

Neighborhood Planning for Safe Routes to School in Rancho Cordova:

A Report on Recommendations from Community Design Workshops



April 2006

Prepared for

Sacramento City Unified School District
City of Rancho Cordova
Partnership for Active Communities
Sacramento Area Council of Governments
California Department of Transportation

Prepared by

Alta Planning + Design
Local Government Commission
Walkable Communities
WALKSacramento

Project Partners

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Project Supporters

This project was made possible through the support of Healthy Start, Sacramento City Unified School District, Sacramento County, Sacramento Area Council of Governments and California Department of Transportation.

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Disclaimer

Adherence to the principles found in this report can lead to an overall improvement in neighborhood safety and livability. This report does not constitute a standard, specification or regulation, and is not intended to be used as a basis for establishing civil liability. This report is not a substitute for sound engineering judgment. The decision to implement any particular measure should be made on the basis of engineering studies of the location.



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Background

■ Project Description and Goals

In California, approximately 5,000 child pedestrians are injured each year. Vehicle collisions with pedestrians are the second-leading cause of fatal injuries among 5- to 12-year-olds statewide. This project, “Neighborhood Planning for Safe Routes to School in Rancho Cordova,” seeks to reduce injuries and fatalities by increasing the safety of pedestrians, cyclists and motorists around two schools in the Sacramento City Unified School District: A. M. Winn Elementary and Abraham Lincoln Elementary.

An additional complementary goal of the project is to improve accessibility and livability within the neighborhoods around these schools.

The project is funded through an Environmental Justice: Context Sensitive Planning grant from the California Department of Transportation. Lead partners include Alta Planning + Design, Local Government Commission, Walkable Communities, WALKSacramento, and Sacramento Area Council of Governments.

■ The Charrette Process

On February 21, 2006, project partners held a series of interactive neighborhood planning exercises at each school involving students, parents, teachers and community leaders. These public events featured “walking audits,” focus groups, presentations and



interactive design tables. A follow-up presentation of the findings and the recommendations for both schools was held on March 11 at Winn Elementary.

Through public input and analysis of existing conditions and data, the project partners developed a series of traffic-calming measures and other context-sensitive design solutions that address the infrastructure needs of these neighborhoods to help create safer routes to these two schools.

Vehicle collisions with pedestrians are the second-leading cause of fatal injuries among 5- to 12-year-olds statewide.



78% of children fall short of the recommended amount of physical activity. The recommended minimum amount of activity can be met, fully or partially, if children can walk and bicycle to school.

■ Benefits of Safer Routes

The recommendations highlighted in this report will have numerous benefits if implemented. Most importantly, these recommendations will reduce vehicle and pedestrian conflicts along routes to school, ensuring safer travel and fewer child pedestrian injuries and deaths. They will also encourage physical activity and reduce obesity among school children.

A recent Surgeon General report found that 78% of children fall short of the recommended amount of physical activity, thus contributing to unprecedented levels of childhood obesity. The recommended minimum amount of activity can be met, fully or partially, if children can walk and bicycle to school. Safer routes to school will result in more students and parents choosing to walk or bicycle, thus reducing congestion and traffic incidents and improving the transportation network.

In today's automobile-dominated culture, the implications of training a new generation of pedestrians and bicyclists are profound. If children are provided with transportation options now, they will be more inclined to use them in the future.

In the meantime, we all benefit from reduced auto emissions and less road congestion. A recent study from the National Highway Traffic Safety Administration-funded Safe Routes to School National Model Project in Marin County revealed that at least 25% of morning traffic is attributable to parents driving their children to school. It is ironic that parents concerned about their child getting safely to school and who decide to drive them, may contribute significantly to the risk of walking or biking to school.



■ Connecting with Existing Safe Routes to School Efforts

Prior to the start of this project, various efforts to promote safer routes to schools existed at the two schools. Much of the work is based out of the Healthy Start program. Healthy Start strives to make improvements in such areas as school readiness, educational success, physical health, emotional support, and family strength. Its staff have initiated walking events, such as “Walk Your Valentine to School” Day. Winn Elementary’s program also participated in a nationwide, in-depth, walk-to-school evaluation conducted by the University of North Carolina, Chapel Hill.

Lincoln Elementary has a crossing guard stationed at the mid-block crossing east of the school entrance. While not having any

official training, this staff person is a helpful and positive presence.

The Partnership for Active Communities, for which WALKS Sacramento is the lead agency, recently expanded into Rancho Cordova and comments on development projects and City policies that impact children’s ability to lead active lives, including walking and biking to school.

Both schools are located in an area known as Lincoln Village, for which there is a very active neighborhood association. One of the group’s focal points is making the streets in the neighborhood safer for everybody. The group had independently come to some recommendations for Lincoln Village Drive that were similar to the outcomes of the charrette process.

If implemented, the report’s recommendations will encourage physical activity and help reduce obesity among schoolchildren.

Existing Conditions

A. M. WINN ELEMENTARY SCHOOL

■ Location and Neighborhood

A. M. Winn Elementary School is located on Explorer Drive between Meteor Drive and Vanguard Drive, two blocks north of Lincoln Village Drive. Land uses around the school are primarily single-family residential. Some multi-family residential and a commercial shopping center are located west of the school along Lincoln Village Drive near Bradshaw Road. Lincoln Village Community Park is located east of the school along Routier Road.

The schools are located in the recently incorporated City of Rancho Cordova in southeastern Sacramento County. The City is still in the process of establishing many policies and programs for this area.

■ Current Mode Split

A survey conducted by the school in February 2006 reported that 66% of children are walking to and from school, compared to 26% that are driven. The survey also reported that 83% lived within a half-mile of the school. Survey respondents indicated that the largest deterrent to children walking to school was high vehicle speeds on streets near the school and crossing guards were the most desired improvement.

■ Local Roadway Network

Primary access to Winn Elementary is via Explorer Drive, which extends along the western edge of the school. Explorer Drive is a looping residential roadway, that extends north off Lincoln Village Drive just east of Bradshaw Road, then loops through the neighborhood before intersecting with Lincoln Village Drive again two blocks south of the school. Vanguard Drive is a residential street running along the north side of the school. The south and east sides of the school are bordered by the backs of single-family residences. Meteor Drive is a residential street that extends in an east-west direction and intersects with Explorer Drive near the school's main entry driveway.

Lincoln Village Drive is an east-west residential collector street that extends between Bradshaw Road and Routier Road. Lincoln Village Drive is heavily used by commuters and others to get to Bradshaw Road, which has on/off-ramps to Highway 50. Sacramento Regional Transit Route 72 runs along Lincoln Village Drive.

■ Parking Lot

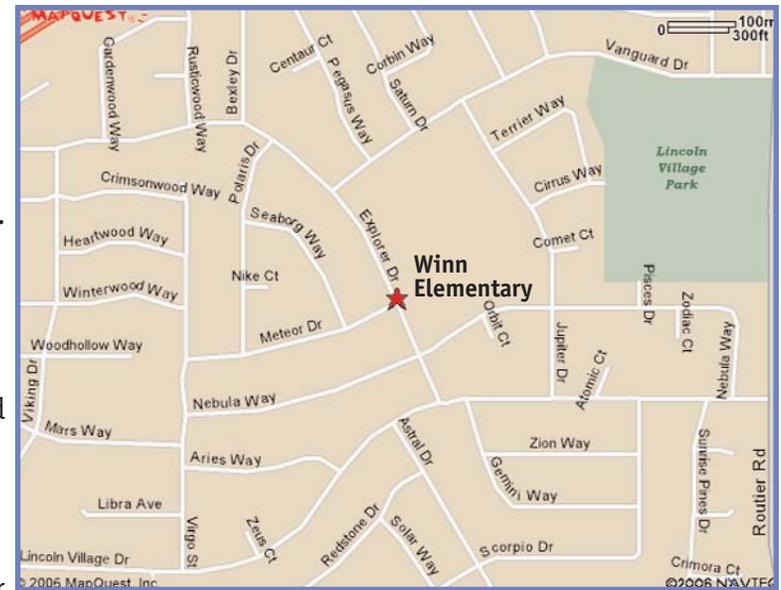
Winn Elementary has a single parking lot accessed off Explorer Drive. The parking lot is configured with two discrete areas – a rear parking area that is set back along the south boundary of the school, and a one-way pick-up/drop-off loop that is situated along Explorer

Drive (separated from the street by an island). The south driveway provides both in and out access to the parking area, and also serves as the entrance driveway to the pick-up/drop-off loop. The north driveway is an exit only driveway to the pick-up/drop-off loop, and is marked with double one-way out arrows. It is currently designated as bus-only traffic, but is used frequently by parents.

Due to the fact that the south driveway is both an entry and exit driveway, there is some confusion as motorists try to enter the pick-up/drop-off loop at the same time that vehicles are attempting to exit the parking lot area.

■ Sidewalks

Sidewalks in the neighborhood are typically 4 feet wide with rolled curb. There is no set-



back policy for front yard fencing (except adjacent to intersections for sight distance reasons), and many tall (5- to 6-foot) front fences have been built up against the sidewalk, effectively reducing the walkable width.

■ Crosswalks

In front of Winn Elementary, a school (yellow) crosswalk in the parallel pattern is striped across the northern leg of Explorer/Meteor. Another parallel yellow crosswalk is striped across the east leg of Explorer/Vanguard. A high-visibility ladder crosswalk is striped across Vanguard Drive just west of Pegasus Drive. The crosswalk is not located exactly at the intersection corner, but is offset approximately 20 feet to the west. This crossing is uncontrolled across Vanguard Drive.

South of the school, a school (yellow) crosswalk in the standard parallel pattern is currently striped at Explorer Drive/Lincoln Village Drive at the east leg. At the time of the field visit, the City had recently made a number of curb ramp improvements along Lincoln Village Drive, installing ADA-compliant ramps at all four corners of Lincoln Village Drive/Explorer. New crosswalks had not yet been striped, but the City indicated that new crosswalks would be striped across all three legs of this T-intersection, matching to the new curb ramps. New curb ramps had also been installed at Lincoln Village Drive/Astral, on the east leg, but a new crosswalk had not yet been striped.



■ Bus Facilities

At Winn Elementary, bus loading currently occurs in the off-street pick-up/drop-off loop area along Explorer Drive. This area is signed as bus loading only. Some parent pick-up and drop off also occurs in this area.

■ Bicycle Facilities

There are currently no designated bicycle facilities within the school area. Bike lanes are striped on Routier Road and Bradshaw Road, the major arterials to the east and west of the school. The school does provide bike racks.

■ Drop-off/Pick-up Operations

Drop off and pick up at Winn Elementary occurs on-street along the curbside area north of the bus loop, within the rear school parking lot area, and to a smaller extent within the bus loop area (when buses are not present). The heaviest amount of pick-up/

The City has recently made a number of curb ramp improvements along Lincoln Village Drive.

drop-off occurs on-street on Explorer Drive, on both sides of the roadway. Several vehicles were observed making mid-block U-turns after dropping their children off on the opposite side of the street from the school.

During field observations, this bus drop-off loop was not heavily used by buses, and was used as a drop off point by parents. Even more parents drove past the loop into the rear staff parking lot area, and dropped off their children there. This created problems with vehicles having to turn around in the parking area and causing congestion.

■ Known Issues

The primary issues at Winn Elementary related to pick-up/drop-off congestion along Explorer Drive in front of the school, as well as children crossing at the various intersections near the school including those at Lincoln Village Drive, Meteor Drive and along Vanguard Drive. Some parents reported that nuisance dogs in the area were a problem. Speeding along several of the neighborhood streets was identified as an issue, a result of extremely wide travel lanes with no bike lanes and lightly used on-street parking.

LINCOLN ELEMENTARY SCHOOL

■ Location and Neighborhood

Abraham Lincoln Elementary School is located on Glenmoor Drive, just south of Rockingham Drive. Land uses around the school are primarily single-family residential. Countryside Park, a neighborhood park, is located immediately north and west of the school along Glenmoor Drive.

■ Current Mode Split

While no formal mode split survey has been conducted recently at Lincoln Elementary, school officials indicated that approximately half of the students (200-250 children) walk to and from school each day.

■ Local Roadway Network

Access to Lincoln Elementary is via Glenmoor Drive, which extends along the eastern edge of the school. Glenmoor Drive is a north-south residential roadway that changes its name to Smithlee Drive north of Rockingham Drive, and connects to Ellenwood Avenue south of the school. Rockingham Drive is an east-west residential collector that extends from east of Mather Field Road. Rockingham Drive is offset at Glenmoor/Smithlee; continuing west requires traveling for a half-block on Smithlee Drive. South of the school, Glenmoor Drive intersects several residential roads including Pistachio Way, Crawford Way, Sunol

Way and finally ends in a T-intersection at Ellenwood Avenue.

Routier Road is a north-south arterial that extends west of the school. Routier Road crosses Highway 50 at an overpass, but does not provide access on or off the highway. Students from the residential areas north of Highway 50 on either side of Routier attend Lincoln Elementary. Mather Field Road is a major north-south arterial to the east of the school that provides access to Highway 50.

■ Parking Lot

Lincoln Elementary has a single parking lot accessed off Glenmoor Drive, just north of Pistachio. The parking lot is configured with a single entry/exit driveway. The parking area is intended for staff parking only. A school monitor is assigned to the parking lot driveway during the pick-up/drop-off period to ensure that parents do not enter the lot.

■ Sidewalks

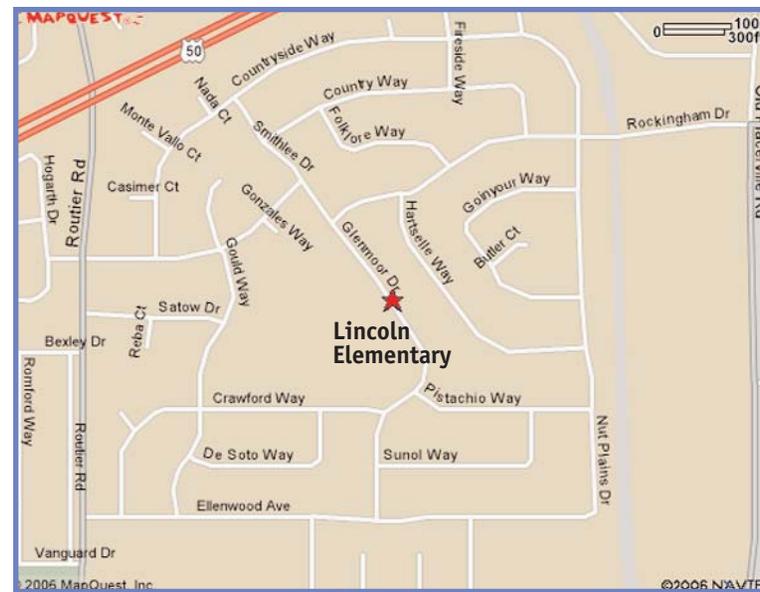
The sidewalk along the school frontage on Glenmoor Drive is 6 feet wide. Part of the sidewalk is cracked at a uniform 2-foot distance from the west edge, suggesting that this sidewalk was widened at some point. In general, the neighborhood sidewalks around the school are between 4 and 4-1/2 feet wide,

with rolled curbs. There is no sidewalk on the west side of the Routier Road overcrossing of Highway 50.

■ Crosswalks

A high-visibility school (yellow) ladder crosswalk is striped across Glenmoor Drive immediately in front of the school's main entrance. This is an uncontrolled mid-block crossing, and a school staff person is assigned to this location to help children cross in the afternoon.

Although not an official crossing guard, this staff person effectively functions as such, wearing an orange vest and using a STOP paddle to stop vehicle traffic when children are crossing.



A parallel yellow crosswalk is striped across the north leg of Glenmoor/Pistachio. Due to a residential driveway on the west side of the street, this crosswalk is angled across Glenmoor Drive. A yellow parallel school crosswalk is striped across Crawford Drive at Glenmoor Drive. North of the school, parallel school crosswalks are striped across the south and east legs of Glenmoor/Rockingham.

■ Bus Facilities

At Lincoln Elementary, school bus loading occurs curbside in a designated area immediately in front of the school, on either side of the mid-block crosswalk. This area is painted with red curb and the school staff place orange cones along the curb and monitor the area to ensure that parents do not park here.

■ Bicycle Facilities

There are currently no designated bicycle facilities within the school area. Bike lanes are striped on Routier Road west of the school area, and Mather Field Road east of the school area. The school has a bicycle rack for students.

■ Drop-off/Pick-up Operations

Drop off and pick up at Lincoln Elementary occurs on-street along Glenmoor Drive. No on-site pick-up/drop-off is permitted. Parent pick-up/ drop off occurs on both sides of the street, primarily north of the school entrance.

■ Known Issues

Primary issues at Lincoln Elementary related to pick-up/drop-off congestion along Glenmoor Drive in front of the school, safety at the mid-block pedestrian crossing in front of the school, and children crossing at the various intersections along Glenmoor Drive, including Rockingham Drive, Pistachio Way, Crawford Way and Ellenwood Avenue.

A serious concern was raised about children who walk from the residential areas north of Highway 50, along Routier Road. The lack of a sidewalk along the west side of the Routier overcrossing required children to cross to the east side at an uncontrolled location.



The lack of a sidewalk along the west side of the Routier overcrossing required children to cross to the east side at an uncontrolled location.

Recommended Improvements

DISTRICTWIDE POLICY AND PROGRAM RECOMMENDATIONS

■ School-based SR2S Task Force

Currently, there is no formal SR2S Task Force at either school. Establishing such a task force is an important step to beginning a comprehensive SR2S effort, implementing educational and encouragement efforts, and getting neighborhood, elected officials, school district and County staff support for engineering improvements. These meetings can help to identify the “champions” at the school who will help push forward with improvements. It is recommended that each school form a SR2S Task Force.

Membership may vary by school, but potential members should include:

- School Administrators/Teachers
- Parents
- Neighbors
- Law Enforcement Representatives
- Elected Officials Representative
- City DOT Representative

■ Double Fine Zone

The State of California currently has a pilot program in three counties (Ventura, Santa

Barbara and Alameda) to establish “Double Fine Zones” around schools. Additional revenues from the program can be used to fund traffic safety programs. Local officials should pursue getting this program implemented in Sacramento County. It would require action by the State Legislature to include Sacramento County in the pilot program (or to expand the program statewide).

There are currently bills in the Assembly to expand this program to San Diego and Los Angeles Counties, so expanding it to Sacramento County should be an option in the next session.

■ Crosswalk Striping

The City of Rancho Cordova currently does not usually stripe minor side streets with crosswalks except those immediately adjacent to the school property. The City does not have a standard for the design of high-visibility crosswalks. It is recommended that the City revise its policies to allow crosswalk marking at all intersection crossings within a 1/2-mile radius of school, and to establish high visibility standards that would apply to school zones.

■ Crossing Guards

There is currently no official crossing guard program in Rancho Cordova, either within the City’s Transportation Department or the Police Department. The Police Department has indicated that although there is no budget to provide crossing guards, it is willing to provide training for crossing guards.



■ School Safety Patrols

The School Safety Patrol Program is a community safety program that involves the use of trained student volunteers to assist their peers to cross the street safely when traveling to and from school. Caltrans provides specific guidance on the use of School Safety Patrols.

In general, a student patrol may be established at locations where an existing traffic control device, police officer or adult crossing guard is in operation. They may also be used where there are adequate crossing gaps in vehicular flow at an uncontrolled crossing and it is desirable to use student patrols to guide the school pedestrians. School safety patrollers are different than crossing guards in that they do not stop or direct traffic.

The California Education Code (Sections 49300 to 49307) and the California Code of Regulations (Sections 570 to 576 and 632) authorize the development of School Safety Patrols and outline rules for implementing these programs within the state.

Student Safety Patrols can be authorized by the local school board, with school authorities responsible for organizing, instructing and supervising patrols with the assistance of the local police.

It is recommended that the Sacramento City Unified School District explore the use of school safety patrols at appropriate locations in the vicinity of the schools. Many school safety patrols are conducted in partnership with the American Automobile Association (AAA), which started the program in 1920.

■ Student Valets

At Winn Elementary, the school might want to consider re-starting the use of 6th-grade student valets to assist with curbside loading/unloading within the on-site drop-off areas. This program should be reserved for students with an outstanding academic/attendance record. Student valets are not intended to direct or monitor traffic, but simply to make the loading/unloading more



efficient by helping to open doors and assist getting students and their backpacks out of vehicles (so that parents can remain in the driver seat).

■ Fence Setbacks

At both schools, a number of houses have tall (5- to 6-foot) residential security fences constructed immediately adjacent to the sidewalk. Pedestrians require a “shy distance” from fixed objects such as walls and fences, with a desirable setback of 2 feet.

The lack of this shy distance means that the effective sidewalk width is reduced, as pedestrians will tend to walk approximately 2 feet away from the fences, placing them in the middle of the narrow 4- or 5-foot sidewalks.

The City of Rancho Cordova should revise its residential zoning requirements to require a minimum 2-foot setback for all walls and fences from the edge of the sidewalk for all future development and renovations.

It should also consider requiring that fences, especially along the front of properties, be no taller than 3 to 4 feet so as to provide more “eyes on the street.” This helps to create greater security in a neighborhood since it creates a sense that public spaces like the street and sidewalk are being looked over by residents.



■ Nuisance Dogs

At Winn Elementary, a number of students and parents complained of nuisance dogs that run loose in the neighborhood and scare pedestrians. The City should ensure that an animal control officer is available to investigate complaints of nuisance animals, and to issue citations if necessary.

The City should include the Winn school area as part of the patrol area of its animal control officer.

The school should post the number of the Animal Control Hotline, (916) 875-5232, in the office, and distribute the number to parents at the beginning of the school year in their Back to School materials.

ENGINEERING RECOMMENDATIONS

A. M. WINN ELEMENTARY

■ Explorer and Vanguard Drive

Both Explorer Drive and Vanguard Drive have a 44-foot cross section, currently providing for 15-foot travel lanes next to a 7-foot parking lane. Given that these roadways are residential streets serving an elementary school, 10-foot lanes are more appropriate and will help lower travel speeds approaching the school.

Narrowing the lanes to 10 feet would provide additional width to install 5-foot bike lanes in each direction, while maintaining the 7-foot, on-street parking area.

To keep speeds slow, the city should stripe only the double bike lane stripe, and leave the roadways without a center-line stripe.

■ Vanguard/Pegasus

The existing crosswalk across Vanguard Drive at Pegasus Drive is not aligned with the intersection. The City should shift this crosswalk east to place it at the intersection. The City should also stripe a new crosswalk across Pegasus Drive at this location.

In conjunction with moving the crosswalk, the City should restrict parking 20 feet on either side of the crosswalk landing on the school side, where vehicles were observed parking immediately adjacent to the crosswalk and restricting visibility of pedestrians.

As a mid-term recommendation, the City should consider installing curb extensions at this location. The City should also study this intersection for STOP sign warrants.

■ Vanguard/Saturn

This all-way stop controlled intersection currently has a crosswalk only on the eastern leg across Vanguard Drive. The City should install high-visibility crosswalks at all legs, and restrict parking along the southern leg.

As a mid-term recommendation, the City should consider installing curb extensions. The City should also study this intersection for STOP sign warrants.

■ School Gate and Vanguard/Pegasus

Winn Elementary should ensure that this gate is unlocked during the morning and afternoon school commute period, to encourage children to enter the school from this alternate location. Keeping this gate open would also provide an alternate drop-off/pick-up area along the underutilized curb of Vanguard Drive along the north school boundary. The gate should be locked during the school day for security.

Curb extensions at some intersections can shorten the crossing distance, increase visibility for pedestrians, and reduce turning speeds.

**AM WINN ELEMENTARY SCHOOL
RECOMMENDED IMPROVEMENTS
Vanguard Drive Area**



A SHORT-TERM:
Install high-visibility crosswalk striping and curb ramps at both intersection legs

MID-TERM:
Install curb extensions

B SHORT-TERM:
Designate loading zone along Explorer school frontage, north of mid-block crosswalk, to provide an additional parent drop-off/pick-up location

C SHORT-TERM:
Shift crosswalk east so that it aligns with intersection. Install high-visibility crosswalk striping and curb ramps at north and west legs.

MID-TERM:
Install curb extensions

D SHORT-TERM:
Unlock gate at Pegasus Wy. to provide an alternate point of entry into school and connection to existing walkway. Consider designating the curb area along Vanguard as a drop-off/pick-up area for parents

E SHORT-TERM:
Paint red curb 20' on each side of south crosswalk landing to designate a NO PARKING zone

H SHORT-TERM:
Install high-visibility crosswalk striping and curb ramps at all legs

MID-TERM:
Install curb extensions

G SHORT-TERM:
Restripe Explorer Dr. and Vanguard Dr. to provide 5' bike lane, 7' parking lane, and 11' travel lane in ea. direction

F SHORT-TERM:
Paint red curb 20' on each side of south crosswalk landing to designate a NO PARKING zone

■ School Parking Lot (Front Loading Area)

Currently, the bus loading zone is in the on-site loop in front of the school. However, very little bus activity was observed in this area, and as a result this excellent off-street area is underutilized as parents conduct drop-off/pick-up on Explorer Drive.

It is recommended that Winn Elementary designate the current bus pull-in area as the official parent vehicle drop-off/pick-up location, and move the bus loading area to the street frontage on Explorer Drive, north of the north driveway. This loop should be a one-way loop, with vehicles entering via the south driveway and exiting via the north driveway.

The school should consider having staff monitors or student valets to expedite the loading and unloading of children from vehicles.

During the afternoon pick-up, the school may want to consider having dual queuing lanes to increase the capacity of this area for waiting vehicles.

■ School Parking Lot (Rear Parking Area)

Parent drop-off/pick-up within the rear staff parking lot entrance should be prohibited. Cones can be used to block this area off during the morning and afternoon commute periods, and a staff monitor should be present to enforce this.

The curb leading into the staff parking lot should be painted red to prohibit vehicles from parking or stopping in this area.

All parent pick-up/drop-off should occur either within the one-way vehicle drop off loop (the former bus loop), or in a proposed new white curb loading area along the school frontage of Explorer Drive north of the relocated bus zone.

■ Explorer Mid-Block Crosswalk

A mid-block crosswalk was formerly striped across Explorer Drive, north of the entry walkway approximately halfway between the parking lot and Vanguard Drive. A high-visibility school crosswalk should be restriped in this location, with “no parking” zones established on either side. In conjunction with moving the bus loading area along this curbside, this will reduce the number of vehicles loading and unloading curbside in this area, and should improve the safety of this crossing.

An In-Pavement “Yield to Pedestrian Sign” should be installed along with the high visibility crosswalk. As a mid-term recommendation, curb extensions should be installed in this location.

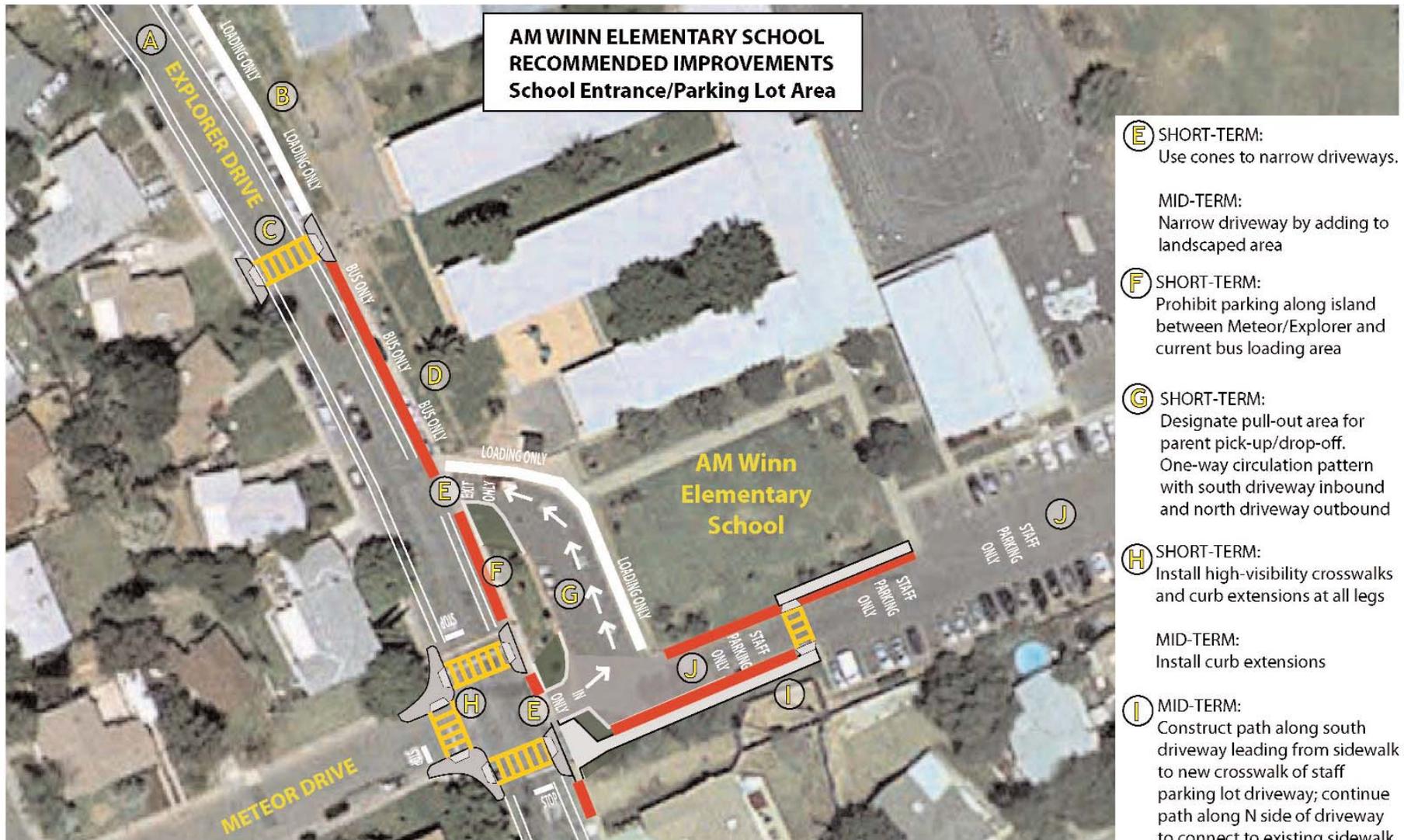
■ Explorer School Frontage

As noted above, it is recommended that the bus loading area be moved on-street, to allow

parent drop off to occur in the off-street parking lot loop. The Explorer Drive school frontage in front of the entry walkway should be designated as the school bus loading area; and parking should be restricted during school hours. Consider using a colored pavement treatment (e.g., red or blue) with BUS ONLY stencil on the street to emphasize this area as a bus loading zone.

North of the bus zone, it is recommended that an additional parent pick-up/drop-off location be provided. Although the on-site loop is intended to be the primary pick-up/drop-off location, in the afternoon the loop may not provide sufficient storage capacity for all vehicles waiting to pick up their children. Providing additional curb frontage for vehicle loading is recommended on the east side of Explorer Drive from the mid-block crosswalk extending north to Vanguard.

This area should be designated as a Loading Zone during school hours (approximately 7 a.m. to 4 p.m.), painted with white curb, and signed with No Parking signs for the designated hours. Because the parking restrictions would only be in effect during school hours, this curb area would still be available for nearby residents to use to park overnight or on weekends if necessary.



- E** SHORT-TERM:
Use cones to narrow driveways.
- MID-TERM:
Narrow driveway by adding to landscaped area
- F** SHORT-TERM:
Prohibit parking along island between Meteor/Explorer and current bus loading area
- G** SHORT-TERM:
Designate pull-out area for parent pick-up/drop-off. One-way circulation pattern with south driveway inbound and north driveway outbound
- H** SHORT-TERM:
Install high-visibility crosswalks and curb extensions at all legs
- MID-TERM:
Install curb extensions
- I** MID-TERM:
Construct path along south driveway leading from sidewalk to new crosswalk of staff parking lot driveway; continue path along N side of driveway to connect to existing sidewalk

A SHORT-TERM:
Restripe Explorer Drive to provide 5' bike lane, 7' parking lane, and 11' travel lane in each direction

B SHORT-TERM:
Designate east side of Explorer north of crosswalk as Loading Only zone during school hours (7:00 am to 4:00 pm), with white curb and No Parking signs, to provide additional parent pick-up/drop-off site

C SHORT-TERM:
Install high-visibility crosswalk striping, curb ramps, and In-Pavement Yield to Pedestrian sign (CA MUTCD R1-6)

MID-TERM:
Install curb extensions or raised crosswalk

D SHORT-TERM:
Move bus loading zone onto Explorer Dr. Designate area north of school driveway as No Parking. Consider colored pavement treatment to emphasize bus loading area

J SHORT-TERM:
Prohibit parent pick-up/drop-off in staff parking area. Use cones to block off entrance to this area, and enforce with staff monitor.

- A** SHORT-TERM:
Restripe Explorer Drive to provide 5' bike lane, 7' parking lane, and 11 travel lane in each direction
- B** SHORT-TERM:
Install high-visibility crosswalks and curb ramps on west and east legs of Explorer/Nebula
- MID-TERM:
Install curb extensions
- C** SHORT-TERM:
Install high-visibility crosswalks at all legs of Explorer/Lincoln Village Drive
- MID-TERM
Install curb extensions
- LONG-TERM
Evaluate intersection for roundabout
- D** SHORT-TERM:
Install high-visibility crosswalks at south and east legs of Lincoln Village Drive/Nebula
- MID-TERM
Install curb extensions
- E** SHORT-TERM:
Install high-visibility crosswalk at south leg of Lincoln Village Drive/Gemini
- MID-TERM
Install curb extensions



■ Explorer/Meteor/School Parking Entrance

The school parking/drop off area entrance driveway is located across from the intersection of Explorer/Meteor. Currently, the geometry is offset, with the school driveway aligned slightly south of the Meteor Drive curblane. This driveway also currently provides for both in and out traffic, which can lead to some confusion as motorists exit this location while other motorists are attempting to enter the drop-off loop.

It is recommended that this driveway area be narrowed to a single enter-only lane; by extending the curb from the south side of the school driveway, this will have the result of better aligning the driveway with the Meteor Drive curb return. In the short-term, this can be accomplished with cones, and by painting ENTER ONLY on the driveway.

New high-visibility crosswalks should be striped at all legs of this all-way stop controlled intersection. The area north of the driveway (between the two loading zone driveways) should be designated as a No Parking zone, with red curb and signage. As a mid-term recommendation, curb extensions should be installed at all corners.

Additionally, students coming to the school from the south along Explorer Drive currently cut across an open grassy area when they reach the school boundary, then walk

through the parking area toward the school entry walkway.

It is recommended that the school construct a path from the Explorer Drive sidewalk that leads into the school, parallel to the driveway entrance. The path should be routed to an appropriate crossing location just west of the staff parking lot.

This path will provide a designated walking/crossing location for students, rather than having them cut through the pick-up/drop-off area as they enter the school from the sidewalk along Explorer Drive.

■ Lincoln Village Drive

The Lincoln Village Drive corridor is planned for a streetscape improvement project by the City. New ADA-compliant curb ramps have recently been installed at several locations along this street, including the corners of Lincoln Village Drive/Explorer and Lincoln Village Drive/Astral. The City plans to stripe new crosswalks at these locations in the near future as part of the street overlay.

The entire Lincoln Village Drive corridor will be overlaid with a 5-foot bike lane, a 7-foot parking lane and 10-1/2-foot travel lanes in each direction. As a future project, the City should consider installing curb extensions at intersections such as Lincoln Village Drive/Explorer.

New high-visibility crosswalks should be striped at all legs of the parking entrance all-way stop controlled intersection.

As a future project, the City should consider installing curb extensions at intersections such as Lincoln Village Drive and Explorer Drive.

LINCOLN ELEMENTARY SCHOOL

■ Glenmoor / Rockingham

The intersection of Glenmoor/Rockingham is currently configured as two offset T-intersections, with through-travel on Rockingham requiring travel for a 1/2-block on Glenmoor Drive. The south T-intersection is all-way stop controlled, while the north T-intersection is stop controlled only on the Rockingham Drive (eastbound) approach.

Currently, there are crosswalks only at the southern T, on the south and east legs. It is recommended that the City stripe high-visibility school crosswalks at all three legs of the south intersection, and across the west leg of the north intersection.

As a mid-term recommendation, the City should consider installing curb extensions at all crosswalk landings noted above. Particularly for the northern T-intersection, the northwest corner extends farther out into Glenmoor Drive than the southwest corner, making visibility difficult for eastbound motorists on Rockingham Drive turning right onto Glenmoor Drive. The southwest corner should be aligned with the northwest corner to improve this turning visibility.

■ Glenmoor along Park Frontage

The park frontage provides a substantial amount of curb space to conduct drop-off and pick-up for the school. The school should

encourage parents to park vehicles along the park, and walk to the school entrance to drop-off/pick-up their children.

As a long-term solution, the City should consider installing back-in angled parking along the west side of Glenmoor Drive fronting the park. This parking could be used to narrow the width of the roadway and provide increased parking capacity along the park and northern school property. When school is not in session the parking spaces could be used by park users.

■ Glenmoor Mid-Block Crosswalk

On both sides of the road, vehicles were observed parking next to the crosswalk, limiting visibility for pedestrians crossing. The City should paint a red curb 20 feet on either side of the crosswalk on both sides to provide a No Parking zone (on the school side this area is already used as the bus zone).

The school should also discourage the crossing guard from parking adjacent to crosswalk on east side of street.

To further enhance this crosswalk, the City should install an In-Pavement Yield to Pedestrian sign. As a mid-term recommendation, consider installing curb extensions or a raised crosswalk at this location.

■ Glenmoor School Frontage

Currently, bus loading occurs in front of the school, on both sides of the mid-block crosswalk. This leads to congestion as parents attempt to pick-up/drop-off in this area as well, and often simply do so in the travel lanes of the roadway. To open up the curb frontage for additional parent pick-up/drop-off, and to better separate the bus loading, it is recommended that the school install an off-street school bus pull-out on school property.

To reduce the number of new driveways, route the bus pull-out as a one-way facility that would exit into the school's existing parking lot. Install signage and stencils at the entrance/exit to the pull-out to ensure that this area is not used by private vehicles.

■ School Parking Lot Entrance

Currently, the school parking lot is served by a wide driveway for both entry and exit. To shorten the crossing distance across the driveway, and better channelize inbound and outbound traffic, the school should install a median island to separate traffic into a single inbound lane and a single outbound lane. Clearly stencil these lanes with directional arrows and "ENTER ONLY" and "EXIT ONLY" pavement markings.

**ABRAHAM LINCOLN ELEMENTARY SCHOOL
RECOMMENDED IMPROVEMENTS
Bus Zone/Parking Lot Area**



A SHORT-TERM:
Install In-Pavement Yield to Pedestrian Sign (MUTCD R1-6).

MID-TERM:
Install curb extensions or consider raised crosswalk

B SHORT-TERM:
Paint red curb on both sides of crosswalk to prohibit parking.

C LONG-TERM:
Construct new off-street bus pullout. In order to minimize new driveways, design the pull-out as a one-way facility that exits into the existing school parking lot.

D MID-TERM:
Construct island in parking lot driveway entrance to channelize traffic into separate single inbound and outbound lanes.

**ABRAHAM LINCOLN ELEMENTARY SCHOOL
RECOMMENDED IMPROVEMENTS
Glenmoor/Ellenwood Drive Area**



(A) SHORT-TERM:
Install high-visibility
crosswalks and curb
ramps.

MID-TERM:
Install curb extensions.

(B) LONG-TERM:
Work with homeowners on
Skyward Court to obtain an
easement between properties
to develop a pedestrian walkway,
providing a direct connection
between the cul-de-sac and
Ellenwood Avenue.

(C) SHORT-TERM:
Install high-visibility
crosswalks and curb
ramps.

■ Glenmoor Intersections South of School

Crosswalk enhancements are recommended at several intersections along Glenmoor Drive south of the school. These include Glenmoor/Pistachio, where new high-visibility crosswalks are recommended across both crossings; Glenmoor/Crawford where a high-visibility crosswalk is recommended; and Glenmoor/Ellenwood where new high visibility crosswalks are recommended at all legs.

As a mid-term recommendation, the City should consider curb extension for all crosswalk landings noted above.

■ Glenmoor/Ellenwood/Skyward

Students walking from the homes along Skyward and Wildwind Courts must walk around the block using Misty Morning Circle.

As a long-term recommendation, the City should work with homeowners to obtain an easement to develop a pedestrian walkway between two of the homes at the end of the Skyward Court. This would provide a direct connection from the Skyward Court cul-de-sac to the school walking route along Glenmoor Drive.

■ Routier Road

Two locations along Routier Road are recommended for improvement. Routier Road is an important corridor as students living on the north side of Highway 50 must use it to cross the freeway on their route to and from school.

These students are typically bused to school, but often walk if they miss the bus.

At Routier/Rockingham, the intersection is very wide with right-run channels creating a long pedestrian crossing. It is recommended that the City reconfigure the intersection to narrow crossing distances on all approaches. Possible designs include curb extensions, elimination of right-turn slip lanes, and median islands. Maintain width for one travel lane in each direction, plus bike lanes.

On the Routier overcrossing of Highway 50, there is currently a sidewalk only on the east side of the road. Students living in the residential area on the west side of Routier Road, north of Highway 50, must cross Routier Road at Horn Road to access the sidewalk on the overcrossing. There is no marked crossing at this uncontrolled location.

In the absence of sidewalk improvements on the west side of the Routier overcrossing, the City should consider a crosswalk for the uncontrolled north leg of the intersection of Routier and Horn.

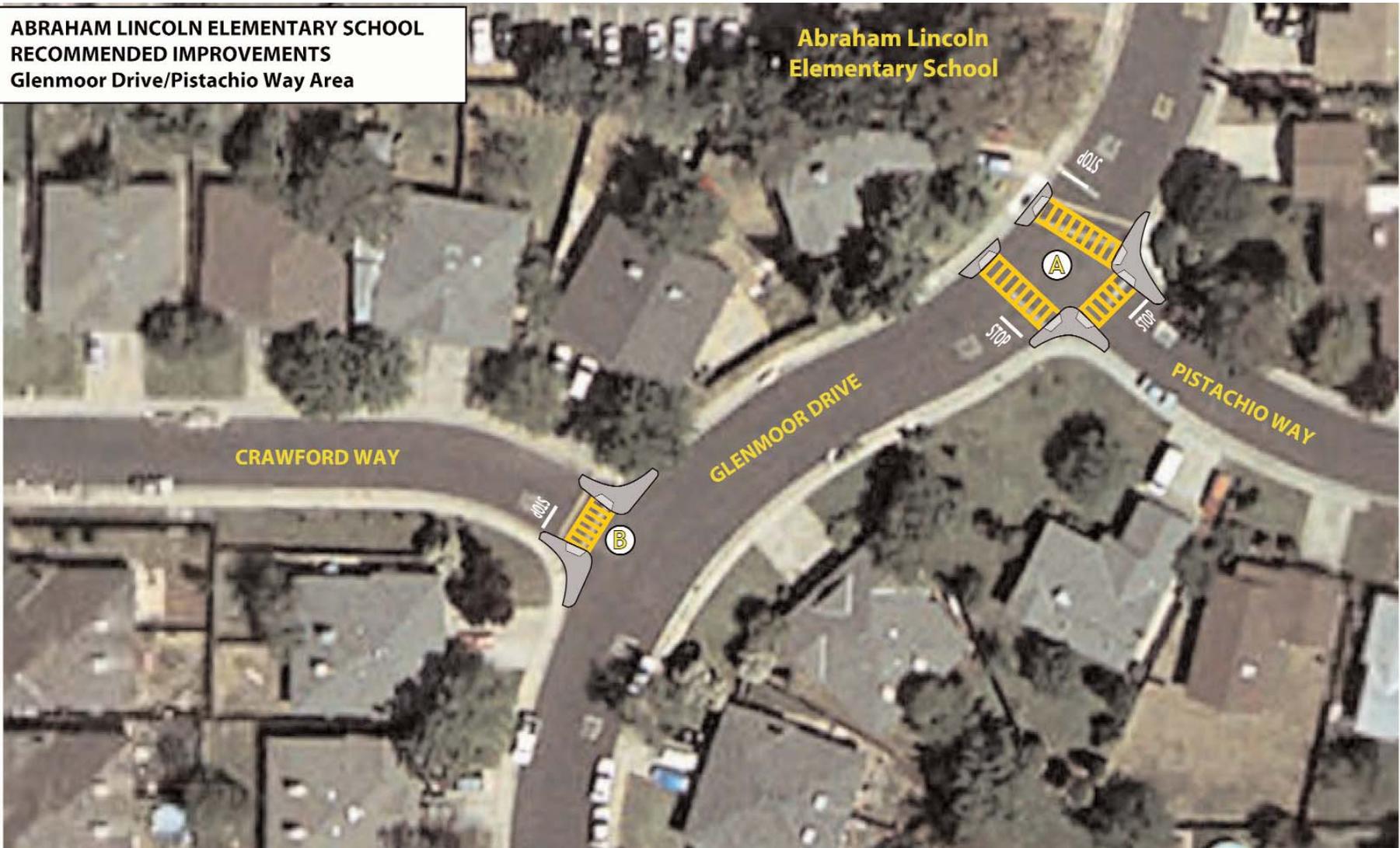
The crossing should include construction of a median refuge island within the existing center lane, and installation of high-visibility crosswalk markings and fluorescent yellow green signage. Consider further enhancements such as a lighted crosswalk treatment or flashing beacons.

As a mid-term enhancement, the City should install a sidewalk on the west side of the Routier overcrossing.

At Routier/Rockingham, the intersection is very wide with right-run channels creating a long pedestrian crossing. It is recommended that the City reconfigure the intersection to narrow crossing distances on all approaches.

**ABRAHAM LINCOLN ELEMENTARY SCHOOL
RECOMMENDED IMPROVEMENTS
Glenmoor Drive/Pistachio Way Area**

**Abraham Lincoln
Elementary School**



A SHORT-TERM:
Install high-visibility
crosswalks and curb
ramps.

MID-TERM:
Install curb extensions,
realign northern crosswalk
to 90 degrees.

B SHORT-TERM:
Install high-visibility
crosswalks and curb
ramps.

MID-TERM:
Install curb extensions or consider
other design such as chokers to
reduce intersection width

**ABRAHAM LINCOLN ELEMENTARY SCHOOL
RECOMMENDED IMPROVEMENTS
Glenmoor/Rockingham Drive Area**



- (A)** SHORT-TERM:
Install high-visibility crosswalk striping and curb ramps
- MID-TERM:
Install curb extensions
- LONG-TERM:
Study for roundabout

- (B)** SHORT-TERM:
Install high-visibility crosswalk striping and curb ramps
- MID-TERM:
Install curb extensions
- LONG-TERM:
Study for raised intersection

- (C)** LONG-TERM:
Install back-in angle parking along park frontage

Implementation

An important step in the successful implementation of these recommendations is to have each stakeholder group – County, school district, school, parents, students and neighbors – prioritize the improvements to address their specific concerns. Considering that the priorities of one group may not match those of another, it is important for the different stakeholders to meet and discuss the issues to reach effective and lasting solutions.

It is particularly important for Sacramento County and the Sacramento City Unified School District to work together as the two groups that have the greatest fiscal ability to make improvements. Working together, the stakeholders may be able to solve problems that could not be resolved separately.

Improvements can be considered short-term, medium-term and long-term. Short-term improvements are usually problems that can be handled at a relatively low cost or time commitment. Long-time improvements may be considered overly ambitious, but they are very important to prioritize and keep in mind, as opportunities to construct such projects do arise.

A group may also decide that an improvement listed in this report as long-term may be so critical to safety that it must be completed sooner.



With the costs of the recommended improvements as a whole likely to exceed available funds, it is important that the parties pursue diverse sources of money. Appendix B provides a list of potential opportunities, including federal grants, state programs, school bonds and other resources.

The priorities of one group may not match those of another, so it's important for the different stakeholders to meet and discuss the issues.

Appendix A. Recommendation Matrix

Rancho Cordova Safe Routes to School Charrette, April 2006

A. M. Winn and Abraham Lincoln Elementary Schools

■ Summary of Recommendations

POLICY AND PROGRAM RECOMMENDATIONS

These recommendations are overall policy or program recommendations that apply to all school areas.

Policy/Program	Recommendation	Responsibility
School District Safety Task Force	Establish District-level School Safety Task Force to discuss issues of District-wide concern.	School District
School-Based Safety Task Force	Recommend forming a school-based Safety Task Force at each school to discuss issues of school area concern. It is recommended that each Task Force involve as many community stakeholders as possible. These may include: School Administration/Teachers, Parents, Neighbors, Law Enforcement, Elected official representative (e.g., local Supervisor's staff person), County DOT representative.	School
Double Fine Zone	In California, three counties (Alameda, Santa Barbara and Ventura) are currently within a Double Fine Zone trial program established by AB 1886. Recommend Sacramento County join Double Fine Zone program. Additional fine revenues put toward funding traffic safety, bicycle and pedestrian education programs at schools. This would require action by the legislature to expand the program to Sacramento County.	State Legislature; (County of Sacramento and School District could assist by sending letters of support to Legislature to recommend program)
Alternate School Access Locations for Pedestrians and Bicyclists	Permit pedestrian and bicycle ingress/egress from back gates during morning and afternoon hours. Continue to lock gates during school hours for security. At School District level ensure that plans for future new school construction provides for alternative exit entry points and connections into the surrounding neighborhood to encourage walking/bicycling and take pressure off of main drop-off/pick-up area at front of school.	School District, School
School Area Law Enforcement	Increased visible enforcement of traffic violations during school drop-off and pick-up periods, and periodic events such as Pedestrian Stings.	Police Department
On-Site Staffing Visibility	Ensure that school staff (or parent volunteers) assigned to monitor drop-off/pick-up period are visible to parents and others. Provide staff with yellow vests, caps, or other visible clothing to indicate that they are official pick-up/drop-off monitors.	School

POLICY AND PROGRAM RECOMMENDATIONS

Policy/Program	Recommendation	Responsibility
Crossing Guards – Responsibility	In California, cities and counties may designate local law enforcement agencies, the governing board of any school district or a county superintendent of schools to recruit and assign adult crossing guards to intersections that meet approved guidelines for adult supervision.	County, School District, or Police Department
Crossing Guard Program – Management and Funding	An adult crossing guard program can be managed and funded in several ways. These include: County Sheriff’s Department; County’s Transportation Department; School District. For comparison, most school crossing guard programs in other areas of the U.S. are managed/funded through the local police department.	County, Police Department, School District
Crossing Guards – Use of vehicle fines for funding	One method of funding school crossing guards is through the use of fines and forfeitures received under the Penal Code, defined in California Vehicle Code Sections 42200 and 42201. Fines and forfeitures received by cities and deposited into a “Traffic Safety Fund” may be used to pay the compensation of school crossing guards who are not regular full-time members of the local police department.	Police Department
Crossing Guards – Alternate Funding through Partnership	Consider funding crossing guards through a partnership of Police, County, and School District. A portion of funding could also be provided through local donations. The City of Santa Cruz funds crossing guards through a four-way partnership, with funding and operational support from both the City and School District, additional funding from private sources, and volunteer assistance from the community.	School District, County, Police Department
Crossing Guards – Volunteers	If funding for paid adult crossing guards cannot be obtained, use of volunteers may be an option. The school district should ensure that volunteer crossing guards are covered by insurance and receive basic traffic safety training from the police department.	School District, Police Department
School Safety Patrols	Student Safety Patrols can be authorized by the local school board. School authorities shall be responsible for organizing, instructing and supervising patrols with the assistance of the local police. The California Education Code, Sections 49300 to 49307, and the California Code of Regulations, Sections 570 to 576 and 632, authorize the development of School Safety Patrols and outline rules for implementing these programs within the state. The Manual of Uniform Traffic Control Devices contains specific guidance on the use of School Safety Patrols. In general, a student patrol may be established at locations where an existing traffic control device, law enforcement officer or adult crossing guard is in operation. They may also be used where there are adequate crossing gaps in vehicular flow at an uncontrolled crossing and it is desirable to use student patrols to guide the school pedestrians.	School District
Student Valets	Consider the use of 5th- or 6th-grade student valets to assist with curbside loading/unloading within the established drop-off area. This program should be reserved for students with an outstanding academic/attendance record. Student valets are not intended to direct or monitor traffic, but simply to make the loading/unloading more efficient by helping to open doors and assist getting students and their backpacks out of vehicles (so that parents can remain in the driver seat).	School, School District

POLICY AND PROGRAM RECOMMENDATIONS

Policy/Program	Recommendation	Responsibility
Traffic Tamers	Consider developing a student-based traffic safety program, similar to after the Traffic Tamers program at Bannon Creek Elementary School in the Natomas Unified School District.	School, School District
Walking School Bus	Develop a Walking School Bus program, where parent volunteers agree to lead groups of students along a designated route each day, “picking up” other student walkers along the way. Encourage School/School District support of this program through official announcements, backpack mail, and assistance with matching potential student walkers with parent “bus driver” leaders.	School, School District
Educational/Encouragement Programs	A variety of educational/encouragement programs exist that could be implemented by individual schools or at the School District level. These include basic pedestrian and bicyclist safety education, as well as incentive programs to reward students who walk or bicycle to school, contests to see which classroom can have the highest walking/biking participation, etc. Refer to existing guidebooks such as the National Highway Traffic Safety Administration (NHTSA) Safe Routes to School Toolkit, or the State of Maryland Safe Routes to School Guidebook for details and additional resources.	School, School District
Residential Fence Setbacks	A number of houses were observed in the neighborhood that had tall (5- to 6-foot) residential security fences constructed against the sidewalk. Pedestrians require a “shy distance” from fixed objects such as walls and fences, with a desirable setback of 2 feet. The lack of this shy distance means that the effective sidewalk width is reduced, as pedestrians will tend to walk approximately 2 feet away from the fences, placing them in the middle of the narrow 4- or 5-foot sidewalks. The City of Rancho Cordova should revise its residential zoning requirements to require a minimum 2-foot setback for all walls and fences from the edge of the sidewalk for all future development.	City
Nuisance Dogs	At Winn Elementary, a number of students and parents complained of nuisance dogs who run loose in the neighborhood and scare pedestrians. The City of Rancho Cordova shall ensure that an animal control officer is available to investigate complaints of about nuisance animals, and to issue citations if necessary. The City should include the Winn school area as part of the patrol area of its animal control officer. The school should post the number of the Animal Control Hotline, (916) 875-5232, in the office, and distribute the number to parents at the beginning of the school year in their Back to School materials.	City, School

ENGINEERING RECOMMENDATIONS

The following lists site-specific engineering recommendations, listed by school. For each school, recommendations are further broken into Short-, Mid- and Long-Term, based on factors such as relative cost, need to conduct future traffic and engineering studies, and political feasibility.

A. M. WINN ELEMENTARY SCHOOL

Location	Recommendation	Responsibility
■ Short-Term		
All school crosswalks	Check all school crosswalk locations to ensure that School Advance Warning (Assembly D) and School Crosswalk (Assembly B) installations are in place per CA MUTCD. Recommend fluorescent yellow green installations to maintain consistency with existing School Area signage.	City
Explorer Drive – entire corridor	Stripe with 5-foot bike lane, 7-foot parking lane, and one 10-foot travel lane each direction; install centerline only if meets CA MUTCD warrants.	City
Explorer/Vanguard	Restripe crosswalk with high-visibility pattern.	City
Explorer/Vanguard	Install ADA curb ramps at all crosswalk landings.	City
Vanguard Drive – entire corridor	Stripe with 5-foot bike lane, 7-foot parking lane, and one 10-foot travel lane each direction; install centerline only if meets CA MUTCD warrants	City
Vanguard/Pegasus	Install new high-visibility crosswalk across Pegasus at Vanguard.	City
Vanguard/Pegasus	Move existing Vanguard crosswalk east to align with intersection.	City
Vanguard/Pegasus	At south landing of existing Vanguard crosswalk, paint red curb 20 feet on each side of crosswalk to indicate No Parking zone.	City
Vanguard/Pegasus	Install ADA curb ramps at all crosswalk landings.	City
Vanguard/Pegasus	Study this existing uncontrolled intersection for STOP sign warrant.	City
Vanguard/Saturn	Install new high-visibility crosswalks at west and north legs; restripe existing crosswalk on east leg with high-visibility pattern.	City
Vanguard/Saturn	On south side of this intersection, paint red curb to indicate No Parking zone.	City
Vanguard/Saturn	Install ADA curb ramps at all crosswalk landings.	City

ENGINEERING RECOMMENDATIONS – WINN ELEMENTARY SCHOOL

Location	Recommendation	Responsibility
Schoolyard gate at Vanguard/Saturn	Unlock school gate located near Saturn Drive during the morning and afternoon school commute to provide an alternate entrance for students walking to the school from the northeast, and to provide an alternate parent drop-off/pick-up area along Vanguard to reduce pressure on the Explorer Drive school frontage. Signs could be posted along the curb to designate this as official pick-up/drop off sites, with No Parking along the school side during school hours (e.g., 7:00 a.m. to 4:00 p.m.). Consider having school staff at this gate during the morning and afternoon to further encourage parents to use these locations and to ensure that their children will be monitored as they walk through the playfield area.	School
School Parking Lot	Designate the current bus pull-in area as the official parent vehicle drop-off/pick-up location. Move the bus loading area to the street frontage on Explorer, north of the north driveway. This loop should be a one-way loop, with vehicles entering via the south driveway and exiting via the north driveway. Consider having staff monitors or student valets to expedite the loading and unloading of children from vehicles. During the afternoon pick-up, the school may want to consider having dual queuing lanes to increase the capacity of this area for waiting vehicles.	School
School Parking Lot	Use cones to narrow driveway entrances during drop-off/pick-up to provide for IN ONLY on south driveway and EXIT ONLY on north driveway.	School
School Parking Lot	Prohibit parent drop-off/pick-up within the rear staff parking lot entrance. Use cones to block this area off during the morning and afternoon commute periods, and a staff monitor to enforce this. Paint red curb along curb leading into staff parking lot to prohibit vehicle parking or stopping in this area. All parent pick-up/drop-off should occur within the one-way vehicle drop off loop (the former bus loop).	School
Explorer mid-block crosswalk	Restripe the mid-block crosswalk with a high-visibility pattern.	City
Explorer mid-block crosswalk	Install In-Street Yield to Pedestrian sign (CA MUTCD R1-6).	City
Explorer mid-block crosswalk	Install ADA curb ramps at both landings.	City
Explorer frontage, north of mid-block crosswalk	Designate the east side of Explorer Drive, from the mid-block crosswalk to Vanguard, as a Loading Only Zone during school hours (approx. 7:00 am to 4:00 pm). This area should be designated with white curb and No Parking During School Hours signs. This new loading zone would provide additional curb frontage for parent pick-up/drop-off, and is intended to supplement the pick-up/drop-off location in the parking lot loop.	City/School
Explorer frontage, between exit driveway and mid-block crosswalk	Designate this area as the school bus loading area; paint red curb with No Parking during school hours. Consider using a colored pavement treatment (e.g., red or blue) with BUS ONLY stencil to emphasize this area as a bus loading zone.	City/School

ENGINEERING RECOMMENDATIONS – WINN ELEMENTARY SCHOOL

Location	Recommendation	Responsibility
Explorer/Meteor	Restripe existing crosswalk across north leg with high-visibility pattern.	City
Explorer/Meteor	Install new high-visibility crosswalk across west leg.	City
Explorer/Meteor	Install ADA curb ramps at all crosswalk landings.	City
Explorer/Meteor	Stripe red curb along all curbside areas on east side (adjacent to school driveways) to ensure No Parking within these curbside areas.	City
Explorer/Nebula	Install high-visibility crosswalks across east and west legs.	City
Explorer/Nebular	Install ADA curb ramps at all crosswalk landings.	City
Lincoln Village Dr. – entire corridor	Restripe per city’s overlay plans to 5-foot bike lane, 7-foot parking lane, and 10.5-foot travel lane each direction.	City
Lincoln Village Dr./Explorer	Per city’s overlay plans install high-visibility crosswalks across all legs of intersection.	City
Lincoln Village Dr./Astral	Per city’s overlay plans install high-visibility crosswalks across south and east legs of intersection.	City
Lincoln Village Dr./Gemini	Per city’s overlay plans install high-visibility crosswalk across south leg of intersection.	City

■ Mid-Term

Explorer/Vanguard	Install curb extensions at both landings.	City
Vanguard/Pegasus	Install curb extensions at all landings.	City
Vanguard/Saturn	Install curb extensions at all corners.	City
Explorer at mid-block crosswalk	Install curb extensions at both landings.	City
School Parking Lot entrance	Reduce width of both driveways by adding to landscaped area, and reconfigure to IN ONLY (south driveway) and OUT ONLY (north driveway).	School
School Parking Lot entrance	At south driveway, construct a path from the sidewalk that leads into the school, parallel to the driveway entrance. Route the path to an appropriate crossing location just west of the staff parking lot. This path will provide a designated walking/crossing location for students, rather than having them cut through the pick-up/drop-off area as they enter the school from the sidewalk along Explorer. Continue path along the north edge of the driveway to connect with existing sidewalk.	School
Explorer/Nebula	Install curb extensions at all corners.	City

■ Long-Term

Lincoln Village/Explorer	Consider roundabout for intersection of Lincoln Village Drive/Explorer Drive.	City
School Frontage	Widen sidewalks to 8 feet along entire school frontage.	City, School

ENGINEERING RECOMMENDATIONS – LINCOLN ELEMENTARY SCHOOL

ABRAHAM LINCOLN ELEMENTARY SCHOOL

Location	Recommendation	Responsibility
■ Short-Term		
Glenmoor/Rockingham (north)	Install high-visibility crosswalks and curb ramps across west leg.	City
Glenmoor/Rockingham (south)	Install high-visibility crosswalks and curb ramps across all three legs.	City
Glenmoor, along park	Encourage parents to park vehicles along the park, and walk to the school entrance to drop-off/pick-up their children.	School
School frontage on Glenmoor	Install benches in front of school to provide children an area to sit when waiting for the bus or parents to arrive.	School
Glenmoor mid-block crossing, in front of school	Paint red curb 20' feet on either side of crosswalk on both sides to provide No Parking zone. School should discourage crossing guard from parking adjacent to crosswalk on east side of street.	City, School
Glenmoor mid-block crossing, in front of school	Install In-Pavement Yield to Pedestrian sign (CA MUTCD R1-6).	City
School parking lot entrance	Continue practice of having orange cones and a school monitor at the driveway to prevent parent from entering the lot for drop-off/pick-up.	City
Glenmoor/Pistachio	Install high-visibility crosswalks at all legs.	City
Glenmoor/Crawford	Install high-visibility crosswalk.	City
Glenmoor/Ellenwood	Install high-visibility crosswalks at all legs.	City
Ellenwood/Misty Morning Cir.	Install high visibility crosswalk.	City
Routier/Rockingham	Install high-visibility crosswalk markings.	City
■ Mid-Term		
Glenmoor/Rockingham (north)	Install curb extensions at northwest and southwest corners. Extend southwest corner so that it aligns with the northwest corner to line up crossing and improve sight visibility for motorists turning right onto Glenmoor.	City
Glenmoor/Rockingham (south)	Install curb extensions at all corners.	City
Glenmoor mid-block crossing, in front of school	Install curb extensions or consider raised crosswalk.	City

ENGINEERING RECOMMENDATIONS – LINCOLN ELEMENTARY SCHOOL

Location	Recommendation	Responsibility
School frontage along Glenmoor	Install off-street school bus pull-out on school property. To reduce the number of new driveways, route the bus pull-out as a one-way facility that would exit into the school's existing parking lot. Install signage and stencils at the entrance/exit to the pull-out to ensure that this area is not used by private vehicles.	School
School parking lot driveway	Install a median island to separate traffic into a single inbound lane and a single outbound lane. Clearly stencil these lanes with directional arrows and "ENTER ONLY" and "EXIT ONLY" pavement markings.	School
Glenmoor/Pistachio	Install curb extensions at all corners. Once curb extensions have been constructed, realign the northern crosswalk so that it crosses perpendicular to the curb.	City
Glenmoor/Crawford	Install curb extensions, or consider alternate designs such as chokers to reduce the width of Crawford at the intersection.	City
Glenmoor/Ellenwood	Install curb extensions on all corners.	City
Routier overcrossing of Highway 50	Install sidewalk on west side connecting between Horn and Rockingham.	City
Routier/Horn	In absence of sidewalk improvements on west side of overcrossing, consider crosswalk for uncontrolled north leg of intersection of Routier/Horn. Crossing should include construction of a median refuge island within the existing center lane. Install high visibility crosswalk markings and fluorescent yellow green signage. Consider further enhancements such as a lighted crosswalk treatment or flashing beacons.	City
Routier/Rockingham	Reconfigure intersection to narrow crossing distances on all approaches. Possible designs may include curb extensions, elimination of right-turn slip lanes, and median islands. Maintain width for one travel lane in each direction, plus bike lanes.	City

■ Long-Term

Glenmoor along park frontage	Install back-in angled parking along west side of Glenmoor fronting the park. This parking could be used to narrow the width of the roadway and provide increased parking capacity along the park and northern school property. The school should encourage parents to use this parking and walk to the front of the school to drop off/pick up their children. When school is not in session the parking spaces could be used by park users.	City
Glenmoor/Rockingham (south)	Consider raised intersection at south intersections of Glenmoor/Rockingham.	City
Glenmoor/Rockingham (north)	Consider roundabout at north intersection of Glenmoor/Rockingham.	City
Glenmoor/Ellenwood/Skyward	Work with homeowners to obtain an easement to develop a pedestrian walkway between two of the homes at the end of the Skyward Court. This would provide a direct connection from the cul-de-sac to the school walking route along Glenmoor Drive.	City
School Frontage	Widen sidewalks to 8 feet along entire school frontage, and provide landscaped buffer area.	City, School

Appendix B. Funding Opportunities

There are a number of funding sources to explore for school improvements, community facilities, and other infrastructure needs in neighborhoods around Winn and Lincoln Elementary Schools. This list is not meant to be all-inclusive but rather a selection of funding sources that show the variety of opportunities in region.

SCHOOL FUNDING

■ School Bonds

In addition to providing money to build new schools, school district bond funds may also be used to build new infrastructure at existing schools. Including the latter can be a way to enhance a bond so that voters in established school areas are more like to support it. In California, voters approved an initiative to allow a 55%- or 2/3-vote for approval of local school bonds depending on the type of funds sought.

■ Parcel Taxes

Local parcel taxes provide a way to provide secure, enhanced funding for soft costs, including materials and supplies, school programs and crossing guard salaries. A parcel tax is a qualified special tax that in California requires a 55%-majority vote for adoption.

CITY FUNDING

■ Redevelopment Project Area

Rancho Cordova plans to adopt a redevelopment area to assist in the reinvestment in their aging neighborhoods and commercial corridors. Although detailed plans have not yet been created, a preliminary project area map has been developed that includes areas near both schools. Although the City has not established which tools will be part of the redevelopment plan (the community will assist in this process over the next year), an expected program is one that funds infrastructure improvement projects using money raised by this special tax.

STATE FUNDING

■ California Safe Routes to School

Established in 1999, the Safe Routes to School program makes grants available through the California Department of Transportation to local government agencies based upon the results of a statewide competition. The program seeks to reduce injuries and fatalities to school children and encourage increased walking and bicycling among students. It does this primarily by constructing facilities that enhance safety for pedestrians and bicyclists.

The next call for projects will be in June 2006. Agencies will be given approximately three months to complete an application after the call for projects is made.

This program is scheduled to sunset on January 1, 2008. The California program was the basis for the recently enacted federal Safe Routes to Schools program.

FEDERAL FUNDING

■ SAFETEA-LU

The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) was passed in 2005. SAFETEA-LU authorizes \$286.5 billion over the next five years (2005-09) for bike and pedestrian safety programs and provides funding for a National Safe Routes to Schools program.

At the time of this writing, the California Department of Transportation is determining guidelines for the program. The approximate funding amounts available to California are:

- \$11 million for 2005-06
- \$15 million for 2006-07
- \$19 million for 2007-08
- \$23 million for 2008-09

The money can be used for infrastructure,

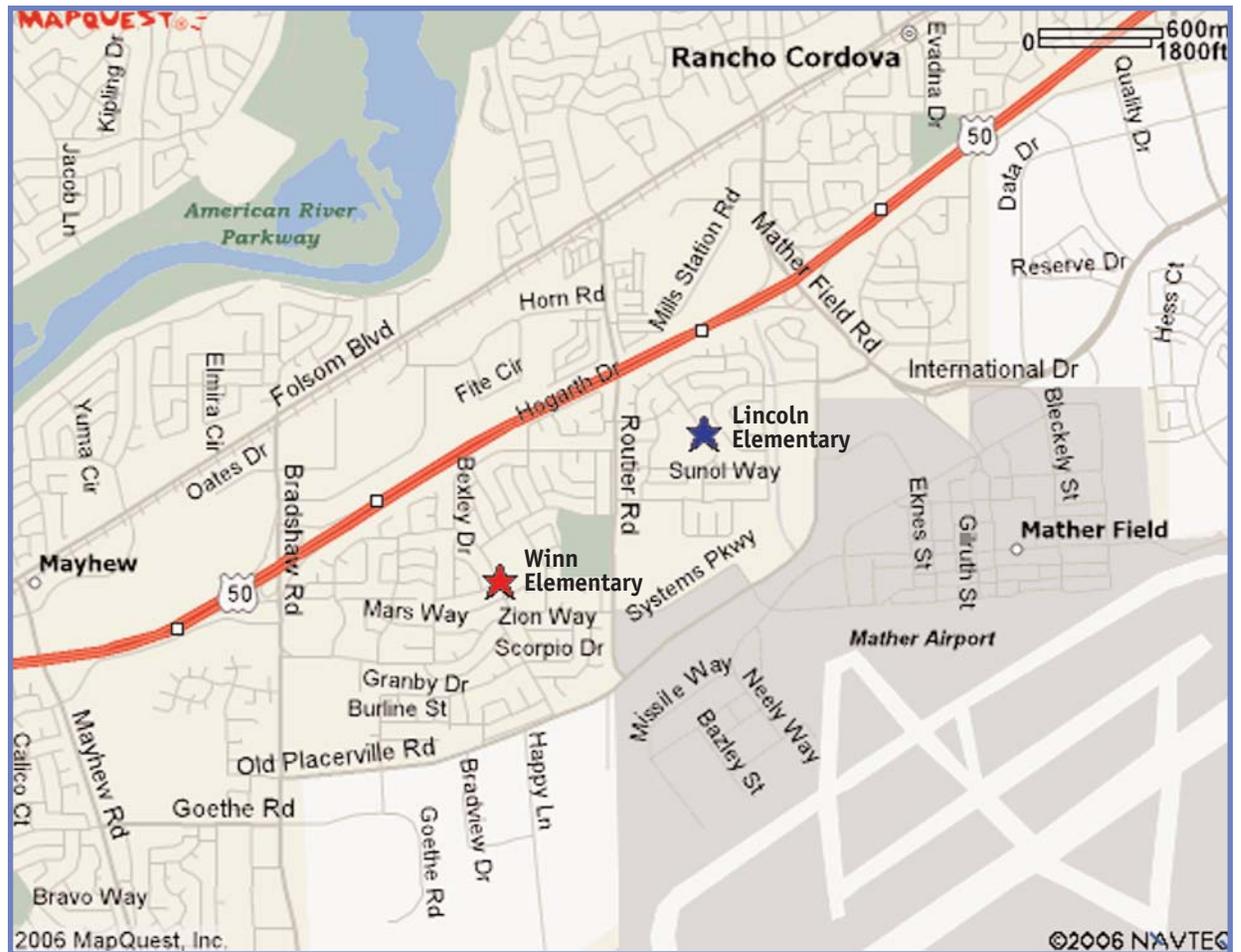
including planning, design and construction of projects related to improving the ability of students to walk and bike to school. This includes sidewalk improvements, traffic calming and speed-reduction improvements, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street bicycle and pedestrian facilities, secure bike parking and traffic diversion improvements within approximately two miles of schools.

Not less than 10% and not more than 30% of the funds will be used on programs or activities that encourage walking and bicycling to school. These could include public awareness campaigns and outreach to press and community leaders, traffic education and enforcement in the vicinity of schools, student sessions on bicycle and pedestrian safety, health and environment, and training, volunteers and managers of safe routes to school programs.

OTHER FUNDING OPPORTUNITIES

The National Highway Traffic Safety Administration web site (www.nhtsa.gov) has a very informative list of safe routes to schools related funding resources, including:

- Capital funding
- Transportation enhancements
- Metropolitan Planning Organizations (MPOs)
- Local county and city funding
- Sales tax funding
- Program funding
- Corporations and businesses
- Foundations
- Individuals
- Events
- Parent Teacher Associations (PTAs) and school districts
- City and county funds
- State Highway Safety Funds, "402 Funds"



Appendix C. Area Map

A. M. Winn and Abraham Lincoln Elementary Schools are part of the Sacramento City Unified School District and located in the City of Rancho Cordova.