

INTERSECTION 41

Crenshaw Boulevard/Torrance Boulevard Improvement(s)

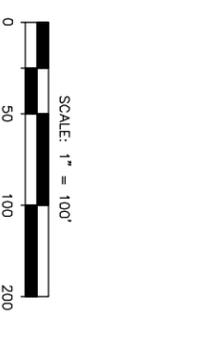
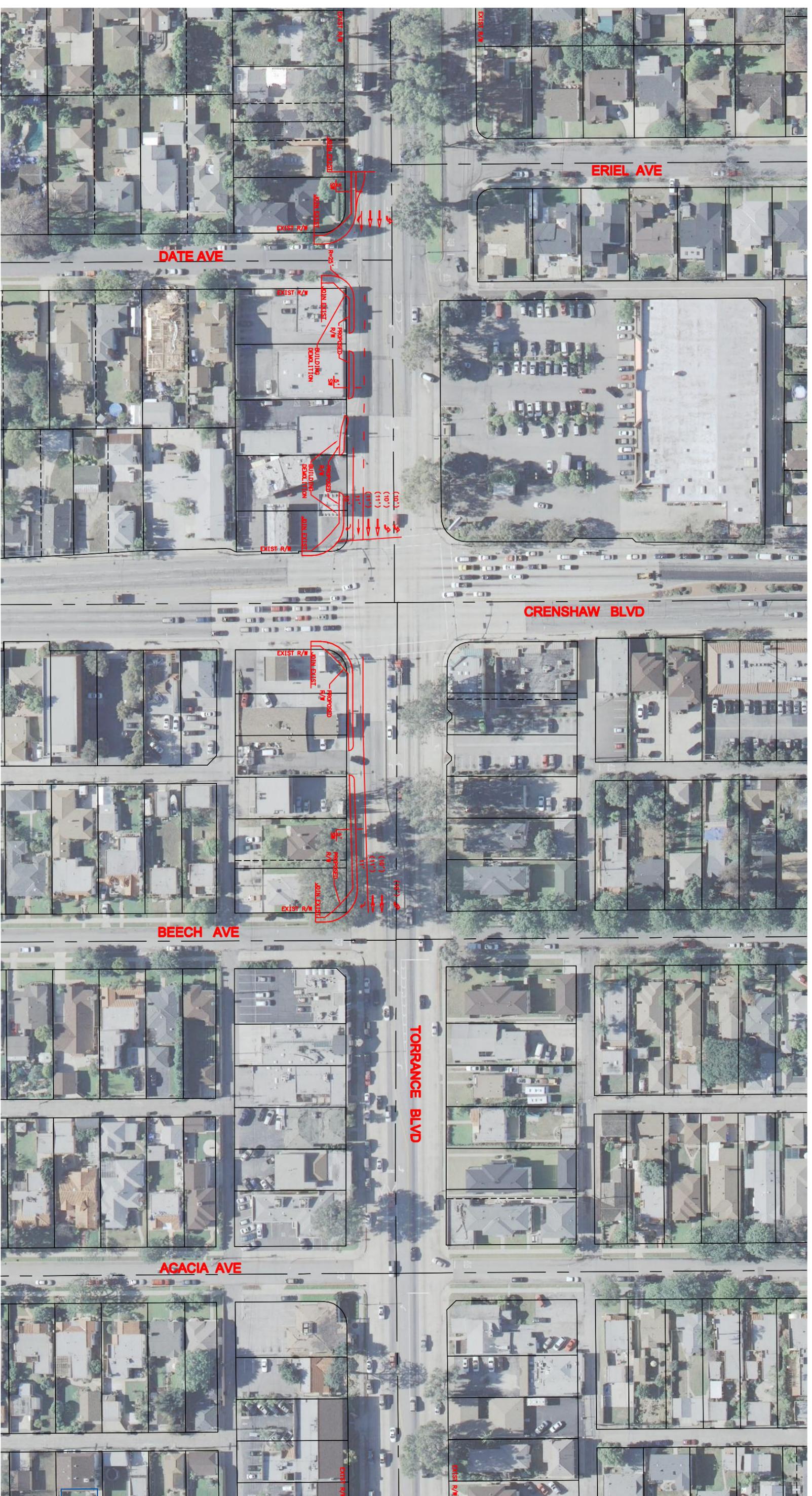
Forecast Near-Term Conditions Intersection LOS Summary

	Weekday AM Peak Hour	Weekday Mid-Day Peak Hour	Weekday PM Peak Hour	Weekend Mid-Day Peak Hour
Without Improvement(s)	39.3 – D	40.2 – D	58.0 – E	34.4 – C
With Improvement(s)	37.0 – D	36.6 – D	44.8 – D	34.0 – C

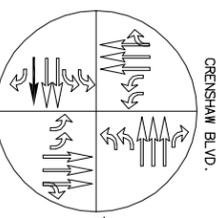
Note: Delay shown in seconds per vehicle; Deficient intersection operation shown in ***bold italics***.

Recommended Improvements:

- Widen the eastbound Torrance 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 Crenshaw Boulevard/Torrance Boulevard approach will require City acquisition of approximately 12-feet of right-of-way on the eastbound Torrance Boulevard approach and departure to provide adequate alignment of eastbound Torrance Boulevard through lanes.



MITIGATIONS:
EB - ADD THRU LANE



LEGEND:
EXISTING LANE
NEW IMPROVEMENT

INTERSECTION 41 CRENSHAW BLVD/TORRANCE BLVD CITYWIDE TRAFFIC ANALYSIS MITIGATION MEASURES		REV.	DATE	DESCRIPTION	BY	CHECKED
CITY OF TORRANCE PUBLIC WORKS DEPARTMENT						
DRAWN: D. ALVARADO DESIGNED: D. ALVARADO		APPROVED: _____ DATE _____				
PROJECT ENGINEER: _____ SCALE: AS SHOWN SHEET 1 OF 1 PLAN NO. _____		PLANNING ■ DESIGN ■ CONSTRUCTION PBF CONSULTING 14725 ALTON PARKWAY IRVINE, CALIFORNIA 92618-2027 949.472.2505 • FAX 949.837.8007 • www.pbf.com				

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

Location: Intersection 41: Crenshaw Blvd/Torrance Blvd

Date: 2/22/2008

Mitigation: Widen the eastbound Torrance 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.

Estimated by: D. Alvarado

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$51,000
2	Clear & Grub	\$10,000.00 / AC		\$0
3	Remove Striping	\$10.00 / LF	398	\$4,000
4	Remove Curb & Gutter	\$15.00 / LF	854	\$13,000
5	Remove Median Curb	\$30.00 / LF		\$0
6	Remove PCC Sidewalk	\$3.50 / SF	8,290	\$29,000
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF		\$0
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	6	\$18,000
15	Sawcut	\$1.00 / LF	957	\$1,000
16	Relocate Street Light	\$7,500.00 / EA	3	\$22,500
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.5	\$150,000
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	7	\$2,100
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		\$0
24	Relocate Catch Basin	\$9,000.00 / EA	2	\$18,000
25	Relocate Fire Hydrant	\$2,500.00 / EA	1	\$2,500
26	Relocate Bus Shelter	\$2,000.00 / EA	1	\$2,000
27	Relocate Bus Bench	\$600.00 / EA		\$0
28	Relocate Monument Sign	\$5,000.00 / EA	2	\$10,000
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	12	\$36,000
32	Adjust Manhole to Grade	\$1,000.00 / EA	3	\$3,000
33	Adjust Water Meter	\$2,000.00 / EA	3	\$6,000
34	Adjust Water Valve	\$500.00 / EA		\$0
35	Adjust Minor Above Ground Utilities	\$500.00 / EA	1	\$1,000
36	Modify Driveway	\$5,000.00 / EA	4	\$20,000
37	Earthwork	\$40.00 / CY		\$0
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF		\$0
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	398	\$2,000
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF		\$0
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		\$0
50	Construct Access Ramp	\$5,000.00 / EA	5	\$25,000
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		\$0
58	Building/Structure Demolition (1-Story Bldg)	\$10.00 / SF	280	\$3,000
59	Traffic Control (\$5,000 min)	8%	1	\$29,000
60	Drainage Items	10%	1	\$40,000
61	SWPPP Plan and Implementation	6%	1	\$26,000
	CONSTRUCTION SUBTOTAL			\$514,100
	Right-of-Way	100 / SF	2,010	\$201,000
	Right-of-Way Management	5 / %		\$10,000
	RIGHT-OF-WAY SUBTOTAL			\$211,000
	TOTAL CONSTRUCTION & RIGHT-OF-WAY COST			\$726,000
	Preliminary Project Development (10% of total Construction/RW cost)			\$73,000
	Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)			\$109,000
	Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)			\$73,000
	Contingency (20% of Total Construction/RW cost) (\$5,000 min)			\$146,000
	TOTAL PROJECT COSTS			\$1,127,000