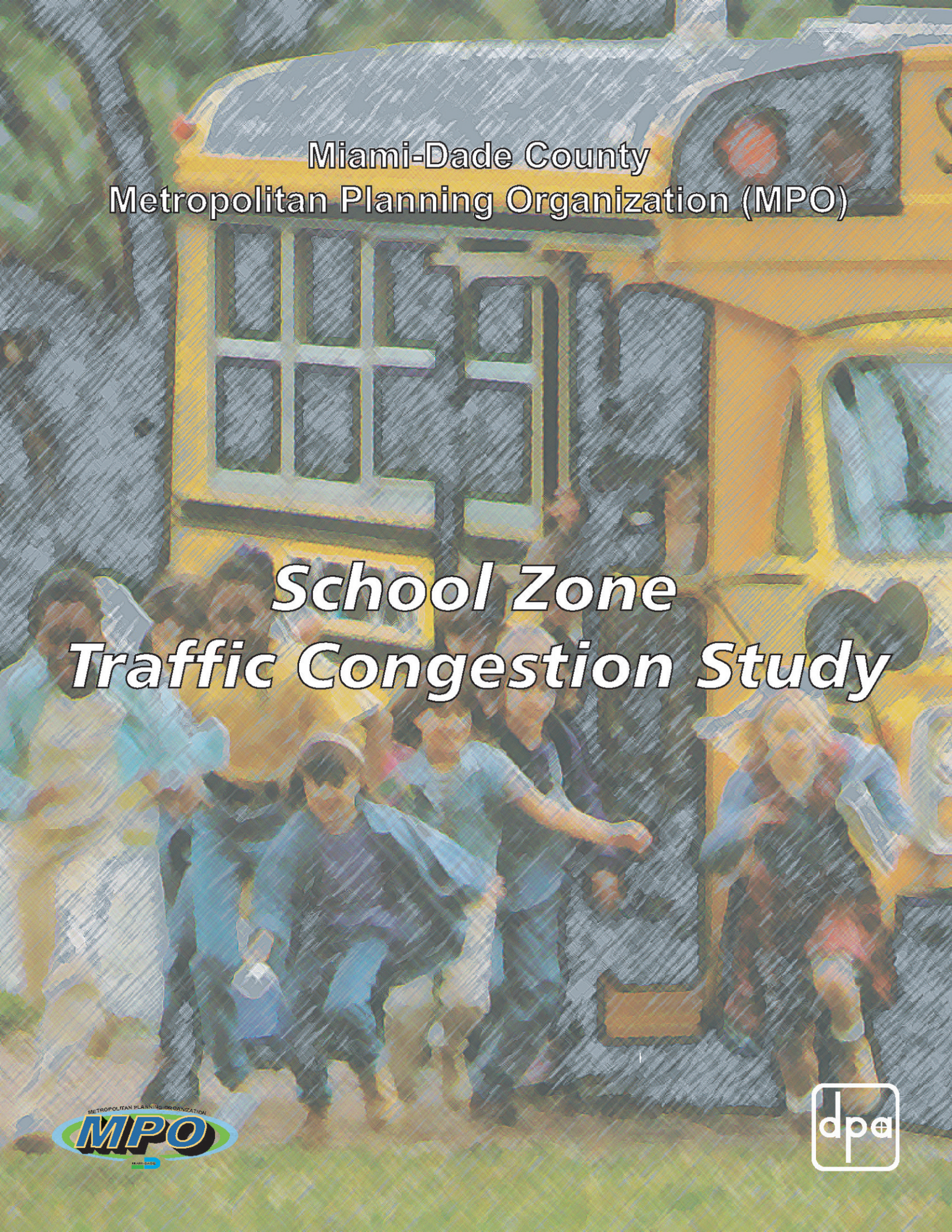
Miami-Dade County
Metropolitan Planning Organization (MPO)
School Zone
Traffic Congestion Study
METROPOLITAN PLANNING ORGANIZATION
MPO
MIAMI-DADE
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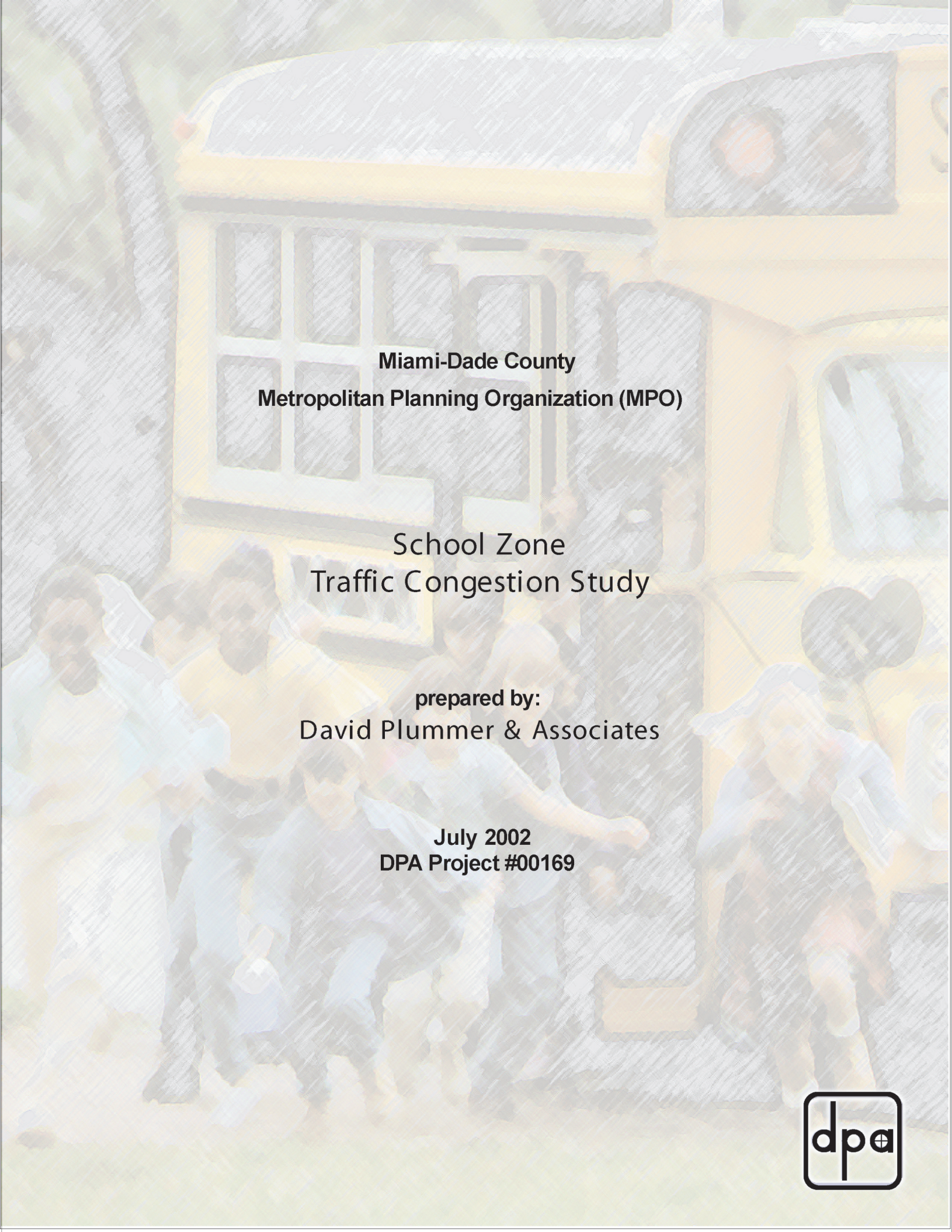

Miami-Dade County

Metropolitan Planning Organization (MPO)

School Zone
Traffic Congestion Study

prepared by:

David Plummer & Associates

July 2002

DPA Project #00169

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1.0 INTRODUCTION

1.1 Study Background and Objective

Numerous schools throughout Miami-Dade County are experiencing substantial to heavy congestion during student arrival and departure periods. This is due mostly to school buses, students being dropped off, and biking and walking students, as well as some who drive, all vying for access. Vehicles with students often encroach upon the travel lanes on streets surrounding the schools. While high schools are particularly prone to these problems because many students drive to school in their own single occupant vehicles (SOVs), middle and elementary schools exhibit similar problems due to significant numbers of drivers arriving for drop-offs/pick-ups of non-driving students.

Many of Miami-Dade schools access/egress roadways are major arterials, and rush hour traffic; already constrained by normal congestion; is further delayed as vehicles slow and/or queue to enter/exit school campuses. Many of these sites are characterized not only by deficiencies in transportation access and egress conditions, but by safety deficiencies and concerns as well. These safety concerns stem from highly localized levels of congestion, drivers' reactions to the congestion, and the inherently high exposure of student pedestrians and bicycle riders to roadway traffic in school vicinities.

Changes in access routes, modifying ways of accessing the facilities, reconsidering parking provisions, assessing locations of standing and drop-off queues, and considering alternatives to SOVs can provide avenues of congestion relief and improved safety.

The objective of this study is to identify alternatives for improving transportation operations and design, accessibility, and traffic flow in areas at and around local public schools.

1.2 Coordination

A Study Advisory Committee (SAC) was established at the beginning of the study. The SAC was comprised of representatives from the following agencies: Miami-Dade Metropolitan Planning Organization (MPO), Miami-Dade County Public Schools (MDCPS), and Miami-Dade Public Works Department (MDPWD). While the MPO provided the public sector project manager, it also furnished the county's bike/pedestrian coordinator who offered specific expertise in non-motorized issues and insights into bicyclist and pedestrian interactions with vehicles , as well as valuable experience with the "Safe Routes to School Program".

2.0 BACKGOUND RESEARCH

2.1 Previous Studies

A number of school-related studies were reviewed. Many pertain to the size and layout of schools for the greatest utilization of the site. The layout is also important for access and circulation of roads and sidewalks. By not providing enough parking, vehicle space demand encroaches on neighboring residential roadways. A list of reviewed studies is included in Appendix A. Highlights of this review are included in Section 6.2 of this report.

2.2 Traffic Design Criteria

There are no county or state standardized design criteria required for school zones. "Recommended" traffic designs are considered on a school-by-school basis. Local roadway and traffic conditions are reviewed to determine the necessary safety criteria and the placement thereof. Items such as speed zones, flashers, mid-block crossings, and crossing guards are implemented on as needed basis.

3.0 EXISTING CONDITIONS

3.1 List of Candidate Schools

A list of schools was compiled where school-related congestion presents a significant issue regarding ingress/egress congestion and spill over congestion extending to surrounding and nearby roadways. In developing this list, consideration was given to various types of schools serving different grade levels as well as the geographical distribution of the candidates throughout the county. The initial list of candidates was narrowed to create a revised list of candidates called "focus schools." The revised list included one school per district with a distribution of elementary, middle, and high schools. While all advisory committee members suggested sites and contributed to arriving schools, the School Board representatives led the way in recommending appropriate sites for in-depth consideration.

The resulting list of nine focus schools is as follows:

District 1:	Norland Middle School
District 2:	Phillis Wheatley Elementary School
District 3:	Highland Oaks Elementary School
District 4:	Lawton Chiles Middle School
District 5:	Stirrup Elementary School
District 6:	Miami Killian High School
District 7:	G. Holmes Braddock High School
District 8:	Southwest Miami High School
District 9:	Sunset Elementary School

3.2 Observations at Focus Schools

Preliminary observations were conducted during the next to last week of school in June 2001. Observers went to each school in the morning and afternoon (when the school opened and closed and access/queues movements and traffic were maximal) to document existing problems with traffic circulation. Specific detailed observations at the schools are included in Appendix B.

3.3 Crash Records

General countywide pedestrian crash information is included in Appendix C. While site-specific crash data was not available for the individual schools, assistance from the county's bike/pedestrian coordinator assisted in developing reasonable estimates for those likely associated with school sites, as it is the bike/pedestrian office that compiled and presented the original information. However, because no temporal vector is associated with the crash data, it cannot be necessarily assumed that incidents occurred at arrival or departure periods.

4.0 TEST SCHOOLS

4.1 Selection

A meeting of the Student Advisory Committee (SAC) was held in July 2001 in which observations at the nine focus schools were presented as well as a list of three preliminary test schools with one alternate. The schools identified as possible test schools were Highland Oaks Elementary School, G. Holmes Braddock High School, Miami Killian High School, and the alternate presented was Phillis Wheatley Elementary School.

Discussions of the SAC regarding the preliminary test schools resulted in the following:

- Highland Oaks Elementary School was rejected for further study because the circulation around the school is unique, and the situation is not a good representative of other schools
- G. Holmes Braddock High School was selected as a test school due to its size (one of the 5 largest in Florida) and its high level of congestion around the school
- Miami Killian High School was rejected because another high school was already chosen and a middle school was needed as a test school
- Phillis Wheatley Elementary School (the alternate) was not selected because its major problem, speeding on the roadway adjacent to the school, should be alleviated when school flashing lights are installed (already programmed for implementation in 2002)

Because only one school from the preliminary list was chosen as a test school, the other five focus schools were revisited. Lawton Chiles Middle School was selected as the second test school.

G. Holmes Braddock High School is located in the southwest portion of the county and Lawton Chiles Middle School is located in the northwest portion of the county.

An elementary school was also needed; it was also fit that a geographic balance should be pursued, so one near the central-eastern portion of the county was sought. W. J. Bryan Elementary School was subsequently chosen as the third test school. The existing site plans for each school are shown in Exhibits 1 through 3.

4.2 Field Observations

Additional field observations were then completed for each test school during the morning arrival and during the afternoon dismissal hours. This set of observations was completed in late September. The specific observations for each school are as follows:

G. Holmes Braddock High School

- SW 147 Avenue is very congested during the AM and especially during the PM time periods. There are school zone signs posted but no flashers.
- Vehicles waiting to pick-up students park anywhere there is space, including the median and residential yards/driveways.
- Many students cross the street without regards to traffic on SW 147 Avenue and on SW 38 Street.

Lawton Chiles Middle School

- NW 82 Avenue near the school is somewhat congested during the AM and very congested during the PM time periods. There are school zone signs posted and flashers in the area.
- NW 197 Street has poor traffic flow and is often blocked by stopped vehicles.
- The faculty parking lot exit is signed to be right turn only. During the PM dismissal, the predominant movement exiting the lot is a left turn, which greatly conflicts with the north/southbound traffic flow. This intersection (NW 82 Avenue/NW 194 Terrace) is also a high pedestrian conflict area.

- An officer directs traffic at the intersection of NW 82 Avenue/NW 197 Street during the AM and PM hours.

W. J. Bryan Elementary School

- The front of this school is adjacent to a main roadway (NE 125 Street), so traffic is heavy but slow moving. A mid-block signal and safety guards are present to assist pedestrians across this roadway.
- NE 13 Avenue is a drop-off/pick-up area. Because this road has a right-turn only onto NE 125 Street, many southbound vehicles make a U-turn in the middle of the street.

4.3 Data Collection

Data collection at the test schools included turning movement counts, pedestrian counts, and queue length studies. All collected data and photos are included in Appendix D. The specific locations for each school are as follows:

G. Holmes Braddock High School

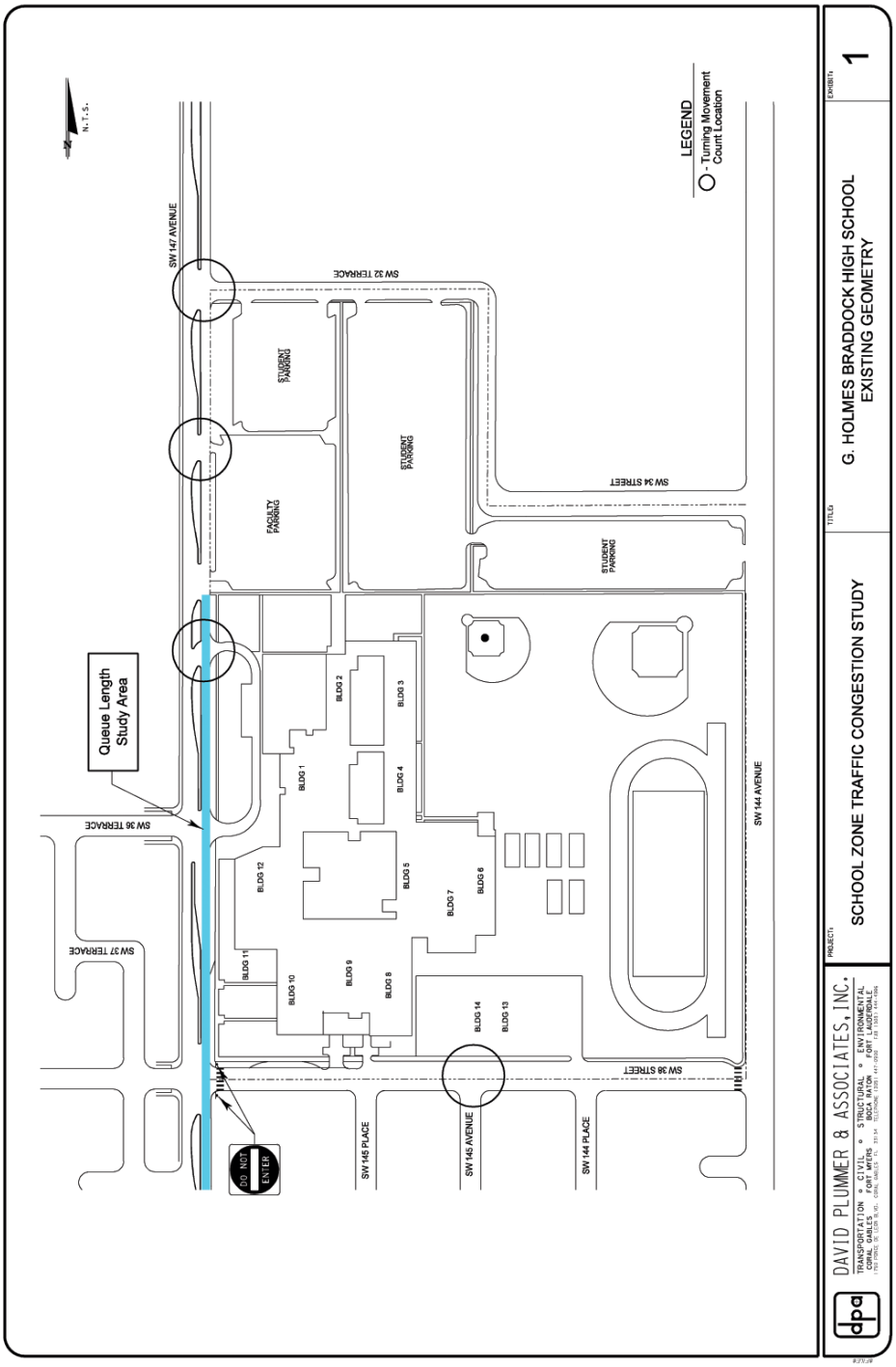
- One-hour AM turning movement counts at SW 38 Street / SW 145 Avenue;
- One-hour AM turning movement counts at three locations along SW 147 Avenue at the drop-off area's north exit, at the faculty parking lot access, and at SW 32 Terrace;
- PM queue length study of the pick-up areas along SW 147 Avenue.

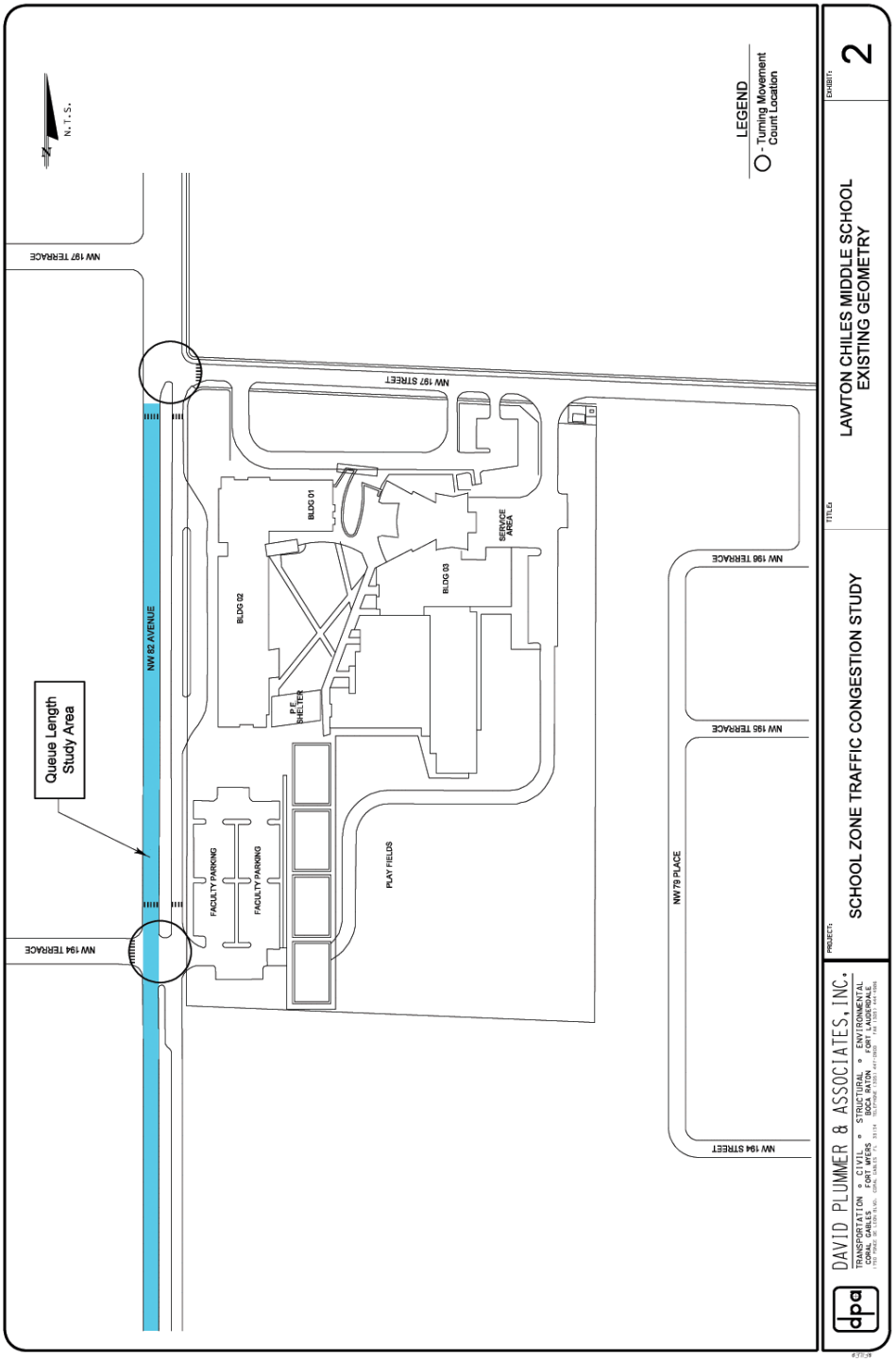
Lawton Chiles Middle School

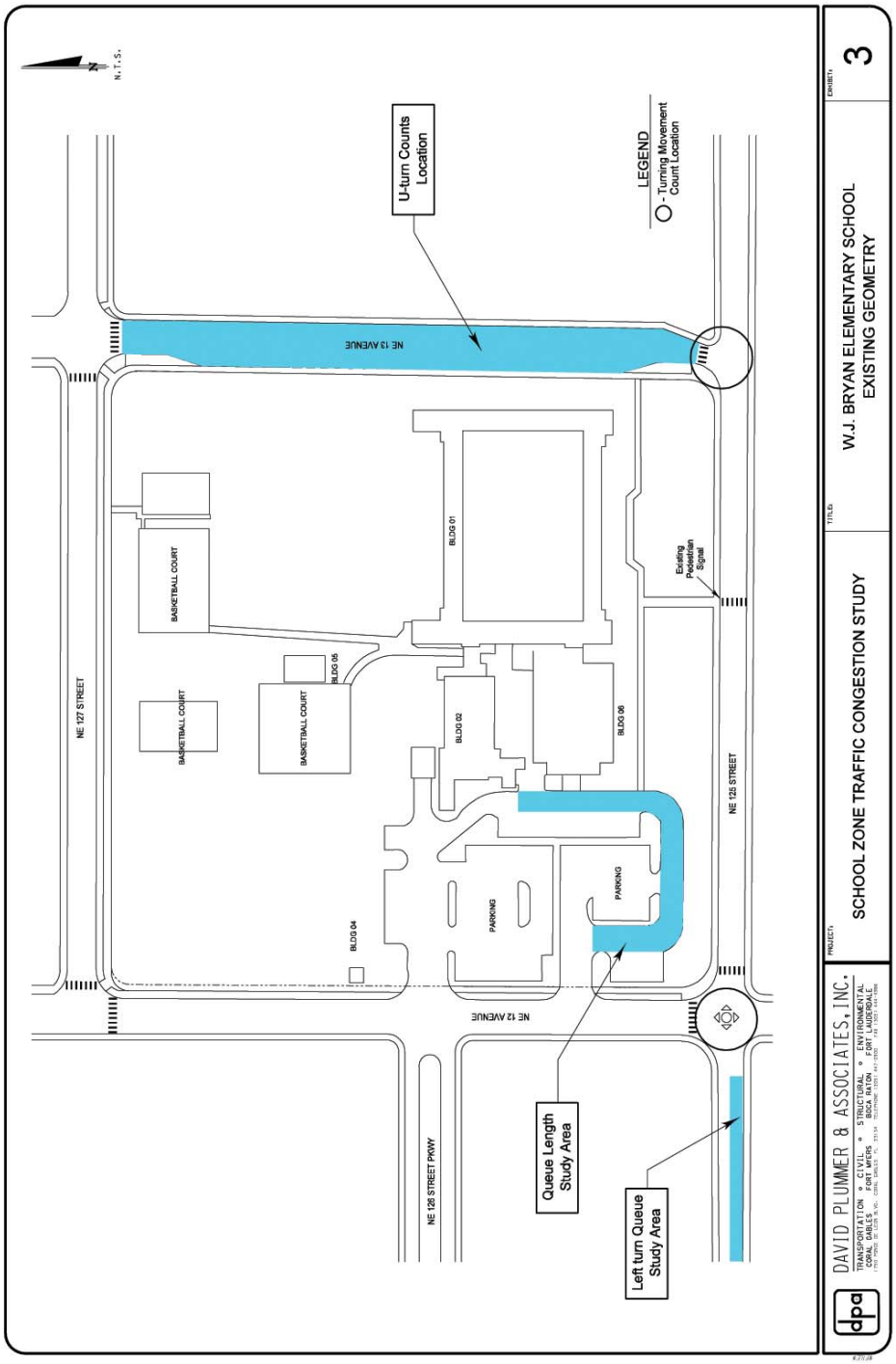
- One-hour AM turning movement and pedestrian counts at NW 186 Street / NW 79 Avenue;
- One-hour PM turning movement and pedestrian counts at NW 197 Street / NW 82 Avenue and at NW 194 Terrace / faculty parking lot access / NW 82 Avenue;
- PM queue length study along NW 82 Avenue.

W. J. Bryan Elementary School

- One-hour PM turning movement counts on NE 125 Street at NE 12 Avenue and at NE 13 Avenue;
- U-turn counts on NE 13 Avenue along the east side of the school;
- PM queue length studies at the parking lot/drop-off area off of NE 12 Avenue and for the eastbound left turn at the intersection of NE 125 Street / NE 12 Avenue.


N.T.S.
LEGEND
- Turning Movement Count Location
Queue Length Study Area
SW 147 AVENUE
SW 32 TERRACE
SW 34 STREET
SW 36 TERRACE
SW 37 TERRACE
SW 144 AVENUE
SW 38 STREET
SW 145 PLACE
SW 145 AVENUE
SW 144 PLACE
STUDENT PARKING
FACULTY PARKING
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 7
BLDG 8
BLDG 9
BLDG 10
BLDG 11
BLDG 12
BLDG 13
BLDG 14
DO NOT ENTER
DAVID PLUMMER & ASSOCIATES, INC.
TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL
CORAL GABLES FORT MYERS BOCA RATON FORT LAUDERDALE
PROJECT:
SCHOOL ZONE TRAFFIC CONGESTION STUDY
TITLE:
G. HOLMES BRADDOCK HIGH SCHOOL
EXISTING GEOMETRY
EXHIBIT
1


N. T. S.
LEGEND
- Turning Movement Count Location
NW 197 TERRACE
NW 197 STREET
NW 82 AVENUE
Queue Length Study Area
BLDG 01
BLDG 02
BLDG 03
P.E. SHELTER
SERVICE AREA
FACULTY PARKING
FACULTY PARKING
PLAY FIELDS
NW 194 TERRACE
NW 194 STREET
NW 79 PLACE
NW 196 TERRACE
NW 195 TERRACE
dpa
DAVID PLUMMER & ASSOCIATES, INC.
TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL
PROJECT:
SCHOOL ZONE TRAFFIC CONGESTION STUDY
TITLE:
LAWTON CHILES MIDDLE SCHOOL
EXISTING GEOMETRY
EXHIBIT:
2


N.T.S.
U-turn Counts Location
LEGEND
- Turning Movement Count Location
NE 13 AVENUE
NE 127 STREET
BASKETBALL COURT
BASKETBALL COURT
BASKETBALL COURT
BLDG 05
BLDG 01
BLDG 02
BLDG 06
Existing Pedestrian Signal
NE 126 STREET
PARKING
PARKING
BLDG 04
NE 12 AVENUE
NE 126 STREET PKWY
Queue Length Study Area
Left turn Queue Study Area
DAVID PLUMMER & ASSOCIATES, INC.
TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL
CORAL GABLES • FORT MYERS • BOCA RATON • FORT LAUDERDALE
PROJECT:
SCHOOL ZONE TRAFFIC CONGESTION STUDY
TITLE:
W.J. BRYAN ELEMENTARY SCHOOL
EXISTING GEOMETRY
EXHIBIT:
3

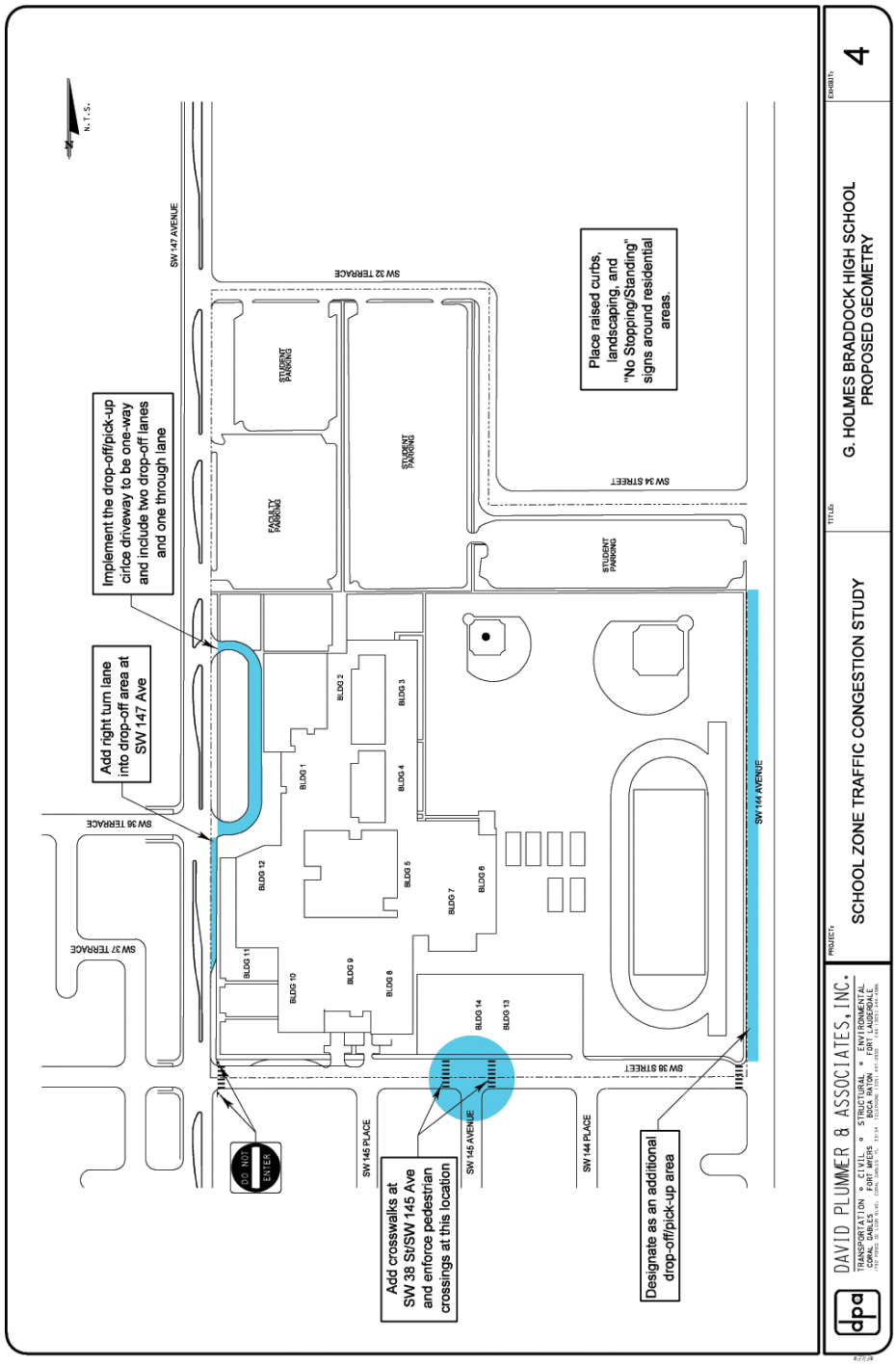
5.0 RECOMMENDATIONS

5.1 Specific Solutions for Test Schools

After completing observations, solutions were developed for each test school. The improvements should help to alleviate the congestion and circulation problems within the adjacent areas. Solution sets included input from the SAC.

G. Holmes Braddock High School (see Exhibit 4)

- Redesign the drop-off/pick-up circle along SW 147 Avenue to make it one-way and include two drop-off lanes and one through lane (three one-way lanes total)
- Implement a controlled left-turn median opening at the exit of the drop-off/pick-up circle
- Add right turn lane into the drop-off area at SW 147 Avenue
- Have a safety officer or police officer control the left turns and U-turns along SW 147 Avenue near the drop-off/pick-up circle exit and faculty parking lot access
- Add crosswalk at the intersection of SW 38 Street / SW 145 Avenue and enforce pedestrian crossings at this location
- Place raised curbs, landscaping, and "No Stopping/Standing" Signs around the residential areas
- Enforce the "Do Not Enter" restriction from SW 147 Avenue to eastbound SW 38 Street
- Designate SW 144 Avenue as an additional drop-off/pick-up area
- Enact a "Fleet Management System" for the buses to keep a constant flow with less congestion and prevent empty buses from sitting idle for longer than necessary

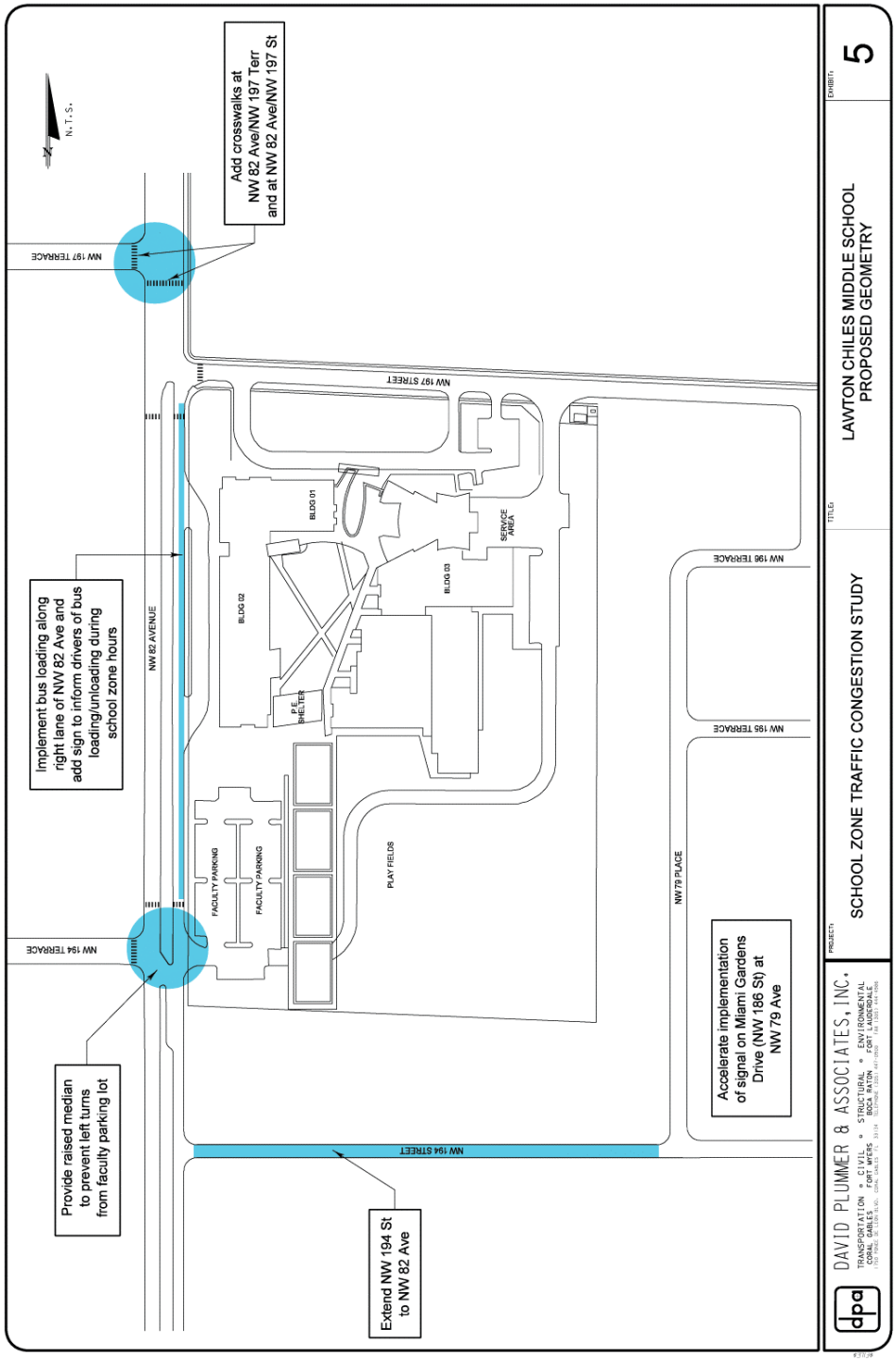

N.T.S.
SW 147 AVENUE
SW 32 TERRACE
SW 34 STREET
SW 36 TERRACE
SW 37 TERRACE
SW 38 STREET
SW 144 AVENUE
SW 145 PLACE
SW 145 AVENUE
SW 144 PLACE
STUDENT PARKING
FACULTY PARKING
BLDG 1
BLDG 2
BLDG 3
BLDG 4
BLDG 5
BLDG 6
BLDG 7
BLDG 8
BLDG 9
BLDG 10
BLDG 11
BLDG 12
BLDG 13
BLDG 14
DO NOT ENTER
Implement the drop-off/pick-up circle driveway to be one-way and include two drop-off lanes and one through lane
Add right turn lane into drop-off area at SW 147 Ave
Place raised curbs, landscaping, and "No Stopping/Standing" signs around residential areas.
Add crosswalks at SW 38 St/SW 145 Ave and enforce pedestrian crossings at this location
Designate as an additional drop-off/pick-up area
dpa
DAVID PLUMMER & ASSOCIATES, INC.
TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL
CORAL GABLES FORT MYERS BOCA RATON FORT LAUDERDALE
PROJECT:
SCHOOL ZONE TRAFFIC CONGESTION STUDY
TITLE:
G. HOLMES BRADDOCK HIGH SCHOOL
PROPOSED GEOMETRY
EXHIBIT:
4

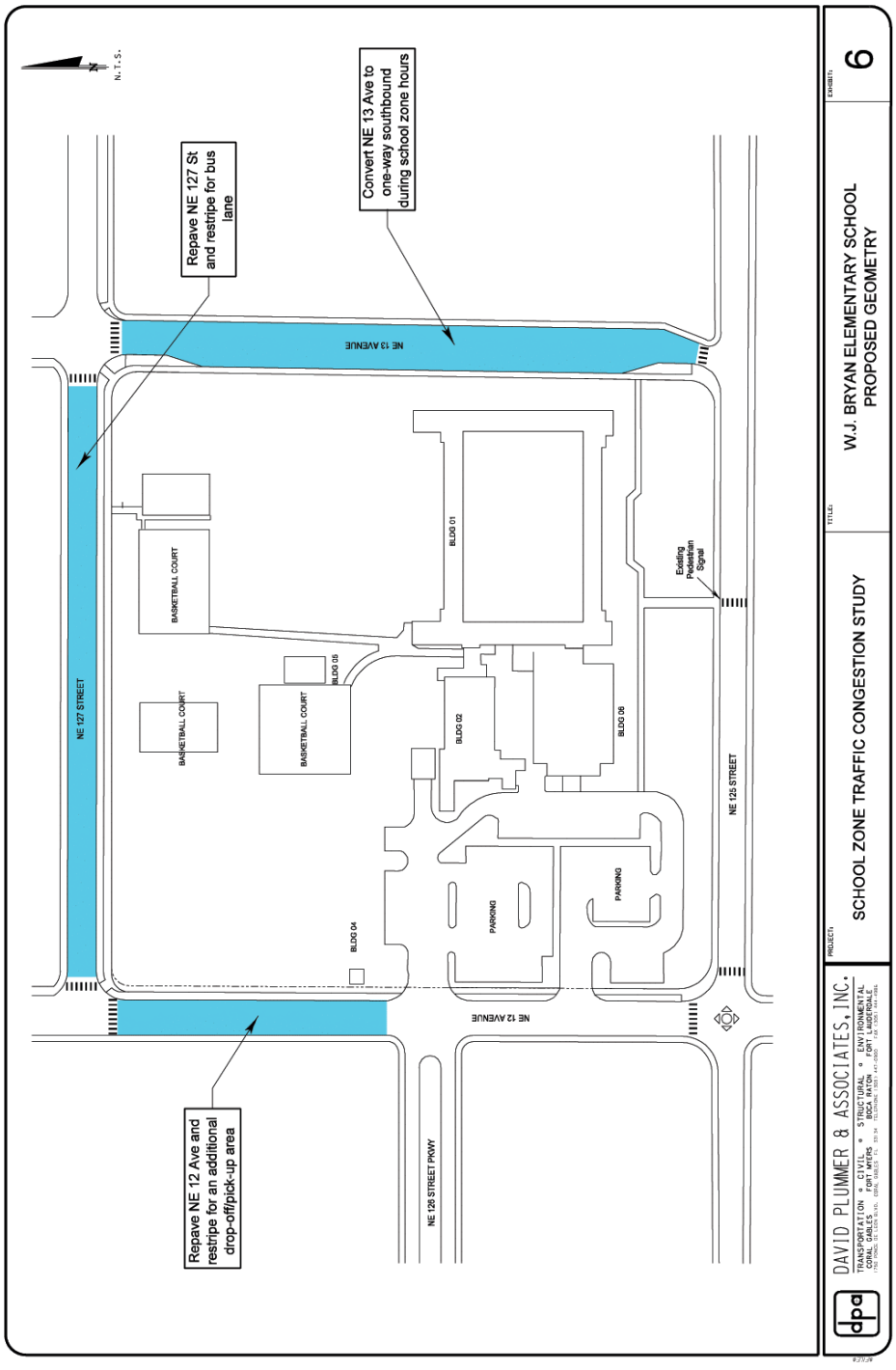
Lawton Chiles Middle School (see Exhibit 5)

- Provide a raised median to prevent left turns from and into the faculty parking lot
- Add crosswalks at the NW 82 Avenue/NW 197 Terrace and NW 82 Avenue/NW 197 Street intersections
- Extend NW 194 Street to NW 82 Avenue. Coordination with the Park Department will be required as the parcel on the south side of the school property is not yet developed
- Accelerate implementation of the signal on Miami Gardens Drive (NW 186 Street) at NW 79 Avenue
- Designate NW 197 Street and north circle driveway for bus loading. Have the right lane of NW 82 Avenue designated for student pick-up without queuing the left lane. This will leave the left lane as a through lane to NW 197 Street
- Additional signage will be required in the area to inform drivers that the right lane will be a dropping-off/picking-up students during school hours

W. J. Bryan Elementary (see Exhibit 6)

- Re-pave NE 12 Avenue and re-stripe for an additional drop-off/pick-up area
- Re-pave NE 127 Street and re-stripe for a bus lane
- Convert NE 13 Avenue to one-way southbound during school hours


N.T.S.
Add crosswalks at NW 82 Ave/NW 197 Terr and at NW 82 Ave/NW 197 St
Implement bus loading along right lane of NW 82 Ave and add sign to inform drivers of bus loading/unloading during school zone hours
Provide raised median to prevent left turns from faculty parking lot
Extend NW 194 St to NW 82 Ave
Accelerate implementation of signal on Miami Gardens Drive (NW 186 St) at NW 79 Ave
NW 197 TERRACE
NW 197 STREET
NW 82 AVENUE
NW 196 TERRACE
NW 195 TERRACE
NW 194 TERRACE
NW 194 STREET
NW 79 PLACE
BLDG 01
BLDG 02
BLDG 03
P.E. SHELTER
SERVICE AREA
FACULTY PARKING
FACULTY PARKING
PLAY FIELDS
DAVID PLUMMER & ASSOCIATES, INC.
TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL
CORAL GABLES • FORT MYERS • BOCA RATON • FORT LAUDERDALE
PROJECT
SCHOOL ZONE TRAFFIC CONGESTION STUDY
TITLE
LAWTON CHILES MIDDLE SCHOOL
PROPOSED GEOMETRY
EXHIBIT
5


N.T.S.
Repave NE 127 St and restripe for bus lane
Convert NE 13 Ave to one-way southbound during school zone hours
NE 13 AVENUE
NE 127 STREET
BASKETBALL COURT
BASKETBALL COURT
BASKETBALL COURT
BLDG 01
BLDG 03
BLDG 02
BLDG 05
Existing Pedestrian Signal
NE 125 STREET
BLDG 04
PARKING
PARKING
NE 12 AVENUE
NE 126 STREET PKWY
Repave NE 12 Ave and restripe for an additional drop-off/pick-up area
DAVID PLUMMER & ASSOCIATES, INC.
TRANSPORTATION • CIVIL • STRUCTURAL • ENVIRONMENTAL
PROJECT:
SCHOOL ZONE TRAFFIC CONGESTION STUDY
TITLE:
W.J. BRYAN ELEMENTARY SCHOOL
PROPOSED GEOMETRY
EXHIBIT:
6

5.2 Transferable Solutions

As a general rule, countywide design criteria should be developed and consistently applied to all new schools. Areas of particular interest include bus loading, drop-off/pick-up, parking, and pedestrian flow. Additionally, many general traffic control and congestion mitigation techniques may be applicable to various schools throughout the county. Transferable solutions are recommendations or treatments that can be used at other locations. Many of the recommendations directly resulting from or suggested by work performed for the test schools aided in the development of transferable solutions. These general recommendations are as follows:

- Develop a set of guidelines, checklists and design concepts/details addressing school vehicular, pedestrian bicycle access and circulation (Elements of Continuity).
- Always designate speed zones near schools for all roadways except expressways.
- Install Flashing Beacons and signs at selected speed zones.
- Avoid transit stops, newspaper vending boxes, mailboxes, or on-street parking between drop-off zone entrance and exit points along the school frontage.
- Pedestrian/Vehicles conflicts should be minimized.
- School buses and vehicles dropping-off/picking-up students should have separate, clearly designated drop-off lanes.
- School buses and vehicles dropping-off/picking-up students should use designated drop-off lanes that are adjacent to the school building and make minimal on-site turning movements.
- School buses and vehicles dropping-off/picking-up students should not be required to back a vehicle anywhere in school property.
- Drop-off areas on the school ground should be one-way in a counterclockwise direction.
- Restrict turning movements during school beginning/ending periods to reduce congestion/conflicts.

- Install truck exclusion signs around school area.
- Use Adult Crossing Guard/Safety Officer at intersections near school where there is sizable traffic volume.
- There should be standard and well-maintained sidewalks leading to school.
- Update "Safe Route to School" program for elementary schools.
- Monitor schools throughout the year to observe ongoing traffic and circulation problems.
- Recommend that schools provide traffic safety education to all students each year through their local police department.
- Support "Walk to School Day" and other events that encourage alternatives to auto use.

Finally, a transportation professional should be given the fulltime responsibility to direct all site specific traffic access and parking issues for all the schools in the MDCPS system. Such a position would centralized and coordinate the investigation, formation, and simplification of solutions at existing schools. This person would also oversee the design of new schools using standard criteria to minimize such problems, when the schools open.

7.0 CONCLUSIONS

Miami-Dade County is a constantly growing urban area in the state of Florida. In an area where population and educational changes are taking place, improving existing public school sites to accommodate the growing population is a continuing process. By providing a set of general applicable standards and enforcing their implementation, traffic control and congestion problems may be improved in existing school sites and minimized in the development of new ones.

The objective of this study was to identify alternatives for improving transportation operations and design, accessibility, and traffic flow in areas at and around local public schools. A Study Advisory Committee (SAC) was established at the beginning of the study to establish the overall efforts of this study, review work products and discuss findings and recommendations. The SAC was comprised of representatives from the following agencies: Miami-Dade Metropolitan Planning Organization (MPO), Miami-Dade County Public Schools (MDCPS), and Miami-Dade Public Works Department (MDPWD).

A list of nine focus schools was compiled where school-related congestion presents a significant problem. In developing this list, consideration was given to various types of grade level schools throughout diverse geographical areas of the county. All nine focus school were observed during the morning arrival and afternoon departure times to identify existing problems with traffic circulation.

While all advisory committee members suggested sites and participated in the recommendations, the MDCPS representatives led the way in recommending appropriate sites for in-depth consideration called “test schools.” The revised list included one school per district with a distribution of elementary, middle, and high school. These three test schools were G. Holmes Braddock High School, Lawton Chiles Middle School, and W.J. Bryan Elementary School.

Additional field observations were then completed for each test school during the morning arrival and afternoon dismissal hours. This information was used to determine where further in-depth data gathering was to take place. Data collection at all three test schools included turning movement counts, pedestrian counts, and vehicular queue length studies.

After completing observations and with the help and input from the SAC, solutions were developed for each test school. Some solutions for G. Holmes Braddock High School consisted of redesigning the drop-off/pick-up circle, placement of raised curbs and medians to restrict turning movements, and "No Stopping/Standing" signs around the residential areas. For Lawton Chiles Middle School, traffic improvements included providing raised medians to prevent turning movements, the addition of crosswalks, and the extension of a street corridor. And for W.J. Bryan Elementary, solutions included re-paving and re-striping adjacent streets segments. These suggested improvements may help alleviate the congestion and circulation problems within the adjacent areas of the three test schools.

General traffic control and congestion mitigation techniques applicable to a number of various school zones directly resulting from or suggested by work performed for the test schools aided in the development of transferable solutions. As a general rule, county wide design criteria should be developed and consistently applied to all new schools. Some general recommendations are to develop a set of guidelines, checklists and design concepts/details addressing school vehicular, pedestrian bicycle access and circulation; always designate speed zones near all schools or all facilities except expressways; and install flashing beacons and signs at all speed zones.
Please note that the solutions provided in this report are just recommendations and they need to be approved by the Miami-Dade County Public Schools system prior to implementation.

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Appendix A

Previous School-Related Studies

Previous School-Related Studies

1. *Agencies Work Together Toward School Safety*. Texas Transportation Researcher, Volume 35, Number 4, 1999.

2. Gattis, J.L.; W.A. Nicewander; and L.E. Toothaker. *Estimating Parking Accumulation Demands at Elementary Schools*, ITE Journal, October1995, pp. 45-49.

3. *Guide to School Site Analysis and Development: 2000 Edition*. California Department of Education, Sacramento, 2000. [Online]. Available: http://www.cde.ca.gov/facilities/field/publications/schoolsitesanalysis2000.pdf.

4. *Making Current Trends in School Design Feasible*. Public Schools of North Carolina, State Board of Education, Department of Public Instruction, November 2000.

5. *Transportation Research Board School Transportation Safety Study*. Project Identification Number SAIS-P-99-08-A. [Online]. Available: http://www4.nas.edu/cp.nsf/Projects+_by+_PIN/SAIS-P-9908A?OpenDocument.

6. Institute for Transportation Research and Education. School Transportation Group Site. [Online]. Available: http://www.itre.ncsu.edu/STG/index.html.

7. *The School Site Planner: Land for Learning*. North Carolina State Board of Education, Raleigh, June 1998. [Online]. Available: http://www.schoolclearinghouse.org/pubs/schsite.pdf and http://www.schoolclearinghouse.org/pubs/small.pdf.

8. *Resources for School Facilities Planning*. California Department of Education, Sacramento, 2000. [Online]. Available: http://www.cde.ca.gov/facilities/field/publications/schsiteselandapp2000.pdf.

9. Smith, Emily. *School Transportation Group*. The University of North Carolina, Highway Safety Research Center. [Online]. Available: http://www.hsrc.unc.edu/pubinfo/school_trans.htm.

10. *A Survey of Establishing Reduced Speed School Zones*, Prepared by the Institute of Transportation Engineer's Transportation Safety Council Committee TSC-4S-06, 2000.

11. *Survey of Traffic Circulation and Safety at School Sites,* Prepared by the Institute of Transportation Engineer's Transportation Safety Council Committee TSC-4S-08, October 1988.

Appendix B

Observations at Focus Schools

Norland Middle School – 1235 NW 192 Terrace

- Located in a residential neighborhood and adjacent to a high school
- On school days, NW 192 Terrace is blocked off from 7:00 AM – 9:00 AM and from 1:30 PM – 4:15 PM for buses only; buses exit on NW 192 Terrace or on NW 13 Court
- Parents pick-up/drop-off on a side street or on NW 12 Avenue; this seems to work well because the traffic is concentrated on the major road (NW 12 Avenue), which has ample space for side parking/stopping
- NW 12 Avenue is shared by both middle and high schools, yet no major conflicts were observed; possibly because schools open/close at different times

Phillis Wheatley Elementary School – 1801 NW 1 Place

- Located in a residential neighborhood and adjacent to a two-lane one-way roadway (NW 1 Place)
- Brief informal faculty interview said that speeding is the problem; congestion is no problem; morning is calmer than afternoon because students enter at different times, but leave at the same time
- No flashing school lights exist on roadways adjacent to school
- Student entrance is on NW 1 Place; pick-up/drop-off occur along sides of road in front of school

Highland Oaks Elementary School – 20500 NE 24 Avenue

- Located in a residential neighborhood and adjacent to a middle school
- Congestion occurs on circular intersection located on NE 24 Avenue between elementary and middle schools; area is used for pick-up/drop-off of both schools

- Entrance to middle school is on NE 24 Avenue which is designated as bus only; therefore, parents are forced to use the rear circular intersection, which causes congestion for those trying to access the elementary school; to access the elementary school, parents tend to enter the parking lot for pick-up/drop-off
- In the mornings, a security officer blocks-off entrance from the parking lot into the school driveway; in the afternoon, the officer directs traffic on the street
- Afternoon congestion is not as heavy as in the morning; probably because schools let out at different times

Lawton Chiles Middle School – 8190 NW 197 Street

- Located in a residential area
- NW 82 Avenue, which is used for both parent and bus pick-up/drop-off, is also the main road in and out of the community
- School traffic is combined with local area trips and causes traffic congestion, especially in the morning hours; afternoon congestions, though not major, occur in the southern faculty parking lot (southbound traffic slows down traffic exiting parking lot making a westbound left turn even though the parking lot has a right turn only sign to exit)

Stirrup Elementary School – 330 NW 97 Avenue

- Located at the corner of a major intersection (NW 97 Avenue and Flagler) and adjacent to Ruben Dario Middle School
- Only access is from NW 97 Avenue
- Entrance to faculty parking lot is from Flagler Street; exit from faculty parking lot is to NW 97 Avenue

Miami Killian High School – 10655 SW 97 Avenue

- Located in a residential neighborhood
- Parking lot facility cannot accommodate all the student drivers, therefore student drivers generally park along SW 97 Avenue or along NW 95 Avenue; in the afternoon, students parked on SW 97 Avenue create conflict with parents trying to pick-up students and with students/faculty leaving parking lots
- Only eastbound traffic is allowed on SW 106 Street between SW 97 Avenue and SW 93 Court in the morning/afternoon (before and after school)

G. Holmes Braddock High School – 3601 SW 147 Avenue

- Located in a residential area
- Because there is no stop sign or signal control on traffic heading north/south on SW 147 Avenue, drivers making a left/right turn from SW 32 Terrace (after leaving parking lot) onto SW 147 Avenue must wait for gaps; buses making a left/right turn from SW 38 Street onto SW 147 Avenue also have to wait for gaps
- SW 38 Street from SW 144 Avenue to SW 147 Avenue is for buses only in the afternoon (westbound only)
- Many students are dropped-off/picked-up at the Winn Dixie shopping center located at the intersection of SW 40 Street and SW 147 Avenue
- There is only one entrance/exit open to the faculty parking lot (SW 147 Avenue); there are only two entrances/exits to the student parking lot; all other entrances/exits to the parking lots are permanently closed.
- Congestion is very heavy on SW 147 Avenue

Southwest Miami High School – 8855 SW 50 Terrace

- Located in a residential neighborhood
- In the afternoon, security guards block-off access on SW 50 Terrace between SW 88 Court and SW 89 Place
- Parking lot facility cannot accommodate all the student drivers, therefore student drivers park around the school (on school grounds); this creates congestion since the parents picking-up students all leave at the same time
- Parents park along SW 48 Street on the side of the neighboring houses between SW 88 Court and SW 89 Place

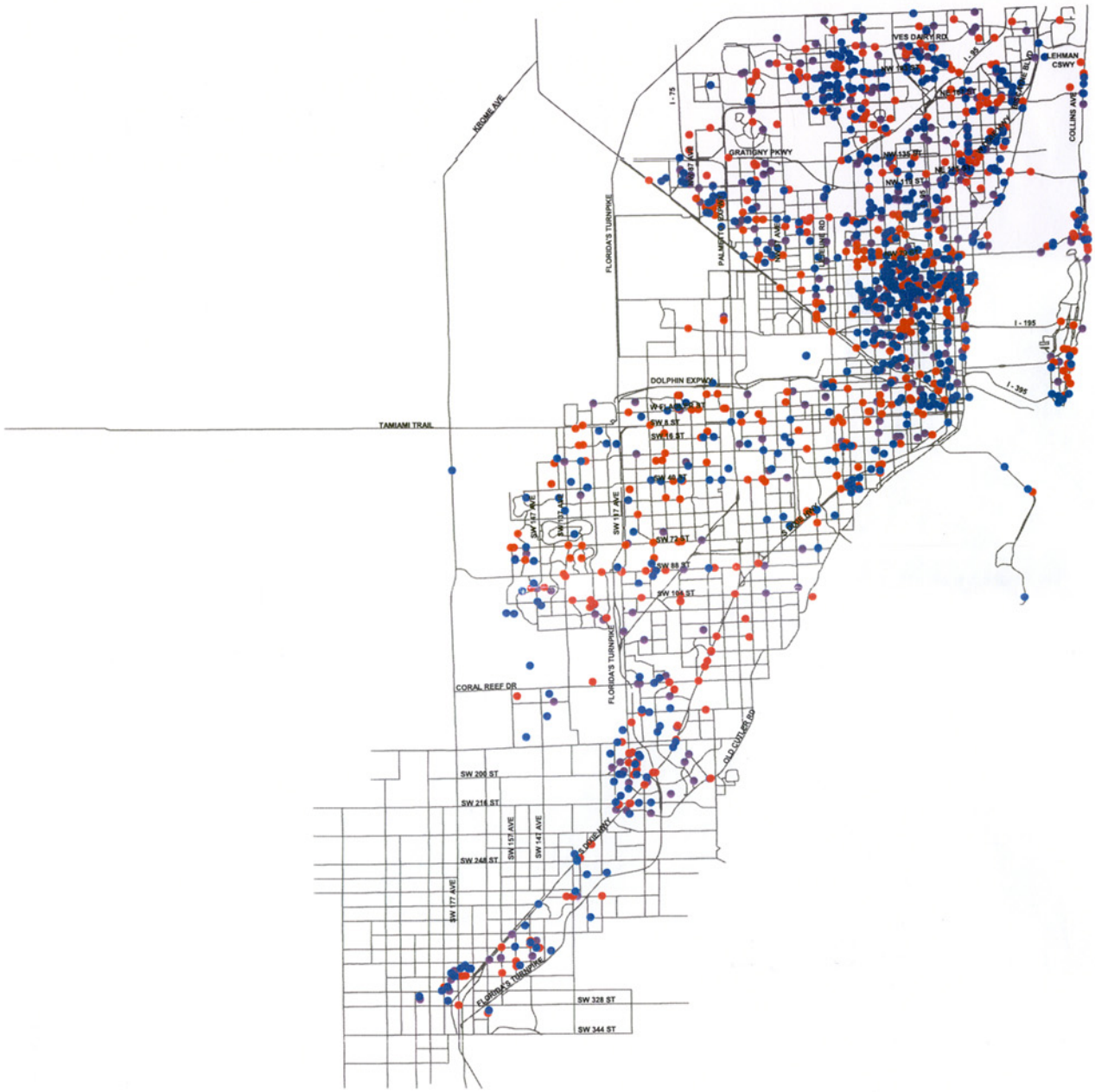
Sunset Elementary School – 5120 SW 72 Street

- Located in a residential area and adjacent to a major road (SW 72 Street)
- Only two access points exist (on SW 52 Avenue and on SW 72 Street).
- Parents park across from school (on SW 72 Street) to drop-off/pick-up students; this causes pedestrian/vehicular conflicts as parents and students cross the roadway on foot

Appendix C

Pedestrian Crash Data

Ped Crash (Dade County)



Appendix D

Data Collection

G. Holmes Braddock Senior High School

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name:	**School Zone Traffic Congestion Study**	**Project Number:**	**00168**
Location:	**SW 32 Terrace & SW 147 Avenue**	**Count Date:**	**9/26/01**
Observer:	**Traffic Survey Specialists, Inc.**	**Day of Week:**	**Wednesday**

TIME INTERVAL		SW 147 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	SW 32 Terrace EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:05 AM	0	218	21	239	61	158	0	219	0	0	0	0	1	0	11	12	470
07:05 AM	07:20 AM	1	302	41	344	84	198	0	282	0	0	0	0	4	0	25	29	655
07:20 AM	07:35 AM	1	265	12	278	26	55	0	81	0	0	0	0	1	0	8	9	368
07:35 AM	07:50 AM	0	143	6	149	5	53	0	58	0	0	0	0	1	0	0	1	208

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY

ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		SW 147 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	SW 32 Terrace EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:50 AM	2	956	82	1,040	181	478	0	659	0	0	0	0	7	0	45	53	1,752
PEAK HOUR FACTOR					0.73				0.57				N/A				0.44	0.65

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.03

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: School Zone Traffic Congestion Study
Location: SW 38 Street & SW 145 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 00168
Count Date: 9/26/01
Day of Week: Wednesday

TIME INTERVAL		SW 145 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	SW 38 Street EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:05 AM	34	0	16	50	0	0	0	0	0	8	3	11	14	88	0	102	163
07:05 AM	07:20 AM	53	0	32	85	0	0	0	0	0	20	15	35	38	100	0	138	258
07:20 AM	07:35 AM	12	0	2	14	0	0	0	0	0	2	1	3	1	33	0	34	51
07:35 AM	07:50 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	7	0	7	9

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		SW 145 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	SW 38 Street EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:50 AM	104	0	52	156	0	0	0	0	0	31	20	50	55	235	0	289	495
PEAK HOUR FACTOR					0.44				N/A				0.35				0.51	0.47

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.03

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: School Zone Traffic Congestion Study
Location: Drop off Exit & SW 147 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 00168
Count Date: 9/26/01
Day of Week: Wednesday

TIME INTERVAL		SW 147 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	Drop off Exit EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:05 AM	14	229	0	243	2	124	0	126	0	0	0	0	20	0	59	79	448
07:05 AM	07:20 AM	7	250	0	257	15	152	0	167	0	0	0	0	20	0	79	99	523
07:20 AM	07:35 AM	5	219	0	224	0	53	0	53	0	0	0	0	14	0	51	65	342
07:35 AM	07:50 AM	1	145	0	146	0	56	0	56	0	0	0	0	2	0	8	10	212

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		SW 147 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	Drop off Exit EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:50 AM	28	868	0	896	18	397	0	414	0	0	0	0	58	0	203	261	1,571
PEAK HOUR FACTOR					0.85				0.60				N/A				0.64	0.73

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.03

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: School Zone Traffic Congestion Study
Location: Faculty Parking Lot & SW 147 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 00168
Count Date: 9/26/01
Day of Week: Wednesday

TIME INTERVAL		SW 147 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	Faculty Lot EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:05 AM	1	173	40	214	14	81	0	95	0	0	0	0	1	0	0	1	310
07:05 AM	07:20 AM	1	316	25	342	42	136	0	178	0	0	0	0	0	0	3	3	523
07:20 AM	07:35 AM	1	294	4	299	5	92	0	97	0	0	0	0	0	0	2	2	398
07:35 AM	07:50 AM	5	150	7	162	1	42	0	43	0	0	0	0	0	0	0	0	205

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		SW 147 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	Faculty Lot EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
06:50 AM	07:50 AM	8	961	78	1,048	64	362	0	425	0	0	0	0	1	0	5	6	1,479
PEAK HOUR FACTOR					0.74				0.58				N/A				0.50	0.69

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.03

Braddock Sr. High School

Queue Length at Drop off Area

Date: 10/03/01

Time	Queue (ft)		Time	Queue (ft)
2:10	-		2:41	1064
2:11	-		2:42	900
2:12	-		2:43	900
2:13	-		2:44	930
2:14	-		2:45	1060
2:15	-		2:46	1100
2:16	-		2:47	1000
2:17	-		2:48	1250
2:18	-		2:49	1200
2:19	-		2:50	1304
2:20	-		2:51	1024
2:21	-		2:52	800
2:22	-		2:53	252
2:23	-		2:54	75
2:24	-		2:55	
2:25	-		2:56	
2:26	-		2:57	
2:27	-		2:58	
2:28	-		2:59	
2:29	-		3:00	
2:30	-			
2:31	-			
2:32	-			
2:33	-			
2:34	-			
2:35	425			
2:36	687			
2:37	943			
2:38	1100			
2:39	1263			
2:40	1205			

G. HOLMES BRADDOCK HIGH SCHOOL

School sign on SW 147 Avenue

SW 147 Avenue

SW 147 Avenue

Circle driveway on SW 147 Avenue

SW 147 Avenue

SW 147 Avenue

SW 147 Avenue

Student parking lot entrance on SW 32 Terrace

G. HOLMES BRADDOCK HIGH SCHOOL

Student Parking Lot

Intersection of SW 34 Street/SW 144 Avenue

SW 144 Avenue

Student parking lot entrance on SW 144 Avenue

SW 144 Avenue

Corner of SW 144 Avenue/SW 38 Street

SW 38 Street

SW 38 Street

Lawton Chiles Middle School

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name:	**School Zone Traffic Congestion Study**	**Project Number:**	**00168**
Location:	**NW 186 Street & NW 79 Avenue**	**Count Date:**	**9/25/01**
Observer:	**Traffic Survey Specialists, Inc.**	**Day of Week:**	**Tuesday**

TIME INTERVAL		NW 79 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 186 Street EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
08:15 AM	08:30 AM	0	0	0	0	52	0	59	111	10	296	0	306	0	290	51	341	758
08:30 AM	08:45 AM	0	0	0	0	47	0	36	83	20	296	0	316	0	273	87	360	759
08:45 AM	09:00 AM	0	0	0	0	65	0	54	119	18	316	0	334	0	255	50	305	758
09:00 AM	09:15 AM	0	0	0	0	41	0	23	64	11	236	0	247	0	149	15	164	475

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 79 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 186 Street EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
08:15 AM	09:15 AM	0	0	0	0	209	0	175	385	60	1,167	0	1,227	0	986	207	1,193	2,805
PEAK HOUR FACTOR					N/A				0.79				0.90				0.81	0.91

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: School Zone Traffic Congestion Study
Location: NW 194 Terrace & NW 82 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 00168
Count Date: 9/26/01
Day of Week: Wednesday

TIME INTERVAL		NW 82 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 194 Terrace EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
07:00 AM	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NW 82 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NW 194 Terrace EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
09:00 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR					#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	#DIV/0!

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.01

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name:	**School Zone Traffic Congestion Study**	**Project Number:**	**00168**
Location:	**NW 197 Street & NW 82 Avenue**	**Count Date:**	**9/26/01**
Observer:	**Traffic Survey Specialists, Inc.**	**Day of Week:**	**Wednesday**

		NW 82 Avenue								NW 197 Street								
TIME INTERVAL		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND TOTAL
		L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	
07:00 AM	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

		NW 82 Avenue								NW 197 Street								
TIME INTERVAL		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND TOTAL
		L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	
09:00 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR					#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	#DIV/0!

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.01

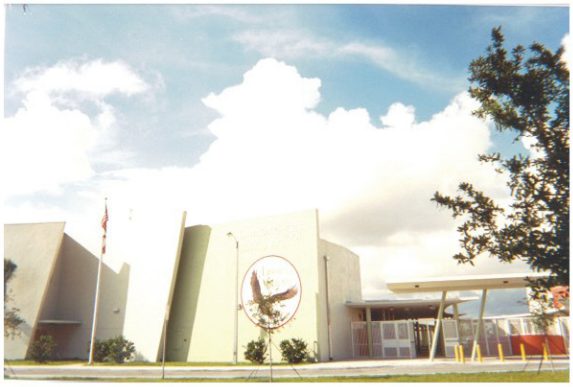
Lawton Chile Middle School

Queue Length at 82nd Avenue

Date: 10/04/01

Time	Queue (ft)		Time	Queue (ft)
3:10	-		3:41	6
3:11	-		3:42	8
3:12	-		3:43	5
3:13	-		3:44	6
3:14	-		3:45	15
3:15	-		3:46	13
3:16	-		3:47	10
3:17	-		3:48	14
3:18	-		3:49	20
3:19	-		3:50	25
3:20	4		3:51	27
3:21	0		3:52	25
3:22	2		3:53	23
3:23	0		3:54	20
3:24	0		3:55	20
3:25	4		3:56	11
3:26	0		3:57	13
3:27	2		3:58	4
3:28	1		3:59	2
3:29	2		4:00	0
3:30	3			
3:31	4			
3:32	3			
3:33	1			
3:34	0			
3:35	0			
3:36	0			
3:37	1			
3:38	0			
3:39	2			
3:40	5			

LAWTON CHILES MIDDLE SCHOOL



School entrance on NW 197 Street

NW 82 Avenue

NW 82 Avenue

Faculty parking lot on NW 82 Avenue

Faculty parking lot entrance on NW 82 Avenue

Pedestrian crossing on NW 82 Avenue

NW 82 Avenue

Circle driveway on NW 82 Avenue

LAWTON CHILES MIDDLE SCHOOL

NW 197 Street

Intersection of 82 Avenue/NW 197Terrace

Circle driveway on NW 197 Street

NW 197 Street

Circle driveway on NW 197 Street

Faculty parking lot on NW 197 Street

Faculty parking lot on NW 197 Street

Service Entrance on NW 197 Street

W. J Bryan Elementary School

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: School Zone Traffic Congestion Study
Location: NE 125 Street & NE 12 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 00168
Count Date: 9/25/01
Day of Week: Tuesday

TIME INTERVAL		NE 12 Avenue								NE 125 Street								GRAND TOTAL
		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	
07:00 AM	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NE 12 Avenue								NE 125 Street								GRAND TOTAL
		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	
09:00 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR					#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	#DIV/0!

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.02

DAVID PLUMMER & ASSOCIATES, INC.

TURNING MOVEMENT COUNTS

Project Name: School Zone Traffic Congestion Study
Location: NE 125 Street & NE 13 Avenue
Observer: Traffic Survey Specialists, Inc.

Project Number: 00168
Count Date: 9/25/01
Day of Week: Tuesday

TIME INTERVAL		NE 13 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NE 125 Street EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
07:00 AM	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY
ANNUAL AVERAGE DAILY TRAFFIC CONDITIONS

TIME INTERVAL		NE 13 Avenue NORTHBOUND L	T	R	TOTAL	SOUTHBOUND L	T	R	TOTAL	NE 125 Street EASTBOUND L	T	R	TOTAL	WESTBOUND L	T	R	TOTAL	GRAND TOTAL
09:00 AM	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR FACTOR					#DIV/0!				#DIV/0!				#DIV/0!				#DIV/0!	#DIV/0!

Note: 1999 FDOT Seasonal Weekly Volume Factor = 1.02

Bryan Elementary School

Left Turn Queue Length at 12 Ave & 125 St

Date: 10/05/01

Time	Queue (ft)		Time	Queue (ft)
2:50	5		3:21	3
2:51	2		3:22	3
2:52	1		3:23	4
2:53	2		3:24	2
2:54	0		3:25	0
2:55	5		3:26	0
2:56	3		3:27	0
2:57	2		3:28	0
2:58	2		3:29	0
2:59	0		3:30	0
3:00	2			
3:01	2			
3:02	0			
3:03	3			
3:04	3			
3:05	2			
3:06	3			
3:07	3			
3:08	2			
3:09	6			
3:10	10			
3:11	12			
3:12	13			
3:13	6			
3:14	4			
3:15	3			
3:16	2			
3:17	0			
3:18	1			
3:19	0			
3:20	0			

Bryan Elementary School

Queue Length at Drop Off Area

Date: 10/05/01

Time	Queue (ft)		Time	Queue (ft)
2:50	0		3:21	4
2:51	0		3:22	4
2:52	0		3:23	7
2:53	0		3:24	8
2:54	0		3:25	3
2:55	0		3:26	3
2:56	13		3:27	3
2:57	15		3:28	3
2:58	16		3:29	3
2:59	17		3:30	3
3:00	19			
3:01	21			
3:02	21			
3:03	23			
3:04	24			
3:05	24			
3:06	26			
3:07	24			
3:08	19			
3:09	16			
3:10	13			
3:11	15			
3:12	15			
3:13	15			
3:14	16			
3:15	13			
3:16	8			
3:17	7			
3:18	10			
3:19	9			
3:20	7			

W.J. BRYAN ELEMENTARY

Faculty parking lot entrance on NE 12 Avenue

Faculty parking lot exit on NE 12 Avenue

Circular driveway on NE 12 Avenue

Intersection of NE 12 Avenue/NE 127 Street

NE 13 Avenue

NE 13 Avenue

Intersection of NE 13 Avenue/NE 125 Street

NE 125 Street

David Plummer & Associates

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