

**Volusia County
MPO**

June 2009



**Cypress Creek Elementary School
Bicycle and Pedestrian School Safety Review Study
Phase 3C**



Volusia County MPO



Transportation
Planning

www.VolusiaCountyMPO.com

**Hoke
Design, Inc.**

School Summary

Cypress Creek Elementary School is located on Williamson Boulevard south of Spruce Creek near Creekside Middle School within Port Orange, Florida. Of the 630 students attending this school, 259 live within the designated walk zone area. During the 2008/2009 school year, approximately 55 of these students walked or rode bicycles to school. Over 30 students wore helmets.

The school is new and was not included in the Bicycle and Pedestrian crash data collected from 2005-2007.

Many roads within the walk zone have been under construction during the past school year, including Williamson Boulevard. The new construction has resulted in wide sidewalks along both sides of Williamson Boulevard. Many of the neighborhoods within the walk zone are private gated communities. Pedestrian connectivity between neighborhoods is recommended to reduce the length of the route to school for some students. This study includes recommendations to review crosswalk, stop bar and sidewalk locations near the school.

At the time of this Study, there were two crossing guard locations serving Cypress Creek Elementary School students. Additionally, the City of Port Orange provides a police officer to direct traffic at the school entrance during arrival and dismissal times.

There are no Priority Projects recommended for this school.



Note: Cypress Creek Elementary School was under construction when aerial photographs were taken

Cypress Creek Elementary School – Summary Sheet

School Address: 6100 South Williamson Boulevard
Port Orange, Florida 32128

School Principal: David Butler
Phone: 386-322-6101
Email: dbutler@volusia.k12.fl.us

Volusia County School District Representative: Saralee Morrissey, AICP
Phone: 386-947-8786, ext. 50772
Email: smorriss@volusia.k12.fl.us

Volusia County Public Works Traffic Engineering: Jon Cheney, P.E., Director
Phone: 386-736-5968 ext. 2709
Email: jcheney@co.volusia.fl.us

Crossing Guard Supervisor: Joan Marshall
Phone: 386-423-3361
Email: jmarshall@vcso.us

City Representative: Bill McCord, Transportation Planner
Phone: 386-506-5676
Email: wmccord@port-orange.org

Volusia County MPO: Stephan Harris, Bicycle and Pedestrian Coordinator
Phone: 386-226-0422 ext. 34
Email: scharris@co.volusia.fl.us

Consultant Representative: Ginger Hoke, RLA, Hoke Design, Inc.
Phone: 407-923-6027
Email: ginger@hokedesign.com

Site Visit Observation Date: April 15, 2009 (weather: seasonal, sunny)

Meeting Attendees:

- David Butler
- Bill McCord
- Stephan Harris
- Ginger Hoke

Number of Enrolled Students (2008/2009 data): 740

Estimated Number of Students Living in Walk Zone: 259

Number of School Buses: 7

Number of Aftercare Buses/Vans: 1 in the morning, 7 in the afternoon

Estimated Number of Walkers/Bicycle Riders: 50-60

Number of Bicycles on Site: 37 bicycles, 3 Ripstiks

Number of Bicycle Helmets (stored with bicycle): 32

Staggered Student Dismissal: Yes, Kindergarten first. Pick-up area includes a designated area for Kindergarten.

Estimated Number of Students Attending Breakfast: 100

Number of Students for School Site Aftercare: 129

Teachers Assisting in Arrival and Dismissal Safety:

Arrival: 6 (2 supplemental)

Dismissal: 6 (2 supplemental)

Title One School: (2008/2009): No

Backpack Policy: None

Bicycle/Pedestrian Safety Education Programs:

- P. E. Instructor holds a bicycle rodeo
- City Police Department provides helmets and assists with rodeo

Summary of Principal Comments:

- Anticipates more walkers and bicycle riders when road construction is completed

Crossing Guard Locations:

- Williamson Boulevard and school entrance
- Williamson Boulevard and Airport Road

Note: A traffic policeman directs traffic at the school entrance

Number of Bicycle/Pedestrian Crash Events within the Existing Walk Zone (elementary age, during estimated school travel times, 2005-2007): N/A

Planned Road, Sidewalk, or other Improvements: Road construction is ongoing

Planned Development in Walk Zone: None at this time

Planned Stimulus Recovery Project:

- Airport Rd. (from Pioneer Tr.) to Williamson Blvd. (to Cypress Springs Pkwy.)

City use of GIS: Yes

Number of Students Transported (Designated as Hazardous): N/A

Votran Route in Walk Zone: No

Findings and Recommendations

Findings: The accessible parking space design includes tapered curbs that may cause a trip hazard. The principal has painted the curbs with yellow paint to increase visibility and awareness of the curbs.

Recommendations: This particular design should not be used in the future. The School District should review the possibility of adding a fence along the top of the free standing curb to guide pedestrians to the ramp area. This will prevent pedestrians from tripping over the curb. As an interim measure, paint all exposed sides of the curb yellow.



A free standing curb located near the accessible parking spaces may create a trip hazard

Finding: Although each parking area provides one accessible route to the building, other sidewalk connections were constructed with curbing.

Recommendation: School campus design should provide accessible routes along all pedestrian pathways.



Not all pedestrian routes are barrier free

Findings: The bicycle rack is at capacity. The principal anticipates an increase in the number of bicyclists when the roadway construction is completed. Additional bicycle racks are in school storage.

Recommendation: Install the additional racks before the 2009/2010 school year.



The existing bicycle racks are at capacity

Finding: During afternoon dismissal, motorists park vehicles within the parking lot and create an informal second pick-up line.

Recommendation: Motorists should be encouraged to use the official drop-off and pick-up line to reduce conflict with pedestrians.



Motorists create secondary lines to pick up students and avoid the designated car line

Findings: Construction is ongoing on Williamson Boulevard. The new sidewalk along school property does not include crosswalks yet. The alignment for the future crosswalk will conflict with the stop bar at the exit of the access driveways.

Recommendations: The stop bar location needs to be in front of the crosswalks. An engineer should review the crosswalks alignment to recommend revision to increase safety for the sidewalk users.



The planned crosswalk connection is located behind the stop bar

Finding: A new sidewalk leads to the southbound turn lane for motorists traveling on Williamson Boulevard.

If a crosswalk is added, this may lead motorists and sidewalk users to believe that the school entrance is signalized. One student currently lives north of the school site within the designated walk zone.

Recommendation: Volusia County Traffic Engineering should review this sidewalk location prior to project close out.



A sidewalk ramp at the school entrance leads to the southbound turn lane on Williamson Boulevard

Findings: The Sidewalk connection over Williamson Boulevard will conflict with traffic entering the student drop-off area. The sidewalk connection onto the west side of Williamson Boulevard (south of the student drop-off exit) appears to conflict with the turn lane for north-bound motorists turning into the school. The temporary crosswalk is indirect. Construction plans provided to Hoke Design show logical sidewalk/crosswalk placement.

Recommendation: The design engineer should review field conditions and sidewalk placement to determine if the final design will provide safe and direct crossing conditions over Williamson Boulevard.



Students cross Williamson Boulevard with the crossing guard in front of the school



Temporary crosswalk striping does not provide a direct route for students crossing Williamson Boulevard

Findings: Currently, 56 students living in the Spruce Creek Fly-in community are provided bus transportation to school because the available route to school exceeds two-miles. A connection to the Spruce Creek Fly-In community is physically possible, but a chain link fence prevents students from reaching the sidewalk along Roscoe Turner Trail. The right of way for this project appears to be privately owned and suggested improvements do not qualify for public funding.

Recommendations: The construction of a wide sidewalk or trail connection between the sidewalk along the south side of Roscoe Turner Trail and the sidewalk along the south side of the Roscoe Turner Trail in the Spruce Creek Fly-in Community should be reviewed. This connection would require a gate in the fence to provide pedestrian access.

This connection may result in an expansion of the designated walk zone and may increase the number of potential walkers.



Right of way access is blocked and gated along Roscoe Turner Trail

Findings: There are no sidewalks along the north side of Roscoe Turner Trail from Williamson Boulevard to the western edge of the existing walk zone. There is a wide sidewalk along the south side of Roscoe Turner Trail. However, to use a sidewalk, students must cross Roscoe Turner Trail twice (one time un-aided) to travel to or from school.

Recommendations: Construct a five to eight foot wide sidewalk along the north side of Roscoe Turner Trail from Williamson Boulevard to Sanctuary Garden Boulevard. This recommended improvement appears to be located on privately owned roadways.



There are no sidewalks along the north side of Roscoe Turner Trail

Findings: The Sanctuary neighborhood located south of Roscoe Turner Trail does not include any sidewalk or roadway connections to Roscoe Turner Trail. Students living in this neighborhood must travel to Airport Road to access the sidewalk on the west side of Williamson Boulevard that leads to the school. A wide sidewalk is located along the south side of Roscoe Turner Trail and does not connect to any sidewalks. There is an unopened access point connecting Sable Creek Boulevard to Roscoe Turner Trail. A fence and gate block this potential travel route for students.

Recommendations: The City may wish to approach the Homeowners Association and adjacent neighbors to construct a connecting sidewalk between Sable Creek Boulevard and Roscoe Turner Trail. Provide a fence opening or a usable gate to allow students to access the wide sidewalk along the south side of Roscoe Turner Trail.



There is a potential pedestrian connection between the Sanctuary neighborhood and Roscoe Turner Trail



A sidewalk connection could be constructed within an existing easement between two homes

Findings: There is a gap in the sidewalk along the outside curve in the road along Airport Road at Creekside Middle School. The curve in the road and the retention area may create obstacles to sidewalk construction.

Recommendation: If a sidewalk along the curve is not feasible, construct a sidewalk connection to the entrance to the Fly-in community. Wide sidewalks are planned for both sides of this road with future road improvements.



A section of sidewalk is missing along Airport Road near Creekside Middle School

Findings: Students were observed crossing Airport Road at Watersedge Boulevard instead of crossing with the guard at Williamson Boulevard and Airport Boulevard. Ongoing road construction may have contributed to this behavior.

Recommendation: If mid-block crossing continues after construction completion, a transportation engineer should review the possibility of adding a mid-block crossing over Airport Road connecting to the existing wide sidewalk along the west side of Watersedge Boulevard. If a sidewalk is constructed along the east side of Watersedge Boulevard, the crosswalk should be relocated to connect with that sidewalk.



Bicyclists cross Airport Road at Watersedge Boulevard on their way home from school

Finding: The planned mid-block crossing at the convenience store and Roscoe Turner Trail may encourage students to cross Williamson Boulevard unaided. Three students crossed at this location on the day of the school observation. These students may have been avoiding the crossing guard in front of the school to save time.

Recommendation: Review the safety of the mid-block crossing. If constructed, the School District and crossing guards should work together to encourage students to cross with the guards. Additionally, bicycle and pedestrian safety measures should be continued and if possible, expanded.



A mid-block crossing at Williamson Boulevard Roscoe Turner Trail is planned

Finding: The apartment complex on Williamson Boulevard on the east side of the walk zone provides a sidewalk connection to the sidewalk along the north side of Williamson Boulevard. There are numerous bicycle racks filled with bicycles located throughout the apartment complex.

Recommendation: This attention to bicycle and pedestrian facilities and connectivity should be considered for future development.



A sidewalk connects the apartment complex to the sidewalk on Williamson Boulevard

Finding: Construction blocks the connection along the Roscoe Turner Trail sidewalk to the sidewalk along the west side of Williamson Boulevard.

Recommendation: Provide a clear, stable surface along primary pedestrian routes during construction.



Construction blocks the sidewalk connection along Roscoe Turner Trail and Williamson Boulevard

Master Plan

The following Bicycle and Pedestrian Master Plan specifies a network of sidewalks and trails that, if implemented, will greatly increase the convenience and safety of travel for pedestrians and bicyclists. A 24"x36" fold-out Bicycle and Pedestrian Master Plan is included as a deliverable with this Study.

The Master Plan includes the following information:

Existing Conditions:

- Existing Walk Zone area from School District GIS (shaded tan)
- Student Home Locations from School District (dark blue dot)
- Existing Trails from County GIS and field review (solid green line)
- Existing Wide Sidewalk 6-8' from field review (solid blue line)
- Existing Sidewalks 3-5' from field review (solid red line)
- Existing Crossing Guard Locations from County GIS and field observations (green cross)
- Existing Votran Routes and stops from Volusia County MPO (yellow lines along roadway centerline with yellow squares at bus stops).

Planned Conditions:

- Planned trail (long dashed dark green line)
- Planned wide sidewalk (long dashed blue line)
- Planned sidewalk (long dashed red line)

Recommendations of this Study:

- Proposed Trails (dashed dark green line)
- Proposed Sidewalks 6-8' wide (dashed blue line)
- Proposed Sidewalks 5' (dashed red line)

This Master Plan and supplemental information supplied within the Implementation Report are meant as a guideline for sidewalk and trail planning. The Master Plan is not an engineering document.

