



City of Culver City

Staff Report Details (With Text)

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Title: CC - (1) Approval of Design Plans for the Rancho Higuera Neighborhood Traffic Management Program (NTMP) for a One-Year Trial; and (2) Authorization to Publish a Notice Inviting Bids for Construction of the Temporary Traffic Calming and other Trial Measures.

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Attachments: 1. 2019-11-18_ATT - Tables & Graphs.pdf, 2. 2019-11-18_ATT - Design Plans.pdf, 3. 2019-11-18_ATT - Cost Estimates.pdf

Date	Ver.	Action By	Action	Result
11/18/2019	1	City Council Meeting Agenda		

CC - (1) Approval of Design Plans for the Rancho Higuera Neighborhood Traffic Management Program (NTMP) for a One-Year Trial; and (2) Authorization to Publish a Notice Inviting Bids for Construction of the Temporary Traffic Calming and other Trial Measures.

Meeting Date: November 18, 2019

Contact Person/Dept: Gabe Garcia/Public Works Department

Phone Number: (310) 253-5633

Fiscal Impact: Yes No **General Fund:** Yes No

Public Hearing: **Action Item:** **Attachments:**

Commission Action Required: Yes No **Date:**

Public Notification: (E-Mail) Meetings and Agendas - City Council (11/13/19); (E-Mail) Marcus Tiggs, Chairperson of the Rancho Higuera NTMP Committee (11/13/19); (USPS) Courtesy Notice to the Rancho Higuera Neighborhood and Hayden Tract (11/07/19)

Department Approval: Charles D. Herbertson, PW Director/City Engineer (11/07/19)

RECOMMENDATION

Staff recommends the City Council (1) approve the design plans for the Rancho Higuera Neighborhood Traffic Management Program (NTMP) for a one-year trial; and (2) authorize the

publication of a Notice Inviting Bids for construction of the temporary traffic calming and other trial measures

BACKGROUND/DISCUSSION

On Thursday, April 26th, 2018, a neighborhood-wide meeting was held with the Rancho Higuera Neighborhood. Over 100 residents attended. The purpose of the meeting was to kick-off the Rancho Higuera NTMP, pursuant to the City Council's policy to address traffic concerns in residential neighborhoods. The NTMP provides structure, procedures and criteria to guide discussion at a neighborhood-wide level regarding issues of excessive speeding, high traffic volume, and cut-through traffic. The goal of the process was to build neighborhood consensus for a traffic calming plan based on collected traffic data quantifying the neighborhood's traffic issues, and neighborhood support for testing the countermeasures identified.

During this meeting, staff informed the neighborhood about the NTMP process and a likely project timeline, as well as discussed, a draft plan of countermeasures created by the Rancho Higuera Neighborhood Association's Board, as a starting point for the NTMP discussions. Additionally, a traffic data collection plan including locations was discussed and supported. The meeting concluded with an invitation for residents to join and form a Residents' NTMP Committee, under the City's guidance.

From this initial meeting, a partnership was formed including residents and City staff, with engineering consultant assistance from KOA Corporation. The Residents' NTMP Committee, under the leadership of residents Marcus Tiggs and Holly O'Connors, worked diligently with staff and KOA, following the City's adopted NTMP procedures. The process of arriving at neighborhood consensus on a traffic management plan required the hard work and dedication of all members of the Residents' Committee and the active participation of many volunteer residents throughout the neighborhood.

On August 15, 2019, the proposed temporary NTMP plan described in this report was presented to the Bicycle and Pedestrian Advisory Committee (BPAC). Final design plans were not available at the time.

Location

The Rancho Higuera neighborhood is situated in the northeastern part of Culver City, directly to the east of Downtown. The neighborhood is bounded by Washington Boulevard on the west, National Boulevard on the north, Hayden Avenue on the east and Ince Boulevard and Higuera Street on the south (Figure 1).

Figure 1: Project Area

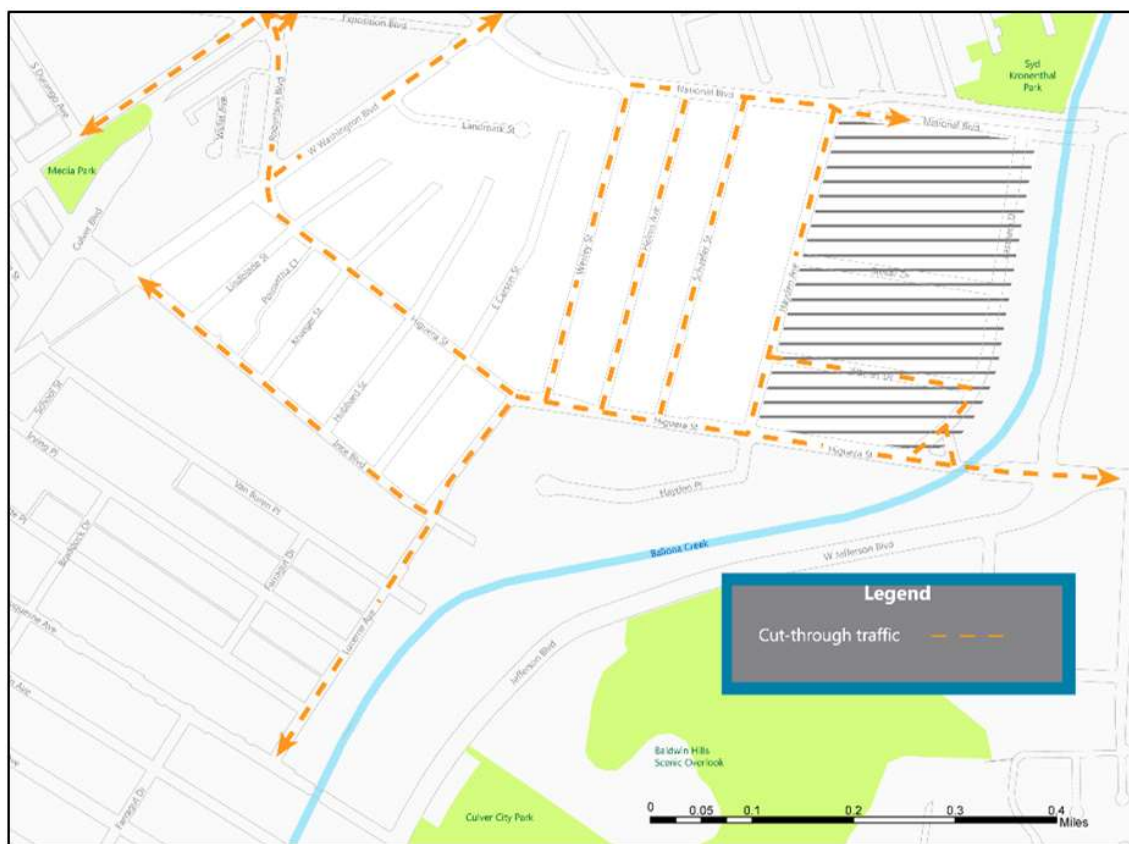


Issues and Challenges:

The Rancho Higuera Neighborhood Association and a group of residents articulated their concerns over traffic and safety by developing a plan, about one year prior to the start of the NTMP. The traffic concerns identified by the residents included excessive speeding, high traffic volumes, cut-through traffic, and an absence of marked crosswalks for pedestrians to cross the neighborhood's streets.

It was reported that cut-through traffic uses the neighborhood streets, as well as the streets in the Hayden Tract area, to travel between destinations south and east of the neighborhood, the I-10 freeway, and arterials to the west (Figure 2).

Figure 2: Reported Cut-through Traffic Routes



The plan proposed countermeasures such as turn restrictions at the signalized intersection of Higuera Street-Robertson Boulevard/Washington Boulevard, and marked pedestrian crosswalks across Higuera Street and Ince Boulevard. With the support of then Mayor Thomas Small and the City Council, as well as the participation of the Rancho Higuera Neighborhood Association, residents, and the encouragement of The Culver Studios, the City initiated an NTMP to quantify and address the reported excessive speeding, cut-through traffic, high traffic volumes, and deficient pedestrian mobility infrastructure.

Nighborhood Traffic Management (NTMP) Process

The 2004 NTMP Procedures Manual, the City Council's policy to address cut-through traffic, excessive speeding and high traffic volumes in residential neighborhoods, provides a structured and inclusive process for the City and its neighborhoods to address these issues. The NTMP begins when a neighborhood is prepared to participate and work through the established process. The Mobility & Traffic Engineering Division collects preliminary traffic data, such as traffic volumes, school access routes and collision statistics. This data is assessed considering the residents' concerns to determine if an NTMP can be pursued. The criteria that must be met to warrant a NTMP are: The 85th percentile speed (the speed at or below which 85 percent of motorists travel under free-flowing conditions) are seven miles per hour (7mph) above the posted speed limit (or prima facia), and a total traffic volume of 1,000 vehicles in a 24-hour period are counted on the subject street.

If the above criteria are met, the NTMP has two phases, a temporary one in which trial countermeasures are tried and tested to see if they mitigate the traffic concerns; and a permanent plan in which infrastructure measures are constructed. Both phases use paint and signs. In order to try the temporary traffic management measures identified by the process, a minimum support of the

residents is required. That minimum support is 50% of the residences, plus 1 more, must participate in an Advisory Survey (they must express an opinion about the measures being considered). Sixty percent (60%) of the participating residences must be in favor of the temporary measures to proceed. For the permanent phase, 50% of the residences, plus 1 more, must participate in the Advisory Survey, and 75% of the participating residences must support the measures proposed in order to proceed. After the trial, a report is presented to the City Council indicating the results of the trial of the traffic management plan, as well as the results of the Advisory Survey to gauge the support of the neighborhood for converting the temporary measures to permanent.

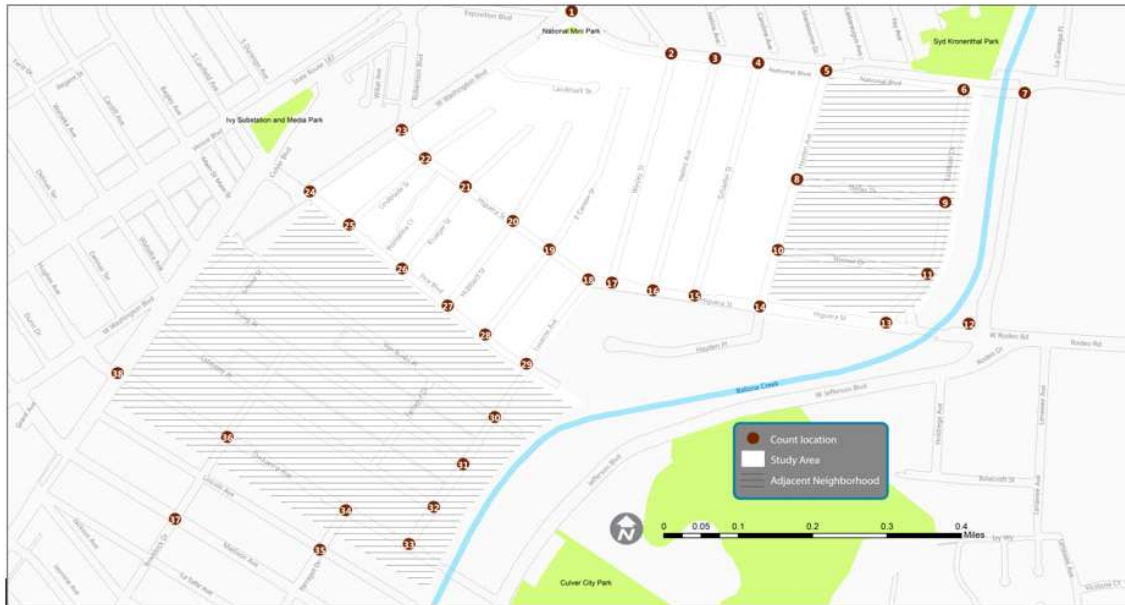
Data Collection

To facilitate the development of a traffic calming plan, KOA Corporation collected traffic data on current traffic conditions in the Rancho Higuera neighborhood. Additionally, in order to establish a baseline for existing traffic in the adjacency outside of the Rancho Higuera neighborhood, traffic data was collected in and adjoining neighborhoods. The data include counts of peak hour traffic volumes at intersections and 24-hour daily traffic volumes on roadway segments, as well as radar surveys of vehicle travel speeds.

The “Before” data collection included intersections and street segments in the Downtown Neighborhood, Gateway Neighborhood and on the arterials to the north of the Rancho Higuera Neighborhood. Traffic data was also collected in the Hayden Tract. Data outside of the study area was primarily collected for assessing the potential effects of implementing traffic management measures in the Rancho Higuera neighborhood. It should be noted that additional “After” data will be collected following the trial implementation to determine whether the trial measures in the NTMP study area diverted traffic into the adjacent neighborhoods.

KOA Corporation conducted the “Before” turning movement counts at 38 intersections, 23 of which were within the NTMP study area, in order to derive intersection turning movement volumes (see Figure 3 and Table 1).

Figure 3: Count Locations



Turning movement counts were conducted during the month of September 2018, while schools are in session. Counts at intersections along National Boulevard, Higuera Street and on streets in the Hayden Tract were conducted on Thursday, September 13, 2018. Counts were taken at intersections on Ince Boulevard, Duquesne Avenue, and Lucerne Avenue on Tuesday September 18, 2018. Finally, counts at the intersections of Lucerne Avenue/Higuera Street and Lucerne Avenue/Irving Place took place on Wednesday September 26, 2018.

At each intersection, counts were taken during the morning, evening, and mid-day peak periods. Because the counts at many adjacent intersections were conducted during the same day, and all count dates occurred during the work-week, a reasonable estimate of cut-through traffic volumes on neighborhood roadway segments could be derived by taking the difference between entering and exiting turn movement volumes at intersections adjoining each segment.

For the remainder of this report, reference will be made to tables and graphs containing further details which are included in an attachment labeled Tables & Graphs. These tables and graphs could not be incorporated into the body of this report because the resultant file size was not manageable by the agenda-creation software.

For a list of the intersections where traffic counts were collected, please refer to Table 1: Intersection Count Locations on pages 2 and 3 of Tables & Graphs Attachment.

KOA Corporation also oversaw collection of the Average Daily Traffic (ADT) counts on 31 roadway segments, 16 of which were situated within the NTMP study area. These counts used Automatic Traffic Recorders (ATR) or count tubes to collect data on vehicle traffic volumes and travel speeds on roadway segments within the neighborhood. On each segment, traffic volume and speeds were recorded over a three-day period, between 12:00 AM on Tuesday September 25, 2018 and 11:59 PM on Thursday September 27, 2018.

After the data had been collected, KOA Corporation derived Average Daily Traffic (ADT) volumes and two-hour peak period traffic volumes by averaging the daily and peak period traffic volumes for the three days of data collection. The new peak period volumes would permit a comparison of the total

traffic volumes and estimation of cut-through traffic on the roadways in the study area. KOA also analyzed the 85th-percentile speed by taking the highest daily 85th-percentile speed figure from among the three days.

In addition, radar speed guns were used to collect travel speeds over periods ranging from 30 minutes to 2 hours on 28 roadway segments in and adjacent to the study area. The radar studies were conducted between Monday August 13, 2018 and Thursday August 16, 2018.

Analysis

Figures 4A Cut Through Volumes during the AM Peak Period, 4B Cut Through Volumes during the Midday Peak Period and 4C Cut Through Volumes during the PM Peak Period, are included on pages 3 and 4 of the attachment. High cut-through traffic volumes (ranging from around 130 to 600 vehicles per hour), can be observed during the peak periods, on Higuera Street, Lucerne Avenue and Hayden Avenue. Ince Boulevard has significant westbound cut-through traffic in the AM peak period, ranging from 430 to 560 vehicles per hour, but lower levels of cut-through traffic (100 to 250 vehicles per hour) in the mid-day and PM peak periods. Wesley Street, Helms Avenue and Schaefer Street have low cut-through volumes compared to other streets in the study area. Only the northbound AM peak cut-through traffic on Helms Avenue exceeds 100 vehicles per hour. Still, the AM and PM peak hour cut-through traffic on these local residential streets is significant enough to warrant mitigation.

Although Ince Boulevard and Higuera Street have substantial cut-through volumes in both directions during the AM and PM peak periods, cut-through volumes on these streets are higher in the westbound direction during the weekday AM peak period, and in the eastbound direction during the weekday PM peak period. Lucerne Avenue has similar northbound and southbound cut-through volumes during all the observed periods. On Hayden Avenue, northbound cut-through traffic exceeds southbound cut-through traffic during both peak periods. These northbound volumes closely mirror the eastbound volumes on Higuera in the PM Peak, but not in the AM Peak, suggesting that much of the AM cut-through traffic involves traffic entering the tract from point to the east.

Altogether, the cut-through traffic volumes substantiate the reported concerns regarding motorists cutting through the Rancho Higuera neighborhood as raised by the area residents. However, the peak hour orientation of cut-through traffic on Ince Boulevard and Higuera Street, suggests that the majority of cut through traffic on these streets is not associated with the Hayden Tract.

The geographic distribution of the ADT, and peak periods traffic volumes in the study area are illustrated on the attached Figures 5A: Average Daily Traffic Volumes & 85th Percentile Speeds, 5B: AM Peak Period Traffic Volumes, and 5C: PM Peak Period Traffic Volumes. The attached Table 2 lists the Average Daily Traffic (ADT) volumes as well as volumes during the AM and PM peak periods. Findings that can be concluded from the overall traffic volumes mostly mirror the concluded cut-through movements. The AM and PM peak periods and ADT volumes are highest on Lucerne Street, Higuera Street, and Hayden Avenue. The peak period volumes approach or exceed 1,000 vehicles on the aforementioned segments. The AM peak volume exceeds 1,000 on Ince Boulevard, between Lindblade Street and Poinsettia Court, while the PM peak volume on the segment fall well below those levels. The peak period volumes on Wesley Avenue, Helms Avenue and Schaefer Street range from 95 to 216 vehicles, a relatively low volume compared to adjoining streets.

Speed data collected using the ATR/tube counts and radar gun are summarized in Tables 3 and 4 on Page 7 of the Tables & Graphs Attachment. Information contained in Table 3 suggests that many of

the street segments with high cut-through and daily traffic volumes have a high incidence of vehicles speeding. The 85th-percentile speeds exceed the posted speed limit on all observed segments on Hayden Avenue, Ince Boulevard and Lucerne Avenue. On Higuera Street, the 85th-percentile speed exceeds the speed limit on one of the observed segments. The assessed 85th-Percentile speeds also surpass the speed limit on Wesley Street, Helms Avenue and Schaefer Street, despite the lower traffic volumes counted on these streets. On Helms Avenue, even the assessed 50th percentile speed is greater than the speed limit. High 85th-percentile speeds on Robertson Boulevard north of Washington Boulevard and on National Boulevard east of the Hayden Tract (where the 85th-percentile speed exceeds 40 miles per hour) indicate that speeding by drivers entering the neighborhood contributes to the issue.

Figures 6 Regulated Speed Limits and **Figure 7 Surveyed 85th Percentile Speeds** on Page 8 of the same attachment illustrate the posted or prima facie speed limits and the surveyed 85th-percentile speeds, respectively. Some of the 85th-percentile speeds exceed the speed limit at segments on Higuera Street, Ince Boulevard and Hayden Avenue, which account for all but one of the streets with heavy cut-through traffic. The 85th-percentile speeds likewise slightly surmount the speed limit on the residential streets west of the Hayden Tract, as well as on two residential streets (Hubbard Street and Carson Street) that connect Ince Boulevard and Higuera Street.

Cut-Through Traffic & Speeding Countermeasures

A traffic management plan was developed for the Rancho Higuera area and is included as Attachment 1 to this report. This neighborhood Plan recommends addressing cut-through traffic and speeding in Rancho Higuera through the implementation of pedestrian and bicycle infrastructure, turn restrictions and traffic calming devices.

First, a lack of marked crosswalks along Higuera Street west of Hayden Avenue and Ince Boulevard west of Lucerne Avenue hinders pedestrian crossing activity and mobility along these heavily-traveled corridors. To remedy this, the Plan recommends high visibility crosswalks on both streets at the intersections with Lindblade Street, Krueger Street, Hubbard Street and Carson Street. High visibility crosswalks are also recommended on Higuera Street at the intersections with Helms Avenue and Schaefer Street.

Traffic calming measures can address vehicle speeding in the Rancho Higuera project area. The Plan adds curb extensions/bulbouts on Higuera Street at the intersections with Lindblade Street, Helms Avenue and Schaefer Street, thereby supplementing the existing roundabouts at these and intervening intersections.

Additionally, the placement of speed humps at a number of mid-block locations on Helms Avenue and Schaefer Street will encourage traffic on these residential streets to travel at lower speeds. Installing speed humps on Krueger Street between Ince Boulevard and Higuera Street is expected to slow down traffic on that facility before it enters the latter two streets. Finally, the replacement of the channelized right-turn lane at the corner of Ince Boulevard and Lucerne Avenue with a curb extension will encourage vehicles turning right onto Ince Boulevard or continuing south on Lucerne Avenue to slow down.

To further discourage the cut-through traffic movements in the area, the Plan recommends implementing turn restrictions during the peak periods. These are left-turn prohibitions from westbound National Boulevard onto southbound Wesley Street, Helms Avenue and Schaefer Street.

The Plan also proposes the provision of bike lanes on Ince Boulevard following completion of The Culver Studios project construction. However, The Culver Studios, as part of its development EIR, is required to install right-turn lanes into two driveways, at Gates 2A and Gate 3. This will alter the configurations of the travel lanes along a segment of about 300 feet. After the right-turn lanes have been installed, the City will need to wait for a period of time, possibly six months, to allow for traffic patterns to settle and to observe traffic to determine if the proposed bike lanes are still feasible. If a determination is made that the bike lanes can be installed, there may be a 300-foot segmented excluded where the right-turn lanes will be installed. A final design of Ince Boulevard will be completed at the time.

The NTMP determined that if the recommended Plan does not reduce excessive speeding and cut-through traffic during the trial period, that a second phase could be explored. The second phase could study the modification of the traffic signal at Higuera Street-Robertson Boulevard/Washington Boulevard by restricting the turning movement in the northbound direction to not be able to continue through to the freeway on-ramp, a frequent destination. Additionally, as part of a possible second phase, the intersection of Hayden Avenue/Higuera Street could be studied to determine the feasibility of creating a cul-de-sac on Higuera Street, and possibly removing the semi-diverter, and upgrading to current standards and returning the traffic signal to normal operation. Traffic at the intersection would not have access to Higuera Street, nor would eastbound Higuera Street traffic have access to the intersection. Any design changes would continue to accommodate pedestrian and bicycle traffic movements.

Community Consultation

In compliance with the NTMP policy, staff conducted an Advisory Survey to provide all residences in the Rancho Higuera neighborhood an opportunity to express an opinion regarding the temporary traffic calming improvements contained in the plan developed in collaboration with the NTMP Residents Committee, staff, and consultant. The Advisory Survey was mailed to every home in the Rancho Higuera neighborhood. It was also made available digitally. The surveys were tracked by home address; each address could submit only one Advisory Survey response that represented the opinion of the entire household residing at that address.

The survey period started on June 3rd, 2019 and concluded on July 3rd, 2019 at 5 pm. The survey contained four questions that summarized the proposed improvements contained in the design plan. Additionally, the survey packet contained a document that provided narratives and graphics to assist in providing clarity about the traffic calming proposals. The results of the Advisory Survey met and exceeded the minimum participation and support requirement contained in the NTMP. A minimum of 350 residences were required to respond to meet the 50%+1 criteria. Staff received 472 responses to the survey, which constitutes 67.72%. The results of the individual questions are summarized below.

Regarding the proposal to restrict left turns from National Boulevard from 7 am to 9 am, and again from 4 pm to 6 pm, during weekdays, the community showed 92.36% support. They showed 92.13% support to redesigned traffic circles and islands to calm traffic, install painted high-visibility crosswalks and related signage. Similarly, for mobility improvements on Ince Boulevard that would paint high-visibility crosswalks with "Yield Here to Pedestrians" signs and speed cushions, the support was 93.83%. The fourth question was also related to Ince Boulevard and asked if the community supports (or not), the removal of parking on the west side of Ince Boulevard, to install painted bike

lanes, with a support of 84.58%.

All proposals were supported and qualify the Advisory Survey results to be presented to the City Council to request their consideration to authorize the installation of the one-year trial period of the improvements presented in the Advisory Survey, with the caveat indicated in this report regarding bike lanes on Ince Boulevard.

FISCAL ANALYSIS

Thus far, the PW Department has spent approximately \$160,000 in completing the NTMP process, through the design phase. Funding was expended from the Neighborhood Traffic Management Program budget,

A preliminary engineer's cost estimate of the temporary improvements proposed for Rancho Higuera indicates that the construction phase of the temporary improvements would cost as follows:

Ince Boulevard*:	\$ 75,141	
Higuera Street:	\$150,373	
National Boulevard:	<u>\$ 4,244</u>	
Base Estimate:		\$229,758
Mobilization (5%):	\$ 11,488	
Traffic Control:	\$ 30,000	
Stormwater Pollution Prevention and BMP:	\$ 4,000	
20% Contingency:	<u>\$ 55,049</u>	
		\$100,537
Total Construction Cost Estimate		\$330,295

*However, funding and construction of the Ince Boulevard temporary improvements will not be pursued concurrently with the improvements in the rest of the Rancho Higuera Neighborhood, due to the legal requirement that The Culver Studios EIR-mandated improvements of right-turn lanes into Gates 2A and 3 be constructed. After traffic patterns settle, staff will observe traffic to determine if the proposed bike lanes are still feasible. If a determination is made that the bike lanes can be installed, they may have to be segmented to exclude a 300-foot section where the right-turn lanes onto The Studios will be installed. In this case, a final design of Ince Boulevard would be completed in fiscal year 2020-2021, and funding would be sought as part of that fiscal year's budget. **Based on this, the temporary improvements project estimate is adjusted to \$240,125.80.**

It should be noted that traffic data show high traffic volumes and excessive speeding on Lucerne Avenue between Ince Boulevard and Duquesne Avenue. Although this segment is outside of the Rancho Higuera Neighborhood study area, if this segment of Lucerne Avenue is added to the project scope and is treated with speed cushions and related pavement markings and signage to address the findings the additional cost would be approximately \$60,000, **for a total project cost estimate of approximately \$300,125.80.** Attached are the cost estimate sheets prepared by the consultant KOA.

At the time of City Council's consideration of the construction contract award, staff will be

recommending use of development fees to fund the project.

ATTACHMENTS

1. 2019-11-18_ATT - Tables & Graphs
2. 2019-11-18_ATT - Design Plans
3. 2019-11-18_ATT - KOA Cost Estimates

MOTION

That the City Council:

1. Approve the design plans for the Rancho Higuera Neighborhood Traffic Management Program (NTMP) for a one-year trial period; and
2. Authorize the publication of a notice inviting bids for construction of the temporary traffic calming and other trial measures.