

# INTERSECTION 163

## Western Avenue (SR-213)/Sepulveda 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>60.2 – E</b>	49.8 – D	<b>96.4 – F</b>	42.5 – D
With Improvement(s)	42.0 – D	40.3 – D	54.1 – D	36.8 – D

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

**Recommended Improvements:**

- Widen the northbound Western Avenue (SR-213) approach from one left-turn lane, two through lanes, and one shared through/right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.
- Modify the northbound Western Avenue (SR-213) traffic signal phasing to include a right-turn overlap, which will preclude U-turn movement from westbound to eastbound Sepulveda Boulevard.
- Widen the southbound Western Avenue (SR-213) approach from one left-turn lane, two through lanes, and one shared through/right-turn lane to consist of one left-turn lane, three through lanes, and one right-turn lane.
- Modify the southbound Western Avenue traffic signal phasing to include a right-turn overlap, which will preclude U-turn movement from eastbound to westbound Sepulveda Boulevard.
- Widen the eastbound Sepulveda Boulevard approach from one left-turn lane, two through lanes, and one shared through/right-turn lane to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane.
- Widen the westbound Sepulveda Boulevard approach from one left-turn lane, two through lanes, and one shared through/right-turn lane to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane.
- Implementation of the recommended improvements identified at the Western Avenue (SR-213)/Sepulveda Boulevard intersection will require City acquisition of approximately 12-feet of right-of-way on all approaches and departures to provide adequate alignment of through lanes.



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

**Location:** Intersection 163: Western Ave/Sepulveda Blvd

**Date:** 3/21/2008

**Mitigation:** Widen the northbound Western Avenue approach to consist of one left-turn lane, three through lanes, and one right-turn lane. Widen the southbound Western Avenue approach to consist of one left-turn lane, three through lanes, and one right-turn lane. Widen the eastbound Sepulveda Boulevard approach to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane. Widen the westbound Sepulveda Boulevard approach to consist of two left-turn lanes, two through lanes, and one shared through/right-turn lane.

**Estimated by:** D. Alvarado

	DESCRIPTION OF WORK	UNIT PRICE	QUANTITY	COST
1	Mobilization	10.00% (\$2,000 Min)		\$243,000
2	Clear & Grub	\$10,000.00 / AC		\$0
3	Remove Striping	\$10.00 / LF	1,544	\$15,500
4	Remove Curb & Gutter	\$15.00 / LF	1,775	\$27,000
5	Remove Median Curb	\$30.00 / LF	12,373	\$371,000
6	Remove PCC Sidewalk	\$3.50 / SF		\$0
7	Remove Pavement	\$4.00 / SF		\$0
8	Remove Wall	\$50.00 / LF	328	\$16,000
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	1,789	\$1,800
16	Relocate Street Light	\$7,500.00 / EA	13	\$97,500
17	Relocate Traffic Signal System	\$300,000.00 / EA	0.75	\$225,000
18	Signal Phase Modification	\$10,000.00 / EA	2.0	\$20,000
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	9	\$225,000
24	Relocate Catch Basin	\$9,000.00 / EA	3	\$27,000
25	Relocate Fire Hydrant	\$2,500.00 / EA	4	\$10,000
26	Relocate Bus Shelter	\$2,000.00 / EA		\$0
27	Relocate Bus Bench	\$600.00 / EA	1	\$1,000
28	Relocate Monument Sign	\$5,000.00 / EA	4	\$20,000
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	18	\$54,000
32	Adjust Manhole to Grade	\$1,000.00 / EA	7	\$7,000
33	Adjust Water Meter	\$2,000.00 / EA	5	\$10,000
34	Adjust Water Valve	\$500.00 / EA	4	\$2,000
35	Adjust Minor Above Ground Utilities	\$500.00 / EA	2	\$1,000
36	Modify Driveway	\$5,000.00 / EA	6	\$30,000
37	Earthwork	\$40.00 / CY	2,451	\$98,000
38	Construct PCC Pavement	\$15.00 / SF		\$0
39	Construct AC Pavement	\$14.00 / SF	13,231	\$185,000
40	Construct AC Overlay	\$3.00 / SF		\$0
41	Construct Slurry Seal	\$0.25 / SF		\$0
42	Construct Striping & Marking	\$4.00 / LF	1,544	\$6,200
43	Construct AC Dike	\$7.00 / LF		\$0
44	Construct Curb & Gutter	\$40.00 / LF	1,728	\$69,000
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	11,920	\$119,000
50	Construct Access Ramp	\$5,000.00 / EA	4	\$20,000
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	328	\$23,000
58	Building/Structure Demolition (1-Story Bldg)	\$10.00 / SF	4,875	\$49,000
59	Traffic Control (\$5,000 min)	8%	1	\$139,000
60	Drainage Items	10%	1	\$188,000
61	SWPPP Plan and Implementation	6%	1	\$123,084
<b>CONSTRUCTION SUBTOTAL</b>				<b>\$2,432,984</b>
	Right-of-Way	100 / SF	2,079	\$208,000
	Right-of-Way Management	5 / %		\$10,000
<b>RIGHT-OF-WAY SUBTOTAL</b>				<b>\$218,000</b>
<b>TOTAL CONSTRUCTION &amp; RIGHT-OF-WAY COST</b>				<b>\$2,651,000</b>
Preliminary Project Development (10% of total Construction/RW cost)				\$266,000
Design Engineering/Administration Costs (15% of total Construction/RW cost) (\$10,000 min)				\$398,000
Construction Engineering Costs/Administration (10% of total Construction/RW cost) (\$5,000 min)				\$266,000
Contingency (20% of Total Construction/RW cost) (\$5,000 min)				\$531,000
<b>TOTAL PROJECT COSTS</b>				<b>\$4,112,000</b>