

Appendix 1.5.1

Arterial Network Memo

MEMORANDUM

Date: December 4, 2015
To: Saravana Suthanthria, Alameda CTC
From: Francisco Martin and Matthew Ridgway, Fehr & Peers
Subject: **Alameda Countywide Multimodal Arterial Plan – Final Arterials of Countywide Significance (Arterial Network) Criteria and Map**

OK14-0023

The Alameda Countywide Multimodal Arterial Plan uses two types of networks - a broad network, called "Study Network" for general study purposes and a subset of the Study Network, called "Arterial Network" for focused identification and prioritization of short and long-term improvements. The Study Network was developed based on the California Road System classification of arterial and collector streets and consists of approximately 1,200 miles of roadway. The Arterial Plan evaluates the Study Network to understand existing roadway conditions and the function of the roads in supporting all modes and assess multimodal needs in a broader context. To identify and prioritize improvements, the Arterial Plan focuses on a core and subset of approximately 506 miles of the Study Network called Arterial Network. This core network serves as the backbone of multimodal mobility throughout the county for one or more of the following reasons:

- Carrying multimodal users across multiple jurisdictions while still connecting with key land uses,
- Serving as major link in a countywide network for seamless connection for one or more travel modes, and
- Being major roadways that collect and distribute traffic from lower-level roadways to freeways and major transit hubs.

Given the countywide focus of the Multimodal Arterial Plan, the Arterial Network provides the necessary framework containing roads of countywide significance and facilitates the Plan's identification and prioritization of improvements on these roadways that benefit the users of all modes throughout the county.



Traditionally, from the countywide significance perspective, Alameda CTC’s Congestion Management Program (CMP) includes routes designated as part of the Congestion Management Plan (CMP) network, and the Metropolitan Transportation Commission’s (MTC) Metropolitan Transportation System (MTS) network. However, the CMP and MTS networks include Caltrans state routes and freeways that are not part of the Study Network or the Arterial Network. To reflect a multimodal perspective, the Arterial Network expands on the CMP and MTS networks to include transit, bicycle, pedestrian, and goods movement routes of countywide significance based on the approved typology.

Given the context above, this memo presents draft criteria for selecting the Arterial Network, roads of countywide significance from the Study Network. Consistent with the multimodal nature of this study, this is done by looking at each mode. The summary criteria for each mode are presented in **Table 1** and described in the sections below. The proposed criteria are generally based on the base street type and modal emphasis overlays (transit, bike, pedestrian and goods movement) described in the memo titled *Alameda Countywide Multimodal Arterial Plan: Final Arterial Street Typology and Modal Priority Comments and Responses* (CD+A, September 16, 2015). The Study Network map is attached to end of this memo, the Final Arterial Network segments are highlighted in red on the same Study Network map.

TABLE 1
ARTERIALS OF COUNTYWIDE SIGNIFICANCE – SUMMARY NETWORK CRITERIA

Mode	Arterial Network Selection Criteria
Auto	<ul style="list-style-type: none"> • CMP Network • MTS Network • State Route Network (Non-Freeway) • Roads designated as Throughway base street type • Other considerations: <ul style="list-style-type: none"> ○ Rural roads with average daily traffic (ADT) volume greater than 7,500
Transit	<ul style="list-style-type: none"> • AC Transit, LAVTA and Union City Transit Major Corridors
Bicycle	<ul style="list-style-type: none"> • Class II Enhanced, Class III Enhanced and Class IV bicycle facility network
Pedestrian	<ul style="list-style-type: none"> • High Pedestrian Emphasis network
Goods Movement	<ul style="list-style-type: none"> • Tier 2 Goods Movement Routes

Source: Fehr & Peers, 2015.



AUTO

The higher order facilities such as CMP, MTS (the version of the network that is used in Alameda CTC's CMP) and state route networks will continue to support auto travel in Alameda County. These are historical systems that were included in the arterials of countywide significance network. Beyond the CMP, MTS and state routes, considering the diverse nature of the county and its central geographic location in the region, other roadway types were included in the Arterial Network:

- All roadways identified as Throughway base street type
- Rural roads in the East County with an average daily traffic (ADT) volume greater than 7,500 and supporting rural economic activities

The 7,500 ADT threshold for rural roads is based on typical weekday volumes along major rural routes in the county.

TRANSIT

Transit priority corridors were derived from the on-going Countywide Transit Plan, which includes AC Transit and LAVTA Major Corridors. All transit priority corridors were designated as part of the arterials of countywide significance.

BICYCLE

Bicycle facilities classified as Class II Enhanced, Class III Enhanced and Class IV were designated as part of the arterials of countywide significance.

PEDESTRIAN

There are three levels of pedestrian emphasis designated by pedestrian priority "scoring," which combines scores given to street segments based on the following characteristics:

- **Priority Development Area (PDA) Place Type** – Each PDA type within the county was given a score with Regional Centers scoring the highest, while Suburban Center score the lowest.
- **Commercial and Mixed Use Areas** – Commercial and Mixed Use areas as identified from the ABAG standardized Local Jurisdiction General Plan data. These were scored with downtown or city center and other mixed use types scoring higher than predominantly single use type commercial areas.



- **Census Tracts identified as Communities of Concern per MTC Equity Analysis** – Census tracts in the county were scored by MTC on eight categories wherein tracts over the score of 4 are considered as a Community of Concern. For mapping purposes, tracts with a MTC score of 6 are scored higher for pedestrian emphasis than ones with MTC scores between 4 and 6.
- **Employment Growth Opportunity Areas identified in Alameda CTC's 2012 CTP** – These areas were given an additional score.
- **Proximity to BART/ACE/Capitol Corridor stations** – half mile and quarter mile distances are scored.
- **Half-mile buffer off AC Transit and LAVTA Major Corridors** – half mile and quarter mile distances are scored.
- **Quarter mile buffers around local bus stops** – quarter mile distance is scored.
- **Quarter mile buffers around activity & education centers, and parks** – quarter mile distance is scored.

The memo titled *Alameda Countywide Multimodal Arterial Plan: Final Arterial Street Typology and Modal Priority Comments and Responses* (CD+A, September 16, 2015) provides the methodology for how these scores combine and the thresholds to determine the three levels of pedestrian emphasis:

- Tier 1: High Pedestrian Score
- Tier 2: Medium Pedestrian Score
- Tier 3: Low Pedestrian Score

High Pedestrian Score segments were designated as arterials of countywide significance.

GOODS MOVEMENT

Non-freeway goods movement routes were derived from the on-going Countywide Goods Movement Plan. The Goods Movement Plan summarizes the current goods movement route designations and sorts routes into three tiers:

- *Tier 1 goods movement routes refer to the state highways that are designated to handle a majority of the through truck traffic.*
- *Tier 2 goods movement routes refer to other state highways and designated arterials that provide intra-county and intercity connectivity and last-mile connection to the Port of Oakland and Oakland International Airport.*



- *Tier 3 goods movement routes refer designated arterials and collectors that are used in a majority of local pickup and delivery.*

Tier 2 goods movement routes were designated as arterials of countywide significance.

STAKEHOLDER REVIEW AND RESPONSE TO COMMENTS

The Draft Arterial Network was presented to all jurisdictions for review and comment in November 2015. The following jurisdictions provided comments on the Arterial Network: Albany, Dublin, Fremont, Hayward and Newark.

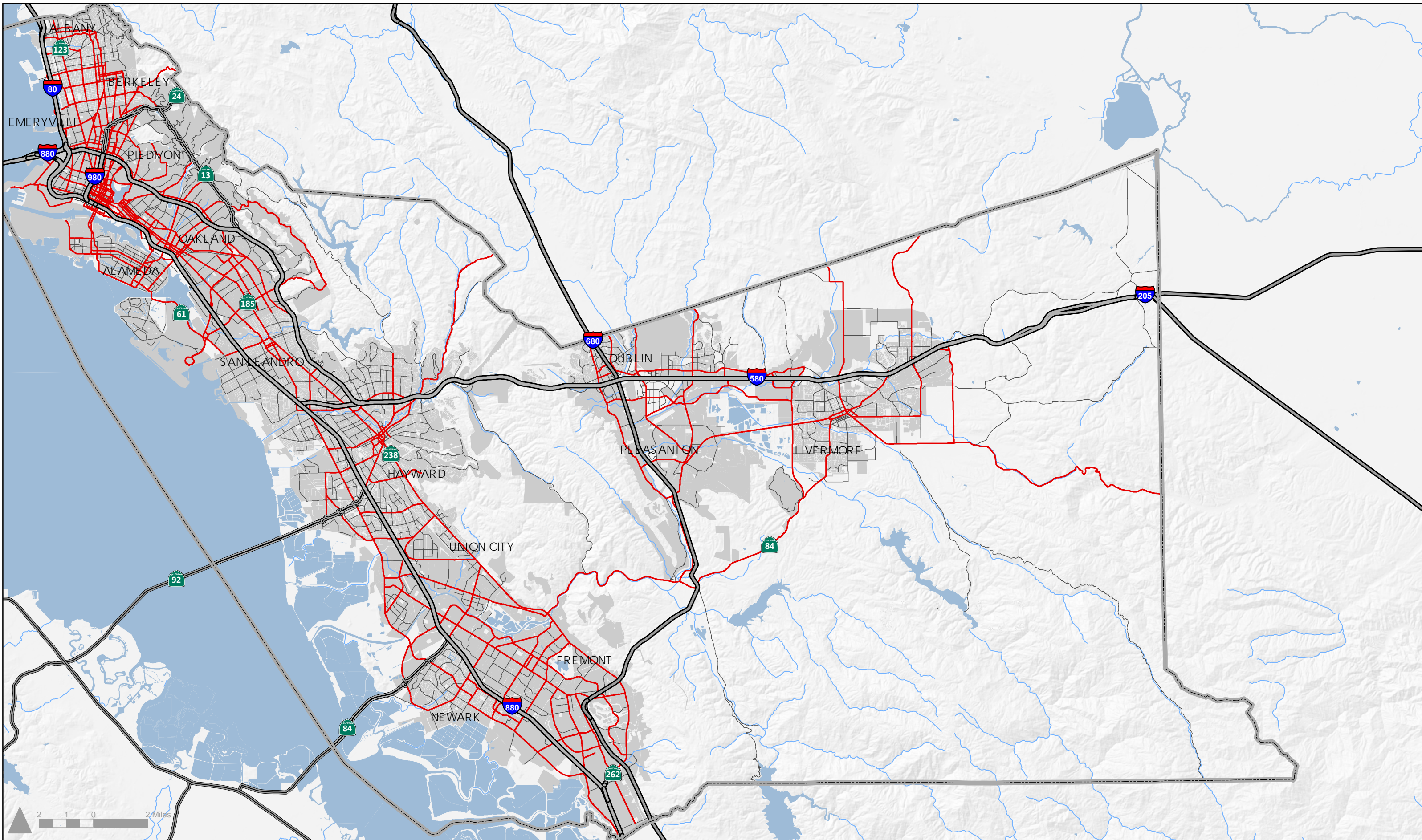
NEXT STEPS

The Arterial Network map has been updated to reflect stakeholder review comments; the consultant team will present the Final map to ACTAC and the Commission for final approval in February 2016. As a next step in the Plan development, the Arterial Network will be used in identifying and prioritizing improvements that supports the multimodal needs assessment.

Please contact Francisco Martin at 510-57-9422 or f.martin@fehrandpeers.com if you have any questions or comments.

Attachments:

Alameda Countywide Study Network and Arterial Network Map



Legend

- Arterial Network (510 Miles)
- Urban Area
- Study Network (1,200 Miles)

