



Traffic Engineering and Parking Divisions

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January 3, 2008

Tom Carlsen
1602 Red Tail Drive
Verona, WI 53593

Dear Mr. Carlsen,

I've had the opportunity to review your letter of December 10, 2007 addressed to your Red Tail Drive Neighbors. I've also reviewed the parking situation you raised previously. Specifically, you wished to know how much parking, if any, was lost due to the neighborhood-scale traffic circle planned for the intersection of Red Tail and Lawnbrook Circle.

Your letter of December 10 raises several common complaints we receive about the City's Neighborhood Traffic Management Program or "traffic calming."

Background: Adopted by the Madison Common Council in 1997, Madison's Neighborhood Traffic Management Program (NTMP) is a neighborhood driven program. Traffic calming projects are initiated by the residents, with City staff providing technical support. A project does not move forward for Common Council consideration unless there is sufficient support shown via a survey, conducted by staff, of the affected residents. While the Council makes the determination whether a public works project proceeds, without resident support it is very unlikely a project will proceed.

While Madison's NTMP is recognized as a model program – based on best practices from around the country, and taught at the UW-Extension over the past several years – the program is really a function of the community it serves. The policy notes the considerations and values that were taken into account in adopting the program, noting that "police enforcement and public education are but part of the solution to improving citizens' concerns regarding traffic speeds and traffic volumes in residential neighborhoods." The policy also notes the various objectives the Council wanted to foster, and directs appropriate City departments to cooperate in the development and implementation of the program. Based on feedback, updates to the program have been made over the past several years. The policy, program and procedures are reviewed annually by the City's Pedestrian/Bicycle/Motor Vehicle Commission (PBMVC), typically through its annual priority list. This is where projects are scored and ranked after residents submit a petition for application into the program.

To date, the NTMP has relied upon physical treatments, offering three main options for a given street – islands, circles, and speed humps. The actual option pursued with residents is dependent on several factors such as a street's classification, fire route status, etc. Driver education and police enforcement are also separate programs, under separate departments.

Eligible Streets: The NTMP is intended to apply to local and collector streets. Red Tail is functionally classified a collector street, not an arterial. As you pointed out to your neighbors, higher order streets like Red Tail provide mobility to the greater neighborhood area and at the same time provide access to abutting residential properties.

Snowplowing: When we site traffic calming devices we work to balance the neighborhood goal of speed reduction while also meeting the needs of the Madison Fire Department, Madison Metro and Madison Streets Division. At the request of the MFD, we are generally precluded from using speed humps on collector streets. In these instances, then, our options are limited to pedestrian refuge islands and neighborhood-scale traffic circles. Through careful design, we are able to accommodate all street users including plows, buses, and Fire Department vehicles. As part of this project, the residents recognize that snow removal will be more complicated than on a comparable street without circles or islands. This is clearly a direct tradeoff.

Turning Vehicles: In your 12/10/07 letter, you raise concerns that buses cannot be accommodated at T-intersections with a traffic circle. Enclosed are a couple photocopies of the proposed design with vehicular turning templates overlaid. This shows the critical design vehicle, in this case a 40-foot bus, negotiating the intersection¹. You will quickly note that the design shows a bus turning left off Lawnbrook in front of the circle, i.e., it does not travel around the central island in a counterclockwise direction. The left turn in front of the circle is a permitted movement at smaller circles like this and in fact is an expected movement. This is one of the details which differentiates a neighborhood-scale traffic circle from the roundabout².

Safety: Your 12/10/07 letter states "there is nothing to suggest that the traffic circles as proposed will have any positive affect on safety." The City of Seattle, WA has done much work in this area and is considered an expert in using small-scale neighborhood traffic circles like these. Seattle's program has been in place for several decades now and they have several hundred circles in place throughout the city. Enclosed you will find data available from the Seattle DOT that shows the beneficial impacts their circle program has had on safety.

Parking: As requested earlier, I have reviewed the parking situation associated with the circle at Red Tail and Lawnbrook. Enclosed is a sketch of the intersection with the current statutory parking restrictions overlaid plus the additional necessary curb parking restrictions. This additional space enables a vehicle to shift from the centerline of the street towards the curb around the central island and back again to the street

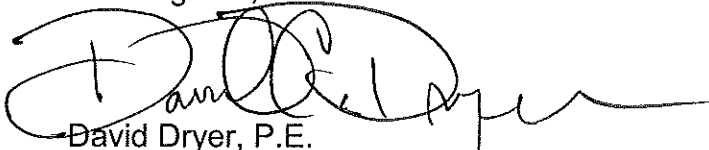
¹ A bus is the design vehicle in this case. A fire engine can also be accommodated with the design.

² Roundabouts require all traffic to circulate around the central island in a counterclockwise direction. They are configured with small "splitter" islands, which separate entry and exiting traffic and reduce vehicle entry speeds. Drivers are required to yield on entry.

centerline. We estimate this requires an additional 20 feet on your curb frontage beyond what is already prohibited by State statute.

Let me know if you have any questions.

Best regards,



David Dryer, P.E.
City Traffic Engineer and Parking Manager

DCD/gep
enclosures

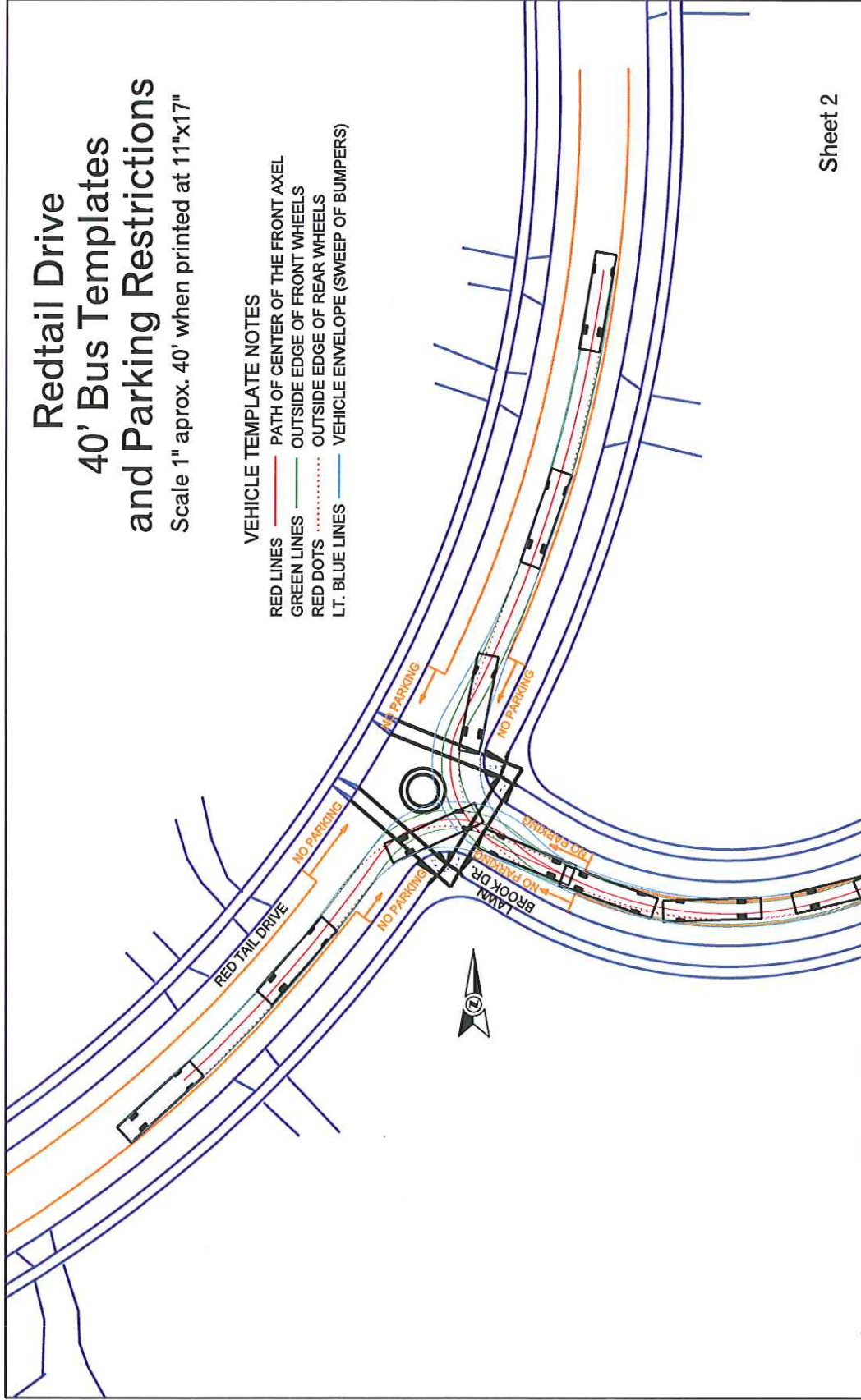
c: Alder Jed Sanborn
Larry Nelson, City Engineer
City Board of Public Works

Redtail Drive 40' Bus Templates and Parking Restrictions

Scale 1" approx. 40' when printed at 11"x17"

VEHICLE TEMPLATE NOTES

- RED LINES — PATH OF CENTER OF THE FRONT AXEL
- GREEN LINES — OUTSIDE EDGE OF FRONT WHEELS
- RED DOTS — OUTSIDE EDGE OF REAR WHEELS
- LT. BLUE LINES — VEHICLE ENVELOPE (SWEEP OF BUMPERS)

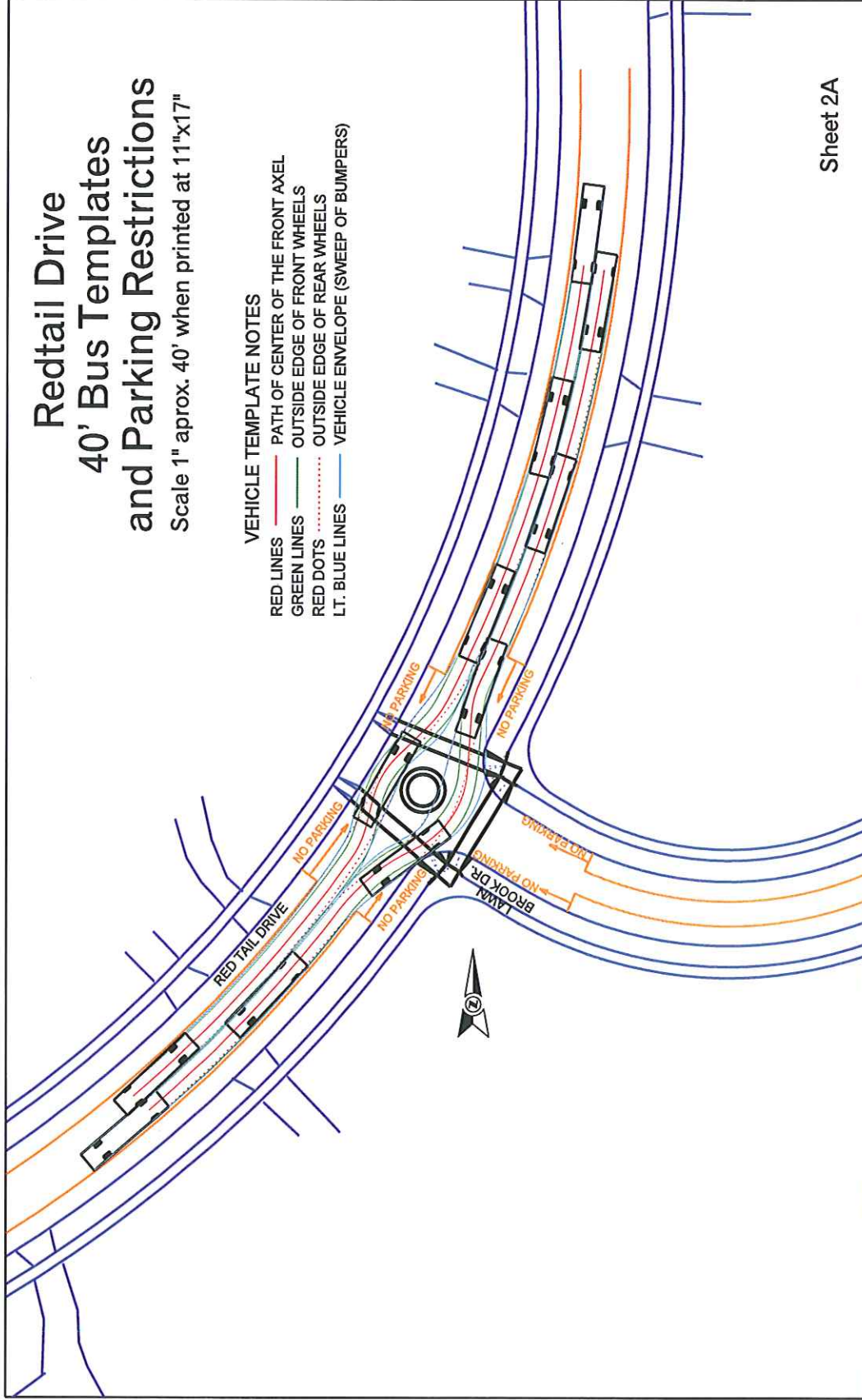


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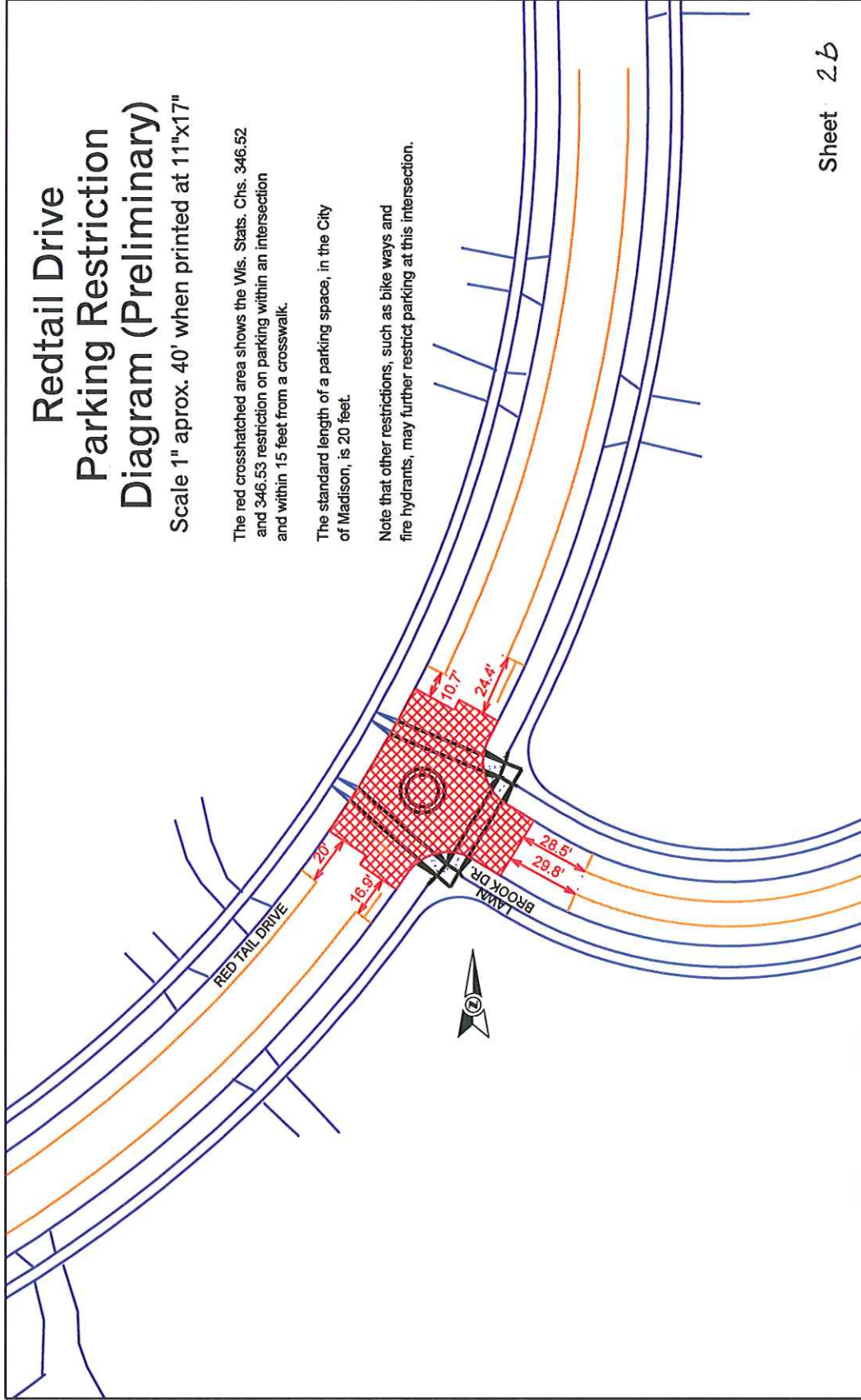
Redtail Drive Parking Restriction Diagram (Preliminary)

Scale 1" approx. 40' when printed at 11"x17"

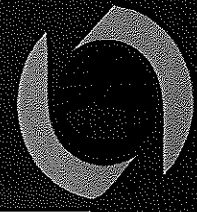
The red crosshatched area shows the Wis. Stats. Chs. 346.52 and 346.53 restriction on parking within an intersection and within 15 feet from a crosswalk.

The standard length of a parking space, in the City of Madison, is 20 feet.

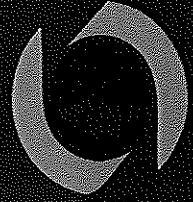
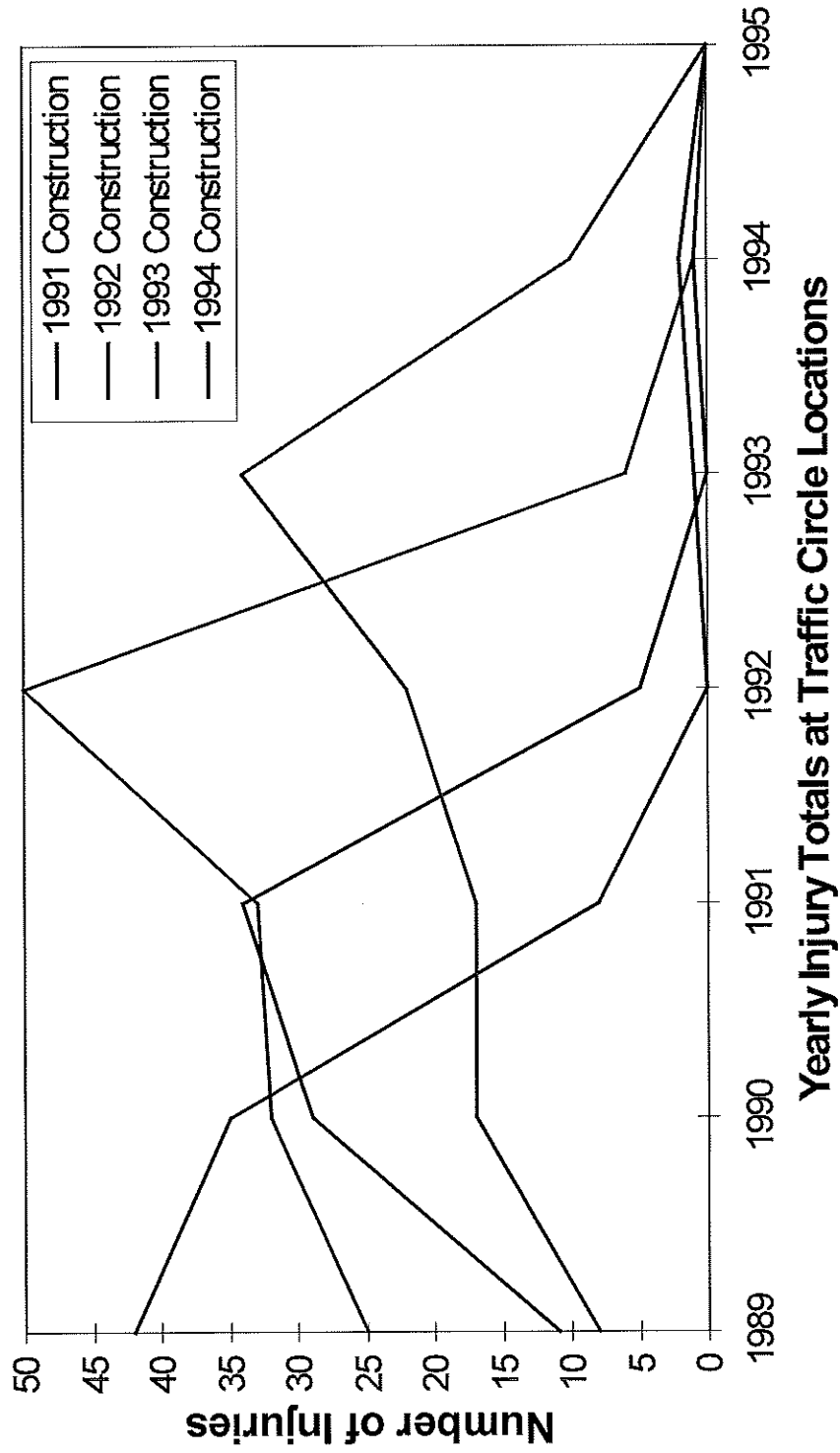
Note that other restrictions, such as bike ways and fire hydrants, may further restrict parking at this intersection.



Accident Reduction

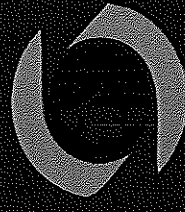


Injury Reduction



Accident Reduction

	1991 N=30	1992 N=29	1993 N=31	1994 N=29	4 Year Total
Before Construction	50	35	62	40	187
After Construction	2	2	3	4	11
Percent Reduction	96.0%	94.3%	95.2%	90.0%	94.1%



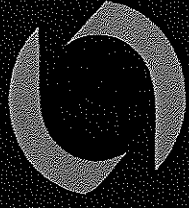
Injury Reduction

	1991 N=30	1992 N=29	1993 N=31	1994 N=29	4 Year Total
Before Construction	35	34	50	34	153
After Construction	0	0	1	0	1
Percent Reduction	100.0%	100.0%	98.0%	100.0%	99.3%



Accident Reduction at Previously Signed Intersections

	1991 N=10	1992 N=7	1993 N=9	1994 N=6	4 Year Total
Before Construction	11	11	21	6	49
After Construction	1	0	3	1	5
Percent Reduction	90.9%	100.0%	85.7%	83.3%	89.8%



Cost/Benefit

- At an average of \$6500 per accident, and \$30,000 per injury
- Total average benefit is \$5,704,000
 - 119 traffic circles cost \$537,000
 - 32 had stop or yield signs

