

City of Greenville

Neighborhood Traffic Calming Guidelines

Presented by:
The City of Greenville
Public Works Department
Engineering Division



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City of Greenville

Neighborhood Traffic Calming Guidelines

Purpose

The City of Greenville continually strives to strengthen and protect its neighborhoods by improving the quality of life in residential areas. Traffic conditions on residential streets can greatly affect neighborhood livability. Speeding traffic and unnecessary through traffic in neighborhoods create safety hazards on residential streets. When traffic problems become a daily occurrence, our sense of community and personal well-being are threatened.

In 1997, the City of Greenville began its *Traffic Calming Pilot Program* to assess the methods of studying, planning with neighborhood residents, and applying traffic calming strategies. The Westhaven, Moyewood, Lynndale/Grayleigh, East Meadowbrook, Brook Valley, and Lake Ellsworth neighborhoods were studied and traffic calming devices were installed. The *City of Greenville Neighborhood Traffic Calming Guidelines* was developed to guide City staff and inform residents about the processes and procedures for implementing traffic calming on residential streets. Under the *Guidelines*, the City's Engineering Division of the Public Works Department will work with residents to identify traffic problems in their neighborhoods and seek appropriate solutions.

The primary purpose of the *City of Greenville Neighborhood Traffic Calming Guidelines* is to describe several important procedures. First, the *Guidelines* outline how citizens can request that their street or streets be added to the list of streets being evaluated by the City. Second, the *Guidelines* describe in detail how the City will evaluate streets and neighborhoods for Traffic Calming. Finally, procedures are outlined to develop and implement a plan for traffic calming in a neighborhood once a traffic calming project has been selected.

The City of Greenville is committed to obtaining significant levels of citizen participation when developing traffic calming projects. Experience in other cities and through the aforementioned *Traffic Calming Pilot Project Program* has shown that traffic calming projects that are implemented without involving the neighborhood are typically unsuccessful, often resulting in the removal of traffic calming measures. The City's goal is to give the people who live and work in the project area the opportunity to become actively involved in the planning and decision-making process. The *City of Greenville Neighborhood Traffic Calming Guidelines* clearly outlines the methodology for including neighborhood residents.

Qualifying Criteria for Traffic Calming Devices

In order to qualify for traffic calming devices under the City of Greenville Neighborhood Traffic Calming Program, the roadway being considered for the traffic calming device(s):

- Must be a City-maintained public street classified as a two-lane standard residential or minor residential street under the City of Greenville's *Manual of Standard Designs and Details (MSDD)*.

- Must have a roadway width of less than or equal to 40 feet (back-of-curb to back-of-curb).
- Must have a posted speed limit of 25 mph.

Traffic Calming for local residential streets within the City of Greenville is determined by the following point system:

| Program Warrant | Criteria | Number of Points Possible | Points Awarded |
|-----------------------------------|--|----------------------------------|-----------------------|
| 85 th Percentile Speed | 1-5 mph | 0 | |
| | 6-10 mph | 3 | |
| | 11 mph > | 5 | |
| Daily Vehicle Volume | 0 - 800 | 0 | |
| | 800-1000 | 1 | |
| | 1000-1499 | 2 | |
| | 1500 - > | 3 | |
| Crash Data per Year | 1 – 3 | 1 | |
| | 4 - > | 2 | |
| Sidewalks | Sidewalks or wide shoulders present | 0 | |
| | No sidewalks present | 1 | |
| Pedestrian Volume | Pedestrian oriented facility within a ¼ mile of petition area, such as a City Park | 1 | |
| | Schools within a ¼ mile radius of petition area | 2 | |
| Total Points Awarded (*) | | | |

(*) Minimum of six (6) points is required to be considered for traffic calming devices.

Procedure for Applying for Traffic Calming Devices

1. Residents of the proposed traffic calming project area must initiate the process via a letter from the neighborhood contact person to the City Traffic Engineer. The City Traffic Engineer, with assistance from other staff of the City Engineering Division of the Public Works Department, will determine the “area of influence” affected by the proposed traffic calming devices. This “area of influence” also includes streets that have a potential of being used as detours to avoid the traffic calming devices.

2. After the initial contact, the City Traffic Engineer sends out to the neighborhood contact person:
 - A letter (see Appendix A for a sample)
 - A copy of the *City of Greenville Neighborhood Traffic Calming Guidelines*
 - A copy of the Traffic Calming Request Form (See form in Appendix B)
3. The Traffic Calming Request Form is returned to the City Traffic Engineer.
4. Before the petition process is begun, the City Traffic Engineer will analyze the results of the survey and determine if the area meets the criteria for traffic calming (see “Qualifying Criteria for Traffic Calming Devices” above).

Data to be collected and reviewed is as follows:

 - Roadway classification
 - Roadway width
 - Traffic speed data
 - Traffic volume data
 - Crash data per year
 - Pedestrian volume
5. A letter is sent to the neighborhood contact person(s) notifying them of the outcome of the study. If the data does not meet the above criteria, alternative measures are offered for discussion. If the data meets the criteria, an information package is sent that includes a petition form and a map on which the required petition area (“area of influence”) is indicated.
6. The petition (Appendix C) must be returned to the City Traffic Engineer. The petition must have a minimum of 75 percent of the households and businesses signatures in the “area of influence.” Each household or business is counted as one residence or business in computing the total number of household or businesses, and only one person per household or business is required to sign the petition on behalf of that address (obtaining signature of both owners and renters is desirable but not necessary). If the percentage of signatures does not meet the minimum requirement stated above, the process is stopped. If enough signatures are obtained, a letter from the City Traffic Engineer is sent to the neighborhood contact. See sample letters in response to the petitions in Appendix D and E.
7. The site data and site inspections are used to evaluate the traffic calming device(s) (speed hump, traffic circle, diverter, etc.). An initial traffic calming neighborhood meeting is held with residents and businesses within the “area of influence.” At the meeting, residents and businesses will have the opportunity to present their concerns and ideas. The meeting location, date, and time will be advertised in advance (usually a week to 10 days prior to the meeting) to all residents and businesses (owners and renters) within the “area of influence” via appropriate methods (ex: direct mail, door hangers, a sign at the entrance to the neighborhood). The meeting will also take place when and where it is convenient for most residents.
8. Taking the data and information given by the residents and businesses at the initial traffic calming neighborhood meeting, the City Traffic Engineer, with assistance from the

Engineering Division staff, will develop a preliminary traffic calming plan with devices identified and located. This preliminary plan will be presented at a preliminary traffic calming plan neighborhood meeting to the residents and businesses in the “area of influence.” If necessary, another neighborhood meeting will be held to finalize the plan and details.

9. Once the traffic calming plan is approved (and funds permit), construction will begin to put the devices in place. The City reserves the right to identify the type and location of all traffic calming devices.

Funding

The City will absorb all costs for requests in qualifying areas (see “Qualifying Criteria for Traffic Calming Devices” above). The residents must also agree to maintain any landscaping via an agreement with the City.

Types of Traffic Calming Devices

- Speed Hump: A long platform from 14-22 feet in length. Its main purpose is to reduce the speed of vehicles. They are usually 21 feet in size. See specifications in Appendix F and G.
- Traffic Circle: These are used to reduce vehicle speeds by creating a diversion from a straight-line path to a slight curve around an island. See specifications in Appendix H and I.
- Diverter: A channelized island used to divert traffic away from an area by prohibiting certain vehicular movements.
- Edge Line Pavement Markings: A pair of solid 6-inch white lines 20 feet apart are placed, preferably without a centerline, to slow vehicle speeds. The solid white edge line delineates the travel lanes from the parking area.

Requirements for Specific Traffic Calming Devices

1. Speed Humps
 - The grade of the roadway must be less than or equal to 8 percent.
 - The roadway should have a horizontal radius of less than or equal to 300 feet.
 - If this treatment is recommended by staff, all adjacent property owners must approve the location.
 - The roadway is not the primary emergency vehicle route. The City Traffic Engineer will contact the Police and Fire/Rescue Departments to determine if the speed hump will interfere with the response to emergency calls.
2. Traffic Circles
 - If landscaping is installed, the residents must agree to install and maintain vegetation via an agreement with the City.
 - This must be a 4-way intersection.

3. Diverters
 - If landscaping is installed, residents agree to install and maintain vegetation via an agreement with the City.
 - A documented significant cut-through problem should exist.
4. Edge Line Pavement Markings
 - Streets should have a minimum width of 36 feet (back-of-curb to back-of-curb).
 - On-street parking should show underutilization.
 - The marking should be a maximum of 8 feet from edge line to face of curb (or 6 feet from edge of pavement) to prevent confusing the outside area with a travel lane.

Placement of Traffic Calming Devices

1. Speed Humps
 - Humps should be placed at least 400 feet apart.
 - The stopping sight distance should be greater than or equal to 200 feet.
 - Speed humps should be at least 200 feet from an intersection.
 - They should be as close to property lines as possible.
 - If possible, the humps should be placed under streetlights for greater visibility.
 - They should be placed at least 10 feet from driveways.
2. Traffic Circles
 - The typical placement of a traffic circle is in the middle of a four-way intersection. The size of the intersection determines the exact placement and size of the traffic circle.
3. Diverters
 - The typical placement of diverters are at intersections. The size and shape of the diverter will depend on the vehicular movements being prohibited at the intersection.
4. Edge Line Pavement Markings
 - White solid edge lines are spaced 20 feet apart, preferably without a centerline.
 - The width of the line is 6 inches.
 - The shoulder width from the edge of pavement to the center of the edge line shall be no greater than 6 feet.
 - The shoulder area is intended to primarily separate parking areas from travel lanes.

Appendix A

Sample Letter from City Acknowledging Traffic Calming Request

Date

Name

Address

City, State, Zip

Dear <Name>

This is in reference to your recent letter regarding traffic concerns in the <name of neighborhood> neighborhood.

The Greenville Public Works Department is currently reviewing requests for traffic calming devices on a first-come first-serve basis. The requested neighborhood has been added to our request list and will be evaluated for traffic calming devices in accordance with our ***Neighborhood Traffic Calming Guidelines***. We expect to collect traffic count data <insert date>. Once we have completed our initial analysis, we will notify you of our findings.

Enclosed is an information package to be used in formally applying for traffic calming devices. Included is a copy of the City of Greenville Neighborhood Traffic Calming Guidelines and a traffic calming request form. Please complete the traffic calming request form and return to me at the enclosed address.

We appreciate your concern for roadway safety. Should you have any further questions or need additional information, please contact me at 329-4678.

Sincerely,

<Name>

City Traffic Engineer

Enclosures

Appendix B

Traffic Calming Request Form

This section is to be filled out by the Neighborhood Contact Person:

Name: _____

Address: _____

Zip Code: _____ Telephone (day): _____

Fax: _____ E-mail: _____

Neighborhood: _____

Street: _____

What is the Nature of the problem and where is it occurring? _____

Qualifying Criteria Checklist (this section is to be verified and filled out by the City Traffic Engineer):

- This street is a City-maintained public street classified as a two-lane standard residential or minor residential under the City of Greenville's *Manual of Standard Designs and Details (MSDD)*.
- This street has a roadway width of less than or equal to 40 feet (back-of-curb to back-of-curb).
- The street has a posted speed limit of 25 mph.
- The street obtains a minimum of six (6) points on the criteria chart.

Note: This is a request for the consideration of installing a traffic calming device on the street noted. The criteria for placement of these devices must be met before installation can occur. This form does not guarantee that a device will be placed in the above-mentioned area.

Appendix C

Sample Petition

We, the undersigned residents or business owners, do respectfully petition the City of Greenville for traffic calming devices in the neighborhood/intersection of _____
_____. The reasons for the petition are:

*****Please note any additions, corrections, or vacancies to the attached map*****

Contact Person: _____

Phone Number: _____

| Signature | Name Printed | Address | Apt. No |
|-----------|--------------|---------|---------|
| | | | |
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Appendix D

Sample Insufficient Number of Signatures on Petition Letter

Date

Name

Address

City, State, Zip

Dear <Name>

Thank you for your petition for traffic calming devices in the <name of neighborhood> neighborhood. We have reviewed the petition to determine the support rate.

Our review showed that you collected signatures from ___ households/businesses inside the valid petition area (“area of influence”). Our records indicate that there are ___ households and businesses in this area. You obtained a ___ percent support rate for the proposed device(s). We require that the petition support be at least 75 percent. This means that you need to obtain signatures from at least ___ additional households or businesses for this neighborhood to be considered for traffic calming devices. Each unit in an apartment building is counted as a household. Only one signature per household or business is needed.

I have enclosed, for your convenience, an additional petition form and a list of the households that have already been included in your original petition. You only need to collect new signatures for this additional petition. We need this additional petition no later than <insert date> to complete the petition process.

Should you have any further questions or need additional information, please contact me at 329-4678.

Sincerely,

<Name>

City Traffic Engineer

Enclosures

Appendix E

Sample Petition Acceptance Letter

Date

Name

Address

City, State, Zip

Dear <Name>

Thank you for your petition for traffic calming devices in the <name of neighborhood> neighborhood. You obtained the necessary support rate, and I am pleased to include your neighborhood for traffic calming devices.

We will be in contact with you soon to schedule a public meeting with the residents of the <name of neighborhood> neighborhood in order to gather input for development of a traffic calming plan. Notices will be mailed to all residents of the neighborhood inviting them to attend the public meeting.

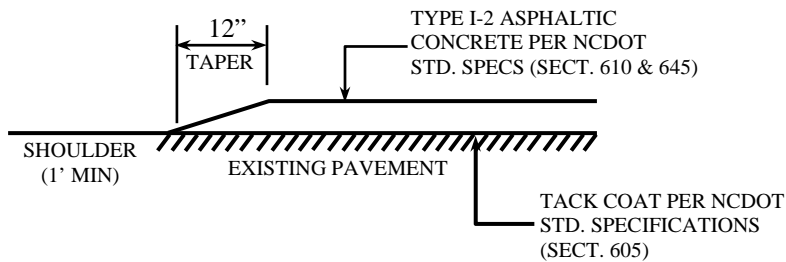
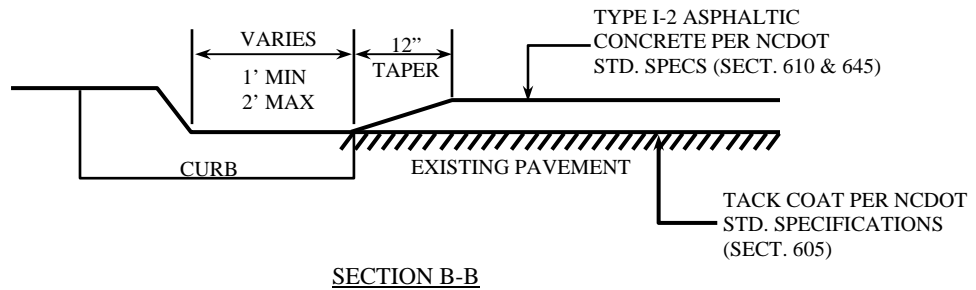
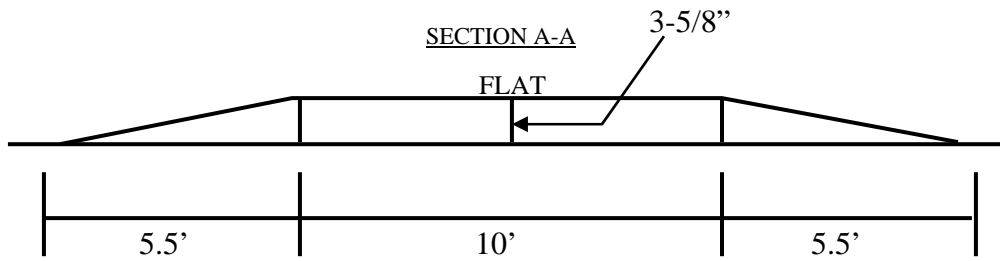
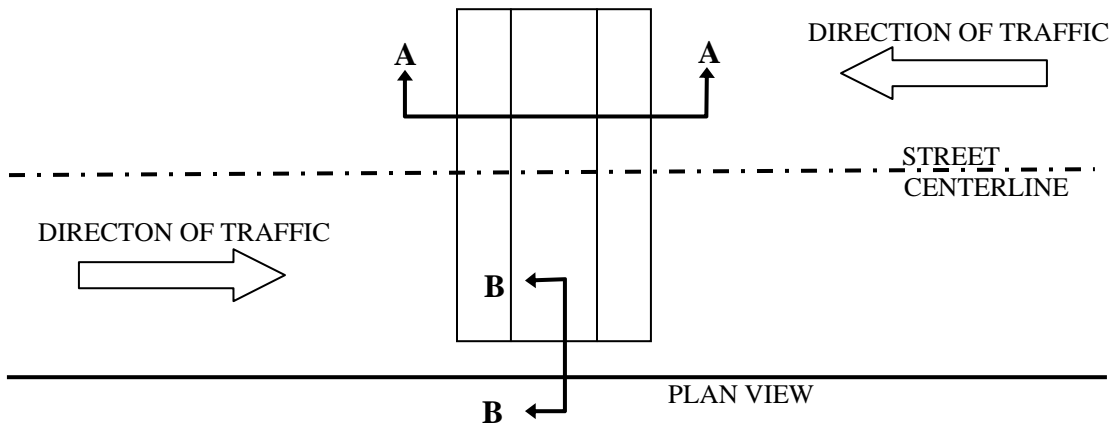
Thanks again for circulating the petition. Should you have any further questions or need additional information, please contact me at 329-4678.

Sincerely,

<Name>

City Traffic Engineer

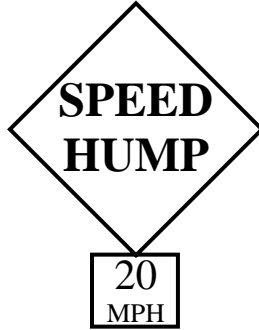
Appendix F
21-Foot Speed Hump Specifications



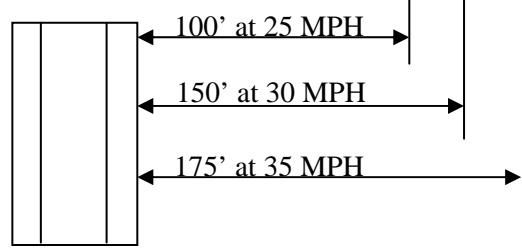
NOTES:
 THE ASPHALT PLANT MIX SHALL
 BE COMPACTED TO A DENSITY
 OF AT LEAST 94%

Appendix G
Speed Hump Signs & Markings

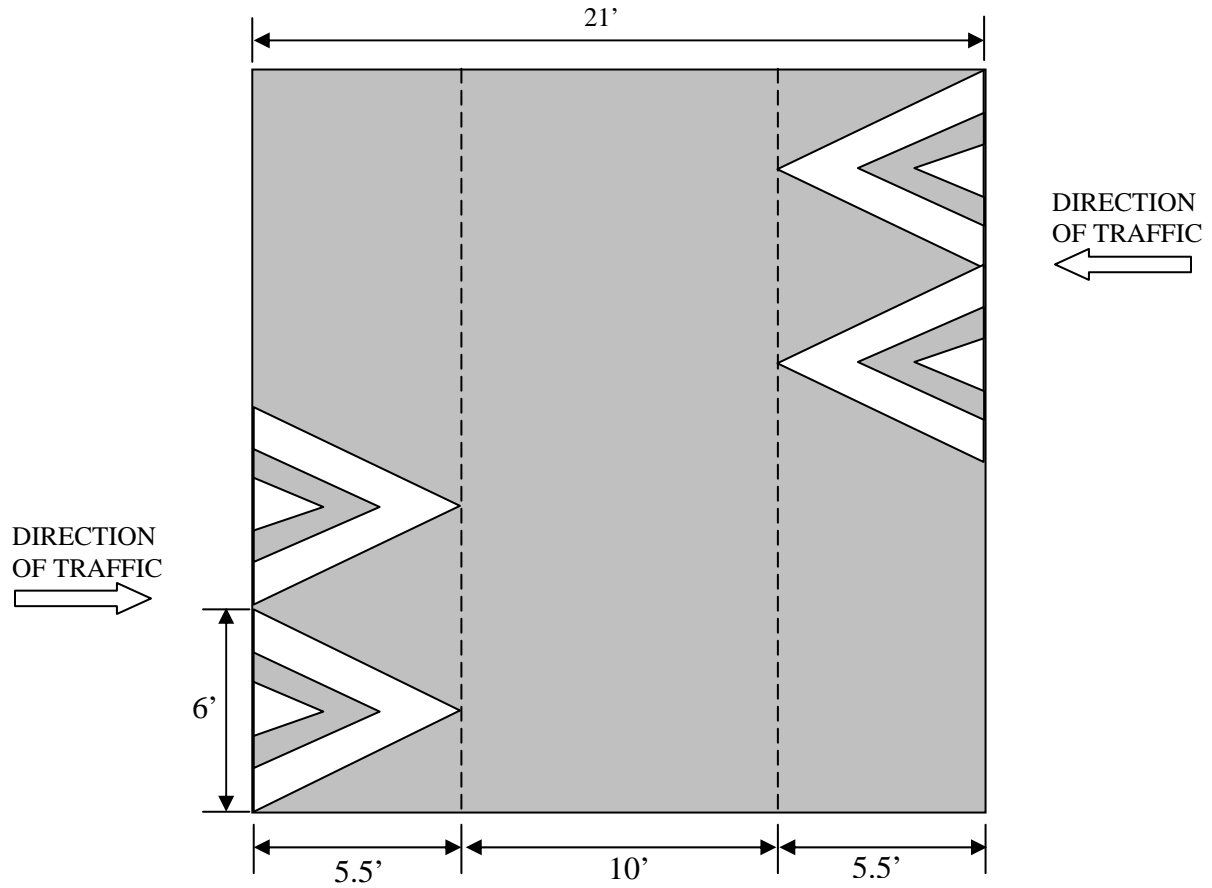
SIGNAGE
ONE SIGN
EACH DIRECTION



ROAD SPEED AND SIGN PLACEMENT



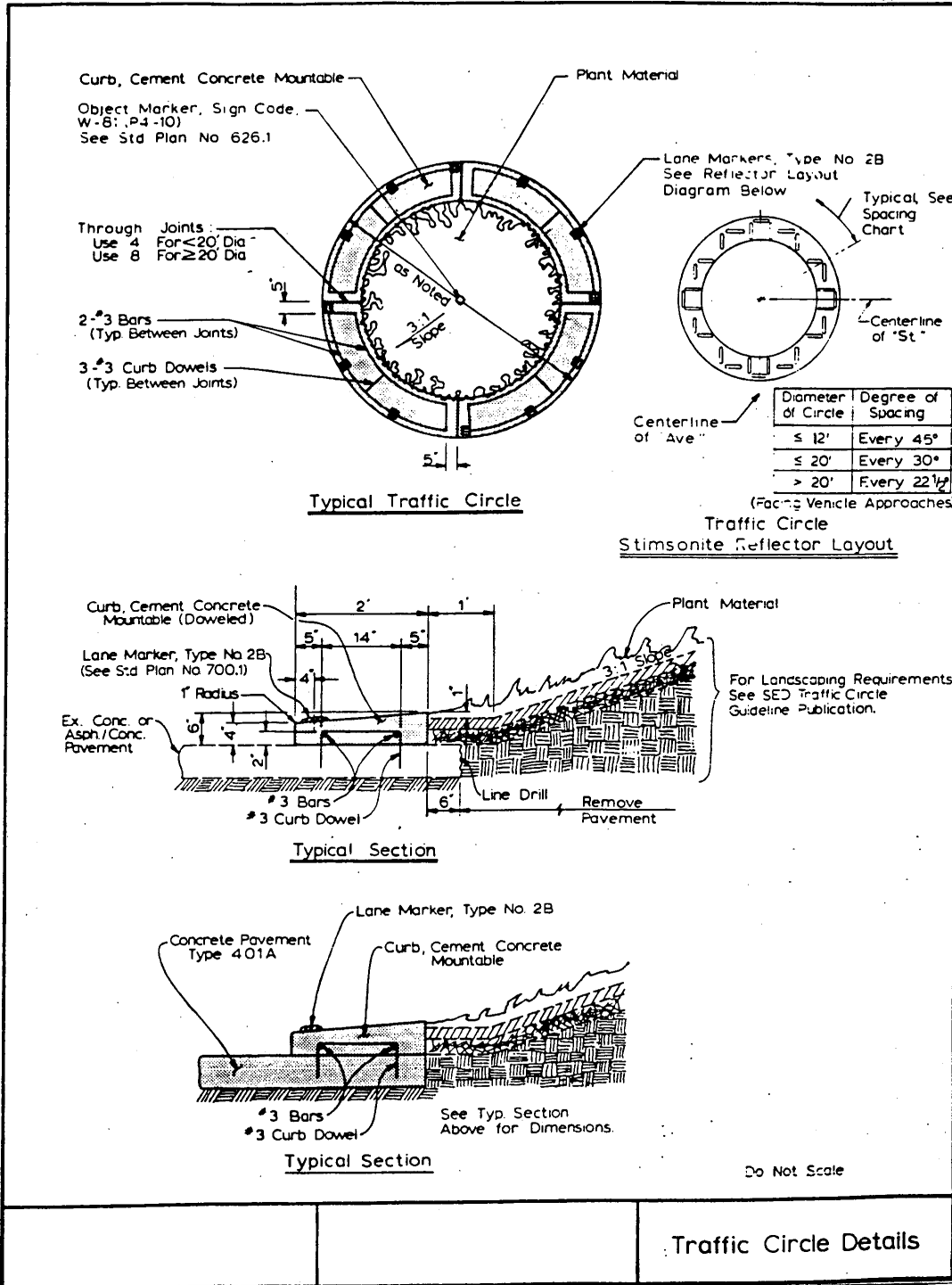
TYPICAL PAVEMENT MARKINGS



Appendix H
Traffic Circle Specifications

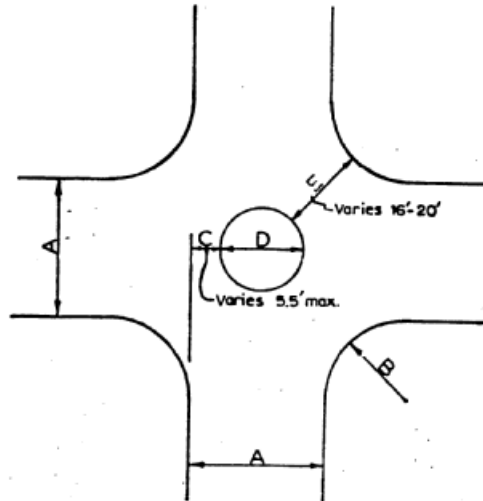
Exhibit 9

Standard Plan No. 415.1



Appendix I

Placement of a Traffic Circle



INTERSECTION DIAGRAM

Legend :

- A Street Width
- B Curb Return Radius
- C Off-Set Distance
- D Circle Diameter
- E Opening Width

OPTIMUM CRITERIA

| Off-Set Distance | Opening Width |
|------------------|---------------|
| 5.5' max | 16' min |
| 5.0' | 17' ± |
| 4.5' | 18' ± |
| 4.0' | 19' ± |
| 3.5' or less | 20' |