

## Neighborhood Traffic Management Program

E. Costilla Boulevard – Meeting 1

NTMP Introduction and Neighborhood Listening Session

February 19, 2020

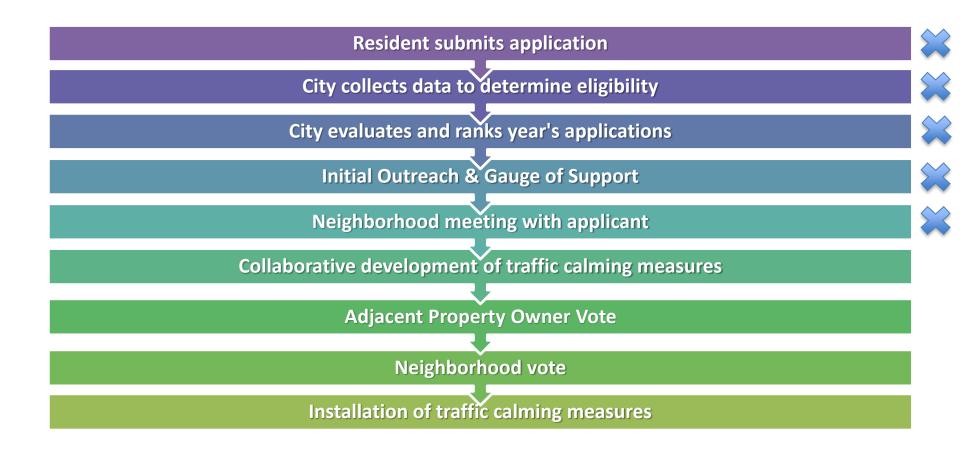
6:30 p.m. – 8:00 p.m.

## Tonight's Agenda

- Neighborhood Traffic Management Program (NTMP) Overview
  - NTMP Start to Finish
  - 2020 NTMP Prioritization
- E. Costilla Blvd Application
- Traffic Calming Options
- Neighborhood Discussion and Listening



## NTMP Start to Finish





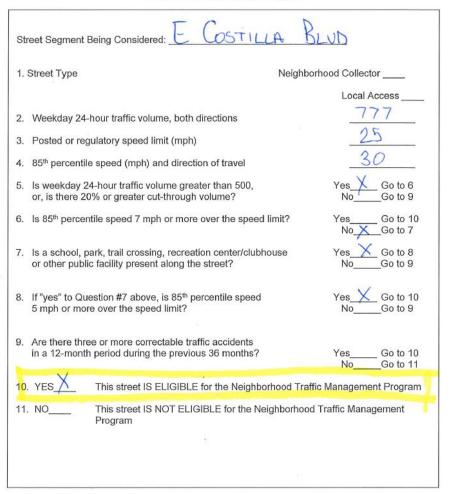
## 2020 NTMP Prioritization

City of Centennial Neighborhood Traffic Management Program

#### WORKSHEET 1 Minimum Threshold Determination

### **Projects**

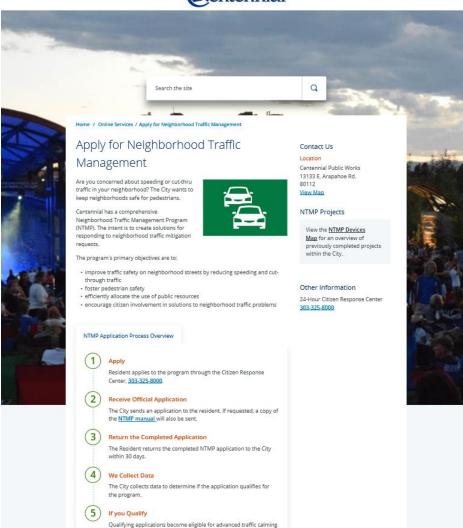
- Panama St.
- Clarkson St.
- Costilla Blvd. Walnut Hills
- Himalaya Way/ Liverpool St.

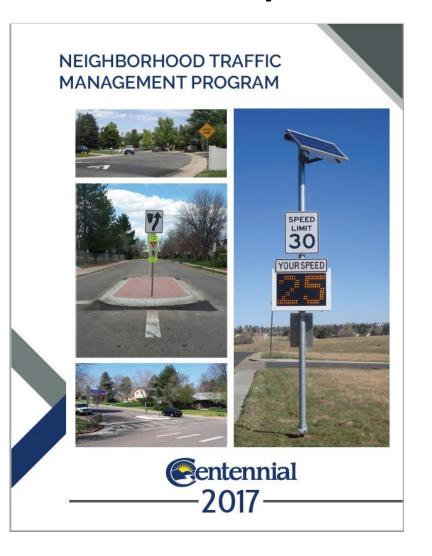




# NTMP Website and Policy

**@**entennial











## Affected Neighborhood

- To identify the affected neighborhood, consider the following:
- Potential location of appropriate traffic calming devices.
- Proximity of homes to that street segment.
- Must be focused or the project may not get needed support.
  - 1) Response of over 50 percent to ballot.
  - 2) Two-thirds majority must support the project.
- Can be a collaborative effort.



# Traffic Mitigation Toolbox

- Neighborhood Education Programs
- Speed Limit Signing
- Restricted Movement Signing
- Enhanced At-Grade Pedestrian Crossing (RRFB)
- Striping/Visual Narrowing
- Traditional Speed Enforcement
- Entry Islands
- Entrance Barrier
- Speed Hump
- Raised Crosswalk
- Curb Extensions

#### **Medians**

- Electronic Speed Sign
- Traffic Circles/Mini-Roundabout
- Restricted Movement Barrier
- Raised Intersection
- Curvilinear Street
- Realigned Intersection
- Chicanes



## Neighborhood Education Programs

#### Description

 Programs designed to increase driver awareness of neighborhood traffic safety issues.

#### Effectiveness

- Educational programs have shown reduction in traffic speeds.
- Implementation is much sooner than physical treatments.

#### **Delay to Emergency Vehicles**

None

- Results may be minimal and decrease after initial use.
- Not self enforcing.
- Increased visual pollution.



Speed Humps



## Raised Crosswalk





## Raised Crosswalk

#### Description

 Flat-topped speed table built as a pedestrian crossing. Sometimes includes curb extensions.

#### Effectiveness

- Speed reductions of up to 5 mph.
- Increases pedestrian visibility.
- Clearly designates the crosswalks.

#### Delay to Emergency Vehicles

4 to 6 seconds per raised crossing.

- Relatively expensive.
- Increased noise.
- May necessitate the reduction of on-street parking in certain configurations.



# Electronic Speed Sign





# Electronic Speed Sign

#### Description

 Permanently mounted radar display that informs drivers of their speed compared to the speed limit.

#### Effectiveness

- May cause responsible drivers to slow down in the vicinity.
- May cause unfamiliar drivers to slow down in the vicinity.
- Educational tool.
- Some drivers may assume it is linked to photo radar.

#### Delay to Emergency Vehicles

None

- Not self enforcing.
- Ongoing maintenance needed.
- May lose effectiveness on familiar motorists.
- Display may detract from neighborhood character.



# Medians





## Medians

#### Description

 A raised island in the center of a two-way street adjacent to an intersection, typically at the perimeter of a neighborhood.

#### Effectiveness

- Vehicles may slow down as they pass through the narrowed section.
- Can notify motorists of change in roadway character.
- Opportunity for landscaping or aesthetic improvements.

#### Delay to Emergency Vehicles

1 – 2 seconds

- Need for maintenance (and irrigation).
- May require removal of on-street parking.



# **Curb Extensions**







## **Curb Extensions**

#### Description

 Segments of roadway narrowing where roadway edges or curbs are extended toward the center of the roadway. Vehicles may slow as they pass through the narrowed section.

#### Effectiveness

- Speed reductions of 1 3 mph.
- May slow traffic by changing the character of a wide street to a narrow street.
- Pedestrian visibility increased and crossing distance reduced.

#### Delay to Emergency Vehicles

Less than 2 seconds.

- May create drainage issues where curb and gutter exist.
- May result in the loss of on-street parking.



# Enhanced At-Grade Ped Crossing Rectangular Rapid Flashing Beacon (RRFB)



# Enhanced At-Grade Ped Crossing Rectangular Rapid Flashing Beacon (RRFB)

#### Description

 Standard striped crosswalk with additional devices to alert motorists that a pedestrian is crossing.

#### Effectiveness

- Non-standard signing has been shown to be somewhat effective in increasing motorist awareness and pedestrian safety.
- Pedestrian-activated devices, such as flashing lights, have shown to be very effective.

#### **Delay to Emergency Vehicles**

None

- Can provide pedestrians with a false sense of security.
- More visual pollution.



# Striping/Visual Narrowing







# Striping/Visual Narrowing

#### Description

Unique striping added to streets to visually narrow the lane.

#### Effectiveness

- Anticipated speed reduction in the 1 3 mph range.
- Does not require removal of on-street parking.
- Can be used with other devices.
- Inexpensive.

#### Delay to Emergency Vehicles

None

- Generally not as effective as physically narrowing the roadway.
- Additional maintenance for restriping.



## Neighborhood Discussion and Listening



## **Next Steps**

- Prepare Conceptual Plan(s)
- 2<sup>nd</sup> Neighborhood Meeting
- Prepare Final Plan
- Develop Cost Estimate
- Ballot to Approve Final Plan
- Project Implementation

Map of Existing NTMP Devices and Projects

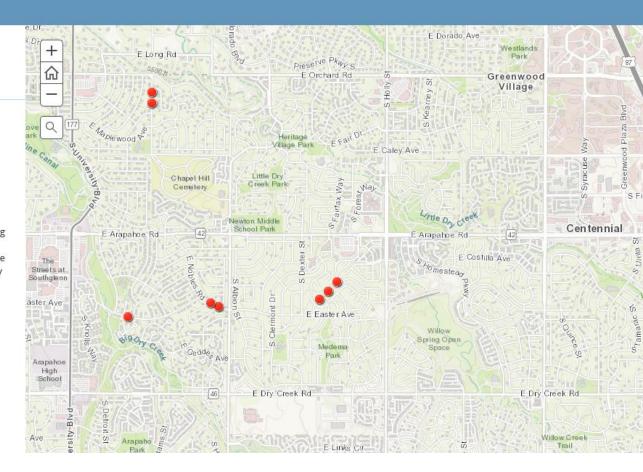


#### **NTMP Devices**

#### **NTMP Project Sites**

#### Speed Humps

A speed hump is a raised, parabolic area of roadway pavement approximately 4 inches in height and 12 feet long in the direction of travel. They are different from the more severe speed bumps you may find in a parking lot. A speed hump causes a vehicle to produce a rocking motion, creating an uncomfortable sensation for the occupants of speeding vehicles thus encouraging the driver to reduce their speed. The City designs speed humps to be comfortably traversed at approximately 15-20mph. Speed humps in the City of Centennial will always be accompanied by signage on either side alerting oncoming traffic to the device.





### **Speed Reductions with Speed Monitoring**

Location	Before NTMP	Speed Signs	Signs and Striping
E. Dorado Ave.	45 mph	37 mph	36 mph
E. Mineral Ave.	34 mph		29 mph
E. Otero Ave.	35 mph	29 mph	



Drainet Leastion	Speed	85 <sup>th</sup> percentile speed	
Project Location	Limit	Before	After
FoxRidge – Otero Ave. (speed signs; centerline	25 mph	28-30	25-33
stripe already existed)		mph	mph
FoxRidge – Mineral Ave. (speed signs, bike lanes,	25 mph	29-34	29-30
new centerline stripe)	23 mpn	mph	mph
Vista Verde – Clarkson St. (bike lanes)	30 mph	38-39	33-36
		mph	mph
Park Borough – Dorado Ave. (speed signs;	20 mnh	30-45	34-37
centerline stripe already existed)	30 mph	mph	mph
Park Borough – Dorado Ave. (speed signs, bike	30 mph	34-37	33-36
lanes; centerline stripe already existed)		mph	mph

