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MEMORANDUM

To: Honorable Mayor and City Council

From: Richard Meehan, Director of Public Works

Date: July 16, 2009

Subject: **Discussion on Traffic Calming**

One of the key issues facing the City is the speed and volume of vehicular traffic in several of our residential neighborhoods and the desire of the residents of these neighborhoods to have Traffic Calming implemented where there are known problems. Currently, the City has 10 active Traffic Calming Districts where traffic calming devices have been installed (list below). The city has also received a complete final petition from an additional neighborhood (Village Creek Drive) that is requesting installation of traffic calming.

In December, the City Council passed Ordinance Chapter 17 – Traffic and Public Roadways which included a Traffic Calming Policy as established by DeKalb County. Based on the number of new requests we are receiving, we feel it is time for the City to review and revise this policy to reflect the City's desires and values. Before we begin to revise the policy, we would like to have a discussion with and get direction from the City Council on the issue and what you would like to Policy to reflect.

Alex Hofelich, PE will be at the work session to make a presentation of the current policy and of basic Traffic Calming concepts and pitfalls and to answer any questions you may have. Alex is a Professional Engineer and a traffic engineer on the staff of Lowe Engineers. He is an expert in traffic calming and helped develop and implement the Traffic Calming Policy in both Fulton County and the City of Sandy Springs.

Traffic Calming

A Community-Driven
Neighborhood Program

Current Process

- Must be a local residential street with a speed limit of 30 mph or less
- Neighborhood submits a petition showing 20% support for traffic calming
- Traffic study is conducted
- Committee formed b/w neighborhood and City staff
- Plan approved by City Council
- Neighborhood submits petition showing 65% support for a special tax district prior to installation

Traffic Calming Concepts

- Effective method to reduce speeds
- Most measures ineffective to reduce volumes
- Speeds reduced by deflection of vehicles
  - Vertical
  - Horizontal
- Devices should be located 500 to 700 feet apart
- Fire, Police, and EMS should be consulted on each traffic calming project
- By GDOT policy, Local Assistance Resurfacing Program (LARP) funds will not be allowed on streets where traffic calming devices are in the roadway; devices must be removed and reinstalled

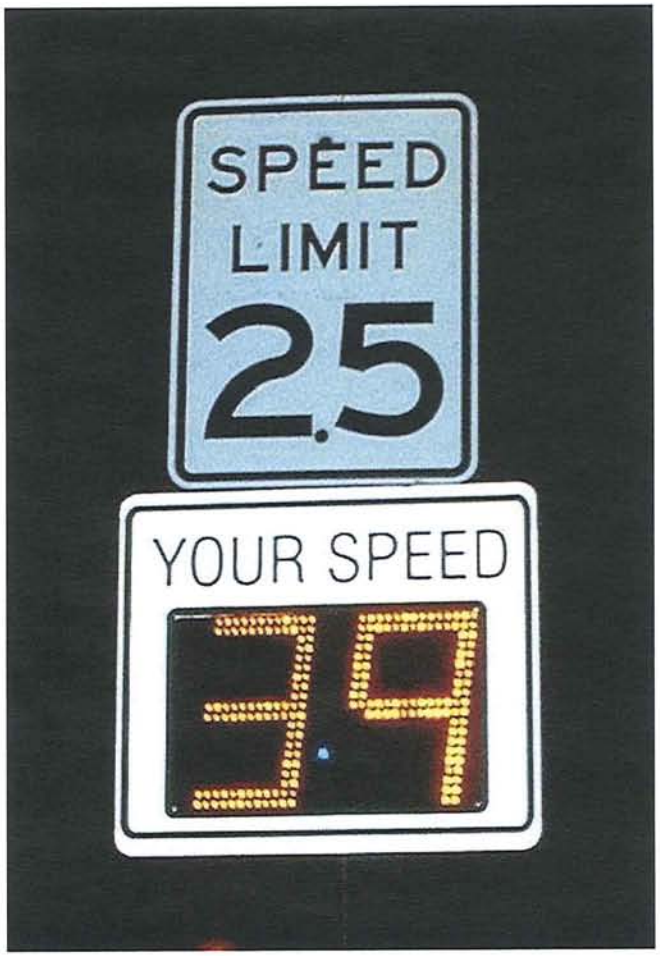
Stop Signs and Road Closure

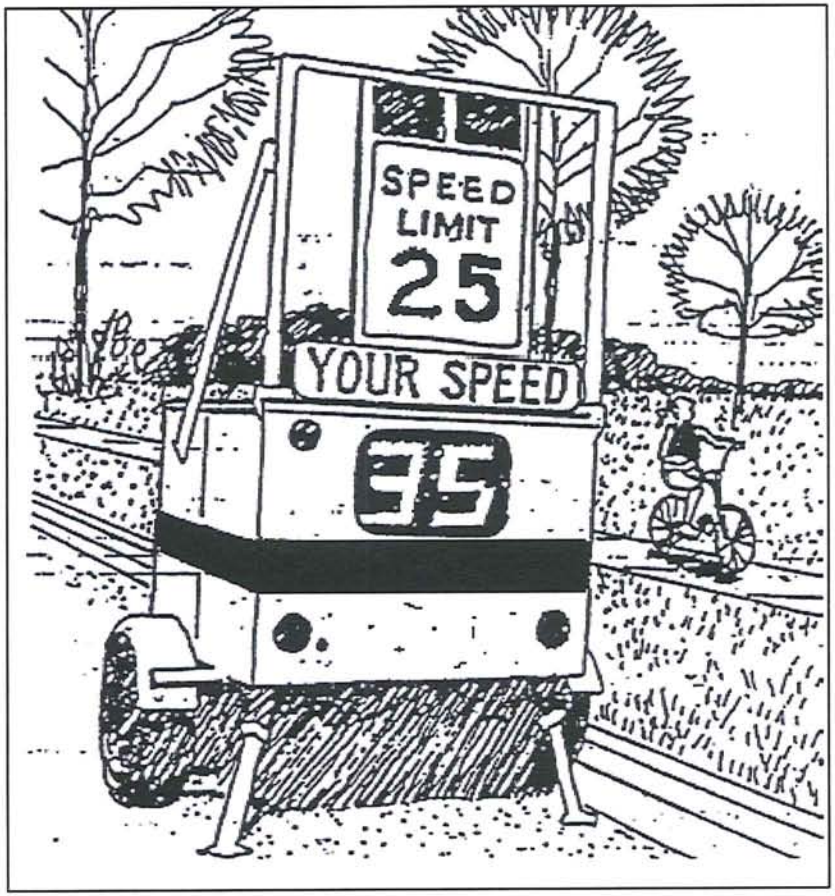
- Stop signs are effective at the orderly assignment of right of way
- Stop signs are ineffective at reducing speeds
- All-way stops should only be installed for volume reasons or to mitigate inadequate visibility
- When considering road closure, special care should be given to considering the overall local system to prevent moving the problem to another location or creating new problems

Lane Narrowing

- Roads can be restriped to provide 10-foot lanes
- Pros:
  - Re-striping can include bike lanes. This reduces the vehicular lane width while also providing a safe place for bikes to travel. Striping to include bike lanes also reduces the potential for driver to drive outside the lane.
  - Striping is easily modified
- Cons:
  - Citizens do not always perceive striping to be an effective traffic calming technique

Radar Devices





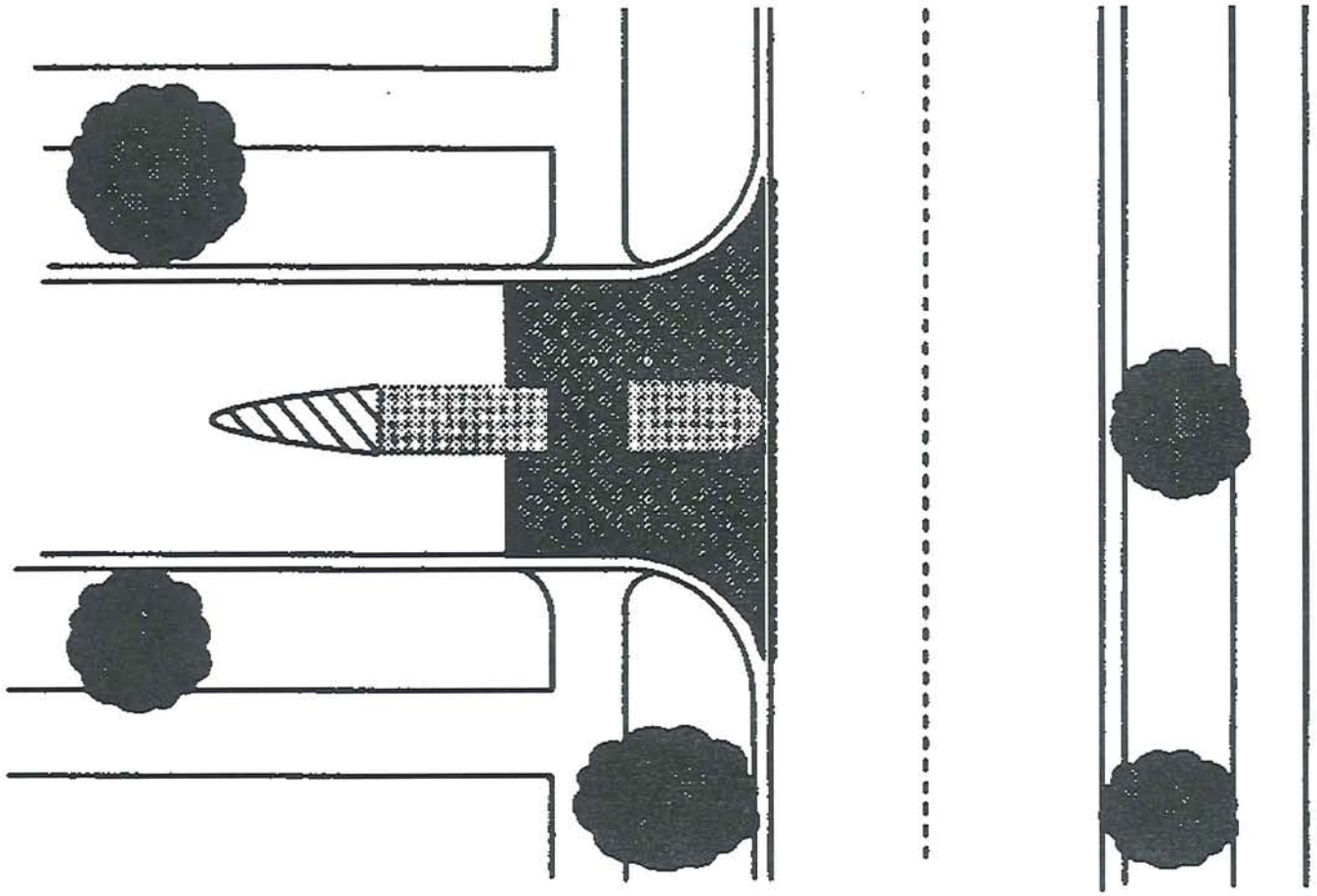
Radar Devices

- Device measures and displays vehicular speeds
- Pros:
  - Possible speed reduction for short intervals at the radar device location
  - Opportunity to collect volume and speed data, dependant upon equipment
- Cons:
  - Not an enforcement tool
  - Minimal effectiveness on reducing traffic speeds when device is not present
- Devices can be installed in permanent locations as part of a sign, rather than on a trailer

Turn Movement Prohibition

- Particular turning movements are prohibited by the installation of enforceable signage at an intersection; can be installed to restrict certain turning movements altogether or just for certain hours
- Pros:
  - Enforceable manner of preventing through traffic
- Cons:
  - Turn movement prohibition applies to everyone – including residents
  - Can further restrict traffic flow in already congested areas
  - Only as effective as active enforcement
- When restricting turn movement, special care should be given to considering the overall local system to prevent moving the problem to another location
- Petition process is recommended for turn restrictions

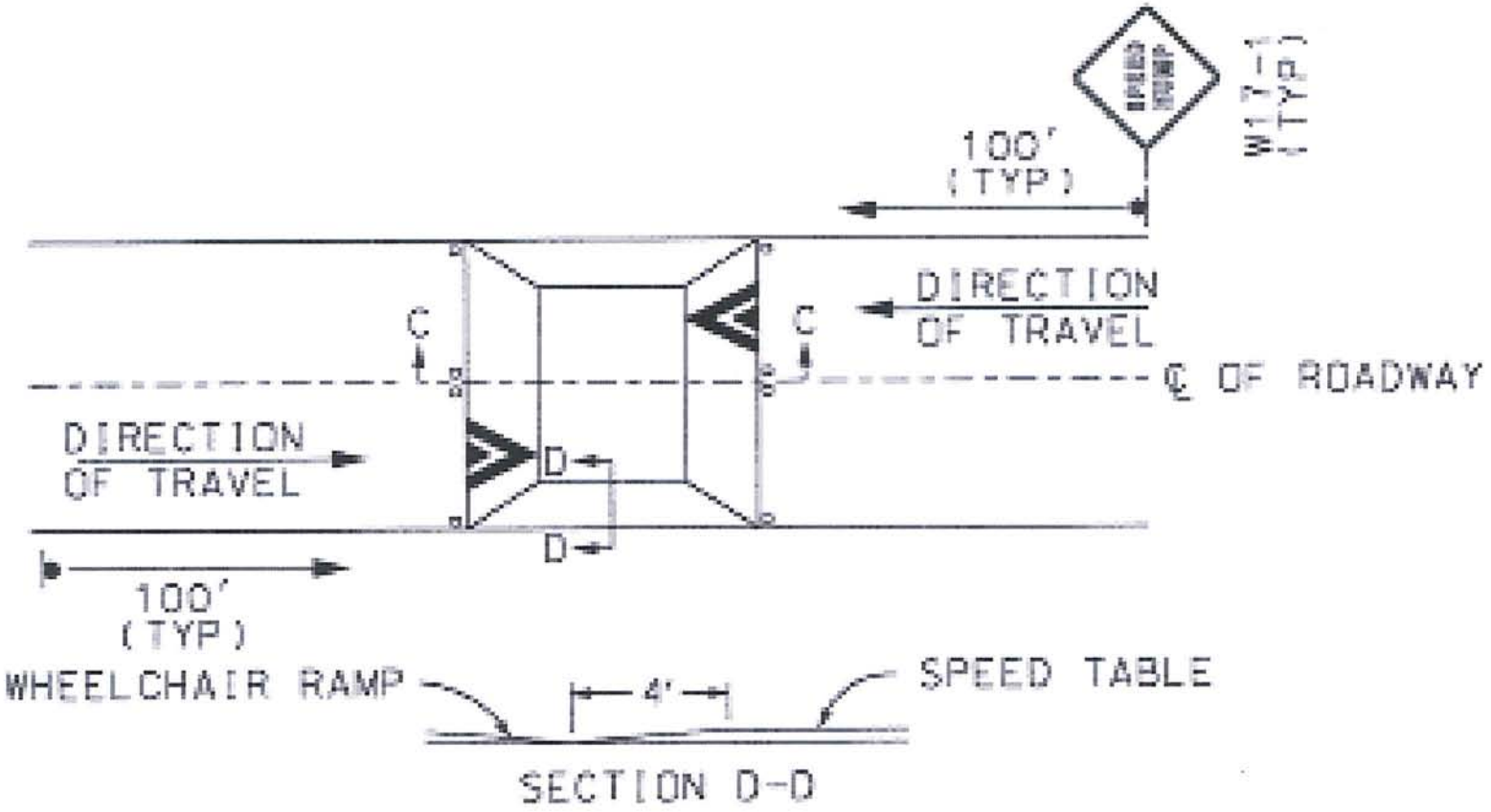
Gateway Treatment



Gateway Treatment

- Visually alert the driver that they are entering a new area, such as a residential area from an arterial road
- Can include signs, decorative walls, arches, pillars, hedgerows, etc
- Pavement treatments can include colored/stamped concrete, or brick pavers
- Pros:
  - Versatile and easily individualized for each specific neighborhood
  - Aesthetically pleasing
  - Easy to implement with active traffic calming devices
- Cons:
  - Limited utility in speed reduction

Speed Humps



TYPE 2 SPEED TABLE DETAIL

Speed Humps

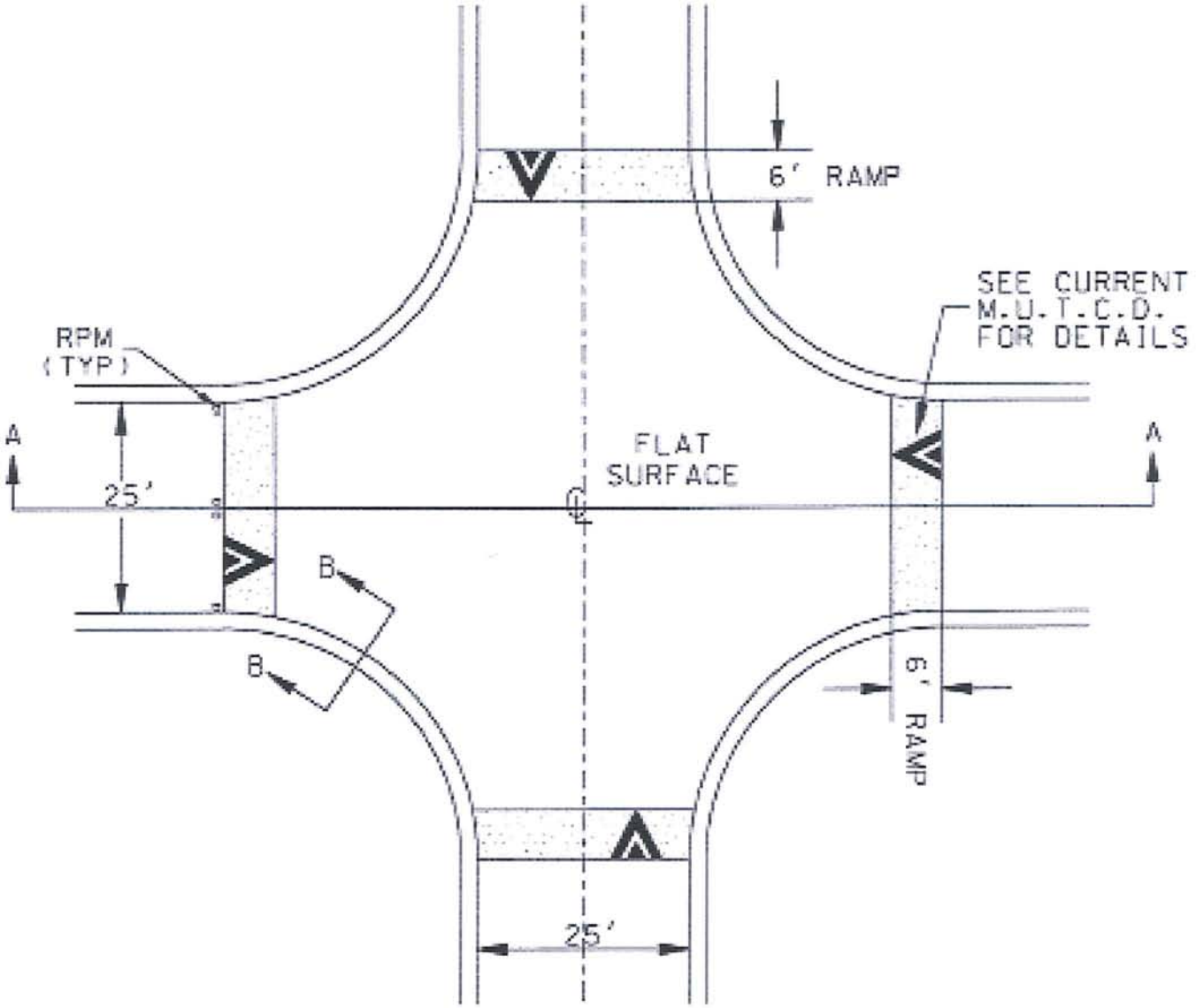
- Typically 22 feet long
  - 6-foot ramps and 10-foot flat top
- Can be asphalt or concrete
- Pros:
  - Effective in most situations
  - Cheap
  - Fits within curbs
- Cons:
  - Cannot be used on steep roads
  - Aesthetic concerns
  - Impacts emergency service response time

Speed Cushions

Speed Cushions

- A series of two or three short humps that are placed so that passenger vehicles cannot avoid them, but wide wheel-base vehicles can
- Pros:
  - Effective in most situations
  - Cheap
  - Fits within curbs
  - No impact to emergency service response time
- Cons:
  - Cannot be used on steep roads
  - Aesthetic concerns

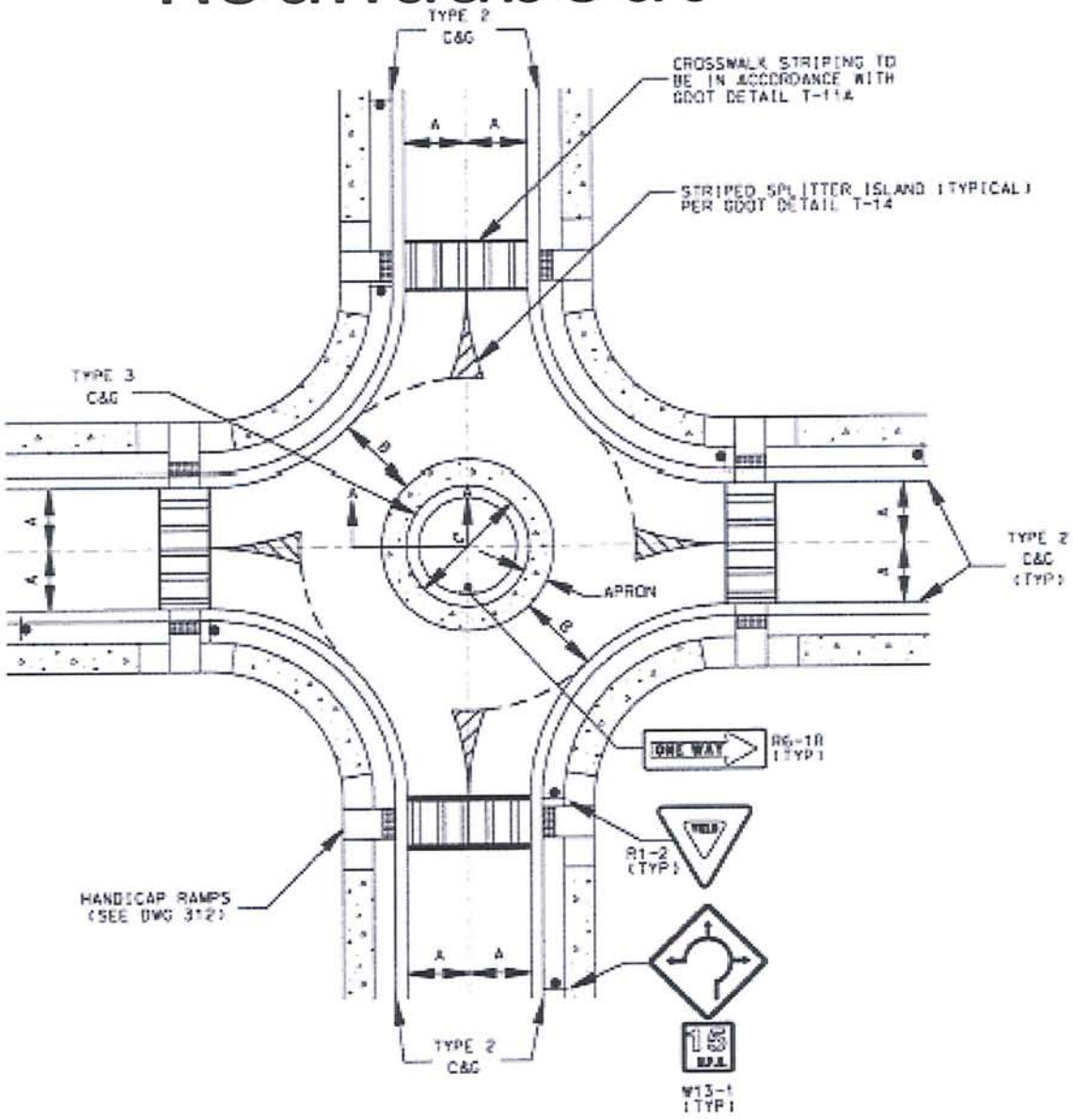
Intersection Hump



Intersection Hump

- Typically large
  - 6-foot ramps and flat top that extends to curb radii
- Can be asphalt or concrete
- Pros:
  - Effective in most situations
  - Cheap
  - Fits within curbs
- Cons:
  - Cannot be used on steep roads
  - Ineffective alone if intersection spacing is high
  - Aesthetic concerns

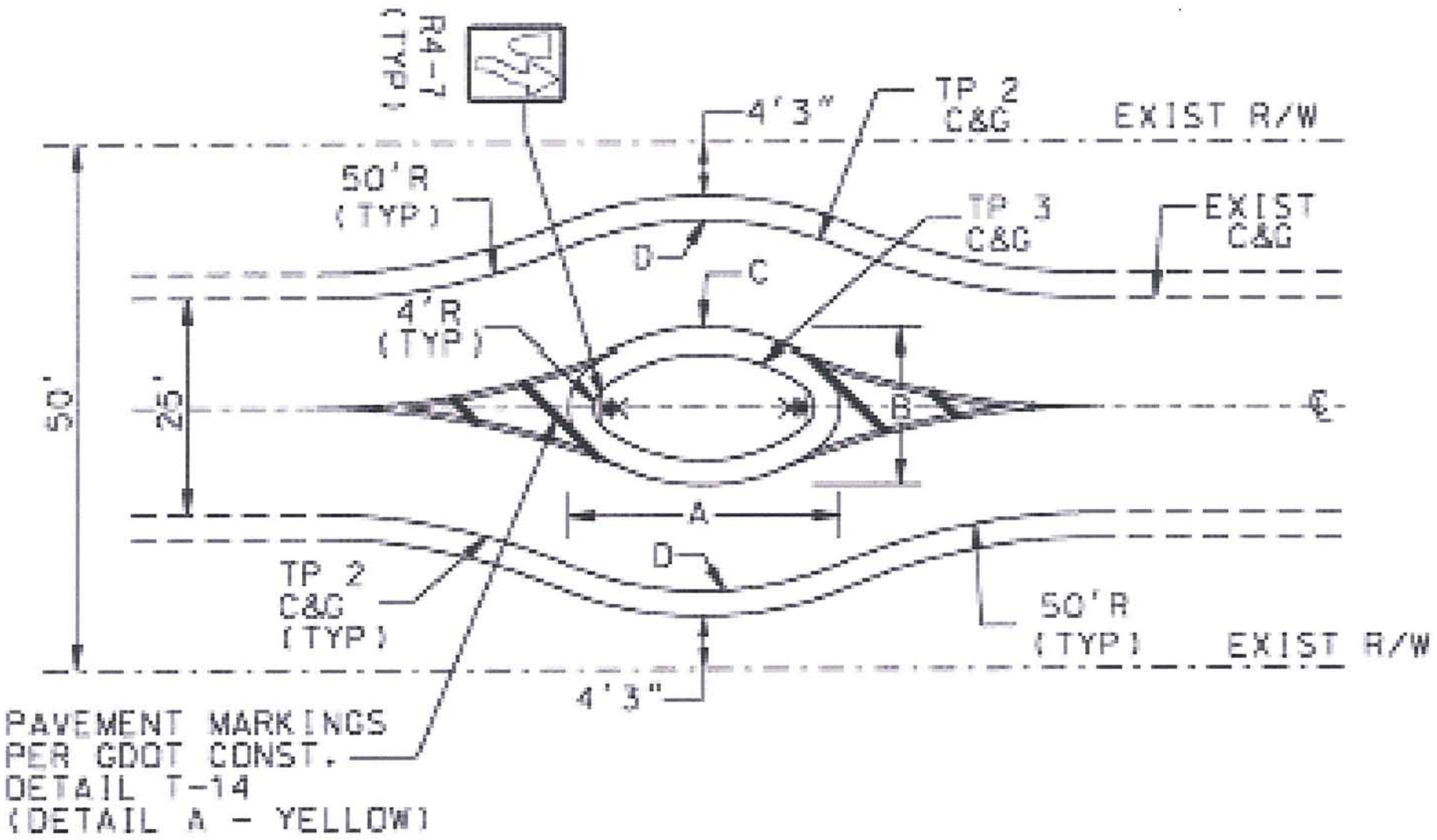
Roundabout


TYPE 2
C&G
CROSSWALK STRIPING TO
BE IN ACCORDANCE WITH
GDOT DETAIL T-11A
STRIPED SPLITTER ISLAND (TYPICAL)
PER GDOT DETAIL T-14
TYPE 3
C&G
TYPE 2
C&G
(TYP)
APRON
ONE WAY
R6-1R
(TYP)
R1-2
(TYP)
HANDICAP RAMPS
(SEE DWG 312)
TYPE 2
C&G
W13-1
(TYP)

Roundabouts

- Replaces an intersection hump or an all-way stop with an "all-way yield"
- Pros:
  - Increase operational safety by reducing the number of conflicting movements
  - Reduce speeds in the intersection
  - Cannot be ignored like an intersection controlled by stop signs
  - May improve intersection capacity and operation
  - Accommodates intersections with a wide range of access points (i.e. three to five way intersections) and can include driveways in the intersection
- Disadvantages:
  - Provides a potential obstruction for collision
  - Maintenance costs increase over all-way stop due to increased landscaping and/or pavement
  - Potential impact outside the curb line

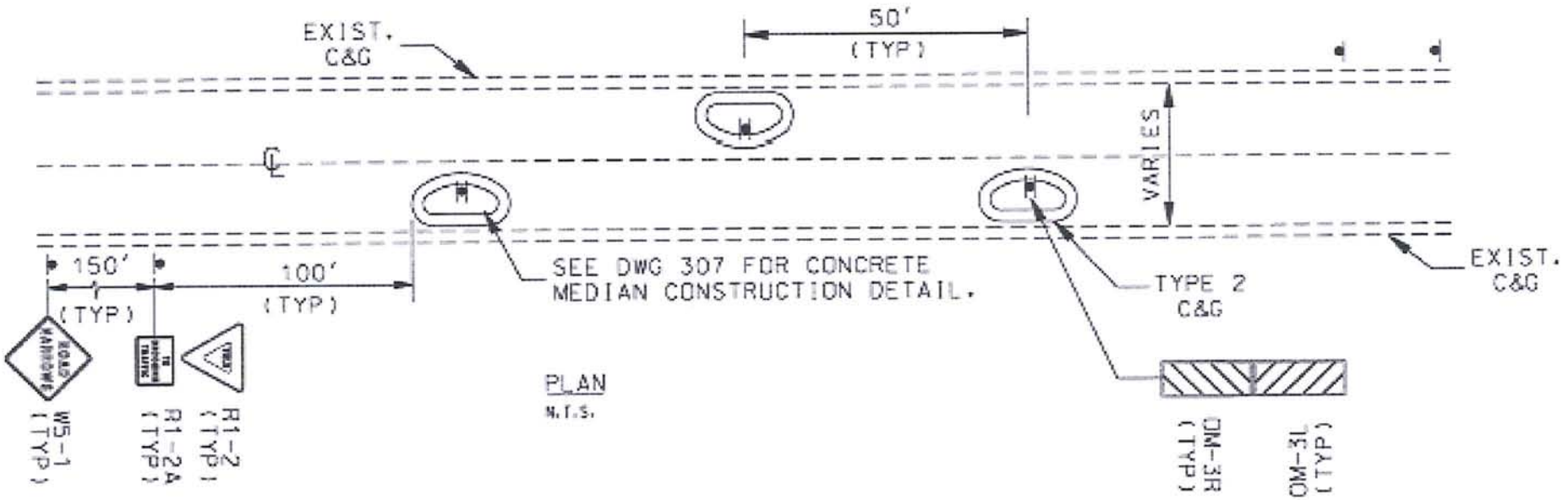
Splitter Island



Splitter Islands

- Short median islands that divert traffic to the outside of the road
- Pros:
  - Reduce speeds on roadways through lateral deflection and roadway narrowing
  - Provide areas for landscaping and improving the aesthetic value of the neighborhood
  - Provide locations for safer mid-block pedestrian crossings
  - Allowable on steep grades
- Disadvantages:
  - Create obstructions for potential collision
  - Maintenance costs increase due to increased landscaping and/or pavement
  - Greatest effectiveness from islands that widen the curb line (10 feet wide or greater)

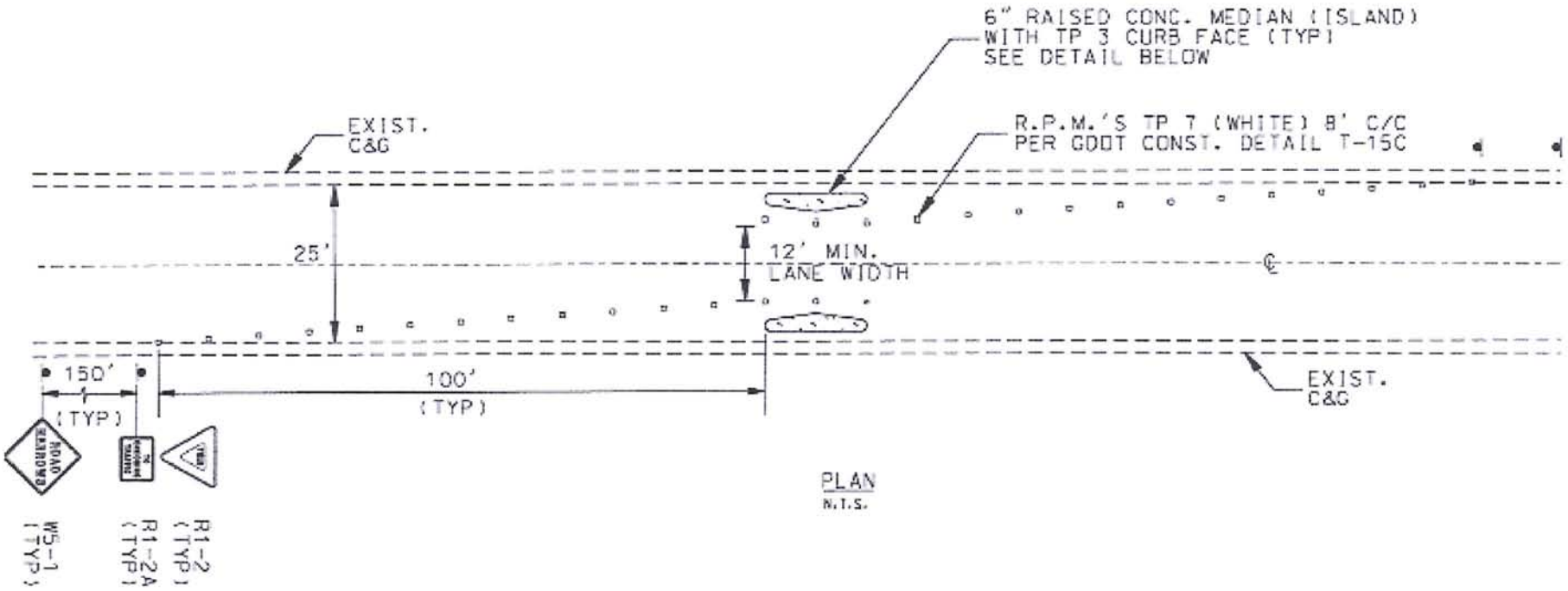
Chicanes


EXIST.
C&G
50'
(TYP)
VARIES
EXIST.
C&G
150'
(TYP)
100'
(TYP)
SEE DWG 307 FOR CONCRETE
MEDIAN CONSTRUCTION DETAIL.
TYPE 2
C&G
PLAN
N.T.S.
W5-1
(TYP)
R1-2A
(TYP)
R1-2
(TYP)
OM-3R
(TYP)
OM-3L
(TYP)

Chicanes

- A series of two to three islands on the sides of the road
- Pros:
  - Reduce vehicle speeds with less impact on emergency service vehicles
  - Allowable on steep grades
  - Can be constructed within existing curbs
- Cons:
  - Existing driveways can limit placement
  - Create obstructions for potential collision
  - Most effective on roads with significant two-way volume
  - Maintenance costs increase due to increased landscaping and pavement

Neckdowns / Chokers



Neckdowns / Chokers

- Reduces road with to a single lane through use of islands on either side of the road
- Pros:
  - Reduce vehicle speeds with less impact on emergency service vehicles
  - Allowable on steep grades
  - Can be constructed within existing curbs
- Cons:
  - Existing driveways can limit placement
  - Create obstructions for potential collision
  - Most effective on roads with significant two-way volume
  - Maintenance costs increase due to increased landscaping and pavement