



City of Santa Barbara **Transportation and Circulation Committee**

Staff Report

DATE: December 13, 2012

TO: Transportation and Circulation Committee (TCC)

FROM: Derrick Bailey, Supervising Transportation Engineer

SUBJECT: Pedestrian Median Refuge Island Installations

Recommendation

That the Transportation and Circulation Committee (TCC) hear a report and provide comments on the use of pedestrian median refuge islands to improve pedestrian crossing conditions in Santa Barbara..

Background

Staff have been working to identify tools to improve pedestrian crossing conditions in Santa Barbara. One of the tools identified are pedestrian median refuge islands. Several median refuge islands have been installed, and other locations are planned.

Discussion

The Federal Highway Administration (FHWA) and CalTrans have both published documents that list the safety benefits associated with pedestrian median refuge islands. These benefits include:

- A 46% reduction in pedestrian involved crashes at marked, uncontrolled crosswalks.
- Reducing the risk of pedestrian exposure to traffic. Pedestrians cross fewer lanes of traffic at a time, and can judge conflicts from either direction separately.
- Reducing delay to pedestrians. Pedestrians need a smaller gap in traffic when dealing with each approaching direction separately, as opposed to a large gap needed to cross the entire road.
- May reduce vehicle speeds.
- Providing an additional visual queue to drivers of the crossing location.

Applications in Santa Barbara

In Santa Barbara, there are several existing median refuge islands, and several new projects that include median refuge islands. Up until now, the use of median refuge islands has been focused on multi-lane arterial streets. Locations include:

- Cabrillo Boulevard at Bath Street (existing)
- Cabrillo Boulevard at Chapala Street (existing)
- Milpas Street at Ortega Street (under construction).
- State Street at Calle Palo Colorado (in design).
- Cabrillo Boulevard at Anacapa Street (in design).

The last two locations, both currently in design, are tee-intersections. Tee-intersections offer a good opportunity to install median refuge islands in the area of un-used pavement directly across from the main street left turn lane, as illustrated in *Figure 1*. This figure is the design concept for Cabrillo Boulevard and Anacapa Street improvements in design, and was presented to the TCC at its July meeting.

In addition to the application of median refuge islands on arterial-type streets, staff have created a concept for median refuge islands on minor arterial or collector-type streets, specifically intended for enhancing school crossings. Staff feels that it is important when designing the islands for these streets, which are typically one lane in either direction, to include mountable curb. Mountable curb medians are forgiving should a driver hit them, yet noticeable so they're less likely to do it again. Also, with a mountable design, emergency vehicles can pass should the lane be blocked next to the island. A conceptual median refuge island for this application is shown in *Figure 2*.

Staff is planning to apply for a Measure A Safe Routes to School grant to fund the installation of median refuge islands at nine crossings on school walking routes. Three locations are adjacent to the La Cumbre Junior High School/Santa Barbara Community Academy campus, and six locations are adjacent to or nearby the Franklin Elementary/Adelante Charter School campus.

Staff met with the Fire Department to discuss the concept of refuge islands on collector-type streets. Some of the proposed locations are on evacuation routes. The Fire Department indicated initial support for the concept because student safety is involved. They also indicated that the mountable design allows them to pass should the shoulder be blocked next to the median. Also, in the absence of a crossing pedestrian, traffic can continue to flow past the median without having to stop, which is an advantage over all-way stops. Staff will consult with the Fire Department before proceeding to final design.

The School Principals were consulted, and have indicated their support of the project.

Staff is also planning to apply for a Measure A bicycle and pedestrian grant that is proposed to include a pedestrian median refuge island on De La Vina Street at Samarkand Drive. Currently, there is a painted median refuge island, and the proposed raised island would take its place.

Figure 3 illustrates the locations of existing median refuge islands, locations in design, and locations that are included in the Measure A grant application.

Circulation Element Consistency

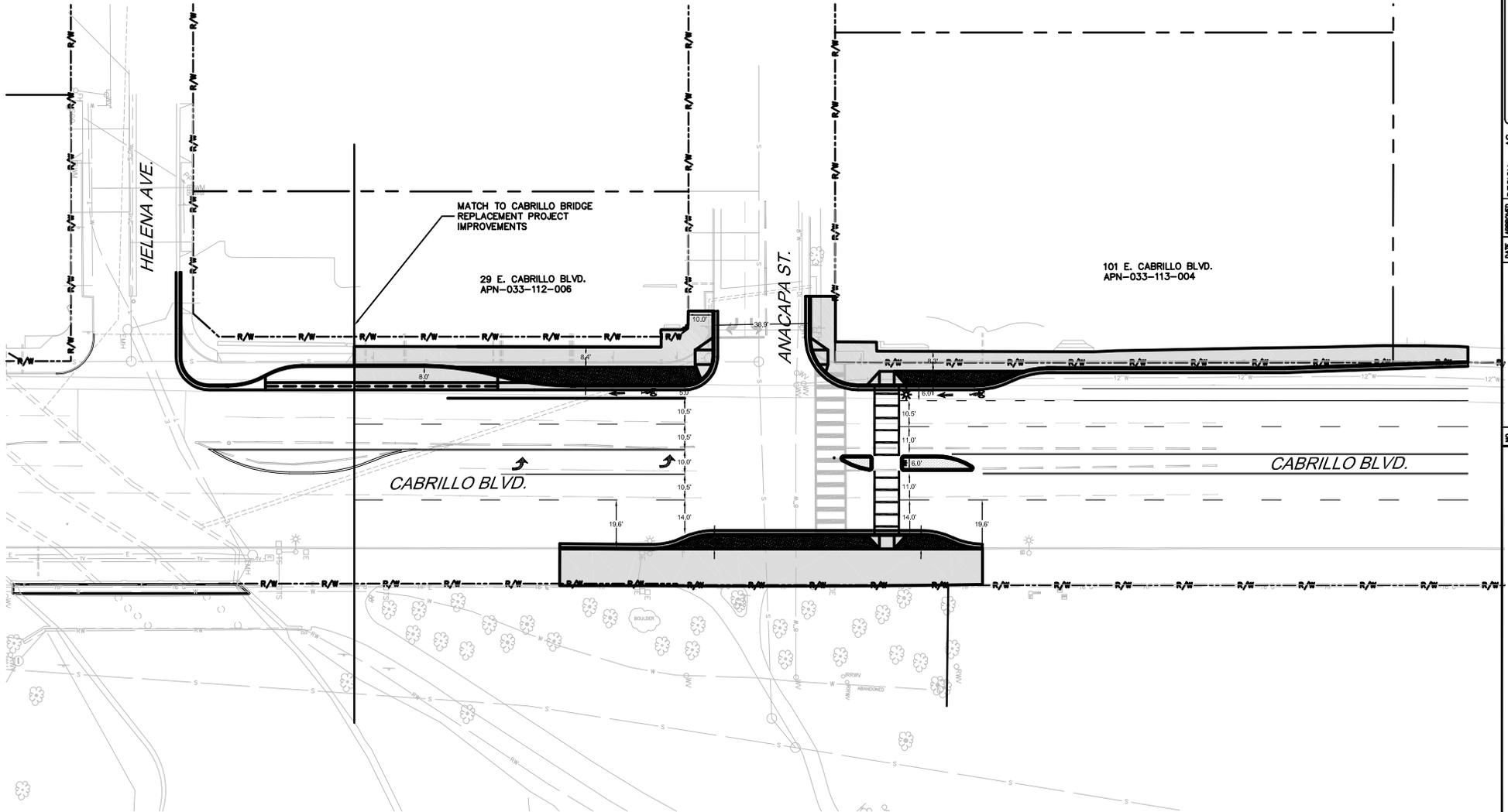
The use of median islands is consistent with Circulation Element Policy 5.2 “the City shall make street crossings easier and more accessible to pedestrians”. The proposed project is also consistent with Pedestrian Master Plan Policies 1.2 and 2.1, which state “The City shall improve pedestrian safety and comfort at intersections”, and “The City shall assist in the development of a Safe Routes to School program”.

Attachments:

- Figure 1 – Cabrillo Boulevard and Anacapa Street Intersection Improvements
- Figure 2 – Pedestrian Median Refuge Island Concept
- Figure 3 – Proposed Locations of Median Refuge Islands

DVB/kts

Figure 1: Cabrillo Boulevard and Anacapa Street Intersection Improvements
 12-13-2012



PUBLIC WORKS
 DEPARTMENT
 ENGINEERING DIVISION

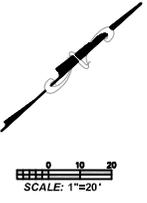
APPROVER: _____ DATE: _____
 CITY ENGINEER ORIGINAL SIGNED DATE: _____

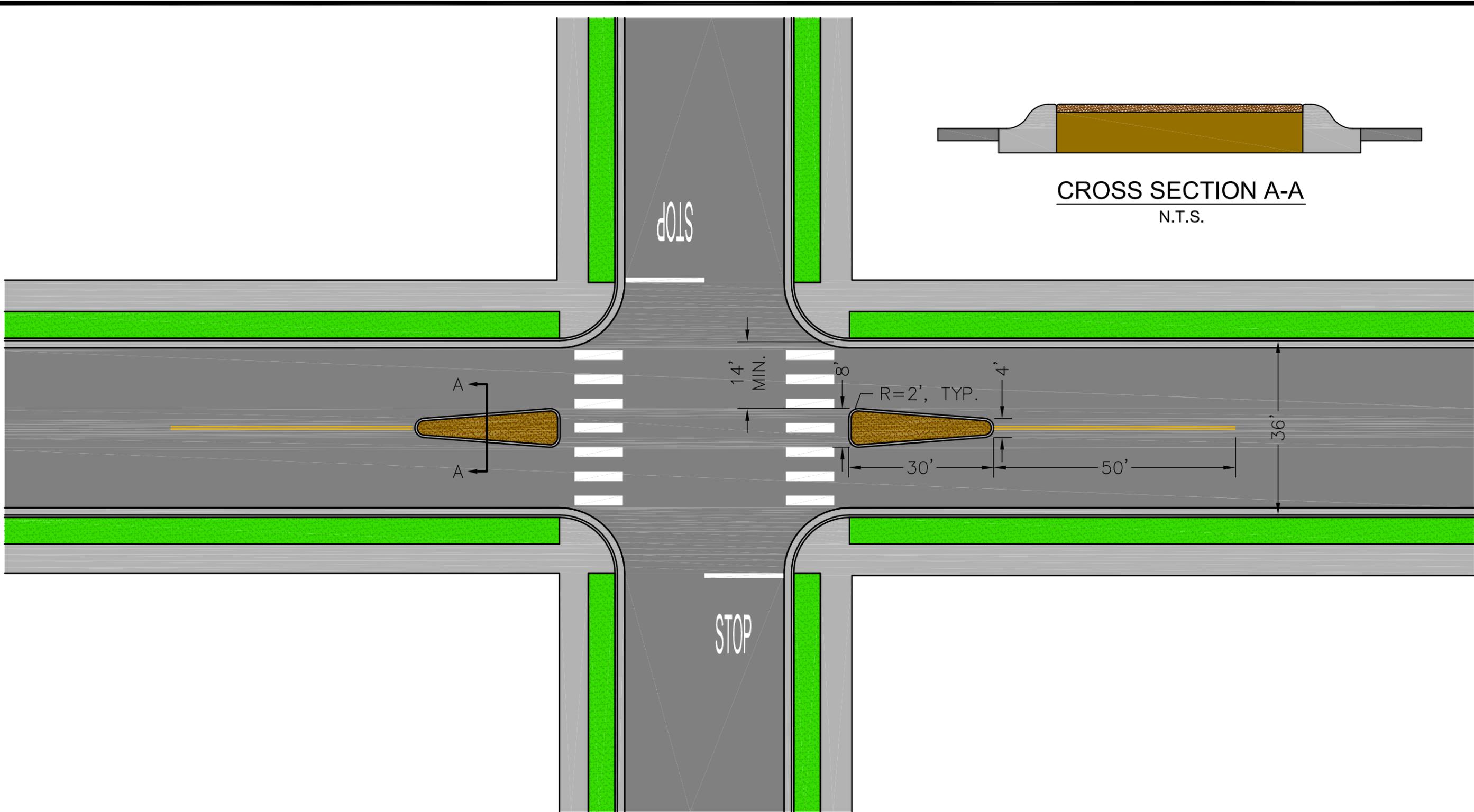
DESIGN AS
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 CHECKED BY

NO.	DATE	APPROVED	DESIGN	AS

CABRILLO/ANACAPA INTERSECTION IMPROVEMENTS
CABRILLO AT ANACAPA
 PRELIMINARY DESIGN

2012-XXXX
 PERS. NO.
 3518 G1
 BID NO. SHT. DES.
 C-1-4669
 DWG. NO.
 SHT. 1 OF 1



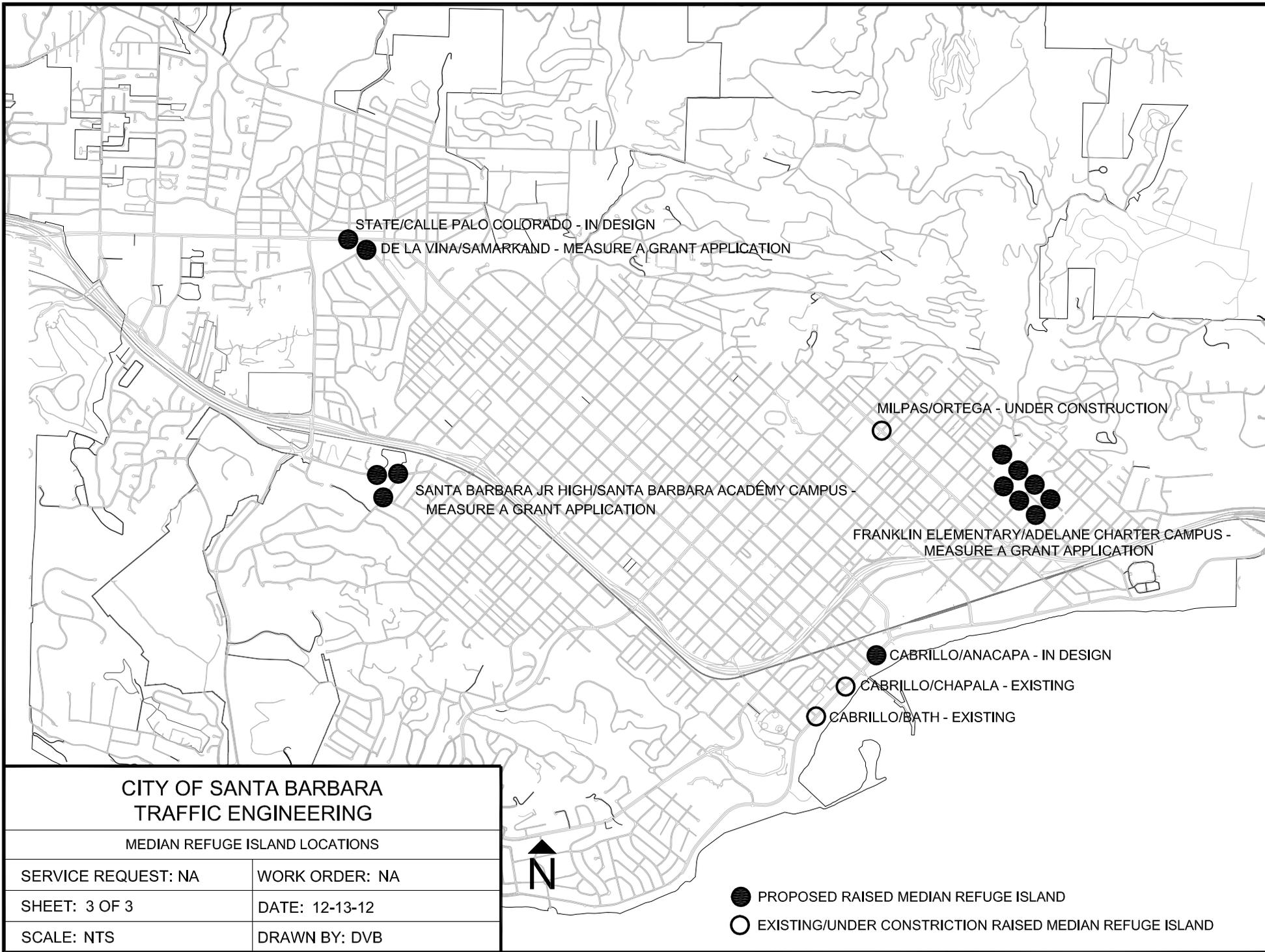


CROSS SECTION A-A
N.T.S.



MOUNTABLE PEDESTRIAN MEDIAN REFUGE ISLAND

DATE	12-13-12
DRAWN	MR
BID NO.	N/A
SCALE	1"=20'
SHEET	2 OF 3



**CITY OF SANTA BARBARA
TRAFFIC ENGINEERING**

MEDIAN REFUGE ISLAND LOCATIONS

SERVICE REQUEST: NA

WORK ORDER: NA

SHEET: 3 OF 3

DATE: 12-13-12

SCALE: NTS

DRAWN BY: DVB

- PROPOSED RAISED MEDIAN REFUGE ISLAND
- EXISTING/UNDER CONSTRUCTION RAISED MEDIAN REFUGE ISLAND