



CHICAGO DEPARTMENT OF TRANSPORTATION
CITY OF CHICAGO

May 5, 2021

The Honorable James Cappleman
Alderman, 46th Ward
4544 N. Broadway
Chicago, IL 60640

Re: Traffic Study Request - N. Sheridan Road and W. Dakin Street

Dear Alderman Cappleman:

This is a follow up to our initial traffic calming design, which was submitted to your office on December 17, 2020. In response to your request for a detailed traffic study to improve pedestrian safety and along with your initial approval of \$37,500 for detached bump-outs, CDOT recommends three additional pavement markings and signage improvements summarized below.

Sheridan Road is a 40-foot-wide collector with an average daily traffic (ADT) of approximately 9,100 vehicles. Sheridan has metered parking on both sides of the street. Dakin Street is a 30-foot-wide one-way eastbound local road. On-street parking is permitted on both sides of the street. The intersection of Sheridan and Dakin is uncontrolled.

In review of three-year crash data from 2018 to 2020, CDOT noted that there were 3 crashes at the intersection of Sheridan and Dakin, none of which involved pedestrians. The crashes at the intersection were one rear end, one parked motor vehicle, and one pedalcyclist. The overall crash history is relatively low for an intersection like Sheridan and Dakin and there did not appear to be any significant trends among the crash data.

Stop Signs

When determining if an all-way stop is warranted, CDOT follows federal guidelines established in the *Manual on Uniform Traffic Control Devices* (MUTCD). The MUTCD advises that multi-way stop control should be used when traffic volumes on intersecting streets are approximately equal. Since the west leg of Dakin Street at Sheridan extends only one block to the west of the intersection, and the east leg is one-way away from the intersection, the volume on Sheridan is much greater than the volume on Dakin; therefore, CDOT does not recommend installing stop sign on Sheridan at Dakin.

The intersection is also roughly 330 feet from the signalized intersection of Irving Park and Sheridan. When a stop sign is placed this close to a signal drivers may focus more on the green indication and may ignore stop signs, endangering pedestrians.

Stop signs are also typically used to combat angle/turning crashes at intersections. After reviewing the three year crash data, it was seen that none of the crashes in the past 3 years were angle/turning.

CDOT has outlined the consequences of installing stop signs on arterial and collector roadways in the attached policy document for your reference.

Detached Bump-outs

CDOT recommends installing bump-outs at five different locations at the intersection of Sheridan and Dakin. These recommendations can be seen on the concept included with this study. Curb extensions can be used to improve sight lines, reduce turning speeds, and narrow the unprotected crossing distance for pedestrians. Detached bump-outs also prevent drivers from using the parking lane to go around stopped traffic. CDOT has outlined the installation criteria for curb extensions in the attached policy document for your reference.

If you would like to use your Aldermanic Menu funds to install the recommended curb extensions, please authorize the deduction of the funds by checking the box below, signing and dating the end of this letter, and returning this signed letter to CDOT by fax at 312-744-1200.

Signage

CDOT will install “Cross Traffic Does Not Stop” signage at the intersection to help alert drivers on Dakin that traffic on Sheridan does not have a stop.

Pavement Markings

CDOT recommends upgrading the three remaining standard crosswalks with continental style. If you would like to use your Aldermanic Menu funds to install the recommended continental style crosswalks, please authorize the deduction of the funds by checking the box below, signing and dating the end of this letter, and returning this signed letter to CDOT by fax at 312-744-1200.

Parking Lane Lines

CDOT recommends installing parking lanes lines along Sheridan from Byron to Irving Park. Parking lane lines will improve roadway safety by visually narrowing the width of the travel lane for drivers which will slow the flow of traffic. They will also clearly delineate the travel lane from the parking lane, which discourages aggressive drivers from using the parking lane as a second travel lane and helps identify the detached bump-outs when parking utilization is low. Overall, the lane lines presence will help calm traffic.

Please contact me at 312-742-3847 if you have any questions.

Sincerely,

Mali Samadi

Malihe Samadi, Director of Traffic Design
Division of Project Development

- I authorize the deduction of up to \$37,500 from my Aldermanic Menu funds for 5 (five) detached bump-outs on the northwest, northeast, southeast, and southwest corners of N. Sheridan Road and W. Dakin Street. I understand the following:
- CDOT will develop a detailed design and cost estimate, and if the actual cost is below \$37,500, my Menu will be charged the actual amount and the project will proceed to construction.
 - If the actual cost is above \$37,500, CDOT will contact me for approval before proceeding with the project.

- I authorize the deduction of up to \$4,500 from my Aldermanic Menu funds for continental style crosswalks on the north, west, and south legs of the intersection of Sheridan and Dakin. I understand the following:
 - CDOT will develop a detailed design and cost estimate, and if the actual cost is below \$4,500 my Menu will be charged the actual amount and the project will proceed to construction.
 - If the actual cost is above \$4,500, CDOT will contact me for approval before proceeding with the project.

- I authorize the deduction of up to \$2,400 from my Aldermanic Menu funds for parking lane lines on Sheridan Road from Bryon Street to Irving Park Road. I understand the following:
 - CDOT will develop a detailed design and cost estimate, and if the actual cost is below \$2,400 my Menu will be charged the actual amount and the project will proceed to construction.
 - If the actual cost is above \$2,400, CDOT will contact me for approval before proceeding with the project.

Alderman James Cappleman

Date

MS:AS

cc: L. Aluise - CDOT
A. Stocki - CDOT

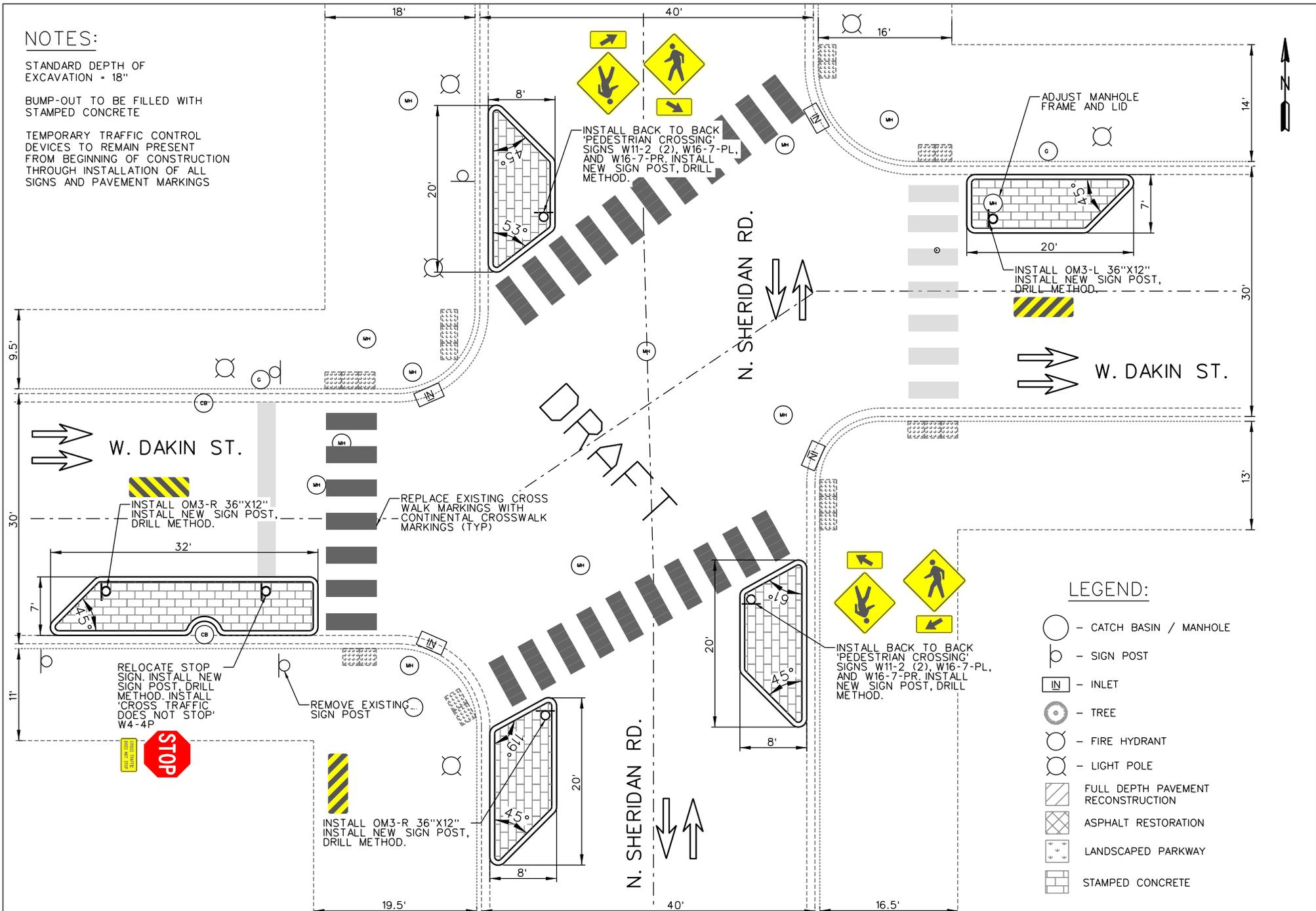
Enclosed: CDOT Policy: Stop Signs - Arterials + Collectors
CDOT Policy: Detached Bump-outs

NOTES:

STANDARD DEPTH OF EXCAVATION = 18"

BUMP-OUT TO BE FILLED WITH STAMPED CONCRETE

TEMPORARY TRAFFIC CONTROL DEVICES TO REMAIN PRESENT FROM BEGINNING OF CONSTRUCTION THROUGH INSTALLATION OF ALL SIGNS AND PAVEMENT MARKINGS



LEGEND:

- CATCH BASIN / MANHOLE
- SIGN POST
- INLET
- TREE
- FIRE HYDRANT
- LIGHT POLE
- FULL DEPTH PAVEMENT RECONSTRUCTION
- ASPHALT RESTORATION
- LANDSCAPED PARKWAY
- STAMPED CONCRETE



CDOT - TRAFFIC CALMING
 PROJ. # _____ WARD # 46
 LOC: N. SHERIDAN RD.
 W. DAKIN ST.

SCALE: NTS

DETACHED BUMP-OUTS
 N. SHERIDAN RD. & W. DAKIN ST.
 PROPOSED CONCEPT

Stop Signs | Arterial/collector streets



Stop signs are a standard regulatory sign that require an approaching motorist to stop and yield the right-of-way before proceeding. This document will cover the use of stop signs on major roadways: collector and arterial streets.

Background

If installed where warranted, stop signs can be an effective tool for managing traffic operations – typically on local residential streets. However, stop signs can cause safety and congestion issues when installed in the improper location. When determining if stop signs are warranted, CDOT follows federal guidelines established in Chapter 2B of the *Manual on Uniform Traffic Control Devices (MUTCD)*, which takes into account crash history and traffic volumes.

Consequences of installing stop signs on major roadways

CDOT generally does not recommend installing stop signs on arterial or collector streets with an average daily traffic (ADT) volume of more than 10,000 vehicles; this covers almost all non-residential streets in Chicago. The following section outlines the various reasons why stop signs on major roadways are not an appropriate treatment.

Safety-related consequences

- **More pedestrian crashes**
Stop signs at unwarranted intersections can create a false sense of security for pedestrians that every vehicle will come to a stop. In reality, most motorists roll through stop signs on major roadways, and some disregard the stop signs entirely.
- **More rear-end crashes**
Stop signs on major roadways are often unexpected, which can lead to sudden braking and increased rear-end crashes.
- **Speeds**
It should be noted that the MUTCD specifically states in Section 2B.04 that stop signs should not be used for speed control. Placing unwarranted stop signs along a street may actually increase peak speeds of vehicles as motorists tend to accelerate after an unwarranted stop sign in order to make up lost time.
- **Reduction in nearby traffic gaps**
Stop signs discharge one vehicle every few seconds, making it extremely difficult to cross as a pedestrian or turn onto the street as a motorist at a downstream side street or driveway.

Delay-related consequences

- **Increased intersection delay**
Forcing every vehicle and bus on a major street to stop at a stop sign will result in an average total of more than 200 hours of delay per day for occupants of vehicles and buses that are unnecessarily slowed/stopped for the stop sign.
- **Worsened bus service**
The Chicago Transit Authority (CTA) carries over 1 million bus passengers per day. Stop signs on roadways with bus service increase bus delays and reduce schedule adherence. This can lead to bus bunching, increased wait times, labor costs, and fuel costs for the CTA.
- **Disruption of signal coordination**
Traffic signals are timed to provide efficient traffic flow along major streets. Installing a stop sign within a coordinated system eliminates this progression and creates congestion along the arterial, which may incentivize motorists to utilize local streets as a cut-through route.
- **Increased air/noise pollution**
Stop signs increase air and noise pollution by causing thousands of vehicles per day to stop and then accelerate unnecessarily.

STREET PLANNING AND DESIGN GUIDELINES

Additional considerations

- **Federal funding** | In addition to the safety and delay consequences mentioned previously, installing stop signs that do not meet federal guidelines could jeopardize the future use of federal funds for improvements on that particular street.

Low stop compliance

Stop compliance at stop signs on arterial/collector roadways is reduced even further in the following situations:

- **T-intersections** | Motorists are not as compelled to stop at T-intersections due to the perceived lack of conflicts.
- **Proximity to traffic signal** | When stop signs are installed one block away from a traffic signal, motorists in the direction heading toward the signal tend to focus on “making the green light,” and disregard the stop sign.
- **Multi-lane streets** | Motorists on streets with multiple lanes in each direction rarely stop for stop signs because a) visibility of the stop signs is worsened on wider streets with multiple lanes, and b) motorists know they are on the more predominant roadway.

Appropriate traffic control

At intersections where minor streets intersect major roadways, stop signs should be installed on the minor street approaches only. When volumes from minor streets or pedestrian volumes exceed certain thresholds as outlined in the MUTCD, a traffic signal may be considered.

Pedestrian safety countermeasures

In lieu of installing stop signs on arterial/collector roadways, the following countermeasures may be considered to improve pedestrian safety:

- **Removal of peak hour parking restrictions**
- **In-Street State Law – Stop For Pedestrian signs** | For streets with one lane in each direction
- **Pedestrian refuge island** | Generally for streets wider than 42 feet
- **Attached curb extensions** | Generally for streets with widths 42 feet or narrower

Please refer to the appropriate reference sheet for additional information on each of these countermeasures.

Detached Bump-Outs

Detached bump-outs (also known as curb extensions) are concrete structures that are installed within the parking lanes on local (residential) streets. These differ from attached curb extensions because they do not connect to the existing sidewalk or parkway. Instead, they “float” within the roadway, offset one foot from the existing curb line to maintain drainage flow line. Bump-outs can decrease the crossing distance for pedestrians, provide a space for relocated stop signs or pedestrian crossing signs to improve their visibility, prevent cars from parking too close to a crosswalk, reduce turning speeds, and slow traffic by narrowing the feel of the roadway.



Application

Detached bump-outs can be installed at most local (residential) street intersections as long as there is sufficient width. They have the most benefit where there is a high volume of pedestrian traffic, such as near schools and parks, or where drivers chronically park too close to stop signs or crosswalks.

Design Considerations

There are several design considerations that are evaluated by CDOT when determining the suitability of detached bump-outs for a particular location. Some of the key considerations are discussed below.

- **Roadway width** | Two-way streets must be at least 30’ wide in order to install detached bump-outs. One-way streets must be at least 26’ wide.
- **Intersection geometry** | Bump-outs may not be feasible at offset, skewed, or other intersections with unusual geometry.
- **Roadway classification** | Detached bump-outs are most often installed on local (residential) streets. For higher-volume streets, attached curb extensions are a comparable option. Refer to the corresponding policy document entitled *Attached Curb Extensions* for more information.
- **On-street parking** | Bump-outs are not feasible on streets with full time parking restrictions on the side of the street where the bump-out is proposed.
- **Landscaping** | By default, the surfaces of detached bump-outs are stamped concrete. However, CDOT will construct bump-outs with landscaping elements if a community partner signs a maintenance agreement committing to maintain landscaping within the structure.

Typical Cost | \$15,000 per pair