

EXECUTIVE SUMMARY

DRAFT: DUMBARTON BRIDGE TECHNICAL REPORT

Prepared by the Dumbarton Bridge Technical Group

Published by the East Palo Alto Municipal Council Staff
2415 University Avenue, East Palo Alto, CA. 94303

April, 1980

In February, 1980, the Dumbarton Bridge Technical Group was formed and given the charge of assembling technical data on an array of potential bridge connection alternatives. The purposes of assembling the data were:

- 1). To provide basis for each community to explore the impacts of connection alternatives on itself and other neighboring communities, and
- 2). To provide an opportunity for communities to jointly discuss connection alternatives that may be beneficial to the entire Mid-Peninsula region.

Seven basic alternatives, with some modifications were explored:

- 1. Approved Connections
- 2. Relocated Industrial Park (in EPA)
- 3. Depressed University Avenue (in EPA)
- 4a. Southern Connection, South of Oregon Expressway (in PA)
- 4b. Southern Connection, Laura Lane (in PA)
- 4c. Southern Connection, San Francisquito Creek (in EPA)
- 4d. Southern Connection, Geng Road (in PA)
- 5. Pulgas Avenue Connection (in EPA)
- 6. Transit Lane (on Bridge)
- 7. No University Avenue Connection (in EPA)

- In addition, the traffic effects of two combinations of alternatives considered:
 - 4a + 7. Southern Connection, South of Oregon Expressway Plus No University Avenue Connection.
 - 4b + 7. Southern Connection, Geng Road Plus No University Avenue Connection.

Summary of Findings

- The Approved Connections will significantly aggravate the traffic situations on Willow Road east of Hamilton Avenue (in MP) and University Avenue east of Highway 101. In general, the existing adverse traffic conditions on other roads will either experience moderate changes or remain unchanged.

Along University Avenue east of Highway 101, noise will significantly worsen. The amount of disruption will significantly increase.

The potential for commercial development in East Palo Alto will be significantly improved.

- A Relocated Industrial Park will have the same effects on traffic situations as the Approved Connections. There will be significant adverse changes on Willow Road east of Hamilton Avenue and University Avenue east of Highway 101.

The noise situation on University Avenue east of Highway 101 will significantly worsen. There will be significant displacement in the East Bayshore Frontage Road area of East Palo Alto, and a significant increase in disruption in that area and along University Avenue east of Highway 101.

The potential for commercial development in East Palo Alto will be significantly improved.

- A Depressed University Avenue will have the same effects on traffic situations as the Approved Connections and the Relocated Industrial Park with significant adverse changes on Willow Road and University Avenue.

Along University Avenue east of Highway 101, there will be a significant increase in disruption and a moderate improvement in noise. The potential for commercial development in East Palo Alto will improve significantly.

- A Southern Connection, South of Oregon Expressway will have positive effects on Willow Road east of Hamilton and east of Highway 101. All other traffic changes are similar to the Approved Connections, including the same significant negative change on University Avenue east of Highway 101.

Along University Avenue east of Highway 101, the noise and disruption will be significantly aggravated. There will be significant displacement along Embarcadero Road, east of Highway 101.

The potential for both commercial and industrial development in East Palo Alto will be significantly improved.

- A Southern Connection, Laura Lane will significantly aggravate the traffic situation on Embarcadero Road east of Highway 101. On the other roads, it will generally have the same effects on traffic conditions as the Approved Connections.

The noise affects along University Avenue will be the same as the Approved Connections. There will be significant aggravation of the noise condition. There will be some displacement in the Laura Lane area.

The potential for industrial development in East Palo Alto will be improved.

- A Southern Connection, San Francisquito Creek will have the same effects on traffic situations as the Southern Connection, Laura Lane.

The traffic situation on Embarcadero Road east of Highway 101 will have a significant adverse change. All other roads will generally have the same traffic condition effects as the Approved Connections.

Similar to the Southern Connection, Laura Lane, there will be significant aggravation of the noise condition along University Avenue. Displacement along Daphne Way in East Palo Alto will be significant. The potential for industrial development in East Palo Alto will be improved.

- Similar to the Southern Connection, Laura Lane and San Francisquito Creek, Southern Connection, Geng Road, will significantly aggravate the traffic situation on Embarcadero Road east of Highway 101. It will have moderate positive effects on Willow Road, east of Hamilton Avenue and east of Highway 101, and on University Avenue east of Highway 101.

There will be some improvement in air quality along Willow Road and some reduction in disruption along University Avenue.

In East Palo Alto, the potential for commercial development will be reduced and the potential for industrial development will be increased.

- A Pulgas Avenue Connection, similar to the Southern Connection, Laura Lane, San Francisquito Creek, and Geng Road, will significantly aggravate the traffic situation on Embarcadero Road, east of Highway 101. Similar to the Approved Connections there will be significant aggravation of traffic situations on Willow Road and University Avenue.

Along University Avenue, there will be a significant increase in noise and in the amount of disruption. The potential for commercial development in East Palo Alto will be significantly improved.

- A Transit Lane will have the same effects on traffic situations as the Approved Connections. There will be significant adverse changes on Willow Road east of Hamilton and University Avenue east of Highway 101.

The transit lane with High Occupancy Vehicles will, by itself, make a negligible difference in traffic conditions. To have some effect, the transit lane with HOV's would need to induce doubling up of occupants to reduce traffic. Other pressures, such as high gasoline prices, limited gasoline supplies, bridge tolls, traffic congestion on the bridge, and energy conservation efforts, may provide incentives for this alternative. Such pressures themselves may reduce traffic.

The noise situation and the disruption along University Avenue will be significantly aggravated. The potential for commercial development in East Palo Alto will be improved.

- No University Avenue Connection will significantly aggravate the traffic situation on Willow Road east of Highway 101. It will further degrade the traffic situation on Willow Road east of Hamilton Avenue. It will significantly improve the traffic situation on University Avenue east of Highway 101.

The noise situation on Willow Road will be significantly aggravated, while the noise situation on University Avenue will be significantly improved. The disruption along University Avenue will also be significantly reduced.

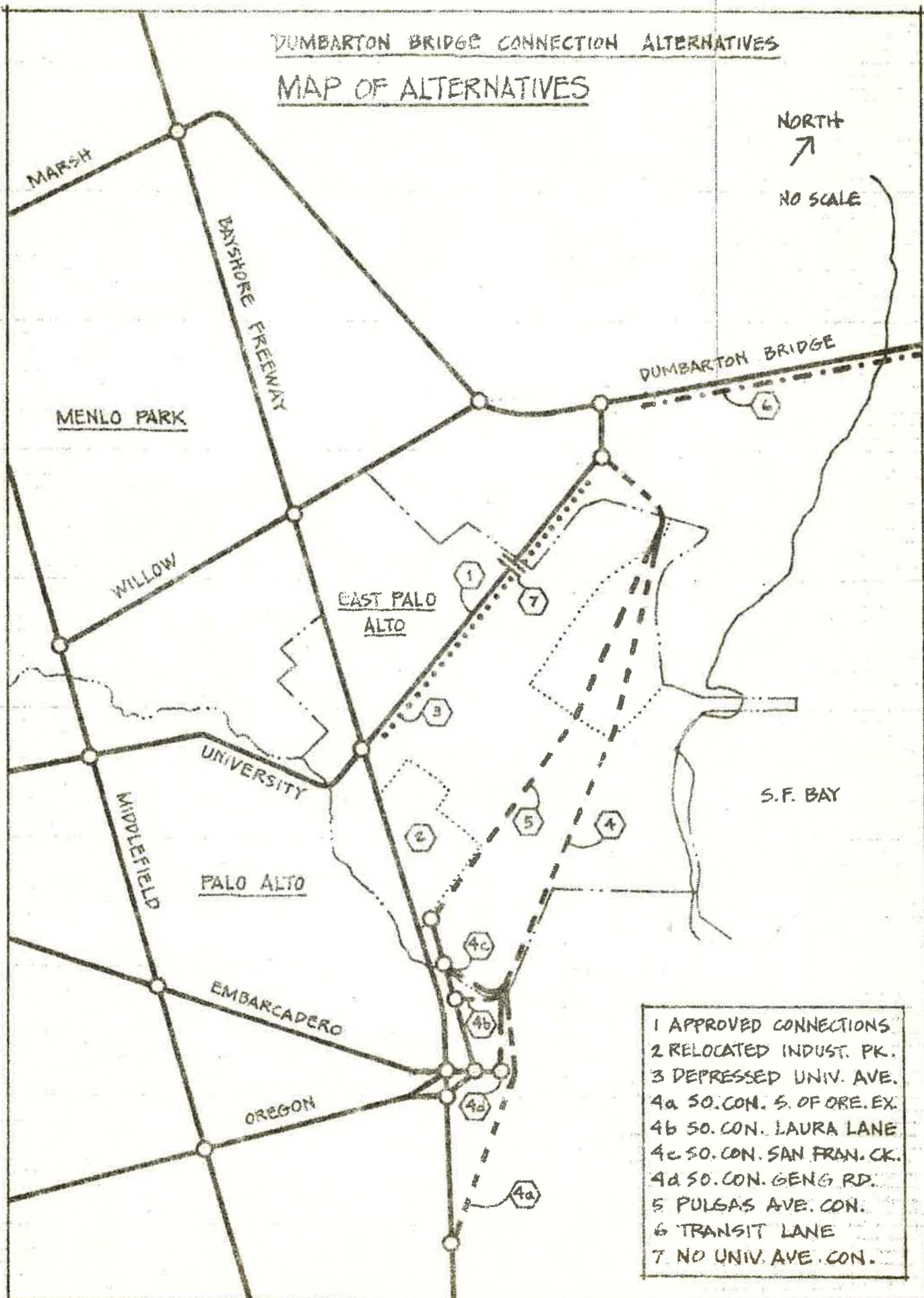
There will be some improvement in air quality along University Avenue, and some reduction in plant and animal qualities along Willow Road. Potential for commercial and industrial development in East Palo Alto will be reduced.

- A Southern Connection, South of Oregon Expressway Plus No University Avenue Connection will significantly improve the traffic situation on University Avenue east of Highway 101. It will have the same effects on other roads as the Approved Connection, with a significant adverse change on Willow Road east of Hamilton Avenue.
- A Southern Connection, Geng Road Plus No University Connection will significantly aggravate the traffic situation on Embarcadero Road east of Highway 101. It will significantly improve the traffic situation on University Avenue east of Highway 101. It will moderately improve the traffic situations on Willow Road east of Hamilton Avenue and east of Highway 101.

DUMBARTON BRIDGE CONNECTION ALTERNATIVES
MAP OF ALTERNATIVES

NORTH
 ↑

NO SCALE



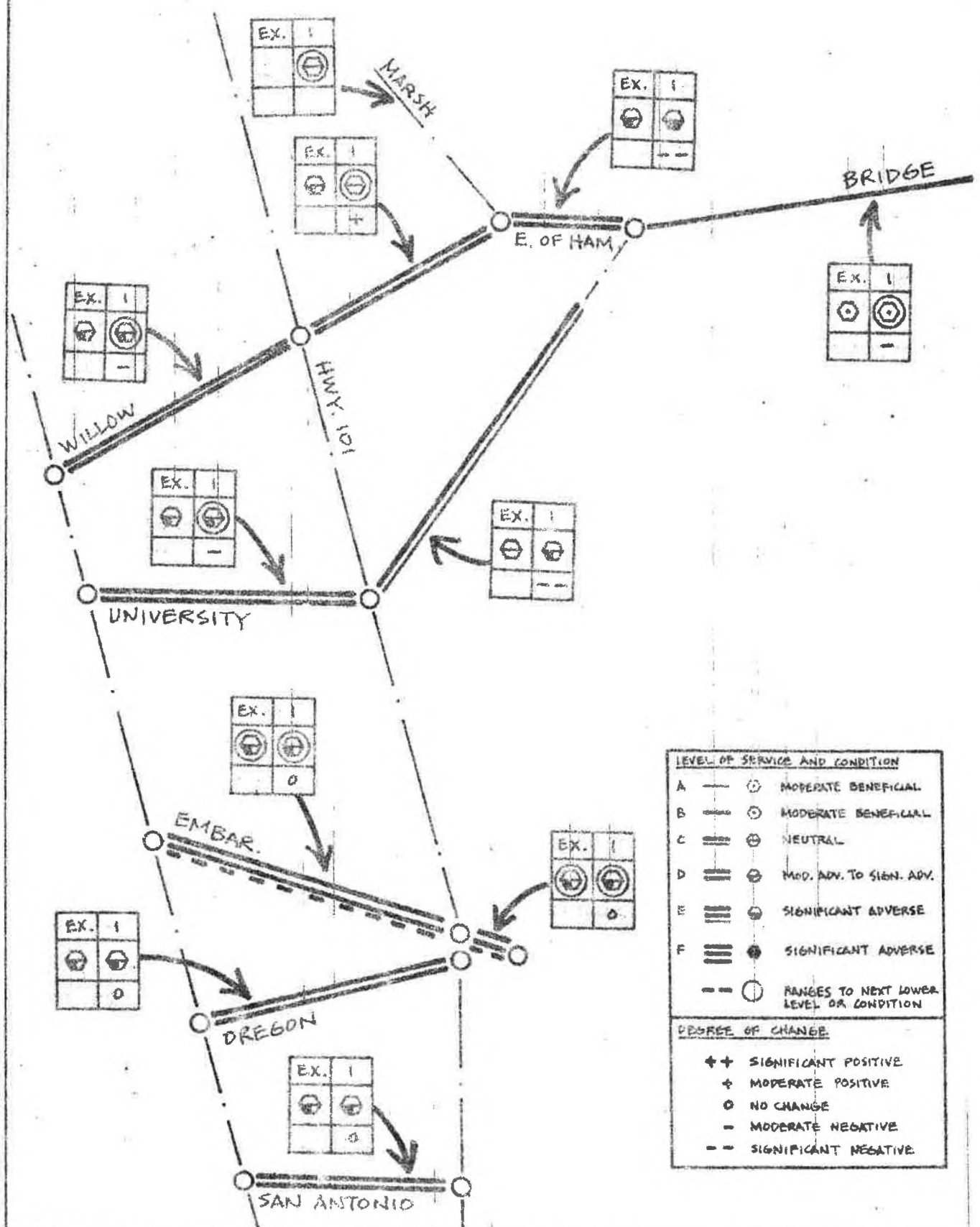
- 1 APPROVED CONNECTIONS
- 2 RELOCATED INDUST. PK.
- 3 DEPRESSED UNIV. AVE.
- 4a SO. CON. S. OF ORE. EX.
- 4b SO. CON. LAURA LANE
- 4c SO. CON. SAN FRAN. CK.
- 4d SO. CON. GENG RD.
- 5 PULGAS AVE. CON.
- 6 TRANSIT LANE
- 7 NO UNIV. AVE. CON.

DUMBARTON BRIDGE CONNECTION ALTERNATIVES

ALTERNATIVE	TRAFFIC MAP 1
CONDITION	EXISTING VS. APPROVED CON.
CHANGE	

TRAFFIC MAP 1
EXISTING VS. APPROVED CON.

NORTH
↑
NO SCALE



LEVEL OF SERVICE AND CONDITION		
A	— ○	MODERATE BENEFICIAL
B	— ○	MODERATE BENEFICIAL
C	— ⊕	NEUTRAL
D	— ⊕	MOD. ADV. TO SIGN. ADV.
E	— ⊖	SIGNIFICANT ADVERSE
F	— ⊖	SIGNIFICANT ADVERSE
	— ○	RANGES TO NEXT LOWER LEVEL OR CONDITION

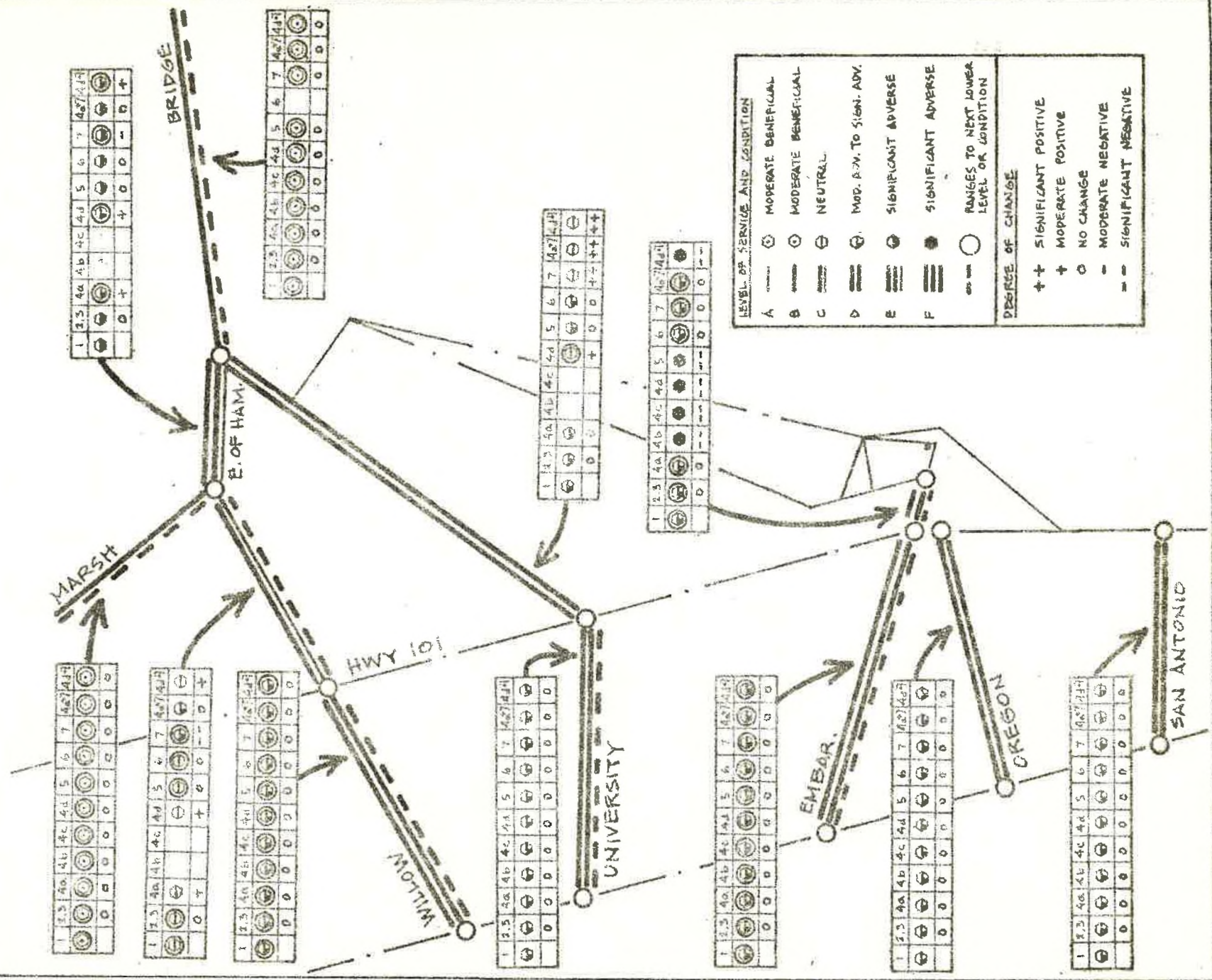
DEGREE OF CHANGE	
++	SIGNIFICANT POSITIVE
+	MODERATE POSITIVE
○	NO CHANGE
-	MODERATE NEGATIVE
--	SIGNIFICANT NEGATIVE

DUMBARTON BRIDGE CONNECTION ALTERNATIVES

ALTERNATIVE
CONDITION
CHANGE

NORTH
7
NO SCALE

TRAFFIC MAP 2 APPROVED CON. VS. ALTERNATIVES



LEVEL OF SERVICE AND CONDITION	
A	MODERATE BENEFICIAL
B	MODERATE BENEFICIAL
C	NEUTRAL
D	MOD. ADV. TO SIGN. ADV.
E	SIGNIFICANT ADVERSE
F	SIGNIFICANT ADVERSE
○	RANGES TO NEXT LOWER LEVEL OR CONDITION

DEGREE OF CHANGE	
++	SIGNIFICANT POSITIVE
+	MODERATE POSITIVE
○	NO CHANGE
-	MODERATE NEGATIVE
--	SIGNIFICANT NEGATIVE