

Volusia County MPO

March 2008



Chisholm Elementary School

Bicycle and Pedestrian Safety Review Study



Introduction

Chisholm Elementary School is located in an established neighborhood north of Canal Street and west of the railroad in New Smyrna Beach. A new Media center and Administration Building are planned for this school. No concept or site plans were available at the time of this Study.

The existing attendance zone for this school excludes the neighborhood directly south of the school (south of Ronnoc Lane) but several students have obtained variances and walk or ride their bicycles to Chisholm Elementary School. For the purposes of this Study and to acknowledge the possibility of future changes in the attendance zone, the walk zone has been expanded to include the area south of the school to Canal Street. This area is indicated on the master plan as the "estimated potential" walk zone.

The neighborhoods near the school primarily include narrow roadways with a sidewalk on one side or no sidewalk. Most roads do not have sufficient right of way to add an additional sidewalk and many structures are too close to the roadway to allow for the possibility of future sidewalks. This community has a high rate of pedestrians and bicyclists that share the narrow roadways with the motorists. Nearby parks, community buildings, a Head Start School, the Country Club and convenience stores most likely increase pedestrian and bicycle activity in this area.



Figure 4.2.1

Chisholm Elementary School – Summary Sheet

School Address: 557 Ronnoc Lane
New Smyrna Beach, FL 32168

School Principal: Mr. William Mead
Phone: 386-424-2540
Email: wmead@volusia.k12.fl.us

Crossing Guard Supervisor: Joan Marshall
Phone: 386-423-3301
Email: jmarshall@vcso.us

City Representative: Jake Baker, Development Services
City of New Smyrna Beach
Phone: 386-424-2138
Email: jbakker@cityofnsb.com

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

Site Observation Date: November 6, 2007

Site Plan: Not Applicable

Weather Conditions: Clear and seasonal

School Status: A new Media Center and Administration Building are planned for 2008. There may be an opportunity at this time to make some bicycle and pedestrian improvements on campus.

Number of Enrolled Students (2007 data): 388-394

School Capacity (Existing or Planned): 425

Estimated Number of Students in Walk Zone: The existing attendance zone for Chisholm Elementary School does not include most of the area south of the school but many students have obtained variances to attend this school. For purposes of this Study, the estimated potential walk zone indicated on the Master Plan reflects a potential walk zone bordered by major roadways and does not reflect current attendance or walk zone designations. The existing walk zone has 157 students. An additional 107 students live in the estimated potential walk zone.

Estimated Number of Walkers/Bicycle Riders Observed: over 40

Number Bicycles on Site: 16

Number of Bicycle Helmets (stored with bicycle): 1

Number of Bicycle and Pedestrian Crash Events within the Existing and estimated potential Walk Zone (2004-2006): 0 (student age)

Number of School Buses: 4

Number of Aftercare Buses/Vans: 1 (Boys and Girls Club)

Votran Route in Walk Zone: Yes

Percentage of Title One Students: 56.76%

Estimated Number of Students Attending Breakfast: 150

Number of Students for School Site Aftercare: 60

Backpack Policy: Policy according to teacher

Teachers Assisting in Arrival and Dismissal Safety: 4 and the principal

Crossing Guard Locations:

- Ronnoc Lane and Palm Street
- Ronnoc Lane and US 1

Summary of Principal Comments: Requests law enforcement activities occur outside of student arrival and dismissal if possible. Also requests clearing of the understory in the woods to the north of the school.

Summary of Crossing Guard Supervisor Comments: Requests City to remove (paint over) the abandoned crosswalk at Ronnoc Lane and Sheldon Street. The crosswalk was relocated several years ago to Ronnoc Lane and Palm Street.

Planned Road, Sidewalk or other Improvements:

- The City plans to add school road markings in January 2008. As a result of this Study, the City will also repaint the existing crosswalk at Palm Street and paint over (remove) the crosswalk at Sheldon Street.
- A five foot wide sidewalk was under construction along the east side of US 1 in November, 2007.

Planned Development: A paved multi-use trail is planned along the waterfront on US 1 and a multi-use trail is planned south of the estimated potential walk zone.

Hazardous and Unique Conditions (Source: School District Data February 2008): None

Proposed Priority Project (For BPAC consideration):

- Ronnoc Lane Sidewalk (south side)

Findings and Recommendations

Finding: The existing attendance zone does not include the neighborhood directly across from the school, but twelve to eighteen students currently have variances that allow them to attend Chisholm Elementary School. The number of potential walkers/bicycle riders for this school is decreased by the attendance area configuration.

Recommendation: Review the possibility of expanding the attendance zone south to Canal Street to increase the eligible number of walkers/bicycle riders. 117 students live in this potential walk zone area.

Finding: Although there are two separate areas for student drop-off/pick-up, parents prefer to use the area along Ronnoc Lane in front of the school. This pull off area is signed for two visitor parking spaces and one handicapped parking space. This informal drop-off conflicts with bus maneuvering, crosswalk use, and visibility, and through traffic. The principal estimates that 50% of the parents use the west side drop-off/pick-up and the other 50% use the area directly in front of the school.



50% of the parents drop off students at the undesignated area in front of the school

Recommendations: Discourage the use of the unofficial drop-off area in front of the school through the installation of physical barriers, enhancements to the west side drop-off, education and enforcement.

- Relocate the handicapped parking space and the two visitor spaces to the small parking area located east of the bus drop-off. There appears to be sufficient parking to the east and west of the school for staff overflow parking. Maintain the practice of placing bollards at the entrance to this parking area during arrival and dismissal times.



Visitor and handicapped parking along Ronnoc Lane encourages parents to use this area to drop off students

- Create a barrier to prevent parents from parking along the side of Ronnoc Lane (west bound and east bound) by installing bollards along the roadway. Placement should prevent pull in parking and parallel parking. (see figure 4.2.2) Implementation plans should be reviewed by City emergency personnel to allow emergency

access. Review the possibility of replacing the no parking signs with signs that say “no stopping” or “no student drop-off”.

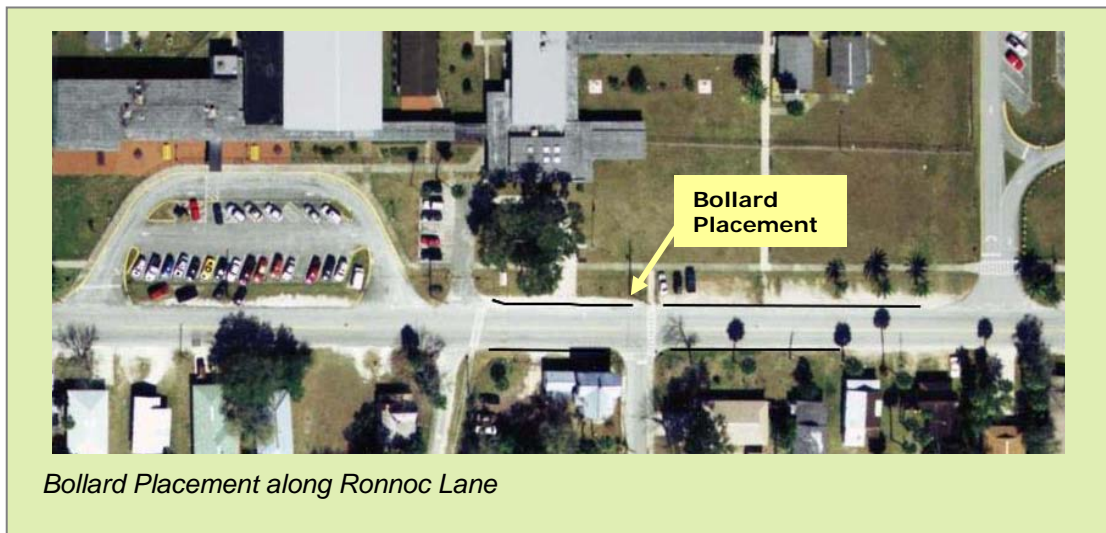


Figure 4.2.2

- Encourage use of the west side drop-off by installing a covered area and benches. Add directional signs (west bound and east bound) directing parents to use both the east side and west side student drop-off areas. Provide a note home to parents requesting the use of the official drop-off/pick-up areas instead of the visitor parking area.
- Provide incentive rewards for students who use this entrance to school – such as coupons for ice cream, safety related toys (bicycle reflectors, fluorescent gear, etc.).
- Request the City to provide enforcement assistance at the beginning of each school year. If possible, police officers should be on foot or on bicycles.



A motorist intrudes into the crosswalk on the south side of Ronnoc Lane.

Finding: The students (and most likely the general public) have created a “cow path” from the end of Willow Drive to Myrtle Avenue where they cut through the ball courts to the school sidewalk and bicycle rack. Students using this short cut pass a densely wooded area along the north edge of the school site and along the south side of Richard Street. This wooded area provides a place for potential undesirable activity.

Recommendation: Create a sidewalk or designated path (crushed shell, dirt) connecting Willow Drive to a school access point. Thin the wooded understory in this area to allow students to visually survey the approach to school property. Coordination with Volusia County Leisure Services Department is recommended to ensure compatibility of future plans with the public use of the existing public recreation facilities behind the school.



A student rides his bicycle along the “cow path” from Richards Street to the school sidewalk

Finding: Many of the existing sidewalks are located on one side of the roadway and are both flush to the road grade and adjacent to the pavement or are raised but undulate frequently at every driveway. Most of the roads have limited rights of way and structures are located close to the street.

Recommendations: Constrained right of way reduces the possibility of separating the sidewalks from the roadway, which is needed to accommodate the grade change for driveway access. Due to the complexity and cost of reconstructing many of the existing sidewalks, the City may wish to create a long term plan to create one-way pairs for some of the roadways to narrow the roadway and separate the sidewalk from the street. The City may also wish to consider adding painted shoulders along roadways that are wide enough to include shoulders. This would provide a designated area for pedestrians and bicyclists. This practice would encourage bicycle riders to ride in the same direction as traffic and would provide a walking area for pedestrians when no sidewalk is present.



Existing sidewalks undulate with driveway access points on Myrtle Avenue

Finding: Students living south of Ronnoc Lane walk along the south side of Ronnoc Lane from the crossing guard location at Palm Street to Sheldon Street. Students and parents were observed walking in the street on the day of the site observation.

Recommendation: A short section of sidewalk should be constructed on the south side of Ronnoc Lane from Palm Street to Ronnoc Lane. This project is recommended as a priority project and is further described at the end of this section.

Finding: Palm Street is currently a narrow two-way road that terminates into Ronnoc Lane. There is a sidewalk flush to grade along the west side of Palm Street that leads to the crossing guard location at Ronnoc Lane. The narrowness of this roadway and location of the sidewalk increase congestion at this intersection.

Recommendation: The City may wish to review the possibility of making Palm Street one-way heading north to reduce vehicular movements near the crossing guard location. Sheldon Street, located one block west of Palm Street, is currently one-way heading south. The single direction of traffic would allow bicyclists and pedestrians additional room in the roadway and reduce the complexity of traffic.

Finding: The railroad is located within the walk zone, east of Chisholm Elementary School. The pavement widens at the north side of Ronnoc Lane at the railroad crossing and provides a continuous surface for pedestrians and bicyclists. The railroad crossing arm extends across this area to block sidewalk users when a train is approaching. The day of the site observation, some parents ignored the crossing arm and crossed beneath the arm when a train was approaching.

Recommendation: Increase railroad safety education to students and send a notice home to parents explaining that children will model their behavior and do not have the experience to judge the timing of the approaching train. Post signs at the crossing to remind sidewalk users to not cross the tracks when the railroad crossing arm is down. Law enforcement should also play a role in prohibiting this behavior.



Parents ignore the railroad crossing arm and cross the tracks on Ronnoc Lane

Finding: The railroad crossing at Wayne Avenue is incomplete on both sides of the roadway and there is not a continuous path for sidewalk users. The sidewalk along the west side of Pecan Street does not connect to the sidewalk on Wayne Avenue because of the gap created by the railroad property. The Volusia County MPO is reviewing this railroad crossing in a separate study.

Recommendation: The City of New Smyrna Beach and the School District may wish to review the possibility of constructing a sidewalk along the west side of the railroad tracks to connect the existing sidewalk on Arnau Drive to the existing



The railroad crossing at Wayne Avenue creates a gap in the sidewalk system on both sides of the street

sidewalk on the north side of Ronnoc Lane. This sidewalk would allow sidewalk users to access the school without crossing the railroad track twice. To reduce complications with liability, the school district may determine it necessary to donate the land to the City to construct the sidewalk. A buffer from the railroad will be required to avoid the need for a fence between the sidewalk and the railroad.



A sidewalk along the east side of the school would eliminate the need to cross the railroad twice and would provide public access to the safer railroad crossing on Ronnoc Lane.

Figure 4.2.3

Finding: The Country Club parking is currently configured with pull-in parking from Wayne Avenue that crosses over a sidewalk that is flush to grade. Country Club users frequently cross Wayne Avenue to reach additional parking on the south side of the road. Students using this section of sidewalk are not as protected from vehicles as they would be if it were a raised sidewalk or located outside of the parking area.

Recommendation: The City should consider redesigning the parking area to



Country Club parking pulls in over the sidewalk along Wayne Avenue

increase pedestrian, bicycle and motorist safety. If speeding is an issue on Wayne Avenue, the City may also consider reviewing this area for traffic calming measures. Two crosswalks are currently located near one another and should be consolidated into one crosswalk that has higher visibility and increased signage.

Finding: Many existing sidewalk facilities are aging and have not been maintained over the years. In some cases the sidewalk has been mostly covered by vegetation.

Recommendation: The City of New Smyrna Beach has a yearly budget of \$25,000 for sidewalk maintenance. The City may wish to allocate some funding to the sidewalks near Chisholm Elementary School.



A tree and a utility pole block a barely visible sidewalk on Sheldon Street.

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 map is included as a deliverable with this Study.

The Bicycle and Pedestrian Master Plan includes the following information:

Existing Conditions:

- Existing Walk Zone area from School District GIS (shaded pink)
- Courtesy Transportation Zone from School District, if applicable (shaded blue)
- Hazardous Transportation Zone from School District, if applicable (shaded yellow)
- 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 for existing to remain and yellow cross for existing to be closed)
- Bicycle or Pedestrian Crash Event Locations from 2004-2006 from County GIS data, during estimated school travel times (pink star) and involving an elementary age bicyclist or pedestrian.
- Existing Votran Routes from Volusia County MPO (yellow lines along roadway centerline).

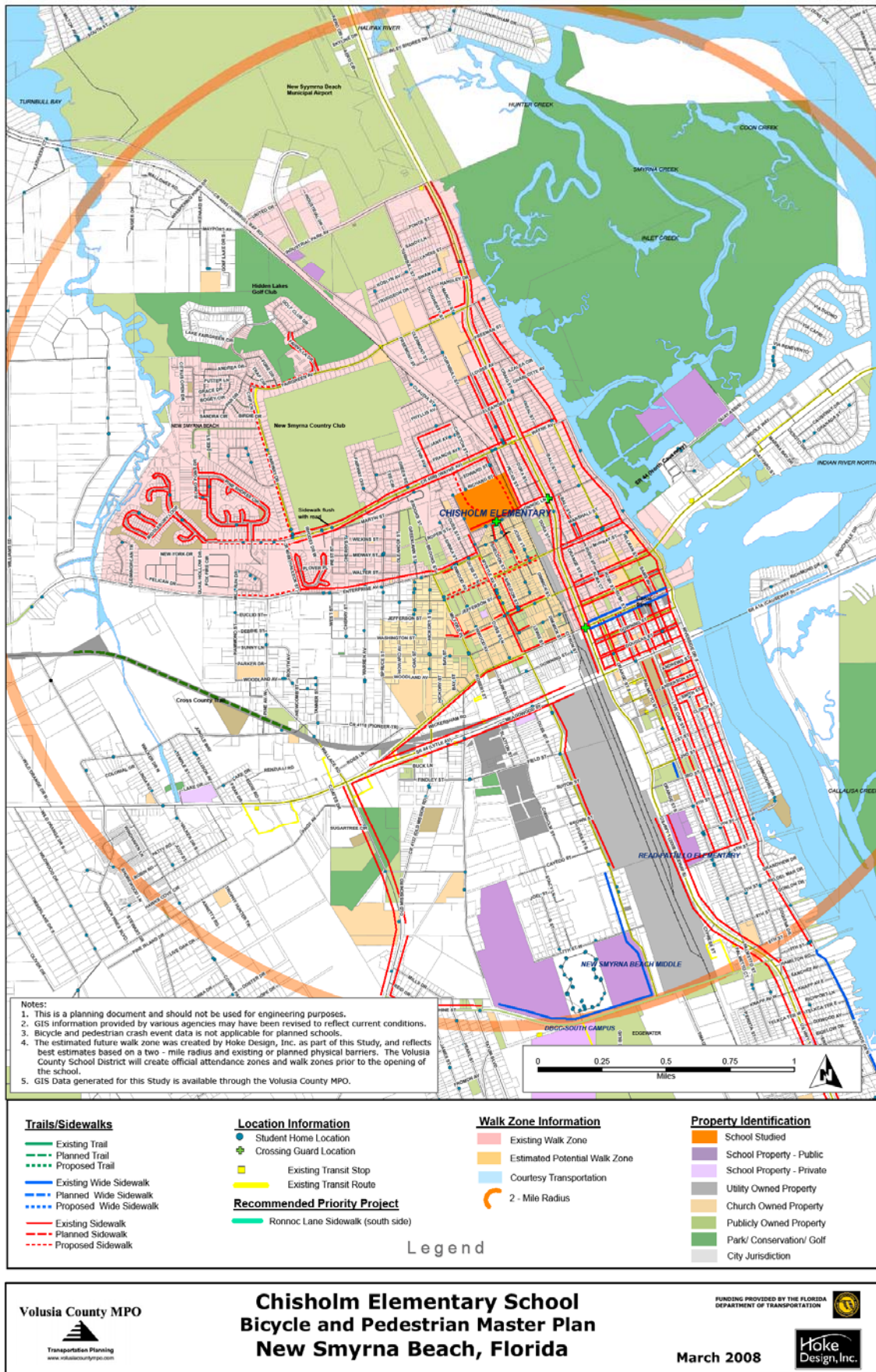
Planned Conditions:

- Planned State of Florida sidewalk and roadway improvements from FDOT website, State or County GIS (medium blue roadway centerline)
- Planned Volusia County sidewalk and roadway improvements from County GIS data (medium green roadway line)
- Planned trail (long dashed dark green line)
- Planned wide sidewalk (long dashed blue line)
- Planned sidewalk (long dashed red line)

Recommendations of this Study:

- Estimated Potential Walk Zone (light tan)
- Proposed Trails (dashed dark green line)
- Proposed Sidewalks 6-8' wide (dashed blue line)
- Proposed Sidewalks 5' (dashed red line)
- Proposed Crossing Guard Locations (orange cross)

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.



Recommended Priority Project

Ronnoc Sidewalk

Project Location: Construct sidewalk on the south side of Ronnoc Lane between Sheldon Street and Palm Street. Connect to the existing sidewalk on Sheldon Street and repaint the crosswalk leading to the sidewalk on Palm Street.

Project Description: 5-6' wide concrete sidewalk, 130 LF

Estimated Cost: \$12,350

School Served: Chisholm Elementary School

Maintaining Agency: City of New Smyrna Beach

Finding: At school arrival time, students walk along the south side of Ronnoc Lane from Sheldon Street to Palm Street to reach the crossing guard located at Palm Street. At school dismissal time, students walk along the south side of Ronnoc Lane from Palm Street at the crossing guard location to Sheldon Street.

Recommendation: Construct this short section of sidewalk to encourage students to cross with the crossing guard.

Note: The abandoned crosswalk over Ronnoc Lane at Sheldon Street was recently painted over. This effort by the City may increase the frequency of students crossing with the crossing guard at Palm Street.



Ronnoc Lane Sidewalk Section, South Side

Figure 4.2.4

Complications: There is an existing fire hydrant that may need to be relocated.



Students walk along the south side of Ronnoc Lane after crossing the street with the crossing guard