



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 December 14, 2020
5. Discussion for possible action to change the speed limit on Charleston Boulevard between Rancho Drive and Martin L. King, Jr. Boulevard from 45 MPH to 35 MPH – Ward 1 (Knudsen)
6. 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 establish no parking on the west side of Lillian Street from Bonanza Road to Harris Avenue, and on Harris Avenue from Nellis Boulevard to Lillian Street – Ward 3 (Diaz)
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

The Nevada Public Notice website – notice.nv.gov

City Hall, 495 South Main Street, 1st Floor

AGENDA DOCUMENTATION

DATE: AUGUST 26, 2021
TO: TRAFFIC AND PARKING COMMISSION
FROM: TRANSPORTATION ENGINEERING DIVISION
SUBJECT: **ITEM 5**

DISCUSSION FOR POSSIBLE ACTION TO CHANGE THE SPEED LIMIT ON CHARLESTON BOULEVARD BETWEEN RANCHO DRIVE AND MARTIN L. KING, JR. BOULEVARD FROM 45 MPH TO 35 MPH – Ward 1 (Knudsen)

SITUATION

The Transportation Engineering Division would like to change the speed limit on Charleston Boulevard between Rancho Drive and Martin L. King, Jr. Boulevard from 45 mph to 35 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:

- 50th Percentile Speed
- 85th 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 Charleston Boulevard between Rancho Drive and Martin L. King, Jr. Boulevard. Based on this study, staff recommends changing the speed limit from 45 mph to 35 mph.

RECOMMENDATION

The Transportation Engineering Division recommends permanently changing the posted speed limit from 45 mph to 35 mph, on Charleston Boulevard between Rancho Drive and Martin L. King, Jr. Boulevard based on the USLIMITS2 evaluation study, road geometrics, and adjacent land uses.



MEMORANDUM

Department of Public Works – Transportation Division

Date: June 21, 2021

Re: Speed Limit Study -- Charleston Boulevard

Rancho Drive to Martin Luther King, Jr. Boulevard/Interstate 15 (Wards 1 and 3)

Background

The purpose of this study is to evaluate if the current posted speed limit along the subject 0.65-mile section of Charleston Blvd. is still appropriate given the adjacent medical land uses, high pedestrian activity, and recent completion of major area capital roadway improvements projects such as Project Neon. The study also considered other planned public and private projects along this reach of Charleston Blvd., including the City's Charleston Blvd. Complete Streets project between Rancho Dr. and Martin L. King, Jr. Blvd. (MLK). Traffic speed and volume data was collected in the month of July 2020.

Existing Conditions

Roadway Characteristics

Charleston Blvd. is a six-lane east-west major arterial street that runs along a primarily commercial area within the Las Vegas Medical District (LVMD). The LVMD is a high pedestrian activity area that includes facilities such as the University Medical Center and the University of Nevada, Las Vegas School of Medicine. A raised center median divides most of Charleston Blvd., but there is a two-way-left-turn-lane (TWLTL) between Shadow Ln. and Rancho Dr. East of Shadow Ln., Charleston Blvd. is divided by an elevated roadway structure that connects eastbound Charleston Blvd. to the MLK overpass. At the east end of the study limits is the Charleston Blvd./Interstate 15 (I-15) interchange.

Speed limits

The current posted speed limit on Charleston Blvd. within the study limits varies. In the eastbound direction, the speed limit is 45 mph from Rancho Dr. to Shadow Ln., at which point, it is reduced to 35 mph to MLK Blvd./I-15. In the westbound direction, the posted speed is 45 mph within the entire study limits. Immediately east of MLK Blvd./I-15, the speed limit is 35 mph in the eastbound and westbound directions along a 2.5-mile distance to Fremont St. West of Rancho Dr., the speed limit is 45 mph for a distance of approximately 9-miles, to the Clark Count-215 Beltway at the city limits. The intersections of Rancho Dr., Shadow Ln., and the I-15 interchange are signalized.

Crash Experience

Crash data was provided by the Nevada Department of Transportation. At the time of the request, the most recent crash data available was for the period from January 2014 to January 2019. During this period, there were 278 reported crashes within the subject study limits over a 5-year period. See Appendix "A", Traffic Data, for a more detailed summary of crash data.

Speed and Volume

Based on the traffic speed and volume data collected in July of 2020 over a 24-hour period, the bi-directional mean speed on Charleston Blvd. was 38 mph between Shadow Ln. and I-15, and 42 mph between Shadow Ln. and Rancho Dr. See Appendix "A", Traffic Data, for raw speed and volume data.

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

Traffic Speed Summary (Fig. 1)

Street Name	Mean Speed (mph)				85% Speed (mph)			
Charleston Blvd.-Shadow to MLK	EB:	35	WB:	40	EB:	42	WB:	47
Charleston Blvd.-Rancho to Shadow	EB:	41	WB:	44	EB:	44	WB:	52

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

Traffic Volume Summary (Fig. 2)

Street Name	24-Hour Volumes				Totals
Charleston Blvd.-Shadow to MLK	EB:	15132	WB:	16101	31233 vehicles
Charleston Blvd.-Rancho to Shadow	EB:	9433	WB:	10096	19529 vehicles

A historical comparison of the above traffic volumes shows these volumes to be significantly lower than what has been observed with past studies. For example, NDOT Count Station 0030295 located on Charleston Blvd., 300' east of Rancho Dr., had an annual average daily traffic (AADT) volume of 39,500 vehicles. This can be attributed to the reduction in non-essential trips and reduced business operating capacities due to the COVID-19 pandemic. As such, historical count data was also considered and used to supplement the study. Historical count data was also needed that corresponds to the time period of the provided crash data in order to determine corridor crash rates needed for the study.

It should also be noted that the speeds recorded in July 2020 for this analysis may have been higher than normal due to reduced traffic congestion directly resulting from the effects of the COVID-19 pandemic.

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: Rancho Dr. to Shadow Ln. and Shadow Ln. to MLK/I-15.

USLIMITS2 recommended speed limit summary (Fig. 3)

Street	Termini From	Termini To	85th Percentile Speed (mph)	50th Percentile Speed (mph)	Section Length (miles)	AADT	Existing Posted Speed Limit (mph)	Final Recommended Speed Limit (mph)
Charleston Blvd.	Shadow Ln.	MLK Blvd.	45	36	0.25	31361	45	35
Charleston Blvd.	Rancho Dr.	Shadow Ln.	50	41	0.40	19529	45	40

For the segment from Shadow Ln. to MLK/I-15, the speed Limit recommended by the USLIMITS2 expert system software application confirmed the existing 35 mph zone for eastbound Charleston is appropriate, but recommends a change in the westbound direction to reduce the existing 45 mph speed to 35 mph. For the segment between Rancho Dr. and Shadow Ln., USLIMITS2 recommends a reduction in speed limit from the existing 45 mph to 40 mph. See Appendix “B”, for USLIMITS2 Speed Zoning Reports.

Staff Recommendation

Based on analysis of the data with respect to the above methods and considerations, the following actions are recommended:

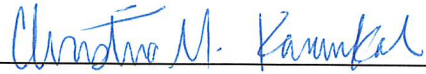
- Eastbound between Shadow Ln. and MLK/ I-15: Retain the existing 35 mph posted speed limit zone;
- Eastbound between Rancho Dr. and Shadow: Reduce the existing 45 speed limit zone to 35 mph;
- Westbound between Rancho Dr. and MLK/I-15: Reduce the existing 45 speed limit zone to 35 mph;

The above recommendations would provide for a logical extension of the existing 35 mph speed limit zone located immediately east of the study limits (MLK/I-15 to Fremont St), westerly to Rancho Dr. Creation of a 40 mph speed zone, as recommended by USLIMITS2, is not recommended here, in part to provide consistent speed zoning, and to avoid the creation of a third speed limit zone that could be confusing to motorists. Additionally, the City’s Charleston Blvd. Complete Streets capital improvement project is in the final stages of design with construction anticipated to begin in late 2021. The proposed improvements, including upgraded pedestrian and bicycle facilities, narrower vehicle travel lanes, and wide, landscaped medians, are forward-compatible with plans to implement high-capacity transit along the Charleston Blvd. corridor. The changes proposed to the corridor speed limit promote safe mobility and accessibility for all transportation system users as well as support the City’s imminent and long-range planning to increase the multimodal presence on Charleston Blvd.

Signatures

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

Date: 6/21/21

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

Date: 7/7/2021

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

Date: 7/14/2021

Requestor information:

*INTERNAL: to support City's
Complete Streets project (at
final design level)*

APPENDIX A

TRAFFIC DATA

Traffic Volumes Summary

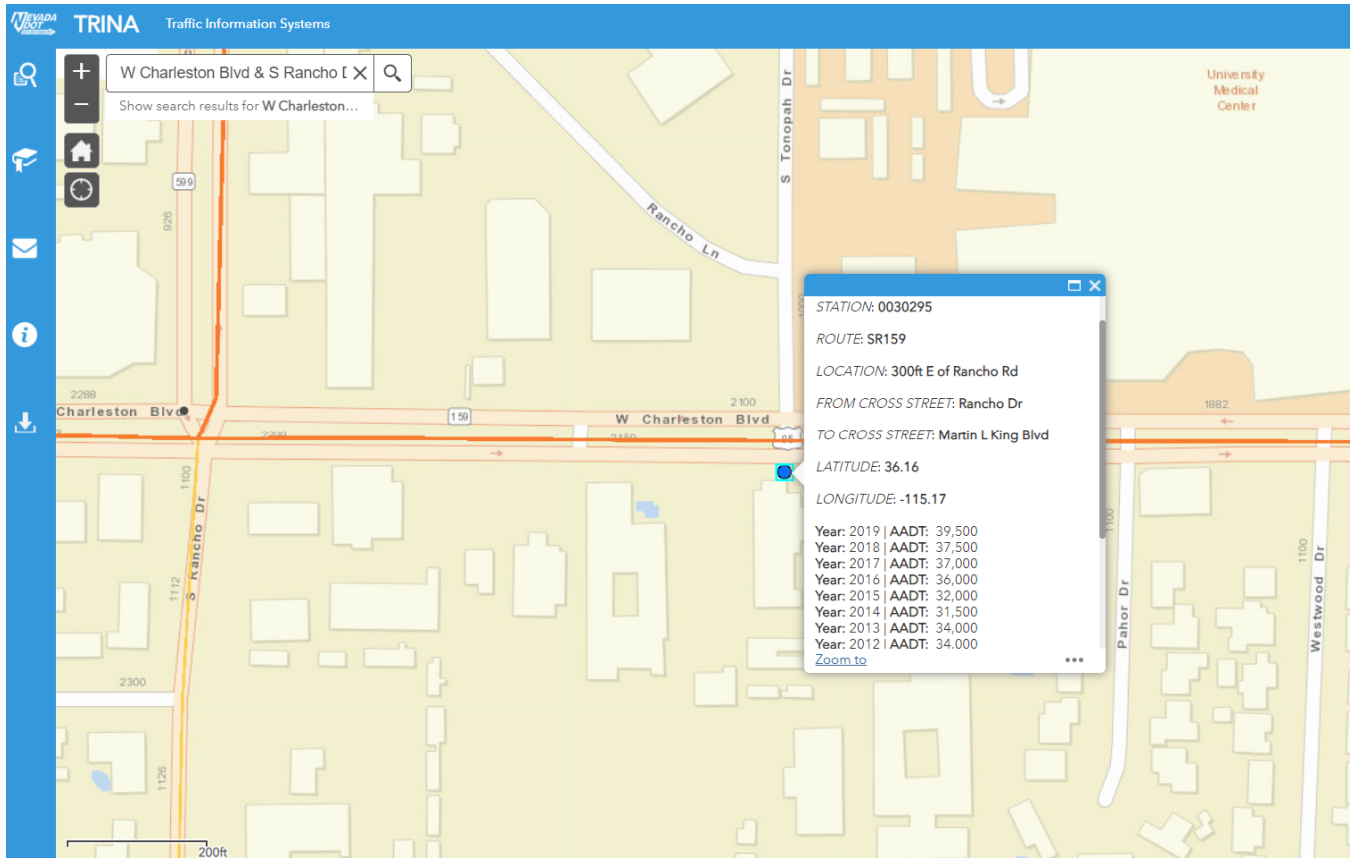
LOCATION:		Charleston Blvd.- Rancho Dr. to Shadow Ln.		Excel
POSTED SPEED LIMIT = 45		MPH		RHCB
85 th PERCENTILE SPEED = 50		MPH		
AVERAGE SPEED = 42		MPH		
% VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 18%				
DATE:		7/29/2020		
85 th ile speed	44	55		
Avg Speed	42	44		
HOUR BEGINS				
AT:	EASTBOUND	WESTBOUND	TOTAL	RANK
0:00	68	104	172	
1:00	48	59	107	
2:00	56	62	118	
3:00	50	43	93	
4:00	57	88	145	
5:00	148	194	342	
6:00	288	442	730	
7:00	475	718	1193	
8:00	577	885	1462	
9:00	544	731	1275	
10:00	637	831	1468	
11:00	634	708	1342	
12:00	773	771	1544	1
13:00	697	628	1325	
14:00	740	656	1396	
15:00	679	639	1318	
16:00	683	600	1283	
17:00	619	530	1149	
18:00	458	428	886	
19:00	376	331	707	
20:00	341	237	578	
21:00	221	157	378	
22:00	159	137	296	
23:00	105	117	222	
24 HR. TOTAL:		9433	10096	19529

Traffic Volumes Summary (continued)

LOCATION: Charleston Blvd.- Shadow Ln. to M.L. King Blvd. excel POSTED SPEED LIMIT = 45MPH RHCB 85th PERCENTILE SPEED = 45MPH AVERAGE SPEED = 38MPH % VEHICLES 5 MPH OR MORE OVER SPEED LIMIT = 2% DATE: 7/29/2020				
85thile speed	42	47		
Avg Speed	35	40		
HOUR BEGINS AT:	EASTBOUND	WESTBOUND	TOTAL	RANK
0:00	125	129	254	
1:00	74	91	165	
2:00	81	83	164	
3:00	69	72	141	
4:00	83	143	226	
5:00	216	347	563	
6:00	438	799	1237	
7:00	811	1148	1959	
8:00	886	1191	2077	7
9:00	874	951	1825	
10:00	1037	1007	2044	8
11:00	1097	1132	2229	4
12:00	1192	1229	2421	1
13:00	1087	1137	2224	5
14:00	1141	1147	2288	2
15:00	1175	1096	2271	3
16:00	1179	1010	2189	6
17:00	986	923	1909	
18:00	690	774	1464	
19:00	628	542	1170	
20:00	478	421	899	
21:00	329	281	610	
22:00	262	249	511	
23:00	194	199	393	
24 HR. TOTAL:	15132	16101	31233	

Traffic Volumes Summary (continued)

NDOT count stations data



Crash Summary

Crash Year	Fatalities	Injury related	Property Damage Only	Total
2014		36	22	58
2015		27	12	39
2016		32	23	55
2017		45	22	67
2018	1	39	19	59
Totals	1	179	98	278

Crash Year	Total Fatalities	Total Injuries
2014		58
2015		42
2016		55
2017		72
2018	1	73
Totals	1	300

APPENDIX B

USLIMITS2 Speed Zoning Reports

USLIMITS2 Speed Zoning Report

Project Name: Charleston Shadow to MLK

Analyst: E Meyer

Date: 08-18-2020

Basic Project Information

Route Name: Charleston Blvd
From: Shadow Lane
To: MLK Blvd
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: 5.00
Crash AADT: 31361 veh/day
Total Number of Crashes: 181
Total Number of Injury Crashes: 113
Section Crash Rate: 1265 per 100 MVM
Section Injury Crash Rate: 790 per 100 MVM
Crash Rate Average for Similar Roads: 227
Injury Rate Average for Similar Roads: 73

Roadway Information

Section Length: 0.25 mile(s)
Statutory Speed Limit: None
Existing Speed Limit: 45 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: Divided
Number of Through Lanes: 6
Area Type: Commercial
Number of Driveways: 13
Number of Signals: 2

Traffic Information

85th Percentile Speed: 45 mph
50th Percentile Speed: 36 mph
AADT: 31361 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: High

Project Description: Evaluate current posted speed limit based on existing conditions.

Recommended Speed Limit:



Note: The section crash rate of 1265 per 100 MVM is above the critical rate (296). The injury crash rate for the section of 790 per 100 MVM is above the critical rate (114). 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 0.25 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 Crash Data Calculations

Exposure (M)

$$M = (\text{Section AADT} * 365 * \text{Section Length} * \text{Crash Data Years}) / (100000000)$$
$$M = (31361 * 365 * 0.25 * 5.00) / (100000000)$$

Section Length Parking Data from August 26, 2020 Page 13

$$M = 0.1431$$

Crash Rate (Rc)

$$R_c = (\text{Section Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$$

$$R_c = (36.20 * 100000000) / (31361 * 365 * 0.25)$$

$$R_c = 1264.99 \text{ crashes per 100 MVM}$$

Injury Rate (Ri)

$$R_i = (\text{Section Injury Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$$

$$R_i = (22.60 * 100000000) / (31361 * 365 * 0.25)$$

$$R_i = 789.74 \text{ injuries per 100 MVM}$$

Critical Crash Rate (Cc)

$$C_c = \text{Crash Average of Similar Sections} + 1.645 * (\text{Crash Average of Similar Sections} / \text{Exposure}) ^ {1/2} + (1 / (2 * \text{Exposure}))$$

$$C_c = 227.04 + 1.645 * (227.04 / 0.1431) ^ {1/2} + (1 / (2 * 0.1431))$$

$$C_c = 296.06 \text{ crashes per 100 MVM}$$

Critical Injury Rate (Ic)

$$I_c = \text{Injury Crash Average of Similar Sections} + 1.645 * (\text{Injury Crash Average of Similar Sections} / \text{Exposure}) ^ {1/2} + (1 / (2 * \text{Exposure}))$$

$$I_c = 73.17 + 1.645 * (73.17 / 0.1431) ^ {1/2} + (1 / (2 * 0.1431))$$

$$I_c = 113.86 \text{ injuries per 100 MVM}$$

USLIMITS2 Speed Zoning Report

Project Name: Charleston Rancho to Shadow

Analyst: E Meyer

Date: 08-19-2020

Basic Project Information

Route Name: Charleston Blvd
From: Rancho Dr
To: Shadow Ln
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: 5.00
Crash AADT: 19529 veh/day
Total Number of Crashes: 163
Total Number of Injury Crashes: 121
Section Crash Rate: 1143 per 100 MVM
Section Injury Crash Rate: 849 per 100 MVM
Crash Rate Average for Similar Roads: 200
Injury Rate Average for Similar Roads: 63

Roadway Information

Section Length: 0.4 mile(s)
Statutory Speed Limit: None
Existing Speed Limit: 45 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: TWLTL
Number of Through Lanes: 6
Area Type: Commercial
Number of Driveways: 20
Number of Signals: 2

Traffic Information

85th Percentile Speed: 51 mph
50th Percentile Speed: 41 mph
AADT: 19529 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: High

Project Description: Evaluate current posted speed limit based on existing conditions.

Recommended Speed Limit:



Note: The section crash rate of 1143 per 100 MVM is above the critical rate (265). The injury crash rate for the section of 849 per 100 MVM is above the critical rate (101). 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 Crash Data Calculations

Exposure (M)

$$M = (\text{Section AADT} * 365 * \text{Section Length} * \text{Duration of Crash Data}) / (100000000)$$
$$M = (19529 * 365 * 0.4 * 5.00) / (100000000)$$
$$M = 0.1426$$

Crash Rate (Rc)

$$Rc = (\text{Section Crash Average} * 1000000) / (\text{Section AADT} * 365 * \text{Section Length})$$

$R_c = (32.60 * 100000000) / (19529 * 365 * 0.4)$
 $R_c = 1143.36$ crashes per 100 MVM

Injury Rate (Ri)

$R_i = (\text{Section Injury Crash Average} * 100000000) / (\text{Section AADT} * 365 * \text{Section Length})$
 $R_i = (24.20 * 100000000) / (19529 * 365 * 0.4)$
 $R_i = 848.76$ injuries per 100 MVM

Critical Crash Rate (Cc)

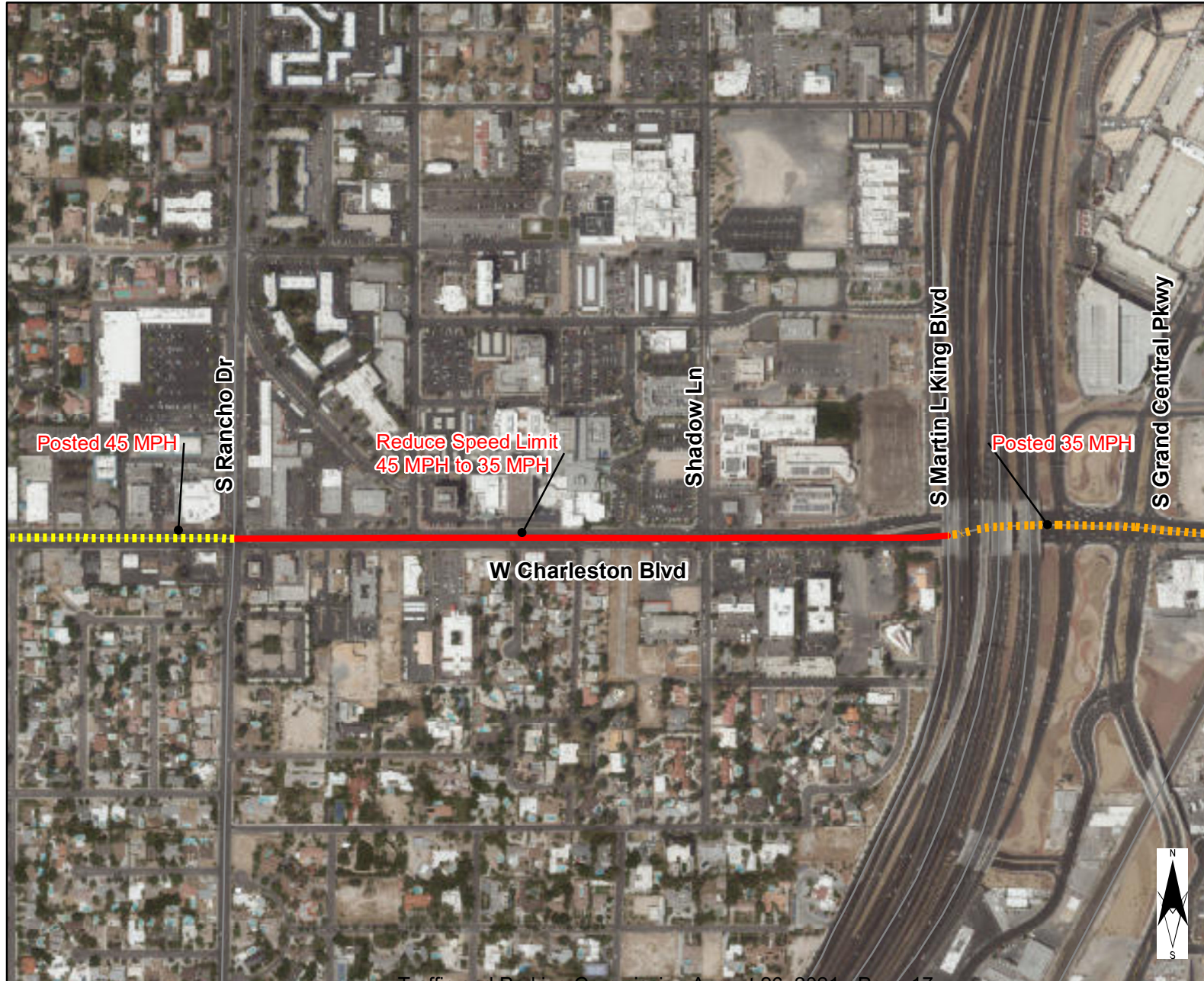
$C_c = \text{Crash Average of Similar Sections} + 1.645 * (\text{Crash Average of Similar Sections} / \text{Exposure}) ^ {1/2} + (1 / (2 * \text{Exposure}))$
 $C_c = 199.97 + 1.645 * (199.97 / 0.1426) ^ {1/2} + (1 / (2 * 0.1426))$
 $C_c = 265.09$ crashes per 100 MVM

Critical Injury Rate (Ic)

$I_c = \text{Injury Crash Average of Similar Sections} + 1.645 * (\text{Injury Crash Average of Similar Sections} / \text{Exposure}) ^ {1/2} + (1 / (2 * \text{Exposure}))$
 $I_c = 63.18 + 1.645 * (63.18 / 0.1426) ^ {1/2} + (1 / (2 * 0.1426))$
 $I_c = 101.32$ injuries per 100 MVM

Charleston Boulevard Speed Limit

Agenda # 5 - Rancho Drive to Martin L. King Boulevard
45 mph to 35 mph



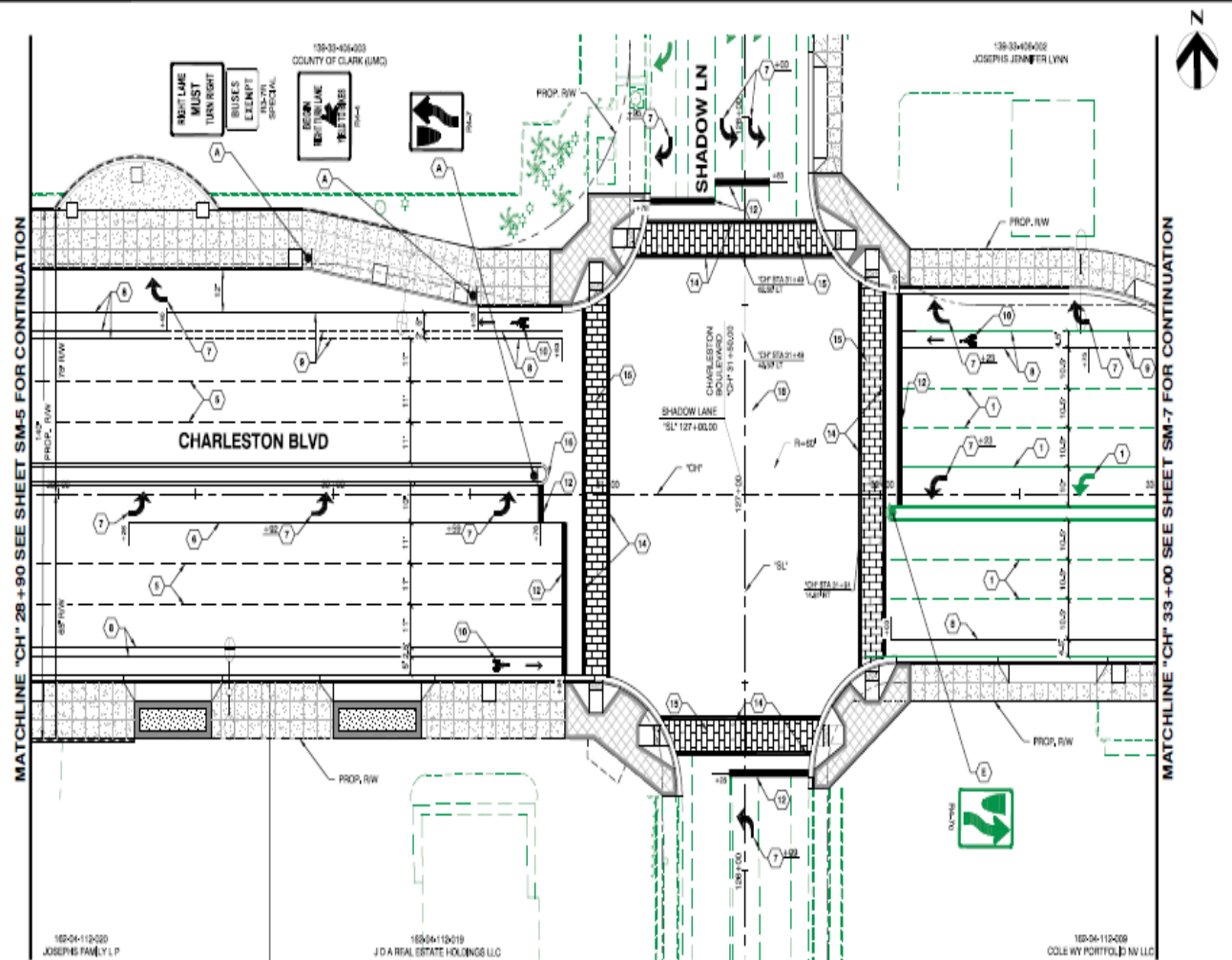
- Charleston - West of Rancho
- Charleston - Rancho to MLK
- Charleston - East of MLK



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 5 – Charleston Boulevard Speed Limit



- Future Design Elements with City's Capital Improvement Project include:
- 10-ft wide sidewalks with 15-ft in some areas
- Amenity zone with landscaping
- Project expected to advertise Q1 2022
- Construction complete Q3 2023



Item 5 – Charleston Boulevard Speed Limit

Charleston Boulevard Speed Limit

Agenda # 5 - Rancho Drive to Martin L. King Boulevard
45 mph to 35 mph



Exhibit 1

Rancho to Shadow:

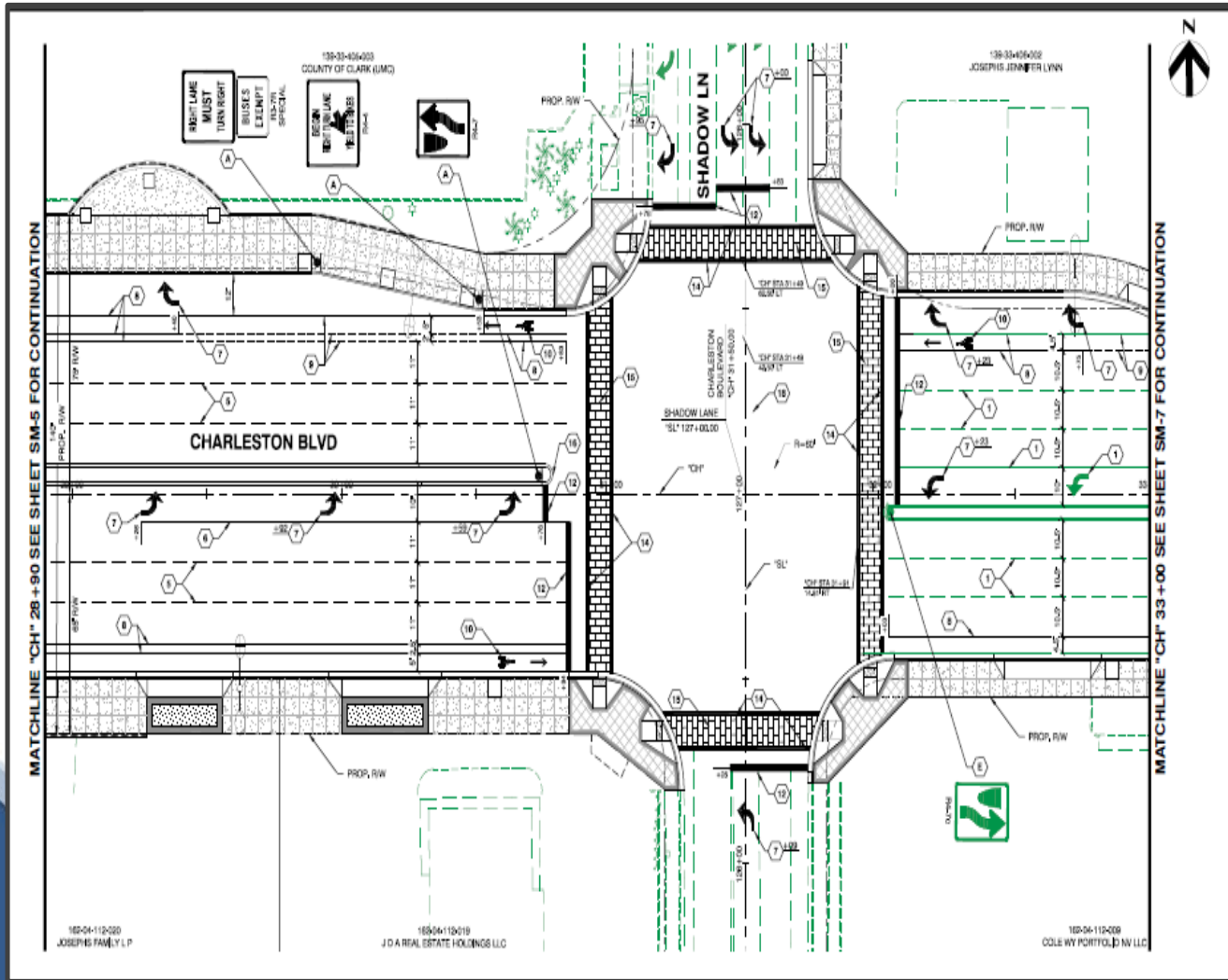
- Study date: July 29, 2020
- Posted Speed: 45 mph
- 85th Percentile Speed: 50 mph
- Average Speed: 41 MPH
- 24 hr counts: 19,529
- US Limits Recommendation: 40 mph

Shadow to MLK:

- Study date: July 29, 2020
- Posted Speed: 45 mph
- 85th Percentile Speed: 45 mph
- Average Speed: 36 MPH
- 24 hr counts: 31,361
- US Limits Recommendation: 35 mph



Item 5 – Charleston Boulevard Speed Limit



- Future Design Elements with City's Capital Improvement Project include:
- 10-ft wide sidewalks with 15-ft in some areas
- Amenity zone with landscaping
- Project expected to advertise Q1 2022
- Construction complete Q3 2023



Item 5 – Charleston Boulevard Speed Limit

Charleston Boulevard Speed Limit

Agenda # 5 - Rancho Drive to Martin L. King Boulevard
45 mph to 35 mph



Exhibit 1

Rancho to Shadow:

- Study date: July 29, 2020
- Posted Speed: 45 mph
- 85th Percentile Speed: 50 mph
- Average Speed: 41 MPH
- 24 hr counts: 19,529
- US Limits Recommendation: 40 mph

Shadow to MLK:

- Study date: July 29, 2020
- Posted Speed: 45 mph
- 85th Percentile Speed: 45 mph
- Average Speed: 36 MPH
- 24 hr counts: 31,361
- US Limits Recommendation: 35 mph



AGENDA DOCUMENTATION

DATE: AUGUST 26, 2021
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 CC215 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:

- 50th Percentile Speed
- 85th 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 CC215 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 CC215 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 85th 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

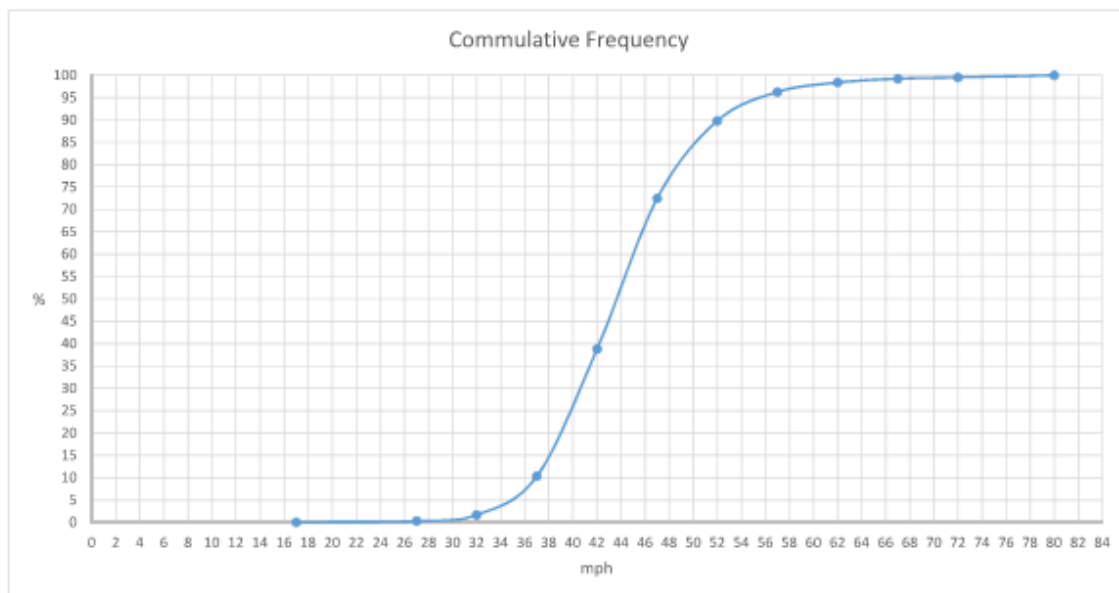
TRAFFIC DATA

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

January 15, 2021

Lower	upper	middle speed S (mi/hr)	Observed Freq 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

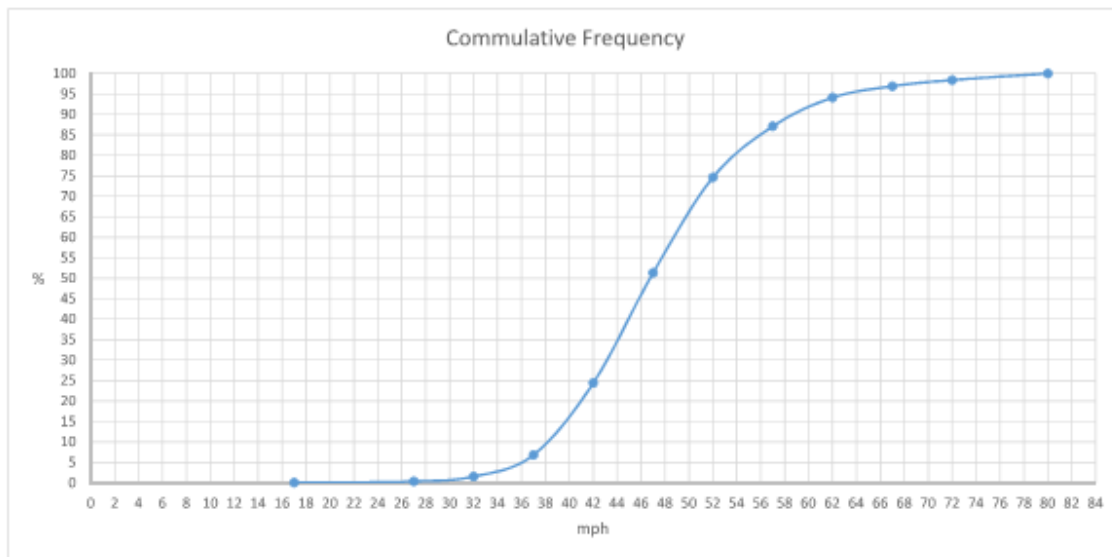


LAKE MEAD BLVD - CC 215 to THOMAS W RYAN BLVD
Speed Analysis - WB

January 15, 2021

Lower	upper	middle speed S (mi/hr)	Observed Freq 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

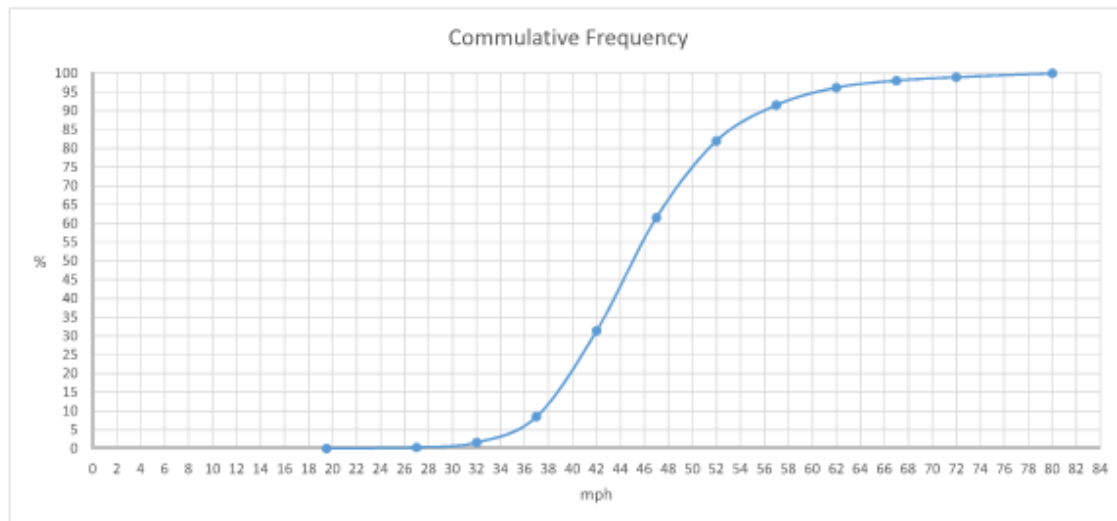
Lower	upper	middle speed S (mi/hr)	Observed Freq in group n	% Freq in group	Cum. % Freq	nS	nS^2	Cum. Vol
15	24	19.5	44	0.13	0.00	858	16,731	44
25	29	27	59	0.18	0.31	1,593	43,011	103
30	34	32	437	1.30	1.60	13,984	447,488	206
35	39	37	2322	6.90	8.51	85,914	3,178,818	643
40	44	42	7689	22.85	31.36	322,938	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

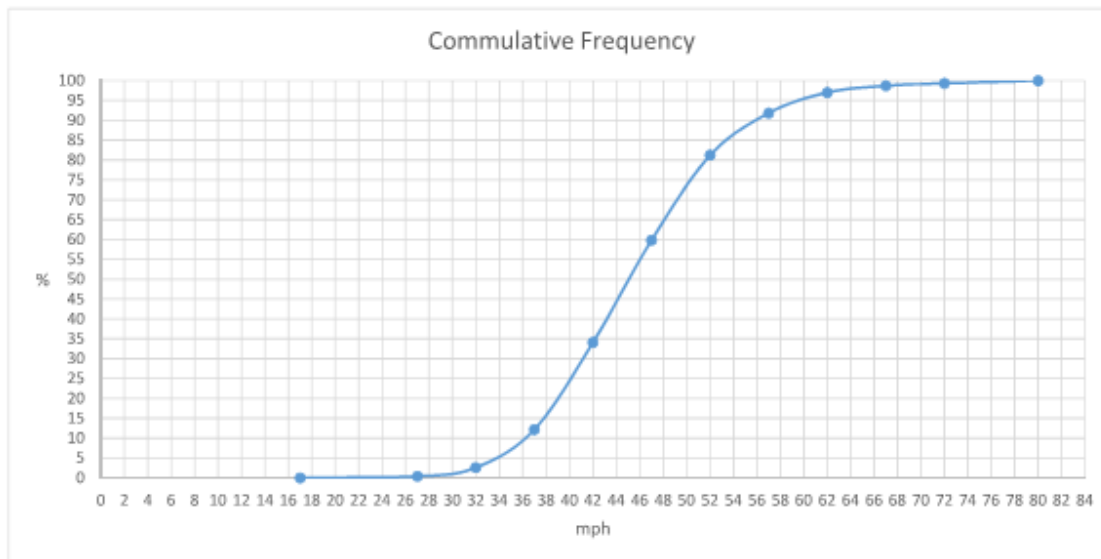


LAKE MEAD BLVD - THOMAS W RYAN BLVD to Anasazi Dr/Sun City Blvd
Speed Analysis - EB

January 15, 2021

Lower	upper	middle speed S (mi/hr)	Observed Freq in group n	% Freq in group	Cum. % 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

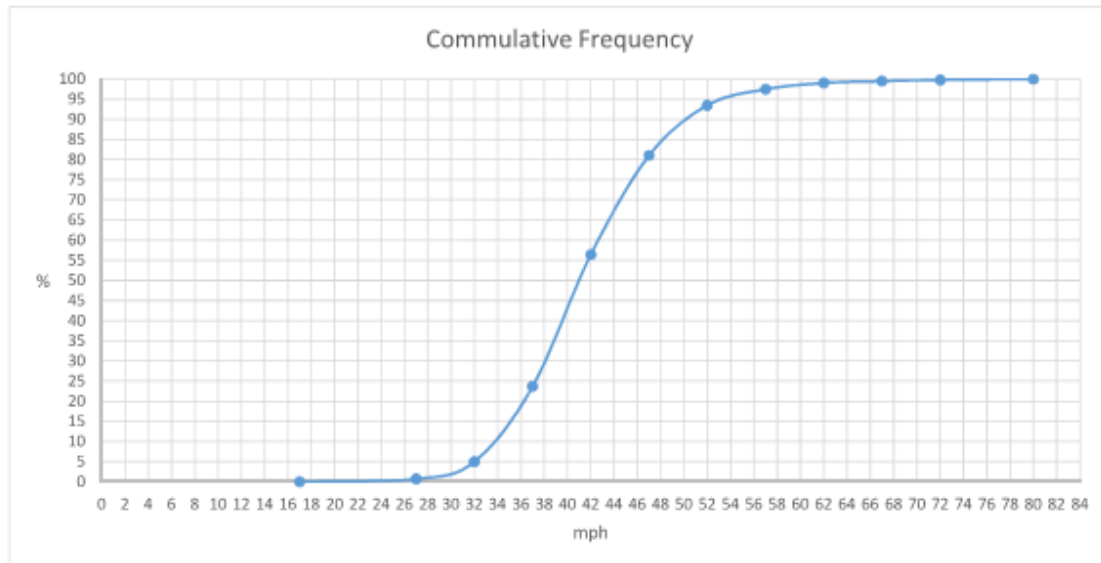


LAKE MEAD BLVD - THOMAS W RYAN BLVD to ANASAZI DR/SUN CITY BLVD
Speed Analysis - WB

January 15, 2021

Lower	upper	middle speed S (mi/hr)	Observed Freq in group n	% Freq in group	Cum. % 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

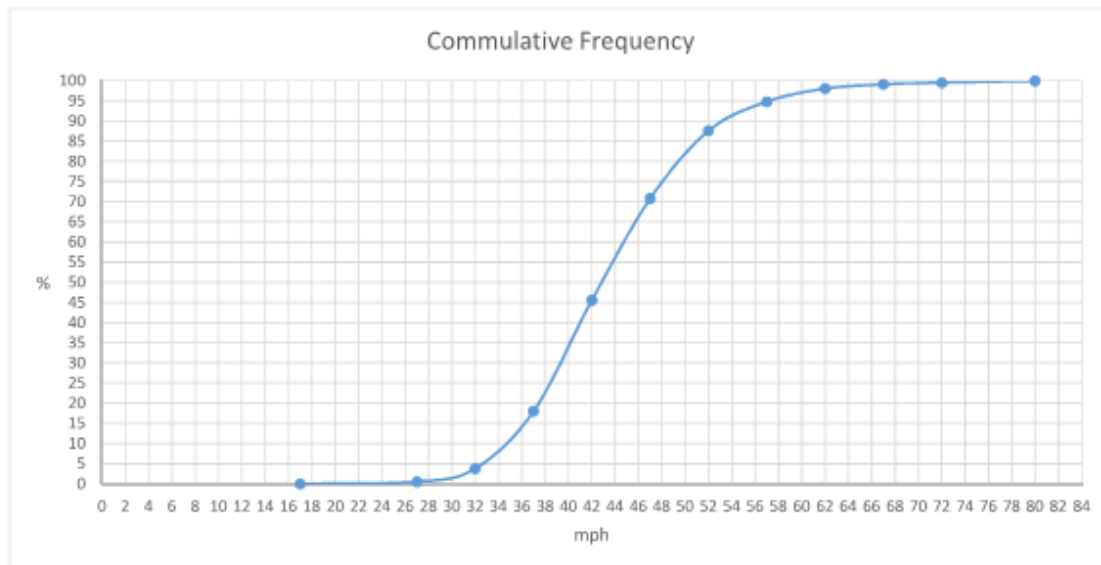


LAKE MEAD BLVD - THOMAS W RYAN BLVD to ANASAZI DR/SUN CITY BLVD
Speed Analysis - EB and WB

January 15, 2021

Lower	upper	middle speed S (mi/hr)	Observed Freq in group n	% Freq in group	Cum. % 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

[illegible]

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)

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

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

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)

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

Critical Crash Rate (Cc)

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

Critical Injury Rate (Ic)

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

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)

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

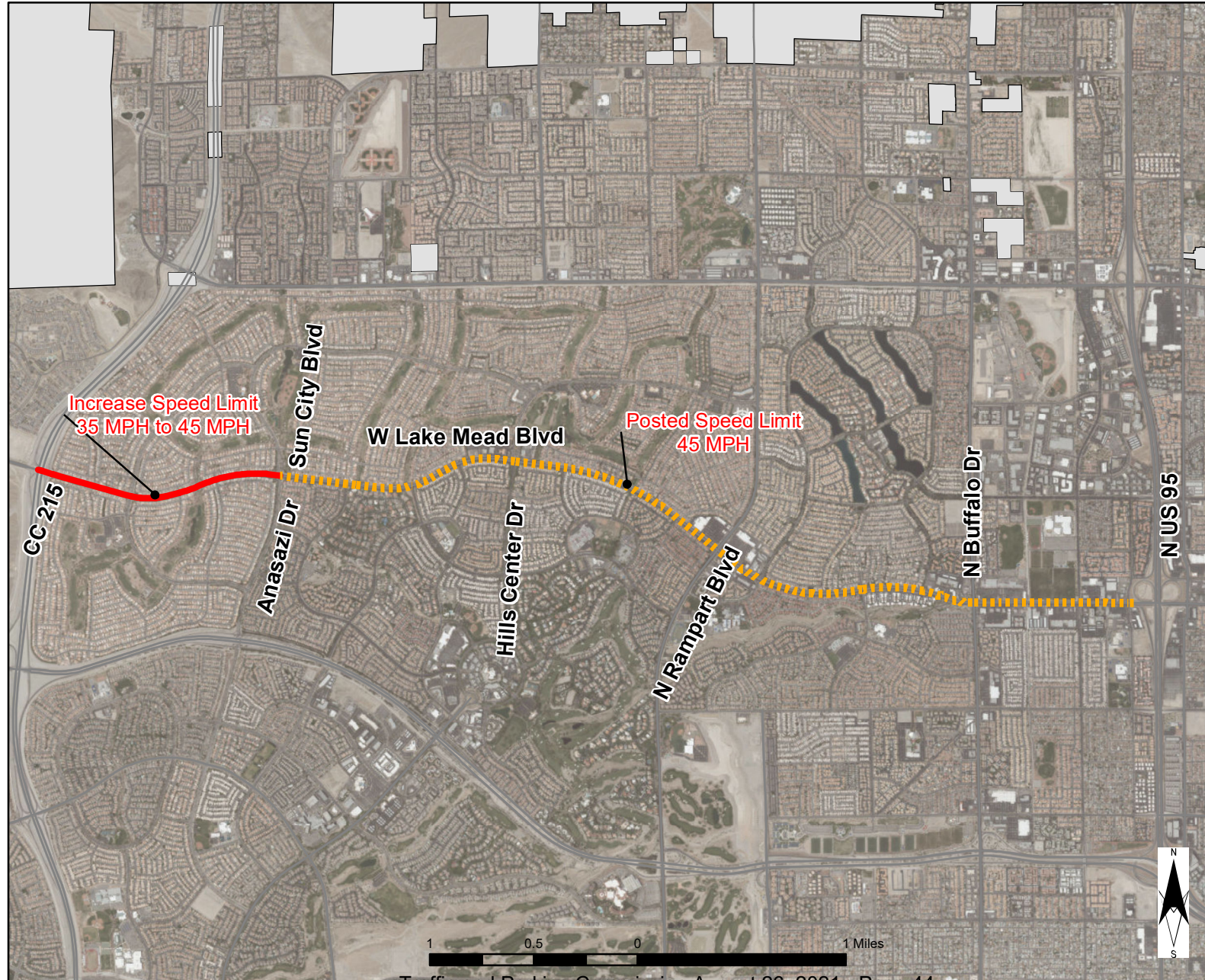
Critical Crash Rate (Cc)

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

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

Lake Mead Boulevard Speed Limit

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



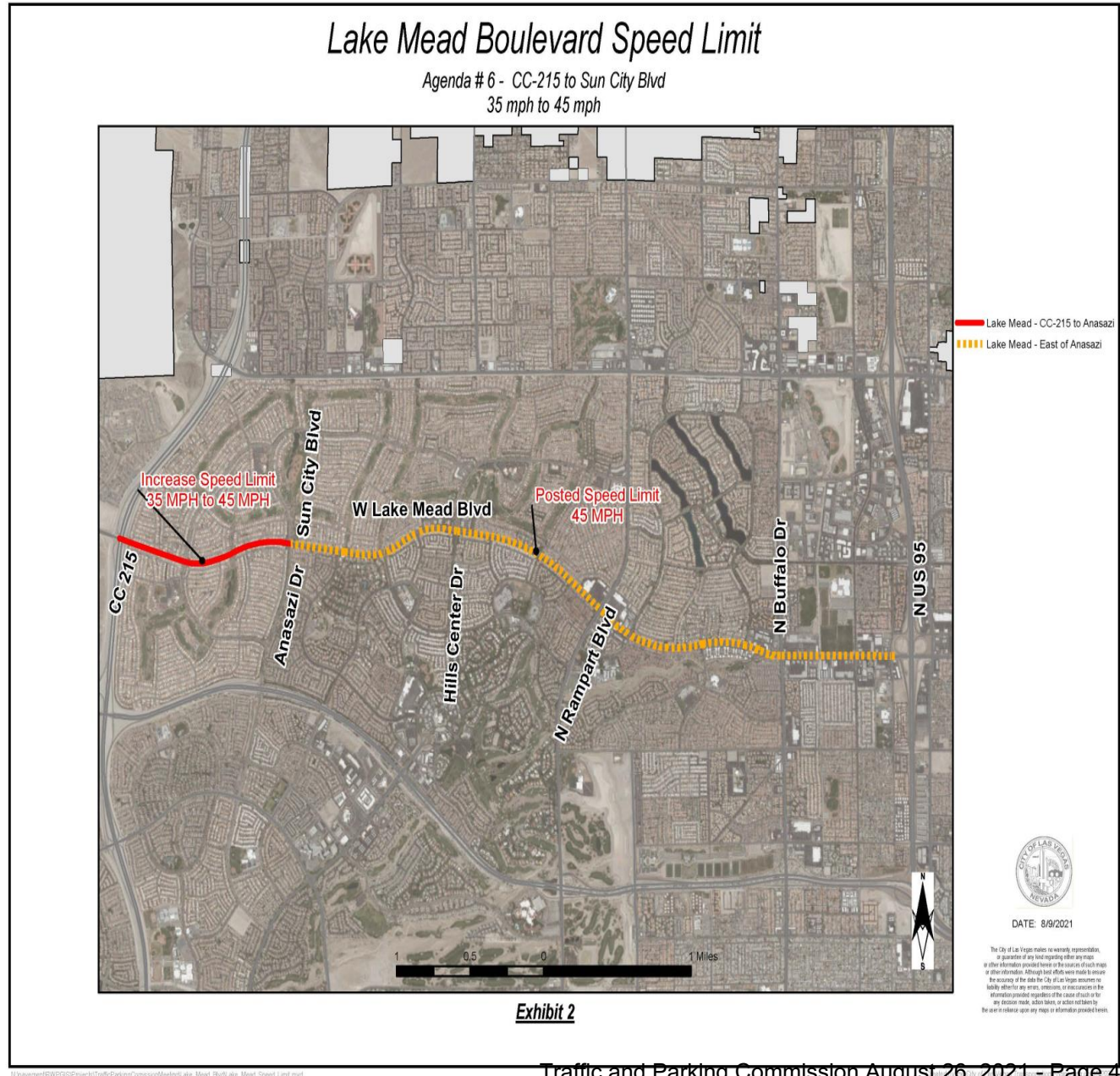
— Lake Mead - CC-215 to Anasazi
- - - Lake Mead - East of Anasazi



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



CC215 to Thomas W Ryan Blvd:

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



AGENDA DOCUMENTATION

DATE: AUGUST 26, 2021
TO: TRAFFIC AND PARKING COMMISSION
FROM: TRANSPORTATION ENGINEERING DIVISION
SUBJECT: **ITEM 7**

DISCUSSION FOR POSSIBLE ACTION TO ESTABLISH NO PARKING ON THE WEST SIDE LILLIAN STREET FROM BONANZA ROAD TO HARRIS AVENUE AND ON HARRIS AVENUE FROM NELLIS BOULEVARD TO LILLIAN STREET – Ward 3 (Diaz)

SITUATION

The City of Las Vegas received notification from residents in Sunland Village that multiple mobile car washes were operating on Harris Avenue between Nellis Boulevard and Lillian Street. City staff reached out to the Business License Division regarding the operation of mobile car washes. Las Vegas Code Enforcement Division can issue criminal citations for such activity, as Las Vegas Municipal Code (LVMC) 6.54.030 prohibits the washing of vehicles upon public streets by mobile car washes. However, Business Licensing stated the majority of people operating mobile car washes upon a public street do not have proper identification. In these instances, Las Vegas Metropolitan Police Department (LVMPD) needs to be involved for enforcement. The addition of no parking signs along Lillian Street and Harris Avenue will help deter the illegal mobile car wash activity and help LVMPD and City Parking Enforcement issue citations.

Lillian Street is backed by commercial development and block walls on the east side. The west side has residential homes with no curb, gutter or sidewalk improvements as well as vacant parcels. Harris Avenue has multi-family residential on the north side where adequate parking is established onsite. The south side of Harris Avenue is fronting commercial development where adequate parking is provided on site.

City staff has support from the nearby residences and the Ward 3 office.

STAFF RECOMMENDATION

The Traffic Engineering Division recommends the removal of parking on the west side of Lillian Street from Bonanza Road to Harris Avenue and on Harris Avenue from Nellis Boulevard to Lillian Street.



MEMORANDUM

Department of Public Works – Transportation Division

Date: August 5, 2021

Re: Lillian Street and Harris Avenue Parking Restrictions – Ward 3

Background

On May 17, 2021, the Transportation Engineering Division was notified by Sunland Village residents of multiple mobile car washes operating on Harris Ave. between Lillian St. and Nellis Blvd.



Actions Taken

- 1) Public Works' understanding of the issue was that it pertained to illegal business operations within public right-of-way, and as such reached out to Business Licensing Division. Public Works planned to install "Vendor Parking Unlawful" signs per CLV Municipal Code 6.62.120, where *"No person engaged in peddling or soliciting shall have any exclusive right to any location upon the streets, sidewalks, alleys or public grounds of the City, operate at a stationary location, and/or operate in any congested area where*

Traffic and Parking Commission August 26, 2021 - Page 47

the operation might impede the public.” However, Business Licensing stated that they already issue criminal citations but are unsuccessful because the individuals often do not have proper identification, in which case the Las Vegas Metropolitan Police Department must be involved. It is to be noted that mobile car washes are permitted per Chapter 6.54 of the municipal code, however they must be within private right-of-way and have an approved business license, neither of which are applicable in this case.

- 2) Public Works reached out to the Parking Services Division to ask if they could enforce Chapter 6 in the form of parking violations, however the Parking Services Division said they couldn't as part of the authority stated within the Municipal Code.
- 3) Parking Services and Business Licensing requested that Public Works paint red curb and install “No Parking” signs along the limits of the area where the illegal operations occur. City Traffic Engineer has the authority per Municipal Code 11.52.140 to install “No Parking” signs and red curb, however it must be less than 100' before public involvement, Ward support, and/or Traffic and Parking Commission approval. Furthermore, parking is typically only restricted if there are identified safety issues or emergency vehicle access issues, not if there are illegal business operations.
- 4) Public Works reached out to Fire and Rescue to see if they would support the decision to install red curb in a zone that didn't qualify as a fire lane. Fire and Rescue did not grant approval to install red curb because when citations are issued, citizens will contest the violation and argue that the area was not a designated fire lane.

Staff Recommendations

Based on the review and evaluation of the data and laws, and based on the request to remove parking and follow Chapter 11 of the Municipal Code, the following actions are recommended:

- 1) Public Works supports the installation of “No Parking” signs without red curb, so Parking Services can have the authority to issue citations without the concern of citizens contesting wrongful fire lane designations. See Exhibit B.
- 2) Ward 3 Office is in support of item as well due to citizen input and support. Ward 3 Office also reached out to adjacent business and determined that removing on street parking would not adversely impact their businesses.
- 3) Ongoing enforcement from the Las Vegas Metropolitan Police Department in conjunction with City Parking Services should continue to monitor the situation.

Signatures

Prepared By: Lia Grimaldi
Lia Grimaldi, EI
Sr. Engineering Associate

Date: 8/5/21

Reviewed By: Sean Robinson
Sean Robinson, PE
Engineering Project Manager

Date: 8/5/21

Reviewed By: Christina M. 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/Transportation Manager/City Traffic Engineer

Date: 8/11/21

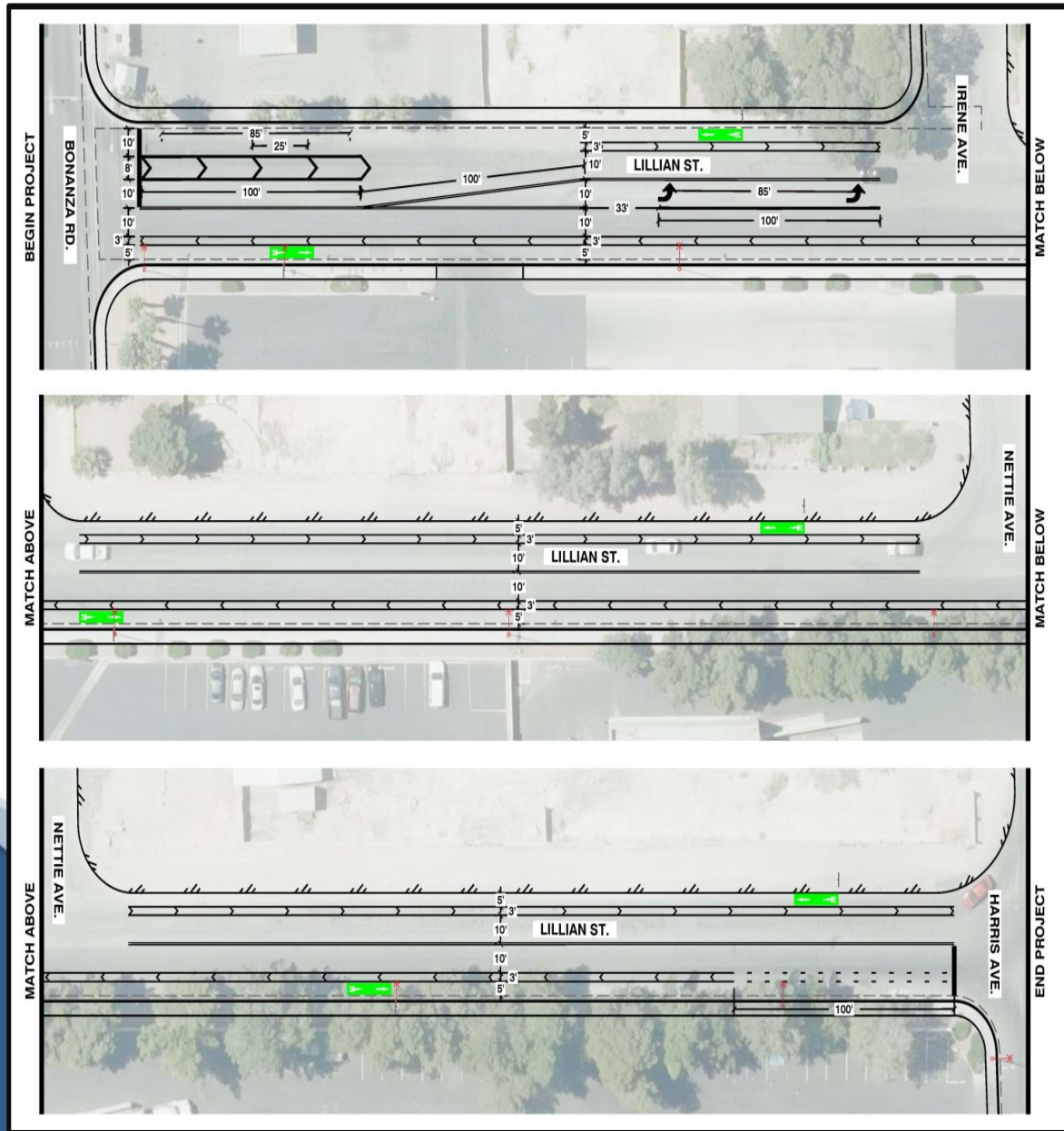
Requestor information:
Ward Office 3

APPENDIX A

WORK ORDER EXHIBIT



Item 7 – Lillian Street – Harris Avenue No Parking



New Roadway Section on Lillian

- Operations & Department has replaced the pavement section
- Proposed Pavement Markings
- Type II Centerline (double yellow)
- Creating left turn pocket at Irene
- Adding 5-foot wide bike lane with 3-foot buffers



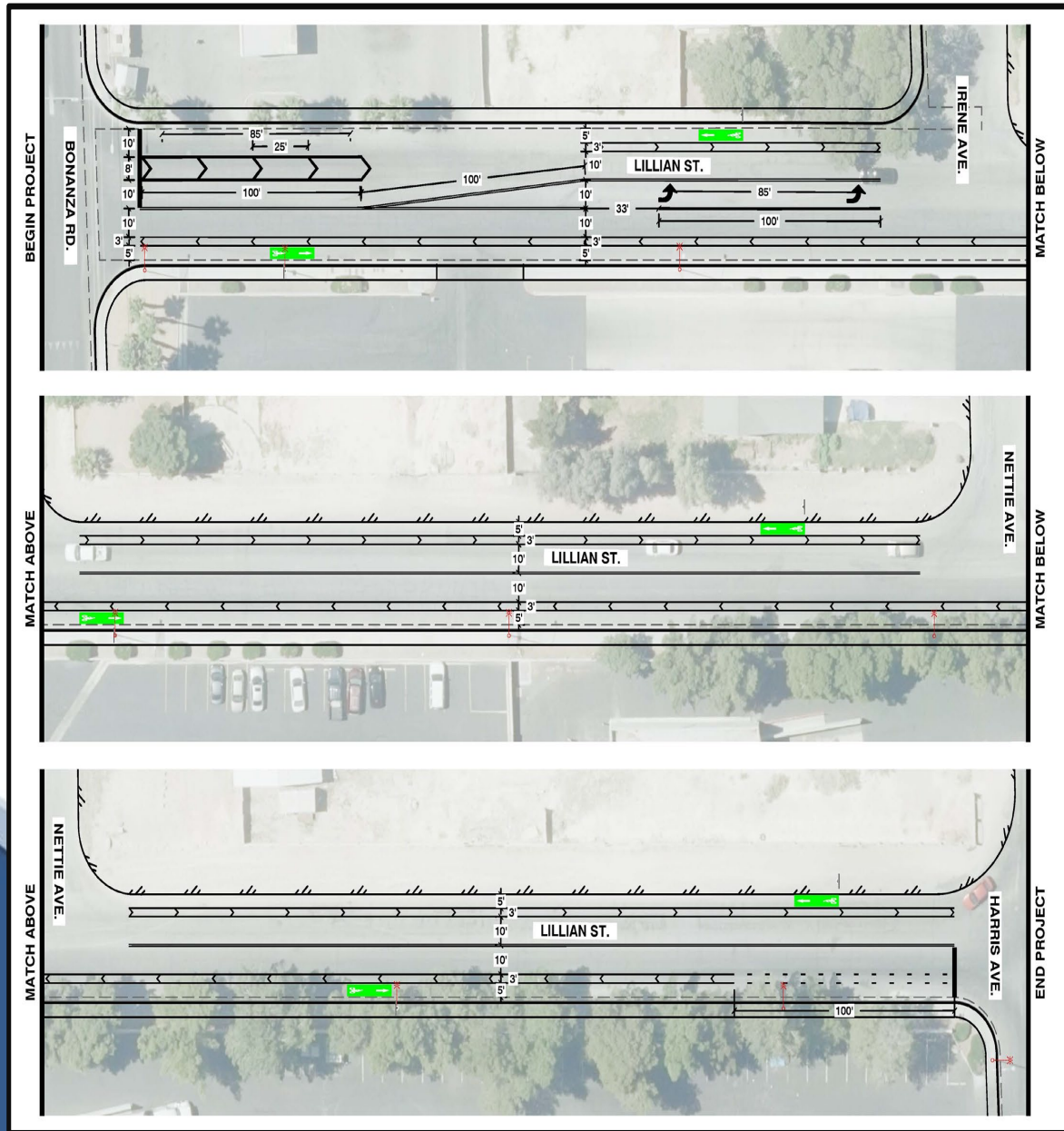
Item 7 – Lillian Street – Harris Avenue No Parking



- LVMC 6.54.030 prohibits mobile car wash operations upon any public street or public right of way, or upon any vacant unimproved lot.
- Code Enforcement had difficulties issuing citations, as mobile car wash vehicles were unlicensed or the operators had no identification.
- Parking Enforcement can not enforce business licensing codes. However, can enforce parking restrictions. LVMC 13.04.080 prohibits washing the exterior of a vehicle upon a public street or public right of way.
- Transportation Engineering consulted with Fire and Rescue to determine red curbing was not needed.



Item 7 – Lillian Street – Harris Avenue No Parking



New Roadway Section on Lillian

- Operations & Department has replaced the pavement section
- Proposed Pavement Markings
- Type II Centerline (double yellow)
- Creating left turn pocket at Irene
- Adding 5-foot wide bike lane with 3-foot buffers



Item 7 – Lillian Street – Harris Avenue No Parking



- LVMC 6.54.030 prohibits mobile car wash operations upon any public street or public right of way, or upon any vacant unimproved lot.
- Code Enforcement had difficulties issuing citations, as mobile car wash vehicles were unlicensed or the operators had no identification.
- Parking Enforcement can not enforce business licensing codes. However, can enforce parking restrictions. LVMC 13.04.080 prohibits washing the exterior of a vehicle upon a public street or public right of way.
- Transportation Engineering consulted with Fire and Rescue to determine red curbing was not needed.

