STAFF
REPORT

DATE: September 14, 2023

TO: Bicycling, Transportation, and Street Safety Commission

FROM: Ryan D. Chapman, Assistant Director of PWET/Traffic Engineer

SUBJECT: Annual Evaluation of Speed Hump Requests

Recommendation

Receive and update on the traffic calming program and approve final surveys be sent to residents and property owners on four streets.

- Wake Forest
- Arroyo Avenue
- Cannery Loop
- Temple Drive

Background and Analysis

The Traffic Calming Program was initially created in 2002, guidelines were adopted to implement the Program at locations throughout the City and the most recent policy was approved by the City Council on March 21, 2023. The intent of traffic calming program has been to reduce the speed of vehicles and to discourage cut-through traffic primarily on neighborhood residential streets by implementing low-cost, easy to implement measures. The Program is intended to be exclusive to streets with a 25-mph prima facie speed limit to improve safety conditions primarily for non-motorized users of the street corridor. The purpose of establishing a traffic calming program for the evaluation of these measures is to ensure that limited funding for improving isolated neighborhood traffic concerns is being addressed and prioritized with consistent criteria and is not a subjective decision-making process.

Below is a brief summary of the existing steps to get a speed hump approved:

Step 1: The City receives a petition for traffic calming from a neighborhood. The petition needs to show that 50% of the households immediately adjacent to the road would like humps to be considered.

Step 2: An initial assessment is conducted to see if the road is eligible for humps, and it is scored based on the ranking in the speed hump policy.

Step 3: Once a year, the traffic calming requests will be presented to the BTSSC for consideration.

Step 4: Staff will prepare plans for the streets that were selected.

Step 5: A neighborhood survey is sent out via US Mail to the property owners and residents with the plan showing the final hump locations. This is for final concurrence with the proposed locations. At least 50% of the returned responses must be in support of the proposed project.

Step 6: Humps are installed.

We are currently on step 4 of the process.

There are 12 streets that have requested speed humps, plus Arroyo Avenue. They have been initially screened based the roadways classification and the needs of the emergency responders to keep the road clear of anything that would affect response times. A table summarizing the results is below.

Based on these 9 streets meet the criteria shown the table below:

	MAIN STREET	**Residential Street (Classification)**	**25mph Prima Facie Speed Limit**	**Fire Dept Thoroughfare**	**Eligible**
1	Wake Forest Drive	Yes (Collector)	Yes	No	**Yes**
2	Cannery Loop	Yes (Unclassified)	Yes	No	**Yes**
3	Haussler Drive	Yes (Local)	Yes	No	**Yes**
4	11th Street	Yes (Local)	Yes	No	**Yes**
5	Picasso Avenue	Yes (Local)	Yes	No	**Yes**
6	9th Street	Yes (Local)	Yes	No	**Yes**
7	Solito Place	Yes (Local)	Yes	No	**Yes**
8	Temple Drive	Yes (Local)	Yes	No	**Yes**
9	Villanova Drive	Yes (Collector)	Yes	No	**Yes**
-	Arthur Street	Yes (Collector)	Yes	Yes	No
-	B Street (N. of 8th)	Yes (Collector)	Yes	Yes	No
-	Eisenhower Street	Yes (Collector)	Yes	Yes	No

These nine streets were ranked and four met the 35-point threshold to be eligible for humps. The streets that are eligible are Villanova Drive, Wake Forest, Temple Drive, Cannery Loop. The detailed point breakdown is attached.

Arroyo Avenue was included in the previous speed control program but there were issues with the placement of a hump and it was not installed. During the construction of these humps staff indicated to the residents that the City could reevaluate the placement of the humps as part of a future speed control project and if a suitable location could be found. Two locations have been identified and staff is recommending resurveying the neighborhood to see if there is interest in installing them.

Staff is recommending moving forward with four streets as part of this round. These are Wake Forest, Temple Drive, Cannery Loop, and Arroyo Avenue. The speed humps on Villanova will be constructed as part of the repaving of the street that is anticipated to occur as part of the Fourteenth Street - Villanova Drive Improvements.

The next step in the process is to gather feedback form the BTSSC. If there is support for installing these humps staff would survey the residents and property owners along the street to gather their input. If the majority support the proposal then it would be constructed this spring. There is sufficient funding to fund all of the proposed humps.

Attachments

1. Policy
2. Street Ranking
3. Draft Plans

Public Works Engineering and Transportation
Traffic Calming Policy

When traffic calming requests are received, they will be evaluated using the following process. To truly be effective, the program will determine eligibility based on clearly defined and easily measured parameters and focus on localized traffic issues on individual streets.

The program is anticipated to reduce the timeframe from a resident's request for speed control to actual construction. However, this timeframe is dependent on competing demand, project ranking and, available funding.

1. **Request submitted:** Residents submit a request to the City as a petition in a format determined by City staff. Signatures of a majority of neighborhood residences whose property line is immediately adjacent to the subject street must accompany the request to be considered. One vote per household is permitted.

   In some cases, staff might initiate a traffic calming request along a specific road. This will be most common when there is an opportunity to add traffic calming elements to another project.

2. **Initial Assessment:** Requests are reviewed and screened to determine if the locations are eligible for the Traffic Calming Program. In order for a location to be eligible it must meet the following criteria:
   - The street must have a posted speed limit of 25 MPH or qualify as a residential street based on the criteria set in the California Vehicle Code. Arterials are prohibited from having speed humps installed.
   - The street must have a minimum length of 500 feet between curves.
   - The street can only be two vehicular travel lanes wide.
   - City staff can determine that the benefits of the hump request does not pose a safety risk to roadway users or a reduction of emergency vehicle response times.
   - The street must have a minimum score of 35 points from the project ranking recommendations (attached).

   Once a determination is made, staff will inform the residents whether their street is eligible or not for traffic calming by letter or e-mail.

3. **Project Prioritization:** Annually, staff will review and score the projects as described in the Traffic Calming Project Ranking below, and then rank the requests based on

the score they received. Ranked projects are then brought to the BTSSC for a determination of what streets to proceed with as part of the annual traffic calming project. This will include an evaluation of available funding and if sufficient funding is not available for all of the eligible streets then the locations that were not selected will be delayed until funding becomes available.

4. **Project Design**: This program is designed to install speed humps and tables as the typical treatment. Speed humps and tables are low cost tools that reduce speeds in a neighborhood and can be installed quicker that other alternatives due to the minimum design effort required prior to their installation. In some cases, alternative treatments might be considered for the program if there are circumstances on the street that make speed humps undesirable or another treatment more effective.

   If a project is selected to move forward, and in consultation with relevant City of Davis advisory committees/commissions, City Departments, and other governmental agencies as appropriate, City staff will develop a project proposal showing the locations of the humps for review by the residents and property owners in the survey area. Speed humps or tables cannot be located at the following locations:
   - In front of a driveway
   - Over a manhole or other survey or utility cover
   - Within 50 feet of an uncontrolled intersection approach
   - Within 150 feet from a stop-controlled intersection approach

   Additionally, devices should be located near street lights to enhance nighttime visibility.

5. **Neighborhood Approval:** Based on the project proposal above, The City will survey both the residents and property owners to gauge support for the proposed solution with surveys being sent to both the street address and mailing address for the property. If a residence is owner occupied then the property owner would be eligible to submit two survey responses. In order for the hump installation to move forward, at least 50% of the surveys must be returned and over 50% of returned surveys must support installation of the humps. Once the survey is complete, a letter and/or e-mail will be sent to the residents/property owners informing them of the survey results.

   If a survey is not successful then the street cannot be resurveyed for at least 2 years.

6. **Implementation:** If approved, the project will be included as part of the annual speed hump contract. If sufficient funding is not available for all of the approved hump locations then the locations with the lowest scores will be delayed until funding becomes available.

7. **Removal of humps**: If there is a desire by the residents to remove a hump it must have been installed for at least 2 years and the city needs to receive a request to remove the hump accompanied by a petition showing that over 50% of the residents in the original survey area want to have the hump removed. Once the petition is received Staff will survey the property owners and if at least 50% of surveys are returned and over 50% of returned surveys support removal of the humps the humps will be scheduled for removal.

   If at any time the Traffic Engineer determines that an installed hump presents a safety risk to the residents or users of the street then the hump will be removed by the City. The residents along the street will be notified by mail why the hump was removed.

   Example of time line for process

Step	Description	Cut-Off
1	**Request submitted**	March 1st
2	**Initial Assessment**	March – May
3	**Project Prioritization**	July
4	**Project Design**	July - August
5	**Neighborhood approval**	September
6	**Implementation**	October- November
7	**Contract out to bid**	January
8	**Construction**	March or April start depending on weather

Traffic Calming Project Ranking

Criteria

1. Vehicle Speeds (20 point maximum):
   - prevailing speed 3-5 mph over speed limit 10 points
   - 5.1-7 mph over speed limit 15 points
   - 7.1 mph or more than speed limit 20 points

2. Collision History (15 point maximum) Number of reported collisions that are speed related over last 5 years.
   - 1-2 collisions 5 points
     3-4 collisions 10 points
   - 5 collisions or more 15 points

3. Segment is on a Suggested Route To School or a suggested route to school crosses the street at an uncontrolled crossing (10 points).
   Link: https://www.cityofdavis.org/city-hall/public-works-engineering-and-transportation/bike-pedestrian-program/bike-map-and-suggested-routes-to-school-maps

4. Class I-III bicycle facility or buffered bike lane on the street, marked pedestrian or trail crossing within segment (5 points)

5. Park, Hospital/Clinic, Senior Facility, Neighborhood Shopping Centers and Community Center within study area (5 points)

6. Daily Vehicle and Bicycle Volume (5 points maximum)
   - 301-500 1 point
   - 501-700 2 points
   - 701-900 3 points
   - 901-1100 4 points
   - > 1100 5 points

7. Other Considerations as determined by the Traffic Engineer. (5 points)
   - Sight line obstructions
   - Street width
   - Intersection size

Outstanding Speed Hump Requests

Rank	MAIN STREET	1. Vehicle Speeds (20 Points)	2. Collission History (15 Points)	3. Segment of a SRTS (10 pts)	4. Cycle Lane or Pedestrian Crossing (5 points)	5. Community Center (5 Points)	6. Daily Volume (5 Points)	Other Safety Concerns (5 pts)	**Total Points**
1	Villanova Drive	20	15	0	5	5	5	0	**50**
2	Temple Drive	10	0	10	5	5	1	5	**36**
3	Wake Forest Drive	15	5	0	5	5	5	0	**35**
4	Cannery Loop	10	5	0	5	5	5	5	**35**
5	Haussler Drive	10	0	10	0	0	5	0	**25**
6	11th Street	10	0	10	0	0	0	0	**20**
7	Picasso Avenue	0	5	0	0	5	5	0	**15**
8	9th Street	10	0	0	0	0	1	0	**11**
9	Solito Place	10	0	0	0	0	1	0	**11**

City of Davis

2023 Speed Hump Installation Project

CIP NO. 8783

SHEET INDEX

SHEET NO.	DESCRIPTION
1.	TITLE SHEET
2.	WAKE FOREST DR
3.	WAKE FOREST DR
4.	CANNERY LOOP
5.	CANNERY LOOP
6.	ARROYO AVE

N

SCALE: NTS

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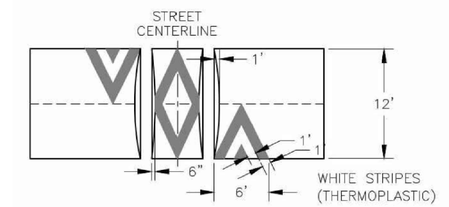
REV.	DATE	DESCRIPTION	BY

CITY OF DAVIS - 2023 SPEED HUMP INSTALLATION PROJECT

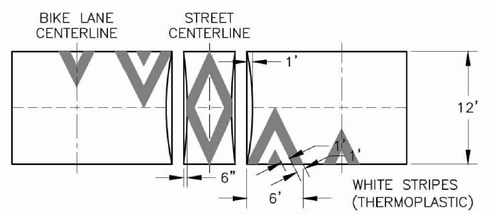
TITLE SHEET

CITY OF DAVIS
PUBLIC WORKS - ENGINEERING AND TRANSPORTATION DEPARTMENT
1717 5TH STREET
PHONE (530)747-5846 FAX (530)758-4738

DESIGNED BY: NS/AP	DATE: 7/11/23
CHECKED BY: KC	DATE: 7/12/23
DRAWN BY: NS	DATE: 7/11/23
SHEET 1 OF 6 SHEETS	DWG. NO.



STRIPING DETAIL (WEST HUMP)

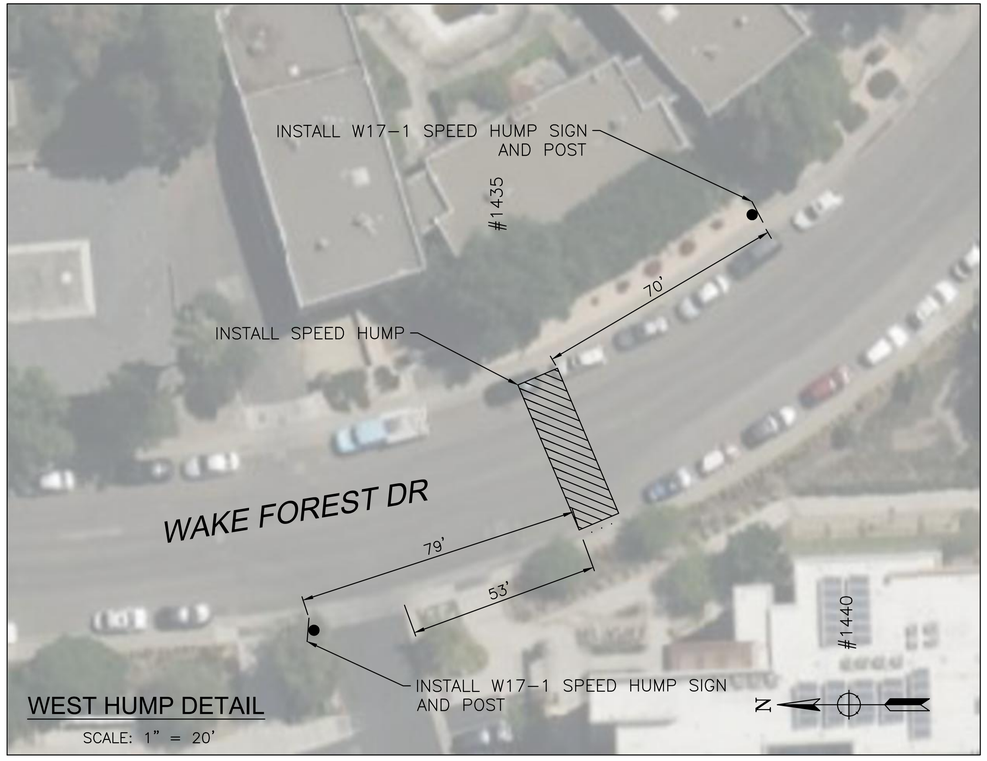


STRIPING DETAIL (EAST HUMP)

W17-1 SIGN DETAIL (NTS)

GENERAL NOTES:

1. ALL STRIPING, SIGNS, AND SPEED HUMPS SHALL BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
2. FINAL SIGN PLACEMENT WILL BE DETERMINED IN THE FIELD BY THE TRAFFIC ENGINEER.



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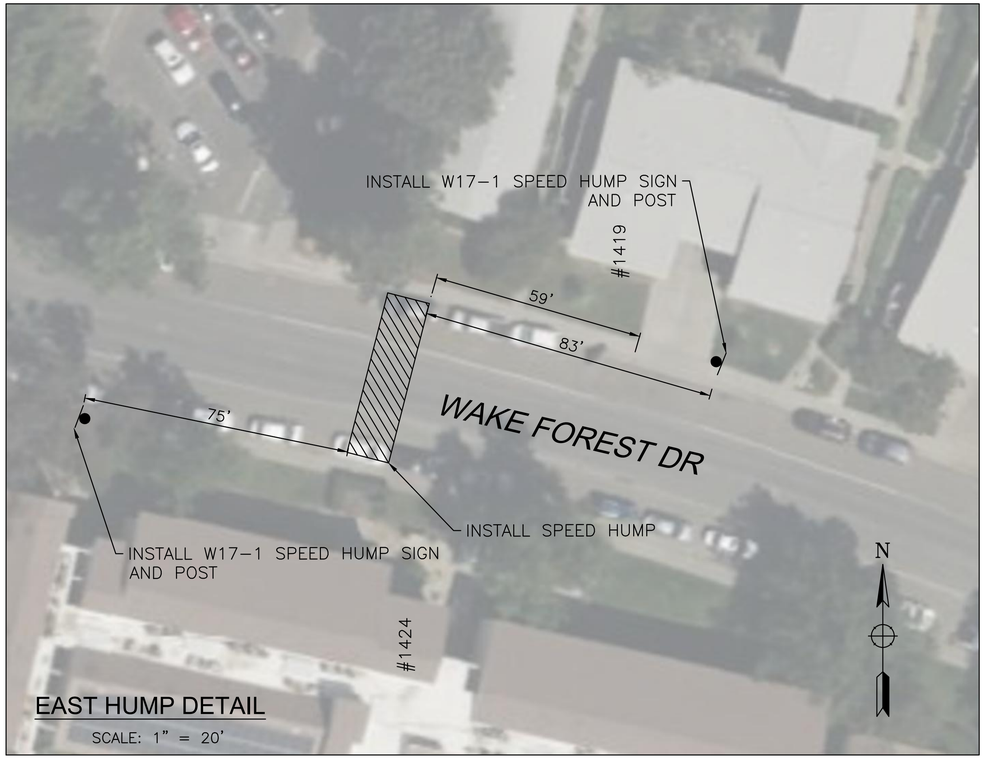

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WAKE FOREST DRIVE

CITY OF DAVIS
PUBLIC WORKS - ENGINEERING AND TRANSPORTATION DEPARTMENT
1717 5TH STREET
PHONE (530)747-5846 FAX (530)758-4738

DESIGNED BY: NS/AP	DATE: 7/11/23
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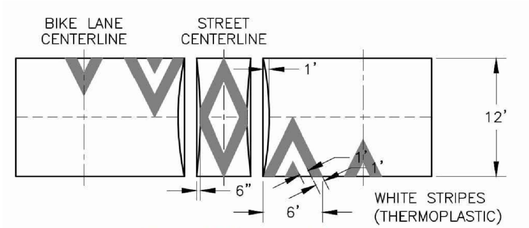

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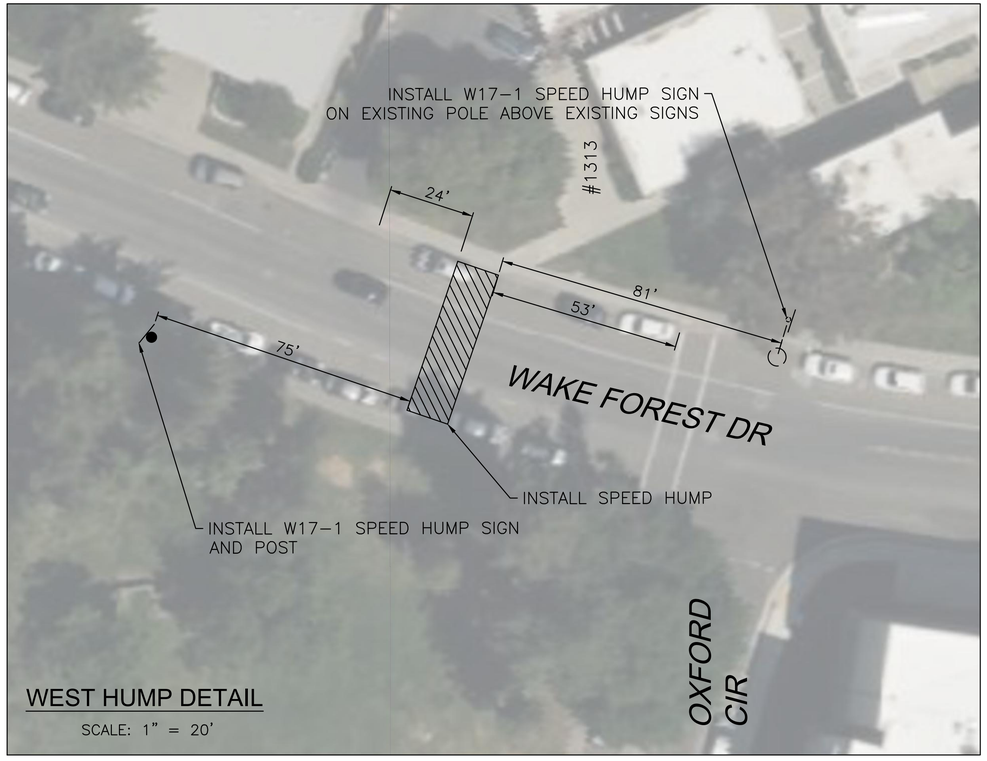

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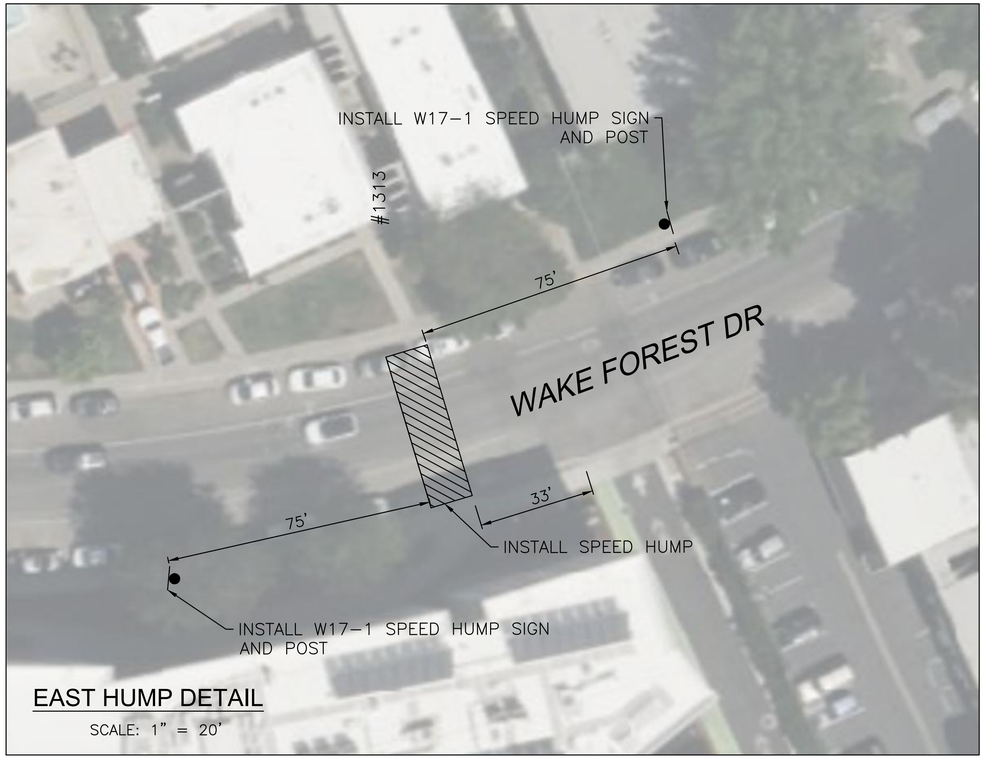

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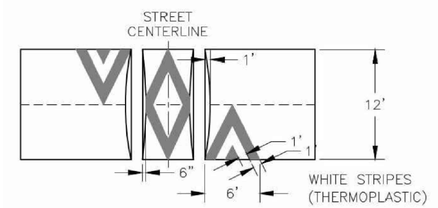

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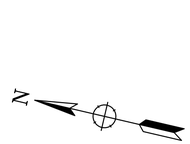

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NORTH HUMP DETAIL

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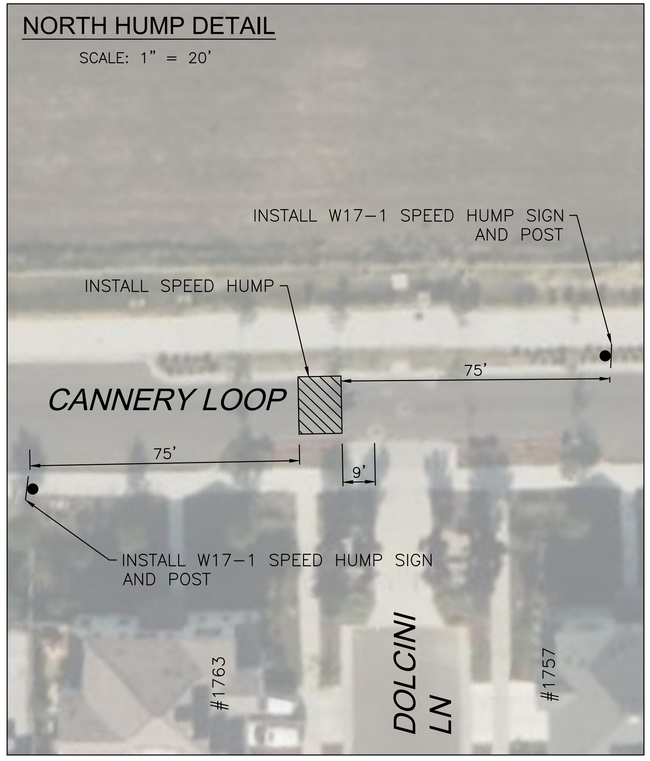

CENTER HUMP DETAIL

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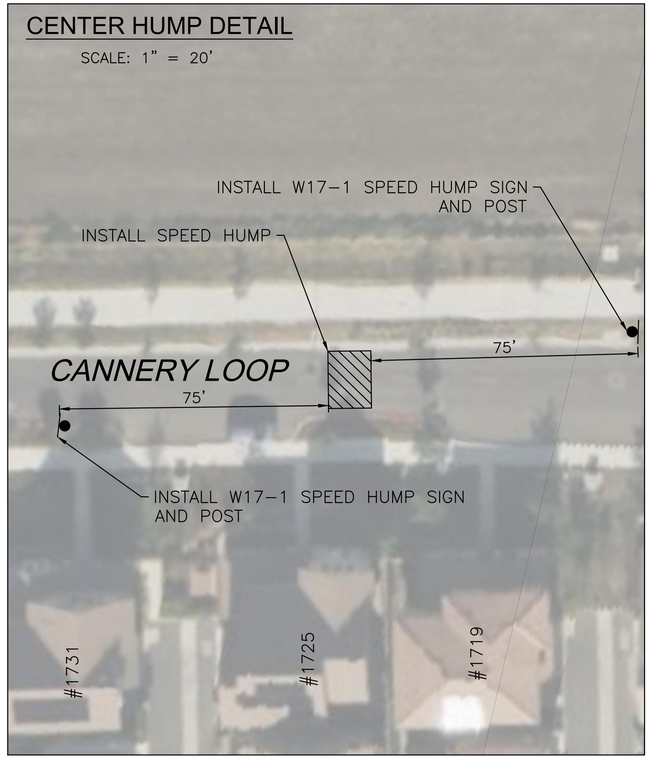

SOUTH HUMP DETAIL

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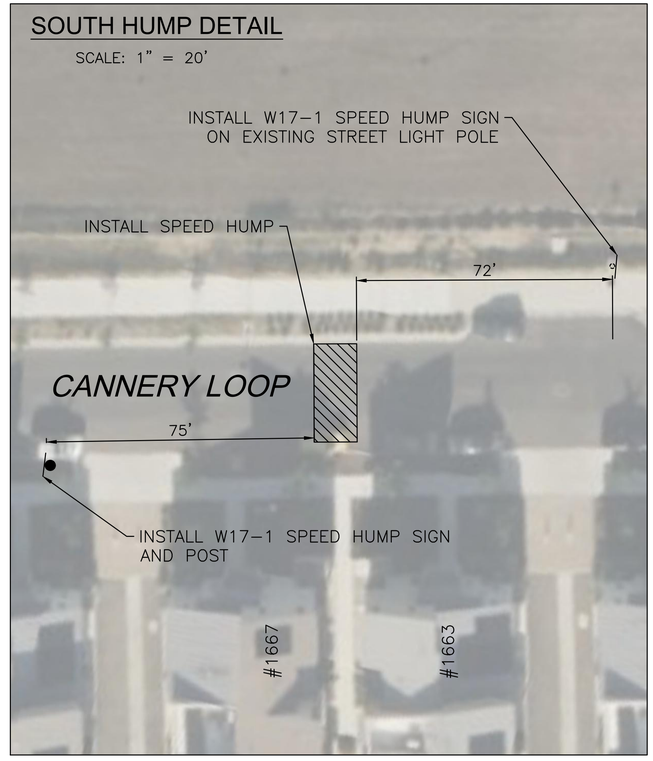

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CITY OF DAVIS - 2023 SPEED HUMP INSTALLATION PROJECT

CANNERY LOOP

CITY OF DAVIS
PUBLIC WORKS - ENGINEERING AND TRANSPORTATION DEPARTMENT
1717 5TH STREET
PHONE (530)747-5846 FAX (530)758-4738

DESIGNED BY: NS/AP	DATE: 7/11/23
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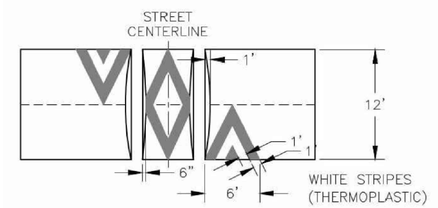

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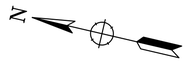

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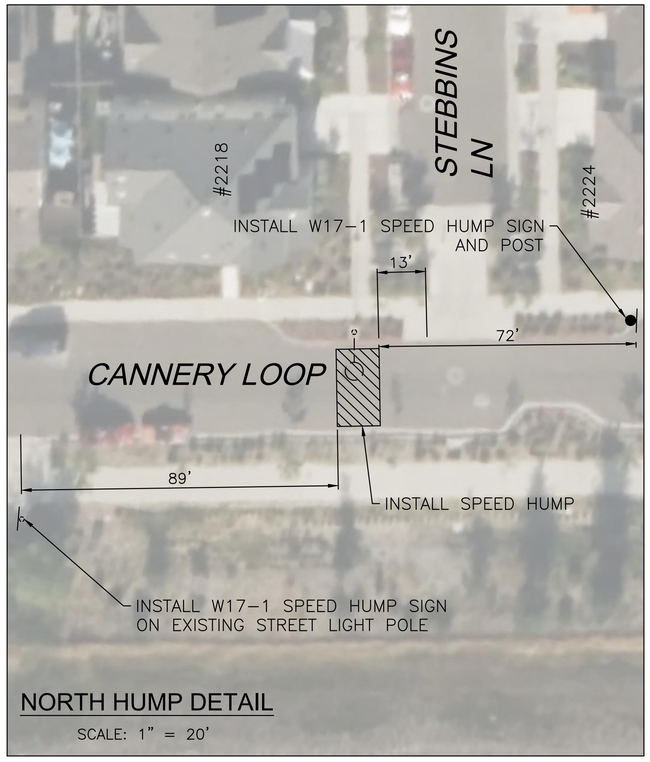

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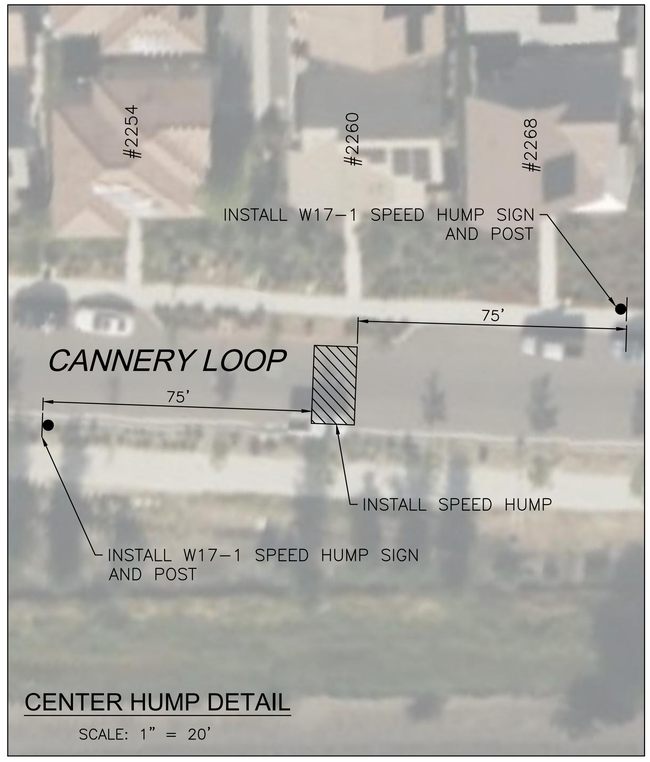

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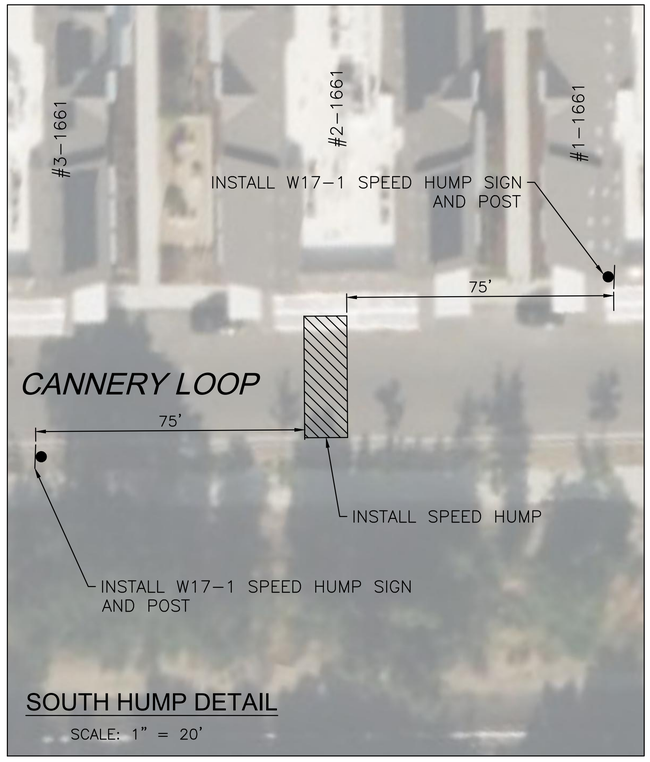

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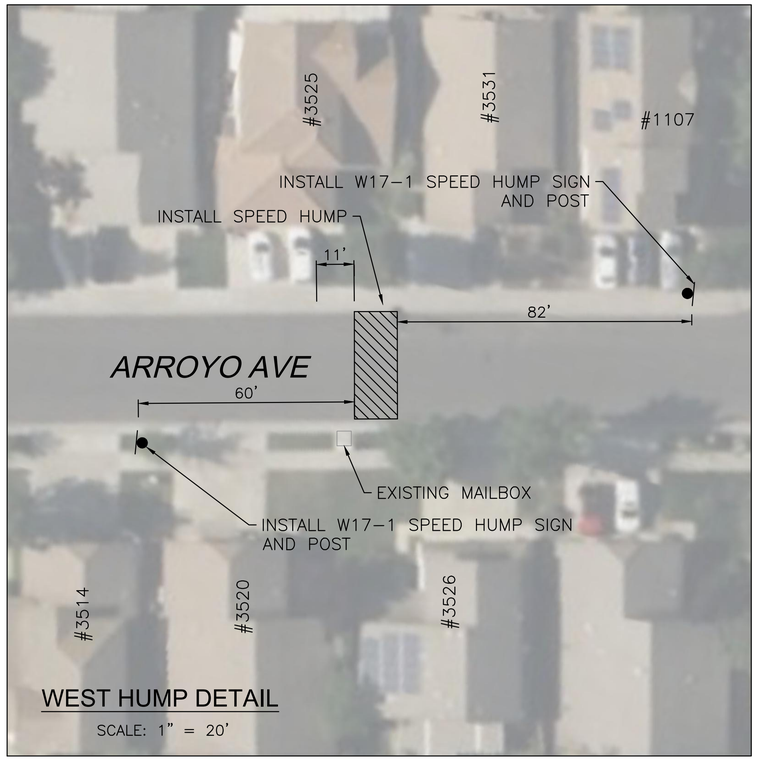

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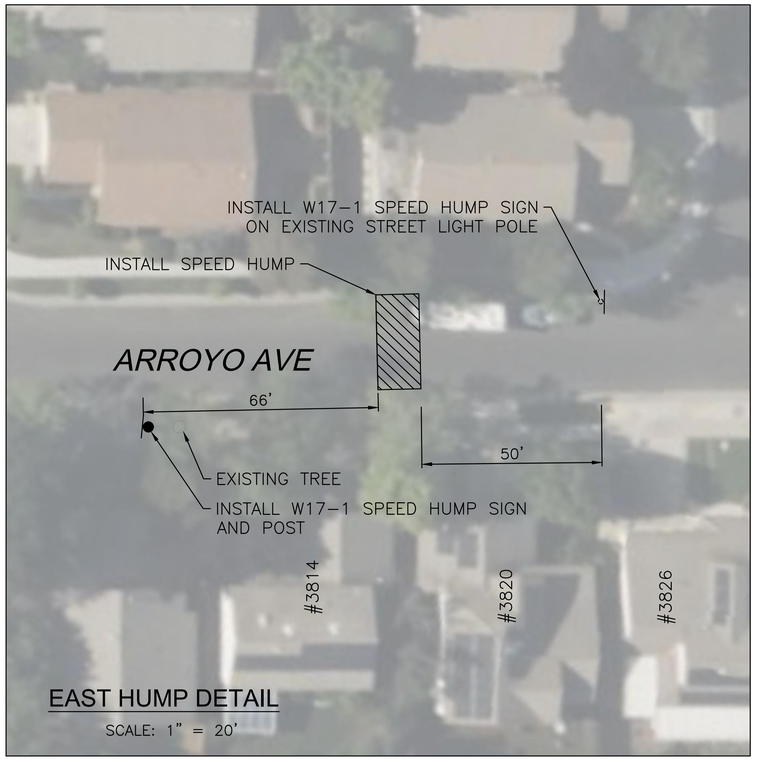

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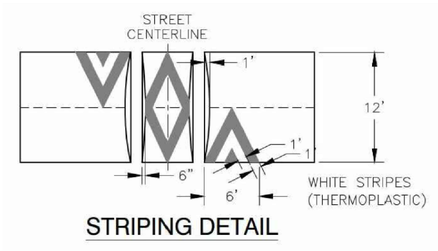

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CITY OF DAVIS - 2023 SPEED HUMP INSTALLATION PROJECT

ARROYO AVENUE

Davis California

CITY OF DAVIS
PUBLIC WORKS - ENGINEERING AND TRANSPORTATION DEPARTMENT
1717 5TH STREET
PHONE (530)747-5846 FAX (530)758-4738

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