



## Traffic and Parking Commission Agenda

1. **Call to Order and Roll Call**
2. **Announcement Regarding: Compliance with Open Meeting Law**
3. **Public Comment:** Comment during this portion of the agenda must be limited to matters on the agenda for action. If you wish to be heard, come forward and give your name for the record. The amount of discussion, as well as the amount of time any single speaker is allowed, may be limited.
4. For possible action to approve the Final Minutes by reference of the Regular Meeting of August 26, 2021
5. Discussion for possible action to install speed cushions on Diamond Head Drive between Lamb Boulevard and Marion Drive – Ward 3 (Diaz)
6. TABLED – Discussion for possible action to change the speed limit on Lake Mead Boulevard between the Clark County 215 Beltway and Anasazi Drive/Sun City Boulevard from 35 MPH to 45 MPH – Wards 2 and 4 (Seaman and Anthony)
7. Discussion for possible action to install speed cushions on Lorenzi Street between Alta Drive and Charleston Boulevard – Ward 1 (Knudsen)
8. **Citizens Participation:** Public comment during this portion of the agenda must be limited to matters within the jurisdiction of the Commission. No subject may be acted upon by the Commission unless that subject is on the agenda and is scheduled for action. If you wish to be heard, come forward and give your name for the record. The amount of discussion on any single subject, as well as the amount of time any single speaker is allowed, may be limited.
9. **Adjournment**

Facilities are provided throughout City Hall for the convenience of persons with disabilities. Reasonable efforts will be made to assist and accommodate persons with disabilities or impairments. If you need an accommodation to attend and participate in this meeting, please call the City Clerk's office at 702-229-6311 and advise of your need at least 48 hours in advance of the meeting. Dial 7-1-1 for Relay Nevada.

THIS MEETING HAS BEEN PROPERLY NOTICED AND POSTED AT THE FOLLOWING LOCATIONS  
IN ACCORDANCE WITH THE NOTICING STANDARDS AS OUTLINED IN NRS 241.020:

The City of Las Vegas website – [www.lasvegasnevada.gov](http://www.lasvegasnevada.gov)  
The Nevada Public Notice website – [notice.nv.gov](http://notice.nv.gov)  
City Hall, 495 South Main Street, 1st Floor

## **AGENDA DOCUMENTATION**

DATE: FEBRUARY 24, 2022  
TO: TRAFFIC AND PARKING COMMISSION  
FROM: TRANSPORTATION ENGINEERING DIVISION  
SUBJECT: **ITEM 5**

### **DISCUSSION FOR POSSIBLE ACTION TO INSTALL SPEED CUSHIONS ON DIAMOND HEAD DRIVE BETWEEN LAMB BOULEVARD AND MARION DRIVE – WARD 3 (DIAZ)**

#### **SITUATION**

The Transportation Engineering Division of the City of Las Vegas received notification that residents living on Diamond Head Drive between Lamb Boulevard and Marion Drive were concerned about speeding in front of their homes. In response, a speed study was conducted and found this segment to be a candidate for the installation of speed cushions based on the City's Neighborhood Traffic Management Program criteria.

On August 16, 2021, ballots were mailed to fifty-nine (59) single family and condominium property owners and all tenants in a senior apartment complex on Diamond Head Drive. Eight (8) ballots from single family and condominium homes and twenty-five (25) from the apartment complex were received in favor of the speed cushions. The City received one (1) letter opposing the speed cushions.

The City of Las Vegas Fire Department will support this installation in accordance with City of Las Vegas Fire #6631 Traffic Calming Devices as long as they meet all required specifications set forth by the City of Las Vegas.

#### **STAFF RECOMMENDATION**

The Transportation Engineering Division recommends installation of speed cushions on Diamond Head Drive between Lamb Boulevard and Marion Drive.



## MEMORANDUM

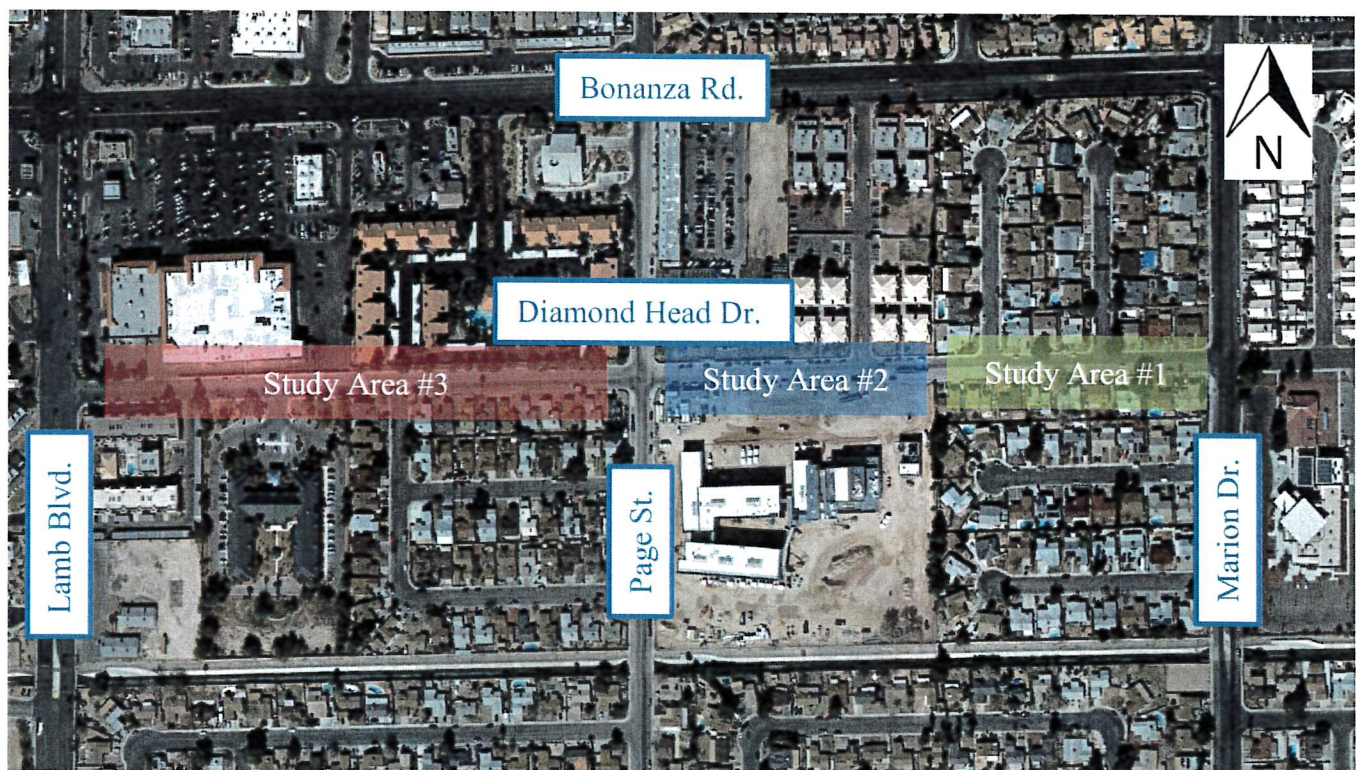
Department of Public Works – Transportation Division

Date: August 5, 2021

Re: Diamond Head Drive between Lamb Boulevard and Marion Drive Speed Hump Study – Ward 3

### Background

On November 24, 2020, a resident called the Transportation Engineering Division to inquire about installing speed humps on Diamond Head Dr. between Lamb Blvd. and Marion St. After being informed of the City's process for such installations, the resident was subsequently able to receive neighborhood support and sent a petition with 10 signatures on February 2, 2021. The Division conducted three speed and volume studies between Lamb Blvd. and Marion Dr.: the first on February 3, 2021, the second on May 12, 2021, and the third on June 22, 2021. Typically, one study is sufficient, but three were performed in this case to ensure there were no inaccuracies caused by the potential reduction of traffic during the COVID-19 pandemic.



### Existing conditions

Diamond Head Dr. has 60-feet of right-of-way and is classified as a local road and a secondary fire response route. It has one travel lane in each direction, and parking is permitted on both sides of the street. The current posted speed limit is 25 miles-per-hour (mph). There is a 15 mph school zone along the frontage of Elbert Edwards Elementary School, on Page St. from Diamond Head Dr. to the Cedar Drainage Trail.

Diamond Head Dr. runs east-west and traverses along a residential area, a childcare center, an elementary school, a senior center, and backs a shopping center. Several homes directly front the street, and access to adjacent residential neighborhoods is present. Elbert Edwards Elementary School is located on the southeast corner of Diamond Head Dr. and Page St.



### Intersection Control

The corridor is intersected by three major roads: Lamb Blvd., Page St., and Marion Dr., each with two-way stop control for Diamond Head Dr. The Diamond Head Dr./Lamb Blvd. intersection is a T-intersection, with one-way stop control for Diamond Head Dr.

### **Speed and volume**

Traffic speed and volume data were collected on February 3, 2021, for west of Marion Dr., on May 12, 2021, for east of Page St, and on June 22, 2021, for west of Page St. Findings are summarized below and are included in full in Appendix A.

*Table 2: Corridor speed and volume study summary (dual direction)*

| Corridor                            | Speed Limit (mph) | Average (mph) | 85 <sup>th</sup> Percentile (mph) | Total Volume |
|-------------------------------------|-------------------|---------------|-----------------------------------|--------------|
| Diamond Head Dr. west of Marion Dr. | 25                | 27            | 37                                | 920          |
| Diamond Head Dr. east of Page St.   | 25                | 25            | 35                                | 1219         |
| Diamond Head Dr. west of Page St.   | 25                | 32            | 44                                | 1092         |

#### **Diamond Head Dr. west of Marion Dr.:**

- The 85th percentile speeds along the corridor were 40 mph and 35 mph in the eastbound and westbound directions, respectively, and the average speeds were 29 mph and 25 mph, respectively, during the study period. In both directions, 39% of the vehicles were observed traveling at speeds greater than 30 mph. A total of 920 vehicles (in both directions) were counted within a 24-hour period.

#### **Diamond Head Dr. east of Page St.:**

- The 85th percentile speeds along the corridor were 31 mph and 39 mph in the eastbound and westbound directions, respectively. The average speeds were 20 mph and 31 mph, respectively, during the study period. In both directions, 42% of the vehicles were observed traveling at speeds greater than 30 mph. A total of 1219 vehicles (in both directions) were counted within a 24-hour period.

#### **Diamond Head Dr. west of Page St.:**

- The data revealed that the 85th percentile speeds along the corridor were 37 mph and 53 mph in the eastbound and westbound directions, respectively. The average speeds were 28 mph and 39 mph, respectively, during the study period. In both directions, 57% of the vehicles were observed traveling at speeds greater than 30 mph. A total of 1092 vehicles (in both directions) were counted within a 24-hour period.

### **Crash experience**

Crash data was obtained from the Nevada Department of Transportation (NDOT) and the Las Vegas Metropolitan Police Department (LVMPD) for the three-year period from January 2017 through January 2019. Findings are summarized below.

*Table 1: Corridor crash data*

| Corridor                           | Year         | Crash Type       | Vehicle Factor                                                 |
|------------------------------------|--------------|------------------|----------------------------------------------------------------|
| Diamond Head Dr. and Lamb Blvd     | 2017         | Non-collision    | Failure to Maintain Lane                                       |
| Diamond Head Dr. and Airshire Ct.: | 2017<br>2018 | Backing<br>Angle | Failure to Yield Right of Way<br>Failure to Yield Right of Way |



Trends on Diamond Head Dr. and Lamb Blvd.:

- Based on review of the data, no unusual trends or crash patterns were identifiable. The one crash was due to the driver hitting a wall or fence.

Trends on Diamond Head Dr. and Airshire Ct.:

- Based on review of the data, no unusual trends or crash patterns were identifiable. The crashes were due to drivers either trying to make a u-turn or backing into the travel lane without yielding to right of way.

### Speed hump/cushion study

The installation of speed humps is determined by a points system outlined in a City Council-approved document called "Streets: A User's Manual. Your Guide to the Las Vegas Neighborhood Traffic Management Program" (NTMP). The complete NTMP document can be accessed at: <https://files.lasvegasnevada.gov/public-works/Neighborhood-Traffic-Management-Program.pdf>.

Three speed hump point studies were performed on Diamond Head Dr. per the procedures set forth in the NTMP. The first was performed on February 3, 2021, for west of Marion Dr., the second on May 12, 2021, for east of Page St, and the third on June 22, 2021, for west of Page St. Findings are summarized below and are included in full in Appendix B.

Table 3: Speed hump/cushion minimum requirements

| Minimum speed hump criteria                              | Diamond Head Dr.   |                  |                  |
|----------------------------------------------------------|--------------------|------------------|------------------|
|                                                          | West of Marion Dr. | East of Page St. | West of Page St. |
| Speed limit is 25 mph                                    | Yes                | Yes              | Yes              |
| 85 <sup>th</sup> percentile speed is > 35 mph            | Yes (37)           | Yes (35)         | Yes (44)         |
| Volumes are between 800 and 3000 vpd                     | Yes (920)          | Yes (1219)       | Yes (1092)       |
| Street is a neighborhood collector                       | Yes                | Yes              | Yes              |
| Installation must be visible from 200 feet               | Yes                | Yes              | Yes              |
| Grades are not > than 8%                                 | Yes                | Yes              | Yes              |
| Is not a primary fire response route                     | Yes                | Yes              | Yes              |
| <b>NTMP points (40 minimum to warrant installations)</b> | <b>29</b>          | <b>41</b>        | <b>100</b>       |

A minimum of 40 points is required for a project to be eligible for speed humps. Two of the three speed hump studies performed along the corridor met the City's requirements for installation. The first study did not meet the minimum points but the second and third studies resulted in 41 and 100 points, respectively. An excessive amount of speeding is occurring along the subject corridor: for all three studies, the 85<sup>th</sup> percentile of speeds were greater than 10 mph over the posted speed limit.

### Staff recommendations and actions

The minimum requirements were satisfied, traffic studies revealed speeding issues, and residents along the corridor expressed sufficient support. Therefore, the Transportation Engineering Division recommends the installation of speed humps. Because Diamond Head Dr. is classified as a secondary fire response route, speed "cushions" would be installed instead of speed humps to allow first responders to traverse them without delays.

Multiple speed cushions are recommended due to the length of the corridor in accordance with guidelines established by the Institute of Transportation Engineers (ITE). See Appendix C for ITE's Speed Cushion Fact

Sheet. A total of six speed cushions are recommended to be installed along the subject corridor, three each east and west of Page St. See Appendix D for an exhibit showing the proposed locations.

It shall be noted that the Transportation Engineering Department can only recommend the installation of speed humps/cushions. These recommendations will be presented in a public hearing at a Traffic and Parking Commission meeting, and if approved, forwarded to City Council for consideration. Residents of the fronting street will be notified by mail of the public hearing dates.

---

### Signatures

Prepared By: Lia Grimaldi

Lia Grimaldi, E.I.  
Sr. Engineering Associate

Date: 8/5/21

Reviewed By: Sean Robinson

Sean Robinson, P.E.  
Engineering Project Manager

Date: 8/5/21

Reviewed By: Christina Karanikolas

Christina Karanikolas, P.E., PTOE  
Assistant City Traffic Engineer

Date: 8/11/21

Concurred By: Joey Paskey

Joey Paskey, P.E., PTOE  
Deputy Director/City Traffic Engineer

Date: 8/11/21

#### Requestor information:

*Name: Chris Garcia*

*Address: n/a*

*Phone: 702-400-6399*

*Email: [2chrisgarcia@gmail.com](mailto:2chrisgarcia@gmail.com)*

*CLV Service Request #10229380*



# APPENDIX A

## TRAFFIC DATA

**CITY OF LAS VEGAS**  
**DEPARTMENT OF PUBLIC WORKS, TRAFFIC ENGINEERING DIVISION**  
**24 HOUR SPEED AND VOLUME STUDY**

|                                                 |                                 |          |              |
|-------------------------------------------------|---------------------------------|----------|--------------|
| LOCATION:                                       | Diamond Head Dr W. of Marion Dr | COVID-19 | <b>EXCEL</b> |
| POSTED SPEED LIMIT = 25MPH                      |                                 |          | RHCB         |
| 85 <sup>th</sup> PERCENTILE SPEED = 37 MPH      |                                 |          | AM           |
| AVERAGE SPEED = 27 MPH                          |                                 |          |              |
| % VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 39% |                                 |          |              |
| DATE:                                           | 2/3/2021                        |          |              |

|                            |            |            |            |      |
|----------------------------|------------|------------|------------|------|
| 85 <sup>th</sup> ile speed | 40         | 35         |            |      |
| Avg Speed                  | 29         | 25         |            |      |
| hour BEGINS AT:            | EASTBOUND  | WESTBOUND  | TOTAL      | RANK |
| 0:00                       | 8          | 5          | 13         |      |
| 1:00                       | 2          | 2          | 4          |      |
| 2:00                       | 7          | 3          | 10         |      |
| 3:00                       | 2          | 4          | 6          |      |
| 4:00                       | 2          | 5          | 7          |      |
| 5:00                       | 3          | 14         | 17         |      |
| 6:00                       | 2          | 20         | 22         |      |
| 7:00                       | 18         | 29         | 47         |      |
| 8:00                       | 19         | 30         | 49         |      |
| 9:00                       | 20         | 29         | 49         | 8    |
| 10:00                      | 20         | 16         | 36         |      |
| 11:00                      | 35         | 22         | 57         | 6    |
| 12:00                      | 20         | 23         | 43         |      |
| 13:00                      | 23         | 29         | 52         | 7    |
| 14:00                      | 31         | 28         | 59         | 5    |
| 15:00                      | 44         | 38         | 82         | 1    |
| 16:00                      | 33         | 38         | 71         | 3    |
| 17:00                      | 30         | 46         | 76         | 2    |
| 18:00                      | 29         | 35         | 64         | 4    |
| 19:00                      | 22         | 25         | 47         |      |
| 20:00                      | 19         | 17         | 36         |      |
| 21:00                      | 12         | 25         | 37         |      |
| 22:00                      | 15         | 12         | 27         |      |
| 23:00                      | 7          | 2          | 9          |      |
| <b>24 HR. TOTAL:</b>       | <b>423</b> | <b>497</b> | <b>920</b> |      |

HIGH 8 HOURS = 510

**COMMERCIAL TRAFFIC:**

EASTBOUND 0.0%

WESTBOUND 0.0%

**TWO-WAY 0.0%**

(TWO-WAY IS WEIGHTED AVERAGE)

MACHINE COUNTS NC-350

MACHINE COUNTS NC-350

**CITY OF LAS VEGAS**  
**DEPARTMENT OF PUBLIC WORKS, TRAFFIC ENGINEERING DIVISION**  
**24 HOUR SPEED AND VOLUME STUDY**

|                                                 |           |           |       |      |
|-------------------------------------------------|-----------|-----------|-------|------|
| LOCATION: Diamond Head Dr E. of Page St         |           |           |       |      |
| POSTED SPEED LIMIT = 25MPH                      |           |           |       |      |
| 85 <sup>th</sup> PERCENTILE SPEED = 35MPH       |           |           |       |      |
| AVERAGE SPEED = 25MPH                           |           |           |       |      |
| % VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 42% |           |           |       |      |
| DATE: 5/12/2021                                 |           |           |       |      |
| 85 <sup>th</sup> ile speed                      | 31        | 39        |       |      |
| Avg Speed                                       | 20        | 31        |       |      |
| hour begins at:                                 | EASTBOUND | WESTBOUND | TOTAL | RANK |
| 0:00                                            | 8         | 2         | 10    |      |
| 1:00                                            | 1         | 4         | 5     |      |
| 2:00                                            | 4         | 3         | 7     |      |
| 3:00                                            | 3         | 1         | 4     |      |
| 4:00                                            | 3         | 4         | 7     |      |
| 5:00                                            | 7         | 14        | 21    |      |
| 6:00                                            | 9         | 28        | 37    |      |
| 7:00                                            | 60        | 66        | 126   |      |
| 8:00                                            | 16        | 31        | 47    |      |
| 9:00                                            | 26        | 21        | 47    |      |
| 10:00                                           | 18        | 22        | 40    |      |
| 11:00                                           | 16        | 32        | 48    |      |
| 12:00                                           | 28        | 18        | 46    |      |
| 13:00                                           | 29        | 50        | 79    |      |
| 14:00                                           | 85        | 55        | 140   |      |
| 15:00                                           | 55        | 30        | 85    |      |
| 16:00                                           | 44        | 30        | 74    |      |
| 17:00                                           | 44        | 37        | 81    |      |
| 18:00                                           | 41        | 31        | 72    |      |
| 19:00                                           | 38        | 41        | 79    |      |
| 20:00                                           | 26        | 24        | 50    |      |
| 21:00                                           | 19        | 29        | 48    |      |
| 22:00                                           | 31        | 19        | 50    |      |
| 23:00                                           | 10        | 6         | 16    |      |
| 24 HR. TOTAL:                                   | 621       | 598       | 1219  |      |

HIGH 8 HOURS = 0

**COMMERCIAL TRAFFIC:**

EASTBOUND 0.0%

WESTBOUND 0.0%

**TWO-WAY 0.0%**

(TWO-WAY IS WEIGHTED AVERAGE)

MACHINE COUNTS NC-350

MACHINE COUNTS NC-350



**CITY OF LAS VEGAS**  
**DEPARTMENT OF PUBLIC WORKS, TRAFFIC ENGINEERING DIVISION**  
**24 HOUR SPEED AND VOLUME STUDY**

|                                                  |           |           |       |       |
|--------------------------------------------------|-----------|-----------|-------|-------|
| LOCATION: Diamond Head Dr W. of Page St          |           |           |       | EXCEL |
| POSTED SPEED LIMIT = 25MPH                       |           |           |       | RHCB  |
| 85 <sup>th</sup> PERCENTILE SPEED = 44MPH        |           |           |       | AM    |
| AVERAGE SPEED = 32MPH                            |           |           |       |       |
| % VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 57 % |           |           |       |       |
| DATE: 6/22/2021                                  |           |           |       |       |
|                                                  |           |           |       |       |
| 85 <sup>th</sup> ile speed                       | 37        | 53        |       |       |
| Avg Speed                                        | 28        | 39        |       |       |
| HOUR BEGINS AT:                                  | EASTBOUND | WESTBOUND | TOTAL | RANK  |
| 0:00                                             | 10        | 3         | 13    |       |
| 1:00                                             | 8         | 4         | 12    |       |
| 2:00                                             | 8         | 4         | 12    |       |
| 3:00                                             | 7         | 5         | 12    |       |
| 4:00                                             | 8         | 7         | 15    |       |
| 5:00                                             | 8         | 14        | 22    |       |
| 6:00                                             | 17        | 17        | 34    |       |
| 7:00                                             | 21        | 36        | 57    | 8     |
| 8:00                                             | 14        | 28        | 42    |       |
| 9:00                                             | 22        | 20        | 42    |       |
| 10:00                                            | 24        | 24        | 48    |       |
| 11:00                                            | 26        | 19        | 45    |       |
| 12:00                                            | 34        | 23        | 57    | 7     |
| 13:00                                            | 33        | 35        | 68    | 5     |
| 14:00                                            | 53        | 36        | 89    | 1     |
| 15:00                                            | 41        | 29        | 70    |       |
| 16:00                                            | 53        | 27        | 80    | 3     |
| 17:00                                            | 46        | 29        | 75    | 4     |
| 18:00                                            | 55        | 33        | 88    | 2     |
| 19:00                                            | 46        | 22        | 68    | 6     |
| 20:00                                            | 29        | 18        | 47    |       |
| 21:00                                            | 31        | 18        | 49    |       |
| 22:00                                            | 17        | 8         | 25    |       |
| 23:00                                            | 11        | 11        | 22    |       |
| 24 HR. TOTAL:                                    | 622       | 470       | 1092  |       |

HIGH 8 HOURS = 582

**COMMERCIAL TRAFFIC:**

EASTBOUND 0.0%

WESTBOUND 0.0%

**TWO-WAY 0.0%**

(TWO-WAY IS WEIGHTED AVERAGE)

MACHINE COUNTS NC-350

MACHINE COUNTS NC-350

APPENDIX B

SPEED HUMP DATA

**NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM**  
**STREET NAME AND LIMITS**

**DIAMOND HEAD DR W. OF MARION DR**

DATE OF COUNT: February 3, 2021

WARD: 3

**1 85TH PERCENTILE SPEED**

85<sup>TH</sup> PERCENTILE SPEED MUST BE GREATER THAN 35 MPH

36 MPH - 40 MPH = FACTOR OF 1.1 TO 1.5

GREATER THAN 40 MPH = FACTOR OF 2

\*TOTAL POINTS TO BE MULTIPLIED BY 85<sup>TH</sup> PERCENTILE FACTOR

37 MPH FACTOR = 1.2

**2 EMERGENCY RESPONSE ROUTE**

STREET CANNOT BE A MAJOR EMERGENCY RESPONSE ROUTE

MAJOR EMERGENCY RESPONSE ROUTE: NO  
SECONDARY EMERGENCY RESPONSE ROUTE: YES

**3 TRAFFIC VOLUME**

AVERAGE DAILY TRAFFIC VOLUME (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST VOLUME), DIVIDED BY 100.

30 POINTS MAXIMUM SCORE.

[NOTE: IF THE VOLUME IS BELOW 800 VPD, THE NTMP SHALL NOT BE APPLIED, REGARDLESS OF OTHER SCORES]

ADT = 920 PTS 9

**4 SPEED**

PERCENTAGE OF VEHICLES TRAVELING MORE THAN 5 MPH OVER THE SPEED LIMIT (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST PERCENTAGE OVER THE LIMIT), DIVIDED BY 4.

20 POINTS MAXIMUM SCORE.

39 % PTS 10

**5 ACCIDENTS**

ACCIDENT RATE OVER 3 CONSECUTIVE YEARS (ACCIDENTS PER MILLION VEHICLE MILES TRAVELED).

20 POINTS MAXIMUM SCORE.

PROJECT LENGTH IN MILES = 0.2  
ACCIDENTS IN LAST 3 YEARS = 0

PTS = (# ACC)(PROJECT LENGTH)(ADT)(3 YEARS)/(1MILLION) PTS 0

**6 ELEMENTARY SCHOOLS**

5 POINTS FOR EACH PRIVATE OR PUBLIC ELEMENTARY OR MIDDLE SCHOOL ON OR WITHIN 200 FEET OF THE SUBJECT STREET .

EA = 1 PTS 5

**7 OTHER EXTRAORDINARY CIRCUMSTANCES**

UP TO 5 POINTS FOR EACH INDIVIDUAL PEDESTRIAN-ORIENTED FACILITY, SUCH AS ELDERLY HOUSING OR A PARK ON OR WITHIN 200 FEET OF THE SUBJECT STREET.

EA = 0 PTS 0

1 POINT FOR EACH SCHOOL BUS STOP ALONG THE STREET SEGMENT.

EA = 0 PTS 0

UP TO 5 POINTS FOR EACH PUBLIC PROJECT EXTERNAL TO THE NEIGHBORHOOD WHICH WILL SIGNIFICANTLY INCREASE THE TRAFFIC CUTTING THROUGH THE NEIGHBORHOOD.

EA = 0 PTS 0

1 POINT FOR EACH SIDE STREET WHICH HAS SIGHT VISIBILITY BELOW 25 MPH. 10 POINTS MAXIMUM SCORE.

EA = 0 PTS 0

**8 DESIGNATED PEDESTRIAN ROUTES**

5 POINTS WHENEVER A SUGGESTED ROUTE-TO-SCHOOL CROSSES THE SUBJECT STREET.

EA = 0 PTS 0

FIVE (5) MORE POINTS IF THE CROSSING IS LOCATED WHERE TRAFFIC ON THE SUBJECT STREET IS NOT CONTROLLED BY EITHER A STOP SIGN OR A TRAFFIC SIGNAL.

EA = 0 PTS 0

**TOTAL POINTS =** 24

**\*TOTAL POINTS X 85TH PERCENTILE FACTOR**

A MINIMUM OF 40 POINTS IS REQUIRED FOR A PROJECT TO BE ELIGIBLE FOR THIS PROGRAM.

**TOTAL NTMP PTS =** 29

CRITERIA MET: NO

TYPE OF TRAFFIC MANAGEMENT DEVICE RECOMMENDED

**COMMENTS**

1. POSTED SPEED: 25 MPH
2. RIGHT-OF-WAY WIDTH: 50 FT.
- 3.
- 4.

# NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

## STREET NAME AND LIMITS

### DIAMOND HEAD DRIVE E. OF PAGE STREET

DATE OF COUNT: **May 12, 2021**

WARD: **3**

#### 1 85TH PERCENTILE SPEED

85<sup>TH</sup> PERCENTILE SPEED MUST BE GREATER THAN 35 MPH

36 MPH - 40 MPH = FACTOR OF 1.1 TO 1.5

GREATER THAN 40 MPH = FACTOR OF 2

\*TOTAL POINTS TO BE MULTIPLIED BY 85<sup>TH</sup> %TILE FACTOR

**35** MPH FACTOR = **1**

#### 2 EMERGENCY RESPONSE ROUTE

STREET CANNOT BE A MAJOR EMERGENCY RESPONSE ROUTE

MAJOR EMERGENCY RESPONSE ROUTE: **NO**  
SECONDARY EMERGENCY RESPONSE ROUTE: **YES**

#### 3 TRAFFIC VOLUME

AVERAGE DAILY TRAFFIC VOLUME (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST VOLUME), DIVIDED BY 100.

30 POINTS MAXIMUM SCORE.

[NOTE: IF THE VOLUME IS BELOW 800 VPD, THE NTMP SHALL NOT BE APPLIED, REGARDLESS OF OTHER SCORES]

ADT= **1219** PTS **12**

#### 4 SPEED

PERCENTAGE OF VEHICLES TRAVELING MORE THAN 5 MPH OVER THE SPEED LIMIT (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST PERCENTAGE OVER THE LIMIT), DIVIDED BY 4.

20 POINTS MAXIMUM SCORE.

**42 %** PTS **11**

#### 5 ACCIDENTS

ACCIDENT RATE OVER 3 CONSECUTIVE YEARS (ACCIDENTS PER MILLION VEHICLE MILES TRAVELED).

20 POINTS MAXIMUM SCORE.

PROJECT LENGTH IN MILES= **0.2**  
ACCIDENTS IN LAST 3 YEARS= **1**

PTS=(# ACC)(PROJECT LENGTH)(ADT)(3 YEARS)/(1MILLION) PTS **4**

#### 6 ELEMENTARY SCHOOLS

5 POINTS FOR EACH PRIVATE OR PUBLIC ELEMENTARY OR MIDDLE SCHOOL ON OR WITHIN 200 FEET OF THE SUBJECT STREET .

EA.= **1** PTS **5**

#### 7 OTHER EXTRAORDINARY CIRCUMSTANCES

UP TO 5 POINTS FOR EACH INDIVIDUAL PEDESTRIAN-ORIENTED FACILITY, SUCH AS ELDERLY HOUSING OR A PARK ON OR WITHIN 200 FEET OF THE SUBJECT STREET.

EA.= **1** PTS **5**

1 POINT FOR EACH SCHOOL BUS STOP ALONG THE STREET SEGMENT.

EA.= **0** PTS **0**

UP TO 5 POINTS FOR EACH PUBLIC PROJECT EXTERNAL TO THE NEIGHBORHOOD WHICH WILL SIGNIFICANTLY INCREASE THE TRAFFIC CUTTING THROUGH THE NEIGHBORHOOD.

EA.= **1** PTS **5**

1 POINT FOR EACH SIDE STREET WHICH HAS SIGHT VISIBILITY BELOW 25 MPH. 10 POINTS MAXIMUM SCORE.

EA.= **0** PTS **0**

#### 8 DESIGNATED PEDESTRIAN ROUTES

5 POINTS WHENEVER A SUGGESTED ROUTE-TO-SCHOOL CROSSES THE SUBJECT STREET.

EA.= **0** PTS **0**

FIVE (5) MORE POINTS IF THE CROSSING IS LOCATED WHERE TRAFFIC ON THE SUBJECT STREET IS NOT CONTROLLED BY EITHER A STOP SIGN OR A TRAFFIC SIGNAL.

EA.= **0** PTS **0**

**TOTAL POINTS= 41**

**TOTAL NTMP PTS = 41**

\*TOTAL POINTS X 85<sup>TH</sup>%TILE FACTOR

A MINIMUM OF 40 POINTS IS REQUIRED FOR A PROJECT TO BE ELIGIBLE FOR THIS PROGRAM.

CRITERIA MET: YES

TYPE OF TRAFFIC MANAGEMENT DEVICE RECOMMENDED

#### COMMENTS

1. POSTED SPEED: 25 MPH
2. RIGHT-OF-WAY WIDTH: 50 FT.
3. ( ??? ) 2018- 1 ACCIDENT EB UTURN INTO EBT
4. CVS & Market- Lamb & Bonanza



**NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM**  
**STREET NAME AND LIMITS**

**Diamond Head Dr W. of Page St**

DATE OF COUNT: **June 22, 2021**

WARD: **3**

**1 85TH PERCENTILE SPEED**

85<sup>TH</sup> PERCENTILE SPEED MUST BE GREATER THAN 35 MPH

36 MPH - 40 MPH = FACTOR OF 1.1 TO 1.5

GREATER THAN 40 MPH = FACTOR OF 2

\*TOTAL POINTS TO BE MULTIPLIED BY 85<sup>TH</sup> PERCENTILE FACTOR

44 MPH FACTOR = 2

**2 EMERGENCY RESPONSE ROUTE**

STREET CANNOT BE A MAJOR EMERGENCY RESPONSE ROUTE

MAJOR EMERGENCY RESPONSE ROUTE: NO  
SECONDARY EMERGENCY RESPONSE ROUTE: YES

**3 TRAFFIC VOLUME**

AVERAGE DAILY TRAFFIC VOLUME (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST VOLUME), DIVIDED BY 100.

30 POINTS MAXIMUM SCORE.

[NOTE: IF THE VOLUME IS BELOW 800 VPD, THE NTMP SHALL NOT BE APPLIED, REGARDLESS OF OTHER SCORES]

ADT = 1092 PTS 11

**4 SPEED**

PERCENTAGE OF VEHICLES TRAVELING MORE THAN 5 MPH OVER THE SPEED LIMIT (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST PERCENTAGE OVER THE LIMIT), DIVIDED BY 4.

20 POINTS MAXIMUM SCORE.

57 % PTS 14

**5 ACCIDENTS**

ACCIDENT RATE OVER 3 CONSECUTIVE YEARS (ACCIDENTS PER MILLION VEHICLE MILES TRAVELED).

20 POINTS MAXIMUM SCORE.

PROJECT LENGTH IN MILES = 0.2  
ACCIDENTS IN LAST 3 YEARS = 0

PTS = (# ACC)(PROJECT LENGTH)(ADT)(3 YEARS)/(1MILLION) PTS 0

**6 ELEMENTARY SCHOOLS**

5 POINTS FOR EACH PRIVATE OR PUBLIC ELEMENTARY OR MIDDLE SCHOOL ON OR WITHIN 200 FEET OF THE SUBJECT STREET .

EA = 2 PTS 10

**7 OTHER EXTRAORDINARY CIRCUMSTANCES**

UP TO 5 POINTS FOR EACH INDIVIDUAL PEDESTRIAN-ORIENTED FACILITY, SUCH AS ELDERLY HOUSING OR A PARK ON OR WITHIN 200 FEET OF THE SUBJECT STREET.

EA = 2 PTS 10

1 POINT FOR EACH SCHOOL BUS STOP ALONG THE STREET SEGMENT.

EA = 0 PTS 0

UP TO 5 POINTS FOR EACH PUBLIC PROJECT EXTERNAL TO THE NEIGHBORHOOD WHICH WILL SIGNIFICANTLY INCREASE THE TRAFFIC CUTTING THROUGH THE NEIGHBORHOOD.

EA = 1 PTS 5

1 POINT FOR EACH SIDE STREET WHICH HAS SIGHT VISIBILITY BELOW 25 MPH. 10 POINTS MAXIMUM SCORE.

EA = 0 PTS 0

**8 DESIGNATED PEDESTRIAN ROUTES**

5 POINTS WHENEVER A SUGGESTED ROUTE-TO-SCHOOL CROSSES THE SUBJECT STREET.

EA = 0 PTS 0

FIVE (5) MORE POINTS IF THE CROSSING IS LOCATED WHERE TRAFFIC ON THE SUBJECT STREET IS NOT CONTROLLED BY EITHER A STOP SIGN OR A TRAFFIC SIGNAL.

EA = 0 PTS 0

**TOTAL POINTS =** 50

**TOTAL NTMP PTS =** 100

\*TOTAL POINTS X 85<sup>TH</sup> PERCENTILE FACTOR

A MINIMUM OF 40 POINTS IS REQUIRED FOR A PROJECT TO BE ELIGIBLE FOR THIS PROGRAM.

CRITERIA MET: YES

TYPE OF TRAFFIC MANAGEMENT DEVICE RECOMMENDED

**COMMENTS**

1. POSTED SPEED: 25 MPH
2. RIGHT-OF-WAY WIDTH: 50 FT.
- 3.
- 4.

APPENDIX C

ITE FACT SHEET

# Traffic Calming Fact Sheets

May 2018 Update

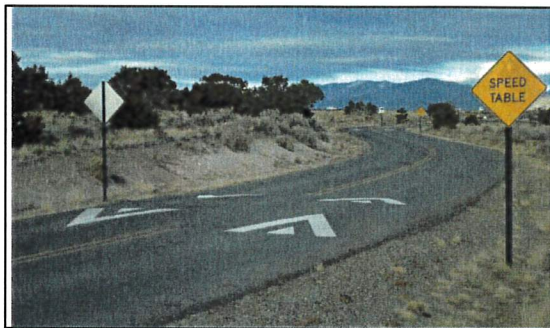
## Speed Cushion

### Description:

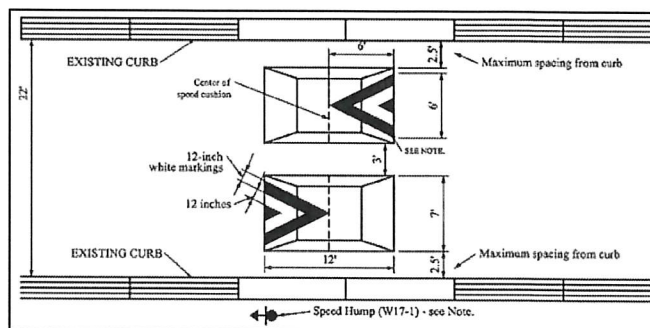
- Two or more raised areas placed laterally across a roadway with gaps between raised areas
- Height and length similar to a speed hump; spacing of gaps allow emergency vehicles to pass through at higher speeds
- Often placed in a series (typically spaced 260 to 500 feet apart)
- Sometimes called speed lump, speed slot, and speed pillow

### Applications:

- Appropriate on local and collector streets
- Appropriate at mid-block locations only
- Not appropriate on grades greater than 8 percent



(Source: James Barrera, Horrocks, New Mexico)



(Source: Delaware Department of Transportation)

**ITE/FHWA Traffic Calming EPrimer:** [https://safety.fhwa.dot.gov/speedmgt/traffic\\_calm.cfm](https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm)

### Design/Installation Issues:

- Two or more cushions at each location
- Typically 12 to 14 feet in length and 7 feet in width
- Cushion heights range between 3 and 4 inches, with trend toward 3 - 3 ½ inches maximum
- Speed cushion shapes include parabolic, circular, and sinusoidal
- Material can be asphalt or rubber
- Often have associated signing (advance-warning sign before first cushion at each cushion)
- Typically have pavement markings (zigzag, shark's tooth, chevron, zebra)
- Some have speed advisories

### Potential Impacts:

- Limited-to-no impact on non-emergency access
- Speeds determined by height and spacing; speed reductions between cushions have been observed averaging 20 and 25 percent
- Speeds typically increase by 0.5 mph midway between cushions for each 100 feet of separation
- Studies indicate that average traffic volumes have reduced by 20 percent depending on alternative routes available
- Average collision rates have been reduced by 13 percent on treated streets

### Emergency Response Issues:

- Speed cushions have minimal impact on emergency response times, with less than a 1 second delay experienced by most emergency vehicles

### Typical Cost (2017 dollars):

- Cost ranges between \$3,000 and \$4,000 for a set of rubber cushions

## APPENDIX D

### EXHIBIT





**LEGEND**

- | APPROXIMATE SPEED CUSHION LOCATION
- RESIDENT APPROVES (33)
- RESIDENT DISAPPROVES (1)



Example of Speed Cushion

|                                                          |                                 |
|----------------------------------------------------------|---------------------------------|
| DIAMOND HEAD DR SPEED CUSHIONS<br>LAMB BLVD TO MARION DR |                                 |
| DEPARTMENT OF PUBLIC WORKS<br>TRANSPORTATION ENGINEERING | DATE: 9/14/2021<br>DRAWN BY: JD |
| SHEET: 1 OF 1                                            |                                 |

10/5/21 F:\PW\TRAFFIC\DWGS\JIM\SPEED HUMPS\_CUSHIONS\DIAMOND HEAD - LAMB TO MARION SPEED CUSHION LOCATIONS 07.21.DWG



## Item 5 – Diamond Head Drive Speed Cushion



### West of Marion Drive:

- Study date: February 3, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 37 mph
- Average Speed: 27 MPH
- 24 hr counts: 920
- Total Points: 29

### East of Page Street:

- Study date: May 12, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 35 mph
- Average Speed: 25 MPH
- 24 hr counts: 1,219
- Total Points: 41

### West of Page Street:

- Study date: June 22, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 44 mph
- Average Speed: 32 MPH
- 24 hr counts: 1,092
- Total Points: 100





# Item 5 – Diamond Head Drive Speed Cushion



## West of Marion Drive:

- Study date: February 3, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 37 mph
- Average Speed: 27 MPH
- 24 hr counts: 920
- Total Points: 29

## East of Page Street:

- Study date: May 12, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 35 mph
- Average Speed: 25 MPH
- 24 hr counts: 1,219
- Total Points: 41

## West of Page Street:

- Study date: June 22, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 44 mph
- Average Speed: 32 MPH
- 24 hr counts: 1,092
- Total Points: 100





# Item 5 – Diamond Head Drive Speed Cushion



## West of Marion Drive:

- Study date: February 3, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 37 mph
- Average Speed: 27 MPH
- 24 hr counts: 920
- Total Points: 29

## East of Page Street:

- Study date: May 12, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 35 mph
- Average Speed: 25 MPH
- 24 hr counts: 1,219
- Total Points: 41

## West of Page Street:

- Study date: June 22, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 44 mph
- Average Speed: 32 MPH
- 24 hr counts: 1,092
- Total Points: 100

Submitted at Meeting by Staff  
Date: 2/24/22 Item: 5





# Item 5 – Diamond Head Drive Speed Cushion



## West of Marion Drive:

- Study date: February 3, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 37 mph
- Average Speed: 27 MPH
- 24 hr counts: 920
- Total Points: 29

## East of Page Street:

- Study date: May 12, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 35 mph
- Average Speed: 25 MPH
- 24 hr counts: 1,219
- Total Points: 41

## West of Page Street:

- Study date: June 22, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 44 mph
- Average Speed: 32 MPH
- 24 hr counts: 1,092
- Total Points: 100





## **AGENDA DOCUMENTATION**

DATE: FEBRUARY 24, 2022  
TO: TRAFFIC AND PARKING COMMISSION  
FROM: TRANSPORTATION ENGINEERING DIVISION  
SUBJECT: **ITEM 6**

### **DISCUSSION FOR POSSIBLE ACTION TO CHANGE THE SPEED LIMIT ON LAKE MEAD BOULEVARD BETWEEN CC-215 AND ANASAZI DRIVE/SUN CITY BOULEVARD FROM 35 MPH TO 45 MPH – WARD 2 (SEAMAN) & Ward 4 (ANTHONY)**

#### **SITUATION**

The Transportation Engineering Division would like to change the speed limit on Lake Mead Boulevard between Clark County 215 and Anasazi Drive/Sun City Boulevard from 35 mph to 45 mph. The Federal Highway Administration's Office of Safety developed an updated web-based tool called USLIMITS2 to aid in the evaluation and setting of speed limits. USLIMITS2 assists traffic engineers in the setting of speed limits for specific sections of roadway based on its characteristics in an effort to reduce speeding-related fatalities and serious injuries. The program was developed based on past studies and logic systems for evaluation of speed limits. It also was developed based on surveys and input from traffic engineers, enforcement personnel, decision makers, and researchers from across the country. The USLIMITS2 program was released in 2012 and is available at the following website: <http://safety.fhwa.dot.gov/uslimits/>. Characteristics that are used in the evaluation of the speed limit for a corridor using USLIMITS2 include the following:

- 50<sup>th</sup> Percentile Speed
- 85<sup>th</sup> Percentile Speed
- Average Annual Daily Traffic
- Crash Rates
- Pedestrian and Bicycle Activity
- Presence of On-Street Parking
- Number of Driveways
- Number of Signalized intersections
- Area Type
- Roadway Geometry / Adverse Alignment

Attached is the result of the study conducted by staff on Lake Mead Boulevard between CC-215 and Anasazi Drive/Sun City Boulevard. Based on this study, staff recommends changing the speed limit from 35 mph to 45 mph.

#### **RECOMMENDATION**

The Transportation Engineering Division recommends permanently changing the posted speed limit from 35 mph to 45 mph on Lake Mead Boulevard between CC-215 and Anasazi Drive/Sun City Boulevard based on the USLIMITS2 evaluation study, road geometrics, and adjacent land uses.



## MEMORANDUM

Department of Public Works – Transportation Division

Date: July 27, 2021

Re: Speed Study: Lake Mead Boulevard – Clark County 215 to  
Anasazi Drive/Sun City Boulevard (Ward 4)

### Background

This study was initiated upon a citizen request for a speed limit study along the subject roadway corridor. Traffic data was collected by City staff over a 4-day period beginning at 12:00 PM on 01/15/2021 and ending at 12:00 PM on 01/18/2021.

### Existing conditions

#### Roadway characteristics

The study limits include an approximate 1-mile section of Lake Mead Blvd. situated in a fully-developed area at the west end of the City of Las Vegas. This subject roadway is classified as a major street, has 2-travel lanes in the eastbound and westbound directions (4 total lanes), and has dedicated bike lanes. The roadway is divided with raised landscaped medians and has continuous roadway lighting. There are traffic signals at the interchange with Clark County 215, and at the intersections with Anasazi Dr. / Sun City Blvd., and Thomas W Ryan Blvd. The subject reach of Lake Mead Blvd. is primarily residential, with existing commercial development located at the east end at Anasazi Dr. / Sun City Blvd.

#### Speed Limits

The current posted speed limit on Lake Mead Blvd. is 35 miles-per-hour (mph). East of Anasazi Dr. / Sun City Blvd., the speed increases to 45 mph, which continues for approximately 5.7-miles until it reaches US 95.

### Crash experience

Crash data was obtained from the Nevada Department of Transportation (NDOT) for the three-year period from January 2017 through January 2020. There were a total of 23 reported crashes of which 14 were injury related resulting in a total 22 injuries and 1 fatality. See Appendix B for more information

### Speed and volume

Based on the 24-hour traffic speed and volume data collected over a 4-day period, the bi-direction mean speed on Lake Mead Blvd. was 51 mph between CC 215 and Thomas W Ryan Blvd., and 47 mph between Thomas W Ryan Blvd. and Anasazi Dr. / Sun City Blvd. See Appendix A, Traffic Data, for raw speed and volume data.

The following is a summary of the vehicular mean speed and 85<sup>th</sup> percentile speed data statistics:

Traffic Speed Summary (Table 1)

| Street Name                                                         | Mean Speed (mph) |    |     |    | 85% Speed (mph) |    |     |    |
|---------------------------------------------------------------------|------------------|----|-----|----|-----------------|----|-----|----|
| Lake Mead Blvd – CC 215 to Thomas W Ryan Blvd.                      | EB:              | 47 | WB: | 50 | EB:             | 50 | WB: | 56 |
| Lake Mead Blvd –Thomas W Ryan Blvd. to Anasazi Dr. / Sun City Blvd. | EB:              | 48 | WB: | 44 | EB:             | 53 | WB: | 48 |

The following is a summary of the vehicular volume data collected:

Traffic Volume Summary (Table 2)

| Street Name                                                         | 24-Hour Average Daily Traffic (ADT) |      |     |      | Totals |
|---------------------------------------------------------------------|-------------------------------------|------|-----|------|--------|
|                                                                     | EB:                                 |      | WB: |      |        |
| Lake Mead Blvd – CC 215 to Thomas W Ryan Blvd.                      | EB:                                 | 4104 | WB: | 4375 | 8479   |
| Lake Mead Blvd –Thomas W Ryan Blvd. to Anasazi Dr. / Sun City Blvd. | EB:                                 | 3595 | WB: | 3794 | 7389   |

## Analysis

The following methods, policies, and guidelines are used by the City of Las Vegas Transportation Engineering Division (TED) for evaluating speed limits:

- Guidelines established by the Manual on Uniform Traffic Control Devices (MUTCD)
- USLIMITS2 expert system analysis tool developed by the Federal Highway Administration (FHWA)
- Engineering judgement

As part of the evaluation process, TED coordinates results and recommendations from the study with local law enforcement and other applicable stakeholders, where appropriate, for support and to identify and resolve any concerns.

In addition to traffic speed and volume, other factors routinely considered include corridor crash and crash injury rates, pedestrian and bicycle activity, number of travel lanes, on-street parking, driveway density, intersection traffic control, access, length of speed zone, adjacent speed zones, and area type.

The USLIMITS output results are summarized in Fig. 3 below. The corridor was broken up into logical segments for analysis: CC 215 to Thomas W Ryan Blvd., and Thomas W Ryan Blvd. to Anasazi Dr. / Sun City Blvd.

USLIMITS2 recommended speed limit summary (Fig. 3)

| Street          | Termini From        | Termini To                   | 85th Percentile Speed (mph) | 50th Percentile Speed (mph) | Section Length (miles) | ADT  | Existing Posted Speed Limit (mph) | Final Recommended Speed Limit (mph) |
|-----------------|---------------------|------------------------------|-----------------------------|-----------------------------|------------------------|------|-----------------------------------|-------------------------------------|
| Lake Mead Blvd. | CC 215              | Thomas W Ryan Blvd.          | 52                          | 45                          | 0.4                    | 8479 | 35                                | 45                                  |
| Lake Mead Blvd. | Thomas W Ryan Blvd. | Anasazi Dr. / Sun City Blvd. | 51                          | 43                          | 0.71                   | 7389 | 35                                | 45                                  |

See Appendix C for USLIMITS 2 analysis.



**Staff recommendation and actions**

Based on analysis of the data, the roadway characteristics, and above analysis, staff recommends raising the speed limit to 45 mph. The subject roadway limits are fully-developed, has limited driveways/access, and the residential subdivisions along the roadway corridor is separated by walls with no fronting homes. Raising the speed limit along this 1-mile stretch of Lake Mead Blvd. would provide for a logical extension of the existing 45 mph speed zone immediately to the east of Anasazi Dr., Sun City Blvd. It is anticipated that this would improve driver expectancy by providing a consistent speed limit, and provide for a speed zone that is more in-line with the characteristics of the roadway. Likewise, the recommended speed limit should improve the enforceability of the speed limit by law enforcement. If the speed limit change is approved, it is recommended that an “after” study be conducted approximately 6 months after implementation to evaluate the resulting safety and performance of the roadway.

---

**Signatures**

Prepared By: Eric Meyer  
Eric Meyer, P.E., PTOE  
Engineering Project Manager

Date: 8/4/2021

Reviewed By: Christina Karanikolas  
Christina Karanikolas, P.E., PTOE  
Assistant City Traffic Engineer

Date: 8/2/2021

Concurred By: Joey Paskey  
Joey Paskey, P.E., PTOE  
Deputy Director/Transportation Manager/City Traffic Engineer

Date: 8/4/2021

Requestor information:  
*Internal – Joey Paskey*

# APPENDIX A

## TRAFFIC DATA

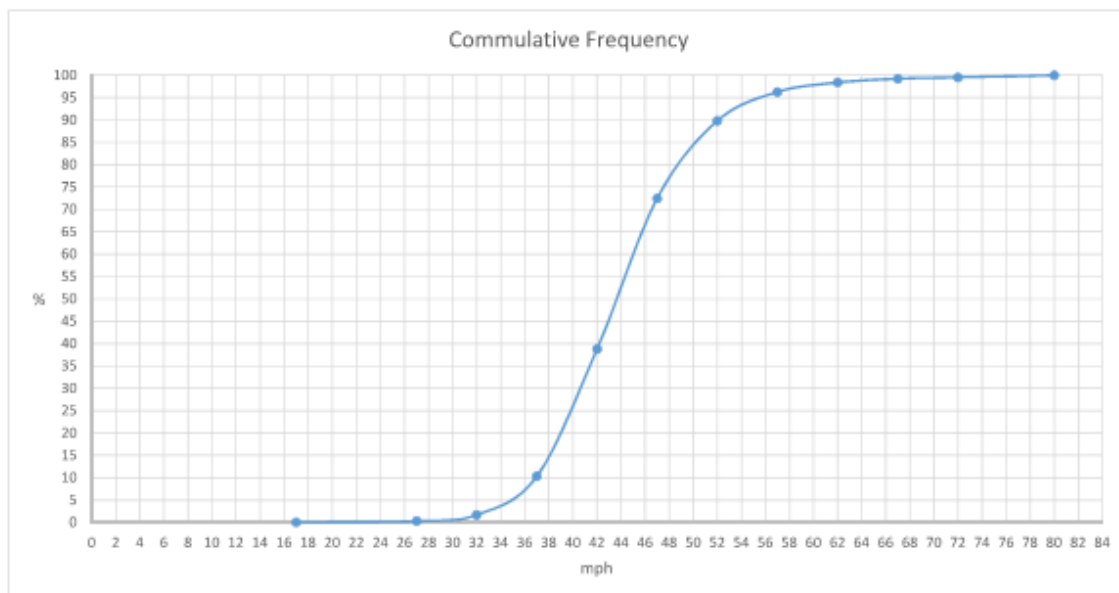


LAKE MEAD BLVD - CC 215 to THOMAS W RYAN BLVD  
Speed Analysis - EB

January 15, 2021

| Lower | upper | middle<br>speed S<br>(mi/hr) | Observed Freq<br>in group n | % Freq in group | Cum. % Freq | nS      | nS^2       | Cum. Vol |
|-------|-------|------------------------------|-----------------------------|-----------------|-------------|---------|------------|----------|
| 10    | 24    | 17                           | 15                          | 0.09            | 0.00        | 255     | 4,335      | 15       |
| 25    | 29    | 27                           | 31                          | 0.19            | 0.28        | 837     | 22,599     | 46       |
| 30    | 34    | 32                           | 231                         | 1.41            | 1.70        | 7,392   | 236,544    | 92       |
| 35    | 39    | 37                           | 1410                        | 8.63            | 10.32       | 52,170  | 1,930,290  | 323      |
| 40    | 44    | 42                           | 4645                        | 28.43           | 38.75       | 195,090 | 8,193,780  | 1733     |
| 45    | 49    | 47                           | 5506                        | 33.70           | 72.45       | 258,782 | 12,162,754 | 6378     |
| 50    | 54    | 52                           | 2839                        | 17.37           | 89.82       | 147,628 | 7,676,656  | 11884    |
| 55    | 59    | 57                           | 1053                        | 6.44            | 96.27       | 60,021  | 3,421,197  | 14723    |
| 60    | 64    | 62                           | 345                         | 2.11            | 98.38       | 21,390  | 1,326,180  | 15776    |
| 65    | 69    | 67                           | 139                         | 0.85            | 99.23       | 9,313   | 623,971    | 16121    |
| 70    | 74    | 72                           | 47                          | 0.29            | 99.52       | 3,384   | 243,648    | 16260    |
| 75    | 85    | 80                           | 79                          | 0.48            | 100.00      | 6,320   | 505,600    | 16307    |

16,340 100.00 Mean= 46.67 mph

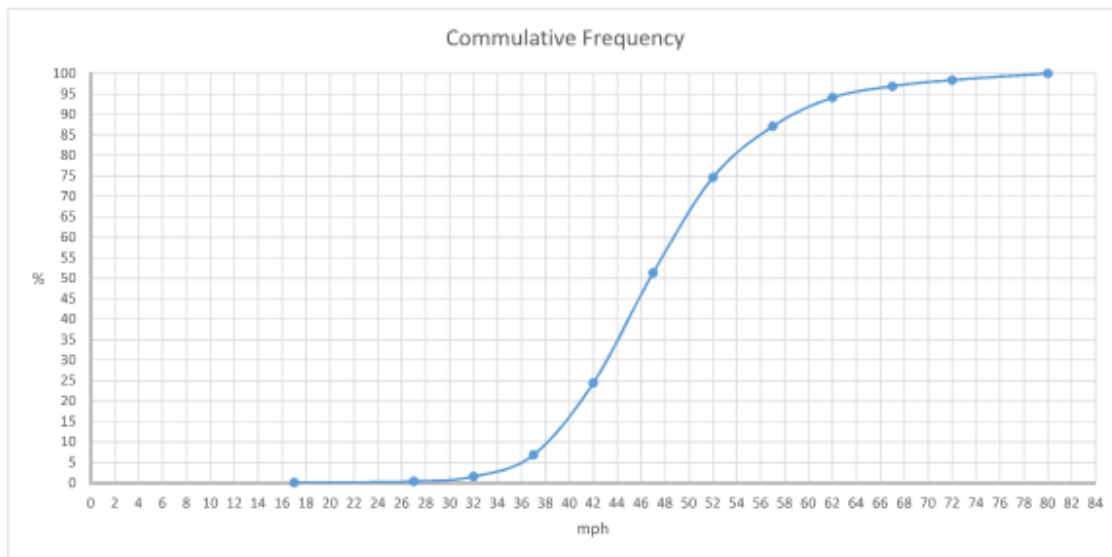


LAKE MEAD BLVD - CC 215 to THOMAS W RYAN BLVD  
Speed Analysis - WB

January 15, 2021

| Lower | upper | middle<br>speed S<br>(mi/hr) | Observed Freq<br>in group n | % Freq in group | Cum. % Freq | nS      | nS^2       | Cum. Vol |
|-------|-------|------------------------------|-----------------------------|-----------------|-------------|---------|------------|----------|
| 10    | 24    | 17                           | 29                          | 0.17            | 0.00        | 493     | 8,381      | 29       |
| 25    | 29    | 27                           | 28                          | 0.16            | 0.33        | 756     | 20,412     | 57       |
| 30    | 34    | 32                           | 206                         | 1.19            | 1.52        | 6,592   | 210,944    | 114      |
| 35    | 39    | 37                           | 912                         | 5.27            | 6.79        | 33,744  | 1,248,528  | 320      |
| 40    | 44    | 42                           | 3044                        | 17.59           | 24.38       | 127,848 | 5,369,616  | 1232     |
| 45    | 49    | 47                           | 4654                        | 26.89           | 51.27       | 218,738 | 10,280,686 | 4276     |
| 50    | 54    | 52                           | 4035                        | 23.32           | 74.59       | 209,820 | 10,910,640 | 8930     |
| 55    | 59    | 57                           | 2160                        | 12.48           | 87.07       | 123,120 | 7,017,840  | 12965    |
| 60    | 64    | 62                           | 1217                        | 7.03            | 94.10       | 75,454  | 4,678,148  | 15125    |
| 65    | 69    | 67                           | 483                         | 2.79            | 96.89       | 32,361  | 2,168,187  | 16342    |
| 70    | 74    | 72                           | 258                         | 1.49            | 98.38       | 18,576  | 1,337,472  | 16825    |
| 75    | 85    | 80                           | 280                         | 1.62            | 100.00      | 22,400  | 1,792,000  | 17083    |

17,306 100.00 Mean= 50.27 mph

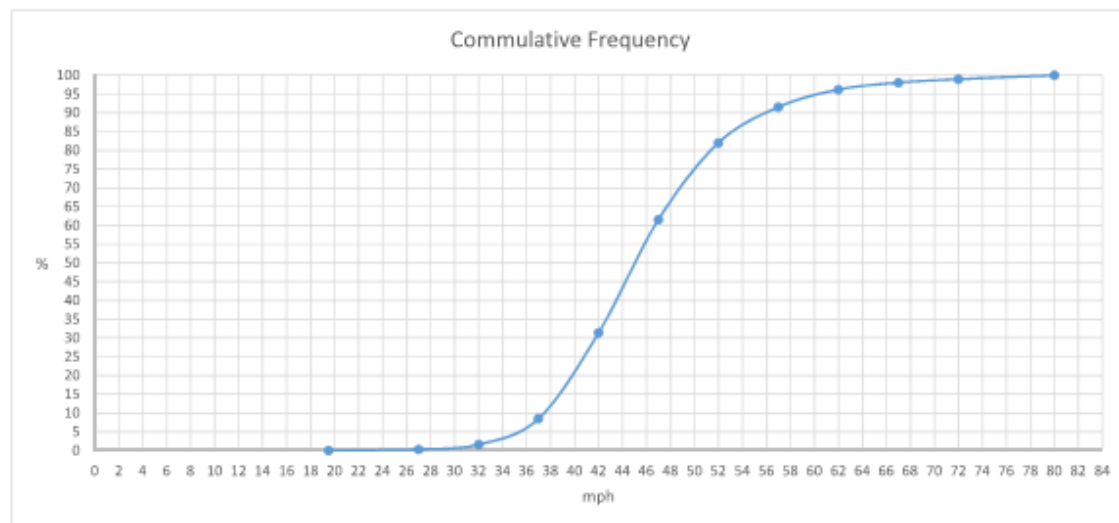


LAKE MEAD BLVD - CC 215 to THOMAS W RYAN BLVD  
Speed Analysis - EB and WB

January 15, 2021

| Lower | upper | middle<br>speed S<br>(mi/hr) | Observed Freq<br>in group n | % Freq in group | Cum. % Freq | nS      | nS^2       | Cum. Vol |
|-------|-------|------------------------------|-----------------------------|-----------------|-------------|---------|------------|----------|
| 15    | 24    | 19.5                         | 44                          | 0.13            | 0.00        | 858     | 16,731     | 44       |
| 25    | 29    | 27                           | 59                          | 0.18            | 0.31        | 1,593   | 43,011     | 103      |
| 30    | 34    | 32                           | 437                         | 1.30            | 1.60        | 13,984  | 447,488    | 206      |
| 35    | 39    | 37                           | 2322                        | 6.90            | 8.51        | 85,914  | 3,178,818  | 643      |
| 40    | 44    | 42                           | 7689                        | 22.85           | 31.36       | 322,938 | 13,563,396 | 2965     |
| 45    | 49    | 47                           | 10160                       | 30.20           | 61.56       | 477,520 | 22,443,440 | 10654    |
| 50    | 54    | 52                           | 6874                        | 20.43           | 81.99       | 357,448 | 18,587,296 | 20814    |
| 55    | 59    | 57                           | 3213                        | 9.55            | 91.54       | 183,141 | 10,439,037 | 27688    |
| 60    | 64    | 62                           | 1562                        | 4.64            | 96.18       | 96,844  | 6,004,328  | 30901    |
| 65    | 69    | 67                           | 622                         | 1.85            | 98.03       | 41,674  | 2,792,158  | 32463    |
| 70    | 74    | 72                           | 305                         | 0.91            | 98.93       | 21,960  | 1,581,120  | 33085    |
| 75    | 85    | 80                           | 359                         | 1.07            | 100.00      | 28,720  | 2,297,600  | 33390    |

33,646 100.00 Mean= 48.52 mph



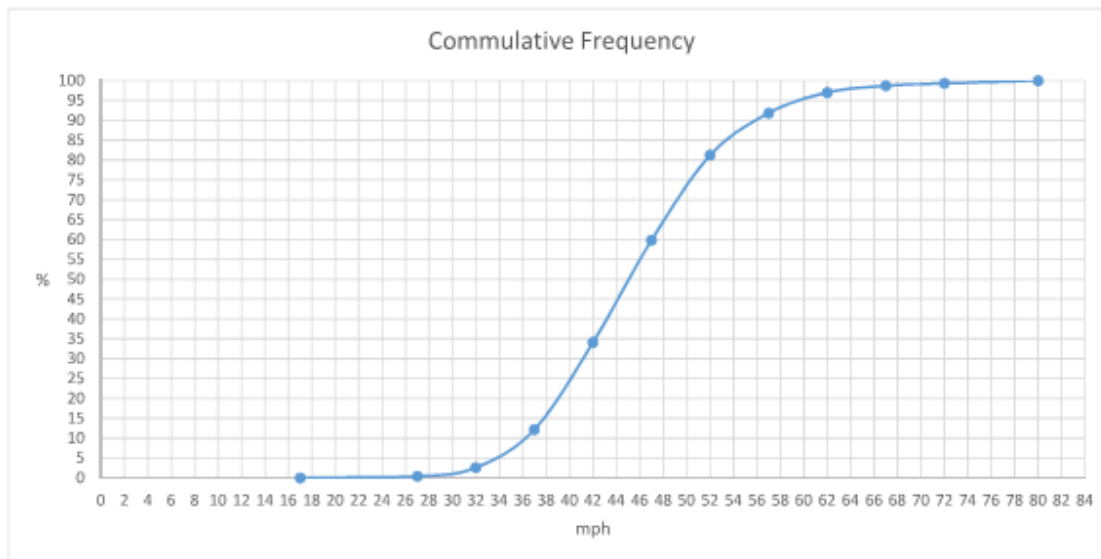


LAKE MEAD BLVD - THOMAS W RYAN BLVD to Anasazi Dr/Sun City Blvd  
Speed Analysis - EB

January 15, 2021

| Lower | upper | middle<br>speed S<br>(mi/hr) | Observed Freq<br>in group n | % Freq in<br>group | Cum. %<br>Freq | nS      | nS^2      | Cum. Vol |
|-------|-------|------------------------------|-----------------------------|--------------------|----------------|---------|-----------|----------|
| 10    | 24    | 17                           | 20                          | 0.14               | 0.00           | 340     | 5,780     | 20       |
| 25    | 29    | 27                           | 36                          | 0.25               | 0.39           | 972     | 26,244    | 56       |
| 30    | 34    | 32                           | 313                         | 2.19               | 2.58           | 10,016  | 320,512   | 369      |
| 35    | 39    | 37                           | 1369                        | 9.59               | 12.17          | 50,653  | 1,874,161 | 1738     |
| 40    | 44    | 42                           | 3132                        | 21.93              | 34.10          | 131,544 | 5,524,848 | 4870     |
| 45    | 49    | 47                           | 3674                        | 25.73              | 59.83          | 172,678 | 8,115,866 | 8544     |
| 50    | 54    | 52                           | 3052                        | 21.37              | 81.20          | 158,704 | 8,252,608 | 11596    |
| 55    | 59    | 57                           | 1517                        | 10.62              | 91.83          | 86,469  | 4,928,733 | 13113    |
| 60    | 64    | 62                           | 739                         | 5.18               | 97.00          | 45,818  | 2,840,716 | 13852    |
| 65    | 69    | 67                           | 242                         | 1.69               | 98.70          | 16,214  | 1,086,338 | 14094    |
| 70    | 74    | 72                           | 84                          | 0.59               | 99.29          | 6,048   | 435,456   | 14178    |
| 75    | 85    | 80                           | 102                         | 0.71               | 100.00         | 8,160   | 652,800   | 14280    |

14,280 100.00 Mean= 48.15 mph

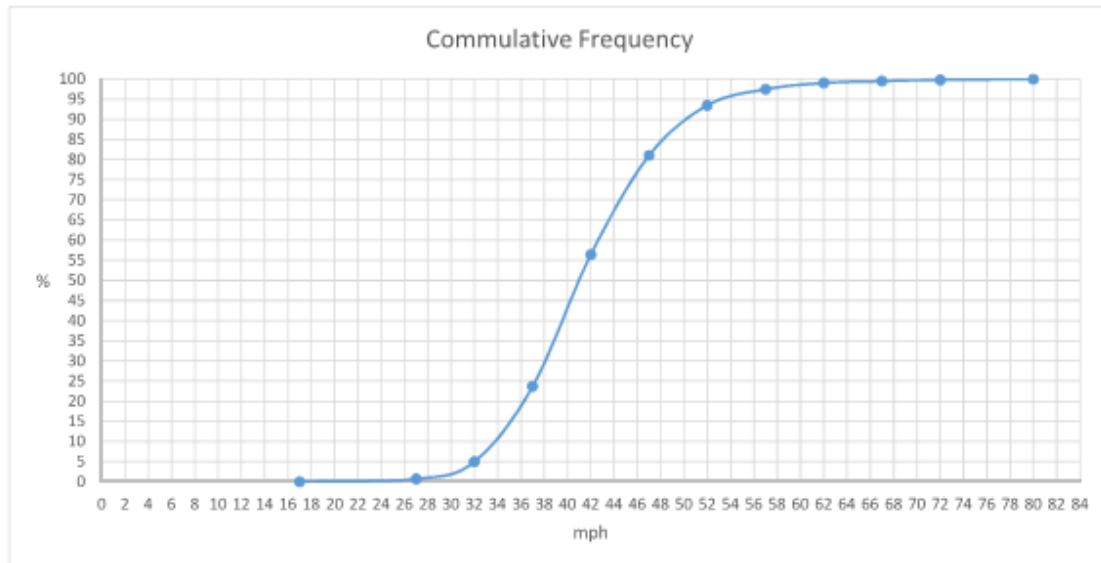


LAKE MEAD BLVD - THOMAS W RYAN BLVD to ANASAZI DR/SUN CITY BLVD  
Speed Analysis - WB

January 15, 2021

| Lower | upper | middle<br>speed S<br>(mi/hr) | Observed Freq<br>in group n | % Freq in<br>group | Cum. %<br>Freq | nS      | nS^2      |       |
|-------|-------|------------------------------|-----------------------------|--------------------|----------------|---------|-----------|-------|
| 10    | 24    | 17                           | 15                          | 0.10               | 0.00           | 255     | 4,335     | 15    |
| 25    | 29    | 27                           | 90                          | 0.60               | 0.69           | 2,430   | 65,610    | 105   |
| 30    | 34    | 32                           | 651                         | 4.31               | 5.00           | 20,832  | 666,624   | 756   |
| 35    | 39    | 37                           | 2826                        | 18.69              | 23.69          | 104,562 | 3,868,794 | 3582  |
| 40    | 44    | 42                           | 4949                        | 32.73              | 56.42          | 207,858 | 8,730,036 | 8531  |
| 45    | 49    | 47                           | 3720                        | 24.60              | 81.03          | 174,840 | 8,217,480 | 12251 |
| 50    | 54    | 52                           | 1885                        | 12.47              | 93.49          | 98,020  | 5,097,040 | 14136 |
| 55    | 59    | 57                           | 600                         | 3.97               | 97.46          | 34,200  | 1,949,400 | 14736 |
| 60    | 64    | 62                           | 237                         | 1.57               | 99.03          | 14,694  | 911,028   | 14973 |
| 65    | 69    | 67                           | 72                          | 0.48               | 99.50          | 4,824   | 323,208   | 15045 |
| 70    | 74    | 72                           | 42                          | 0.28               | 99.78          | 3,024   | 217,728   | 15087 |
| 75    | 85    | 80                           | 33                          | 0.22               | 100.00         | 2,640   | 211,200   | 15120 |

15,120 100.00 Mean= 44.19 mph

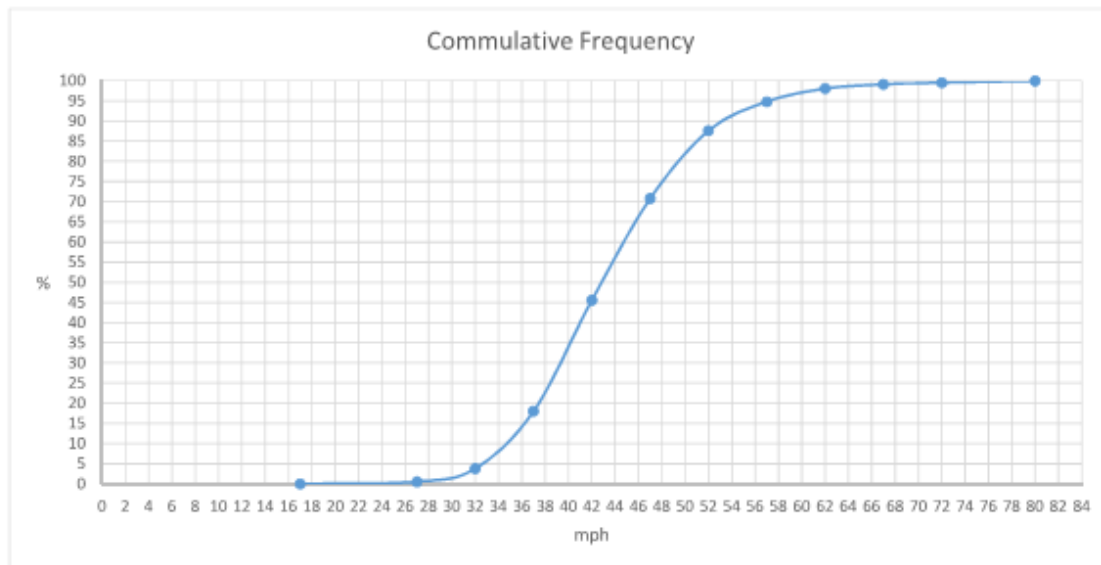


LAKE MEAD BLVD - THOMAS W RYAN BLVD to ANASAZI DR/SUN CITY BLVD  
Speed Analysis - EB and WB

January 15, 2021

| Lower | upper | middle<br>speed S<br>(mi/hr) | Observed Freq<br>in group n | % Freq in<br>group | Cum. %<br>Freq | nS      | nS^2       |       |
|-------|-------|------------------------------|-----------------------------|--------------------|----------------|---------|------------|-------|
| 10    | 24    | 17                           | 35                          | 0.12               | 0.00           | 595     | 10,115     | 35    |
| 25    | 29    | 27                           | 126                         | 0.43               | 0.55           | 3,402   | 91,854     | 161   |
| 30    | 34    | 32                           | 964                         | 3.29               | 3.83           | 30,848  | 987,136    | 1125  |
| 35    | 39    | 37                           | 4168                        | 14.20              | 18.04          | 154,216 | 5,705,992  | 5293  |
| 40    | 44    | 42                           | 8081                        | 27.54              | 45.58          | 339,402 | 14,254,884 | 13374 |
| 45    | 49    | 47                           | 7394                        | 25.20              | 70.78          | 347,518 | 16,333,346 | 20768 |
| 50    | 54    | 52                           | 4937                        | 16.83              | 87.60          | 256,724 | 13,349,648 | 25705 |
| 55    | 59    | 57                           | 2117                        | 7.21               | 94.82          | 120,669 | 6,878,133  | 27822 |
| 60    | 64    | 62                           | 946                         | 3.22               | 98.04          | 58,652  | 3,636,424  | 28768 |
| 65    | 69    | 67                           | 314                         | 1.07               | 99.11          | 21,038  | 1,409,546  | 29082 |
| 70    | 74    | 72                           | 126                         | 0.43               | 99.54          | 9,072   | 653,184    | 29208 |
| 75    | 85    | 80                           | 135                         | 0.46               | 100.00         | 10,800  | 864,000    | 29343 |

29,343 100.00 Mean= 46.11 mph



## APPENDIX B

### CRASH DATA





COUNTY: CLARK

## APPENDIX C

### USLIMITS2 ANALYSIS

# USLIMITS2 Speed Zoning Report

## Project Overview

**Project Name:** Lake Mead Blvd-CC 215 to Sun City Blvd

**Analyst:** Eric Meyer

**Date:** 2021-07-26

### Basic Project Information

Route Name: Lake Mead Boulevard  
From: CC-215  
To: Anasazi Drive-Sun City Boulevard  
State: Nevada  
County: Clark County  
City: Las Vegas city  
Route Type: Road Section in Developed Area  
Route Status: Existing

### Crash Data Information

Crash Data Years: 3.00  
Crash AADT: 8479 veh/day  
Total Number of Crashes: 23  
Total Number of Injury Crashes: 14  
Section Crash Rate: 225 per 100 MVM  
Section Injury Crash Rate: 137 per 100 MVM  
Crash Rate Average for Similar Roads: 234  
Injury Rate Average for Similar Roads: 70

### Roadway Information

Section Length: 1.1 mile(s)  
Statutory Speed Limit: None  
Existing Speed Limit: 35 mph  
Adverse Alignment: No  
One-Way Street: No  
Divided/Undivided: Divided  
Number of Through Lanes: 4  
Area Type: Residential-Collector/Arterial  
Number of Driveways: 4  
Number of Signals: 3

### Traffic Information

85th Percentile Speed: 52 mph  
50th Percentile Speed: 45 mph  
AADT: 8479 veh/day  
On Street Parking and Usage: Not High  
Pedestrian / Bicyclist Activity: High

### Recommended Speed Limit:



**Note:** The injury crash rate for the section of 137 per 100 MVM is above the critical rate (118). A comprehensive crash study should be undertaken to identify engineering and traffic control deficiencies and appropriate corrective actions. The speed limit should only be reduced as a last measure after all other treatments have either been tried or ruled out.

**Note:** The road section is in an area with high pedestrian or bicycle activity. Consider implementing engineering measures to reduce speeds before lowering the recommended speed limit. See [Engineering Countermeasures for Speed Management](#) and [PedSafe](#) for more guidance.

**Disclaimer:** The U.S. Government assumes no liability for the use of the information contained in this report. This report does not constitute a standard, specification, or regulation.

## Equations Used in the Crash Data Calculations

### Exposure (M)

$M = (\text{Section AADT} * 365 * \text{Section Length} * \text{Duration of Crash Data}) / (100000000)$   
 $M = (8479 * 365 * 1.1 * 3.00) / (100000000)$   
 $M = 0.1021$

### Crash Rate (Rc)

$Rc = (\text{Section Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$   
 $Rc = (7.67 * 100000000) / (8479 * 365 * 1.1)$   
 $Rc = 225.20 \text{ crashes per 100 MVM}$

### Injury Rate (Ri)

$Ri = (\text{Section Injury Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$   
 $Ri = (4.67 * 100000000) / (8479 * 365 * 1.1)$   
 $Ri = 137.08 \text{ injuries per 100 MVM}$

### Critical Crash Rate (Cc)



$Cc = \text{Crash Average of Similar Sections} + 1.645 * (\text{Crash Average of Similar Sections} / \text{Exposure}) ^ {1/2} + (1 / (2 * \text{Exposure}))$   
 $Cc = 234.01 + 1.645 * (234.01 / 0.1021) ^ {1/2} + (1 / (2 * 0.1021))$   
 $Cc = 317.65 \text{ crashes per 100 MVM}$

*Critical Injury Rate (Ic)*  
 $Ic = \text{Injury Crash Average of Similar Sections} + 1.645 * (\text{Injury Crash Average of Similar Sections} / \text{Exposure}) ^ {1/2} + (1 / (2 * \text{Exposure}))$   
 $Ic = 70.25 + 1.645 * (70.25 / 0.1021) ^ {1/2} + (1 / (2 * 0.1021))$   
 $Ic = 118.29 \text{ injuries per 100 MVM}$

# USLIMITS2 Speed Zoning Report

## Project Overview

**Project Name:** Lake Mead Blvd - CC 215 to Thomas W Ryan Blvd - Speed Study

**Analyst:** Eric Meyer

**Date:** 2021-07-26

### Basic Project Information

Route Name: Lake Mead Boulevard  
From: CC 215  
To: Thomas W Ryan Boulevard  
State: Nevada  
County: Clark County  
City: Las Vegas city  
Route Type: Road Section in Developed Area  
Route Status: Existing

### Crash Data Information

Crash Data Years: 3.00  
Crash AADT: 8479 veh/day  
Total Number of Crashes: 9  
Total Number of Injury Crashes: 5  
Section Crash Rate: 242 per 100 MVM  
Section Injury Crash Rate: 135 per 100 MVM  
Crash Rate Average for Similar Roads: 234  
Injury Rate Average for Similar Roads: 70

### Roadway Information

Section Length: .4 mile(s)  
Statutory Speed Limit: None  
Existing Speed Limit: 35 mph  
Adverse Alignment: No  
One-Way Street: No  
Divided/Undivided: Divided  
Number of Through Lanes: 4  
Area Type: Residential-Collector/Arterial  
Number of Driveways: 0  
Number of Signals: 2

### Traffic Information

85th Percentile Speed: 52 mph  
50th Percentile Speed: 45 mph  
AADT: 8479 veh/day  
On Street Parking and Usage: Not High  
Pedestrian / Bicyclist Activity: High

### Recommended Speed Limit:



**Note:** The injury crash rate for the section of 135 per 100 MVM is more than 30 percent above the average for similar roads (70) but below the critical rate (155). A comprehensive crash study should be undertaken to identify engineering and traffic control deficiencies and appropriate corrective actions. The speed limit should only be reduced as a last measure after all other treatments have either been tried or ruled out.

**Note:** A speed zone of .4 miles is generally too short for the recommended speed limit. Consider lengthening the speed zone (if that is possible) or using the speed limits from adjacent sections (if they are appropriate for this section). If the speed and other data you provided are representative of conditions for this short section, then the speed limit noted above may be considered.

**Note:** The road section is in an area with high pedestrian or bicycle activity. Consider implementing engineering measures to reduce speeds before lowering the recommended speed limit. See [Engineering Countermeasures for Speed Management](#) and [PedSafe](#) for more guidance.

**Disclaimer:** The U.S. Government assumes no liability for the use of the information contained in this report. This report does not constitute a standard, specification, or regulation.

## Equations Used in the Crash Data Calculations

*Exposure (M)*

$$M = (\text{Section AADT} * 365 * \text{Section Length} * \text{Duration of Crash Data}) / (100000000)$$
$$M = (8479 * 365 * .4 * 3.00) / (100000000)$$
$$M = 0.0371$$

*Crash Rate (Rc)*

$$Rc = (\text{Section Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$$
$$Rc = (3.00 * 100000000) / (8479 * 365 * .4)$$
$$Rc = 242.34 \text{ crashes per 100 MVM}$$

*Injury Rate (Ri)*

$RI = (\text{Section Injury Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$   
 $RI = (1.67 * 100000000) / (8479 * 365 * .4)$   
 $RI = 134.63 \text{ injuries per } 100 \text{ MVM}$

*Critical Crash Rate (Cc)*

$Cc = \text{Crash Average of Similar Sections} + 1.645 * (\text{Crash Average of Similar Sections} / \text{Exposure}) ^ {(1/2)} + (1 / (2 * \text{Exposure}))$   
 $Cc = 234.01 + 1.645 * (234.01 / 0.0371) ^ {(1/2)} + (1 / (2 * 0.0371))$   
 $Cc = 378.05 \text{ crashes per } 100 \text{ MVM}$

*Critical Injury Rate (Ic)*

$Ic = \text{Injury Crash Average of Similar Sections} + 1.645 * (\text{Injury Crash Average of Similar Sections} / \text{Exposure}) ^ {(1/2)} + (1 / (2 * \text{Exposure}))$   
 $Ic = 70.25 + 1.645 * (70.25 / 0.0371) ^ {(1/2)} + (1 / (2 * 0.0371))$   
 $Ic = 155.26 \text{ injuries per } 100 \text{ MVM}$

# USLIMITS2 Speed Zoning Report

## Project Overview

**Project Name:** Lake Mead Blvd-Thomas Ryan to Sun City

**Analyst:** Eric Meyer

**Date:** 2021-07-26

### Basic Project Information

Route Name: Lake Mead Boulevard  
From: Thomas W Ryan Boulevard  
To: Anasazi Drive-Sun City Boulevard  
State: Nevada  
County: Clark County  
City: Las Vegas city  
Route Type: Road Section in Developed Area  
Route Status: Existing

### Crash Data Information

Crash Data Years: 3.00  
Crash AADT: 7389 veh/day  
Total Number of Crashes: 14  
Total Number of Injury Crashes: 9  
Section Crash Rate: 244 per 100 MVM  
Section Injury Crash Rate: 157 per 100 MVM  
Crash Rate Average for Similar Roads: 234  
Injury Rate Average for Similar Roads: 70

### Roadway Information

Section Length: .71 mile(s)  
Statutory Speed Limit: None  
Existing Speed Limit: 35 mph  
Adverse Alignment: No  
One-Way Street: No  
Divided/Undivided: Divided  
Number of Through Lanes: 4  
Area Type: Residential-Collector/Arterial  
Number of Driveways: 4  
Number of Signals: 2

### Traffic Information

85th Percentile Speed: 51 mph  
50th Percentile Speed: 43 mph  
AADT: 7389 veh/day  
On Street Parking and Usage: Not High  
Pedestrian / Bicyclist Activity: High

### Recommended Speed Limit:



**Note:** The injury crash rate for the section of 157 per 100 MVM is above the critical rate (136). A comprehensive crash study should be undertaken to identify engineering and traffic control deficiencies and appropriate corrective actions. The speed limit should only be reduced as a last measure after all other treatments have either been tried or ruled out.

**Note:** The road section is in an area with high pedestrian or bicycle activity. Consider implementing engineering measures to reduce speeds before lowering the recommended speed limit. See [Engineering Countermeasures for Speed Management](#) and [PedSafe](#) for more guidance.

**Disclaimer:** The U.S. Government assumes no liability for the use of the information contained in this report. This report does not constitute a standard, specification, or regulation.

## Equations Used in the Crash Data Calculations

*Exposure (M)*

$$M = (\text{Section AADT} * 365 * \text{Section Length} * \text{Duration of Crash Data}) / (100000000) \\ M = (7389 * 365 * .71 * 3.00) / (100000000) \\ M = 0.0574$$

*Crash Rate (Rc)*

$$Rc = (\text{Section Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length}) \\ Rc = (4.67 * 100000000) / (7389 * 365 * .71) \\ Rc = 243.71 \text{ crashes per 100 MVM}$$

*Injury Rate (Ri)*

$$Ri = (\text{Section Injury Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length}) \\ Ri = (3.00 * 100000000) / (7389 * 365 * .71) \\ Ri = 156.67 \text{ injuries per 100 MVM}$$

*Critical Crash Rate (Cc)*

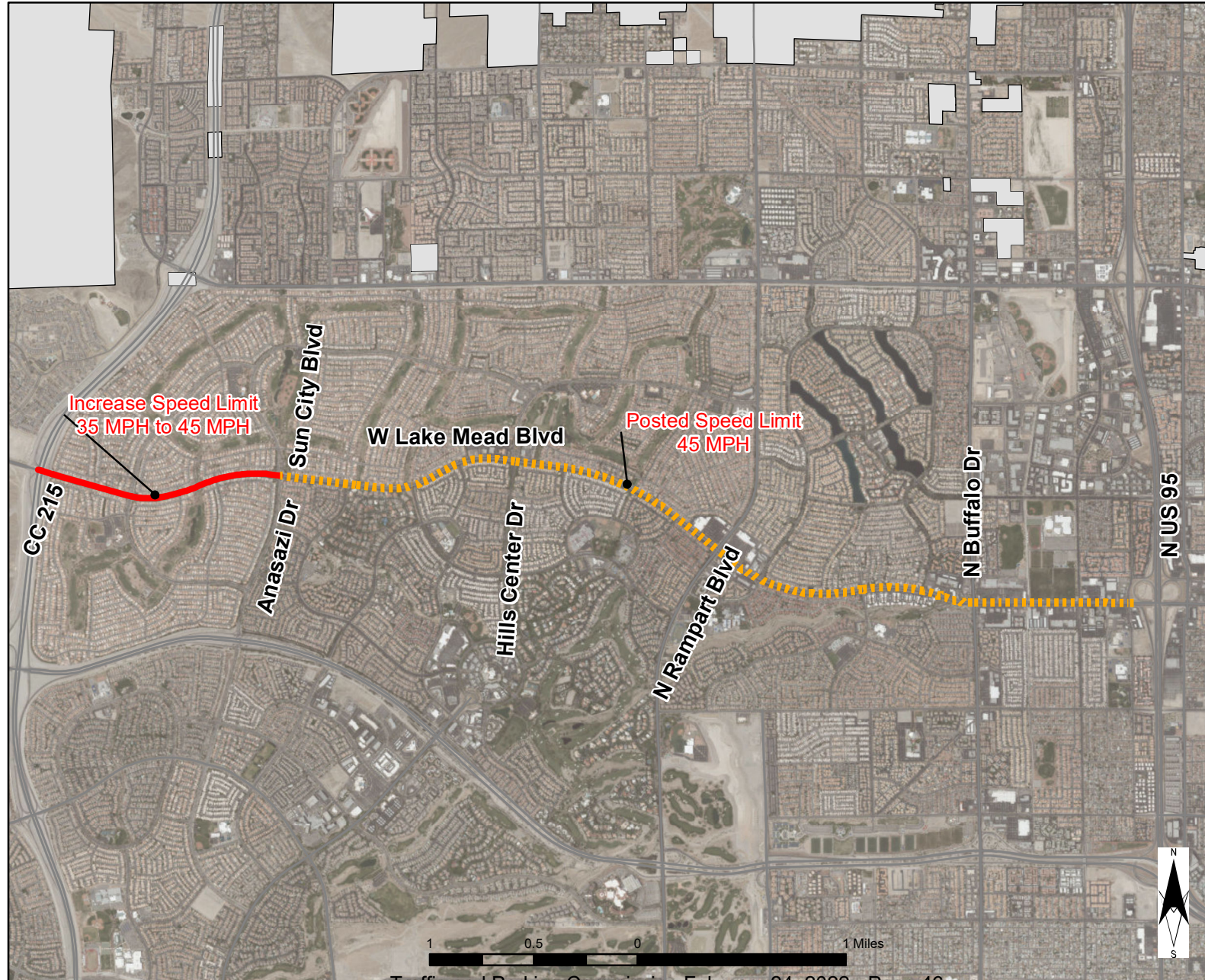


$Cc = \text{Crash Average of Similar Sections} + 1.645 * (\text{Crash Average of Similar Sections} / \text{Exposure}) ^ { (1/2) } + (1 / (2 * \text{Exposure}))$   
 $Cc = 234.01 + 1.645 * (234.01 / 0.0574) ^ { (1/2) } + (1 / (2 * 0.0574))$   
 $Cc = 347.71 \text{ crashes per 100 MVM}$

*Critical Injury Rate (Ic)*  
 $Ic = \text{Injury Crash Average of Similar Sections} + 1.645 * (\text{Injury Crash Average of Similar Sections} / \text{Exposure}) ^ { (1/2) } + (1 / (2 * \text{Exposure}))$   
 $Ic = 70.25 + 1.645 * (70.25 / 0.0574) ^ { (1/2) } + (1 / (2 * 0.0574))$   
 $Ic = 136.48 \text{ injuries per 100 MVM}$

# Lake Mead Boulevard Speed Limit

Agenda # 6 - CC-215 to Sun City Blvd  
35 mph to 45 mph



— Lake Mead - CC-215 to Anasazi  
- - - Lake Mead - East of Anasazi

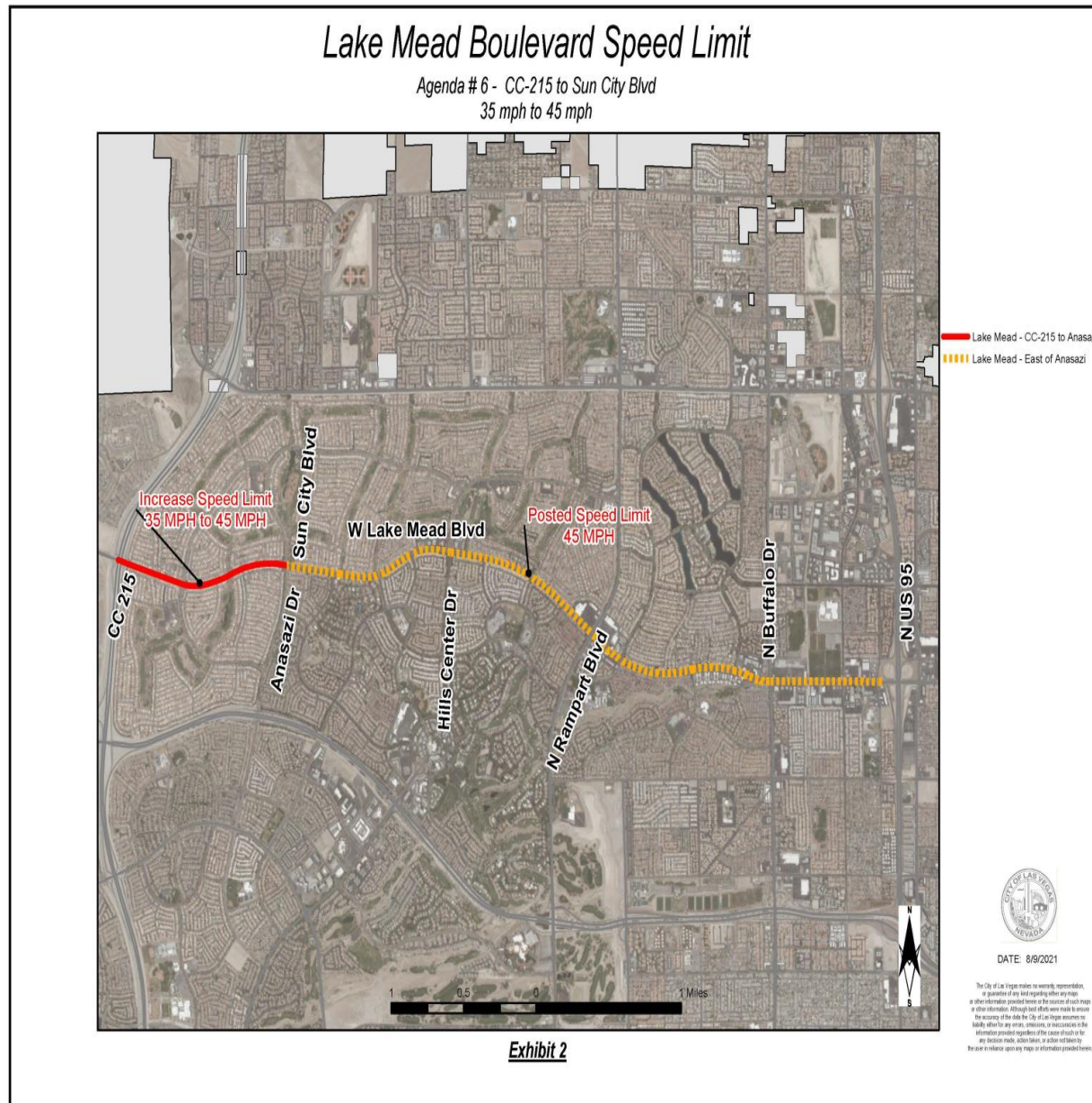


DATE: 8/9/2021

The City of Las Vegas makes no warranty, representation, or guarantee of any kind regarding either any maps or other information provided herein or the sources of such maps or other information. Although best efforts were made to ensure the accuracy of the data the City of Las Vegas assumes no liability either for any errors, omissions, or inaccuracies in the information provided regardless of the cause of such or for any decision made, action taken, or action not taken by the user in reliance upon any maps or information provided herein.



# Item 6 – Lake Mead Boulevard Speed Limit



## CC-215 to Thomas W Ryan Blvd:

- Study date: January, 2021
- Posted Speed: 35 mph
- 85<sup>th</sup> Percentile Speed: 52 mph
- Average Speed: 45 MPH
- 24 hr counts: 8,479
- US Limits Recommendation: 45 mph

## Thomas W Ryan Blvd to Anasazi/Sun City:

- Study date: January 2021
- Posted Speed: 35 mph
- 85<sup>th</sup> Percentile Speed: 51 mph
- Average Speed: 43 MPH
- 24 hr counts: 7,389
- US Limits Recommendation: 45 mph

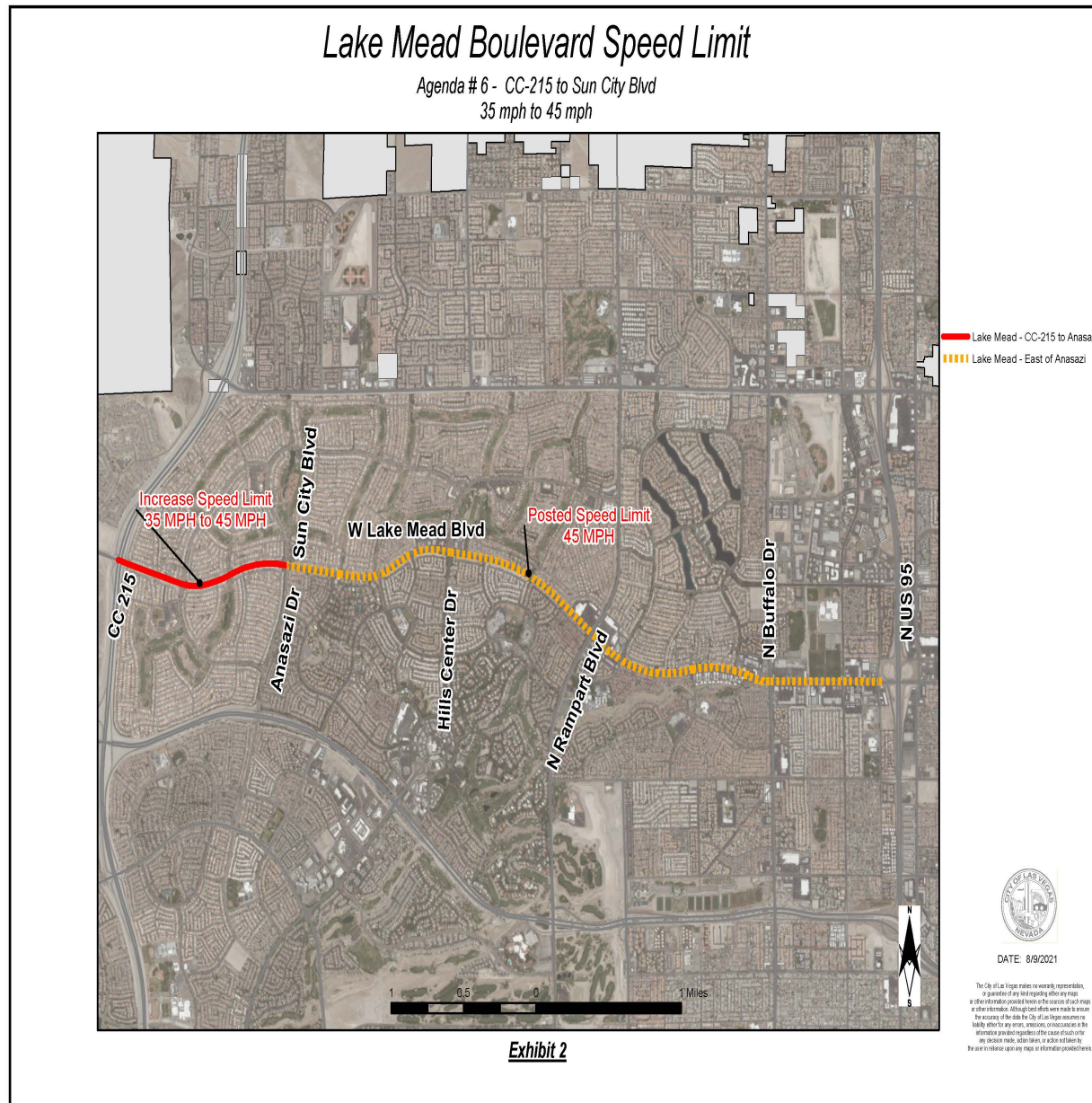
## Additional Outreach in Aug. 2021 with Sun City Summerlin Residents:

- 367 Responses received
- 243 (66%) in favor
- 124 (34%) opposed





# Item 6 – Lake Mead Boulevard Speed Limit



## CC-215 to Thomas W Ryan Blvd:

- Study date: January, 2021
- Posted Speed: 35 mph
- 85<sup>th</sup> Percentile Speed: 52 mph
- Average Speed: 45 MPH
- 24 hr counts: 8,479
- US Limits Recommendation: 45 mph

## Thomas W Ryan Blvd to Anasazi/Sun City:

- Study date: January 2021
- Posted Speed: 35 mph
- 85<sup>th</sup> Percentile Speed: 51 mph
- Average Speed: 43 MPH
- 24 hr counts: 7,389
- US Limits Recommendation: 45 mph

## Additional Outreach in Aug. 2021 with Sun City Summerlin Residents:

- 367 Responses received
- 243 (66%) in favor
- 124 (34%) opposed



Submitted at Meeting by Staff  
Date: 2/24/22 Item: 6



## **AGENDA DOCUMENTATION**

DATE: FEBRUARY 24, 2022  
TO: TRAFFIC AND PARKING COMMISSION  
FROM: TRANSPORTATION ENGINEERING DIVISION  
SUBJECT: **ITEM 7**

### **DISCUSSION FOR POSSIBLE ACTION TO INSTALL SPEED CUSHIONS ON LORENZI STREET BETWEEN ALTA DRIVE AND CHARLESTON BOULEVARD – WARD 1 (KNUDSEN)**

#### **SITUATION**

The Transportation Engineering Division of the City of Las Vegas received a request to perform a speed study on Lorenzi Street between Alta Drive and Charleston Boulevard from the City Council Ward 1. In response, a speed study was conducted and found this segment to be a candidate for the installation of speed cushions based on guidance from the Federal Highway Administration and Institute of Transportation Engineers as a recommended traffic calming measure.

On November 2, 2021, ballots were mailed to 233 single family residences that use Lorenzi Drive to access their street. Twenty-nine (29) ballots were received in favor and eight (8) were received opposing the speed cushions. Additional outreach by the City Council Ward 1 office resulted in an additional six (6) ballots in favor and one (1) opposing the speed cushions. Total outreach efforts resulted in 35 residents in favor and 9 residents opposing the speed cushions.

The City of Las Vegas Fire Department will support this installation in accordance with City of Las Vegas Fire #6631 Traffic Calming Devices as long as they meet all required specifications set forth by the City of Las Vegas.

#### **STAFF RECOMMENDATION**

The Transportation Engineering Division recommends installation of speed cushions on Lorenzi Street between Alta Drive and Charleston Boulevard for a 12-month period as a pilot installation and will monitor the corridor post-installation to measure the effectiveness of the improvements.



## MEMORANDUM

Department of Public Works – Transportation Division

|       |                                                                                      |
|-------|--------------------------------------------------------------------------------------|
| Date: | January 31, 2022                                                                     |
| Re:   | Lorenzi Street between Alta Drive and Charleston Boulevard Speed Hump Study – Ward 1 |

### Background

On May 9, 2021, the City Council Ward 1 office requested that the Transportation Engineering Division perform a speed hump study on Lorenzi Street between Alta Drive and Charleston Boulevard. The Transportation Engineering Division conducted speed, volume, and speed hump studies on July 13, 2021.



### Existing conditions

Lorenzi St. has 60-feet of right-of-way and is classified as a local road and a secondary fire response route. It has one travel lane, a bike lane and a parking lane in each direction. The posted speed limit is 25 miles-per-hour. Lorenzi St. runs north-south and traverses along a residential area. Homes back the street, and access to adjacent residential neighborhoods is present. On Lorenzi St. near Charleston Blvd. there is an apartment complex on the east side and healthcare and commercial facilities on the west side.

### Intersection Control

The corridor is intersected by Alta Drive on the north side, with two-way stop control on Lorenzi St, and by Charleston Blvd on the south side, with one-way stop control on Lorenzi St.

### Speed and volume

Traffic speed and volume data were collected on July 13, 2021. Findings are summarized below and are included in full in Appendix A.

*Table 1: Corridor speed and volume study summary (dual direction)*

| Corridor                              | Speed Limit (mph) | Average (mph) | 85 <sup>th</sup> Percentile (mph) | Total Volume |
|---------------------------------------|-------------------|---------------|-----------------------------------|--------------|
| Lorenzi St., north of Walla Walla Dr. | 25                | 34            | 43                                | 1,755        |
| Lorenzi St., south of Wenatchee Dr.   | 25                | 32            | 42                                | 1,820        |

Lorenzi St., north of Walla Walla Dr.:

- The 85th percentile speeds along the corridor were 43 mph in both directions, and the average speeds were 35 mph and 34 mph in the northbound and southbound direction, respectively, during the study period. The City's traffic count software calculated dual direction averages of these values by taking the averages of all vehicular traffic in both directions: these values are included in Table 1. In both directions, 73% of the vehicles were observed traveling at speeds greater than 30 mph. A total of 1,755 vehicles (in both directions) were counted within a 24-hour period.

Lorenzi St., south of Wenatchee Dr.:

- The 85th percentile speeds along the corridor were 36 mph and 45 mph in the northbound and southbound directions, respectively, and the average speeds were 29 mph and 36 mph, respectively, during the study period. The City's traffic count software calculated dual direction averages of these values by taking the averages of all vehicular traffic in both directions: these values are included in Table 1. In both directions, 62% of the vehicles were observed traveling at speeds greater than 30 mph. A total of 1,820 vehicles (in both directions) were counted within a 24-hour period.

### Crash experience

Crash data was obtained from the Nevada Department of Transportation (NDOT) and the Las Vegas Metropolitan Police Department (LVMPD) for the three-year period from January 2017 through January 2020. There were three crashes reported on Lorenzi St. between Alta Dr. and Charleston Blvd. Findings are summarized below.

*Table 2: Corridor crash data*

| Corridor                         | Year | Crash Type | Vehicle Factor                              |
|----------------------------------|------|------------|---------------------------------------------|
| Lorenzi St. and Alta Dr.         | 2017 | Rear-End   | Other Improper Driving                      |
| Lorenzi St. and Bremerton Cir.   | 2017 | Angle      | Failure to Maintain Lane, Had Been Drinking |
| Lorenzi St. and Charleston Blvd. | 2017 | Sideswipe  | Failure to Maintain Lane                    |

Trends on Lorenzi St:

- Based on review of the data, no unusual trends or crash patterns were identifiable. The crashes on Alta Dr. and Bremerton Cir. were due to drivers hitting a stopped or parked vehicle, one of which was a DUI. The crash on Charleston Blvd. was caused by an unsafe lane change.

### Speed hump/cushion study

The installation of speed humps is determined by a points system outlined in a City Council-approved document called "Streets: A User's Manual. Your Guide to the Las Vegas Neighborhood Traffic Management Program" (NTMP). The complete NTMP document can be accessed at: <https://files.lasvegasnevada.gov/public-works/Neighborhood-Traffic-Management-Program.pdf>.

A speed hump point study was performed on Lorenzi St. per the procedures set forth in the NTMP on July 13, 2021. Findings are summarized below and are included in full in Appendix B.

Table 3: Speed hump/cushion minimum requirements

| Minimum speed hump criteria                              | Lorenzi St., north of Walla Walla Dr. | Lorenzi St., south of Wenatchee Dr. |
|----------------------------------------------------------|---------------------------------------|-------------------------------------|
| Speed limit is 25 mph                                    | Yes                                   | Yes                                 |
| 85 <sup>th</sup> percentile speed is > 35 mph            | Yes (43)                              | Yes (42)                            |
| Volumes are between 800 and 3000 vpd                     | Yes (1755)                            | Yes (1820)                          |
| Street is a neighborhood collector                       | Yes                                   | Yes                                 |
| Installation must be visible from 200 feet               | Yes                                   | Yes                                 |
| Grades are not > than 8%                                 | Yes                                   | Yes                                 |
| Is not a primary fire response route                     | Yes                                   | Yes                                 |
| <b>NTMP points (40 minimum to warrant installations)</b> | <b>86</b>                             | <b>81</b>                           |

A minimum of 40 points is required for a project to be eligible for speed humps. The study performed along the corridor meets the City's requirements for installation.

### Staff recommendations and actions

The Transportation Engineering Division recommends the installation of speed cushions on Lorenzi St., a minor collector and secondary fire response route, to slow traffic speeds between Charleston Blvd. and Alta Dr.

Speed cushions have not historically been installed on collector roadways within the City of Las Vegas, per the City's NTMP. However, guidance by the Federal Highway Administration and the Institute of Transportation Engineers indicate that their installation is recommended as a traffic calming measure on residential collectors such as Lorenzi St. Therefore, the Transportation Engineering Division recommends the installation of speed cushions on Lorenzi St. as a pilot installation and will monitor the corridor post-installation to measure the effectiveness of the improvements.

Furthermore, to help mitigate the prevalence of speeding along the corridor, the City will relocate the southbound 25 mph speed limit sign on Lorenzi St. to a more visible location.



---

## Signatures

Prepared By:

Lia Grimaldi

Digitally signed by Lia Grimaldi  
DN: C=US,  
E=agrimaldi@lasvegasnevada.gov,  
O=City of Las Vegas,  
OU=Transportation Engineering  
Division, CN=Lia Grimaldi  
Reason: I am the author of this  
document  
Date: 2022.02.03 10:36:07-08'00'

---

Lia Grimaldi, P.E.  
Sr. Engineering Associate

Reviewed By:

Sean Robinson

Digitally signed by Sean Robinson  
DN: C=US,  
E=srbrinson@lasvegasnevada.gov,  
CN=Sean Robinson  
Reason: I have reviewed this  
document  
Date: 2022.02.07 10:44:26-08'00'

---

Sean Robinson, P.E., PTOE  
Engineering Project Manager

Reviewed By:

Christina  
Karanikolas

Digitally signed by Christina  
Karanikolas  
DN: cn=Christina Karanikolas,  
o=Public Works, ou=Transportation  
Engineering,  
email=ckaranikolas@lasvegasnevada.g  
ov, c=US  
Date: 2022.02.07 10:42:23 -08'00'

---

Christina Karanikolas, P.E., PTOE  
Assistant City Traffic Engineer

Concurred By:

Joey Paskey

Digitally signed by Joey Paskey  
DN: C=US,  
E=jpaskey@lasvegasnevada.gov,  
CN=Joey Paskey  
Reason: I have reviewed this  
document  
Date: 2022.02.07 14:32:13-08'00'

---

Joey Paskey, P.E., PTOE  
Deputy Director/City Traffic Engineer

### Requestor information:

*Name: Ward 1 office*

*Address: n/a*

*Phone: n/a*

*Email: n/a*

# APPENDIX A

## TRAFFIC DATA

**CITY OF LAS VEGAS**  
**DEPARTMENT OF PUBLIC WORKS, TRAFFIC ENGINEERING DIVISION**  
**24 HOUR SPEED AND VOLUME STUDY**

|                                                  |            |            |       |       |
|--------------------------------------------------|------------|------------|-------|-------|
| LOCATION: Lorenzi St N. of Walla Walla Dr        |            |            |       | EXCEL |
| POSTED SPEED LIMIT = 25 MPH                      |            |            |       | RHCB  |
| 85 <sup>th</sup> PERCENTILE SPEED = 43MPH        |            |            |       | AM    |
| AVERAGE SPEED = 34MPH                            |            |            |       |       |
| % VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 73 % |            |            |       |       |
| DATE: 7/13/2021                                  |            |            |       |       |
|                                                  |            |            |       |       |
| 85 <sup>th</sup> ile speed                       | 43         | 43         |       |       |
| Avg Speed                                        | 35         | 34         |       |       |
| HOUR BEGINS AT:                                  | NORTHBOUND | SOUTHBOUND | TOTAL | RANK  |
| 0:00                                             | 11         | 13         | 24    |       |
| 1:00                                             | 8          | 7          | 15    |       |
| 2:00                                             | 2          | 6          | 8     |       |
| 3:00                                             | 10         | 4          | 14    |       |
| 4:00                                             | 12         | 8          | 20    |       |
| 5:00                                             | 25         | 24         | 49    |       |
| 6:00                                             | 14         | 29         | 43    |       |
| 7:00                                             | 31         | 43         | 74    |       |
| 8:00                                             | 37         | 56         | 93    |       |
| 9:00                                             | 38         | 41         | 79    |       |
| 10:00                                            | 34         | 29         | 63    |       |
| 11:00                                            | 52         | 38         | 90    |       |
| 12:00                                            | 57         | 54         | 111   |       |
| 13:00                                            | 70         | 40         | 110   |       |
| 14:00                                            | 67         | 46         | 113   |       |
| 15:00                                            | 72         | 38         | 110   |       |
| 16:00                                            | 89         | 42         | 131   |       |
| 17:00                                            | 87         | 38         | 125   |       |
| 18:00                                            | 68         | 64         | 132   |       |
| 19:00                                            | 75         | 60         | 135   | 1     |
| 20:00                                            | 36         | 36         | 72    |       |
| 21:00                                            | 37         | 29         | 66    |       |
| 22:00                                            | 26         | 22         | 48    |       |
| 23:00                                            | 19         | 11         | 30    |       |
| 24 HR. TOTAL:                                    | 977        | 778        | 1755  |       |

HIGH 8 HOURS = 135

**COMMERCIAL TRAFFIC:**

NORTHBOUND 0.0%

SOUTHBOUND 0.0%

**TWO-WAY 0.0%**

(TWO-WAY IS WEIGHTED AVERAGE)

MACHINE COUNTS NC-350

MACHINE COUNTS NC-350

**CITY OF LAS VEGAS**  
**DEPARTMENT OF PUBLIC WORKS, TRAFFIC ENGINEERING DIVISION**  
**24 HOUR SPEED AND VOLUME STUDY**

|                                                  |            |            |       |       |
|--------------------------------------------------|------------|------------|-------|-------|
| LOCATION: Lorenzi St S. of Wenatchee Dr          |            |            |       | EXCEL |
| POSTED SPEED LIMIT = 25MPH                       |            |            |       | RHCB  |
| 85 <sup>th</sup> PERCENTILE SPEED = 42MPH        |            |            |       | AM    |
| AVERAGE SPEED = 32MPH                            |            |            |       |       |
| % VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 62 % |            |            |       |       |
| DATE: 7/13/2021                                  |            |            |       |       |
|                                                  |            |            |       |       |
| 85 <sup>th</sup> ile speed                       | 36         | 45         |       |       |
| Avg Speed                                        | 29         | 36         |       |       |
| HOUR BEGINS AT:                                  | NORTHBOUND | SOUTHBOUND | TOTAL | RANK  |
| 0:00                                             | 10         | 15         | 25    |       |
| 1:00                                             | 9          | 6          | 15    |       |
| 2:00                                             | 4          | 8          | 12    |       |
| 3:00                                             | 9          | 3          | 12    |       |
| 4:00                                             | 9          | 10         | 19    |       |
| 5:00                                             | 20         | 24         | 44    |       |
| 6:00                                             | 10         | 32         | 42    |       |
| 7:00                                             | 28         | 50         | 78    |       |
| 8:00                                             | 38         | 54         | 92    |       |
| 9:00                                             | 37         | 38         | 75    |       |
| 10:00                                            | 35         | 28         | 63    |       |
| 11:00                                            | 52         | 42         | 94    |       |
| 12:00                                            | 52         | 56         | 108   |       |
| 13:00                                            | 71         | 44         | 115   |       |
| 14:00                                            | 67         | 52         | 119   |       |
| 15:00                                            | 80         | 39         | 119   |       |
| 16:00                                            | 100        | 45         | 145   |       |
| 17:00                                            | 98         | 50         | 148   | 1     |
| 18:00                                            | 66         | 65         | 131   |       |
| 19:00                                            | 80         | 59         | 139   |       |
| 20:00                                            | 46         | 36         | 82    |       |
| 21:00                                            | 40         | 26         | 66    |       |
| 22:00                                            | 23         | 23         | 46    |       |
| 23:00                                            | 20         | 11         | 31    |       |
| 24 HR. TOTAL:                                    | 1004       | 816        | 1820  |       |

HIGH 8 HOURS = 148

**COMMERCIAL TRAFFIC:**

NORTHBOUND 0.0%

SOUTHBOUND 0.0%

**TWO-WAY 0.0%**

(TWO-WAY IS WEIGHTED AVERAGE)

MACHINE COUNTS NC-350

MACHINE COUNTS NC-350



## APPENDIX B

### SPEED HUMP DATA

**NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM**  
**STREET NAME AND LIMITS**

**Lorenzi St N. of Walla Walla**

DATE OF COUNT: **July 13, 2021**

WARD: **1**

**1 85TH PERCENTILE SPEED**

85<sup>TH</sup> PERCENTILE SPEED MUST BE GREATER THAN 35 MPH

36 MPH - 40 MPH = FACTOR OF 1.1 TO 1.5

GREATER THAN 40 MPH = FACTOR OF 2

\*TOTAL POINTS TO BE MULTIPLIED BY 85<sup>TH</sup> PERCENTILE FACTOR

**43** MPH FACTOR = **2**

**2 EMERGENCY RESPONSE ROUTE**

STREET CANNOT BE A MAJOR EMERGENCY RESPONSE ROUTE

**MAJOR EMERGENCY RESPONSE ROUTE: NO**  
**SECONDARY EMERGENCY RESPONSE ROUTE: YES**

**3 TRAFFIC VOLUME**

AVERAGE DAILY TRAFFIC VOLUME (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST VOLUME), DIVIDED BY 100.

30 POINTS MAXIMUM SCORE.

[NOTE: IF THE VOLUME IS BELOW 800 VPD, THE NTMP SHALL NOT BE APPLIED, REGARDLESS OF OTHER SCORES]

ADT= **1755** PTS **18**

**4 SPEED**

PERCENTAGE OF VEHICLES TRAVELING MORE THAN 5 MPH OVER THE SPEED LIMIT (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST PERCENTAGE OVER THE LIMIT), DIVIDED BY 4.

20 POINTS MAXIMUM SCORE.

**73 %** PTS **18**

**5 ACCIDENTS**

ACCIDENT RATE OVER 3 CONSECUTIVE YEARS (ACCIDENTS PER MILLION VEHICLE MILES TRAVELED).

20 POINTS MAXIMUM SCORE.

PROJECT LENGTH IN MILES= **0.5**

ACCIDENTS IN LAST 3 YEARS= **2**

PTS=(# ACC)(PROJECT LENGTH)(ADT)(3 YEARS)/(1MILLION) PTS **2**

**6 ELEMENTARY SCHOOLS**

5 POINTS FOR EACH PRIVATE OR PUBLIC ELEMENTARY OR MIDDLE SCHOOL ON OR WITHIN 200 FEET OF THE SUBJECT STREET .

EA.= **0** PTS **0**

**7 OTHER EXTRAORDINARY CIRCUMSTANCES**

UP TO 5 POINTS FOR EACH INDIVIDUAL PEDESTRIAN-ORIENTED FACILITY, SUCH AS ELDERLY HOUSING OR A PARK ON OR WITHIN 200 FEET OF THE SUBJECT STREET.

EA.= **0** PTS **0**

1 POINT FOR EACH SCHOOL BUS STOP ALONG THE STREET SEGMENT.

EA.= **0** PTS **0**

UP TO 5 POINTS FOR EACH PUBLIC PROJECT EXTERNAL TO THE NEIGHBORHOOD WHICH WILL SIGNIFICANTLY INCREASE THE TRAFFIC CUTTING THROUGH THE NEIGHBORHOOD.

EA.= **1** PTS **5**

1 POINT FOR EACH SIDE STREET WHICH HAS SIGHT VISIBILITY BELOW 25 MPH. 10 POINTS MAXIMUM SCORE.

EA.= **0** PTS **0**

**8 DESIGNATED PEDESTRIAN ROUTES**

5 POINTS WHENEVER A SUGGESTED ROUTE-TO-SCHOOL CROSSES THE SUBJECT STREET.

EA.= **0** PTS **0**

FIVE (5) MORE POINTS IF THE CROSSING IS LOCATED WHERE TRAFFIC ON THE SUBJECT STREET IS NOT CONTROLLED BY EITHER A STOP SIGN OR A TRAFFIC SIGNAL.

EA.= **0** PTS **0**

**TOTAL POINTS= 43**

**TOTAL NTMP PTS = 86**

\*TOTAL POINTS X 85<sup>TH</sup> PERCENTILE FACTOR

A MINIMUM OF 40 POINTS IS REQUIRED FOR A PROJECT TO BE ELIGIBLE FOR THIS PROGRAM.

CRITERIA MET: **NO**

TYPE OF TRAFFIC MANAGEMENT DEVICE RECOMMENDED

**COMMENTS**

1. POSTED SPEED: 25 MPH

2. RIGHT-OF-WAY WIDTH: 60 FT.

3. Commercial area northwest corner Charleston & Lorenzi

4.

**NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM**  
**STREET NAME AND LIMITS**

**Lorenzi St S. of Wenatchee Dr**

DATE OF COUNT: **July 13, 2021**

WARD: **1**

**1 85TH PERCENTILE SPEED**

85<sup>TH</sup> PERCENTILE SPEED MUST BE GREATER THAN 35 MPH

36 MPH - 40 MPH = FACTOR OF 1.1 TO 1.5

GREATER THAN 40 MPH = FACTOR OF 2

\*TOTAL POINTS TO BE MULTIPLIED BY 85<sup>TH</sup> PERCENTILE FACTOR

**42** MPH FACTOR = **2**

**2 EMERGENCY RESPONSE ROUTE**

STREET CANNOT BE A MAJOR EMERGENCY RESPONSE ROUTE

**MAJOR EMERGENCY RESPONSE ROUTE: NO**  
**SECONDARY EMERGENCY RESPONSE ROUTE: YES**

**3 TRAFFIC VOLUME**

AVERAGE DAILY TRAFFIC VOLUME (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST VOLUME), DIVIDED BY 100.

30 POINTS MAXIMUM SCORE.

[NOTE: IF THE VOLUME IS BELOW 800 VPD, THE NTMP SHALL NOT BE APPLIED, REGARDLESS OF OTHER SCORES]

ADT= **1820** PTS **18**

**4 SPEED**

PERCENTAGE OF VEHICLES TRAVELING MORE THAN 5 MPH OVER THE SPEED LIMIT (ON THE SEGMENT OF THE PROJECT STREET HAVING THE HIGHEST PERCENTAGE OVER THE LIMIT), DIVIDED BY 4.

20 POINTS MAXIMUM SCORE.

**62 %** PTS **16**

**5 ACCIDENTS**

ACCIDENT RATE OVER 3 CONSECUTIVE YEARS (ACCIDENTS PER MILLION VEHICLE MILES TRAVELED).

20 POINTS MAXIMUM SCORE.

PROJECT LENGTH IN MILES= **0.5**

ACCIDENTS IN LAST 3 YEARS= **2**

PTS=(# ACC)(PROJECT LENGTH)(ADT)(3 YEARS)/(1MILLION) PTS **2**

**6 ELEMENTARY SCHOOLS**

5 POINTS FOR EACH PRIVATE OR PUBLIC ELEMENTARY OR MIDDLE SCHOOL ON OR WITHIN 200 FEET OF THE SUBJECT STREET .

EA.= **0** PTS **0**

**7 OTHER EXTRAORDINARY CIRCUMSTANCES**

UP TO 5 POINTS FOR EACH INDIVIDUAL PEDESTRIAN-ORIENTED FACILITY, SUCH AS ELDERLY HOUSING OR A PARK ON OR WITHIN 200 FEET OF THE SUBJECT STREET.

EA.= **0** PTS **0**

1 POINT FOR EACH SCHOOL BUS STOP ALONG THE STREET SEGMENT.

EA.= **0** PTS **0**

UP TO 5 POINTS FOR EACH PUBLIC PROJECT EXTERNAL TO THE NEIGHBORHOOD WHICH WILL SIGNIFICANTLY INCREASE THE TRAFFIC CUTTING THROUGH THE NEIGHBORHOOD.

EA.= **1** PTS **5**

1 POINT FOR EACH SIDE STREET WHICH HAS SIGHT VISIBILITY BELOW 25 MPH. 10 POINTS MAXIMUM SCORE.

EA.= **0** PTS **0**

**8 DESIGNATED PEDESTRIAN ROUTES**

5 POINTS WHENEVER A SUGGESTED ROUTE-TO-SCHOOL CROSSES THE SUBJECT STREET.

EA.= **0** PTS **0**

FIVE (5) MORE POINTS IF THE CROSSING IS LOCATED WHERE TRAFFIC ON THE SUBJECT STREET IS NOT CONTROLLED BY EITHER A STOP SIGN OR A TRAFFIC SIGNAL.

EA.= **0** PTS **0**

**TOTAL POINTS= 41**

**\*TOTAL POINTS X 85TH PERCENTILE FACTOR**

A MINIMUM OF 40 POINTS IS REQUIRED FOR A PROJECT TO BE ELIGIBLE FOR THIS PROGRAM.

**TOTAL NTMP PTS = 81**

**CRITERIA MET: NO**

**TYPE OF TRAFFIC MANAGEMENT DEVICE RECOMMENDED**

**COMMENTS**

1. POSTED SPEED: 25 MPH

2. RIGHT-OF-WAY WIDTH: 60 FT.

3. Commercial area northwest corner Charleston & Lorenzi

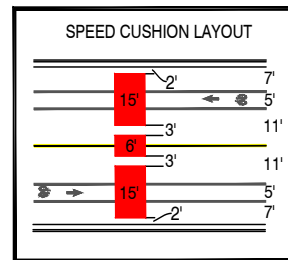
4.





## LEGEND

- █ APPROXIMATE SPEED CUSHION LOCATION
- █ RESIDENT SUPPORTS (29)
- █ RESIDENT OPPOSES (6)



SPEED CUSHION LOCATION IS APPROXIMATE.



EXAMPLE SPEED CUSHION LAYOUT ON 15TH STREET





## Item 7 – Lorenzi Speed Cushion



### North of Walla Walla Drive:

- Study date: July 13, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 43 mph
- Average Speed: 34 MPH
- 24 hr counts: 1,755
- Total Points: 86

### South of Wenatchee Drive:

- Study date: July 13, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 42 mph
- Average Speed: 32 MPH
- 24 hr counts: 1,820
- Total Points: 81





# Item 7 – Lorenzi Speed Cushion



## National Research:

### Federal Highway Administration (FHWA) & Institute of Transportation Engineers:

- Installation of Speed Cushions are appropriate on local and collector streets.\*

\*Traffic Calming Fact Sheet, published May 2018 & FHWA/ITE Traffic Calming Eprimer:

[https://safety.fhwa.dot.gov/speedmgt/ePrimer\\_modules/module3pt2.cfm#mod311](https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3pt2.cfm#mod311)





# Item 7 – Lorenzi Speed Cushion



## North of Walla Walla Drive:

- Study date: July 13, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 43 mph
- Average Speed: 34 MPH
- 24 hr counts: 1,755
- Total Points: 86

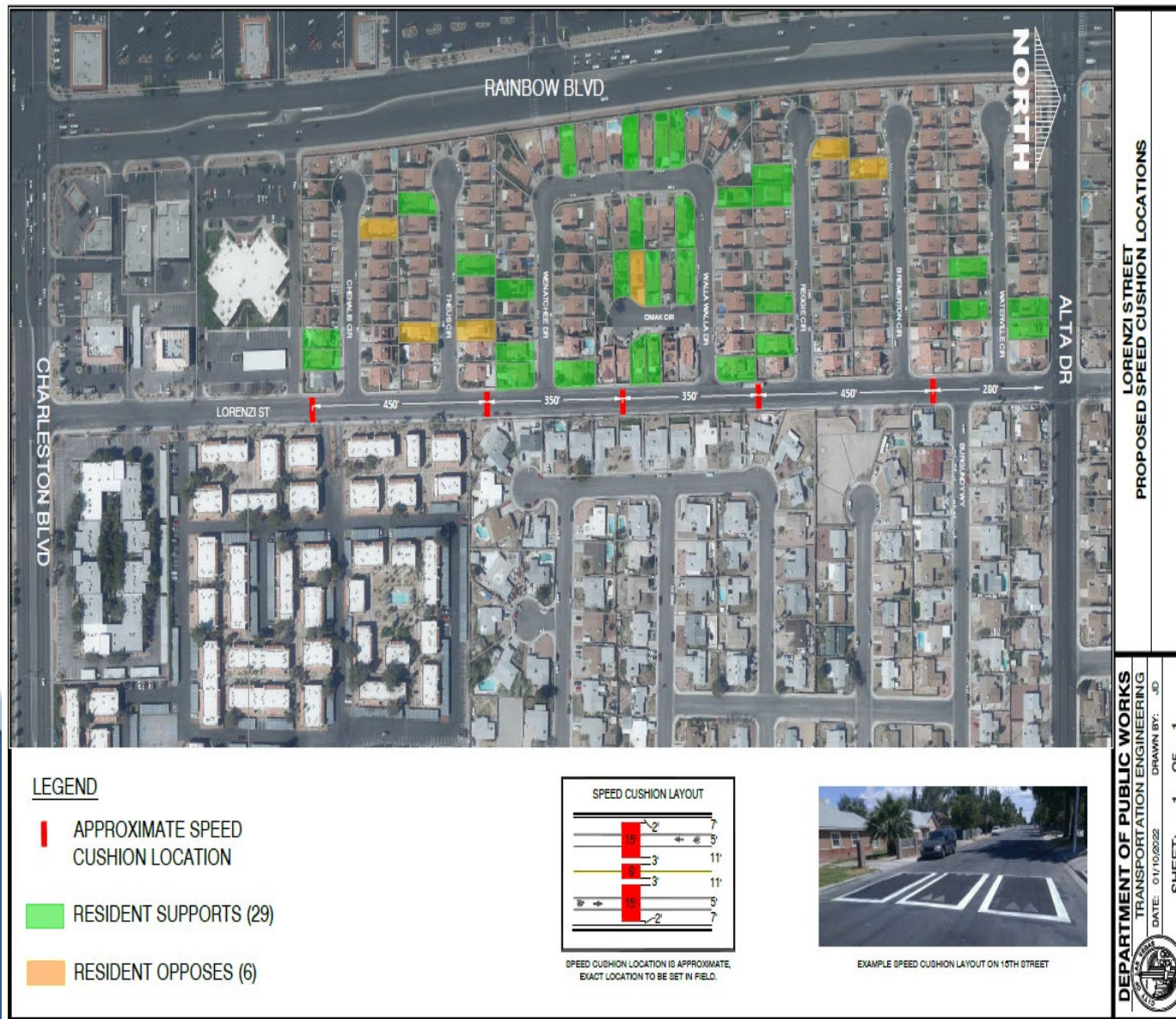
## South of Wenatchee Drive:

- Study date: July 13, 2021
- Posted Speed: 25 mph
- 85<sup>th</sup> Percentile Speed: 42 mph
- Average Speed: 32 MPH
- 24 hr counts: 1,820
- Total Points: 81





# Item 7 – Lorenzi Speed Cushion



## National Research:

## Federal Highway Administration (FHWA) & Institute of Transportation Engineers:

- Installation of Speed Cushions are appropriate on local and collector streets.\*

\*Traffic Calming Fact Sheet, published May 2018 & FHWA/ITE Traffic Calming Eprimer:

[https://safety.fhwa.dot.gov/speedmgt/ePrimer\\_modules/module3pt2.cfm#mod311](https://safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3pt2.cfm#mod311)

