

MEMORANDUM

TO: Mayor and Council

FROM: David R. Taylor, Town Manager

SUBJECT: Closing Briarbridge Lane to Through Traffic

DATE: April 11, 1988

The attached resolution and ordinance would close Briarbridge Lane to through traffic by installing a physical barrier, a gate, on Briarbridge Lane near the intersection of Briarbridge Lane and Columbia Street.

Background

Briarbridge Lane is a narrow one-way residential street that varies in width from 14 feet to approximately 17 feet. We think the narrow width of the street, combined with a hill and sharp curve, make Briarbridge Lane unsuitable for use other than as a local residential street. (Please see the attached sketch.)

However, some drivers traveling north on South Columbia Street now use Briarbridge Lane as a short-cut to western destinations, instead of using Cameron Avenue, McCauley Street, or Franklin Street. It is because of this through traffic that a resident asked the Town to consider closing the Columbia Street access to Briarbridge Lane.

DiscussionAlternatives

The alternatives we considered for eliminating thru traffic on Briarbridge Lane were: posting signs prohibiting left turns from South Columbia Street; installing a median barrier on South Columbia Street to prevent left turns; or closing Briarbridge Lane to through traffic with a physical barrier.

Posting signs prohibiting left turns from South Columbia Street would eliminate only a portion of the thru traffic. It would not prevent determined drivers from ignoring the signs and using the street as a short-cut.

A median barrier on South Columbia Street would prevent all left turns onto Briarbridge Lane. However, the existing roadway cross-section at this location is not wide enough to permit a functional median and also maintain adequate traffic lanes. The State has also asked that no structure be located in the South Columbia Street right-of-way that would require removal when this portion of South Columbia Street is widened. A median or curb installed here would probably have to be removed when the street is improved.

Because of the close proximity to a principle arterial and the drivers perceived inconvenience of alternative routes, we think the installation of a physical barrier on Briarbridge Lane would be the most effective method of diverting traffic at this location. A gate, bollards, or a wall would obviate the continued enforcement necessary if only regulatory signs were used.

Response from Residents

We distributed notices to the residents of Briarbridge Lane and Briarbridge Valley Road to solicit comments on the proposed street closing. We received eleven responses in favor of closing the street. The only dissenting opinion at that time was from the Church of Christ. The church felt that access to and from Columbia Street was important to church operations. However, representatives of the church were receptive to closing the street if it could be done in such a manner as to allow adequate access to and from the church. If the street were closed at the location shown on the attached map, people attending functions at the church could enter the church parking lot from either Ransom Street or Columbia Street. (Please see the attached drawing.)

Representatives of the church have also tentatively agreed to install a concrete island centered in their driveway. An island at this location would prevent drivers from using the church driveway as a cut-through route.

After our original survey, one Briarbridge Lane resident changed his original opinion in favor of closing the street. He is now opposed to the proposal. The resident now feels that his existing driveway would not be accessible if he had to drive in from the low side of the hill, and thus is now opposed to closing the street to through traffic..

We agree with his concern about driveway access. A car with a long wheel base or low ground clearance may have difficulty turning into this driveway from the "downhill" side, which would be necessary if the road were closed to through traffic. However, the grade of the driveway could be changed to alleviate the problem. This resident has advised us that he does not want to change the grade of his driveway. He thinks that changing his driveway will adversely affect the appearance of his yard.

Other Responses

Input from Town departments was also solicited concerning the proposed closure of, the intersection. There was some concern that a "dead end" street would be detrimental to the delivery of Town services such as snow removal and leaf collection.

In order to address the possible need for emergency and service vehicle access, we think the installation of a gate, instead of fixed barricades such as bollards or walls, would resolve any concerns with emergency and service vehicle access. It would also be relatively inexpensive. The estimated cost of installing a gate similar to the one shown is \$600.00.

The gate could be held in place by "drop pins", with perpetual maintenance provided by the Town. Since Briarbridge Lane is a public right-of-way and the Town is ultimately responsible for traffic control on Town streets, the Town would purchase, install and maintain the gate.

Although the use of gates on public streets is not common in the United States, they have been used successfully in Great Britain for many years. We think the flexibility provided by a gate would be useful at this location.

Although there was significant response from the residents in favor of the proposal, there was some concern in the neighborhood regarding the aesthetics of "barricading" the street. We think a gate painted forest green, similar to the one shown on the attached sketch, would not be detrimental to the attractiveness of the neighborhood.

Since the Town does not anticipate the need to install barricades in other neighborhoods, nor do we think it appropriate to set a precedent for similar measures elsewhere, the gate would be designated as experimental. There would be an 18-month trial period in which the effectiveness of the gate would be evaluated.

Conclusion

If the Council adopts the attached resolution and ordinance, Briarbridge Lane would function as a local two-way street with access only from Ransom Street. No public right-of-way would be closed. This proposal would redirect traffic from a substandard street and thus eliminate the impact of through traffic on the neighborhood. Traffic would then be transferred to other streets such as Cameron Street, which can carry traffic more efficiently and safely than Briarbridge Lane. This proposal would also be designated as an experimental project which would be evaluated after a trial period of 18 months.

We think the installation of a gate has three distinct advantages:

1. It provides some flexibility for emergency and service vehicle access.
2. The relative cost is low, which means there would be little ~~financial loss~~, if we and the local residents feel this method has been ineffective or unacceptable after the trial period.
3. This would not require, acquisition of additional right-of-way (i.e. cul-de-sac).

There are only 5 driveways which access onto Briarbridge Lane. These 5 driveways plus the 5 lots which have access to Briarbridge Valley are well below the maximum 25 allowed in the Design Manual for a single access point.

Regarding the driveway access problem voiced by one resident, the driveway can be improved for adequate access and parking. This driveway is a short gravel driveway located mostly in the right-of-way. Only minor grading would be necessary to improve the entrance. If the resident prefers, the work on the driveway would be completed by Town forces at no cost to the resident. The approximate cost of the work would be \$500. We think regrading the driveway is a nominal consideration compared to the improvement in the neighborhood environment that would result from the elimination of through traffic. An alternative is for a driver to pull up the hill and back into the driveway. This would provide the same angle of entrance as now exists.

The gate would require periodic maintenance. It would also inhibit but not prevent some Town services,

Most class "C" residential streets are intended to provide access to areas directly dependent upon them. In this specific case, through traffic is especially troublesome because of the standard roadway/design of Briarbridge Lane. It is for this reason we are recommending that the Council adopt the attached resolution and ordinance which would, in an experimental fashion, close one end of Briarbridge Lane.

Recommendation: The the Council adopt the attached ordinance and resolution.

AN ORDINANCE AMENDING CHAPTER 21 OF THE CODE OF ORDINANCES
(88-4-11/0-4)

BE IT ORDAINED by the Council of the Town of Chapel Hill:

SECTION I

That Section 21-10 of the Town Code of Ordinances, one-way streets is amended by deleting the following:

- (d) Traffic on Briarbridge Lane between Pittsboro Road and Briarbridge Valley shall move only in a northerly direction after entering the intersection at Pittsboro Road and Briarbridge Lane.

SECTION II

This ordinance shall be effective Monday, June 6, 1988.

SECTION III

All ordinances and portions of ordinances in conflict herewith are hereby repealed.

This the 11th day of April, 1988.

A RESOLUTION CLOSING BRIARBRIDGE LANE TO THROUGH TRAFFIC
(88-4-11/R-10)

WHEREAS, the Council is concerned with the impact of through traffic in residential areas; and

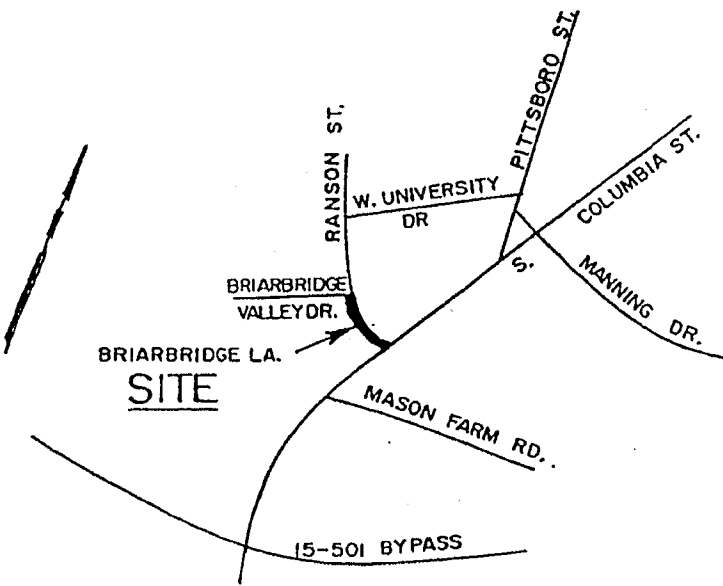
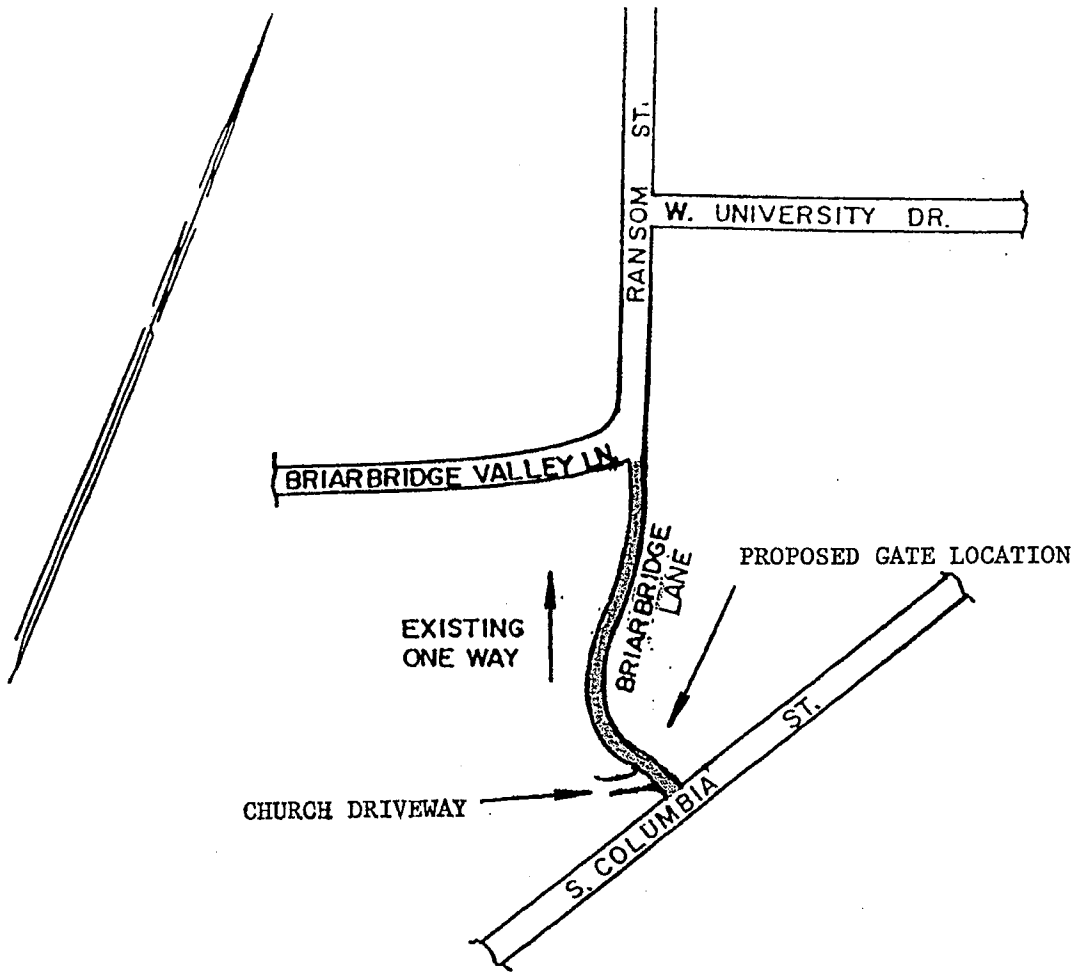
WHEREAS, the street known as Briarbridge Lane is not designed to safely carry through traffic other than local neighborhood vehicles;

NOW, THEREFORE, BE IT RESOLVED by the Council of the Town of Chapel Hill that the Council hereby declares its intent to restrict the use of Briarbridge Lane as a through street.

BE IT FURTHER RESOLVED that the Town Manager is hereby authorized to arrange for the installation of a gate on Briarbridge Lane adjacent to the driveway for the lot shown on Orange County Tax Map 87, Block J, Lot #11.

BE IT FURTHER RESOLVED that the installation of this gate shall be evaluated in 18 months or less and its efficiency in preventing through traffic considered.

This the 11th day of April, 1988.

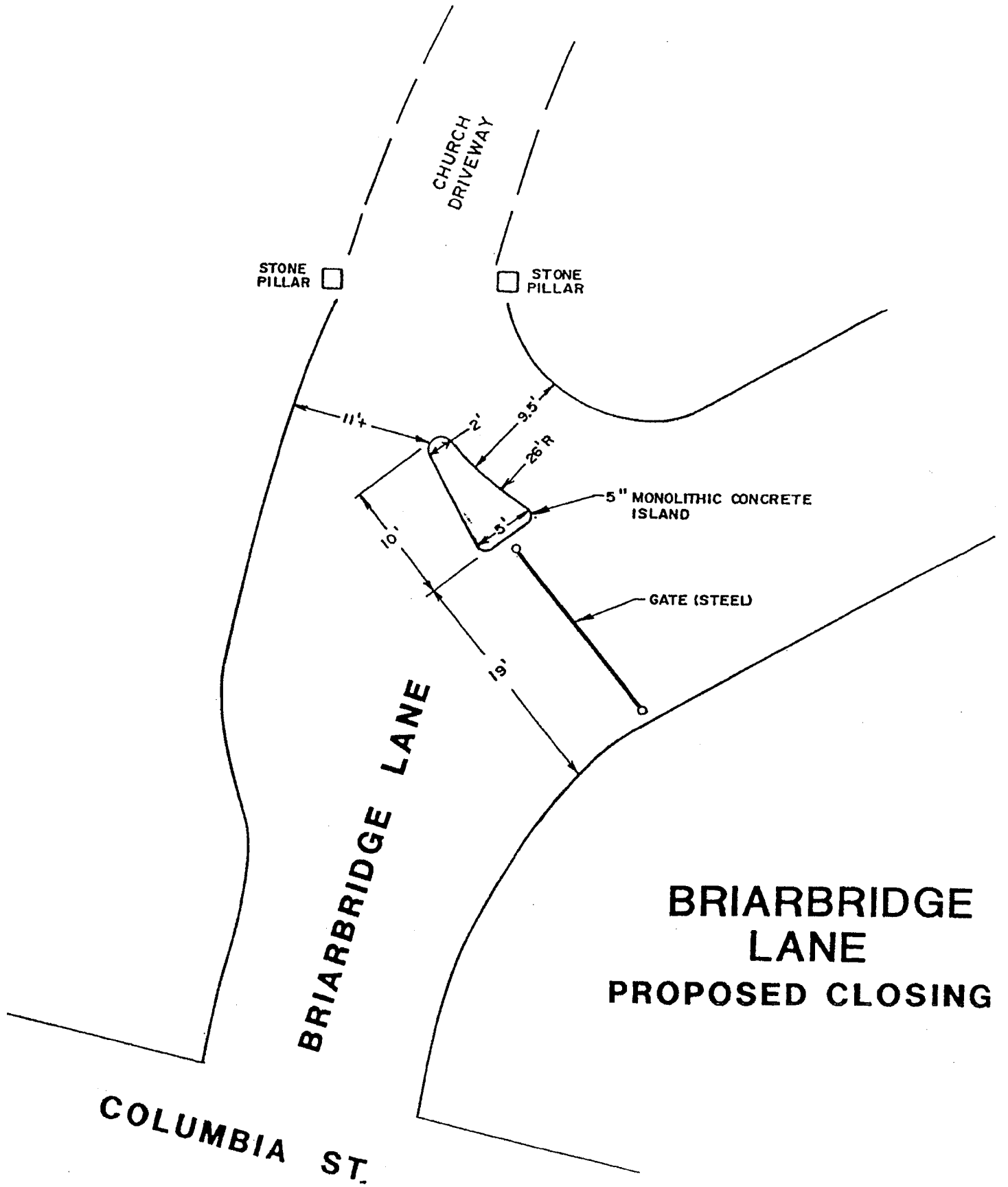


VICINITY MAP
NO SCALE

BRIARBRIDGE LANE

PROPOSED
NO THRU TRAFFIC

NO SCALE



STONE PILLAR

STONE PILLAR

CHURCH DRIVEWAY

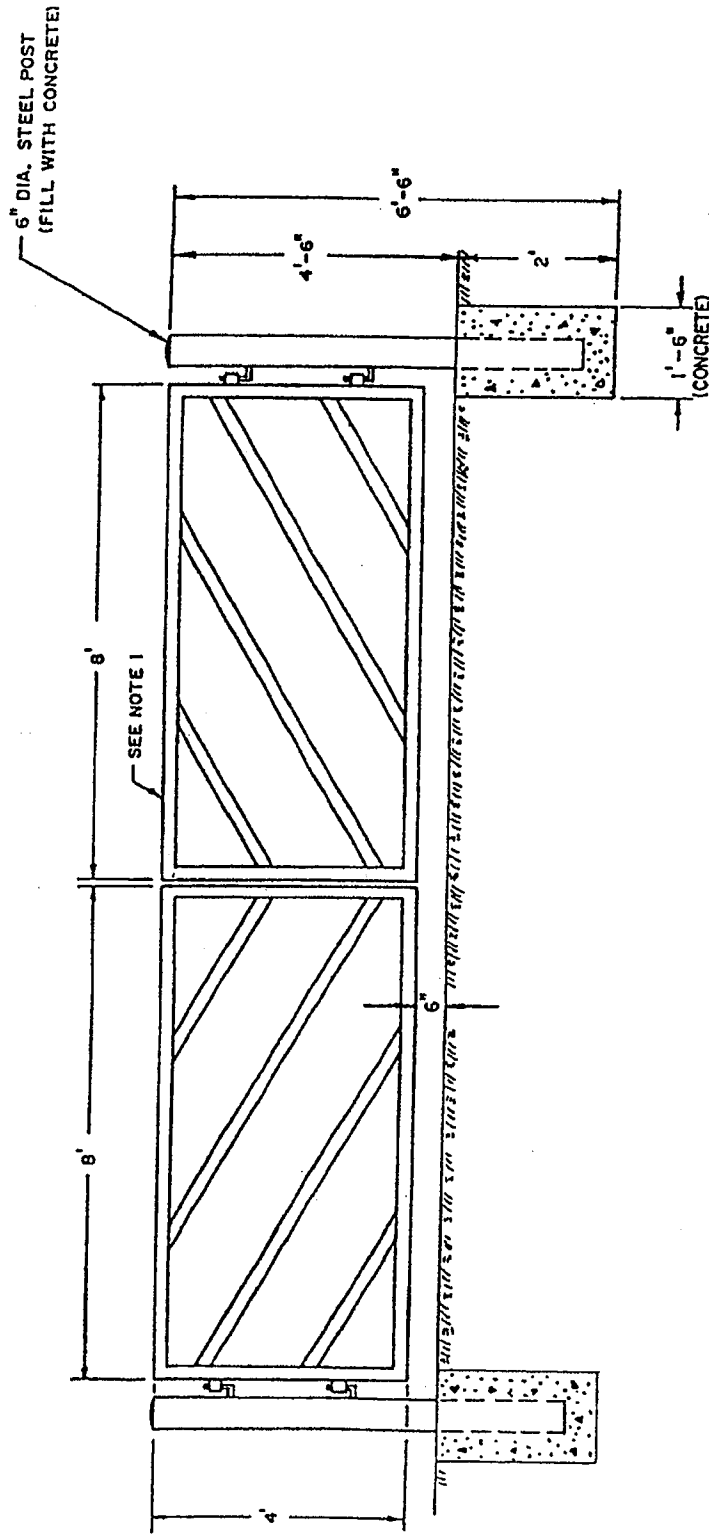
5" MONOLITHIC CONCRETE ISLAND

GATE (STEEL)

BRIARBRIDGE LANE

BRIARBRIDGE LANE
PROPOSED CLOSING

COLUMBIA ST.



GATE DETAIL

BRIARBRIDGE LANE

NOTE 1. GATE TO BE CONSTRUCTED OF 2" x 2" SQUARE
STRUCTURAL STEEL TUBING, 1/8" WALL THICKNESS
PAINT FOREST GREEN

MEMORANDUM

TO: Mayor and Council
FROM: David R. Taylor, Town Manager
SUBJECT: Status Report on Briarbridge Lane Traffic Gate
DATE: October 23, 1989

The attached Engineering Department Staff Report discusses the background and our assessment of a traffic control gate installed on Briarbridge Lane in the Spring of 1988.

This report was requested by the Council to review the effectiveness of the gate installation. There are no similar gates on public streets in Chapel Hill.

Key Points:

Traffic control gate was installed at the request of local residents to mitigate "cut through" traffic between South Columbia Street and Ransom Street.

The gate was located to allow access to the Church of Christ from either South Columbia Street or Ransom Street.

Traffic volumes on Briarbridge Lane have dropped significantly since installation of the gate.

Residents responded to a questionnaire in favor of keeping the gate in place.

The Church of Christ has had problems with the gate and requests it be removed.

Conclusions:

The gate has been an effective temporary measure to control through traffic on Briarbridge Lane.

The positive effects of the gate on the entire Briarbridge Lane neighborhood seem to outweigh the negative effects experienced by the church.

The gate should remain in place until such time that alternative traffic control measures are constructed as part of the South Columbia Street improvements planned for 1992.

ENGINEERING DEPARTMENT
STAFF REPORT
ON THE BRIARBRIDGE LANE GATE
OCTOBER 23, 1989

This follow up report on Briarbridge Lane was requested by the council to assess the effectiveness of a gate used to mitigate through traffic.

Background

Last year at the request of the local residents, the Town considered alternatives for eliminating through traffic on Briarbridge Lane.

Briarbridge Lane is a narrow residential street that varies in width from 14 feet to approximately 17 feet. The narrow width of the street combined with a steep hill and sharp curve make Briarbridge Lane unsuitable for use other than as a local residential street.

Drivers traveling north on South Columbia Street used Briarbridge Lane as a short-cut to western destinations, instead of using Cameron Avenue, McCauley Street, or Franklin Street.

Town staff recommended the installation of a gate on Briarbridge Lane to discourage through traffic. The gate obviates the continued enforcement necessary if only regulatory signs (i.e. no left turn, no thru traffic) were used.

A gate was recommended instead of a fixed barrier because:

1. It provides flexibility for emergency and service vehicle access.
2. The relative cost of installation was low.
3. It would not require acquisition of additional right-of-way.

On April 11, 1988 the Council adopted a resolution directing the installation of the gate. The closing of the street was considered experimental, and a trial period was established in order to evaluate the effectiveness of the gate. We were directed to report back to Council after assessing the gate installation for approximately 18 months.

Discussion

We have reviewed the operation of Briarbridge Lane since installation of the gate. The following information was included in our assessment.

Traffic Counts

Prior to the installation of the gate, we completed a traffic count on May 17, 1988. This was during the University exam period, so we did not count a "typical" traffic day. However, the counts do reflect the effectiveness of the gate.

The total traffic volume prior to the gate was 436 vehicles. The peak hour had a count of 56 vehicles. We completed traffic counts after the gate was installed, with a total volume of 30 vehicles on September 14 of this year, and a peak hour volume of 7 vehicles. We think the reduction of over 400 vehicles in total traffic volume is significant and is directly attributable to the gate.

Questionnaire

As part of our follow-up assessment we distributed questionnaires to the eleven residents of Briarbridge Lane and Briarbridge Valley and to the Church of Christ. The questionnaire addressed traffic safety, street capacity, convenience, emergency vehicle response and quality of life. Eight questionnaires were returned by the residents plus one by the Church.

All of the residents indicated that their quality of life had improved and that the gate should remain. Two of the responding households thought the gate should be moved closer to South Columbia Street.

The Church feels the gate has had a negative impact. In an attached letter from Mr. Henry C. Boren on behalf of the church, they cited the gate as an "expense and irritation". In addition they request that the Town remove the gate.

Staff Assessment

Last year the church agreed to participate in this project by installing a concrete island in their driveway, at their expense. The intent of the driveway island was to discourage drivers from driving around the gate and cutting through the Church parking lot. Apparently the Church still has some "through" traffic using their parking lot.

There has been an occasional problem with drivers turning into Briarbridge Lane without realizing it is closed to through traffic. This has created maneuvering problems and further use of the parking lot. The gate was located so that the church can have access to Briarbridge Lane and South Columbia Street. There have been no reported accidents attributed to the gate.

The one problem we did not foresee was vandalism. During the few weeks following installation of the gate, the island and the gate were vandalized on two separate occasions. According to the church, one of their rock columns has been damaged twice.

Alternatives

We think there are three possible alternatives to address the through traffic and access issues on Briarbridge Lane.

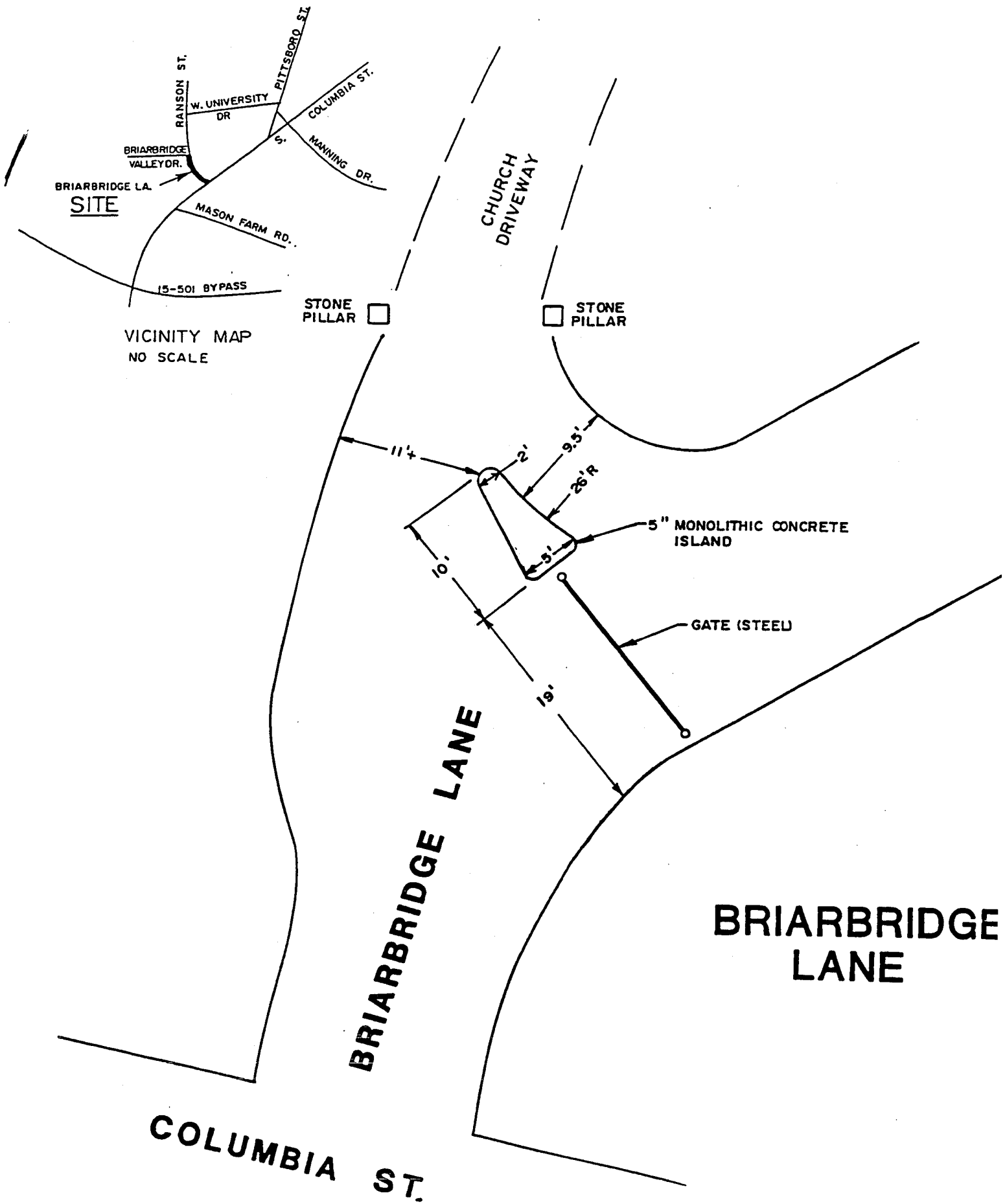
1. Remove the gate and erect a sign prohibiting left turns into Briarbridge Lane from South Columbia Street. This would increase access to the church and remove the "irritation" of the gate for the church members. However, without continuous enforcement of the left turn prohibition we think traffic would increase significantly on the street.
2. Move the gate closer to South Columbia Street. This would prevent through traffic on Briarbridge Lane and minimize the church's turnaround problems. However, it would reduce the church's access to Briarbridge Lane and would force all church traffic to enter and exit to the west on Ransom Street.
3. Leave the gate at the present location. Through traffic would continue to be eliminated, but the church would have to contend with some drivers who would use their driveway to bypass the barrier.

Conclusion

In spite of their reservations concerning the partial restriction of their access we think the church has been cooperative with the Town and the residents concerning this issue. The church has experienced some expense for the initial installation of their concrete island and for repair of the damage due to the above mentioned vandalism.

The gate is considered to be a temporary compromise solution. We hope that a permanent solution can be worked out when South Columbia Street is widened. In the interim, the gate seems to be effective in controlling through traffic on Briarbridge Lane. However, it is not without its problems, as discussed above.

We suggest that the gate remain in place until such time that alternative measures are constructed (as part of the South Columbia Street Improvements) which will effectively mitigate through traffic on Briarbridge while still allowing reasonable access to the church.



Church of Christ
Briarbridge Ln at S. Columbia
Chapel Hill
September 27, 1989

Mr. Mike Taylor
Engineering Department
Town of Chapel Hill

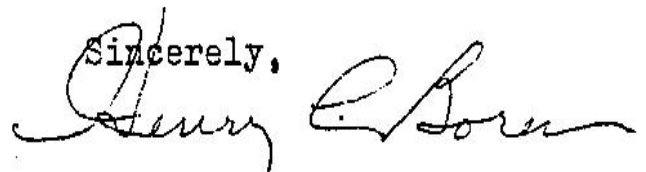
Dear Mr. Taylor:

This note will supplement what I have put down on your questionnaire.

The gate has been both an expense and anyl irritation to our members. First, we had to build the isl d (according to your--or some other engineer's--specifications). Second, many of the persons who formerly used the street have blamed our group specifically for the closing; they are mistaken, but they do not know that. In consequence, one or more of them has resorted to vandalism, quite deliberately pulling down one of the stone pillars of our gate. It is down at the moment; we paid to get it rebuilt once but haven't got around to taking care of it again. Many drivers still manage to get around the island, using our driveway--sometimes backing and filling--and have damaged our walls (they are low) and shrubbery.

Churches do not wish to cause citizens to have bad feelings toward them, as you can well imagine.

We decided, in business meeting, to request the town to remove the gate. The town created the problem by making it impossible for cars to cut through the light at Manning (by making Pittsboro one-way). We feel you have put a heavy burden on us by adopting this means of dealing with too-heavy traffic on Briarbridge. But note, as I wrote on the questionnaire, that the street never was two-way at the point where the gate was installed.

Sincerely,


Henry C. Boren
Trustee
For the Congregation

Incidentally, one time when I was working on the grounds I stopped a car that was using our driveway to by-pass the gate and suggested he should go some other way. He said he lived just below, in Briarbridge Valley Lane (I think that's the name of the street below us); those are the people who wanted the street closed!