

Volusia County MPO

March 2008



Bonner Elementary School

Bicycle and Pedestrian Safety Review Study



Introduction

Special Note: Due to low school enrollment as well as budget constraints and seat availability in the Daytona Beach area, Bonner Elementary School will be closing at the end of the 2007/2008 school year. The review of this school is included in this Study for informational purposes only.

Bonner Elementary School was built in 1926 and is located within a primarily residential neighborhood in the City of Daytona Beach. The majority of the nearby students are transported to other district schools. There are two designated Hazardous Conditions areas and one Unique Conditions area. Students north of Mason Avenue have recently (2007) been provided courtesy transportation.

The Pine Haven residential development is under construction across from the school (south of George Engram Boulevard) and is expected to be completed in 2008. This development is designated as part of the Bonner Elementary walk zone and is expected to be the source of the majority of future walkers/bicycle riders.

The most significant commercial development within the estimated potential walk zone is the construction of a Wal-Mart supercenter, planned for the Father Lopez High School site at the intersection of Nova Road and Mason Avenue. Father Lopez High School will be relocating this year.

The City of Daytona Beach is in the process of planning new sidewalks to provide increased pedestrian safety in the neighborhood adjacent to the planned Wal-Mart. Planned sidewalk segments are indicated by long dashes on the Master Plan. Additionally, the City is in the process of adding a gymnasium and pool south of George Engram Blvd., west of Keech Street.



Bonner Elementary School – Summary Sheet

School Address: 868 George W. Engram Blvd.
Daytona Beach, FL 32114

School Principal: Ms. Bonnie Gyarfás
Phone: 386-258-4681
Email: BGYARFAS@volusia.k12.fl.us

Crossing Guard Supervisor: Cindy Pagliari
Phone: 386- 323-0151
Email: cpagliari@vcso.us

City Representative: Paul McKittrick, Deputy City Manager
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Phone: 386-671-8600

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

Site Visit Observation Date: November 9, 2007

Weather: Clear and seasonal

School Status: Currently, most students in this neighborhood are transported by bus to other schools. Housing directly across from the school was demolished and is currently being rebuilt. The number of students walking or riding their bicycles to school is expected to increase substantially when the new housing is occupied.

Number of Enrolled Students (2007 data): 360

School Capacity (Existing or Planned): 500

Existing Number of Students in Walk Zone: Currently, the existing walk zone has six students. This number is expected to increase with the opening of the Pine Haven development.

Estimated Potential Number of Students in Walk Zone: 345 students are living in the estimated potential walk zone. 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 the railroad. The actual walk zone may be determined by the School District at a later date.

Estimated Number of Walkers/Bicycle Riders Observed: Twenty students walk across George Engram Boulevard to attend Police Athletic League (PALs), a City-run program, located at the Cypress Street Recreation Center.

Number Bicycles on Site: 3

Number of Bicycle Helmets (stored with bicycle): 0

Number of Bicycle and Pedestrian Crash Events within the Existing and Estimated Potential Walk Zone (2004-2006): No elementary age bicycle or

pedestrian crashes were reported within the estimated potential walk zone. The majority of the students living near the school attend schools elsewhere.

Number of School Buses: 4

Number of Aftercare Buses/Vans: 0

Votran Route in Walk Zone: Yes

Percentage of Title One Students: 91.34%

Estimated Number of Students Attending Breakfast: 200

Number of Students for School Site Aftercare: 70, this is a Plus-One school (the day is extended by one hour)

Backpack Policy: None, some discourage wheeled backpacks

Teachers Assisting in Arrival and Dismissal Safety: All help (no pay)

Crossing Guard Locations: Front of school, crossing George Engram (This location is staffed with one guard, previously, there were two.)

Summary of Principal Comments: Would like to see the school serve neighborhood students.

Summary of Crossing Guard Supervisor Comments: Review the possibility of a double flasher signal at the George Engram crossing.

Planned Road, Sidewalk or other Improvements: The City of Daytona Beach is in the process of planning new sidewalks to provide increased pedestrian safety in the neighborhood adjacent to the planned Wal-Mart. Planned sidewalk segments are indicated by long dashes on the Master Plan. The City is also in the process of adding a gymnasium and pool south of George Engram Boulevard and west of Keech Street.

Planned Development: Pine Haven residential development is under construction across from the school (south of George Engram Boulevard) and is expected to be completed in 2008. Wal-Mart is planned for the Father Lopez High School site at the intersection of Nova Road and Mason Avenue.

Hazardous and Unique Conditions (Source: School District Data February 2007): Many of the nearby students are transported to other district schools. There are two designated Hazardous Conditions areas and one Unique Conditions area. (New for 2007: busing provided from north side of Mason Avenue).

Hazardous Conditions (rephrased by Hoke Design):

1. Derbyshire Road and Mason Avenue to Nova Road N, Nova Road and 8th Street to include Coquina Bluff: There are controlled traffic lights with cross walks on Mason at Derbyshire, White, and Vine. Mason is a four lane road. All have sidewalks and there is no construction. These routes lead to crossing Nova Road which is a six lane road with controlled traffic lights and cross walks.

2. East of Railroad on Second Street to Riverside Drive, East of Railroad on Mason Avenue to the River: Railroad crossing at 2nd St. and Mason Ave does not have crossing

arms that cover the pedestrian crosswalk.

Unique Conditions:

1. ML King Boulevard and International Speedway Boulevard between International Speedway Boulevard Mason Avenue to include Seagrave and Mary M Bethune Boulevard: High crime area reported in 1996.

Findings and Recommendations

Finding: The student drop-off drive is short and several motorists wait in line in an undesignated area along George Engram Boulevard.

Recommendation: Extend the drop-off drive to the parking area east of the school, tying in to the existing parking area.



The student pick up line extends out onto George Engram Blvd.

Finding: The rear of the school site is not accessible to walkers or bicycle riders living north of the school.

Recommendation: The gate along Bryant Street could connect the school property to the neighborhood to the north. If possible, the school fence along Bryant should be relocated away from the edge of pavement to allow an area for students to walk.



There is an existing gate on the north side of the school property.

Finding: George Engram Boulevard is a very wide four lane road with a middle turn lane. The roadway width encourages motorists to speed and creates a division between the neighborhood to the north and the park, future gymnasium, pool, and the Pine Haven residential development.

Recommendation: Review this section of George Engram Boulevard for traffic calming measures. An engineer should review for the possibility of a refuge area near the crosswalk and the addition of speed tables. If speed tables can be used, the crosswalk should be placed on top of a speed table and all speed



Students cross George Engram Blvd. in front of the school with the crossing guard

tables should be designed to allow for safe bicycle circulation.

Finding: Due to budget cuts, one guard now crosses from both sides of the roadway. The guard must block all lanes of traffic by herself.

Recommendation: Consider providing the guard with pole flags to increase visibility and add length.



The single crossing guard must stop traffic for all five lanes on George Engram Blvd.

Finding: The Pine Haven housing development under construction across from the school shows plans for narrow sidewalks. The plans show a sidewalk layout that may not serve several sidewalk users simultaneously. Four foot wide sidewalks are shown along George Engram Blvd. and the sidewalk sometimes curves sharply around existing power poles. No connection is shown from the planned sidewalk to the existing crosswalk.

Recommendation: The City and County (this is a County maintained roadway) should require a minimum five foot wide sidewalk along George Engram to accommodate the high number of anticipated users and to meet the Land Development Code requirements. If possible, power poles should be relocated to allow for straight sidewalks. Alternatively, sidewalk curves should be lengthened to provide a more maneuverable sidewalk for the user. The sidewalk along George Engram Blvd. needs a sidewalk connection to the existing crosswalk, preferably ten feet wide to provide a waiting area for students crossing the street.



Sidewalk location aligns with school sidewalks and is placed to avoid bus and parent drop access points

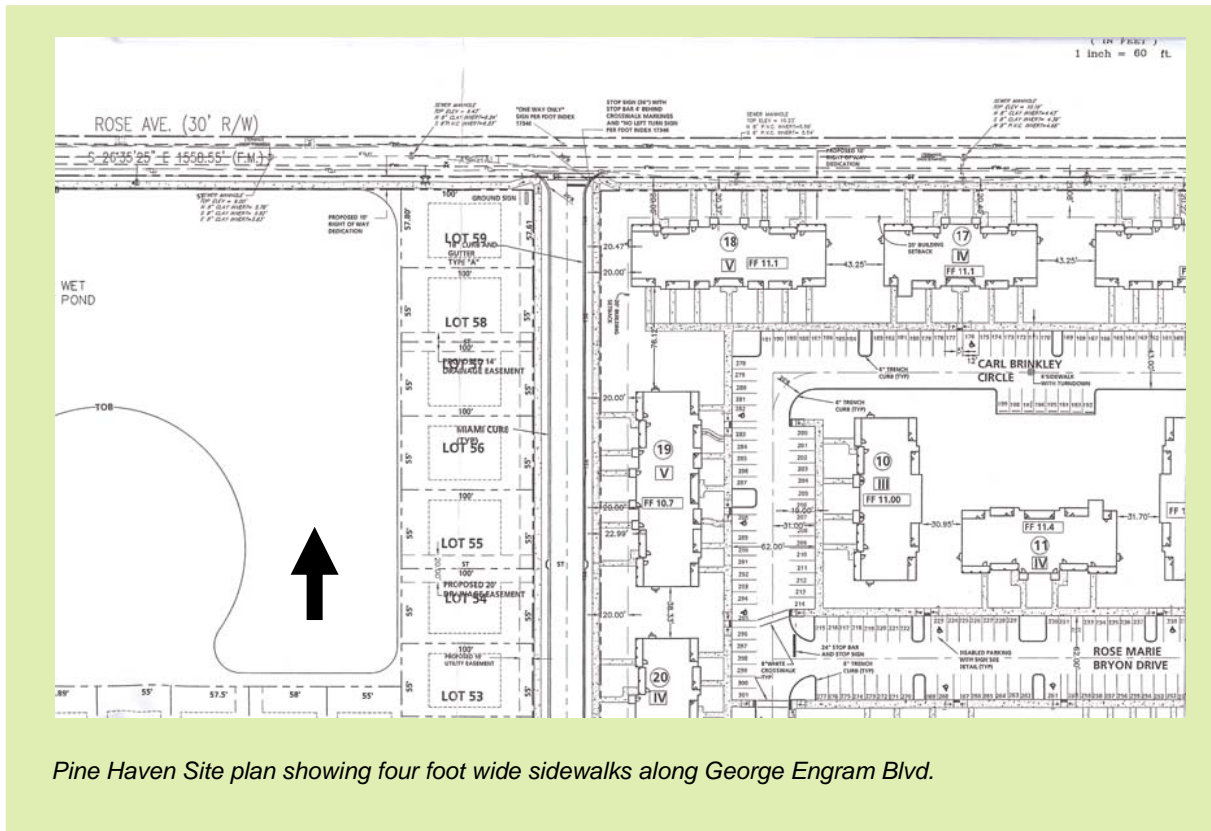


Figure 4.1.2

Finding: Some roadways have no sidewalks and several roadways have a sidewalk on one side. Sidewalks on one side of the road often increase random crossing by pedestrians and bicyclists to reach the sidewalks on the other side. The City of Daytona Beach plans to budget and construct sidewalks north of George Engram Boulevard to serve area residents and create safer routes to the planned Wal-Mart.

Recommendation: Create a more complete network of sidewalks to reflect neighborhood destinations including Bonner Elementary School. Worn grass areas typically indicate heavy existing bicycle and pedestrian traffic and may assist the city with prioritization of sidewalk construction. The following sidewalk sections may best contribute to the overall network of sidewalks.

1. North Street sidewalk (north side) from Nova Road to Railway Street: This sidewalk will serve pedestrians and bicyclists traveling south toward George Engram Boulevard. A sidewalk on the north side will serve as a collection facility for people originating from the north side of this roadway and may encourage safer crossing at intersections.



Worn grass along Washington Street near Mason Avenue

2. Tomoka Road Sidewalk: Both sides from Mason Avenue to Bryant Avenue.
3. Washington Street Sidewalk: Both sides from Mason Avenue to North Street.
4. Keech Street: George Engram Boulevard to Dr. Mary McLeod Bethune Boulevard.



Tomoka Road looking North

Finding: Many area sidewalks do not provide a continuous accessible route for wheelchair users, strollers or students riding bicycles on sidewalks. Curb ramps are missing and utilities are sometimes located in the sidewalk.

Recommendation: The City and County may wish to work together to install accessible curb ramps within the estimated potential walk zone. Utility conflicts are more costly to repair and “work arounds” should be constructed to provide continuous accessible routes for all users. Utility conflict “work arounds” include:

- Relocating the utility obstruction
- Adding concrete or a paved surface around the obstruction to provide clear zones to meet current ADA regulations.
- Lengthen sidewalk curves to increase maneuverability for all sidewalk users.
- Narrow vehicle travel lanes and provide bicycle lanes to provide an alternative area of travel for the bicyclist.
- When a utility blocks curb ramp access, provide a second curb ramp if the utility obstruction can not be relocated.

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 (shaded blue)
- Hazardous Transportation Zone from School District (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)
- 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.

