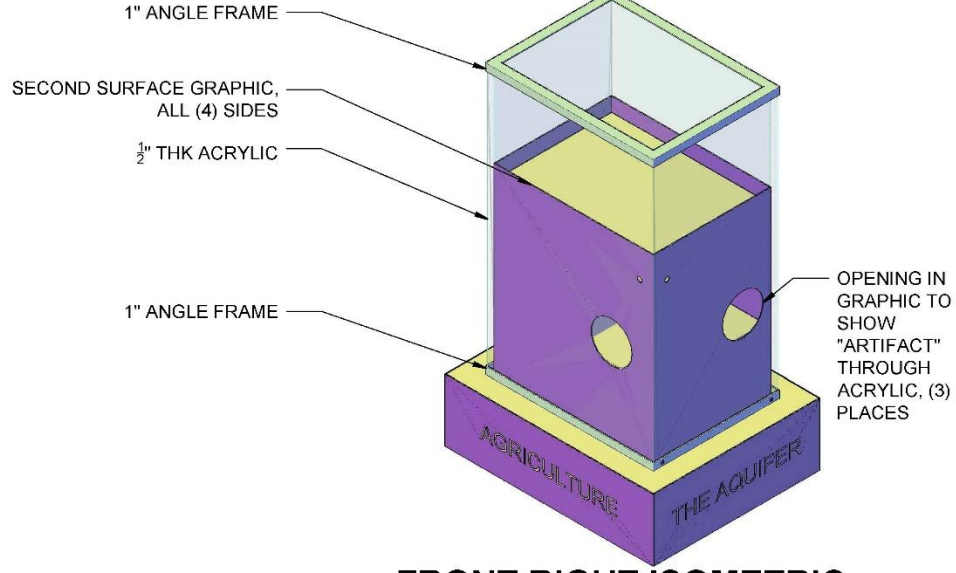


FRONT ELEVATION

SCALE: 1" = 1'-0"

SIDE ELEVATION

SCALE: 1" = 1'-0"



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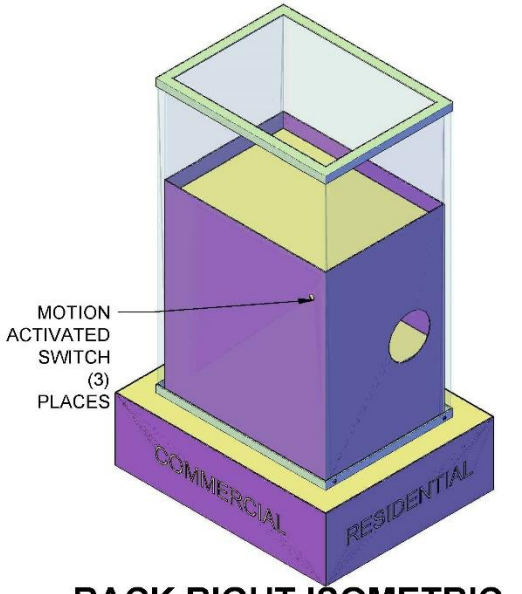
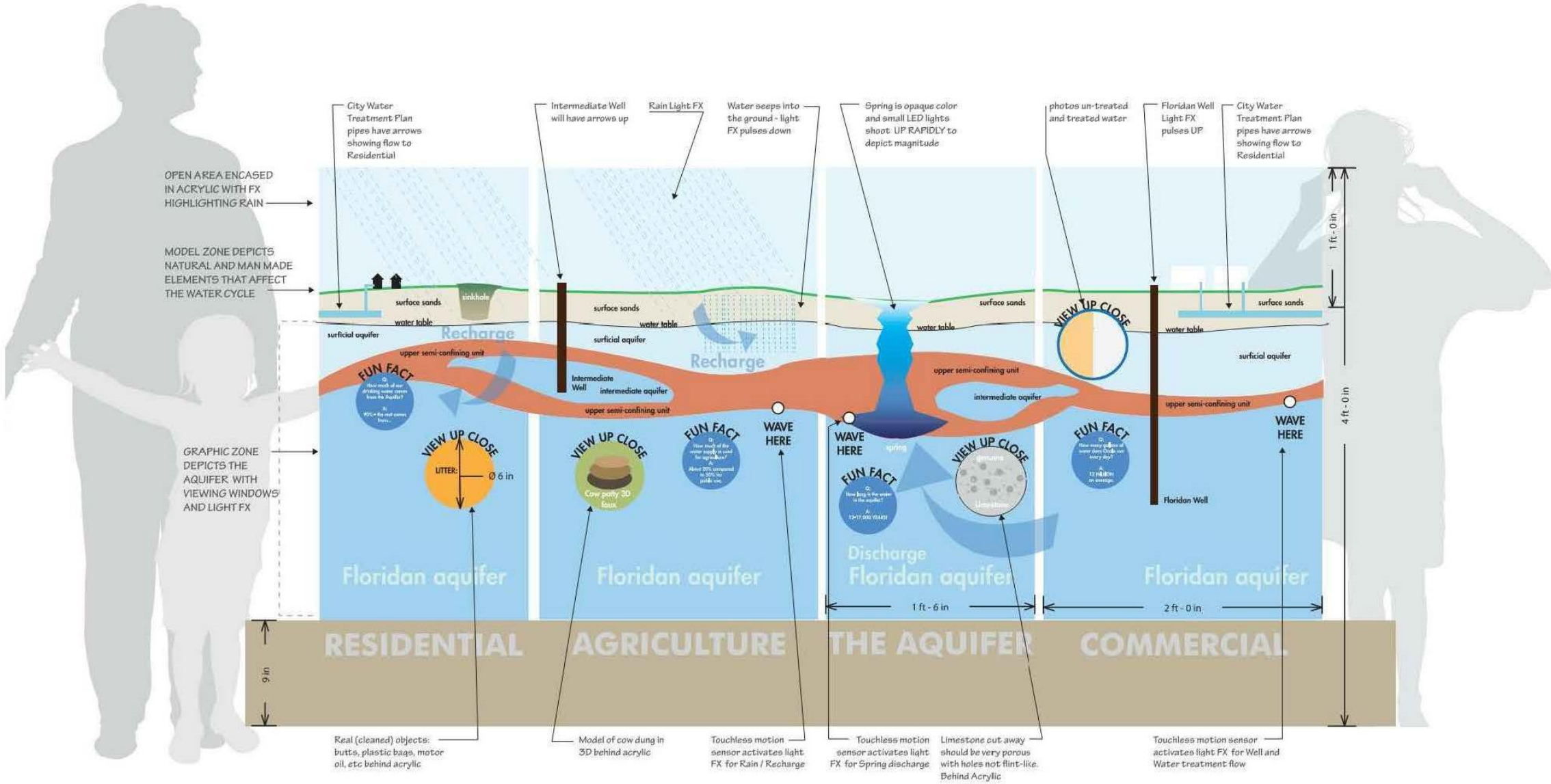


BACK RIGHT ISOMETRIC

SCALE: N.T.S.

OCALA - WATER RECHARGE PARK PORTABLE AQUIFER MODEL	OVERALL	SCALE AS NOTED	PHASE PRELIMINARY	DESIGN/DRAWN BY MBITAR	DATE 10/13/2020	SHEET NO 1	B1 BIG 4 FABRICATION

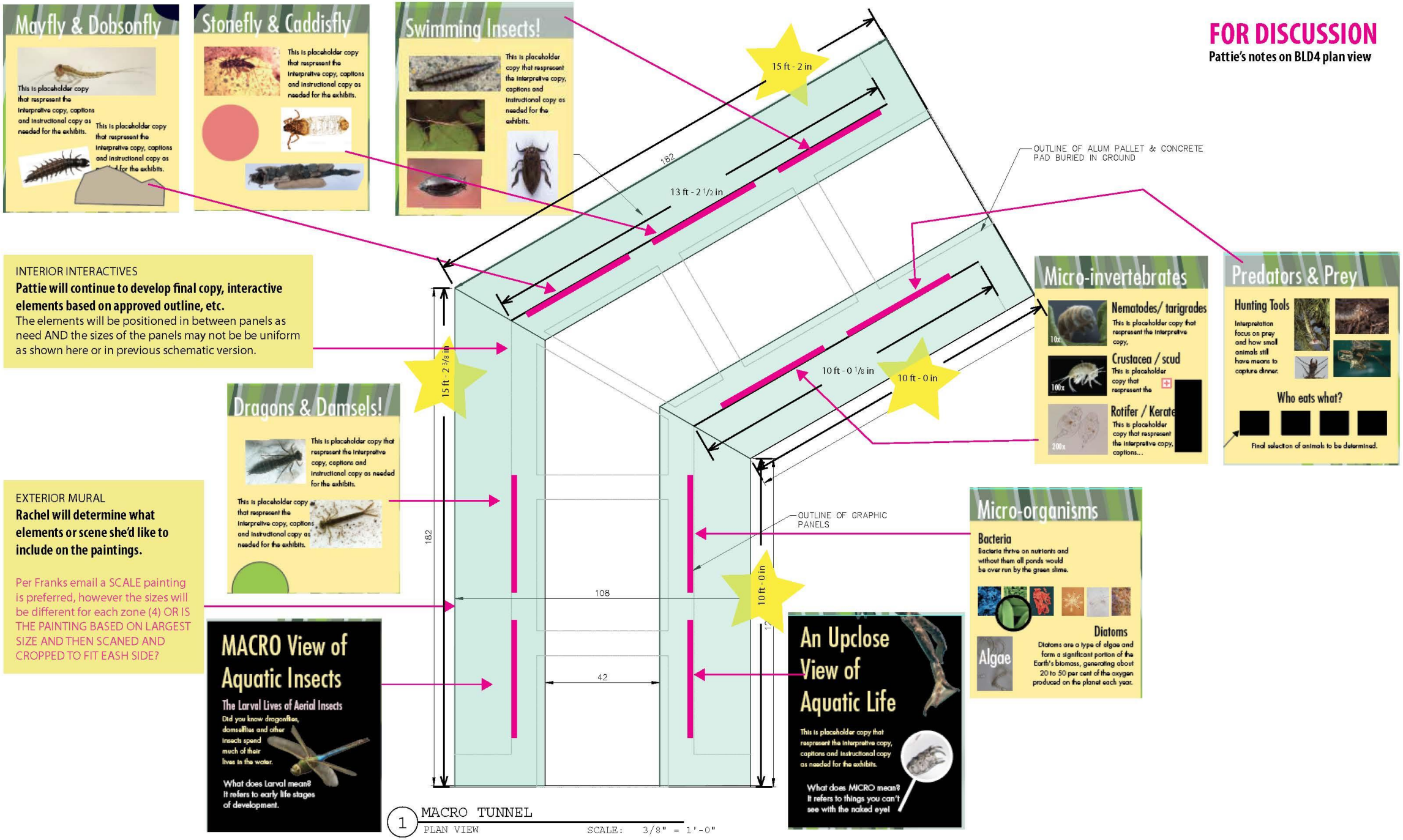
Schematic Exhibit Plan



OCALA - WATER RECHARGE PARK PORTABLE AQUIFER MODEL	OBJECTIVE / INTENT	SCALE: N.T.S.	PHASE: PRELIMINARY	DESIGN/DRAWINGS: MBITAR	DATE: 10/13/2020	SHEET NO.: 2	BLDG 4 FABRICATION

FOR DISCUSSION

Pattie's notes on BLD4 plan view



1 MACRO TUNNEL
PLAN VIEW SCALE: 3/8" = 1'-0"

NAME	CONTENTS	SCALE	PHASE	DESIGN/DRAWING	DATE	PAGE	BLDG 4
OCALA	MACRO TUNNEL	AS NOTED			9/28/2020	3 of 5	

VOLUNTEERS

School Collaborations


QUESTIONS?

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Photo credit: Leroy Simon