

April 13, 2009

Mr. David Jorschumb
Project Manager
Boulder Valley School District

Re: Review of proposed school access improvements at the Foothills Elementary School in Boulder

Dear Mr. Jorschumb,

At your request, the Fox Higgins Transportation Group, LLC has:

- observed the existing school access conditions at the Foothills Elementary School in Boulder during the morning and afternoon student drop off and pickup periods;
- reviewed plans for the proposed new pickup and drop off loop and parking area to be accessed from Hawthorn Avenue;
- anticipated the projected school access traffic changes (and potential improvements) when the new facility is completed.



This letter summarizes our observations, anticipated traffic changes, and conclusions.

Existing School Access Conditions:

The following traffic observations were made during a recent morning student drop off period and afternoon pickup period:

- The on-street parking spaces along the south side of Hawthorn Ave. become effectively full prior to the beginning of the student drop off or pickup periods. These spaces appear to be occupied by residents, teachers



and staff at the school, and construction workers from the on-going school expansion project.

- Hawthorn Avenue becomes congested during the school access periods.
- There is room along the north side of Hawthorn for approximately 12 parent vehicles to queue in the student pickup and drop off zone. One or two vehicles extended east toward Broadway beyond the school property during the pickup and drop off periods.

- Between 55 and 60 parent vehicles were observed dropping off children along Hawthorn Ave. during the morning arrival period. Nearly 80 percent of these vehicles arrived in the westbound direction from Broadway and stopped along the north curblin in the student pickup and drop off zone. The majority of these vehicles continued west on Hawthorn Ave. toward 9th Street when leaving the drop off zone, although 5 to 10 vehicles made a U-turn and returned to Broadway. Many of these



vehicles parked along the curb and the parent escorted the student into the building despite signs indicating that unattended vehicles would be ticketed and that the area was a tow-a-way zone. As a result, the drop off queue does not flow along the curb. Rather, later arriving parents access gaps in the queue of stopped vehicles.

- Between 25 and 30 vehicles were observed picking up students along Hawthorn Avenue in the afternoon period. Most arrived and departed in the westbound direction, although some vehicles made a U-turn to return to Broadway. Many parent vehicles drove along the queue of stopped vehicles in the pickup zone looking for a gap in the queue. If they could not find a gap to pull into, they typically continued west toward 9th Street.

- Some parents parked in front of residential driveways along the south side of Hawthorn Ave. when accessing the school. For the most part, parents observed the posted signs and escorted their children across the street.
- Seven school buses accessed the school, arriving along Hawthorn in the westbound direction.



- Over 70 vehicles accessed the school site in the morning drop off period in the block of 9th Street north of Hawthorn Avenue. Many parents used the staff parking lot to drop off their students, stopping in vacant spaces or in the parking aisle, despite signs indicating that the lot was for staff only. Most of these vehicles returned to Hawthorn on 9th, although many exited west on Iris Avenue.
- 9th Street north of Hawthorn becomes very congested during the afternoon pickup period, with over 50 vehicles entering from the south. Some parents double park in the street and near gridlock conditions occur.

- A number of parents park along 9th Street south of Hawthorn and walk their children to or from the school during school access periods.

Proposed New School Access Facility:

The proposed new school access facility will be located in the southeast corner of the school property. It will consist of a student drop off and pickup loop and 24 parking spaces for staff and visitors. There will be two access drives onto Hawthorn Ave. and traffic will flow one way in a counterclockwise direction. The drop off and pickup loop will have curb frontage to accommodate approximately 15 parent vehicles comfortably. The drop off and pickup loop will also have space for a moving lane next to the vehicle queue along the curb.

The north curb on Hawthorn Ave. will still have room for 10 to 12 parent vehicles between the two new driveways. Drivers entering and exiting the new access area will need to cross the north sidewalk along Hawthorn Ave. and students that are dropped off or picked up along the north curb on Hawthorn Ave. will need to cross one if not both of the new driveways accessing the off street facility. This creates two new potential conflict points between pedestrians and vehicles accessing the school.

The attached site plan illustrates this new school access facility. It will provide a 51% increase in off-street parking spaces on the school site, and will more than double the amount of curb frontage for pickup and drop off activity in the Hawthorn Avenue corridor.

The new drop off and pickup loop will also provide access flexibility by allowing for vehicles to access it and return to the direction from which they came along Hawthorn Ave. without having to make a U-turn in the congested width of Hawthorn Ave. as occurs today.

One operational issue that is not clear on the site plan is how the new pickup / drop off curb frontage will be controlled. In other words, will parents be allowed to exit their vehicles to escort children to/from the school, or will they be required to remain with their vehicles in an effort to keep the line moving as efficiently as possible? If parents are allowed to exit their vehicles then later arriving vehicles may pull past stopped vehicles to access gaps against the curb (as currently occurs along the north side of Hawthorn Ave. despite the existing signing). If parents must stay with their vehicles, it will maximize the number of parent vehicles that can utilize the new drop off / pickup loop.

Anticipated School Access Changes and Potential Improvements:

We anticipate that the new school access facility will greatly improve the safety and efficiency of traffic in the vicinity of the school during peak drop off and pickup periods as follows:

- The significant addition of off street space for parking and pickup / drop off activities will reduce the congestion that currently occurs in the public rights-of-way along Hawthorn Ave. and 9th Street as parents attempt to access the school site.
- Parents will no longer need to make U-turns in congested conditions along Hawthorn Ave.
- The offset intersections of Hawthorn Ave. and 9th Street will become less congested.
- There will be less circulating traffic on adjacent residential blocks.
- The two driveway configuration to the new facility will be similar to the two driveways that currently exist to access the construction site north of Hawthorn Ave. We do not anticipate any problems with school traffic blocking these driveways (since school access traffic did not block the construction driveways when we observed the site).
- Parents will need to use caution and watch for pedestrians when crossing the north sidewalk along Hawthorn Avenue. Similarly, pedestrians walking along Hawthorn Ave. will need to use caution when crossing the two new driveways (that will replace the existing construction driveways). Student safety at these two crossings should be enhanced during the school access periods since parents who did park along the north curb on Hawthorn were observed escorting their children to and from the building. The City of Boulder and/or the BVSD may want to install a STOP sign and a supplemental sign stressing the need to watch for pedestrians on the exit from the access loop drive.
- The BVSD will need to decide how the new pickup / drop off curb frontage within the school property will be operated. As noted above, requiring parents who use that curb frontage to stay with their vehicles will maximize the capacity and utility of the new loop, but will also require school staff members to be present during pickup and drop off times to enforce this form of operation. If parents are allowed to exit their vehicles when parked against the curb, then this new curb frontage will simply add to the capacity of the system that exists today.
- The City and the BVSD may want to adjust the signage along the northern curb line along Hawthorn Avenue if parents will continue to be allowed to leave their vehicles and escort their children to the school building since this practice is in violation of the existing signs along Hawthorn Ave.

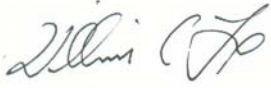
Conclusion:

In summary, we believe that the proposed new access facility at the Foothills Elementary School will improve the overall safety and efficiency of school access during the peak student drop off and pickup periods. We also believe that the increased capacity and flexibility that this facility will provide will result in an improvement in traffic flow on neighborhood streets surrounding the school site.

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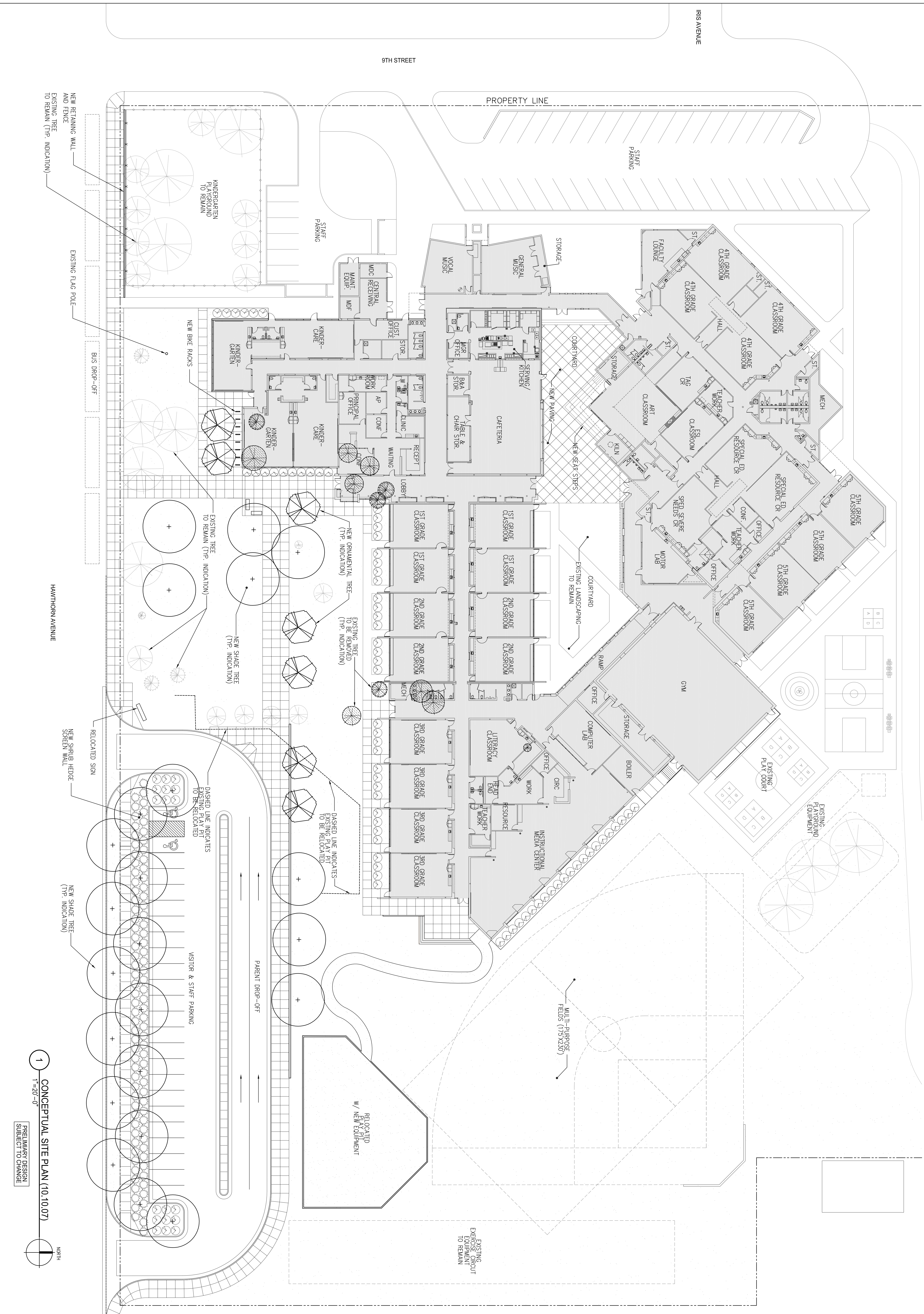
I hope this information is helpful. Please let me know if you have any questions.

Sincerely,
Fox Higgins Transportation Group

A handwritten signature in black ink, appearing to read "William C. Fox", is centered on a light yellow rectangular background.

William C. Fox, P.E.
Principal

Attachment: Conceptual Site Plan



**FOOTHILL ELEMENTARY SCHOOL
ADDITION / RENOVATION**
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Project Number: **0703**

Coordinate:

Drawn:	N.L.B. KE
Checked:	B.A.L. P.J.I
Issue Record:	06.29.07 SCHEMATIC DESIGN
	08.28.07 DESIGN DEVELOPMENT
Coordinate:	

SITE PLAN
DATE: SEPTEMBER 28, 2007
A1.1

1 1"=20'-0"
CONCEPTUAL SITE PLAN (10.10.07)
PRELIMINARY DESIGN
SUBJECT TO CHANGE