

## INTERSECTION 77

### Hawthorne Boulevard (SR-107)/Del Amo Boulevard Improvement(s)

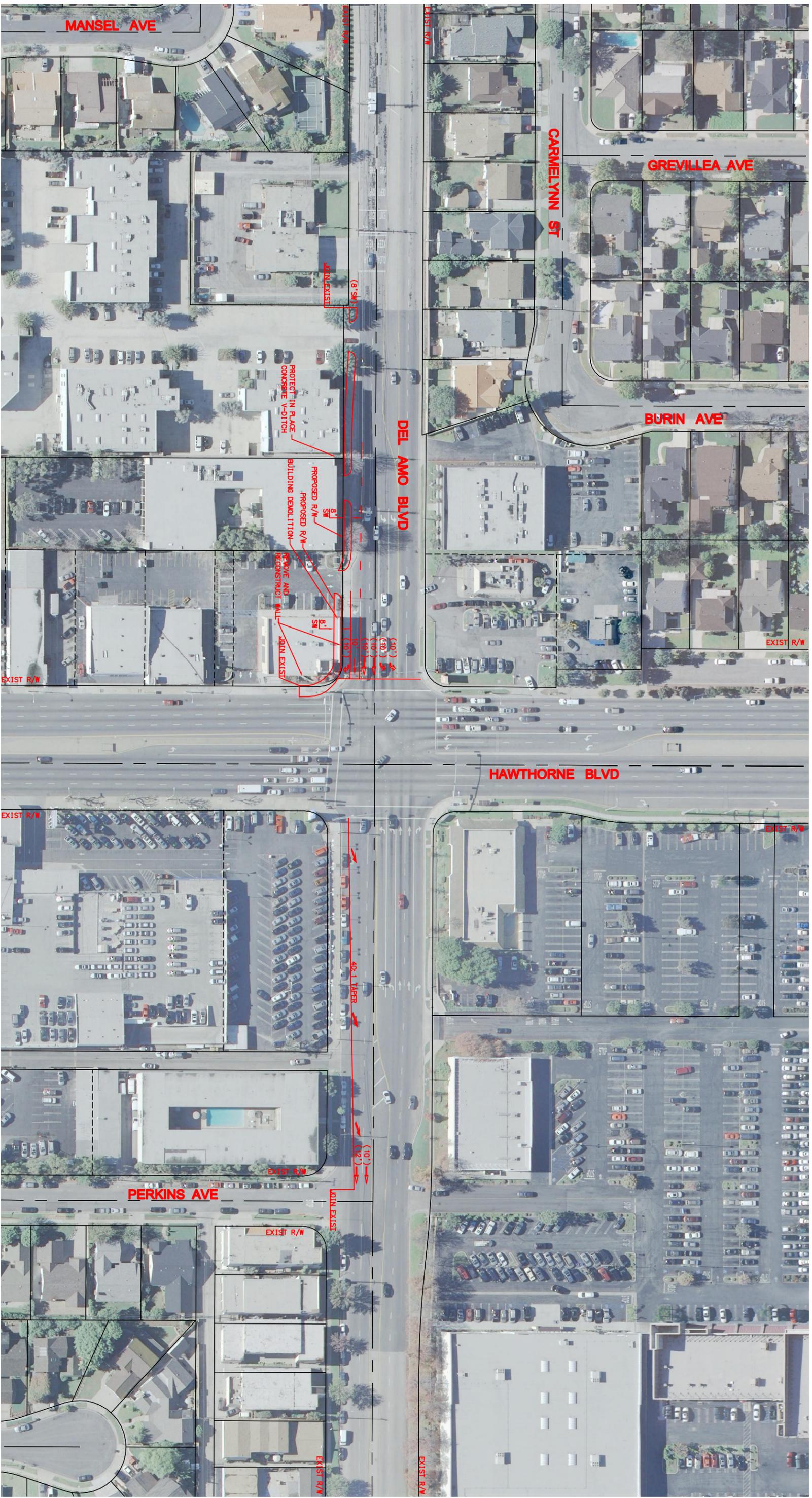
#### Forecast Near-Term Conditions Intersection LOS Summary

	Weekday AM Peak Hour	Weekday Mid-Day Peak Hour	Weekday PM Peak Hour	Weekend Mid-Day Peak Hour
Without Improvement(s)	<b>62.8 – E</b>	44.7 – D	49.6 – D	36.5 – D
With Improvement(s)	39.5 – D	37.2 – D	47.5 – D	33.6 – C

**Note:** Delay shown in seconds per vehicle; Deficient intersection operation shown in ***bold italics***.

#### Recommended Improvements:

- Widen the eastbound Del Amo Boulevard approach from two left-turn lanes, two through lanes, and one right-turn lane to consist of two left-turn lanes, three through lanes, and one right-turn lane.
- Implementation of the improvements identified at the Hawthorne Boulevard (SR-107)/Del Amo Boulevard intersection will require City acquisition of approximately 12-feet of right-of-way on the eastbound Del Amo Boulevard approach and departure to provide adequate alignment of eastbound Del Amo Boulevard through lanes.



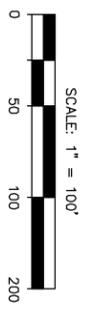
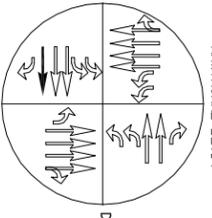
MITIGATIONS:  
EB - ADD THRU LANE

HAWTHORNE BLVD.

LEGEND:

EXISTING LANE  
NEW IMPROVEMENT

DEL AMO BLVD.



**INTERSECTION 77**  
**HAWTHORNE BLVD/DEL AMO BLVD**  
 CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES

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REV.	DATE	DESCRIPTION	BY	CHECKED

**CITY OF TORRANCE**  
**PUBLIC WORKS DEPARTMENT**

DRAWN: J. AL VARADJO  
 DESIGNED: J. AL VARADJO  
 PROJECT ENGINEER: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
 DATE: \_\_\_\_\_

SCALE: AS SHOWN SHEET 1 OF 1  
 PLAN NO. \_\_\_\_\_

**CITY OF TORRANCE CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES  
PRELIMINARY COST ESTIMATES**

**Location:** Intersection 77: Hawthorne Blvd/Del Amo Blvd

**Date:** 3/7/2008

**Mitigation:** Widen the eastbound Del Amo Boulevard approach to consist of two left-turn lanes, three through lanes, and one right-turn lane.

**Estimated by:** D. Alvarado

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$63,000
2	Clear & Grub	\$10,000.00 / AC		\$0
3	Remove Striping	\$10.00 / LF	660	\$6,600
4	Remove Curb & Gutter	\$15.00 / LF	474	\$7,000
5	Remove Median Curb	\$30.00 / LF		\$0
6	Remove PCC Sidewalk	\$3.50 / SF	4,395	\$15,000
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF	104	\$5,000
9	Remove Channel	\$15.00 / LF		\$0
10	Remove/Replace Chain Link Fence	\$50.00 / LF		\$0
11	Remove/Replace Wrought Iron Fence	\$10.00 / LF		\$0
12	Remove/Replace Survey Monument	\$800.00 / EA		\$0
13	Reconstruct Metal Beam Guard Rail	\$70.00 / LF		\$0
14	Remove & Relocate Tree	\$3,000.00 / EA	3	\$9,000
15	Sawcut	\$1.00 / LF	485	\$500
16	Relocate Street Light	\$7,500.00 / EA	1	\$7,500
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.25	\$75,000
18	Signal Phase Modification	\$10,000.00 / EA		\$0
19	Relocate Freeway Sign (2 post)	\$1,000.00 / EA		\$0
20	Relocate Sign (1 Post)	\$300.00 / EA	3	\$900
21	Reconstruct Overhead Sign	\$50,000.00 / EA		\$0
22	Relocate Call Box	\$2,000.00 / EA		\$0
23	Relocate Power Pole	\$25,000.00 / EA	3	\$75,000
24	Relocate Catch Basin	\$9,000.00 / EA	1	\$9,000
25	Relocate Fire Hydrant	\$2,500.00 / EA	2	\$5,000
26	Relocate Bus Shelter	\$2,000.00 / EA		\$0
27	Relocate Bus Bench	\$600.00 / EA		\$0
28	Relocate Monument Sign	\$5,000.00 / EA	5	\$25,000
29	Relocate Utility Boxes	\$500.00 / EA		\$0
30	Relocate Main Water Valve	\$10,000.00 / EA		\$0
31	Relocate Utility Vault	\$3,000.00 / EA	3	\$9,000
32	Adjust Manhole to Grade	\$1,000.00 / EA	2	\$2,000
33	Adjust Water Meter	\$2,000.00 / EA	5	\$10,000
34	Adjust Water Valve	\$500.00 / EA	6	\$3,000
35	Adjust Minor Above Ground Utilities	\$500.00 / EA		\$0
36	Modify Driveway	\$5,000.00 / EA	3	\$15,000
37	Earthwork	\$40.00 / CY	502	\$20,000
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF	2,708	\$38,000
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	660	\$2,700
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF	438	\$18,000
45	Construct Concrete Barrier	\$50.00 / LF		\$0
46	Construct Median Curb	\$20.00 / LF		\$0
47	Construct Median Concrete	\$10.00 / SF		\$0
48	Construct Median/Parkway Landscaping	\$10.00 / SF		\$0
49	Construct PCC Sidewalk	\$10.00 / SF	3,508	\$35,000
50	Construct Access Ramp	\$5,000.00 / EA	1	\$5,000
51	Construct Retaining Wall	\$50.00 / SF		\$0
52	Construct Storm Drain Main	\$100.00 / LF		\$0
53	Construct RCB	\$1,000.00 / LF		\$0
54	Construct Headwall	\$5,000.00 / EA		\$0
55	Construct Concrete V-Ditch	\$15.00 / LF		\$0
56	Construct Bridge Widening	\$500.00 / SF		\$0
57	Construct Wall	\$70.00 / LF	104	\$7,000
58	Building/Structure Demolition (1-Story Bldg)	\$10.00 / SF	4,630	\$46,000
59	Traffic Control (\$5,000 min)	8%	1	\$36,000
60	Drainage Items	10%	1	\$49,000
61	SWPPP Plan and Implementation	6%	1	\$31,776
	<b>CONSTRUCTION SUBTOTAL</b>			<b>\$630,976</b>
	Right-of-Way	100 / SF	1,055	\$106,000
	Right-of-Way Management	5 / %		\$5,000
	<b>RIGHT-OF-WAY SUBTOTAL</b>			<b>\$111,000</b>
	<b>TOTAL CONSTRUCTION &amp; RIGHT-OF-WAY COST</b>			<b>\$742,000</b>
	Preliminary Project Development (10% of total Construction/RW cost)			\$75,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$112,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$75,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$149,000
	<b>TOTAL PROJECT COSTS</b>			<b>\$1,153,000</b>