APPENDIX E

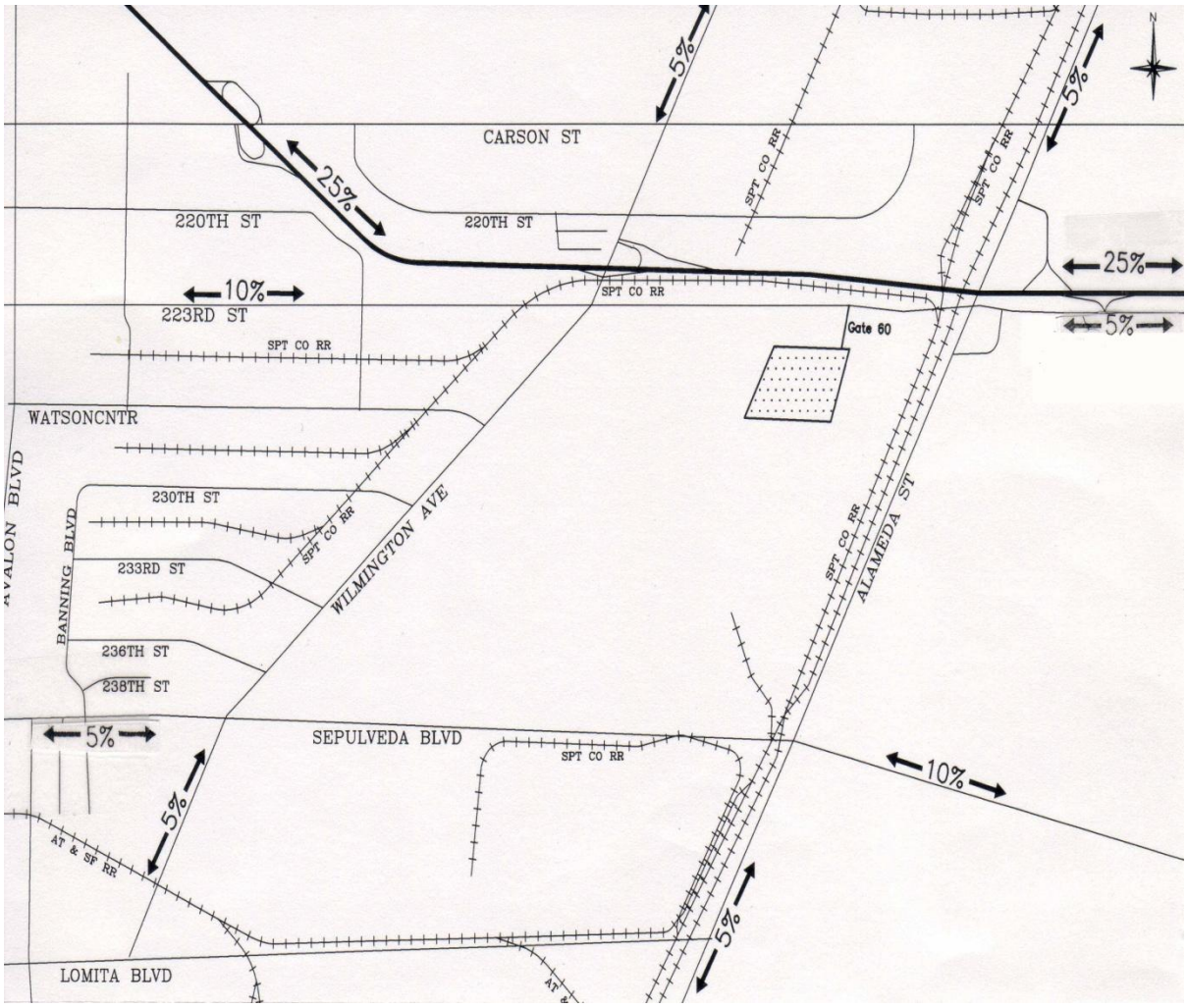
TRAFFIC ANALYSIS

BP (Carson) Construction Traffic Impact Analysis

Trip Generation Estimate

		Project's Trips During Street **AM Peak Hour** (7:15-8:15 a.m.)	Project's Trips During Street **PM Peak Hour** (4:30-5:30 p.m.)
A. Number of Construction Workers: 850			
Shift #1 (6 a.m. to 4:30 p.m.), 650 workers		0	650 trips exiting
Shift #2 (6 p.m. to 4:30 a.m.), 200 workers		0	0
B. Number of trucks per day: 71			
71/10 hours = 7.1 trucks/hr.			
Assuming passenger car equivalence (pce) = 3 7.1 x 3 = 21.3 pce/hr.		21 trips entering 21 trips exiting	21 trips entering 21 trips exiting
A+B:	**entering:**	21 trips entering	21 trips entering
	Exiting:	**21 trips** exiting	671 trips exiting

Trip Distribution Assumptions



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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Ambient Traffic Growth: 0.25 % per year

	Year 2005		Forecast **Year 2008**			Plus Proposed Project			
	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	+V/C
Wilmington and I-405 NWB ramps	B	14.8	0.698	C	15.3	0.703	C	16.3	0.713	+0.010
Wilmington and I-405 SEB ramps	B	5.6	0.606	B	5.9	0.609	B	12.2	0.672	+0.063
Wilmington and 223rd St	D	30.3	0.835	D	31.1	0.841	D	38.1	0.887	+0.047
Wilmington and Watson Center	B	11.4	0.664	B	11.8	0.668	B	13.9	0.689	+0.021
Wilmington and Sepulveda	D	39.4	0.896	E	40.4	0.902	E	40.4	0.902	+0.000
Alameda and I-405 NWB ramps	A	5.0	0.535	A	5.0	0.538	A	5.0	0.552	+0.014
Alameda and 223rd St(Wardlow)Access	A	5.0	0.406	A	5.0	0.409	A	5.0	0.476	+0.067
Alameda and Sepulveda	D	31.1	0.841	D	31.9	0.846	D	38.3	0.888	+0.042
I-405 SB on-ramp/I-405 SB off-ramp and 223rd(Wardlow)	A	5.0	0.507	A	5.0	0.510	A	5.0	0.564	+0.054
Wardlow Access and 223rd St	D	30.9	0.840	D	31.8	0.845	E	42.2	0.911	+0.066
Gate 16 and 223rd St	C	19.6	0.746	C	20.1	0.751	C	20.4	0.754	+0.003
Gate 60 and 223rd St	B	9.7	0.647	B	10.1	0.651	D	35.0	0.867	+0.216

Notes:
v/c = volume to capacity ratio
delay = average stopped delay in seconds per vehicle
LOS = Level of Service

LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Ambient Traffic Growth: 0.25 % per year

	Year 2005		Forecast **Year 2020**			Plus Proposed Project			
	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	+V/C
Wilmington and I-405 NWB ramps	B	14.8	0.698	C	17.0	0.720	C	18.1	0.731	+0.010
Wilmington and I-405 SEB ramps	B	5.6	0.606	B	7.4	0.624	B	13.7	0.687	+0.063
Wilmington and 223rd St	D	30.3	0.835	D	34.4	0.863	E	41.9	0.909	+0.047
Wilmington and Watson Center	B	11.4	0.664	B	13.5	0.685	C	15.6	0.706	+0.021
Wilmington and Sepulveda	D	39.4	0.896	E	45.2	0.926	E	45.2	0.926	+0.000
Alameda and I-405 NWB ramps	A	5.0	0.535	A	5.0	0.551	A	5.0	0.565	+0.014
Alameda and 223rd St(Wardlow)Access	A	5.0	0.406	A	5.0	0.418	A	5.0	0.485	+0.067
Alameda and Sepulveda	D	31.1	0.841	D	35.3	0.868	E	42.1	0.911	+0.042
I-405 SB on-ramp/I-405 SB off-ramp and 223rd(Wardlow)	A	5.0	0.507	A	5.0	0.523	A	5.0	0.577	+0.054
Wardlow Access and 223rd St	D	30.9	0.840	D	35.1	0.867	E	46.7	0.933	+0.066
Gate 16 and 223rd St	C	19.6	0.746	C	22.0	0.770	C	22.4	0.774	+0.003
Gate 60 and 223rd St	B	9.7	0.647	B	11.7	0.667	D	37.5	0.883	+0.216

Notes:
- v/c = volume to capacity ratio
- delay = average stopped delay in seconds per vehicle
- LOS = Level of Service

Intersection
Level of Service (LOS)
Calculations

Wilmington and I-405 NWB ramps

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	34	0	0	0	0	0	0	0	0	0	0	0	34
NR	168	0	0	0	0	0	0	0	0	0	0	0	168
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	34	0	0	0	0	0	0	0	0	0	0	0	34
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	235	0	0	0	0	0	0	0	0	0	0	0	235

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	468	0.146	472	0.147	505	0.158	505	0.158
	RIGHT	1.00	1600	98	0.061	99	0.062	266	0.167	266	0.167
SB	LEFT	1.00	1600	119	0.074	120	0.075	120	0.075	120	0.075
	THRU	3.00	4800	982	0.205	989	0.206	1023	0.213	1023	0.213
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB	LEFT	1.30	2056	776	0.377	782	0.380	782	0.380	782	0.380
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.70	1120	435	0.388	438	0.391	438	0.391	438	0.391
Intersection Volume				2878		2900		3134		3134	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.698		0.703		0.713		0.713	
Stopped Delay (sec/veh)				14.8		15.3		16.3		16.3	
LEVEL OF SERVICE (LOS)				B		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and I-405 SEB ramps

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	201	0	0	0	0	0	0	0	0	0	0	0	201
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	5	0	0	0	0	0	0	0	0	0	0	0	5
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	208	0	0	0	0	0	0	0	0	0	0	0	208

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	627	0.196	632	0.197	833	0.260	833	0.260
	RIGHT	1.00	1600	543	0.339	547	0.342	547	0.342	547	0.342
SB	LEFT	1.10	1752	492	0.281	496	0.283	496	0.283	496	0.283
	THRU	2.90	4640	1371	0.295	1381	0.298	1382	0.298	1382	0.298
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	1.00	1600	46	0.029	46	0.029	46	0.029	46	0.029
	THRU	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
	RIGHT	1.00	1600	115	0.072	116	0.072	121	0.076	121	0.076
WB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				3195		3219		3427		3427	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.606		0.609		0.672		0.672	
Stopped Delay (sec/veh)				5.6		5.9		12.2		12.2	
LEVEL OF SERVICE (LOS)				B		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and 223rd St

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	2	0	0	0	0	0	0	0	0	0	0	0	2
SL	6	0	0	0	0	0	0	0	0	0	0	0	6
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	2	0	0	0	0	0	0	0	0	0	0	0	2
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	67	0	0	0	0	0	0	0	0	0	0	0	67
WT	67	0	0	0	0	0	0	0	0	0	0	0	67
WR	201	0	0	0	0	0	0	0	0	0	0	0	201
Sum	346	0	0	0	0	0	0	0	0	0	0	0	346

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	21	0.013	21	0.013	21	0.013	21	0.013
	THRU	2.00	3200	999	0.312	1006	0.315	1006	0.315	1006	0.315
	RIGHT	1.00	1600	564	0.352	568	0.355	570	0.356	570	0.356
SB	LEFT	1.00	1600	113	0.071	114	0.071	120	0.075	120	0.075
	THRU	2.00	3200	945	0.295	952	0.298	952	0.298	952	0.298
	RIGHT	1.00	1600	330	0.206	332	0.208	332	0.208	332	0.208
EB	LEFT	1.00	1600	279	0.174	281	0.176	281	0.176	281	0.176
	THRU	2.00	3200	740	0.231	746	0.233	748	0.234	748	0.234
	RIGHT	1.00	1600	18	0.011	18	0.011	18	0.011	18	0.011
WB	LEFT	1.00	1600	194	0.121	195	0.122	263	0.164	263	0.164
	THRU	2.00	3200	385	0.120	388	0.121	455	0.142	455	0.142
	RIGHT	1.00	1600	193	0.121	194	0.122	396	0.247	396	0.247
Intersection Volume				4781		4817		5163		5163	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.835		0.841		0.887		0.887	
Stopped Delay (sec/veh)				30.3		31.1		38.1		38.1	
LEVEL OF SERVICE (LOS)				D		D		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and Watson Center

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	67	0	0	0	0	0	0	0	0	0	0	0	67
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	69	0	0	0	0	0	0	0	0	0	0	0	69

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	235	0.147	237	0.148	237	0.148	237	0.148
	THRU	2.00	3200	1307	0.410	1317	0.413	1319	0.414	1319	0.414
	RIGHT	0.00	0	5	0.000	5	0.000	5	0.000	5	0.000
SB	LEFT	1.00	1600	24	0.015	24	0.015	24	0.015	24	0.015
	THRU	2.00	3200	1008	0.357	1016	0.360	1083	0.381	1083	0.381
	RIGHT	0.00	0	134	0.000	135	0.000	135	0.000	135	0.000
EB	LEFT	0.00	0	93	0.000	94	0.000	94	0.000	94	0.000
	THRU	1.00	1600	3	0.060	3	0.060	3	0.060	3	0.060
	RIGHT	1.00	1600	43	0.027	43	0.027	43	0.027	43	0.027
WB	LEFT	0.00	0	9	0.000	9	0.000	9	0.000	9	0.000
	THRU	1.00	1600	8	0.029	8	0.030	8	0.030	8	0.030
	RIGHT	0.00	0	30	0.000	30	0.000	30	0.000	30	0.000
Intersection Volume				2899		2921		2990		2990	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.664		0.668		0.689		0.689	
Stopped Delay (sec/veh)				11.4		11.8		13.9		13.9	
LEVEL OF SERVICE (LOS)				B		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and Sepulveda

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	34	0	0	0	0	0	0	0	0	0	0	0	34
SR	34	0	0	0	0	0	0	0	0	0	0	0	34
EL	1	0	0	0	0	0	0	0	0	0	0	0	1
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	69	0	0	0	0	0	0	0	0	0	0	0	69

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement	Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB LEFT	1.00	1600	28	0.018	28	0.018	28	0.018	28	0.018
THRU	2.00	3200	337	0.166	340	0.167	341	0.167	341	0.167
RIGHT	0.00	0	193	0.000	194	0.000	194	0.000	194	0.000
SB LEFT	1.00	1600	534	0.334	538	0.336	538	0.336	538	0.336
THRU	2.00	3200	439	0.201	442	0.202	476	0.223	476	0.223
RIGHT	0.00	0	203	0.000	205	0.000	238	0.000	238	0.000
EB LEFT	1.00	1600	221	0.138	223	0.139	224	0.140	224	0.140
THRU	2.00	3200	425	0.140	428	0.141	428	0.141	428	0.141
RIGHT	0.00	0	22	0.000	22	0.000	22	0.000	22	0.000
WB LEFT	1.00	1600	251	0.157	253	0.158	253	0.158	253	0.158
THRU	2.00	3200	454	0.142	457	0.143	457	0.143	457	0.143
RIGHT	1.00	1600	302	0.189	304	0.190	304	0.190	304	0.190
Intersection Volume			3409		3435		3504		3504	
Signal Phasing Loss Factor			0.10		0.10		0.10		0.10	
Intersection V/C Ratio			0.896		0.902		0.902		0.902	
Stopped Delay (sec/veh)			39.4		40.4		40.4		40.4	
LEVEL OF SERVICE (LOS)			D		E		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Alameda and I-405 NWB ramps

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	34	0	0	0	0	0	0	0	0	0	0	0	34
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	5	0	0	0	0	0	0	0	0	0	0	0	5
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	40	0	0	0	0	0	0	0	0	0	0	0	40

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement	Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	600	0.188	605	0.189	638	0.199	638	0.199
RIGHT	1.00	1600	191	0.119	192	0.120	192	0.120	192	0.120
SB LEFT	1.00	1600	105	0.066	106	0.066	106	0.066	106	0.066
THRU	2.00	3200	427	0.133	430	0.134	431	0.135	431	0.135
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	291	0.182	293	0.183	298	0.187	298	0.187
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	121	0.076	122	0.076	122	0.076	122	0.076
Intersection Volume			1735		1748		1788		1788	
Signal Phasing Loss Factor			0.10		0.10		0.10		0.10	
Intersection V/C Ratio			0.535		0.538		0.552		0.552	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Alameda and 223rd St(Wardlow)Access

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	3	0	0	0	0	0	0	0	0	0	0	0	3
SL	6	0	0	0	0	0	0	0	0	0	0	0	6
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	101	0	0	0	0	0	0	0	0	0	0	0	101
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	34	0	0	0	0	0	0	0	0	0	0	0	34
Sum	144	0	0	0	0	0	0	0	0	0	0	0	144

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	3.00	4800	519	0.208	523	0.210	523	0.210	523	0.210
	RIGHT	0.00	0	480	0.000	484	0.000	487	0.000	487	0.000
SB	LEFT	1.00	1600	107	0.067	108	0.067	114	0.071	114	0.071
	THRU	3.00	4800	419	0.087	422	0.088	422	0.088	422	0.088
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB	LEFT	1.00	1600	50	0.031	50	0.031	151	0.094	151	0.094
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.00	1600	93	0.058	94	0.059	127	0.080	127	0.080
Intersection Volume				1668		1681		1824		1824	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.406		0.409		0.476		0.476	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Alameda and Sepulveda

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	67	0	0	0	0	0	0	0	0	0	0	0	67
ST	34	0	0	0	0	0	0	0	0	0	0	0	34
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	2	0	0	0	0	0	0	0	0	0	0	0	2
Sum	104	0	0	0	0	0	0	0	0	0	0	0	104

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	13	0.008	13	0.008	13	0.008	13	0.008
	THRU	2.00	3200	438	0.166	441	0.167	442	0.168	442	0.168
	RIGHT	0.00	0	94	0.000	95	0.000	95	0.000	95	0.000
SB	LEFT	1.00	1600	75	0.047	76	0.047	143	0.089	143	0.089
	THRU	2.00	3200	387	0.121	390	0.122	423	0.132	423	0.132
	RIGHT	1.00	1600	303	0.189	305	0.191	305	0.191	305	0.191
EB	LEFT	0.00	0	181	0.000	182	0.000	182	0.000	182	0.000
	THRU	1.00	1600	573	0.491	577	0.494	577	0.494	577	0.494
	RIGHT	0.00	0	31	0.000	31	0.000	31	0.000	31	0.000
WB	LEFT	1.00	1600	59	0.037	59	0.037	59	0.037	59	0.037
	THRU	1.00	1600	304	0.283	306	0.285	306	0.287	306	0.287
	RIGHT	0.00	0	149	0.000	150	0.000	152	0.000	152	0.000
Intersection Volume				2607		2627		2730		2730	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.841		0.846		0.888		0.888	
Stopped Delay (sec/veh)				31.1		31.9		38.3		38.3	
LEVEL OF SERVICE (LOS)				D		D		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB on-ramp/I-405 SB off-ramp and 223rd(Wardlow)

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	168	0	0	0	0	0	0	0	0	0	0	0	168
ET	34	0	0	0	0	0	0	0	0	0	0	0	34
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	1	0	0	0	0	0	0	0	0	0	0	0	1
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	202	0	0	0	0	0	0	0	0	0	0	0	202

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	1.00	1600	0	0.004	0	0.004	0	0.004	0	0.004
	RIGHT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
SB	LEFT	1.00	1600	188	0.117	189	0.118	189	0.118	189	0.118
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.00	1600	55	0.034	55	0.035	55	0.035	55	0.035
EB	LEFT	2.00	3120	440	0.141	443	0.142	611	0.196	611	0.196
	THRU	2.00	3200	339	0.106	342	0.107	375	0.117	375	0.117
	RIGHT	1.00	1600	6	0.004	6	0.004	6	0.004	6	0.004
WB	LEFT	1.00	1600	2	0.001	2	0.001	2	0.001	2	0.001
	THRU	3.00	4800	432	0.145	435	0.146	436	0.146	436	0.146
	RIGHT	0.00	0	264	0.000	266	0.000	266	0.000	266	0.000
Intersection Volume				1732		1745		1947		1947	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.507		0.510		0.564		0.564	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wardlow Access and 223rd St

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	9	0	0	0	0	0	0	0	0	0	0	0	9
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	201	0	0	0	0	0	0	0	0	0	0	0	201
ER	134	0	0	0	0	0	0	0	0	0	0	0	134
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	345	0	0	0	0	0	0	0	0	0	0	0	345

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	118	0.000	119	0.000	128	0.000	128	0.000
	THRU	2.00	3200	0	0.166	0	0.167	0	0.170	0	0.170
	RIGHT	0.00	0	413	0.000	416	0.000	416	0.000	416	0.000
SB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	1760	0.550	1773	0.554	1975	0.617	1975	0.617
	RIGHT	1.00	1600	73	0.046	74	0.046	208	0.130	208	0.130
WB	LEFT	2.00	3120	74	0.024	75	0.024	75	0.024	75	0.024
	THRU	3.00	4800	409	0.085	412	0.086	412	0.086	412	0.086
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				2847		2868		3213		3213	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.840		0.845		0.911		0.911	
Stopped Delay (sec/veh)				30.9		31.8		42.2		42.2	
LEVEL OF SERVICE (LOS)				D		D		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Gate 16 and 223rd St

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	11	0	0	0	0	0	0	0	0	0	0	0	11
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	336	0	0	0	0	0	0	0	0	0	0	0	336
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	346	0	0	0	0	0	0	0	0	0	0	0	346

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	66	0.000	66	0.000	66	0.000	66	0.000
	THRU	1.00	1600	0	0.102	0	0.103	0	0.103	0	0.103
	RIGHT	0.00	0	98	0.000	99	0.000	99	0.000	99	0.000
SB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	1735	0.544	1748	0.548	1759	0.551	1759	0.551
	RIGHT	0.00	0	5	0.000	5	0.000	5	0.000	5	0.000
WB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	539	0.168	543	0.170	879	0.275	879	0.275
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				2443		2461		2807		2807	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.746		0.751		0.754		0.754	
Stopped Delay (sec/veh)				19.6		20.1		20.4		20.4	
LEVEL OF SERVICE (LOS)				C		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Gate 60 and 223rd St

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	336	0	0	0	0	0	0	0	0	0	0	0	336
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	336	0	0	0	0	0	0	0	0	0	0	0	336
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	11	0	0	0	0	0	0	0	0	0	0	0	11
WL	11	0	0	0	0	0	0	0	0	0	0	0	11
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	692	0	0	0	0	0	0	0	0	0	0	0	692

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2008 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	117	0.073	118	0.074	453	0.283	453	0.283
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.00	1600	298	0.186	300	0.188	636	0.397	636	0.397
SB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	1461	0.457	1472	0.460	1472	0.460	1472	0.460
	RIGHT	1.00	1600	10	0.006	10	0.006	21	0.013	21	0.013
WB	LEFT	1.00	1600	27	0.017	27	0.017	38	0.024	38	0.024
	THRU	3.00	4800	470	0.098	474	0.099	474	0.099	474	0.099
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				2383		2401		3093		3093	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.647		0.651		0.867		0.867	
Stopped Delay (sec/veh)				9.7		10.1		35.0		35.0	
LEVEL OF SERVICE (LOS)				B		B		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

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TRIPS GENERATED BY PROJECTS

PROJECT (or Project Group)	A.M. PEAK HOUR enter	A.M. PEAK HOUR exit	P.M. PEAK HOUR enter	P.M. PEAK HOUR exit
1 BP construction	21	21	21	671

LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Geometrics: Existing Geometrics
Ambient Traffic Growth: 0.25 % per year

	Year 2005		Forecast Year 2008			Plus Proposed Project		
	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	+ V/C
Wilmington and I-405 NWB ramps	B	14.8	0.698	C	15.3	0.703	C	16.3	0.713	+0.010
Wilmington and I-405 SEB ramps	B	5.6	0.606	B	5.9	0.609	B	12.2	0.672	+0.063
Wilmington and 223rd St	D	30.3	0.835	D	31.1	0.841	D	38.1	0.887	+0.047
Wilmington and Watson Center	B	11.4	0.664	B	11.8	0.668	B	13.9	0.689	+0.021
Wilmington and Sepulveda	D	39.4	0.896	E	40.4	0.902	E	40.4	0.902	+0.000
Alameda and I-405 NWB ramps	A	5.0	0.535	A	5.0	0.538	A	5.0	0.552	+0.014
Alameda and 223rd St(Wardlow)Access	A	5.0	0.406	A	5.0	0.409	A	5.0	0.476	+0.067
Alameda and Sepulveda	D	31.1	0.841	D	31.9	0.846	D	38.3	0.888	+0.042
I-405 SB on-ramp/I-405 SB off-ramp and 223rd(Wardlow)	A	5.0	0.507	A	5.0	0.510	A	5.0	0.564	+0.054
Wardlow Access and 223rd St	D	30.9	0.840	D	31.8	0.845	E	42.2	0.911	+0.066
Gate 16 and 223rd St	C	19.6	0.746	C	20.1	0.751	C	20.4	0.754	+0.003
Gate 60 and 223rd St	B	9.7	0.647	B	10.1	0.651	D	35.0	0.867	+0.216

Notes:
v/c = volume to capacity ratio (capacity utilization ratio)
delay = average stopped delay in seconds per vehicle
LOS = Level of Service

Wilmington and I-405 NWB ramps

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	34	0	0	0	0	0	0	0	0	0	0	0	34
NR	168	0	0	0	0	0	0	0	0	0	0	0	168
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	34	0	0	0	0	0	0	0	0	0	0	0	34
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	235	0	0	0	0	0	0	0	0	0	0	0	235

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement	Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	468	0.146	486	0.152	519	0.162	519	0.162
RIGHT	1.00	1600	98	0.061	102	0.064	269	0.168	269	0.168
SB LEFT	1.00	1600	119	0.074	123	0.077	123	0.077	123	0.077
THRU	3.00	4800	982	0.205	1019	0.212	1052	0.219	1052	0.219
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.30	2056	776	0.377	805	0.392	805	0.392	805	0.392
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.70	1120	435	0.388	451	0.403	451	0.403	451	0.403
Intersection Volume			2878		2986		3221		3221	
Signal Phasing Loss Factor			0.10		0.10		0.10		0.10	
Intersection V/C Ratio			0.698		0.720		0.731		0.731	
Stopped Delay (sec/veh)			14.8		17.0		18.1		18.1	
LEVEL OF SERVICE (LOS)			B		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and I-405 SEB ramps

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	201	0	0	0	0	0	0	0	0	0	0	0	201
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	5	0	0	0	0	0	0	0	0	0	0	0	5
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	208	0	0	0	0	0	0	0	0	0	0	0	208

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	627	0.196	651	0.203	852	0.266	852	0.266
	RIGHT	1.00	1600	543	0.339	563	0.352	563	0.352	563	0.352
SB	LEFT	1.10	1752	492	0.281	510	0.291	510	0.291	510	0.291
	THRU	2.90	4640	1371	0.295	1422	0.307	1423	0.307	1423	0.307
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	1.00	1600	46	0.029	48	0.030	48	0.030	48	0.030
	THRU	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
	RIGHT	1.00	1600	115	0.072	119	0.075	125	0.078	125	0.078
WB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				3195		3315		3522		3522	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.606		0.624		0.687		0.687	
Stopped Delay (sec/veh)				5.6		7.4		13.7		13.7	
LEVEL OF SERVICE (LOS)				B		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and 223rd St

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	2	0	0	0	0	0	0	0	0	0	0	0	2
SL	6	0	0	0	0	0	0	0	0	0	0	0	6
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	2	0	0	0	0	0	0	0	0	0	0	0	2
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	67	0	0	0	0	0	0	0	0	0	0	0	67
WT	67	0	0	0	0	0	0	0	0	0	0	0	67
WR	201	0	0	0	0	0	0	0	0	0	0	0	201
Sum	346	0	0	0	0	0	0	0	0	0	0	0	346

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	21	0.013	22	0.014	22	0.014	22	0.014
	THRU	2.00	3200	999	0.312	1036	0.324	1036	0.324	1036	0.324
	RIGHT	1.00	1600	564	0.352	585	0.366	587	0.367	587	0.367
SB	LEFT	1.00	1600	113	0.071	117	0.073	124	0.077	124	0.077
	THRU	2.00	3200	945	0.295	980	0.306	980	0.306	980	0.306
	RIGHT	1.00	1600	330	0.206	342	0.214	342	0.214	342	0.214
EB	LEFT	1.00	1600	279	0.174	289	0.181	289	0.181	289	0.181
	THRU	2.00	3200	740	0.231	768	0.240	770	0.241	770	0.241
	RIGHT	1.00	1600	18	0.011	19	0.012	19	0.012	19	0.012
WB	LEFT	1.00	1600	194	0.121	201	0.126	268	0.168	268	0.168
	THRU	2.00	3200	385	0.120	399	0.125	467	0.146	467	0.146
	RIGHT	1.00	1600	193	0.121	200	0.125	402	0.251	402	0.251
Intersection Volume				4781		4960		5306		5306	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.835		0.863		0.909		0.909	
Stopped Delay (sec/veh)				30.3		34.4		41.9		41.9	
LEVEL OF SERVICE (LOS)				D		D		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and Watson Center

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	67	0	0	0	0	0	0	0	0	0	0	0	67
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	69	0	0	0	0	0	0	0	0	0	0	0	69

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	235	0.147	244	0.152	244	0.152	244	0.152
	THRU	2.00	3200	1307	0.410	1356	0.425	1358	0.426	1358	0.426
	RIGHT	0.00	0	5	0.000	5	0.000	5	0.000	5	0.000
SB	LEFT	1.00	1600	24	0.015	25	0.016	25	0.016	25	0.016
	THRU	2.00	3200	1008	0.357	1046	0.370	1113	0.391	1113	0.391
	RIGHT	0.00	0	134	0.000	139	0.000	139	0.000	139	0.000
EB	LEFT	0.00	0	93	0.000	96	0.000	96	0.000	96	0.000
	THRU	1.00	1600	3	0.060	3	0.062	3	0.062	3	0.062
	RIGHT	1.00	1600	43	0.027	45	0.028	45	0.028	45	0.028
WB	LEFT	0.00	0	9	0.000	9	0.000	9	0.000	9	0.000
	THRU	1.00	1600	8	0.029	8	0.030	8	0.030	8	0.030
	RIGHT	0.00	0	30	0.000	31	0.000	31	0.000	31	0.000
Intersection Volume				2899		3008		3077		3077	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.664		0.685		0.706		0.706	
Stopped Delay (sec/veh)				11.4		13.5		15.6		15.6	
LEVEL OF SERVICE (LOS)				B		B		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wilmington and Sepulveda

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	34	0	0	0	0	0	0	0	0	0	0	0	34
SR	34	0	0	0	0	0	0	0	0	0	0	0	34
EL	1	0	0	0	0	0	0	0	0	0	0	0	1
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	69	0	0	0	0	0	0	0	0	0	0	0	69

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement	Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB LEFT	1.00	1600	28	0.018	29	0.018	29	0.018	29	0.018
THRU	2.00	3200	337	0.166	350	0.172	351	0.172	351	0.172
RIGHT	0.00	0	193	0.000	200	0.000	200	0.000	200	0.000
SB LEFT	1.00	1600	534	0.334	554	0.346	554	0.346	554	0.346
THRU	2.00	3200	439	0.201	455	0.208	489	0.229	489	0.229
RIGHT	0.00	0	203	0.000	211	0.000	244	0.000	244	0.000
EB LEFT	1.00	1600	221	0.138	229	0.143	230	0.144	230	0.144
THRU	2.00	3200	425	0.140	441	0.145	441	0.145	441	0.145
RIGHT	0.00	0	22	0.000	23	0.000	23	0.000	23	0.000
WB LEFT	1.00	1600	251	0.157	260	0.163	260	0.163	260	0.163
THRU	2.00	3200	454	0.142	471	0.147	471	0.147	471	0.147
RIGHT	1.00	1600	302	0.189	313	0.196	313	0.196	313	0.196
Intersection Volume			3409		3537		3606		3606	
Signal Phasing Loss Factor			0.10		0.10		0.10		0.10	
Intersection V/C Ratio			0.896		0.926		0.926		0.926	
Stopped Delay (sec/veh)			39.4		45.2		45.2		45.2	
LEVEL OF SERVICE (LOS)			D		E		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Alameda and I-405 NWB ramps

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	34	0	0	0	0	0	0	0	0	0	0	0	34
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	5	0	0	0	0	0	0	0	0	0	0	0	5
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	40	0	0	0	0	0	0	0	0	0	0	0	40

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement	Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	2.00	3200	600	0.188	623	0.195	656	0.205	656	0.205
RIGHT	1.00	1600	191	0.119	198	0.124	198	0.124	198	0.124
SB LEFT	1.00	1600	105	0.066	109	0.068	109	0.068	109	0.068
THRU	2.00	3200	427	0.133	443	0.138	444	0.139	444	0.139
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB LEFT	1.00	1600	291	0.182	302	0.189	307	0.192	307	0.192
THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
RIGHT	1.00	1600	121	0.076	126	0.078	126	0.078	126	0.078
Intersection Volume			1735		1800		1840		1840	
Signal Phasing Loss Factor			0.10		0.10		0.10		0.10	
Intersection V/C Ratio			0.535		0.551		0.565		0.565	
Stopped Delay (sec/veh)			5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)			A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Alameda and 223rd St(Wardlow)Access

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	3	0	0	0	0	0	0	0	0	0	0	0	3
SL	6	0	0	0	0	0	0	0	0	0	0	0	6
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	101	0	0	0	0	0	0	0	0	0	0	0	101
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	34	0	0	0	0	0	0	0	0	0	0	0	34
Sum	144	0	0	0	0	0	0	0	0	0	0	0	144

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	3.00	4800	519	0.208	538	0.216	538	0.217	538	0.217
	RIGHT	0.00	0	480	0.000	498	0.000	501	0.000	501	0.000
SB	LEFT	1.00	1600	107	0.067	111	0.069	117	0.073	117	0.073
	THRU	3.00	4800	419	0.087	435	0.091	435	0.091	435	0.091
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB	LEFT	1.00	1600	50	0.031	52	0.032	153	0.095	153	0.095
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.00	1600	93	0.058	96	0.060	130	0.081	130	0.081
Intersection Volume				1668		1731		1874		1874	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.406		0.418		0.485		0.485	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Alameda and Sepulveda

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	67	0	0	0	0	0	0	0	0	0	0	0	67
ST	34	0	0	0	0	0	0	0	0	0	0	0	34
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	2	0	0	0	0	0	0	0	0	0	0	0	2
Sum	104	0	0	0	0	0	0	0	0	0	0	0	104

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	13	0.008	13	0.008	13	0.008	13	0.008
	THRU	2.00	3200	438	0.166	454	0.172	455	0.173	455	0.173
	RIGHT	0.00	0	94	0.000	98	0.000	98	0.000	98	0.000
SB	LEFT	1.00	1600	75	0.047	78	0.049	145	0.091	145	0.091
	THRU	2.00	3200	387	0.121	402	0.125	435	0.136	435	0.136
	RIGHT	1.00	1600	303	0.189	314	0.196	314	0.196	314	0.196
EB	LEFT	0.00	0	181	0.000	188	0.000	188	0.000	188	0.000
	THRU	1.00	1600	573	0.491	594	0.509	594	0.509	594	0.509
	RIGHT	0.00	0	31	0.000	32	0.000	32	0.000	32	0.000
WB	LEFT	1.00	1600	59	0.037	61	0.038	61	0.038	61	0.038
	THRU	1.00	1600	304	0.283	315	0.294	315	0.295	315	0.295
	RIGHT	0.00	0	149	0.000	155	0.000	157	0.000	157	0.000
Intersection Volume				2607		2705		2809		2809	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.841		0.868		0.911		0.911	
Stopped Delay (sec/veh)				31.1		35.3		42.1		42.1	
LEVEL OF SERVICE (LOS)				D		D		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-405 SB on-ramp/I-405 SB off-ramp and 223rd(Wardlow)

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	168	0	0	0	0	0	0	0	0	0	0	0	168
ET	34	0	0	0	0	0	0	0	0	0	0	0	34
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	1	0	0	0	0	0	0	0	0	0	0	0	1
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	202	0	0	0	0	0	0	0	0	0	0	0	202

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	1.00	1600	0	0.004	0	0.004	0	0.004	0	0.004
	RIGHT	0.00	0	6	0.000	6	0.000	6	0.000	6	0.000
SB	LEFT	1.00	1600	188	0.117	195	0.122	195	0.122	195	0.122
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.00	1600	55	0.034	57	0.036	57	0.036	57	0.036
EB	LEFT	2.00	3120	440	0.141	457	0.146	624	0.200	624	0.200
	THRU	2.00	3200	339	0.106	352	0.110	385	0.120	385	0.120
	RIGHT	1.00	1600	6	0.004	6	0.004	6	0.004	6	0.004
WB	LEFT	1.00	1600	2	0.001	2	0.001	2	0.001	2	0.001
	THRU	3.00	4800	432	0.145	448	0.150	449	0.151	449	0.151
	RIGHT	0.00	0	264	0.000	274	0.000	274	0.000	274	0.000
Intersection Volume				1732		1797		1999		1999	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.507		0.523		0.577		0.577	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Wardlow Access and 223rd St

File: C:BP3_PM.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	9	0	0	0	0	0	0	0	0	0	0	0	9
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	201	0	0	0	0	0	0	0	0	0	0	0	201
ER	134	0	0	0	0	0	0	0	0	0	0	0	134
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	345	0	0	0	0	0	0	0	0	0	0	0	345

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	118	0.000	122	0.000	132	0.000	132	0.000
	THRU	2.00	3200	0	0.166	0	0.172	0	0.175	0	0.175
	RIGHT	0.00	0	413	0.000	428	0.000	428	0.000	428	0.000
SB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	1760	0.550	1826	0.571	2027	0.634	2027	0.634
	RIGHT	1.00	1600	73	0.046	76	0.047	210	0.131	210	0.131
WB	LEFT	2.00	3120	74	0.024	77	0.025	77	0.025	77	0.025
	THRU	3.00	4800	409	0.085	424	0.088	424	0.088	424	0.088
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				2847		2954		3299		3299	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.840		0.867		0.933		0.933	
Stopped Delay (sec/veh)				30.9		35.1		46.7		46.7	
LEVEL OF SERVICE (LOS)				D		D		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Gate 16 and 223rd St

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	11	0	0	0	0	0	0	0	0	0	0	0	11
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	336	0	0	0	0	0	0	0	0	0	0	0	336
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	346	0	0	0	0	0	0	0	0	0	0	0	346

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	0.00	0	66	0.000	68	0.000	68	0.000	68	0.000
	THRU	1.00	1600	0	0.102	0	0.106	0	0.106	0	0.106
	RIGHT	0.00	0	98	0.000	102	0.000	102	0.000	102	0.000
SB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	1735	0.544	1800	0.564	1811	0.567	1811	0.567
	RIGHT	0.00	0	5	0.000	5	0.000	5	0.000	5	0.000
WB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	539	0.168	559	0.175	895	0.280	895	0.280
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				2443		2535		2881		2881	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.746		0.770		0.774		0.774	
Stopped Delay (sec/veh)				19.6		22.0		22.4		22.4	
LEVEL OF SERVICE (LOS)				C		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Gate 60 and 223rd St

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

	Projects or Project Groups (1 = Proposed Project)												
	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	336	0	0	0	0	0	0	0	0	0	0	0	336
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	336	0	0	0	0	0	0	0	0	0	0	0	336
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	11	0	0	0	0	0	0	0	0	0	0	0	11
WL	11	0	0	0	0	0	0	0	0	0	0	0	11
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	692	0	0	0	0	0	0	0	0	0	0	0	692

INTERSECTION LEVEL OF SERVICE (LOS)

* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 0.25 % per year

Movement		Lanes	Capacity	Year 2005 Volume	V/C	Forecast Year 2020 Volume	V/C	W/Proposed Project Volume	V/C	With ALL Projects Volume	V/C
NB	LEFT	1.00	1600	117	0.073	121	0.076	457	0.286	457	0.286
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.00	1600	298	0.186	309	0.193	645	0.403	645	0.403
SB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
EB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	1461	0.457	1516	0.474	1516	0.474	1516	0.474
	RIGHT	1.00	1600	10	0.006	10	0.006	21	0.013	21	0.013
WB	LEFT	1.00	1600	27	0.017	28	0.018	39	0.024	39	0.024
	THRU	3.00	4800	470	0.098	488	0.102	488	0.102	488	0.102
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
Intersection Volume				2383		2472		3164		3164	
Signal Phasing Loss Factor				0.10		0.10		0.10		0.10	
Intersection V/C Ratio				0.647		0.667		0.883		0.883	
Stopped Delay (sec/veh)				9.7		11.7		37.5		37.5	
LEVEL OF SERVICE (LOS)				B		B		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

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TRIPS GENERATED BY PROJECTS

PROJECT (or Project Group)	A.M. PEAK HOUR enter	A.M. PEAK HOUR exit	P.M. PEAK HOUR enter	P.M. PEAK HOUR exit
1 BP construction	21	21	21	671

LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Geometrics: Existing Geometrics
Ambient Traffic Growth: 0.25 % per year

	Year 2005		Forecast Year 2020			Plus Proposed Project			
	LOS	DELAY	V/C	LOS	DELAY	V/C		LOS	DELAY	V/C	+ V/C
Wilmington and I-405 NWB ramps	B	14.8	0.698	C	17.0	0.720	.....	C	18.1	0.731	+0.010
Wilmington and I-405 SEB ramps	B	5.6	0.606	B	7.4	0.624	.....	B	13.7	0.687	+0.063
Wilmington and 223rd St	D	30.3	0.835	D	34.4	0.863	.....	E	41.9	0.909	+0.047
Wilmington and Watson Center	B	11.4	0.664	B	13.5	0.685	.....	C	15.6	0.706	+0.021
Wilmington and Sepulveda	D	39.4	0.896	E	45.2	0.926	.....	E	45.2	0.926	+0.000
Alameda and I-405 NWB ramps	A	5.0	0.535	A	5.0	0.551	.....	A	5.0	0.565	+0.014
Alameda and 223rd St(Wardlow)Access	A	5.0	0.406	A	5.0	0.418	.....	A	5.0	0.485	+0.067
Alameda and Sepulveda	D	31.1	0.841	D	35.3	0.868	.....	E	42.1	0.911	+0.042
I-405 SB on-ramp/I-405 SB off-ramp and 223rd(Wardlow)	A	5.0	0.507	A	5.0	0.523	.....	A	5.0	0.577	+0.054
Wardlow Access and 223rd St	D	30.9	0.840	D	35.1	0.867	.....	E	46.7	0.933	+0.066
Gate 16 and 223rd St	C	19.6	0.746	C	22.0	0.770	.....	C	22.4	0.774	+0.003
Gate 60 and 223rd St	B	9.7	0.647	B	11.7	0.667	.....	D	37.5	0.883	+0.216

Notes:
v/c = volume to capacity ratio (capacity utilization ratio)
delay = average stopped delay in seconds per vehicle
LOS = Level of Service

Table E-1
Non-Peak (6:00-7:00 a.m. & 4:30-5:30 p.m.) Traffic vs. Peak Traffic

223rd Street (east of Wilmington Ave.)

Daily Traffic	Peak Hour	Non-Peak	Non-Peak as % of Peak Hour
20,093			
	7:00-8:00 a.m.	6:00-7:00 a.m.	
	1,672	907	54.25%
	4:30-5:30 p.m.	5:30-6:30 p.m.	
	2,284	1,648	72.15%

Wilmington Ave (south of 223rd St.)

Daily Traffic	Peak Hour	Non-Peak	Non-Peak as % of Peak Hour
32,528			
	7:00-8:00 a.m.	6:00-7:00 a.m.	
	2,300	1,895	82.39%
	4:30-5:30 p.m.	5:30-6:30 p.m.	
	2,581	2,156	83.53%

Alameda Blvd (north of Sepulveda)

Daily Traffic	Peak Hour	Non-Peak	Non-Peak as % of Peak Hour
29,356			
	7:00-8:00 a.m.	6:00-7:00 a.m.	
	2,316	1,678	72.45%
	4:30-5:30 p.m.	5:30-6:30 p.m.	
	2,944	1,755	59.61%

Source: Traffic counts by Austin Faust & Associates (AFA) in November/December, 2004. AFA traffic report dated May, 2005.

Table E-2
Level of Service (LOS)- 6:00-7:00 a.m. and 5:30-6:30 p.m.

	Year 2008		With Proposed Construction Traffic			
	Morning Peak Hour		6:00-7:00 Construction			
	7:00-8:00 a.m.*		a.m.	traffic	total	
Intersection	v/c ratio	LOS	v/c ratio**	+v/c	v/c	LOS
Wilmington Ave & I-405 NB on/off ramps	0.722	C	0.595	0.000	0.595	A
Wilmington Ave & I-405 SB on/off ramps	0.621	B	0.512	0.002	0.514	A
Wilmington Ave & 223rd Street	0.762	C	0.521	0.002	0.523	A
Wilmington Ave & Watson Center	0.592	A	0.488	0.001	0.489	A
Wilmington Ave & Sepulveda Blvd	0.669	B	0.551	0.001	0.552	A
Alameda St & I-405 NB ramp	0.430	A	0.312	0.004	0.316	A
Alameda St & 223rd St/Wardlow Access	0.344	A	0.218	0.007	0.225	A
Alameda St & Sepulveda Blvd	0.535	A	0.388	0.002	0.390	A
I-405 SB on/off ramps & 223rd St/Wardlow	0.409	A	0.222	0.002	0.224	A
223rd St & Alameda St/Wardlow Access	0.475	A	0.258	0.005	0.263	A
BP Refinery Gate 16 & 223rd Street	0.434	A	0.235	0.003	0.238	A
BP Refinery Gate 60 & 223rd Street	0.394	A	0.214	0.013	0.227	A

	Year 2008		With Proposed Construction Traffic			
	Afternoon Peak Hour		5:30-6:30 Construction			
	4:30-5:30 P.M.*		p.m.	traffic	total	
Intersection	v/c ratio	LOS	v/c ratio**	+v/c	v/c	LOS
Wilmington Ave & I-405 NB on/off ramps	0.703	B	0.587	0.010	0.597	A
Wilmington Ave & I-405 SB on/off ramps	0.609	A/B	0.509	0.063	0.572	A
Wilmington Ave & 223rd Street	0.841	**D**	0.655	0.047	0.702	B/C
Wilmington Ave & Watson Center	0.668	B	0.558	0.021	0.579	A
Wilmington Ave & Sepulveda Blvd	0.902	**D/E**	0.753	0.000	0.753	C
Alameda St & I-405 NB ramp	0.538	A	0.321	0.014	0.335	A
Alameda St & 223rd St/Wardlow Access	0.409	A	0.269	0.067	0.336	A
Alameda St & Sepulveda Blvd	0.846	**D**	0.504	0.042	0.546	A
I-405 SB on/off ramps & 223rd St/Wardlow	0.510	A	0.368	0.054	0.422	A
223rd St & Alameda St/Wardlow Access	0.845	**D**	0.610	0.066	0.676	B
BP Refinery Gate 16 & 223rd Street	0.751	C	0.542	0.003	0.545	A
BP Refinery Gate 60 & 223rd Street	0.651	B	0.470	0.022	0.491	A

Notes:

* Source of traffic counts: : AFA traffic report dated May 2005.

** Obtained by applying percentage factors from Table 1 to peak hour v/c ratios

Level of Serivce (LOS) definition

Volume-to-Capacity (v/c) Ratio	LOS
.00 - .60	A
.61 - .70	B
.71 - .80	C
.81 - .90	D
.91 - 1.00	E
Above 1.00	F

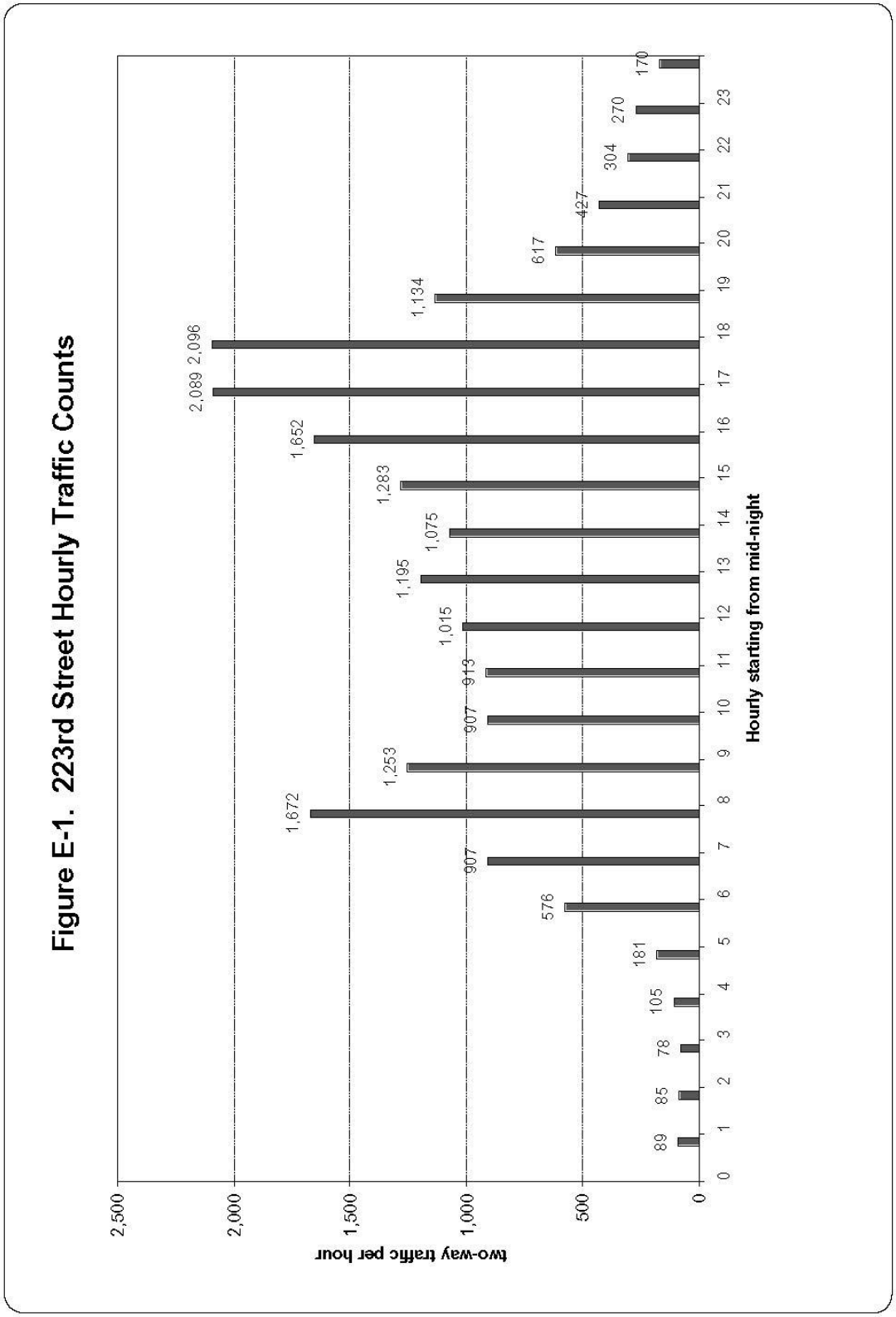
Figure E-1. 223rd Street Hourly Traffic Counts
two-way traffic per hour
Hourly starting from mid-night
2,500
2,000
1,500
1,000
500
0
89
85
78
105
181
576
907
1,672
1,253
907
913
1,015
1,195
1,075
1,283
1,652
2,089
2,096
1,134
617
427
304
270
170
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

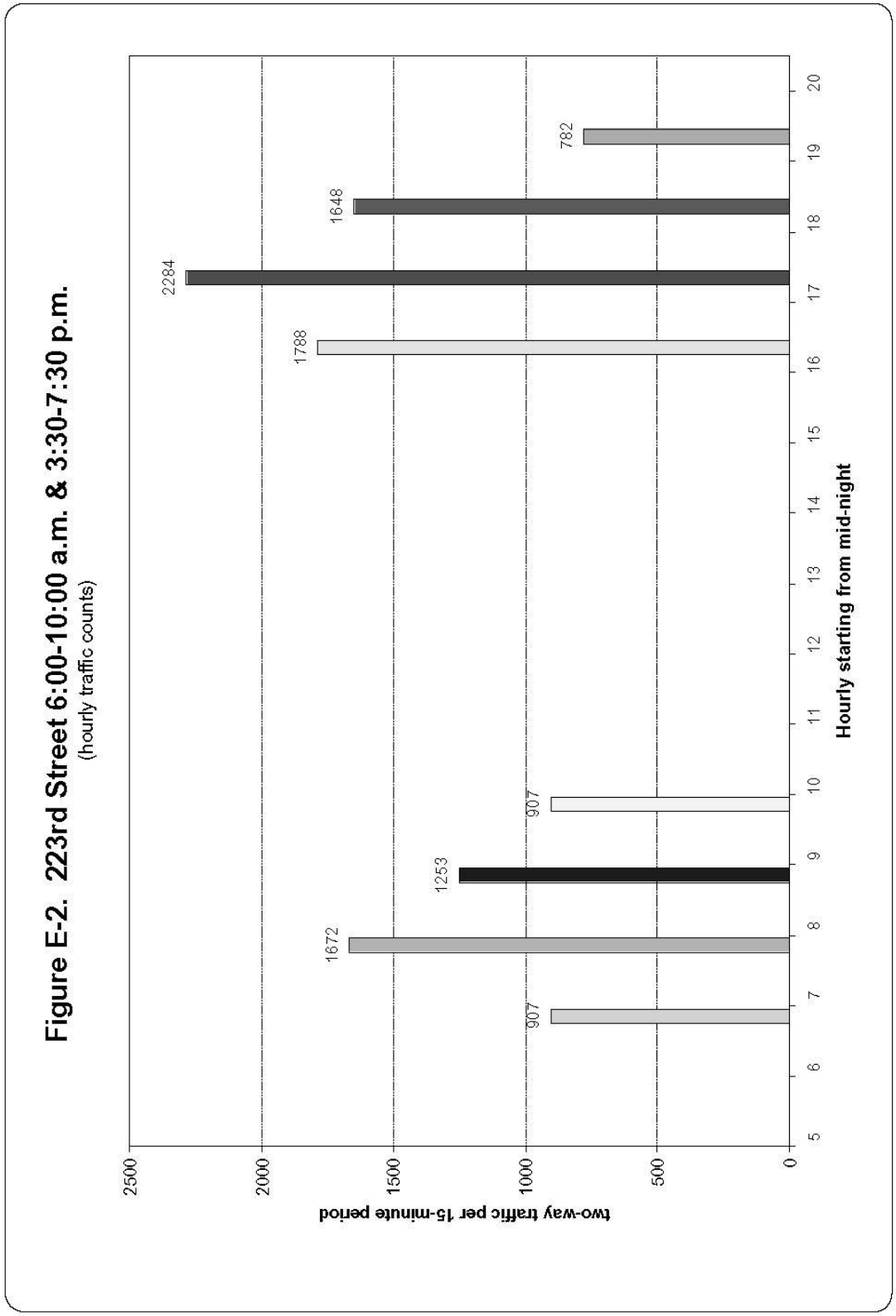
Figure E-2. 223rd Street 6:00-10:00 a.m. & 3:30-7:30 p.m.
(hourly traffic counts)
two-way traffic per 15-minute period
2500
2000
1500
1000
500
0
907
1672
1253
907
1788
2284
1648
782
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Hourly starting from mid-night

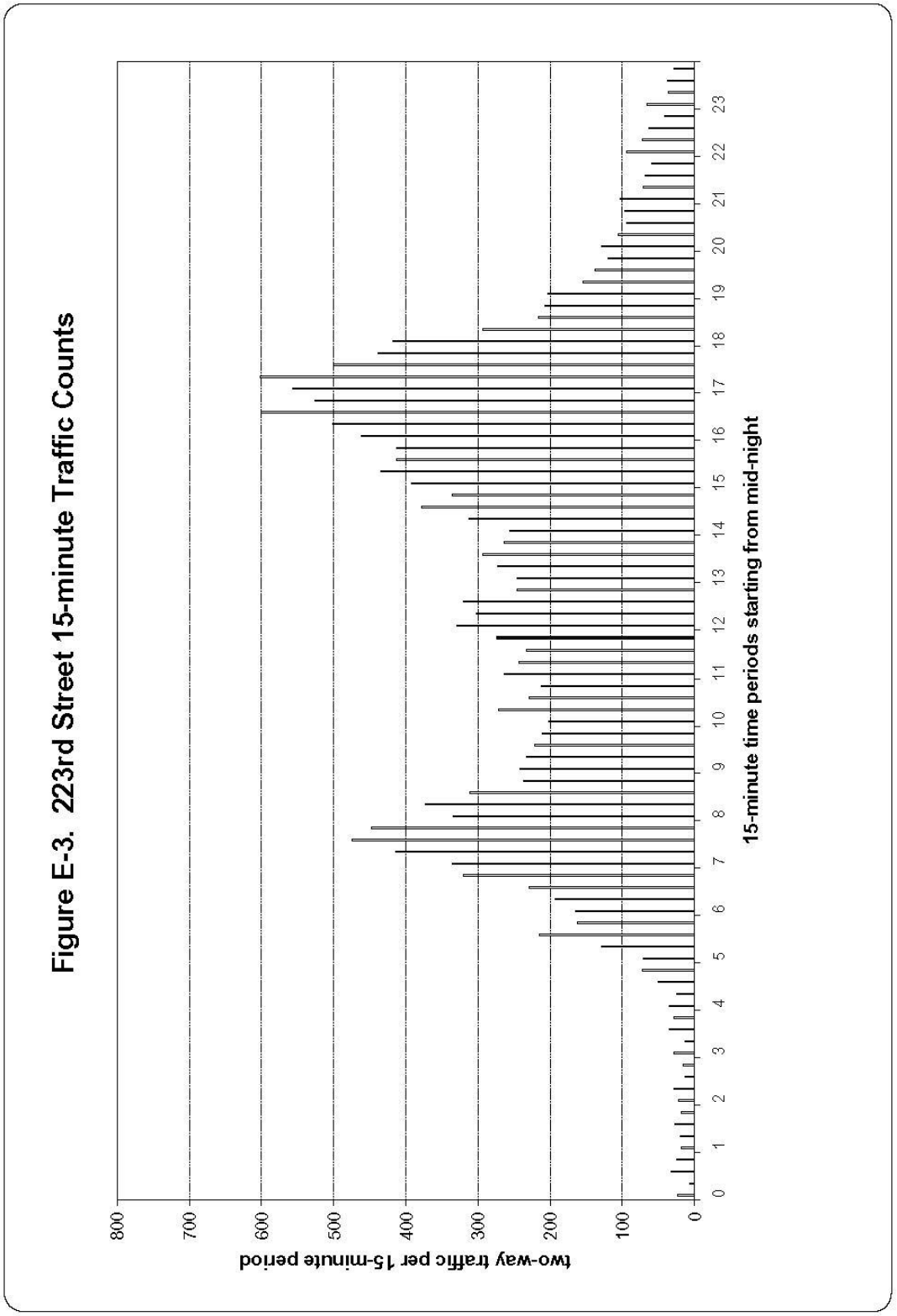
Figure E-3. 223rd Street 15-minute Traffic Counts
two-way traffic per 15-minute period
800
700
600
500
400
300
200
100
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
15-minute time periods starting from mid-night

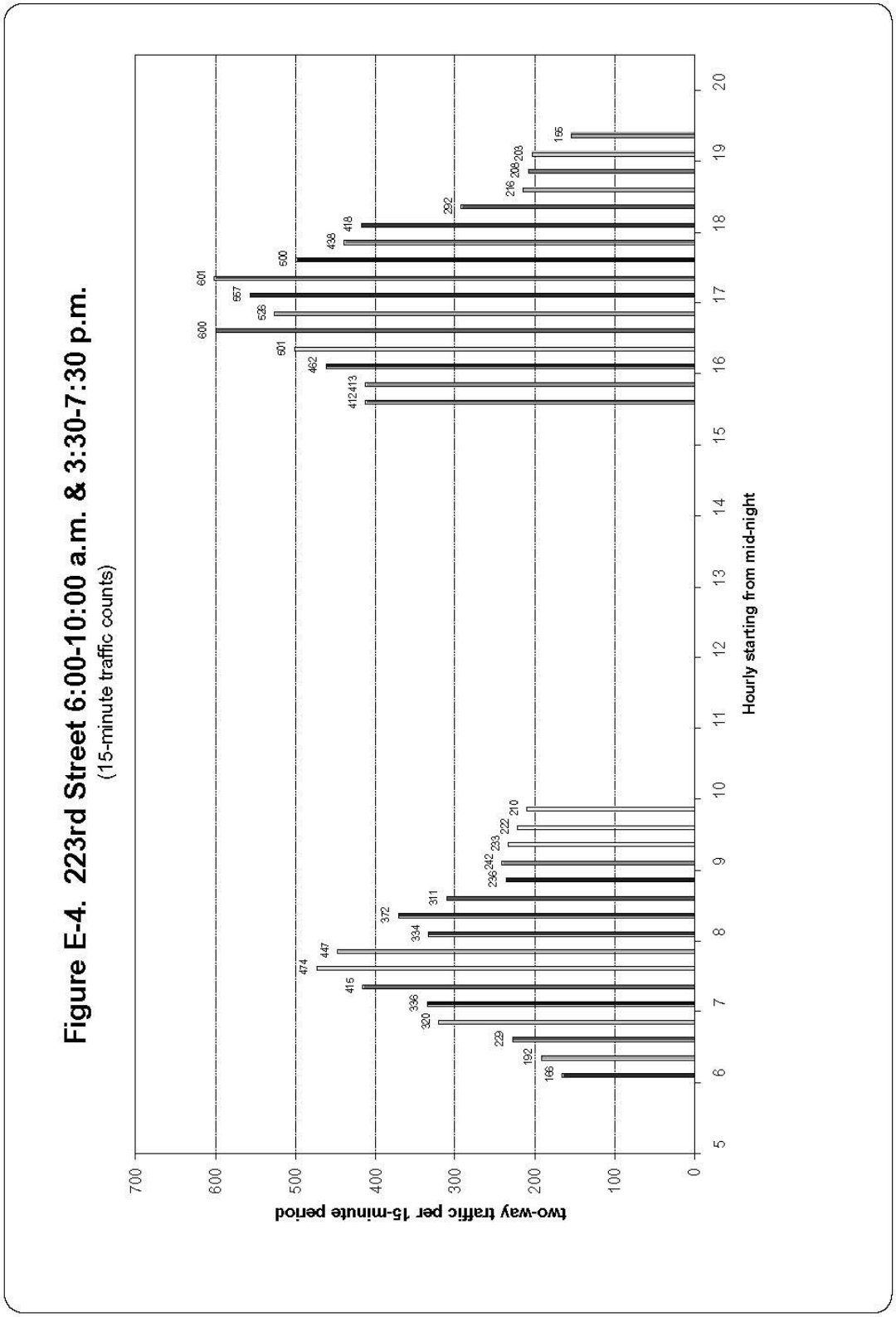
Figure E-4. 223rd Street 6:00-10:00 a.m. & 3:30-7:30 p.m.
(15-minute traffic counts)
two-way traffic per 15-minute period
Hourly starting from mid-night
0
100
200
300
400
500
600
700
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
166
192
229
320
336
415
474
447
334
372
311
236
242
233
222
210
412
413
462
501
600
526
557
601
500
438
418
292
216
208
208
166