

Henderson Street Nature Preserve

Final Report Revised June 15, 2015

GLO Contract #14-093-000-7961

May 2015

Task 1: Engineering and Design

Major Project Accomplishments

- Conducted survey and prepared topographic map.
- Submitted design plans and construction drawings for GLO review and subsequent approval.
- The Project manager, John Strothman, worked with Urban Engineering, the firm that prepared the design and produced the construction drawings.
- Bird and nature experts from the Mid-coast Chapter of the Texas Master Naturalists, Aransas County Bird and Nature Club, and the Texas A&M AgriLife Extension reviewed the plans and made several suggestions that were subsequently included in the final design: three slightly wider informational signs instead of four more narrow ones; three bird drips instead of two; and only five benches, because few users will want to sit, and there are five excellent spots for looking at the ponds and wildlife.

Deliverable(s)/milestone(s) for the task and the date completed/submitted to the GLO.

Deliverable Name	Date Due	Date submitted	Comments
1.) Complete set of construction drawings – GLO review required prior to bid solicitation	February 28, 2014	February 21, 2014	

Task 2: Contractor Selection and Project Construction

Major Project Accomplishments

- Removed approximately 2+ acres of the dense, homogenous overgrowth of excessive shrub understory, particularly laurel oak (*Quercus laurifolia*), greenbrier (*Smilax rotundifolia*), and live oak (*Quercus virginiana*) sprouts that covered large areas of the property. This scrub brush was removed along a sheet flow plain to allow for shallow natural swales in order to provide food, cover, and nesting habitat for a variety of wildlife species, including amphibians, reptiles, birds, and mammals.
- Collected and hauled away two trailer loads of solid debris that had accumulated on the site for several decades.
- Cleared and scraped 3+ acres of material to create two ponds.

- Constructed a 1640-foot long, 6-foot wide crushed limestone trail that winds through the woodlands from the northwest corner, along the east side of the pond, to the southeast corner.
- Enhanced three primitive trails.
- Constructed bird watching blind.
- Seeded ponds with native grasses.
- Installed water lines for bird drips.
- Installed four bird drips.
- Installed five benches throughout the preserve.
- County went out for bid and selected construction contractor to construct the parking lot.
- Installed 4305 square foot permeable parking lot in front of the Henderson Street entrance. The parking lot is constructed with 8 inches of crushed limestone, covered with 1 inch of bedding sand, topped with Pavestone brand paver using Grasstone 1 paver and filled with top soil in all paver cavities to top of paver.
- Completed concrete work on ADA walk beside the Henderson Street parking area, and curb cuts along Marion Street and Palmetto Avenue for stormwater to come on to the property and drain toward the ponds.
- Installed three heavy-duty trashcans.
- Installed three entry signs with site map, and three Aransas Pathways welcome signs at the three entrances. (Henderson Street entrance and the two Palmetto Avenue entrances.)
- Installed three interpretive signs, in prominent locations.

Deviations from the Original Project Design

Based on the observations and recommendations of the various project advisors, the following adjustments were made to the project plan.

1. It was not necessary to plant or re-plant any tree, shrub, or groundcover species. With the clearing of scrub brush, native plants on the site will be healthier, with greater access to water and direct sunlight.
2. Five benches were installed, instead of ten. The various advisors felt that more benches would be an unnecessary use of funds, because it is unlikely that many visitors will want to sit. Five benches were installed where those who care to sit can comfortably view wildlife.
3. Installed four bird drips instead of two. Two are placed near the bird blind, one on the left and one on the right, far enough away from the blind that birds won't be concerned about human activities, but close enough for birders to clearly see the birds. One is beside the small pond, and one is on the north end of the large pond.

4. The original plan was to construct two handicap parking spaces on the Henderson Street parking area. It became clear that the permeable blocks, with the sand-filled openings, would be unsafe for those using walkers or canes. The angle of the parking lot would also be difficult for those in wheel chairs. A concrete parking lot had been constructed by the owner of the gymnastics school seen on the right side of the parking lot in the pictures below, but most of the surface is on Aransas County property. It was obvious to all that this area would be a much better area for the Handicap spots. The county and the business owner agreed to share the parking lot. Visitors to the habitat preserve will leave before sundown, most of the will park on Henderson Street, and the business is only open after school hours, so no conflict is likely. As also shown in the pictures below, there was a 2-3" difference between the level of the gravel edge of the street and the level of the concrete parking lot, so the county installed an asphalt section to correct the difference.
5. Original plan was to install four 24" x 36" interpretive signs. The designers felt that it would be more effective to place three 24" x 48" interpretive signs, one overlooking the small pond, and the other two along the main trail and beside the large pond.

Deliverable(s)/milestone(s) for the task and the date completed/submitted to the GLO.

Deliverable Name	Date Due	Date submitted	Comments
<i>Contract documents/specifications and bid package – GLO review required prior to bid solicitation</i>	<i>February 28, 2014</i>	February 21, 2014	
<i>Public Notice/Bid advertisement – GLO review required prior to solicitation</i>	<i>February 28, 2014</i>	December 9, 2014	
<i>Bid tabulation sheet</i>	<i>Upon receipt</i>	February 10, 2015	Bids for parking lot.
<i>Copy of executed construction contract</i>	<i>Upon execution</i>	February 10, 2015	Contract for parking lot.
<i>Photos before, during, and after construction</i>	<i>With final progress report</i>	Attached	

Task 3: Project Monitoring and Reporting

Major Project Accomplishments

- Greg Harlan, grant administrator, worked with the project manager to assist with achievement of project tasks.

Deliverable(s)/milestone(s) for the task and the date completed/submitted to the GLO.

Deliverable Name	Date Due	Date submitted	Comments
<i>Grant Closeout Report</i>	<i>4/30/2015</i>	5/30/15	

Reimbursement requests no.	Date Submitted	Comments
1	03-10-14	
2	04-10-14	
3	05-9-14	
4	06-10-14	
5	07-10-14	
6	08-10-14	
7	09-02-14	
8	10-03-14	
9	11-10-14	
10	12-09-14	
11	01-6-15	
12	02-10-15	
13	03-10-15	

Please provide a current budget breakdown. (Double Click on budget tables to activate Excel.)

Personnel	\$ -	\$ -	\$ -	\$ -
Fringe	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -	\$ -
Supplies	\$ -	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -	\$ -
Contractual	\$ 98,804.00	\$ 98,804.00	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 98,804.00	\$ 98,804.00	\$ -	\$ -
Indirect Costs	\$ -	\$ -	\$ -	\$ -
Totals	\$ 98,804.00	\$ 98,804.00	\$ -	\$ -

	Current Local Budget	Billed to Date	Obligated* Local Budget	Remaining Local Budget
Personnel	\$ -	\$ -	\$ -	\$ -
Fringe	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -	\$ -
Supplies	\$ -	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -	\$ -
Contractual	\$ 65,869.00	\$ 87,751.14	\$ -	\$ (21,882.14)
Other	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 65,869.00	\$ 87,751.14	\$ -	\$ (21,882.14)
Indirect Costs	\$ -	\$ -	\$ -	\$ -
Totals	\$ 65,869.00	\$ 87,751.14	\$ -	\$ (21,882.14)

	Current 3rd Party Budget	Billed to Date	Obligated* 3rd Party Budget	Remaining 3rd Party Budget
Personnel	\$ -	\$ -	\$ -	\$ -
Fringe	\$ -	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -	\$ -
Supplies	\$ -	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -	\$ -
Contractual	\$ -	\$ -	\$ -	\$ -
Other	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ -	\$ -	\$ -	\$ -
Indirect Costs	\$ -	\$ -	\$ -	\$ -
Totals	\$ -	\$ -	\$ -	\$ -

***Obligated includes - funds that have been incurred by the recipient but have not been paid by the recipient, such as executed contract agreements or acquired supplies/materials/equipment.**

Photos

Note: Pictures during construction of the trails and ponds are not available, as it wasn't possible to predict when the Aransas County Road and Bridge Department workers would be on site. As they were working on other projects with the same equipment they needed to construct the trails, they would work on the tasks for this project as much as possible before and after work on the other projects, and during down times with available labor.

Ponds



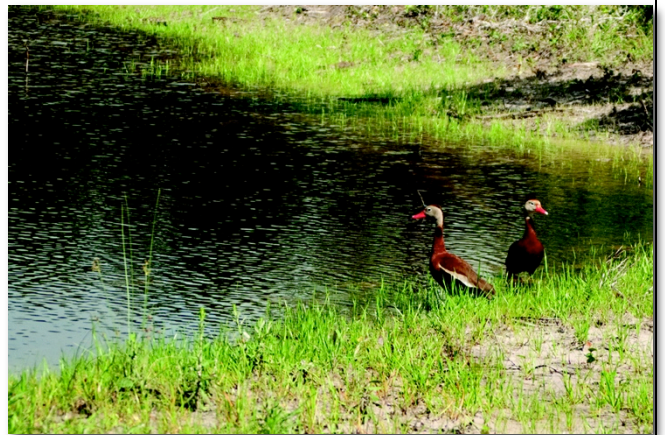
Large pond before construction.



Large pond during construction.



Large pond after Construction.



Small pond during construction.



Small pond after construction.

Before construction, the area selected for the small pond was covered with scrub brush.

Benches



Bench 1.



Bench 2.



Bench 3.



Bench 4.



Bench 5.

Signage



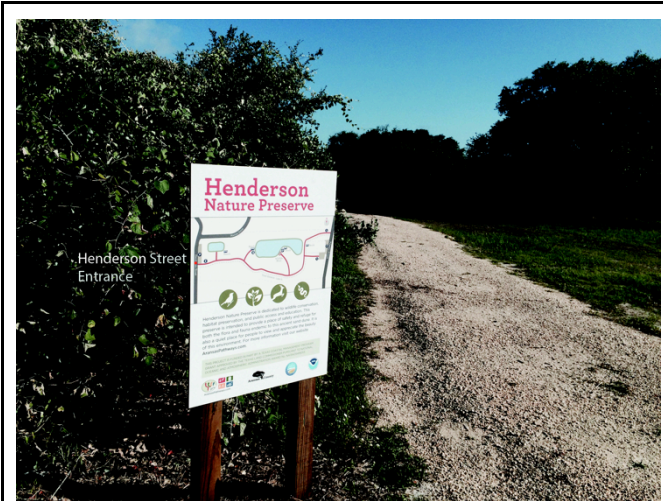
Informational sign 1.



Informational sign 2.



Informational sign 3.



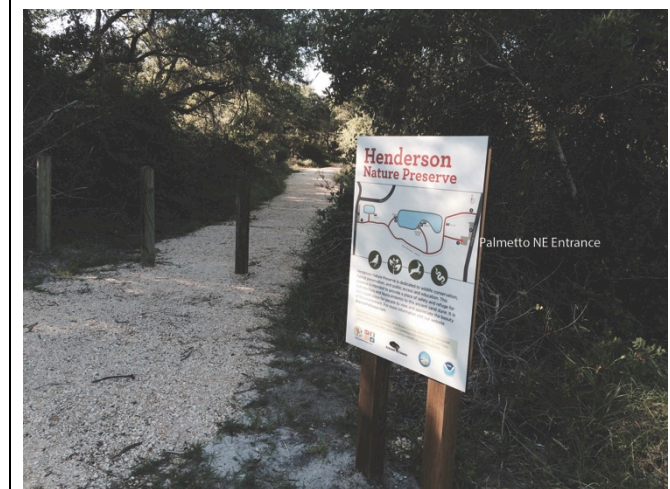
Henderson Street entrance welcome sign



Henderson Street entrance Pathways sign



Henderson project acknowledgement sign.



Palmetto Avenue northeast entrance welcome sign.



Palmetto Avenue northeast Pathways sign.



Palmetto northeast handicap parking signs.



Palmetto Avenue northwest entrance Pathways sign.



Palmetto northwest entrance welcome sign

Bird Drips



Bird Drip 1.



Bird Drip 2.



Bird Drip 3.



Bird Drip 4.

Bird Blind



Bird blind before construction.



Bird blind overlooking large pond.

South parking area



Henderson Street parking area before construction.



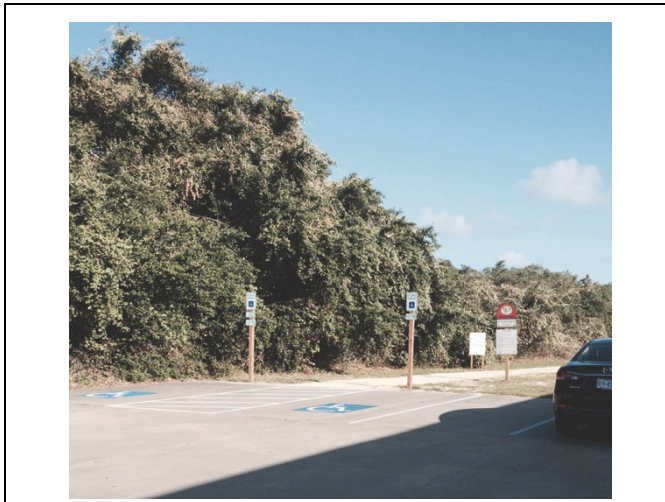
Henderson Street parking permeable parking after construction.

Pictures of permeable parking lot during construction are not available.

North parking area, with ADA parking spots



Palmetto Avenue, northeast entrance parking before construction.



Palmetto Avenue, northeast entrance parking after construction, with ADA spaces.



Entrance to Palmetto Avenue parking area. The difference in height between the gravel surface and the concrete surface and the street was not ADA compliant, so the county contracted for construction of an asphalt section so the entrance from the street would be smooth.



Paved section between concrete parking and street.

Pictures of concrete and asphalt work during construction are not available.

Trails



Henderson main trail before construction.



Henderson main trail before construction.



Henderson main trail after construction.



Henderson main trail after construction.





Primitive trail 1 before construction.



Primitive trail 2 before construction.



Primitive trail 3 before construction.



Primitive trail 1 after construction.



Primitive trail 2 after construction.



Primitive Trail 3 after construction.