ONE ALBUQUERQUE city of albuquerque

2021 NTMP

FOUR-HILLS
NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

LEE ENGINEERING

505.338.0988

8220 San Pedro Drive NE, Suite 150
Albuquerque, NM 87113

INTRODUCTIONS

- Jonathon Kruse, PE, PTOE
  - Lee Engineering
- Paul Barricklow, PE, PTOE
  - Lee Engineering,
- Tim Brown, PE, PTOE
  - City of Albuquerque Traffic Engineering Manager
- Amanda Herrera, PE
  - NTMP Project Manager

PRESENTATION OUTLINE

- Neighborhood Traffic Management Program (NTMP)
- NTMP Process
- Correspondence and Communications Received to Date
- Data Collection
- NTMP Data Criteria
- Four Hills Evaluation
- Traffic Calming Options
- Public Input
- Conclusion

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

The goal: to address speeding and cut-through traffic on local residential streets using a set of traffic-calming tools.

Key Aspects:

- Public involvement
- Improve traffic safety
- Evaluate safety issues & recommend improvements
- Subject to CABQ's NTMP Policy Manual

NTMP PROCESS

Steps & Procedure:

1. Residents or CABQ Staff identify potential NTMP candidate roads/neighborhoods
2. Data collection & evaluation
3. **Public Input meeting #1**
4. Evaluation and narrowing/ranking of calming alternatives
5. Public Input meeting #2
6. Recommendation for preferred alternative(s)
7. Consideration for implementation

NTMP DATA CRITERIA

Road qualifies for traffic calming measures if it meets one or more of the following thresholds:

Threshold Set	Criteria Description	Threshold
1	Vehicles >7 mph over the speed limit.	15%
2	Crashes where speed was a contributing factor.	3
3	A crash involving a pedestrian or cyclist.	1
4	Vehicles >5 mph over the speed limit.	15%
	Vehicle volume in study area over 24 hrs.	800
5	Vehicles >5 mph over the speed limit.	15%
	Crashes where speed was a contributing factor.	1
6	Vehicles >5 mph over the speed limit.	15%
	Percentage of cut-through traffic.	25%
7	Vehicle volume in study area over 24 hrs.	800
	Crashes where speed was a contributing factor.	1
8	Vehicle volume in study area over 24 hrs.	800
	Percentage of cut-through traffic.	25%
9	Crashes where speed was a contributing factor.	1
	Percentage of cut-through traffic.	25%

CORRESPONDENCE AND COMMUNICATIONS

Communications and Input Received

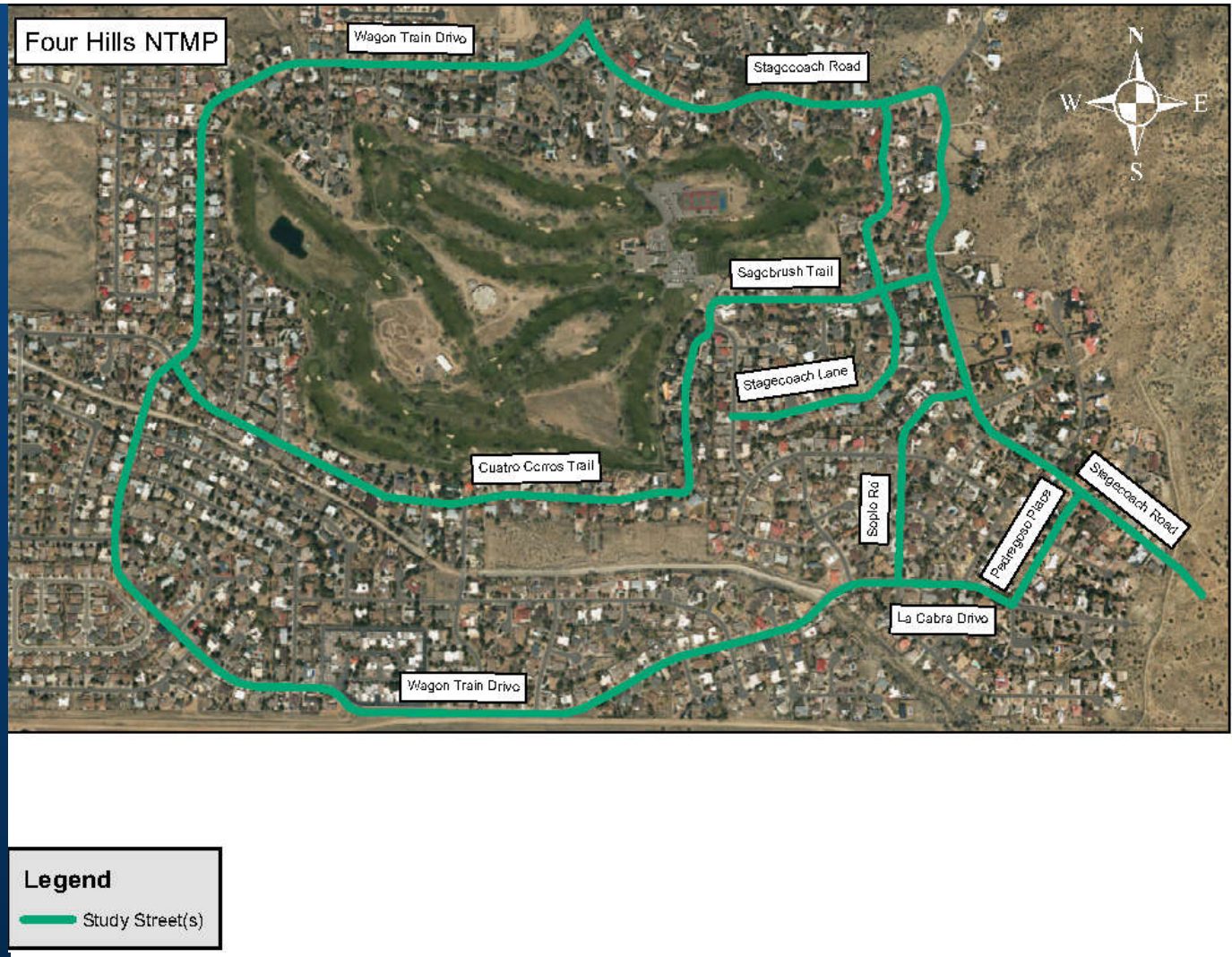
- Feedback on a data collection location (700 Block of Wagon Train Dr)
- High speeds at “The Y”
- Dangerous to walk along road
- Some speeds in excess of 50 MPH

FOUR HILLS DATA & EVALUATION

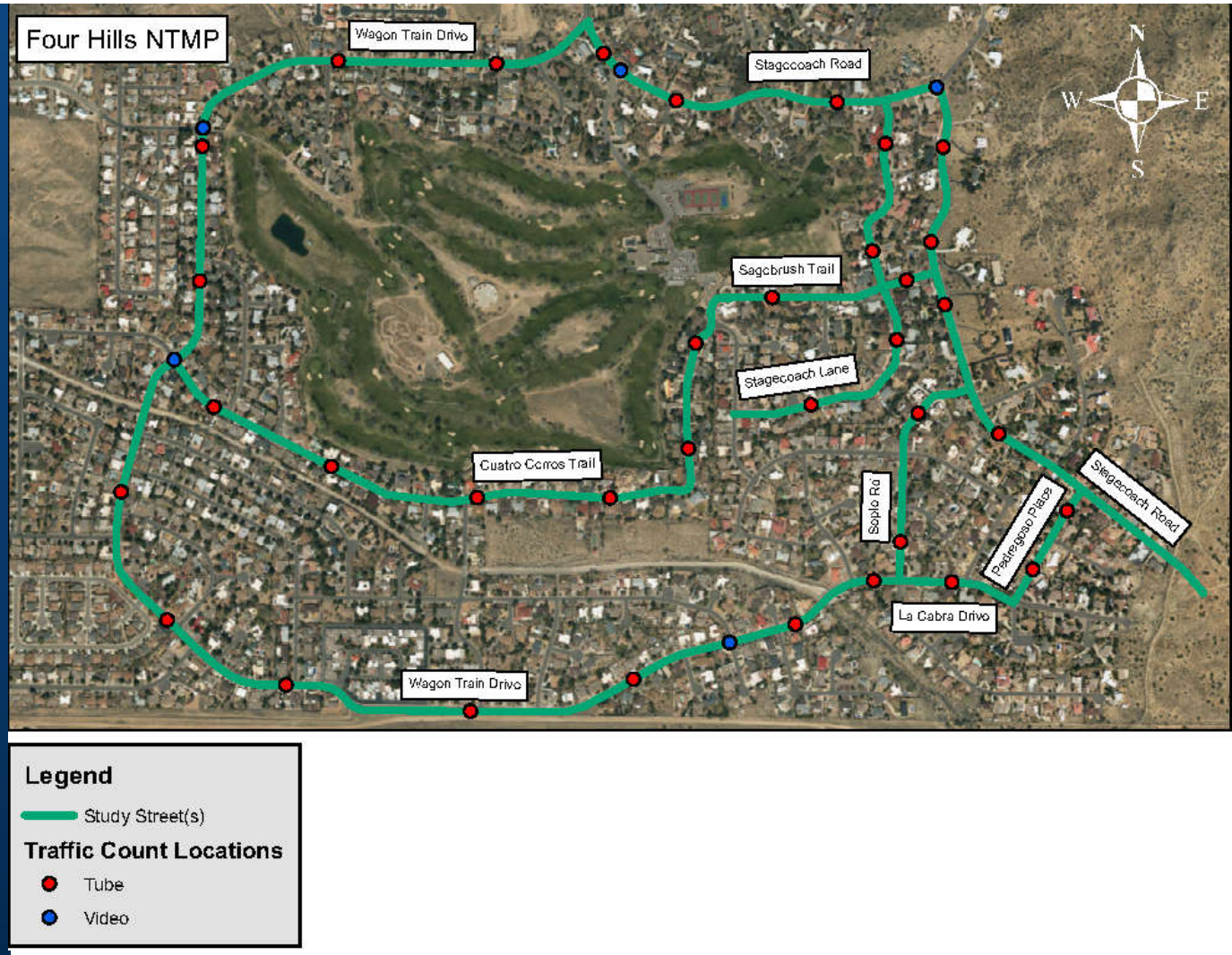
Criteria:

- Speed data
- Volume
- Crashes
- Results

DATA COLLECTION (Study Area)



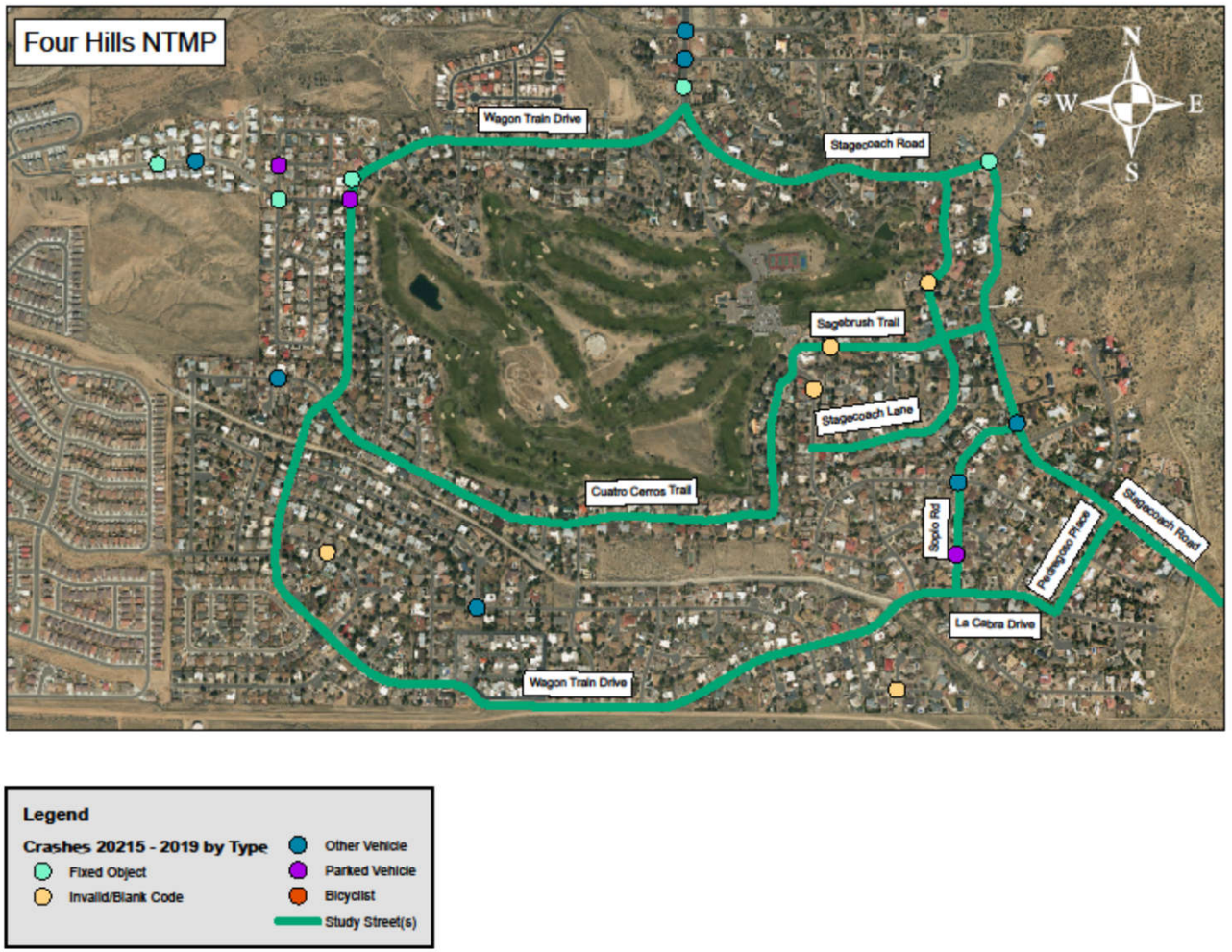
DATA COLLECTION (Locations)



DATA COLLECTION (Crashes by Type)

Takeaways:

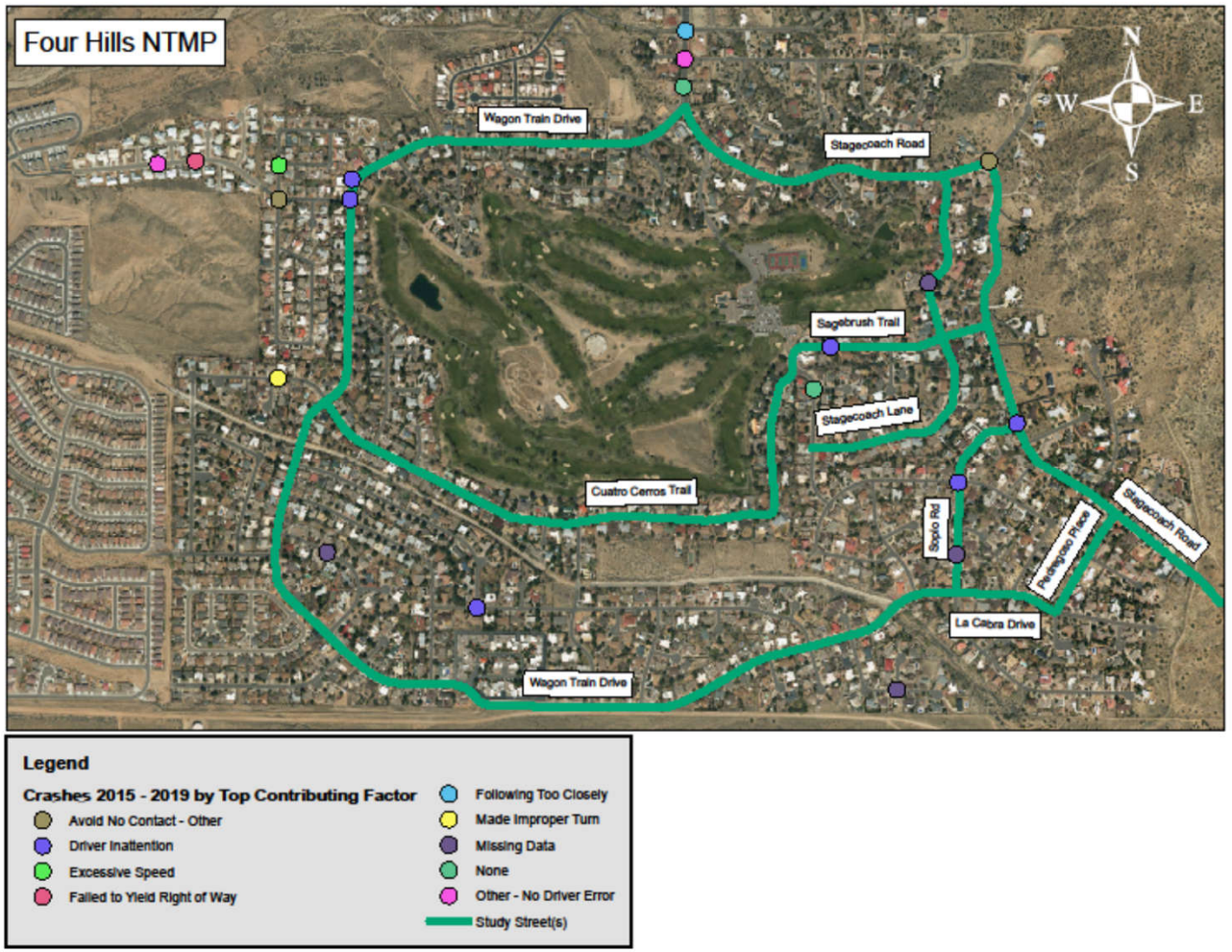
- **Total of 20**
- **Majority are "Other Vehicle"**
- **High number of "Fixed Object"**



DATA COLLECTION (Crashes by Top Contributing Factor)

Takeaways:

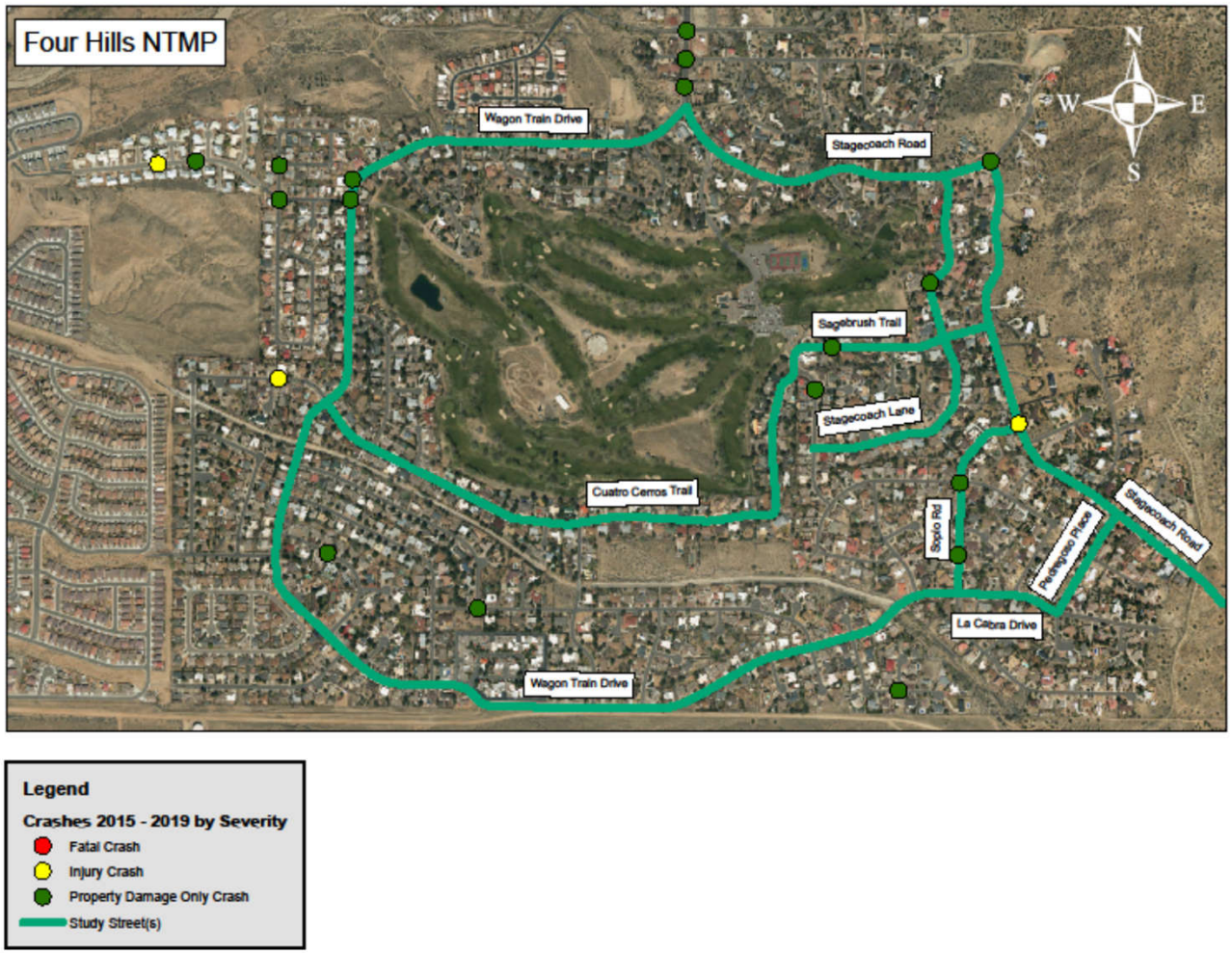
- **Only 1 reported as excessive speed**
- **Majority "Driver Inattention"**



DATA COLLECTION (Crashes by Severity)

Takeaways:

- **Majority "Property Damage Only"**
- **No fatal crashes in last 5 years**



FOUR HILLS EVALUATION (Speed)

4 Hills Rd

	MPH Over Speed Limit	April 13, 2021	April 14, 2021
900 4 Hills Rd SE	7	30%	28%
	5	42%	41%
Average by day	7	30%	28%
	5	42%	41%
Average	7	29.00%	
	5	41.50%	

La Cabra Dr

	MPH Over Speed Limit	April 13, 2021	April 14, 2021
1515 La Cabra Dr SE	7	6%	4%
	5	10%	9%
1712 Ranch Trail SE	7	4%	6%
	5	9%	12%
Average by day	7	5%	5%
	5	10%	11%
Average	7	5.20%	
	5	10.12%	

Pedregoso Pl

	MPH Over Speed Limit	April 13, 2021	April 14, 2021
1705 Stagecoach Rd SE	7	0%	0%
	5	0%	0%
1601 La Cabra Dr SE	7	1%	1%
	5	2%	2%
Average by day	7	1%	1%
	5	2%	2%
Average	7	1.00%	
	5	2.00%	

Soplo Rd

	MPH Over Speed Limit	April 13, 2021	April 14, 2021
1412 Soplo Rd SE	7	1%	2%
	5	3%	4%
1515 Soplo Rd SE	7	7%	9%
	5	17%	18%
Average by day	7	6%	8%
	5	15%	15%
Average	7	6.99%	
	5	15.18%	

FOUR HILLS EVALUATION (Speed)

Stagecoach Rd

	MPH Over Speed Limit	April 14, 2021	April 15, 2021
904 Stagecoach Rd SE	7	43%	42%
	5	50%	49%
1103 Stagecoach Rd SE	7	12%	11%
	5	27%	24%
1309 Stagecoach Rd SE	7	11%	11%
	5	19%	19%
1321 Stagecoach Rd SE	7	11%	12%
	5	22%	26%
1409 Stagecoach Rd SE	7	10%	9%
	5	15%	16%
1613 Stagecoach Rd SE	7	13%	17%
	5	22%	27%
Average by day	7	25%	25%
	5	31%	31%
Average	7	25%	
	5	31%	

Sagebrush Trail

	MPH Over Speed Limit	April 14, 2021	April 15, 2021
1407 Sagebrush Trail SE	7	1%	0%
	5	1%	0%
1516 Sagebrush Trail SE	7	0%	1%
	5	1%	3%
1604 Sagebrush Trail SE	7	1%	2%
	5	3%	4%
1624 Sagebrush Trail SE	7	2%	5%
	5	9%	11%
1321 Cuatro Cerros Trail SE	7	3%	11%
	5	7%	14%
1200 Cuatro Cerros Trail SE	7	11%	10%
	5	22%	20%
1028 Cuatro Cerros Trail SE	7	14%	17%
	5	24%	26%
912 Cuatro Cerros Trail SE	7	11%	11%
	5	17%	18%
Average by day	7	11%	12%
	5	18%	18%
Average	7	11%	
	5	18%	

FOUR HILLS EVALUATION (Speed)

Wagon Train Dr

	MPH Over Speed Limit	April 14, 2021	April 15, 2021
829 Stagecoach Rd SE	7	13%	13%
	5	27%	28%
632 Stagecoach Rd SE	7	22%	20%
	5	35%	33%
605 Wagon Train Dr SE	7	30%	36%
	5	46%	53%
805 Wagon Train Dr SE	7	11%	11%
	5	23%	23%
1109 Wagon Train Dr SE	7	12%	15%
	5	20%	22%
1220 Wagon Train Dr SE	7	33%	35%
	5	42%	42%
1344 Wagon Train Dr SE	7	12%	12%
	5	22%	23%
1481 Wagon Train Dr SE	7	21%	21%
	5	35%	34%
1539 Wagon Train Dr SE	7	7%	7%
	5	14%	15%
1608 Conestoga Dr SE	7	4%	5%
	5	9%	10%
Average by day	7	22%	23%
	5	32%	33%
Average	7	22%	
	5	33%	

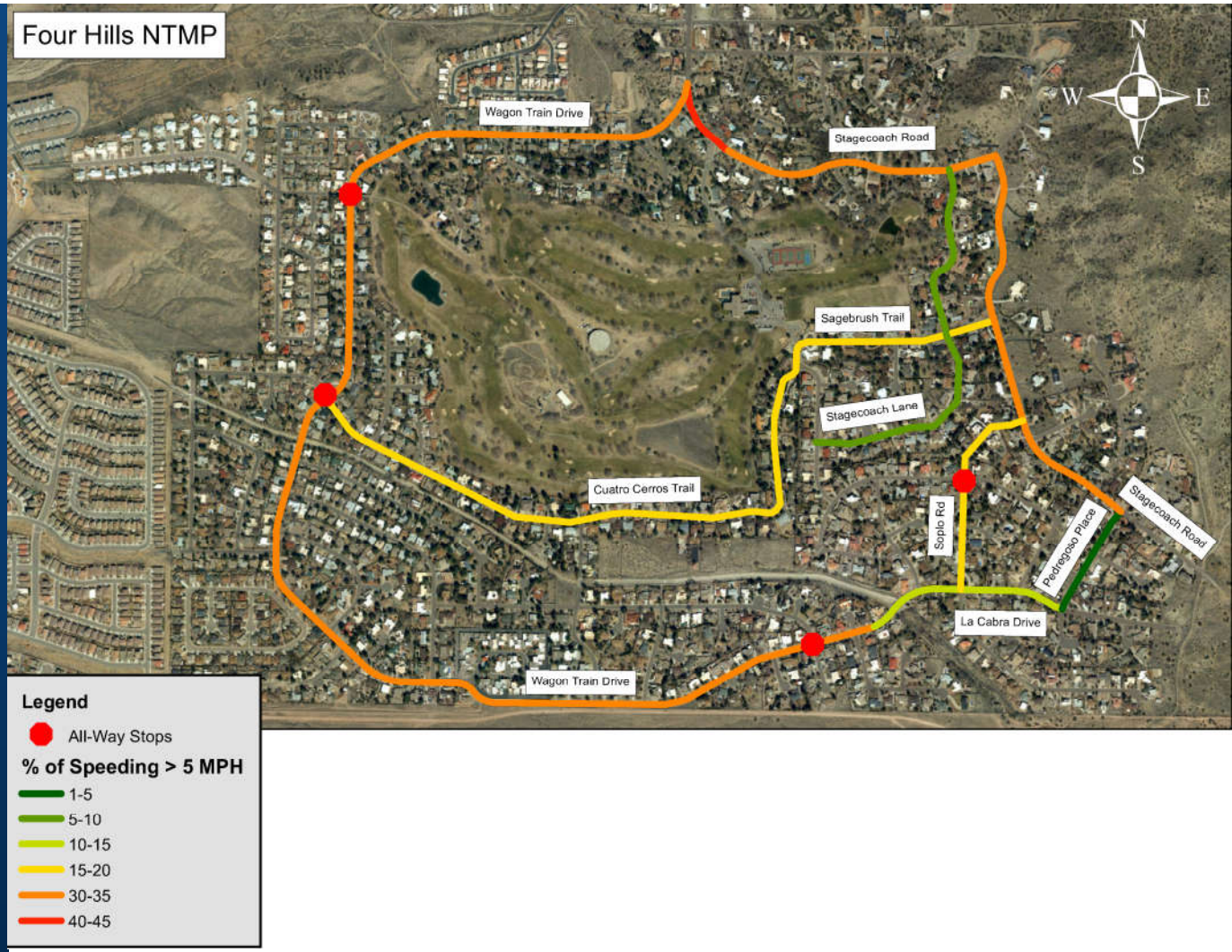
Stagecoach Ln

	MPH Over Speed Limit	April 14, 2021	April 15, 2021
1305 Stagecoach Ln SE	7	0%	0%
	5	0%	0%
1329 Stagecoach Ln SE	7	0%	1%
	5	1%	2%
1412 Stagecoach Ln SE	7	0%	0%
	5	0%	0%
1512 Stagecoach Ln SE	7	2%	1%
	5	7%	5%
Average by day	7	2%	1%
	5	6%	4%
Average	7	1.50%	
	5	5.20%	

FOUR HILLS EVALUATION (Speed)

Takeaways:

- **Most prevalent on Wagon Train Drive and Stagecoach Road**



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Takeaways:

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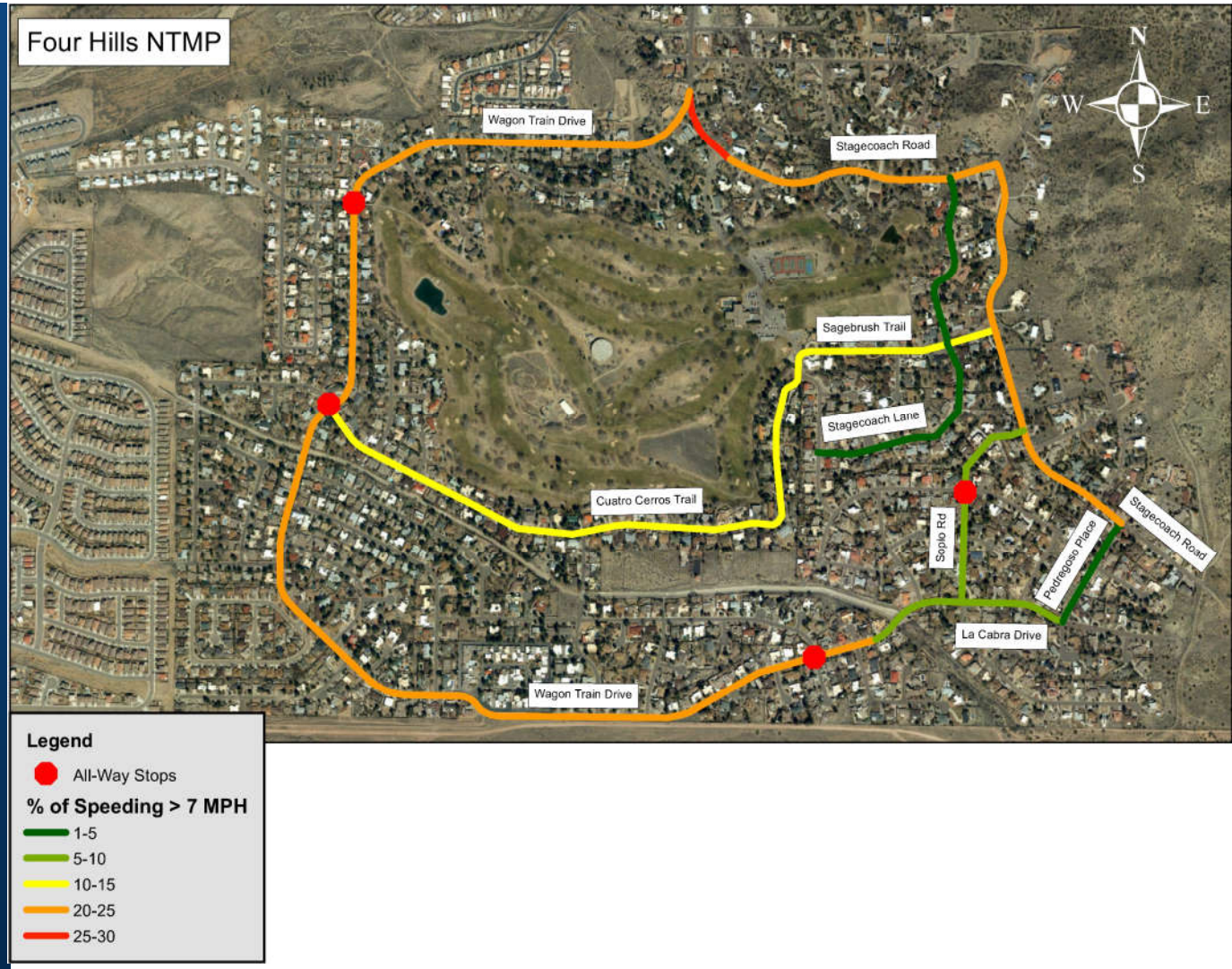


FOUR HILLS EVALUATION (Volume)

Road	Average Daily Volume
4 Hills Rd	3669
La Cabra Dr	425
Pedregoso Pl	292
Soplo Rd	832
Stagecoach Rd	1821
Sagebrush Trail	379
Wagon Train Dr	1770
Stagecoach Ln	496

FOUR HILLS EVALUATION (Summary)

Results

- Speeding most prevalent on Stagecoach Road and Wagon Train Drive
- Speeds & Volumes support traffic calming measures

TRAFFIC CALMING OPTIONS

Overview

- Chosen for applicability
- No particular order
- CABQ's NTMP Toolbox
- Public input on supported measures
- Survey

TARGETED POLICE ENFORCEMENT

Description

- Targeted police enforcement is the deployment of officers to specific streets or neighborhoods for a period of time to conduct radar speed enforcement and enforcement of traffic laws

Advantages

- Highly effective in reducing speeding and other traffic law violations including stop sign running and illegal turns
- Can be deployed on short notice and for the specific hours for which problems have been identified
- Results are immediate
- Can reduce crashes related to speeding and other violations.
- Low cost if used temporarily
- Does not affect emergency vehicles
- Targets violators without affecting normal traffic
- Can promote public education regarding new devices or restrictions

Disadvantages

- Effectiveness may be temporary, especially if the enforcement is deployed only once
- Enforcement is limited to APD availability

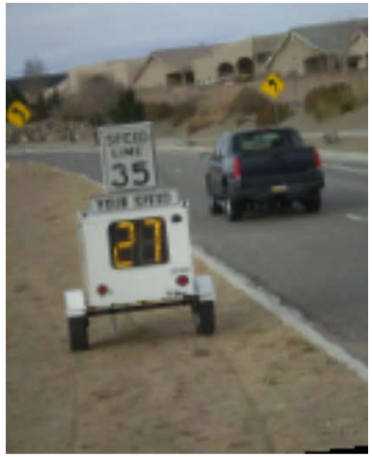
RADAR SPEED TRAILER

Description

- Radar speed trailers are mobile units placed on the side of the road that use radar to sense an oncoming vehicle's speed and display that speed back to the approaching driver

Advantages

- Have been shown to be effective in prompting some speeding drivers to slow down
- Can be deployed on short notice and easily moved
- Results are immediate
- Deployment is low cost
- Does not slow emergency vehicles
- Alerts violators without affecting normal traffic



Disadvantages

- Effectiveness may be temporary once removed
- Limited to APD availability
- Requires enough space to set up, and may reduce available parking
- Units are subject to vandalism
- Some drivers may try to register a high speed

PERMANENT RADAR SPEED SIGN

Description

- Post-mounted signs on side of road that use radar to sense and display speeds back to driver

Advantages

- Visual reminder of drivers' speeds have been shown to prompt some speeding drivers to slow down
- Do not Slow down emergency vehicles
- Radar speed signs alert violators without affecting normal traffic

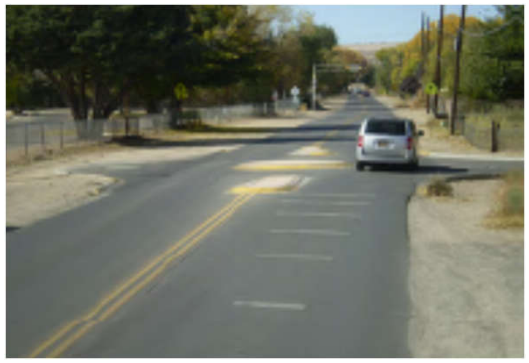
Disadvantages

- Effectiveness may reduce over time as regular drivers become desensitized
- Some drivers may ignore the signs
- Some drivers may try to register a high speed
- Units and solar panels are subject to vandalism or theft

SPEED REDUCTION MARKING

Description

- A series of various shapes of transverse pavement markings set at progressively reduced spacing, intended to enchase the drivers between



Advantages

- Markings are relatively easy and low-cost to install

Disadvantages

- Long-term effectiveness is undocumented
- Regular maintenance is required

SPEED LIMIT SIGNAGE

Description

- Regulatory speed limit signs

Advantages

- Signs provide a clear indication of speed limit
- Relatively easy and low-cost to install
- Speed limit signs do not slow emergency vehicles

Disadvantages

- Signs alone do not guarantee responsible driving behavior
- Overuse of signs creates visual clutter that leads to a loss of effectiveness
- Speed limit signs below 25 MPH will not be respected
- Signs require regular maintenance

RAISED PAVEMENT MARKERS

Description

- Raised pavement markers (RPMs) are 4 inch diameter by 3/4 inch high nonreflective markers that are affixed to the pavement, providing tactile feedback to drivers

Advantages

- Relatively easy and low cost to install
- RPMs do not slow emergency vehicles

Disadvantages

- RPMs must be replaced as they become dislodged over time
- RPMs should not be used on any streets where the roads may be plowed after snowfall
- Residents may complain of noise from vehicles driving over RPMs

PARKING STRATEGIES

Description

- Several of the non-physical, narrowing, and horizontal measures may reduce or eliminate available parking, while others may offer opportunities to create additional parking

Advantages

- Reconfiguring the use of available street width can increase parking where needed
- No Parking zones near intersections and driveways can improve safety for motorists, pedestrians and cyclists
- The presence of perpendicular or angled parked vehicles reduces traffic speeds

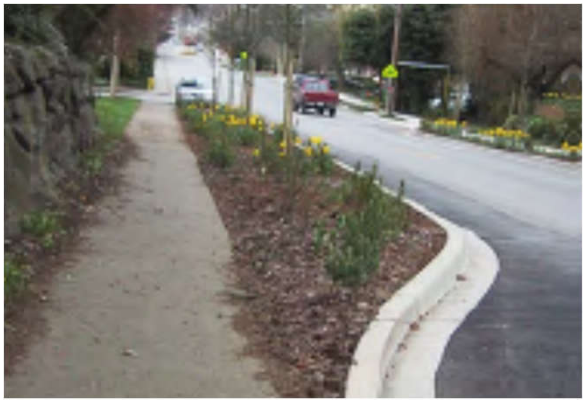
Disadvantages

- Angled and parallel parking preclude bike lanes
- Frequent driveways limit parking treatment options
- Angled and parallel parking increase backing-out collision potential

NECKDOWNS AND BULBOUTS

Description

- Raised curb extensions at intersections that reduce the roadway width from curb to curb, increasing pedestrian comfort and safety



Advantages

- Decreases vehicle speeds
- Reduces pedestrian crossing distance
- Clearly delineates areas of pedestrian activity

Disadvantages

- May reduce on-street parking
- Complicates drainage design
- Reduces bicycle lane and/or side of road area used by bicyclists
- May slow right-turning emergency response vehicles

LANE NARROWING WITH CENTER ISLAND/PEDESTRAIN REFUGE

Description

- Construction of a center island on a wider street can serve to reduce the width of the travel lanes and to provide a pedestrian refuge area

Advantages

- Decreases vehicle speeds
- Reduces pedestrian crossing distance
- Clearly delineates areas of pedestrian activity
- Opportunity for landscaping, visual enhancement, and neighborhood

Disadvantages

- May reduce on-street parking
- Longer islands may impact driveway access and result in U-turns
- May impact snow removal operations

ROAD NARROWING/DETACHED SIDEWALKS

Description

- Sidewalk that is separated from a curb by grass, trees, landscaping, street lights, or other streetscape elements

Advantages

- Increases pedestrian safety and reduces the width of pedestrian crossings
- Enhances streetscape
- Reduces vehicle speeds

Disadvantages

- Landscaping maintenance may be required
- Detached sidewalks are not as effective as physical measures in slowing speeds
- Expensive

TRAFFIC CIRCLE

Description

- Traffic circles are raised islands, placed in intersections, around which traffic circulates. Yield signs can be used as traffic controls at the approaches of the traffic circle

Advantages

- Effective at slowing travel speed
- Improves safety
- Provides increased access to main street from side street

Disadvantages

- Slows emergency vehicles and can be difficult for large vehicles to circumnavigate
- May eliminate some on-street parking
- May require modifications to curb, gutter, and sidewalks

ROUNDABOUT

Description

- Roundabouts require traffic to circulate counterclockwise around a center island. Unlike traffic circles, roundabouts are used on higher volume streets to allocate right-of-way among competing movements

Advantages

- Enhanced safety compared to traffic signals or stop signs
- Minimize queuing at approaches
- Less expensive to operate than traffic signals
- Generally, aesthetically pleasing if well landscaped

Disadvantages

- May be difficult for large vehicles to circumnavigate
- Must be designed so that the circulating lane does not encroach on the crosswalks
- May reduce on-street parking

Landscaping must be maintained by the residents or by the municipality

CHICANE

Description

- Chicanes are curb extensions that alternate from one side of the roadway to the other, forming s-shaped curves

Advantages

- Offer visual traffic calming effect by reducing line of sight
- Can reduce pedestrian crossing distance
- Reduces travel speeds
- Negotiable by emergency vehicles
- Provide opportunities for streetscaping

Disadvantages

- May divert traffic to adjacent roadways
- The effect on vehicle speeds is limited
- May require bicyclists to merge with vehicular traffic for a short distance
- May require removal of some on- street parking
- Curb realignment and landscaping can be costly, especially if there are drainage issues

LATERAL SHIFT

Description

- A lateral shift consists of curb extensions along straight streets that cause travel lanes to jog. It is like a chicane, however the roadway alignment only shifts once

Advantages

- Community acceptance is generally higher
- Fewer maintenance issues than a comparable method
- Does not reduce traffic volumes unless design includes a lane reduction
- Negotiable by emergency vehicles

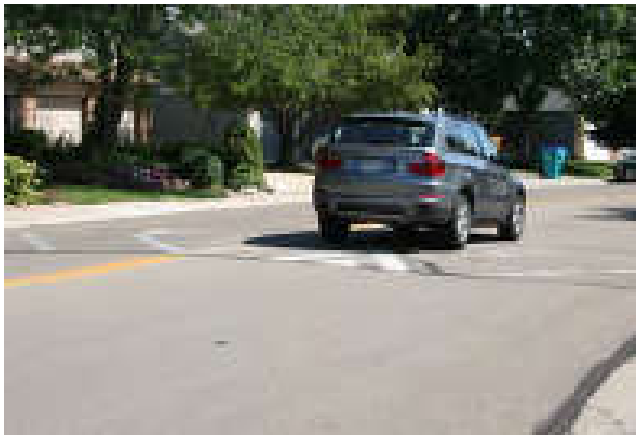
Disadvantages

- Impacts snow maintenance
- May require additional effort to properly design
- May reduce on-street parking

SPEED HUMP

Description

- Speed humps consist of raised pavement placed across the entire roadway width creating a vertical deflection to slow vehicles



Advantages

- Decreases vehicle speeds
- Discourages cut through traffic
- Inexpensive and easy to construct

Disadvantages

- • May cause speeding between humps
- • May divert traffic to an adjacent neighborhood street
- • May increase noise levels as vehicles decelerate and accelerate

SPEED TABLE

Description

- Speed tables are trapezoidal shaped speed humps with a flat section in the middle and ramps on the ends

Advantages

- Effective at slowing travel speed
- Possible reduction in traffic volumes depending on available alternate routes
- Possible decrease in collisions
- In cases with crosswalk, increases pedestrian visibility and likelihood that driver yields to pedestrian
- Typically preferred by EMS compared with speed humps

Disadvantages

- May inadvertently divert local drivers to another route to avoid the calming measure
- Textured materials can be expensive, if used
- May increase noise and air pollution
- May not be appropriate along bus or emergency routes
- Drainage impacts need to be considered in the design

SPEED KIDNEY

Description

- Speed Kidneys are an arrangement of three speed lumps elongated with a curvilinear shape in the direction of traffic. The main speed lumps of the speed kidney are placed in the travel lane, while a complimentary speed lump is placed between the lanes

Advantages

- Decreases vehicle speeds
- Discourages cut through traffic
- Inexpensive and easy to construct

Disadvantages

- May cause speeding beyond the speed kidney
- May divert traffic to an adjacent neighborhood street
- May increase noise levels as vehicles decelerate and accelerate

PUBLIC INPUT

QUESTIONS?

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SURVEY AND OTHER INFORMATION

1. Survey posted to cabq.gov/traffic
2. Presentation slides posted to cabq.gov/traffic
3. Email any questions comments & concerns to: NTMP@cabq.gov
4. Deadline for survey and comment: August 25, 2021