GOVERNMENT OF THE DISTRICT OF COLUMBIA
DISTRICT DEPARTMENT OF TRANSPORTATION

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Transportation Policy and Planning Administration

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2002 AUG 22 PM 3:59

MEMORANDUM

TO: Jerrily R. Kress
Director, Board of Zoning Adjustment

FROM: Kenneth G. Laden
Associate Director

DATE: AUG 19 2002

SUBJECT: Morris and Gwendolyn Cafritz Foundation/ The Field School
BZA Application 16559

In response to the Board of Zoning Adjustment's request for additional information regarding the above referenced case, the District Department of Transportation has received detailed plans and specifications from the engineering firm regarding the widening of Foxhall Road NW. The plans are consistent with the Board of Zoning Adjustment requirements included in the Decision and Order dated December 27. 2000. A copy of the plans providing information on the roadway widening and traffic signal are enclosed.

Also a construction schedule for the project is provided below. This table reflects utility relocation, roadway widening and traffic signal installation.

Foxhall Road NW Widening Construction Schedule

Task	Start Date	Completion Date
Prepare Design Plans and Specifications	April	8/30/02
Procure Construction Contractor	9/3/02	10/15/02
Issue Notice to Proceed		10/15/02
Construction of Roadway and Signal Installation	10/15/02	1/31/03
Activation of Traffic Signal	10/15/02	1/31/03

BZA
Case No. 16559
Exhibit No. 504

Board of Zoning Adjustment
District of Columbia
CASE NO.16559
EXHIBIT NO.504

The Department will work with the selected construction contractor to ensure pedestrian safety during construction. We have also requested that the Field School consider the installation of a temporary sidewalk on the east side of Foxhall Road while construction of the roadway and permanent sidewalk is underway. A copy of the construction traffic management plan will be provided by the Department as soon as the construction firm is selected and the plan is approved by the Department.

Finally, regarding the documents used to develop the Department's July 5, 2002 memorandum, the Department reviewed a June 4, 2002 Field School Interim Access Study report prepared by Gorove Slade Associates on behalf of the Field School, as well as the December 27, 2000 Decision and Order issued by the Board of Zoning Adjustment. The Department reviewed the four alternative interim transportation options outlined by Gorove Slade, an examined them for consistency with the requirements of the Decision and Order. We selected the option which most closely approximated the Decision and Order, and then added several additional requirements to further reduce the number of vehicles traveling through the construction zone to the school.

I hope that this memorandum responds to the questions raised by the Board of Zoning Adjustment at the August 6, 2002 hearing. Please contact me at 671-2309 if you have any further questions.

Attachment

MEMORANDUM

TO:	Dale Johnson	The Field School
CC:	Diane Jemmott	Carmen Group
FROM:	Nicole White, P.E. Serge Martin, P.E. Lou Slade, P.E.	Gorove/Slade Associates, Inc. Gorove/Slade Associates, Inc. Gorove/Slade Associates, Inc
DATE:	June 4, 2002	
SUBJECT:	**Field School "Interim" Traffic Access Study (Aug. 2002 to Dec. 2002)**	

Background

The Field School is in the process of relocating its existing campus on Wyoming Avenue to a new site on Foxhall Avenue north of W Street, in time for the late August 2002 opening of the coming school year. The Field School is proposing to add 48 students and 11 employees to its existing student population of 212 and existing employee population of 49, with the ability to increase over time to a maximum student enrollment of 320 students and a maximum employee population of 74 employees.

The following traffic control elements and traffic operation measures were previously identified and approved by the city DDOT for the new school site:

- Installation of a southbound Foxhall N.W. Road left turn lane at the new southern school driveway, with the following parameters:
  - 320-foot southbound approach taper
  - 88-foot striping taper
  - 66-foot left turn storage lane
  - 364-foot southbound approach sight distance

- Prohibition of general use of the northern driveway. The northern entrance will be gated and will be used only for emergency vehicle access. The revised site plan will reflect a turnaround facility in front of the school to allow parents to turn around to access the southern entrance after performing pick-up and drop-off operations in front of the school.

- The southern entrance will be signalized to accommodate full access at this location. Right and left turns into and out of this location will be provided for at this entrance.

Current Status

We recently learned that the above approved installations of the southbound Foxhall Road left turn lane and the new signal at the future main southern entrance to Field School, have been postponed and will not be in place for the coming school year opening of August 2002. Construction of the left turn lane and the signal are not expected to begin at best until October 2002 with a corresponding completion target date of December 2002.

An interim Field School traffic access strategy and associated traffic control plan needs to be developed for the duration of the transition period until these two final elements are in-place. The transition period includes two major phases:

Phase-1. Before and up to the beginning of the construction of the Foxhall N.W. Road left turn lane and of the new signal.

Phase-2. During the construction of the Foxhall N.W. Road left turn lane and the signal.

The below proposed interim access plan alternatives refer only to Phase 1 (pre-construction).

At this point, it is assumed that the traffic circulation and access strategies and associated Temporary Traffic Control (TTC) plans required for Phase-2 (construction) were part of the previously scheduled construction plans package. If needed, however, we are prepared to also develop these for Phase-2. Conceptual Field School temporary traffic access strategies developed for Phase-1 may be adaptable for Phase-2 without major changes. The TTC plans for Phase-2, however, will be significantly different, as these must also address the various traffic circulation shifts (from one lane to the other) that will be required along Foxhall N.W. Road during the construction of the left turn-lane.

Recommended Interim Traffic Access Plan Alternatives for Phase-1

Four conceptual access plan alternatives are proposed for evaluation in order to select the preferred strategies to be presented to the city DDOT. They are based on the following assumptions and recent field survey observations:

- Foxhall N.W. Road remains a 2-lane roadway as today, and the utility poles along the Field School property frontage also remain in place.
- The two planned Field School driveways are already in place:
  - The new widened northern drive (25-foot wide) at the same location as the existing one and
  - The new southern drive (36-foot wide) relocated further south at about 470 feet south of the northern drive.
- Turning radii connecting these driveways to Foxhall Road are temporary as long as Foxhall Road is not widened for the left turn lane. Therefore, existing utilities located within the future radii areas are still in place and not yet removed, relocated or buried down as planned in the final plan.
- Planned Field School on-site roadways, turnarounds and other drop-off and parking facilities are already in place.
- Field observations at the northern drive indicate that the sight distance to exit onto Foxhall Road is significantly limited in either direction by the adjacent power poles located on either side of the drive. Most unsafe is the left turn-out movement, particularly by low profile cars as compared to vans or trucks with higher-seating drivers.
- The sight distance for drivers traveling southbound or northbound along Foxhall Road appears close to the acceptable minimum to safely spot vehicles attempting to turn left from southbound Foxhall Road into the northern school drive.
- Field observations at the southern drive (already in place) indicate that the sight distance to exit onto Foxhall Road is sufficient in the southbound direction and close to the acceptable minimum in the northbound direction. Right turn movements out of the drive can be done safely, but left turn-out movements are expected to experience significant delays while exiting drivers assess the opportunities for acceptable gaps simultaneously in the southbound and northbound traffic flows of Foxhall Road.
- In the absence of a left turn storage lane, left turns from southbound Foxhall Road into the southern drive are not recommended due to the minimum southbound sight distance and the downhill grade.
- For each of the below described Alternatives, the following standard advanced school zone warning signs will be recommended in the following order along each Foxhall Road approach to the Field School:
  - "School Advance Warning" sign S1-1
  - "School Speed Limit 15 MPH When Flashing" sign S5-1

  The flashing S5-1 signs will be activated during the school peak periods by either a programmed time clock or a police officer.

Alternative I: Signalized Left Turns In and Left Turns Out (Figure 1)

A temporary traffic signal, using the same signal controller to be later installed permanently at the southern driveway, is recommended at the northern driveway. Such a signal control not only will permit safer left turns in and left turns out, but will also help in minimizing potential delays to southbound vehicles due to the left turns into the northern school drive.

A three-phase signal to be operated in the actuated mode is recommended. As shown on Figure I, Phase 1 (Simultaneous northbound and southbound through movements along Foxhall Road) will be the main signal phase "on automatic recall". During Phase 1, left turns into the northern drive are "permitted" but must yield to the opposing northbound traffic, therefore blocking the through southbound vehicles arriving behind them. Phase 2 (southbound through and "protected" left turns, with northbound flow stopped) will be "called on" by a queue detector to be installed on the Foxhall Road southbound lane, about 200 feet upstream from the signal. When the southbound queue reaches the detector, the northbound flow is stopped to allow protected left turns into the drive. Phase 3 (right and left turns out of the school) will be "called on" by a presence detector to be located on the school driveway approach lane. Right turn on red from the northern school drive should be permitted to minimize delays. This right turn radius needs to be improved and better defined by installing a curb.

Different signal phasing timings should be developed for the school morning, afternoon and off peak periods.

Optionally, it may be desirable to have a police officer manually control the signal operation during the school peak hours, while monitoring the vehicle delays along both southbound Foxhall Road and on the northern drive exit.

The installation of the signal controller and the signal display should be of the temporary type, but meet minimal acceptable safety and operational standards. An additional signal head facing the northbound traffic flow may need to be installed on the west side of Foxhall Road to ensure advance signal visibility.

At the southern driveway, to be controlled with a stop sign on the drive approach, only right turns in and right turns out are allowed. Left turns in from Foxhall Road are prohibited and the new left turn out lane on the drive approach should be either temporarily eliminated or blocked.

Alternative 2: Non-Signalized Left Turns In and Left Turns Out (Figure 2)

Temporary flashing beacons are recommended at both the northern and southern school drives to help identify the two school driveways to the through drivers along Foxhall Road. Flashing yellow signal heads will be displayed at all time to vehicles approaching along Foxhall Road,

while flashing red signal heads and associated stop signs will control all vehicles exiting the school at either driveway.

At the northern school drive, left turns in will be "permitted" but left tuns out will be prohibited at all time. It is recommended to provide a police officer during the school morning and afternoon peak periods, to monitor and facilitate the left turns into the school in order to minimize the delays to the through southbound flow.

At the southern school drive, left turns in should still be prohibited as in Alternative 1, but left turns out of the drive should be "permitted" from the exclusive left turn lane. During school morning and afternoon peak periods, a police officer should be provided to monitor and facilitate the left turns out of the drive, as significant left turn out delays may be expected.

In order to minimize the number of consecutive stops to the through traffic along Foxhall Road due to the left turns in at the northern school drive and the left turns out at the southern school drive, it is desirable that the two police officers who will control these two movements, coordinate their traffic operation via two-way radio (as visual contact is not possible) to try to allow simultaneous left turns in and left turns out as much as possible.

Alternative 3: No Left Turns In and Non-Signalized Left Turns Out (Figure 3)

The northern school drive would be closed with a gate and only available for emergency vehicles, as planned for the permanent school access plan.

Two flashing beacons are recommended along Foxhall Road at:

- The southern school drive and
- W Street located about 300 feet south of the southern school drive.

At the southern school access drive, exactly the same traffic control as in Alternative 2 is recommended:

- Flashing beacon at the intersection of Foxhall Road and the southern drive, with stop sign control on the drive approach
- Prohibited left turns in from southbound Foxhall Road.
- "Permitted" left turns out from the exclusive left turn lane of the drive
- A police officer to control the left turns out during the school morning and afternoon peak periods

This restrictive concept forces the school patrons approaching southbound along Foxhall Road (about 65 % of the school traffic) to turn left further downstream. W Street is the first opportunity where school patrons are expected to make a left turn, then make a U-turn on W

Street and head back onto northbound Foxhall Road in order to turn right into the southern school drive.

During the a.m. commuter peak, drivers along the eastbound W Street approach (controlled by a stop sign) currently experience significant delays, even to turn right onto Foxhall Road. During the evening peak, returning commuters again experience delays to make a left turn into westbound W Street. Because these existing commuter delays are expected to be compounded by the school patrons waiting to make a left turn into eastbound W Street, it is recommended to supplement the current intersection stop control with a flashing beacon, and during the morning and afternoon school peak periods to have a police officer control the traffic at this intersection.

Optionally, it may be desirable to prohibit school patrons traveling along southbound Foxhall Road to make a left turn into W Street and then make a U-turn, by posting signs on Foxhall Road prohibiting such left turn except to "local" traffic and by enforcing it. This may result in school patrons turning right further downstream into Whitehaven Parkway and then making a U-turn to head back onto northbound Foxhall Road. A traffic signal is expected to be installed soon at the intersection of Foxhall Road and Whitehaven Parkway to facilitate the St Patrick School ingress and egress.



Other options for the Field School traffic originating north of the school site include long inconvenient detours, for the duration of the interim period, via either Wisconsin Avenue/Reservoir Road or McArthur Boulevard/Reservoir Road.

Alternative 4: No Left Turns In and No Left Turns Out (Figure 4)

As in Alternative 3, the northern school drive remains gated except for emergency vehicles.

Although this school access plan is the safest, it is the most restrictive, allowing only right turns in and out at the southern school drive. A flashing beacon at this southern drive is therefore not necessary.

Again school patrons approaching southbound along Foxhall Road are expected to turn left further downstream at W Street, compounding the vehicle delays already experienced at that intersection. As in Alternative 3, a flashing beacon is recommended at Foxhall Road and W Street, and during the morning and afternoon school peak periods a police officer should control the traffic at this intersection.

Because school patrons leaving the school and wishing to head along southbound Foxhall Road will have to turn right onto northbound Foxhall Road, they will incur a significant detour and associated delays as there is no adequate nearby cross street where to turn around.

Summary of Alternatives

A summary of these four alternatives is shown in the following table, followed by the Alternative Figures 1, 2, 3 and 4.

The Field School
Interim Traffic Access Alternatives

Traffic Control Elements / Location	Alt. 1	Alt. 2	Alt. 3	Alt. 4
Northern Drive:			Gated Emergency Only	Gated Emergency Only
RT-Out	Yes	Yes		
LT-Out	Yes	No		
RT-In	Yes	Yes		
LT-In	Yes	Yes		
Intersection control	Signal (3 phases)	Flashing beacon; Police officer @ school peaks		
Southern Drive:				
RT-Out	Yes	Yes	Yes	Yes
LT-Out	No	Yes	Yes	No
RT-In	Yes	Yes	Yes	Yes
LT-In	No	No	No	No
Intersection control	None	Flashing beacon; Police officer @ school peaks	Flashing beacon; Police officer @ school peaks	None
W Street * : Intersection control	None	None	Flashing beacon; Police officer @ school peaks	Flashing beacon; Police officer @ school peaks

* : An option for Alt. 3 and Alt. 4 would be to prohibit school patrons traveling southbound to turn left into W Street, forcing them to a longer detour, but eliminating the need for a police officer control at W Street.

The Field School
Washington, D.C.

Traffic Access Study
June 4, 2002

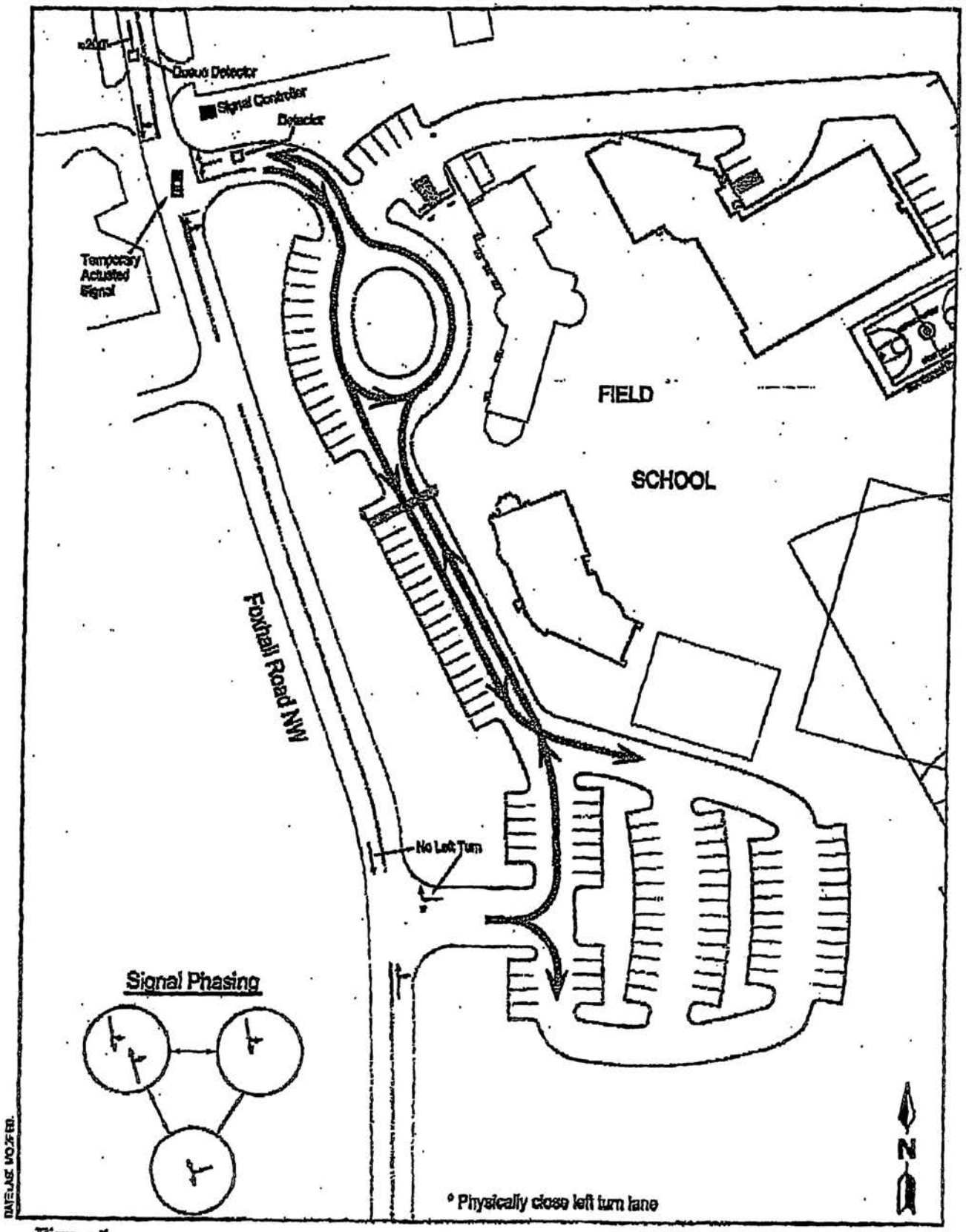


Figure 1
Alternative 1
Signalized Left Turn In/Left Turn Out

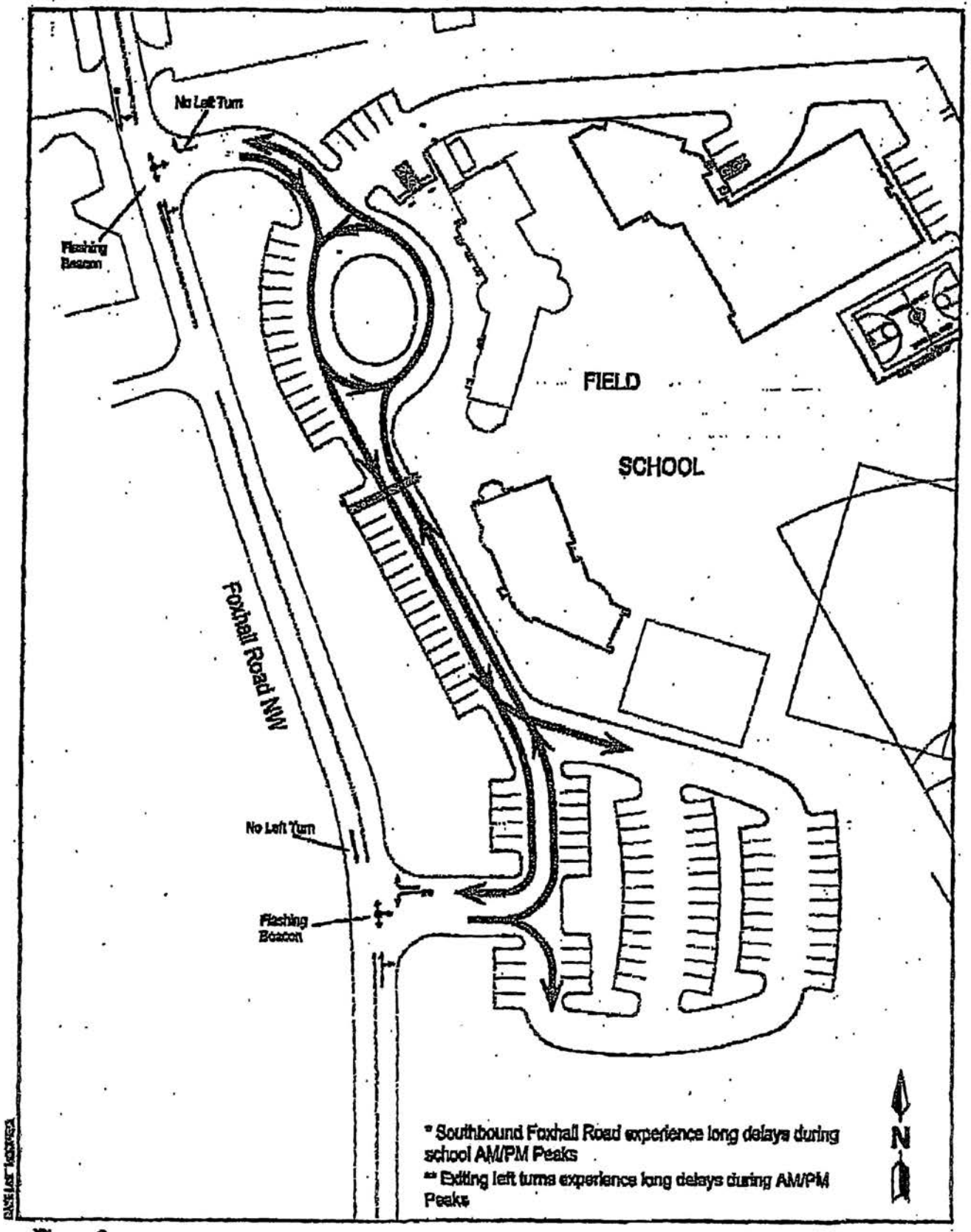


Figure 2
Alternative 2
Non-Signalized Left Turn In/Left Turn Out

The Field School
Washington, D.C.

Traffic Access Study
June 4, 2002

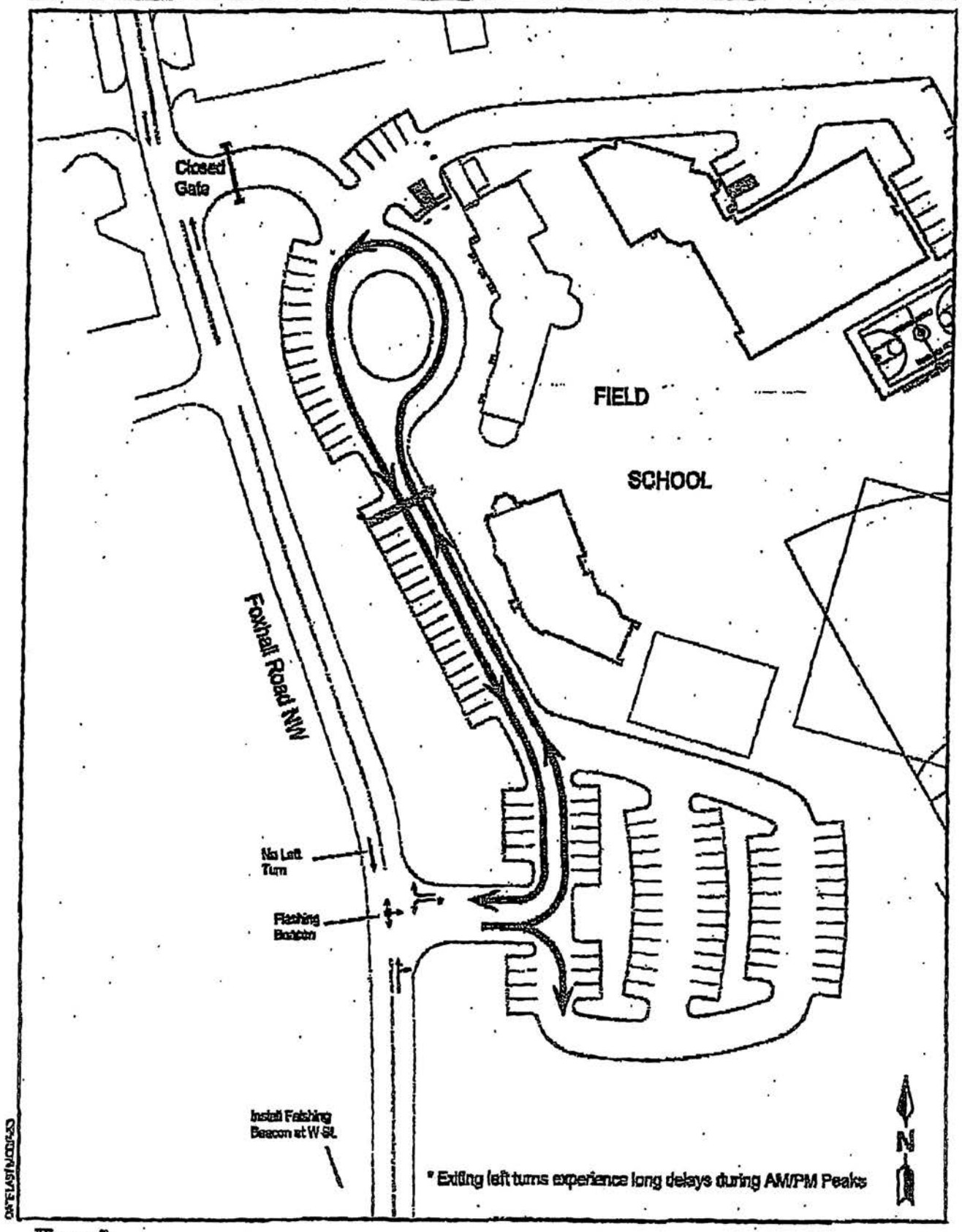


Figure 3
Alternative 3
No Left Turn In/Left Turn Out Non-Signalized

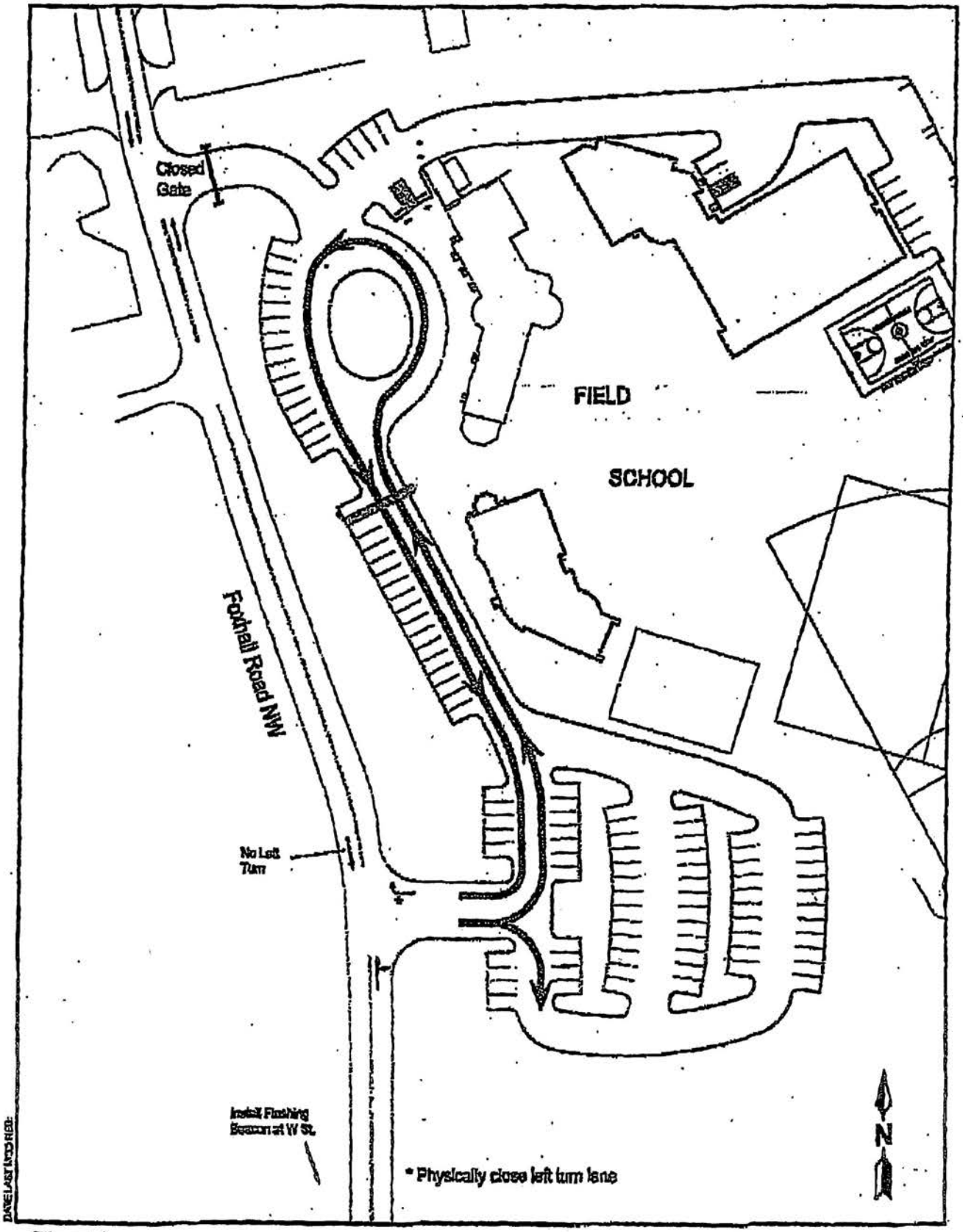


Figure 4
Alternative 4
No Left Turn In/No Left Turn Out

GOVERNMENT OF THE DISTRICT OF COLUMBIA
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