APPENDICES

APPENDIX A LEADERSHIP IN ENGINEERING AND ENVIRONMENTAL DESIGN (LEED)

APPENDIX B URBEMIS OUTPUT

APPENDIX C POTENTIALLY OCCURRING SPECIAL STATUS SPECIES

APPENDIX D CULTURAL RESOURCES STUDY

APPENDIX E NOISE TECHNICAL STUDY

APPENDIX F TRAFFIC IMPACT ANALYSIS

[This page is intentionally blank]

APPENDIX A
LEADERSHIP IN ENGINEERING AND ENVIRONMENTAL DESIGN (LEED)

[This page is intentionally blank]

APPENDIX A

LEED CHECKLIST

LEED for New Construction v2.2
Registered Project Checklist

Project Name:
Project Address:

Yes	?	No			
			Sustainable Sites		**14** Points
Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
			Credit 1	**Site Selection**	1
			Credit 2	**Development Density & Community Connectivity**	1
			Credit 3	**Brownfield Redevelopment**	1
			Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
			Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
			Credit 4.3	**Alternative Transportation**, Low-Emitting & Fuel-Efficient Vehicles	1
			Credit 4.4	**Alternative Transportation**, Parking Capacity	1
			Credit 5.1	**Site Development,** Protect or Restore Habitat	1
			Credit 5.2	**Site Development,** Maximize Open Space	1
			Credit 6.1	**Stormwater Design,** Quantity Control	1
			Credit 6.2	**Stormwater Design,** Quality Control	1
			Credit 7.1	**Heat Island Effect,** Non-Roof	1
			Credit 7.2	**Heat Island Effect,** Roof	1
			Credit 8	**Light Pollution Reduction**	1

Yes	?	No			
			Water Efficiency		**5** Points
			Credit 1.1	**Water Efficient Landscaping**, Reduce by 50%	1
			Credit 1.2	**Water Efficient Landscaping**, No Potable Use or No Irrigation	1
			Credit 2	**Innovative Wastewater Technologies**	1
			Credit 3.1	**Water Use Reduction**, 20% Reduction	1
			Credit 3.2	**Water Use Reduction**, 30% Reduction	1

			Energy & Atmosphere		**17** Points
Y			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2	**Minimum Energy Performance**	Required
Y			Prereq 3	**Fundamental Refrigerant Management**	Required

***Note for EAc1**: All LEED for New Construction projects registered after June 26th, 2007 are required to achieve at least two (2) points under EAc1.

			Credit 1	**Optimize Energy Performance**	1 to 10
				10.5% New Buildings or 3.5% Existing Building Renovations	1
				14% New Buildings or 7% Existing Building Renovations	2
				17.5% New Buildings or 10.5% Existing Building Renovations	3
				21% New Buildings or 14% Existing Building Renovations	4
				24.5% New Buildings or 17.5% Existing Building Renovations	5
				28% New Buildings or 21% Existing Building Renovations	6
				31.5% New Buildings or 24.5% Existing Building Renovations	7
				35% New Buildings or 28% Existing Building Renovations	8
				38.5% New Buildings or 31.5% Existing Building Renovations	9
				42% New Buildings or 35% Existing Building Renovations	10
			Credit 2	**On-Site Renewable Energy**	1 to 3
				2.5% Renewable Energy	1
				7.5% Renewable Energy	2
				12.5% Renewable Energy	3
			Credit 3	**Enhanced Commissioning**	1
			Credit 4	**Enhanced Refrigerant Management**	1
			Credit 5	**Measurement & Verification**	1
			Credit 6	**Green Power**	1

continued…

Yes	?	No			
			Materials & Resources		**13** Points
Y			Prereq 1	**Storage & Collection of Recyclables**	Required
			Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
			Credit 1.2	**Building Reuse**, Maintain 95% of Existing Walls, Floors & Roof	1
			Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1
			Credit 3.1	**Materials Reuse**, 5%	1
			Credit 3.2	**Materials Reuse**,10%	1
			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
			Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
			Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regio	1
			Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regio	1
			Credit 6	**Rapidly Renewable Materials**	1
			Credit 7	**Certified Wood**	1

Yes	?	No			
			Indoor Environmental Quality		**15** Points
Y			Prereq 1	**Minimum IAQ Performance**	Required
Y			Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
			Credit 1	**Outdoor Air Delivery Monitoring**	1
			Credit 2	**Increased Ventilation**	1
			Credit 3.1	**Construction IAQ Management Plan**, During Construction	1
			Credit 3.2	**Construction IAQ Management Plan**, Before Occupancy	1
			Credit 4.1	**Low-Emitting Materials**, Adhesives & Sealants	1
			Credit 4.2	**Low-Emitting Materials**, Paints & Coatings	1
			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
			Credit 5	**Indoor Chemical & Pollutant Source Control**	1
			Credit 6.1	**Controllability of Systems**, Lighting	1
			Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
			Credit 7.1	**Thermal Comfort**, Design	1
			Credit 7.2	**Thermal Comfort**, Verification	1
			Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
			Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No			
			Innovation & Design Process		**5** Points
			Credit 1.1	**Innovation in Design**: Provide Specific Title	1
			Credit 1.2	**Innovation in Design**: Provide Specific Title	1
			Credit 1.3	**Innovation in Design**: Provide Specific Title	1
			Credit 1.4	**Innovation in Design**: Provide Specific Title	1
			Credit 2	**LEED® Accredited Professional**	1

Yes	?	No		
			Project Totals **(pre-certification estimates)**	**69** Points

Certified: 26-32 points, **Silver:** 33-38 points, **Gold:** 39-51 points, **Platinum:** 52-69 pc

[This page is intentionally blank]

APPENDIX B

URBEMIS OUTPUT

7/17/2009 04:25:08 PM

Urbemis 2007 Version 9.2.4

Summary Report for Summer Emissions (Pounds/Day)

File Name: W:\PROJECTS\1104\1104-003\Data\Air Quality\hiVOC_revised.urb924

Project Name: New Long Beach Courthouse

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5	PM2.5	CO2
2010 TOTALS (lbs/day unmitigated)	8.91	79.72	58.30	0.06	35.16	4.31	39.47	7.36	3.96	11.33	9,176.39
2010 TOTALS (lbs/day mitigated)	8.91	79.72	58.30	0.06	8.09	4.31	12.40	1.71	3.96	5.67	9,176.39
2011 TOTALS (lbs/day unmitigated)	6.76	39.90	54.72	0.06	0.24	2.07	2.32	0.09	1.90	1.98	9,175.47
2011 TOTALS (lbs/day mitigated)	6.76	39.90	54.72	0.06	0.24	2.07	2.32	0.09	1.90	1.98	9,175.47
2012 TOTALS (lbs/day unmitigated)	53.57	36.88	51.39	0.06	85.01	1.88	86.08	17.75	1.72	18.74	9,174.75
2012 TOTALS (lbs/day mitigated)	53.57	36.88	51.39	0.06	29.60	1.88	30.23	6.18	1.72	6.76	9,174.75

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.64	3.75	7.74	0.00	0.03	0.03	4,440.43

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	15.19	17.68	159.14	0.19	31.56	6.13	18,804.71

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	15.83	21.43	166.88	0.19	31.59	6.16	23,245.14

7/17/2009 04:25:35 PM

Urbemis 2007 Version 9.2.4

Detail Report for Summer Construction Unmitigated Emissions (Pounds/Day)

File Name: W:\PROJECTS\1104\1104-003\Data\Air Quality\hiVOC_revised.urb924

Project Name: New Long Beach Courthouse

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Summer Pounds Per Day, Unmitigated)

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10 Total	PM2.5 Dust	PM2.5 Exhaust	PM2.5 Total	CO2
Time Slice 6/1/2010-6/7/2010 Active	1.89	16.00	6.57	0.00	0.00	0.73	0.73	0.00	0.67	0.67	1,867.65
Demolition 06/01/2010-06/07/2010	1.89	16.00	6.57	0.00	0.00	0.73	0.73	0.00	0.67	0.67	1,867.65
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	1.88	15.97	6.05	0.00	0.00	0.72	0.72	0.00	0.67	0.67	1,805.45
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Worker Trips	0.02	0.03	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.20
Time Slice 6/8/2010-6/14/2010 Active	1.72	12.99	7.39	0.00	0.01	0.77	0.78	0.00	0.71	0.71	1,395.68
Demolition 06/08/2010-06/14/2010	1.72	12.99	7.39	0.00	0.01	0.77	0.78	0.00	0.71	0.71	1,395.68
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	1.68	12.91	6.08	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,240.19
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Worker Trips	0.04	0.08	1.31	0.00	0.01	0.00	0.01	0.00	0.00	0.01	155.49
Time Slice 6/15/2010-7/26/2010 Active	8.91	**79.72**	41.61	0.04	35.16	**4.31**	39.47	7.36	**3.96**	11.33	9,036.99
Mass Grading 06/15/2010-	8.91	79.72	41.61	0.04	35.16	4.31	39.47	7.36	3.96	11.33	9,036.99
Mass Grading Dust	0.00	0.00	0.00	0.00	35.00	0.00	35.00	7.31	0.00	7.31	0.00
Mass Grading Off Road Diesel	6.44	48.42	27.03	0.00	0.00	3.03	3.03	0.00	2.78	2.78	4,487.60
Mass Grading On Road Diesel	2.39	31.15	11.96	0.04	0.14	1.28	1.42	0.05	1.17	1.22	4,238.40
Mass Grading Worker Trips	0.08	0.15	2.62	0.00	0.01	0.01	0.02	0.01	0.01	0.01	310.99
Time Slice 7/27/2010-9/20/2010 Active	2.34	19.72	10.34	0.00	35.00	0.94	35.95	7.31	0.87	8.18	1,853.91
Mass Grading 07/27/2010-	2.34	19.72	10.34	0.00	35.00	0.94	35.95	7.31	0.87	8.18	1,853.91
Mass Grading Dust	0.00	0.00	0.00	0.00	35.00	0.00	35.00	7.31	0.00	7.31	0.00
Mass Grading Off Road Diesel	2.32	19.67	9.56	0.00	0.00	0.94	0.94	0.00	0.87	0.87	1,760.61
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.02	0.05	0.79	0.00	0.00	0.00	0.01	0.00	0.00	0.00	93.30
Time Slice 9/21/2010-12/31/2010	7.29	43.08	**58.30**	**0.06**	0.24	2.22	2.46	0.09	2.03	2.12	**9,176.39**
Building 09/21/2010-02/06/2012	7.29	43.08	58.30	0.06	0.24	2.22	2.46	0.09	2.03	2.12	9,176.39
Building Off Road Diesel	5.63	35.05	16.93	0.00	0.00	1.86	1.86	0.00	1.71	1.71	3,720.94
Building Vendor Trips	0.51	5.87	4.81	0.01	0.04	0.25	0.28	0.01	0.22	0.24	1,116.56

7/17/2009 04:25:35 PM

Building Worker Trips	1.15	2.16	36.56	0.05	0.20	0.12	0.32	0.07	0.10	0.17	4,338.89
Time Slice 1/3/2011-12/30/2011 Active	6.76	39.90	54.72	**0.06**	0.24	2.07	2.32	0.09	1.90	1.98	9,175.47
Building 09/21/2010-02/06/2012	6.76	39.90	54.72	0.06	0.24	2.07	2.32	0.09	1.90	1.98	9,175.47
Building Off Road Diesel	5.23	32.64	16.22	0.00	0.00	1.74	1.74	0.00	1.60	1.60	3,720.94
Building Vendor Trips	0.47	5.29	4.47	0.01	0.04	0.22	0.26	0.01	0.20	0.21	1,116.59
Building Worker Trips	1.05	1.97	34.03	0.05	0.20	0.12	0.32	0.07	0.10	0.17	4,337.94
Time Slice 1/2/2012-2/6/2012 Active	6.31	36.88	51.39	**0.06**	0.24	1.88	2.13	0.09	1.72	1.81	9,174.75
Building 09/21/2010-02/06/2012	6.31	36.88	51.39	0.06	0.24	1.88	2.13	0.09	1.72	1.81	9,174.75
Building Off Road Diesel	4.92	30.35	15.60	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,720.94
Building Vendor Trips	0.43	4.72	4.14	0.01	0.04	0.19	0.23	0.01	0.18	0.19	1,116.61
Building Worker Trips	0.96	1.81	31.66	0.05	0.20	0.12	0.32	0.07	0.10	0.17	4,337.19
Time Slice 2/7/2012-4/30/2012 Active	53.57	0.12	2.06	0.00	0.01	0.01	0.02	0.00	0.01	0.01	282.37
Coating 02/07/2012-04/30/2012	53.57	0.12	2.06	0.00	0.01	0.01	0.02	0.00	0.01	0.01	282.37
Architectural Coating	53.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.12	2.06	0.00	0.01	0.01	0.02	0.00	0.01	0.01	282.37
Time Slice 5/1/2012-5/28/2012 Active	3.13	19.51	12.57	0.00	0.02	1.42	1.44	0.01	1.31	1.32	2,204.29
Asphalt 05/01/2012-05/28/2012	3.13	19.51	12.57	0.00	0.02	1.42	1.44	0.01	1.31	1.32	2,204.29
Paving Off-Gas	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.82	18.73	10.27	0.00	0.00	1.39	1.39	0.00	1.28	1.28	1,811.93
Paving On Road Diesel	0.05	0.66	0.26	0.00	0.00	0.03	0.03	0.00	0.02	0.03	112.59
Paving Worker Trips	0.06	0.12	2.04	0.00	0.01	0.01	0.02	0.00	0.01	0.01	279.78
Time Slice 5/29/2012-6/25/2012 Active	2.72	22.00	12.42	0.00	**85.01**	1.08	**86.08**	**17.75**	0.99	**18.74**	2,371.66
Fine Grading 05/29/2012-	2.72	22.00	12.42	0.00	85.01	1.08	86.08	17.75	0.99	18.74	2,371.66
Fine Grading Dust	0.00	0.00	0.00	0.00	85.00	0.00	85.00	17.75	0.00	17.75	0.00
Fine Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.91	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.35
Time Slice 6/26/2012-7/23/2012 Active	1.73	13.91	6.22	0.00	29.60	0.62	30.23	6.18	0.57	6.76	1,908.55
Fine Grading 06/26/2012-	1.73	13.91	6.22	0.00	29.60	0.62	30.23	6.18	0.57	6.76	1,908.55
Fine Grading Dust	0.00	0.00	0.00	0.00	29.60	0.00	29.60	6.18	0.00	6.18	0.00
Fine Grading Off Road Diesel	1.72	13.88	5.77	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,846.38
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.01	0.03	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	62.17

Phase Assumptions

Phase: Demolition 6/1/2010 - 6/7/2010 - Mobilization

Building Volume Total (cubic feet): 0

Building Volume Daily (cubic feet): 0

On Road Truck Travel (VMT): 0

Off-Road Equipment:

7/17/2009 04:25:35 PM

1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Demolition 6/8/2010 - 6/14/2010 - Demolition
Building Volume Total (cubic feet): 0
Building Volume Daily (cubic feet): 0
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day
2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 5/29/2012 - 6/25/2012 - Fine Site Grading
Total Acres Disturbed: 5.9
Maximum Daily Acreage Disturbed: 4.25
Fugitive Dust Level of Detail: Default
  20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 6/26/2012 - 7/23/2012 - Finalization
Total Acres Disturbed: 5.9
Maximum Daily Acreage Disturbed: 1.48
Fugitive Dust Level of Detail: Default
  20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Mass Grading 6/15/2010 - 7/26/2010 - Mass Site Grading/Excavation
Total Acres Disturbed: 5.9
Maximum Daily Acreage Disturbed: 1.75

7/17/2009 04:25:35 PM

Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 1000
Off-Road Equipment:
2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
5 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 7/27/2010 - 9/20/2010 - Trenching
Total Acres Disturbed: 5.9
Maximum Daily Acreage Disturbed: 1.75
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 0
Off-Road Equipment:
1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 5/1/2012 - 5/28/2012 - Paving
Acres to be Paved: 1.48
Off-Road Equipment:
4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Building Construction 9/21/2010 - 2/6/2012 - Building Construction
Off-Road Equipment:
1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
1 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

7/17/2009 04:25:35 PM

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day
1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Architectural Coating 2/7/2012 - 4/30/2012 - Interior and Exterior Coating
Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

[This page is intentionally blank]

APPENDIX C

POTENTIALLY OCCURRING SPECIAL STATUS SPECIES

[This page is intentionally blank]

TABLE C-1
LISTED PLANT AND WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR IN THE REGION OF THE PROPOSED PROJECT SITE

Species	Status	Habitat Requirements	Habitat Assessment
Plants			
Lyon's pentachaeta (Pentachaeta lyonii)	FE, SE, CNPS 1B.1	Chaparral, coastal scrub, and valley and foothill grassland. Occurs between 30 and 630 meters above mean sea level (MSL). Blooms from March to August.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
Ventura marsh milk-vetch (Astragalus pycnostachyus var. lanosissimus)	FE, SE, CNPS 1B.1	Coastal dunes, coastal scrub, and marshes and swamps. Occurs between 1 and 305 meters above MSL. Blooms from March to June.	Same as above
coastal dunes milk-vetch (Astragalus tener var. titi)	FE, SE, CNPS 1B.1	Coastal bluff scrub, coastal dunes, and coastal prairie. Occurs between 1 and 50 meters above MSL. Blooms from March to May.	Same as above
Moran's spreading navarretia (Navarretia fossalis)	FT, CNPS 1B.1	Chenopod scrub, marshes and swamps, playas, and vernal pools. Occurs between 30 and 1,300 meters above MSL. Blooms from April to June.	Same as above
salt marsh bird's-beak (Cordylanthus maritimus ssp. Maritimus)	FE, SE, CNPS 1B.2	Coastal dunes, marshes, and swamps. Occurs between 0 and 30 meters above MSL. Blooms from May to October.	Same as above
California Orcutt grass (Orcuttia californica)	FE, SE, CNPS 1B.1	Vernal pools. Occurs between 15 and 660 meters above MSL. Blooms from April to August.	Same as above
Wildlife			
Palos Verde blue butterfly (Glaucopsyche lygdamus palosverdesensis)	FE	Occurs in coastal sage scrub on the Palos Verdes Peninsula and requires either deerweed or locoweed as a host plant.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
Mohave tui chub (Gila bicolor mohavensis)	FE, SE	Found in deep pools and slough-like areas of the Mojave River, but now only occurs in highly modified refuge sites in San Bernardino County.	Same as above
Light-footed clapper rail (Rallus longirostris levipes)	FE, SE	Salt marshes traversed by tidal sloughs where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover. Feeds on mollusks and crustaceans.	Same as above
Western snowy plover (Charadrius alexandrinus nivosus)	FT, CSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Same as above
California brown pelican (Pelecanus occidentalis californicus)	FE, SE	Nest on islands in the Gulf of California and along the coast to West Anacapa and Santa Barbara Islands. They rarely occur inland.	Same as above
California least tern (Sternula antillarum browni)	FE, SE	Nest in colonies on bare or sparsely vegetated flat substrates near the coast.	Same as above
Western yellow-billed cuckoo (Coccyzus americanus occidentalis)	SE	Found in association with riparian forest, along lower flood-bottom of larger river systems.	Same as above
southwestern willow flycatcher (Empidonax traillii extimus)	FE, SE	Found in association with riparian habitat where willow, cottonwoods, and stinging nettles are dense.	Same as above
Coastal California gnatcatcher Polioptila californica californica)	FT, CSC	Occurs in or near sage scrub habitat, which includes the following plant communities: Venturan coastal sage scrub, Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan scurb, southern coastal bluff scrub, and coastal sagechaparral scurb.	Same as above
Belding's savannah sparrow (Passerculus sandwichensis beldingi)	SE	Resides year-round in coastal salt marshes from Goleta Slough in Santa Barbara County to northern Baja California. Primarily nests in pickleweed habitat.	Same as above
Pacific pocket mouse (Perognathus longimembris pacificus)	FE, CSC	Found on soils of fine, alluvial sands near the ocean. Open spaces in otherwise dense, weedy areas.	Same as above

KEY: CSC = California Department of Fish and Game Species of Special Concern CNPS 1B = Listed as rare, threatened, or endangered in California and elsewhere by the California Native Plant Society FE = Listed as endangered under the federal Endangered Species Act FT = Listed as threatened under the federal Endangered Species Act FC= Federal candidate species SE = Listed as endangered by the State of California ST = Listed as threatened by the State of California Rare = Listed as rare by the State of California

TABLE C-2
SENSITIVE PLANT AND WILDLIFE SPECIES WITH THE POTENTIAL TOOCCUR IN THE REGION OF THE PROPOSED PROJECT SITE

Species	Status	Habitat	On-site Potential
Amphibians			
western spadefoot (Spea hammondii)	CSC	Require temporary rain pools with water temperatures between 9 and 30 degrees Celsius for reproducing. Soil characteristics of burrow refuge sites have not been studied. Occurs between near sea level and 1,363 meters above MSL.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
Reptiles			
southwestern pond turtle (Clemmys marmorata pallida)	CSC, BLM	Require some slack- or slowwater aquatic habitat. Reach higher densities where many aerial and aquatic basking sites are available. Nests are located on unshaded slopes usually within 200 meters of the aquatic site.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
coast (San Diego) horned lizard (Phrynosoma coronatum blainvillii)	CSC	Coastal sage, annual grassland, chaparral, oak woodland, riparian woodland, and coniferous forest.	Same as above
Birds			
Black skimmer (Rynchops niger)	CSC	Nests on gravel bars, low islets, and sandy beaches in unvegetated sites. Nesting colonies usually less that 200 pairs.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
Coastal California gnatcatcher (Polioptila californica californica)	CSC	Obligate, permanent resident of coastal sage scrub below 2500 feet in southern California. Low, coastal sage scrub in arid washes, on mesas and slopes.	Same as above
Western snowy plover (Charadrius alexandrinus nivosus)	CSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Same as above
burrowing owl (Athene cunicularia)	CSC	Found in open grasslands, agricultural and range lands, and desert habitats and are often associated with burrowing animals, specifically the California ground squirrel. They can also inhabit grass, forbs, and shrub stages of pinyon and ponderosa pine habitats.	Same as above
tricolored blackbird (Agelaius tricolor)	CSC	Freshwater marshes and croplands.	Same as above
Mammals			
Southern California saltmarsh shrew (Sorex ornatus salicornicus)	CSC	No information other than coastal marshes. Likely requires dense ground cover and nesting sites above mean high tide and free from inundation.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
Pacific pocket mouse (Perognathus longimembris pacificus)	CSC	Inhabits the narrow coastal plains from the Mexican border north to El Segundo. Prefers soils of fine alluvial sands near the ocean.	Same as above
greater western mastiff bat (Eumops perotis californicus)	CSC, BLM	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, and desert scrub. This species also occurs in urban habitats.	Same as above
pocketed free-tailed bat (Nyctinomops femorosaccus)	CSC	Associated with rocky, desert areas with relatively high cliffs	Same as above
big free-tailed bat (Nyctinomops macrotis)	CSC	Rocky areas in the arid southwest, roosting primarily in crevices in cliffs.	Same as above
American badger (Taxidea taxus)	CSC	Found in arid, open habitats, particularly grasslands, savannahs, mountain meadows, and desert scrub openings. Needs friable soils for digging and open, uncultivated ground. Occurs at low to moderate slopes. Has been associated with Joshua tree woodland and pinyon-juniper habitats.	Same as above
south coast marsh vole (Microtus californicus stephensi)	CSC	Marshland habitat (generally restricted to this habitat type)	Same as above
San Diego desert woodrat (Neotoma lepida intermedia)	CSC	Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth	Same as above

KEY:
CSC = California Department of Fish and Game Species of Special Concern
BLM = Sensitive species under Bureau of Land Management

TABLE C-3
LOCALLY IMPORTANT PLANT AND WILDLIFE SPECIES WITH THEPOTENTIAL TO OCCUR IN THE REGION OF THE PROPOSED PROJECT SITE

Species	Status	Habitat	On-site Potential
Plants			
Aphanisma (Aphanisma blitoides)	CNPS 1B.2	Coastal bluff scrub, coastal dunes, and coastal scrub. Occurs between 1 and 305 meters above MSL. Blooms from March to June.	Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.
Southern tarplant (Centromadia parryi ssp. Australis)	CNPS 1B.1	Marshes and swamps, valley and foothill grassland, and vernal pools. Occurs between 0 and 425 meters above MSL. Blooms from May to November.	Same as above
Coulter's goldfields (Lasthenia glabrata ssp. Coulteri)	CNPS 1B.1	Marshes and swamps, playas, and vernal pools. Occurs between 1 and 1,220 meters above MSL. Blooms from February to June.	Same as above
San Bernardino aster (Symphyotrichum defoliatum)	CNPS 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland. Occurs between 2 and 2,040 meters above MSL. Blooms from July to November.	Same as above
south coast saltscale (Atriplex pacifica)	CNPS 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, and playas. Occurs between 0 and 140 meters above MSL. Blooms from March to October.	Same as above
Parish's brittlescale (Atriplex parishii)	CNPS 1B.1	Chenopod scrub, playas, and vernal pools. Occurs between 25 and 1,900 meters above MSL. Blooms from June to October.	Same as above
Davidson's saltscale (Atriplex serenana var. davidsonii)	CNPS 1B.2	Coastal bluff scrub and coastal scrub. Occurs between 10 and 200 meters above MSL. Blooms from April to October.	Same as above
estuary seablite (Suaeda esteroa)	CNPS 1B.2	Marshes and swamps. Occurs between 0 and 5 meters above MSL. Blooms from May to October	Same as above
Santa Barbara morning-glory (Calystegia sepium ssp. Bingamiae)	CNPS 1A	Marshes and swamps. Occurs between 0 and 20 meters above MSL. Blooms from April to May.	Same as above
island green dudleya (Dudleya virens ssp. Insularis)	CNPS 1B.2	Coastal bluff scrub and coastal scrub. Occurs between 5 and 300 meters above MSL. Blooms from April to June.	Same as above
Catalina crossosoma (Crossosoma californicum)	CNPS 1B.2	Chaparral and coastal scrub. Occurs between 0 and 500 meters above MSL. Blooms from February to May.	Same as above
Ventura Marsh milk-vetch (Astragalus pycnostachyus var. lanosissimus)	CNPS 1B.1	Coastal salt marsh. Occurs between 1 and 35 meters above MSL. Blooms from June to October.	Same as above
Salt marsh bird's-beak (Cordylanthus maritimus ssp. Maritimus)	CNPS 1B.2	Coastal salt marsh, coastal dunes. Occurs between 0 and 30 meters above MSL. Blooms from May to October. Not observed on the proposed project study area. No suitable habitat occurs within the proposed project site.	Same as above
Moran's navarretia (Navarretia fossalis)	CNPS 1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. Occurs between 30 and 1300 meters above MSL. Blooms from March to May.	Same as above
California Orcutt grass (Orcuttia californica)	CNPS 1B.1	Vernal pools. Occurs between 15 and 660 meters above MSL. Blooms from May to June. Not observed on the proposed project study area.	Same as above
Lyon's pentachaeta (Pentachaeta lyonii)	CNPS 1B.1	Chaparral, valley and foothill grassland. Occurs between 30 and 630 meters above MSL. Blooms from March to April.	Same as above
coastal dunes milk-vetch (Astragalus tener var. titi)	CNPS 1B.1	Coastal bluff scrub, coastal dunes. Occurs between 1 and 50 meters above MSL. Blooms from June to October.	Same as above
mud nama (Nama stenocarpum)	CNPS 2.2	Marshes and swamps. Occurs between 5 and 500 meters above MSL. Blooms from January to July.	Same as above
Brand's star phacelia (Phacelia stellaris)	CNPS 1B.1	Coastal dunes and coastal scrub. Occurs between 1 and 400 meters above MSL. Blooms from March to June.	Same as above
Salt Spring checkerbloom (Sidalcea neomexicana)	CNPS 2.2	Chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Occurs between 15 and 1,530 meters above MSL. Blooms from March to June.	Same as above
prostrate vernal pool navarretia (Navarretia prostrate)	CNPS 1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Occurs between 15 and 700 meters above MSL. Blooms from April to July.	Same as above
coast woolly-heads (Nemacaulis denudata var. denudate)	CNPS 1B.2	Coastal dunes. Occurs between 0 and 100 meters above MSL. Blooms from April to September.	Same as above
Santa Catalina Island desertthorn (Lycium brevipes var. hassei)	CNPS 1B.1	Coastal bluff scrub and coastal scrub. Occurs between 10 and 300 meters above MSL. Blooms in June.	Same as above
Sanford's arrowhead (Sagittaria sanfordii)	CNPS 1B.2	Marshes and swamps. Occurs between 0 and 650 meters above MSL. Blooms from May to October.	Same as above

KEY:
CNPS = California Native Plant Society (as List 1, List 2, List 3, or List 4 species). Listed as rare, threatened, or endangered in California and elsewhere by the California Native Plant Society; CNPS2 = CNPS listings from its January 2000 edition of Inventory of Rare and Endangered Vascular Plants of California.
List 2 (CNPS2) indicates that plants are rare, threatened, or endangered in California, but are common elsewhere (Skinner and Pavlik, 1994).
CNPS 3 = Plants about which we need more information.
CNPS1A = Plant presumed extinct in California by the CNPS
CNPS1B = Plants considered rare, threatened, or endangered in California and elsewhere by the CNPS Threat ranks:
0.1: Seriously threatened in California.
0.2: Fairly threatened in California.
0.3: Not very threatened in California.

[This page is intentionally blank]

APPENDIX D

CULTURAL RESOURCES STUDY

[This page is intentionally blank]

New Long Beach Courthouse

Cultural Resources Technical Report

Prepared for:

Administrative Office of the Courts
2860 Gateway Oaks, Suite 400
Sacramento, CA 95833

Prepared by:

Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, California 91107

November 21, 2008

TABLE OF CONTENTS

SECTIONS ***PAGE***

TABLES ***PAGE***

FIGURES ***FOLLOWS PAGE***

APPENDICES

SECTION 1.0
INTRODUCTION

1.1 STATEMENT OF PROBLEM

This Cultural Resources Technical Report was prepared to assess the potential effects of construction, operation, and maintenance of the proposed New Long Beach Court House (proposed project) on cultural resources and the ability to avoid or resolve adverse effects. The proposed project property is a roughly 5.9-acre parcel located in Long Beach, California in which an approximate 10-story building, approximately 200 feet tall, with approximately 545,000 building gross square feet (BGSF) will be constructed. Acting in their capacity as lead agency under the California Environmental Quality Act (CEQA), the Administrative Office of the Courts (AOC) would need to determine the potential for the proposed project to result in significant impacts, consider mitigation measures and alternatives capable of avoiding significant impacts, and take the environmental effects of the proposed action into consideration as part of their decision-making process.

1.2 PURPOSE

This Cultural Resources Technical Report provides the substantial evidence on which the required evaluation of feasibility, environmental analysis, and findings of fact in relation to cultural resources can be made. The Cultural Resources Technical Report documents the presence or absence of cultural resources that are afforded protection pursuant to CEQA and other relevant federal, state, and local statues and regulations. The Cultural Resources Technical Report was prepared as an aid to support project-planning efforts to minimize impacts to cultural resources and to provide the AOC with data regarding the potential effects of the proposed project on cultural resources, as well as feasible avoidance and minimization measures to reduce impacts to the maximum extent practicable.

1.3 INTENDED AUDIENCE

This Cultural Resources Technical Report presents the results of the cultural resources assessment for consideration by the AOC, and trustee and responsible agencies, including the City of Long Beach, State Historic Preservation Officer and the public.

1.4 SCOPE OF THE INVESTIGATION

The analysis of cultural resources consists of a summary of the regulatory framework that guides the decision-making process to be undertaken by the AOC, a description of the methods employed to support the characterization and evaluation of cultural resources within the proposed project site, the analysis of baseline conditions for cultural resources, the potential for the proposed project to affect cultural resources, and opportunities to avoid, minimize, or mitigate the potential effects of the proposed project. The report addresses each of the environmental issues considered in Appendix G of the State CEQA Guidelines for cultural resources:[1]

- Unique paleontological resources or unique geologic features
- Archaeological resources
- Historical resources
- Human remains

[1] *California Code of Regulations*. Title 14, Division 6, Chapter 3, Section 15000-15387, Appendix G.

1.5 SOURCES OF RELEVANT INFORMATION

Information used in the preparation of this Cultural Resources Technical Report was derived from records searches and literature review, including published and unpublished materials, and field investigation. Sources of relevant information are cited in footnotes and compiled in the References section of this document.

1.6 WORKING DEFINITIONS

There are a number of technical terms that are used in the characterization of baseline conditions and assessment of the potential for the proposed project to result in effects to cultural resources. A glossary of terms used in this report is provided as Appendix A, *Glossary of Terms*.

SECTION 2.0
PROJECT LOCATION AND DESCRIPTION

2.1 PROJECT LOCATION

The New Long Beach Courthouse (proposed project) property is a roughly 5.9-acre site consisting of 52 parcels located in Long Beach, California. The proposed project site is partly located on land owned by the State of California (State), the County of Los Angeles (County), and the Redevelopment Agency of the City of Long Beach (Agency). The site is bound by 3rd Street to the north, Magnolia Avenue to the east, West Broadway to the south, and Maine Avenue to the west (Figure 2.1-1, *Regional Vicinity Map*).[1]

The proposed project site consists of two neighboring land areas referenced as the Proposed New Long Beach Courthouse and Parking Garage (Figure 2.1-2, *Aerial Map*). The Courthouse areas are located as follows:

- **Proposed New Long Beach Courthouse Area**. The proposed project site lies on a two-block parcel bounded by 3rd Street to the north, Magnolia Avenue to the east, West Broadway to the south, and Maine Avenue to the west. This area is currently predominantly vacant, with the exception of parking spaces provided by a private firm immediately north of West Broadway between Maine Avenue and Daisy Avenue. The Agency owns the immediate proposed new courthouse site (Figure 2.1-3, *Local Vicinity Map*).

- **Parking Garage.** The County owns the Magnolia Avenue parking garage, which is located south of the proposed New Long Beach Courthouse area. This parking garage is expected to be acquired by the State in late 2008 under the provisions of SB1732. The garage is bound by a small surface parking lot to the north, Magnolia Avenue to the east, commercial development to the south, and Daisy Avenue to the west (Figure 2.1-3).

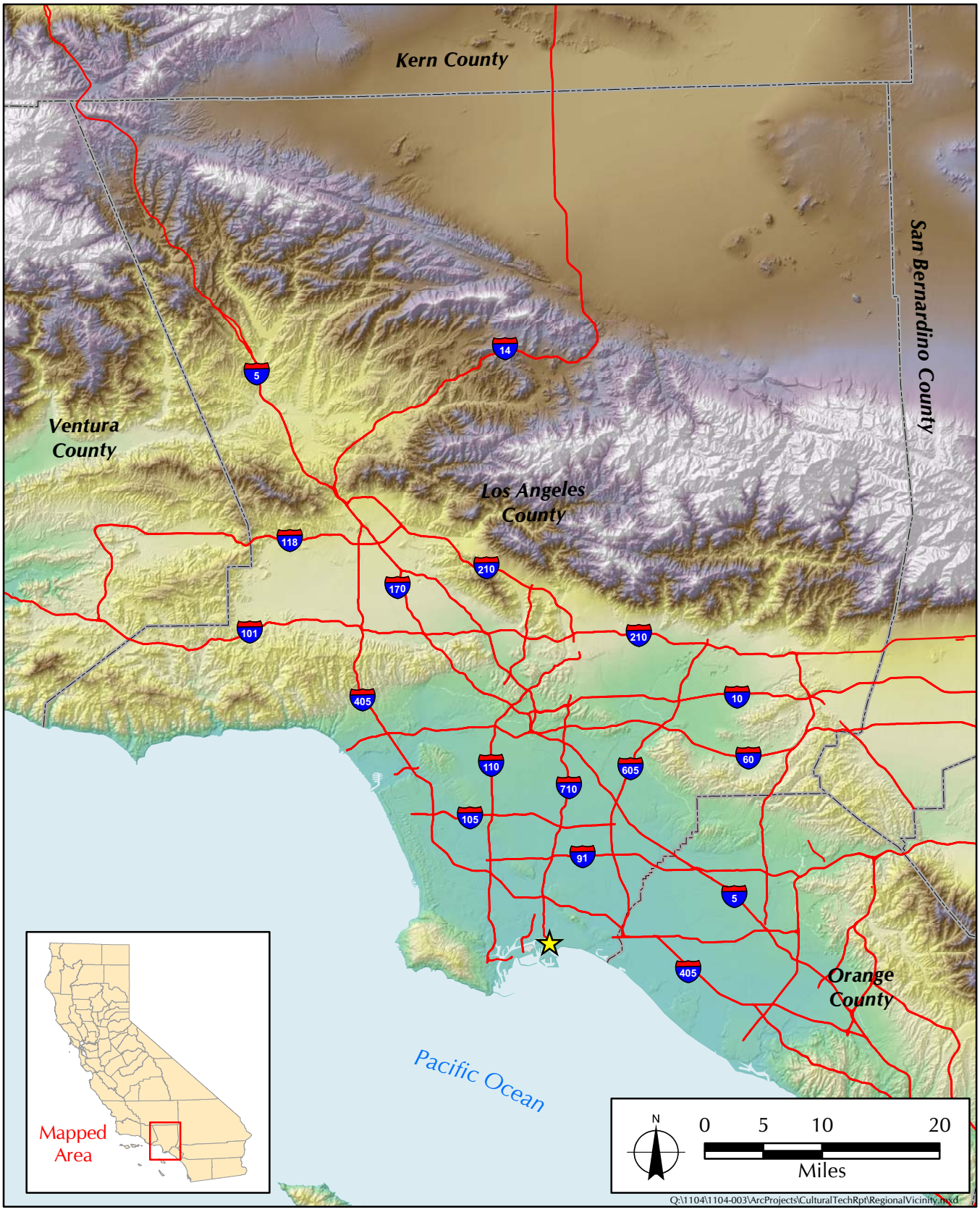
The proposed project site is located within the U.S. Geological Survey (USGS) 7.5-minute Long Beach topographic quadrangle (Figure 2.1-4, *Topographic Map*).[2] The 405 San Diego Freeway is roughly 3.6 miles north of the proposed project site, and the 710 Long Beach Freeway is located approximately 0.18 miles southwest and 0.36 miles west of the proposed project site. The proposed project site is located roughly a ½ mile north of the Pacific Ocean.

2.2 PROJECT ELEMENTS

The proposed project is expected to consist of an approximately 10-story building, approximately 200 feet tall, with approximately 545,000 building gross square feet (BGSF). This facility is intended to serve the State Superior Court, the County of Los Angeles, commercial office space, and other retail uses. The proposed project area is partly located on land owned by the State of

[1] U.S. Geological Survey. [1964] Photorevised 1981. 7.5-Minute Series, Long Beach, California, Topographic Quadrangle. Reston, VA.

[2] U.S. Geological Survey. [1964] Photorevised 1981. 7.5-Minute Series, Long Beach, California, Topographic Quadrangle. Reston, VA.



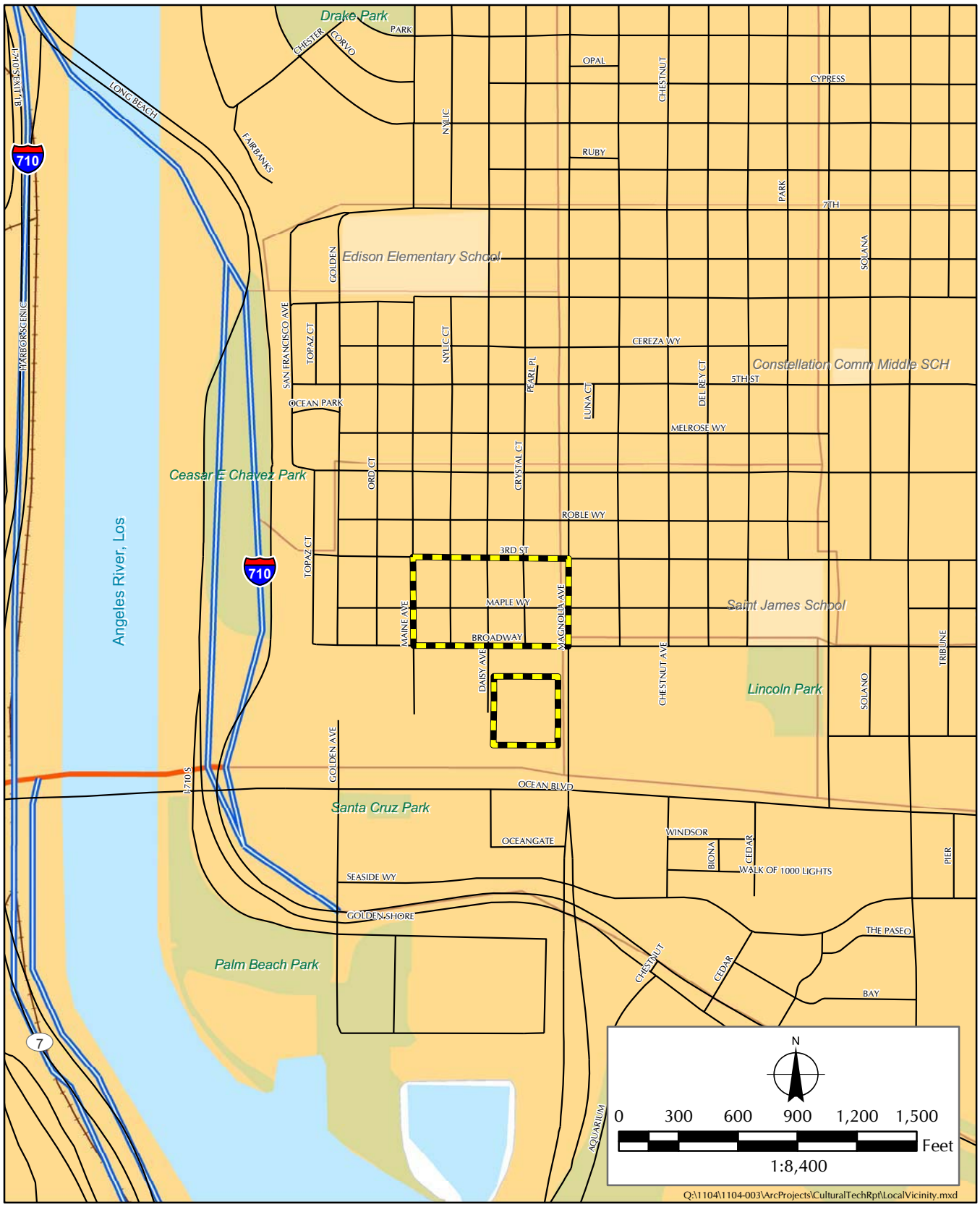
Proposed Project Location

FIGURE 2.1-1
Regional Vicinity Map

Proposed Property Boundary

FIGURE 2.1-2

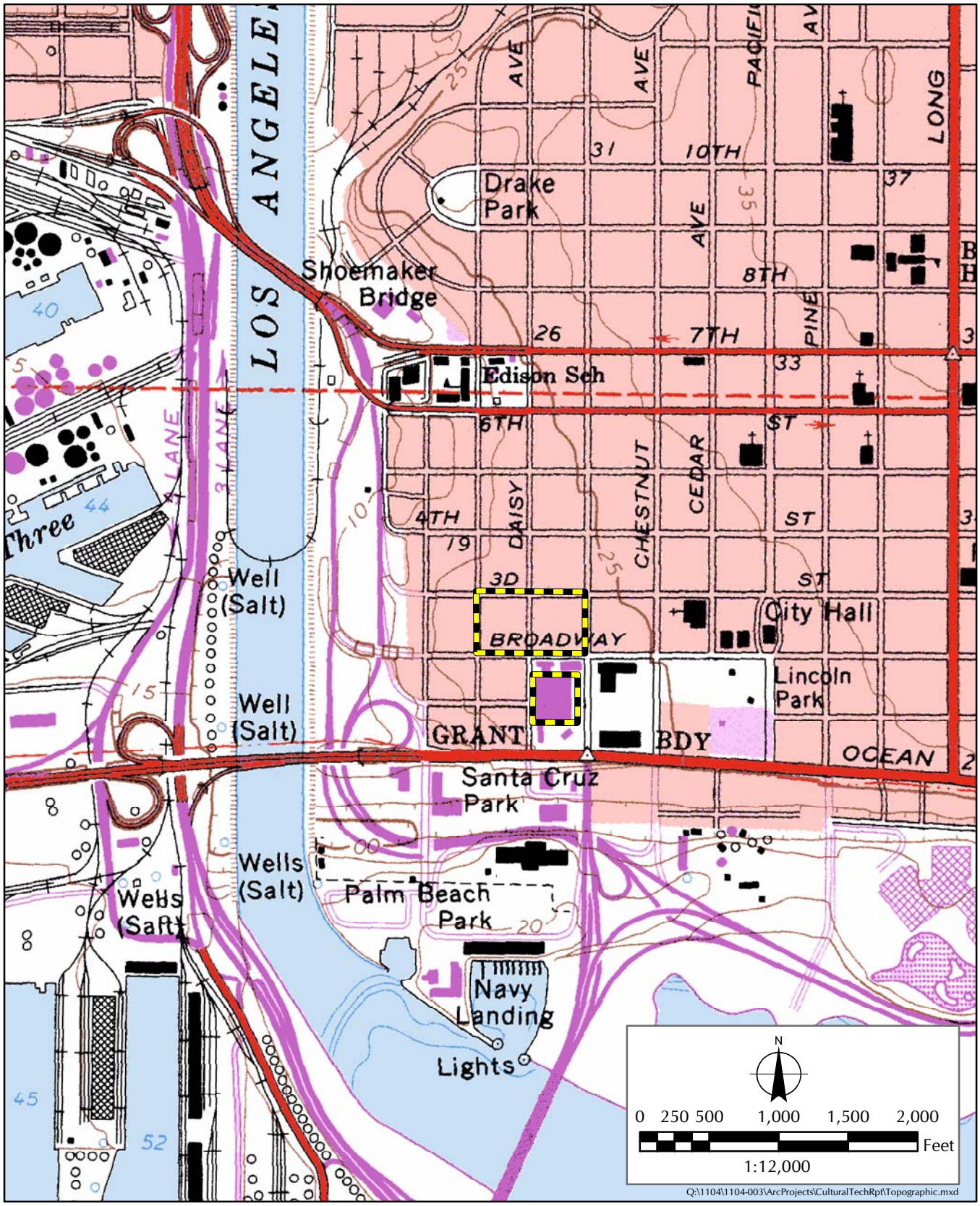
Aerial Map



Proposed Property Boundary

FIGURE 2.1-3

Local Vicinity Map



Proposed Property Boundary

FIGURE 2.1-4

Topographic Map

California (State), the County of Los Angeles (County), and the Redevelopment Agency of the City of Long Beach (Agency).

2.2.1 Specifications

As previously mentioned, the proposed project would consist of a 10-story courthouse building and basement that sits approximately 200 feet tall. The building would be designed to have a sloped roofline so that the tallest portion of the building would be along West Broadway and the shortest portion of the building would be along 3rd Street. Furthermore the proposed project site would also contain limited commercial office and retail space within the overall site. The roughly 545,000 BGSF courthouse facility would be designated as follows: approximately 370,000 BGSF, and 31 courtrooms, would be for the Superior Court; approximately 80,000 BGSF would be established for the County; there would be a designated space for commercial office and retail for private agencies; and the remaining space would be allocated to support courthouse uses.

2.2.2 Proposed Components

The Superior Court would generally maintain current patterns of use for 27 courtrooms and use the new courthouse's additional four courtrooms for criminal judicial proceedings. Superior Court would relocate its staff and operations from the existing courthouse to the proposed new courthouse. County staff in the existing courthouse that interact with the Superior Court would also move from the existing courthouse to the new courthouse. The Superior Court would increase staffing from the current approximately 265 staff to approximately 305 staff members, and the County would increase staffing by 15 percent from the current approximately 260 staff to approximately 299 staff members. The Superior Court would increase juror population by approximately 100 persons per day and visitor population by approximately 15 percent[3] per day.

The proposed project would be designed to accommodate all of the operational functions of the existing superior courthouse, which is located at 415 West Ocean Boulevard in Long Beach California. There would be several relevant site improvements pertaining to the proposed project. The City of Long Beach intends to upgrade 3rd Street. The upgrade would add street corner enhancements, a bicycle lane (as part of a citywide bike improvement plan, which would convert existing parking spaces on 3rd Street to a bike lane), eliminate some parking spaces, and possibly reduce the number of through lanes. The proposed project would require a street closure of Daisy Avenue between West Broadway and 3rd Street. In addition, the proposed project would remove the existing Magnolia Avenue crosswalk that extends from the County parking facility to the existing courthouse. State may remove utility mains from the proposed project site's Daisy Avenue area and relocate the mains to 3rd Street and Magnolia Avenue and possibly to part of West Broadway.

The proposed courthouse building may have one or two basement levels that would contain 35 secure parking spaces, a sally port (a small, two-door, controlled space, typically an entrance where one must close the first door before the second is opened), a holding area for in-custody detainees, and the Sheriff Department's facilities.

[3] The total of 31 courtrooms equals a 15-percent increase from the existing 27 courtrooms.

The existing courthouse is not located on the proposed project site and no physical changes to it are contemplated as part of the proposed project. It is understood that this building will be transferred to the City of Long Beach and will continue to be operated as an office building.

SECTION 3.0
REGULATORY FRAMEWORK

This regulatory framework identifies the federal, state, and local statutes, regulations, and guidelines that govern the identification and treatment of cultural resources and analysis of potential impacts to cultural resources. The lead agency must consider this regulatory framework when rendering decisions on projects that have the potential to affect cultural resources.

3.1 FEDERAL

3.1.1 National Historic Preservation Act of 1966[1]

Enacted in 1966, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO) and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHRA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

3.1.1.1 Section 106

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP and that the ACHP must be afforded an opportunity to comment—through a process outlined in the ACHP regulations, in Title 36 of the Code of Federal Regulations (CFR) Part 800—on such undertakings. The Section 106 process involves identification of significant historic resources within an "area of potential effect," determination if the undertaking will cause an adverse effect on historic resources, and resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public, including individuals, organizations, and agencies (such as the California Office of Historic Preservation), are provided with opportunities to participate in the process. No federal involvement is included in the proposed project; therefore, the Section 106 process is not applicable.

3.1.1.2 National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[2] The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance also must possess integrity of location, design, setting, materials,

[1] United States Code, 16 USC 470. The National Historic Preservation Act as Amended.

[2] Code of Federal Regulations, 36 CFR 60.2.

workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of four established criteria:[3]

Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history;

Criterion B: It is associated with the lives of persons who are significant in our past;

Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or

Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP, unless they satisfy certain conditions. In general, a resource must be 50 years old to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

3.1.2 Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the *Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards* that were developed in 1976, the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* was published in 1995 and codified as 36 CFR 67. Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources."[4] *Preservation* acknowledges a resource as a document of its history over time and emphasizes stabilization, maintenance, and repair of existing historic fabric. *Rehabilitation* not only incorporates the retention of features that convey historic character but also accommodates alterations and additions to facilitate continuing or new uses. *Restoration* involves the retention and replacement of features from a specific period of significance. *Reconstruction*, the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

3.1.3 Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the

[3] Code of Federal Regulations, 36 CFR 60.4.

[4] Weeks, Kay D., and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstruction Historic Buildings*. Washington, DC: U.S. Department of the Interior, National Park Service.

Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

3.2 STATE OF CALIFORNIA

3.2.1 California Environmental Quality Act[5]

Pursuant to the California Environmental Quality Act (CEQA), a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historical resources or identified as significant in a local survey conducted in accordance with state guidelines also are considered historical resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historical resource as defined in California Public Resources Code (PRC) Section 5024.1.[6] Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of an historical resource may have a significant effect on the environment.[7]

CEQA also applies to effects on archaeological sites. Archaeological sites may be eligible for the CRHR and thus would qualify as historical resources under CEQA. If an archaeological site does not satisfy the criteria as an historical resource but does meet the definition of a "unique archaeological resource," it is also subject to CEQA. A unique archaeological resource is defined as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:[8]

(1) It contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information

(2) It has a special and particular quality such as being the oldest of its type or the best available example of its type

(3) It is directly associated with a scientifically recognized important prehistoric or historic event or person

3.2.2 California Register of Historical Resources

Created in 1992 and implemented in 1998, CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."[9] Certain properties, including those listed in or formally

[5] California Public Resources Code, Division Thirteen, Statutes 21083.2, 21084.1.

[6] California Code of Regulations, Title 14, Chapter 3. CEQA Guidelines. Section 15064.5(a).

[7] California Code of Regulations, Title 14, Chapter 3. CEQA Guidelines. Section 15064.5(b).

[8] California Public Resources Code. Section 21083.2(g).

[9] California Public Resources Code, Section 5024.1(a).

determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:[10]

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.[11] It is possible that a resource whose integrity does not satisfy NRHP criteria still may be eligible for listing in the CRHR. Similarly, resources that have achieved significance within the past 50 years may be eligible for inclusion in the CRHR if enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.[12]

3.2.3 California Historical Landmarks[13]

California Historical Landmarks are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors or be recommended by the State Historical Resources Commission, and be officially designated by the Director of California State Parks. The specific standards now in use first were applied in the designation of CHL 770. CHLs 770 and above are automatically listed in the CRHR.

To be eligible for designation as a *landmark*, a resource must meet at least one of the following criteria:

[10] California Public Resources Code, Section 5024.1(c).

[11] Office of Historic Preservation. n.d. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for purposes of determining eligibility for the California Register)." Available at: http://www.ohp.parks.ca.gov

[12] Office of Historic Preservation. n.d. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for purposes of determining eligibility for the California Register)." Available at: http://www.ohp.parks.ca.gov

[13] Office of Historic Preservation. Accessed 17 July 2006. "California Historical Landmarks Registration Program." Available at: http://ohp.parks.ca.gov

- Be the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California)

- Be associated with an individual or group having a profound influence on the history of California

- Be a prototype of, or an outstanding example of, a period, style, architectural movement, or construction, or be one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder

3.2.4 California Points of Historical Interest[14]

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission also are listed in the CRHR. No historical resource may be designated as both a landmark and a *point*. If a point is subsequently granted status as a landmark, the point designation will be retired.

To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

- Be the first, last, only, or most significant of its type within the local geographic region (city or county)

- Be associated with an individual or group having a profound influence on the history of the local area

- Be a prototype of, or an outstanding example of, a period, style, architectural movement, or construction, or be one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder

3.2.5 State Historical Building Code[15]

Created in 1975, the State Historical Building Code (SHBC) provides regulations and standards for the preservation, restoration, rehabilitation, or relocation of historic buildings, structures, and properties that have been determined by an appropriate local or state governmental jurisdiction to be significant in the history, architecture, or culture of an area. Rather than being prescriptive, the SHBC constitutes a set of performance criteria. The SHBC is designed to help facilitate restoration or change of occupancy in such a way as to preserve original or restored elements and features of a resource; to encourage energy conservation and a cost-effective approach to preservation; and to provide for reasonable safety from earthquake, fire, or other hazards for occupants and users of

[14] Office of Historic Preservation. Accessed 17 July 2006. "California Points of Historical Interest, Registrations Programs." Available at: http://ohp.parks.ca.gov

[15] California State Historical Building Safety Board, Division of the State Architect. 2 June 2006. "California's State Historical Building Code and State Historical Building Safety Board." Sacramento, CA. Available at: http://www.dsa.dgs.ca.gov/StateHistoricalBuildingSafetyBoard/default.htm

such buildings, structures, and properties." The SHBC also serves as a guide for providing reasonable availability, access, and usability by the physically disabled.

3.2.6 Native American Heritage Commission

Section 5097.91 of the Public Resources Code established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the Public Resources Code specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

3.2.7 Government Code, Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the NAHC." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the NAHC, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

3.2.8 Health and Safety Code, Sections 7050 and 7052

Health and Safety Code, Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground-disturbing activities must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

3.2.9 Penal Code, Section 622.5

Penal Code, Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

3.2.10 Public Resources Code, Section 5097.5

Public Resources Code, Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

3.3 LOCAL

3.3.1 Southern California Association of Governments

The Southern California Association of Governments (SCAG) Growth Management Chapter (GMC) has instituted policies regarding the protection of cultural resources. SCAG GMC Policy No. 3.21

"encourages the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites."[16]

3.3.2 City of Long Beach Municipal Code

The City of Long Beach has a Cultural Heritage Commission Ordinance (Title 2, Chapter 2.63) that establishes a landmark designation process, as well as the requirement for permits and/or certificates of appropriateness issued by the Cultural Heritage Commission for all "exterior physical changes" to landmark structures or contributors to designated historic districts. As of October 2008, 130 landmarks and 17 historic districts have been designated.

A resource must meet one of the following criteria of significance[17] to be designated as a landmark or landmark district:

- (A) It possesses a significant character, interest, or value attributable to the development, heritage or cultural characteristics of the city, the Southern California region, the state or the nation; or
- (B) It is the site of an historic event with a significant place in history; or
- (C) It is associated with the life of a person or persons significant to the community, city, region or nation; or
- (D) It portrays the environment in an era of history characterized by a distinctive architectural style; or
- (E) It embodies those distinguishing characteristics of an architectural type or engineering specimen; or
- (F) It is the work of a person or persons whose work has significantly influenced the development of the city or the Southern California region; or
- (G) It contains elements of design, detail, materials, or craftsmanship that represent a significant innovation; or
- (H) It is a part of or related to a distinctive area and should be developed or preserved according to a specific historical, cultural or architectural motif; or
- (I) It represents an established and familiar visual feature of a neighborhood or community due to its unique location or specific distinguishing characteristic; or
- (J) It is, or has been, a valuable information source important to the prehistory or history of the city, the Southern California region or the state; or
- (K) It is one of the few remaining examples in the city, region, state or nation possessing distinguishing characteristics of an architectural or historical type.[18]

[16] Southern California Association of Governments. 2001. *SCAG Growth Management Chapter (GMC) Policy No. 3.21.* Los Angeles, CA.

[17] City of Long Beach, Cultural Heritage Commission Ordinance, Title 2, Chapter 2.63.050.

[18] Two additional criteria relating to the designation of historic trees as landmarks have recently been added to the City of Long Beach Municipal Code, but they are not relevant to this report and were excluded for that reason.

SECTION 4.0
METHODS

This section of the Cultural Resources Technical Report describes the methods employed in the characterization and evaluation of cultural resources at the proposed project site. The study methods were designed to provide the substantial evidence required to address the scope of analysis recommended in Appendix G of the State of California Environmental Quality Act (CEQA) Guidelines[1] and policies related to cultural resources, including paleontological resources, prehistoric resources, historical resources, Native American sacred sites, and human remains.

4.1 PALEONTOLOGICAL RESOURCES

The potential to yield paleontological resources within the approximately 5.9-acre proposed project site was assessed in relation to a three-tier probability analysis:

- **High:** Sedimentary geologic units and other geologic units that have yielded unique paleontological resources
- **Moderate:** Older alluvium geologic units
- **Low to none:** Younger alluvium and metamorphic and igneous geologic units

The potential presence of paleontological resources within the proposed project site and vicinity was determined through a records search at the Natural History Museum of Los Angeles County (NHMLAC). The records search consisted of review of the paleontological locality and specimen data collection for the proposed project area from the NHMLAC.[2] In addition, the Geologic Map of the Long Beach 30' x 60' Quadrangle, California,[3] was reviewed to identify the rock units that underlay the proposed project site and to ascertain their potential to yield paleontological resources.

4.2 ARCHAEOLOGICAL AND HISTORICAL RESOURCES

The methodology undertaken to identify and evaluate archaeological and historical resources was designed to accomplish the following goals:

- Identification of previously known, recorded, and/or designated resources
- Identification of potentially significant resources
- Evaluation of the significance of properties using established criteria within the framework of a historic context, in accordance with the Secretary of the Interior's Standards for Evaluation

4.2.1 Record Search and Literature Review

Preparation of this report included the use of information housed at the South Central Coastal Information Center located at California State University, Fullerton, one of the 12 independent centers

[1] *California Code of Regulations*, Title 14, Division 6, Chapter 3, Section 15000–15387, Appendix G.

[2] McLeod, Samuel A. 23 September 2008. "Vertebrate Paleontology Section, Natural History Museum of Los Angeles County, Los Angeles, California." Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

[3] Jennings, C.W.,1992. Geologic Map of the California, Olaf P. Jenkins Edition, Long Beach Sheet, Scale 1:250,000 Division of Mines and Geology.

operated under contract to the Office of Historic Preservation for the purpose of maintaining the federally and state-mandated California Historic Resources Inventory.

A literature review was undertaken to determine if the proposed project would have the potential to adversely affect known archaeological and historic resources. Published and unpublished literature was reviewed. An archaeological and historical resources records search for the proposed project site and surrounding one half-mile radius was conducted on August 18, 2008 by Sapphos Environmental, Inc. staff architectural historian at SCCIC (Figure 4.2.1-1 *Records Search Study Area*). This search included a review of all known relevant cultural resource surveys and excavation reports and examination of the 2008 editions of the California Historical Resources Inventory (HRI),[4] the National Register of Historic Places (NRHP),[5] the listing of California Historic Landmarks (CHL),[6] and the California Points of Historical Interest (CPHI).[7] Additional research was conducted in public records and a number of repositories, including building permits; historical newspaper clippings indexed by ProQuest Newspaper Database; and historic photographs.

4.2.2 Historic Resource Evaluation

An intensive-level survey of the existing Long Beach superior courthouse and the proposed project site was performed on August 18, 2008. Specifically, the goals of the survey were to identify any buildings, structures, objects, or districts that meet the CEQA definition of a historical resource. The survey was conducted in accordance with the *Instructions for Recording Historical Resources*[8] and National Register Bulletin 24, *Guidelines for Local Surveys*.[9] Each building and structure was inspected, photographed and documented. Character-defining features were identified and assessed in accordance with Preservation Brief No. 17, *Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*.[10] This information was recorded on updated State of California Department of Parks and Recreation Historic Resources Inventory forms (DPR 523 series) (Appendix B, *California Historic Resources Inventory DPR 523 Forms*). A historic context was developed to provide a framework for evaluation. Resources were evaluated using the criteria of significance for listing in the NRHP and CRHR. The results of the survey are presented in Section 5, *Results*.

---

[4] California Office of Historic Preservation. 2008. *California Historical Resources Inventory, 2004*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[5] California Office of Historic Preservation. 2008. *National Register of Historic Places*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[6] California Office of Historic Preservation. 2008. *California Historic Landmarks*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[7] California Office of Historic Preservation. 2008. *California Points of Historical Interest*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[8] Office of Historic Preservation. March 1995. *Instructions for Recording Historical Resources*. Sacramento, CA. Available at: http://ohp.parks.ca.gov

[9] U.S. Department of the Interior, National Park Service. Accessed 18 August 2006. *National Register Bulletin 24. Guidelines for Local Surveys: A Basis for Preservation Planning*. Washington, DC. Available at: http://www.cr.nps.gov/nr/publications/bulletins/nrb24/chapter1.htm

[10] Nelson, Lee H., FAIA. September 1988. *Preservation Brief No. 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Washington, DC: U.S. Department of the Interior, National Park Service, Technical Preservation Services. Available at: www.cr.nps.gov/hps/tps/briefs/brief17.htm

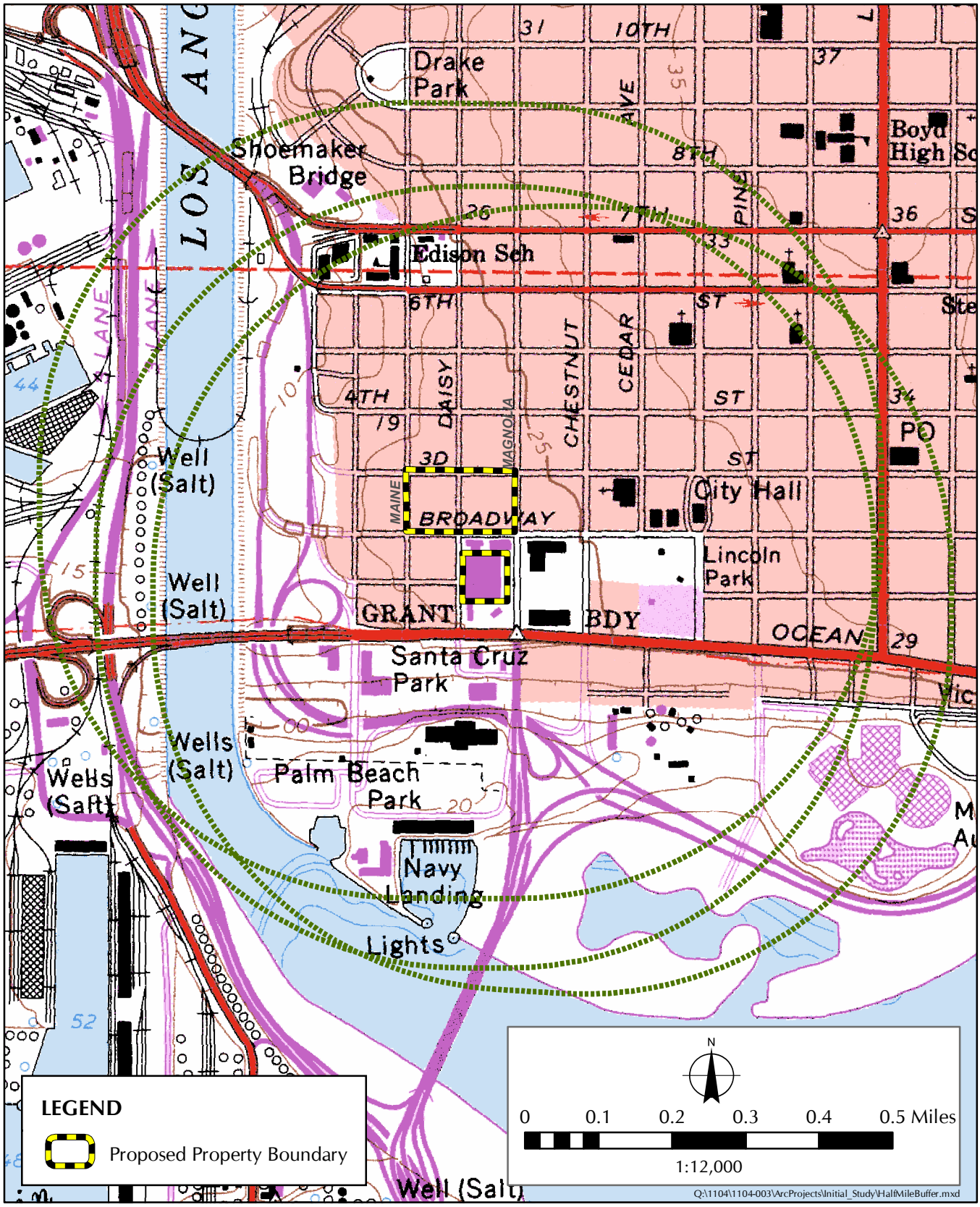


FIGURE 4.2.1-1

Records Search Study Area

4.2.3 Consultation

This Cultural Resources Technical Report also documents coordination with several different agencies and entities:

- County of Los Angeles Department of Public Works
- State of California Native American Heritage Commission (NAHC)
- Natural History Museum of Los Angeles County
- City of Long Beach

Coordination with the NAHC to ascertain the presence of known sacred sites or human remains within the proposed project boundary was initiated by Sapphos Environmental, Inc. on September 19, 2008. A response from the NAHC was received on September 25, 2008.[11] Following the recommendation of the NAHC, Sapphos Environmental, Inc. sent letters to five Native American contacts classified by the NAHC as potential sources of information related to cultural resources in the vicinity of the property. Two follow-up responses regarding the proposed project were received by interested tribal individuals. One response was received via email on October 3, 2008 from Mr. John Tommy Rosas of the Tongva Ancestral Territorial Tribal Nation;[12] the second response was a phone call to Sapphos Environmental, Inc. on November 3, 2008 by Mr. Anthony Morales of the Gabrielino/Tongva San Gabriel Band of Mission Indians.[13]

4.3 HUMAN REMAINS

The potential presence of human remains, including those interred outside of formal cemeteries, was assessed through the inquiry to the NAHC and examination of historic topographic maps from 1901, 1902, 1925, and 1947[14,] for the presence of cemetery icons. In addition, the history of the property was reviewed to determine if any burials were recorded on the site.

4.4 PERSONNEL

Sapphos Environmental, Inc. cultural resources manager, Ms. Leslie Heumann, supervised the work effort. Ms. Shannon Carmack and Ms. Laura Carias prepared the historical resources sections of this report. Ms. Natasha Tabares prepared the archaeological and paleontological sections of this report. Ms. Carias assisted with research and project coordination. Ms. Heumann, Ms. Carmack, and Ms. Carias meet the Secretary of the Interior's Professional Qualification Standards for Architectural History. Ms. Natasha Tabares meets the Secretary of the Interior's Professional Qualification Standards for Archaeology.

[11] Singleton, Dave, Program Analyst, California Native American Heritage Commission, Sacramento, CA. 25 September 2008. Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

[12] Rosas John Tommy, Tribal Administrator, Tribal Litigator, Tongva Ancestral Territorial Tribal Nation, 03 October 2008, Email to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA

[13] Morales, Anthony, Chair Person, Gabrielino/Tongva San Gabriel Band of Mission Indians, 03 November 2008, phone conversation with Natasha Tabares, Sapphos Environmental, Inc.

SECTION 5.0
RESULTS

This section of the Cultural Resources Technical Report characterizes and evaluates the potential for construction, operation, and maintenance of the New Long Beach Courthouse (proposed project) to affect cultural resources within the proposed project site. This section is organized according to the categories of resources specified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines: paleontological resources, archaeological resources, historical resources, and human remains. Although the discipline of archaeology addresses both prehistoric and historic archaeological resources, for clarity of analysis and presentation, prehistoric period resources are presented as archaeological resources, and historic period resources are presented as historical resources.[1] The discussion of each resource category consists of a context that provides background information and a framework for evaluation, a resource characterization that describes previously identified cultural resources and existing cultural resources, an impact analysis that includes significance thresholds and an itemization of potential impacts, and recommended mitigation measures that would avoid or reduce potential project impacts.

5.1 PALEONTOLOGICAL RESOURCES

5.1.1 Paleontological Context

The geology of the proposed project site consists of older Quaternary Alluvium, derived as fluvial deposits from the Los Angeles River that flows immediately to the west. These deposits are represented as Quaternary non-marine terrace deposits in the Geologic Map of California, Long Beach Sheet.[2] This terrace deposit may contain significant paleontological resources.[3]

5.1.2 Paleontological Resource Characterization

The results of the record search indicate that there are no vertebrate fossil localities have been recorded within the proposed project site. However, one vertebrate fossil was found on the southern border of the proposed project area. The deposits underlying the proposed project site and the presence of a known fossil locality in the area indicate that the proposed project site is located within an area with a high level of sensitivity to contain unique paleontological resources.

The geology of the proposed project site is composed of older Quaternary Alluvium, which in this area is known to be fossiliferous. A significant vertebrate fossil was recovered from an area near the intersection of Magnolia Avenue and Ocean Boulevard. The specimen consists of a fossil humerus from a whale, *Cetacea* (LACM 6896). The fossil was recovered at a depth of less than 100 feet. Other fossil localities in the area include LACM 1144 and 3550, north to northeast of the proposed project site. LACM 1144 was recovered near the intersection of Loma Vista Drive with Crystal Court, and LACM 3550 was recovered near the intersection of 12th Street and Pine Avenue. These localities produced fossil specimens of sea lion, *Zalophus*, camel, *Camelops*, and bison, *Bison*,

[1] The prehistoric period is defined as the era prior to European contact with native populations, which occurred around 1769, when Gaspar de Portolá made the first attempt to colonize the region.

[2] Jennings, C.W. 1992. Geologic Map of the California, Olaf P. Jenkins Edition, Long Beach Sheet, Scale 1:250,000 Division of Mines and Geology.

[3] McLeod, Samuel A. 23 September 2008. "Vertebrate Paleontology Section, Natural History Museum of Los Angeles County, Los Angeles, California." Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

from the same type of deposits (older Quaternary Alluvium) present at the proposed project site at depths of less than 48 feet. In addition, in the same type of deposits the fossil of a ground sloth, *Nothrotheriops*, and a mammoth, *Mammuthus columbi* were found at locality LACM 1005 located east-southeast from the proposed project site at Bixby Park, along Ocean Boulevard, east of Cherry Avenue. Similar Quaternary deposits west-northwest from the proposed project site yielded fossil specimens of bison, *Bison* (LACM 1163), at a depth of five feet near the intersection of Anaheim Street and Henry Ford Avenue. These known fossil localities in older Quaternary terrace deposits indicate that the proposed project site has the potential to contain significant fossil vertebrates.[4]

5.1.3 Paleontological Impacts Analysis

5.1.3.1 Significance Threshold

Appendix G of the CEQA guidelines indicates that a project may have a significant effect on the environment if it would directly or indirectly destroy a unique paleontological resource or a unique geological feature.

5.1.3.2 Impacts

The proposed project site is underlain by older Quaternary terrace deposits, which are considered to have high sensitivity for paleontological resources in the area and, therefore, have the potential to reveal significant vertebrate fossils. The implementation of the proposed project may require excavations into these older Quaternary terrace deposits. As a result, the proposed project has the potential to result in significant impacts to cultural resources related directly or indirectly to the destruction of a unique paleontological resource, therefore requiring the consideration of mitigation measures to reduce impacts to below the level of significance.

5.1.4 Paleontological Mitigation Measures

5.1.4.1 Mitigation Measure Cultural-1

The impacts to cultural resources related directly or indirectly to the destruction of a unique paleontological resource from the proposed project shall be reduced to below the level of significance through the salvage and disposition of paleontological resources that result from all earthmoving activities involving disturbances of the older Quaternary terrace deposits. Ground-disturbing activities include, but are not limited to, drilling, excavation, trenching, and grading. If paleontological resources are encountered during ground-disturbing activities, AOC shall require and be responsible for salvage and recovery of those resources consistent with standards for such recovery established by the Society of Vertebrate Paleontology:

- Construction monitoring by a qualified paleontological monitor shall be implemented during all earthmoving activities that involve disturbance of older Quaternary terrace deposits. Should a potentially unique paleontological resource be encountered, a qualified paleontologist will be contacted.

- If fossil localities are discovered, the paleontologist shall proceed accordingly. This includes the controlled collection of fossil and geologic samples for processing.

[4] McLeod, Samuel A. 23 September 2008. "Vertebrate Paleontology Section, Natural History Museum of Los Angeles County, Los Angeles, California." Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

- All significant specimens collected shall be appropriately prepared, identified, and catalogued prior to their placement in a permanent accredited repository. The qualified paleontologist shall be required to secure a written agreement with a recognized repository, regarding the final disposition, permanent storage, and maintenance of any significant fossil remains and associated specimen data and corresponding geologic and geographic site data that might be recovered as a result of the specified monitoring program. The written agreement shall specify the level of treatment (e.g., preparation, identification, curation, and cataloguing) required before the fossil collection would be accepted for storage. In addition, a technical report shall be completed.

- Daily logs shall be kept by the qualified paleontological monitor during all monitoring activities. The daily monitoring log shall be keyed to a location map to indicate the area monitored, the date, and assigned personnel. In addition, this log shall include information of the type of rock encountered, fossil specimens recovered, and associated specimen data. Within 90 days of the completion of any salvage operation or monitoring activities, a mitigation report shall be submitted to the City with an appended, itemized inventory of the specimens. The report and inventory, when submitted to the City, signify the completion of the program to mitigate impacts to paleontological resources.

- Completion of this mitigation measure shall be monitored and enforced by AOC.

5.2 ARCHAEOLOGICAL RESOURCES

5.2.1 Archaeological Context

5.2.1.1 Ethnographic Context

At the time of contact, the Native American group subsequently known as the Gabrielino tribe occupied nearly the entire basin comprising the Counties of Los Angeles and Orange. Named after the Mission San Gabriel, the Gabrielino are thought to have been one of the two wealthiest and largest ethnic groups in aboriginal Southern California,[5] the other being the Chumash. The affluence of the Gabrielino was largely due to the wealth of natural resources within the land base they controlled, which included the rich coastal areas between Topanga Canyon and Aliso Creek, and the offshore islands of San Clemente, San Nicolas, and Santa Catalina. Inland Gabrielino territory included the watersheds of the Los Angeles, San Gabriel and Santa Ana Rivers, and was bounded on the north by the San Gabriel Mountains and on the south by the Santa Ana Mountains, and extended to the east to the area of the current-day city of San Bernardino.[6]

Gabrielino language belonged to the Takic family of the Uto-Aztecan linguistic stock, and was comprised of four to six distinct dialects.[7,8] Ancestors of the ethnographically described Gabrielino

[5] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 538.

[6] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 538.

[7] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 538.

are believed to have arrived in the Los Angeles Basin around 500 BC, eventually establishing permanent settlements and displacing a preexisting population.[9] Little is known of Gabrielino social and political organization. Gabrielino communities were autonomous, comprised of several related nuclear families and led by hereditary chiefdom.[10] Bean and Smith argue for the existence of at least three hierarchically ordered social classes among the Gabrielino: an elite class consisting of chiefs and their immediate families; an economically established, hereditary middle class; and a lower class of individuals engaged in ordinary socioeconomic pursuits.[11] Territorial boundaries were marked and controlled both by individuals and by villages.[12,13] Many researchers assert that the Gabrielino cremated their dead until the mission era, when the Spanish imposed interment,[14,15] although pre-contact cemeteries have been excavated in what is considered to be Gabrielino territory.[16]

5.2.1.1.1 Subsistence and Trade

The Gabrielino practiced a hunter-gatherer subsistence strategy utilizing large primary settlements and smaller, seasonal resource procurement camps. Hunting involved both large and small game including deer, rabbit, squirrel, snake, rat, as well as a wide variety of insects. Hunting on land was carried out with the bow and arrow, deadfalls, snares, and traps. Smoke and throwing clubs were used to hunt burrowing animals. Some meat taboos were held by the Gabrielino: bear, rattlesnake, stingray, and raven were not consumed because these animals were believed to be messengers of the god Chingichngish.

An important part of the seasonal round for inland Gabrielino groups was the establishment of shell-gathering camps along the coast north of San Pedro during winter months.[17] Additionally, aquatic animals such as fish, whales, seals, and sea otters constituted an important part of the diet of coastal populations, and were hunted with harpoons, spear-throwers, and clubs.[18] Although fishing generally took place along rivers and from shore, open-water fishing between the mainland and the islands was also practiced using boats made from wood planks and asphalt. Gabrielino

---

[8] Kroeber, A. L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, DC: Smithsonian Institution, p. 620.

[9] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 540.

[10] Kroeber, A. L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, DC: Smithsonian Institution, p. 633.

[11] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 543.

[12] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 543.

[13] McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press, p. 25.

[14] Reid, Hiram A. 1895. *History of Pasadena*. Pasadena, CA: Pasadena History Company, p. 31.

[15] Kroeber, A. L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, DC: Smithsonian Institution, p. 633.

[16] Walker, Edwin F. 1951. A Cemetery at the Sheldon Reservoir Site in Pasadena. In: *Five Prehistoric Archaeological Sites in Los Angeles County, California*. Los Angeles, CA: Southwest Museum, p. 70-80.

[17] McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press, p. 27.

[18] McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press, pp. 116–117, 121, 126.

fishing equipment also included fishhooks made of shell, nets, basketry traps, and poison substances obtained from plants.[19]

A wide variety of plant foods were consumed by the Gabrielino. Most important of these were acorns, which are rich in nutrients and have a high content of fiber and fat. Other plants consumed by the Gabrielino included the seeds of the islay (*Prunus ilicifolia*), which were ground into a meal, and the seeds and shoots of the chía (*Salvia columbariae*), which were eaten raw, made into loaves, or mixed with water to make a beverage. Roots and bulbs were included in the diet of mainland and island groups, along with clover, wild sunflower seeds, and cholla seeds. Wild tobacco was used for medicinal purposes and as a sedative and narcotic.[20]

The Gabrielinos engaged in trade among themselves and with other groups. Archaeological evidence suggests that Uto-Aztecan speaking groups such as the Gabrielino inhabited San Nicolas Island by 8500 years ago; by 5000 years ago, the inhabitants of the island were involved in an exchange network of symbolic items and raw materials.[21] On Santa Catalina Island a steatite (soapstone) "industry" developed. This rock is abundant on the island and was widely exported to mainland Gabrielino as raw material for artistic or ritualistic objects, as well as for functional objects such as bowls, mortars, pestles, comals and arrow shaft straighteners.[22] In exchange the island inhabitants received acorns, different types of seeds, obsidian, and deerskin, both from mainland Gabrielino and from other inland groups, such as the Serrano. Coastal people exchanged shell and shell beads, dried fish, sea otter pelts and salt.

5.2.1.1.2 Settlement

Early Spanish accounts indicate that the Gabrielino lived in permanent villages with a population ranging from 50 to 200 individuals, and that in 1770, total Gabrielino population within the Los Angeles Basin exceeded 5,000 people.[23,24] Several types of structures characterized the Gabrielino villages: single family homes took the form of domed circular structures averaging 12 to 35 feet in diameter and covered with tule, ferm, or carrizo, while communal structures measured over 60 feet in diameter and could house three or four families. Sweathouses, menstrual huts, and a ceremonial enclosures were also common features of many villages.[25,26]

Archaeological evidence suggests that several Gabrielino communities may have been present in the Long Beach area prior to Spanish contact, and that each community may have controlled an area up to 10 square miles in size. These areas may have been shaped irregularly, with each

---

[19] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 546.

[20] McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press, 128–131.

[21] Arnold, J.E., M.R. Walsh, and S.E. Hollimon. 2004. The Archaeology of California. *Journal of Archaeological Research*, *12*(1): 1–73.

[22] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, pp. 542, 547.

[23] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 540.

[24] McCawley, William. 1996. *The First Angelinos*. Banning, CA: Malki Museum Press, p. 25.

[25] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 542.

[26] McCawley, William. 1996. *The First Angelinos*. Banning, CA: Malki Museum Press, p. 29.

consisting of a small area of coastline attached to a larger inland area that included riparian and chaparral habitats, thus allowing a diversified economy within a fairly small geographic area.[27] Among the best-researched Gabrielino communities in Long Beach was *Puvungna*, a large settlement and important ceremonial site which was probably located approximately 4 1/2 miles east-northeast of the proposed project site, in the area historically occupied by Rancho Los Alamitos and currently occupied by California State University, Long Beach (CSULB). [28] *Puvungna* probably served as a ritual center for Gabrielino communities in the region; the village is thought to be the origin of the Chingichngish doctrine, a historic-period religion based on rituals involving hallucinogenic *datura*, or jimsonweed.[29] Sites associated with *Puvungna* were added to the National Register of Historic Places in 1974 and 1982. Since the mid-1960's, efforts by CSULB to build on undeveloped portions of the campus thought to lie within the boundaries of *Puvungna* have been contested through lawsuits and protests by local Gabrielino groups.

5.2.1.2 Prehistoric Regional and Local Chronology

Because of the relatively long record of Euro-American impact to the Los Angeles Basin, much of the material record associated with the prehistoric ancestors of the Gabrielino has not been available to modern archaeological research. Thus, culture-historical chronologies applied to the area have been more or less borrowed from better-known adjacent regions, and particularly from coastal and desert areas. Although sites within the region clearly show influence from both coastal and desert groups, this report primarily follows the broader chronology devised by King[30] and refined by Arnold[31] for the coastal areas (Table 5.2.1.2-1, *Coastal Regional Chronology*). Their chronology is based on changes and trends in shell beads generally associated with burial assemblages, on subsistence and settlement patterns, and on analyses of the microlithic industry in Chumash territory.

TABLE 5.2.1.2-1
COASTAL REGIONAL CHRONOLOGY

Epoch	Coastal Region	Dates
Middle to Late Holocene	Early Period	Circa 5500 to 600 BC
Late Holocene	Middle Period	Circa 600 BC to AD 1150
Late Holocene	Transitional Period	AD 1150 to 1300
Late Holocene	Late Period	AD 1300 to Historic Period (post 1782)

[27] Grenda, D. R., and J. H. Atschul. 2002. "A Moveable Feast: Islation and Mobility Among Southern California Hunter Gatherers." In Islands and Mainlanders: Prehistoric Context for the Southern California Bight, eds. J.H. Atschul and D. R. Grenda. Tucson, AZ: SRI Press, pp. 143-144.

[28] McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press, p. 71.

[29] Bean, L.J., and S.B. Vane. 1978. "Cults and Their Transformations." In *Handbook of North American Indians, Vol. 8: California*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, p. 669.

[30] King, Chester D. 1990. *Evolution of the Chumash Society: A Comparative Study of Artifacts Used for Social System Maintenance in the Santa Barbara Channel Region before A.D. 1804*. New York: Garland Publishing, Inc.

[31] Arnold, Jeanne, E. 1992. "Complex Hunter-Gatherer-Fishers of Pre-historic California: Chiefs, Specialists, and Maritime Adaptations of the Channel Islands." In *American Antiquity*, 57: 60-84. Washington, DC: Society for American Archaeology.

5.2.1.2.1 Early Period (5500–600 BC)

The latter part of the Early Period is characterized by high numbers of ground stone implements, such as manos (handstones) and metates (milling slabs). These artifacts suggest that plant foods, and particularly hard seeds, increasingly became dietary staples during this period.[32] Grave goods from areas throughout California suggest that relatively egalitarian social systems prevailed during the Early Period.

5.2.1.2.2 Middle Period (600 BC-AD 1150)

During the Middle Period, changes occurred in the types of plant foods exploited and in the technologies used to process them. Yucca buds and acorns were processed through roasting or leaching techniques, allowing the consumption of these otherwise inedible plants. The introduction of these fleshy foods to the diet is signaled by technological changes: the use of portable milling equipment (manos and metates) used in the processing of hard seeds apparently declined, while permanent milling features such as bedrock mortars and pestles increased in frequency. As population densities and sedentism increased, food storage became an increasingly common practice. King et al. interpret differing quantities and qualities of grave goods among burials in several Southern California sites as evidence that social differentiation may have increased during the Middle Period, and then declined during the subsequent Transitional and Late Periods.[33] The Middle Period also apparently brought a shift in the production of shell beads, with *Haliotis* and *Olivella* beads changing from rectangular to circular varieties. Overall, there was an increase in the variety of ornaments present in Southern California sites at this time,[34] although bead production did not become a form of craft specialization *per se* until later periods.[35]

5.2.1.2.3 Transitional Period (AD 1150–1300)

The end of the Middle Period and the beginning of the Transitional Period are characterized by the nucleation of previously independent villages. This time also marks the appearance of simple chiefdoms in Chumash territory, characterized by complex socioeconomic relationships, hereditary inequality, and defined leadership. This higher complexity is evidenced in the archaeological record by the presence of craft specialization, advanced boating technology, extensive exchange networks, and subsistence patterns. Craft specialization is represented in microblade production and in increased manufacturing of shell beads from the thickest part (the callus) of the *Olivella* shells. Toward the end of the Transitional Period and beginning of the Late Period, *Olivella* callus beads began to be used as currency in the exchange system. Although beads were produced in coastal areas, changes in bead production also were reflected inland as a result of trading

[32] King, Chester D., Charles Smith, and Tom King. 1974. *Archaeological Report Related to the Interpretation of Archaeological Resources Present at Vasquez Rocks County Park*. Prepared for County of Los Angeles Department of Parks and Recreation, p. 44.

[33] King, Chester D., Charles Smith, and Tom King. 1974. *Archaeological Report Related to the Interpretation of Archaeological Resources Present at Vasquez Rocks County Park*. Prepared for County of Los Angeles Department of Parks and Recreation, 44–45.

[34] King, Chester D. 1990. *Evolution of the Chumash Society: A Comparative Study of Artifacts Used for Social System Maintenance in the Santa Barbara Channel Region before A.D. 1804*. New York: Garland.

[35] Arnold, Jeanne E., and Anthony Graesch. 2004. "The Later Evolution of the Island Chumash." In *Foundations of Chumash Complexity*, ed. Jeanne Arnold Cotsen. Los Angeles, CA: Institute of Archaeology, University of California, Los Angeles, p. 5.

systems.[36] The development of a sophisticated water craft, the plank canoe or *tomol*, intensified existing trade networks among the islands and mainland, thus affecting exchange throughout inland California.

5.2.1.2.4 Late Period (AD 1300–1782) and Historic Period (Post 1782)

During the Late Period, the trade networks continued to expand among islanders and between coastal and inland populations. In coastal areas, production of beads and microliths increased, while standardization of manufactured items became more common. Similar intensification of bead and microlith production is not as well known inland; ethnographic evidence suggests that the collection of foods (such as acorn, seeds, and bulbs) and the manufacturing of other items (such as baskets and bowls) intensified, thus providing inland groups with currency that could be traded for needed coastal products.[37]

The first Spanish contact with the island Gabrielino took place in 1520, when Juan Rodriguez Cabrillo arrived on Santa Catalina Island. In 1769, Gaspar de Portolá made the first attempt to colonize Gabrielino territory, and Portola is believed to have met the Gabrielino chief Hahamovic at the Gabrielino village *Hahamog-na,* on the Arroyo Seco near Garfias Spring in South Pasadena.[38,39] In 1771 the Spanish established the Mission San Gabriel Archangel, and the decimation of the Gabrielino had begun.[40]

5.2.2 Archaeological Resource Characterization

The record search conducted at SCCIC resulted in the determination that the proposed project site has not been previously surveyed for archaeological resources, that there are no known prehistoric archaeological resources within the proposed project area, and that no prehistoric archaeological resources have been recorded within the one half mile of the proposed project site. Seven cultural resources surveys and record searches for cultural resources impacts assessments have been conducted within one-half mile of the proposed project site (Table 5.2.2-1*, Previous Surveys within One-Half Mile of the Proposed Project Site*).

[36] Arnold, Jeanne E., and Anthony Graesch. 2004. "The Later Evolution of the Island Chumash." In *Foundations of Chumash Complexity*, ed. Jeanne Arnold Cotsen. Los Angeles, CA: Institute of Archaeology, University of California, Los Angeles, pp. 6–7.

[37] Arnold, Jeanne E. 1993. "Labor and the Rise of Complex Hunter-Gatherers." *Journal of Anthropological Archaeology*, *12*:75–119.

[38] Reid, Hiram A. 1895. *History of Pasadena.* Pasadena, CA: Pasadena History Company, p. 19.

[39] Zack, Michele. 2004. Altadena: Between Wilderness and City. Altadena, CA: Altadena Historical Society, p. 8

[40] Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution, pp. 540–541.

TABLE 5.2.2-1
PREVIOUS SURVEYS CONDUCTED WITHIN ONE HALF MILE OF THE PROPOSED PROJECT SITE

Report No.	Year	Reference
LA2233	1990	Mason, Roger D., Ocean Promenade (Job # 11426) Cultural Resources Records Search. Prepared by The Keith Companies Archaeological Division.
LA2399	1978	Weinman, Lois J. and E. Gary Stickel, Los Angeles Long Beach Harbor Areas Cultural Resource Survey. Prepared for U.S. Army Engineering District, Los Angeles, California.
LA2644	1992	Wlodarski, Robert J., The Results of a Phase 1 Archaeological Study for the Proposed Alameda Transportation Corridor Project, Los Angeles County, California. Prepared by Historical, Environmental, Archaeological, Research, Team, Calabasas, California. Prepared for Myra L. Frank and Associates, Los Angeles, California.
LA3102	1994	McCawley, William., John Romani, and Dana Slawson, The Los Angeles County Drainage Area Subsequent Environmental Impact Report. Prepared by Greenwood and Associates, Pacific Palisades. Prepared for Woodward-Clyde Consultants, Santa Ana California.
LA4130	1984	Los Angeles-Long Beach Harbors Landfill Development and Channel Improvement Studies Cultural Resources Appendix. Prepared by Corps of Engineers and the Ports of Los Angeles and Long Beach. Prepared by The Los Angeles Long Beach Harbors Landfill Development and Channel Improvement.
LA5403	1994	Environmental Impact Report: Queensway Bay Master Plan, State Clearing House N0. 94081033, EIR No. E-13-94. Prepared by Community and Environmental Planning Division Department of Planning and Building Long Beach, California.
LA5886	2002	Duke, Curt. Cultural Resource Assessment, AT & T Wireless Services Facility No. 05084A, Los Angeles County, California. Prepared by LSA Associates, Inc. Submitted to GeoTrans, Inc.
LA8485	2005	Tibbet, Casey and Terri Jacquemain. Historic Period Building Survey, Downtown and Central Long Beach Redevelopment Plans Master EIR Project, City of Long Beach, Los Angeles County, California. Submitted by CRM Tech. Submitted to Starla Hack, RBF Consulting.
LA9129	2007	Strudwick, Ivan. Memorandum, Cultural Resource Analysis for the Shoemaker Street Bridge Project in the City of Long Beach, Los Angeles County, California.

The results of the records search also indicate that no cultural resources within the proposed project site have been listed in the California Historical Resources Inventory (HRI),[41] the National Register of Historic Places (NRHP),[42] the listing of California Historic Landmarks (CHL),[43] or the California Points of Historical Interest (CPHI).[44]

[41] California Office of Historic Preservation. 2007. *California Historical Resources Inventory, 2004*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[42] California Office of Historic Preservation. 2007. *National Register of Historic Places*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[43] California Office of Historic Preservation. 2007. *California Historic Landmarks*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[44] California Office of Historic Preservation. 2007. *California Points of Historical Interest*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

In addition, consultation was undertaken with the NAHC to identify the presence of known Native American sacred sites. According to the NAHC, no Native American cultural resources are listed in the sacred lands file for the proposed project site.[45] The NAHC identified seven tribal members and recommended that they be contacted for further information regarding the presence of cultural resources within the proposed project site. Letters describing the proposed project and its location were sent to these individuals,. To date, two replies have been received.[46],[47] These responses did not indicate the presence of sacred lands within the proposed project site. Therefore, based on the information available, there are no known Native American sacred lands or sites within the proposed project site.

5.2.3 Archaeological Impact Analysis

5.2.3.1 Significance Threshold

Archaeological resources under CEQA may meet the definition of a either historical resource or unique archaeological resource. A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of a historical resource is defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The significance of a historical resource would be significantly impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR, a local register of historic resources pursuant to Section 5020.1(k) of the Public Resources Code, or a historic resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code. With regard to unique archaeological resources, CEQA states that when a project will cause damage to a unique archaeological resource, reasonable efforts must be made to preserve the resource in place or leave the resource in an undisturbed state. Mitigation measures are required to the extent that a unique archaeological resource may be damaged or destroyed by a project.

5.2.3.2 Impacts

Although there are no known prehistoric resources within the proposed project area, archaeological evidence of multiple Gabrielino communities in the Long Beach area prior to Spanish contact makes it possible that archaeological material may be encountered if excavations reach native soils. Sanborn maps indicate that during the historic period the proposed project site was densely built up.[48] By 1902, 24 of the approximately 36 parcels on site contained improvements, primarily one-story, wood-framed residential buildings. Construction had intensified by 1914, with the erection of a number of multi-family residential buildings; only a

[45] Singleton, Dave, Program analyst, Native American Heritage Commission, Sacramento, CA. 25 November 2008. Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

[46] John Tommy Rosas, Tribal Administrator, Tribal Litigator, Tongva Ancestral Territorial Tribal Nation. 3 October 2008. E-mail to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

[47] Morales, Anthony, Chair Person, Gabrielino/Tongva San Gabriel Band of Mission Indians. 3 November 2008. Phone conversation with Natasha Tabares, Sapphos Environmental, Inc.

[48] Sanborn Map Company, "Long Beach, California." September 1902, Sheet 4; 1914, Sheets 19 and 20; 1914-February 1949, Sheets 19 and 20. Available at www.lapl.org.

handful of lots remained vacant. Density had increased by 1949 and a few commercial buildings had been introduced. Because of the level of disturbance, the previously disturbed soils are not expected to contain significant prehistoric archeological resources. As a result of the possibility that the proposed project site may contain archaeological materials in native soils, the proposed project has the potential to result in significant impacts to cultural resources related directly or indirectly to the destruction of an archaeological resource, therefore requiring the consideration of mitigation measures to reduce impacts to below the level of significance.

5.2.3.3 Mitigation Measure Cultural-2

Direct impacts to archaeological resources resulting from ground-disturbing activities in native soils would be reduced to below the level of significance through the implementation of the following mitigation measure, which is in accordance with Section 21083.2 of the Public Resources Code and Section 15126.4 (b)(3) of the State CEQA Guidelines. Ground-disturbing activities include, but are not limited to, drilling, excavation, trenching, and grading.

- A qualified archaeologist shall be retained to implement a monitoring and recovery program if ground-disturbing activities will occur in native soils, which have the potential to contain unique archaeological resources as defined by Public Resources Code Section 21083.2 or historical resources as defined by the State CEQA Guidelines Section 15064.5(a).

- The selected archaeologist shall be required to secure a written agreement with a recognized museum repository regarding the final disposition and permanent storage and maintenance of any unique archaeological resources or historical resources recovered as a result of the archaeological monitoring, as well as corresponding geographic site data that might be recovered as a result of the specified monitoring program. The written agreement shall specify the level of treatment (i.e., preparation, identification, curation, cataloging, etc.) required before the collection would be accepted for storage. In addition, a technical report shall be completed.

- Within 90 days of the completion of any salvage operation or monitoring activities, a mitigation report shall be submitted to AOC, with an appended, itemized inventory of the specimens. The report and inventory, when submitted to AOC, signify the completion of the program to mitigate impacts to archaeological resources.

- Completion of this mitigation measure shall be monitored and enforced by the County of Los Angeles Chief Executive Office.

5.3 HISTORICAL RESOURCES

5.3.1 Historic Context

5.3.1.1 Historical Development of Long Beach

The City of Long Beach, located in southwestern portion of the County of Los Angeles, received the earliest European visitors in the late 18th century with the arrival of Spanish explorers and missionaries. Mission San Gabriel Archangel, originally founded in what is now Montebello, was

awarded jurisdiction over most of this region after its establishment in 1771. Ten years later, the Pobladores, a group of 12 families from present-day Mexico, founded a community in what is now downtown Los Angeles. The settlers, who were reportedly recruited to establish a farming community to relieve Alta California's dependence on imported grain, named the area el Pueblo de Nuestra Señora la Reina de Los Angeles de Porciuncula.[49]

During the Spanish and subsequent Mexican reign over Alta California, the southern portion of present-day County of Los Angeles was held in a variety of land grants. In 1784, Juan Manuel Nieto, a Spanish soldier, had been granted 300,000 acres (an amount reduced in 1790 to 167,000 acres) to reward his military service. After his death in 1804, the land became the property of his heirs; in 1834, it was divided into five smaller ranchos, including Rancho Los Alamitos and Rancho Los Cerritos. These two ranchos spanned the majority of what now comprises the City of Long Beach; Alamitos Avenue along the eastern edge of the study area traces the boundary that separated the two ranchos.

Long Beach (originally Willmore City) was founded in 1881 from a small portion of the Rancho Los Cerritos as William Willmore's American Colony project. The southern manager for the California Immigrant Union, Willmore was a promoter not only of local real estate but also of the Southern California lifestyle, a concept that was initially overstated but ultimately lasting.[50] As did other promoters in emerging Southern California towns, Willmore capitalized on key locale-specific assets; Willmore City was touted as a healthful seaside resort in newspapers throughout the country. Despite extensive marketing, Willmore's days as a promoter of the Southern California lifestyle were not successful, and Jotham Bixby resumed ownership by default in 1884. Bixby sold the town to a new syndicate called the Long Beach Land and Water Company, who changed the colony's name to Long Beach. In 1887, the Long Beach Development Company took ownership of the land.[51]

In addition to the promise of a healthful climate and picturesque seascape, the tourist trade and stream of settlers were influenced by the establishment of accessible railway transportation. Travelers and settlers from the East and Midwest, drawn by the 1880s real estate boom, had come en masse to California and Southern California following the completion of the joint Central Pacific–Union Pacific transcontinental railroad to San Francisco in 1869. Competition between the two primary railway companies—the Atchison, Topeka, and Santa Fe and the Southern Pacific—further spurred on tourism and settlement to California. Both rail companies cut passenger rates sharply to win passengers, with the ticket price from the Missouri Valley to Southern California dropping to one dollar per passage. From 1887 to 1889, more than 60 new towns were laid out in Southern California, although most of these consisted of unimproved subdivided lots. By 1889, the real estate boom had collapsed, but the period of prosperity had resulted in a considerable increase in wealth in Southern California in general and had brought approximately 137,000 tourists-cum-residents to the region.[52]

Long Beach promoters and business people sought to attract newcomers from other local cities, some of which exceeded the city's population by thousands and even tens of thousands. This goal was assisted by the availability of local rail transportation. Trains had been serving the general area

[49] Robinson, W.W. 1959. *Los Angeles from the Days of the Pueblo*, p. 5. San Francisco, CA: California Historical Society.

[50] McWilliams, Carey. 1946. *Southern California: An Island on the Land*. Layton, UT: Gibbs Smith, pp. 96, 119.

[51] Weinman, Lois J., and Gary E. Stickel. 1978. *Los Angeles-Long Beach Harbor Areas Cultural Resource Survey*. Prepared for: U.S. Army Corps of Engineers, Los Angeles, p. 63.

[52] McWilliams, Carey. 1946. *Southern California: An Island on the Land*, pp. 113-122. Layton, UT: Gibbs Smith.

since 1869, when Phineas Banning constructed a 22-mile railway from Los Angeles to San Pedro. In 1891, the Long Beach City Council allowed the Los Angeles Terminal Railroad Company to install a rail line along Ocean Avenue to connect Long Beach with Los Angeles.[53] By 1898, Southern Pacific had taken over the Long Beach Railroad line along Second Street at Pacific Avenue.

From 1895 to 1902, the geographic boundary of most development within Long Beach expanded northwest to Anaheim Street (north) and Monterey Avenue (west) to accommodate the growing population, which had increased to approximately 4,000 residents.

By the turn of the 20th century, Long Beach's economy seemed fully dependent on tourism. In the early 20th century, however, another industry began to emerge in Long Beach to rival tourism. In 1905, the Los Angeles Dock and Terminal Company purchased the 800 acres of marshland that had been included in the original sale of the town to the Long Beach Development Company (1887) and began to improve the area in preparation for shipping. Beginning in 1906, the San Gabriel River was dredged, and a 1,400-foot turning basin and three channels were created.[54] A 500-foot-long municipal wharf was constructed on Channel 3 in 1911, and the Port of Long Beach opened in June 1911. The City of Long Beach regained its substantially improved, 800 acre of marshlands-turned-harbor in early 1917 after devastating floods in 1914 and 1916 caused the collapse of the Los Angeles Dock and Terminal Company. The harbor ultimately played a role in wartime shipping, including the transportation of ships, food, clothing, and munitions, as well as the construction of ships and submarines, among the many other World War I support efforts in which Long Beach residents engaged. The following year, Long Beach and the U.S. Army Corps of Engineers permanently established regular navigation between the Los Angeles and Long Beach inner harbors by improving the Cerritos Channel.[55,56]

In addition to the tourism trade and nascent shipping industry at the harbor, agriculture played a role in Long Beach's economy. Willmore's vision of a seaside resort town with light agricultural uses was close to being a reality; however, agriculture was not as important economically in Long Beach as it was in many other Southern California cities and towns. Many small-scale family farms, some with livestock, were scattered throughout the rural areas of the city. Other small- and mid-sized farms, ranches, and dairies thrived to the north and east of the growing downtown core as far as Anaheim Street and east to about Temple Avenue in the early 20th Century and later at Signal Hill.[57]

A series of annexations to Long Beach in the 1900s, including the absorption of Alamitos Beach (1905) to the east, Carroll Park (1908), and Belmont Heights (1911), and convenient transportation, seaside amenities, and a burgeoning harbor industry, helped increase the permanent local

[53] Johnson Heumann Research Associates. 1988. *Expanded Downtown Long Beach Historic Survey, Final Report*. City of Long Beach, Office of Neighborhood and Historic Preservation, p. 13.

[54] Weinman, Lois J., and Gary E. Stickel. 1978. *Los Angeles-Long Beach Harbor Areas Cultural Resource Survey*. Prepared for: U.S. Army Corps of Engineers, Los Angeles, p. 63.

[55] Weinman, Lois J., and Gary E. Stickel. 1978. *Los Angeles-Long Beach Harbor Areas Cultural Resource Survey*. Prepared for: U.S. Army Corps of Engineers, Los Angeles, p. 64.

[56] Berner, Loretta. 1990. "A Step Back in Time." In *Shades of the Past. Journal of the Historical Society of Long Beach*, ed. Lorette Berner. Long Beach, CA, p. 67.

[57] Ward, Harry E. 1976. No title. In *Long Beach As I Remember It, 1776-1976*, ed. Donald E. Van Liew. Los Alamitos, CA: Hwong Publishing Company, p. 45.

population.[58,59] Sanborn maps indicate that, from 1902 to 1905, Long Beach's population tripled, from approximately 4,000 to 12,000. By 1910, the population was 17,809,[60] and the city had expanded to approximately 10 square miles.[61]

In 1921, the discovery of oil in Signal Hill by the Shell Oil Company brought radical changes to Long Beach, as the ownership, production, and sale of oil became the city's primary economic industry.[62] The field in Signal Hill proved remarkably rich in oil, producing 859 million barrels of oil and more than 100 million cubic feet of natural gas in the first 50 years. Speculators, promoters, and experienced oilmen descended on Signal Hill, competing for mineral leases.[63] Although Signal Hill was an unincorporated island within the City of Long Beach, the building boom resulting from the area's oil production had a dramatic effect on Long Beach's population.[64] From 1920 to 1925, the population more than doubled, growing from 55,000 in 1920 to an estimated 135,000 in 1925.[65,66] The discovery of oil had created millionaires out of ordinary citizens and investors, and the effects were felt throughout the city, particularly downtown and along the shoreline.

After the 1929 stock market crash, Long Beach's diversified economy allowed the city to weather the first years of the Depression relatively well. In the decade leading up to the stock market crash, between 1920 and 1929, Long Beach's population tripled. Development slowed significantly after the crash, as it did in communities across the country, accompanied by a corresponding drop in the rate of population increase in the late 1920s, slowing new construction.

In March 1933, the City of Long Beach was hit by a magnitude 6.3 earthquake that toppled masonry buildings, shook houses and apartments off their foundations, damaged and destroyed schools and churches, and disabled the city's natural gas service. Aftershocks continued for over a year. Reconstruction was financed with federal reconstruction grants and loans, which, coupled with the activity generated through rebuilding, rejuvenated the local economy.[67] Many buildings that were repaired or reconstructed during this period incorporated the Art Deco or Streamline Moderne styles popular at the time. In 1935, funding provided by the federal Works Progress

[58] Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls, p. 23.

[59] Weinman, Lois J., and Gary E. Stickel. 1978. *Los Angeles-Long Beach Harbor Areas Cultural Resource Survey*. Prepared for: U.S. Army Corps of Engineers, Los Angeles, p. 63.

[60] U.S. Census Bureau. 1910. Census records for the City of Long Beach. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

[61] Harshbarger, Tom. Spring 1999. "History in a Seashell." *California State University Long Beach, University Magazine Online*, *3*(1). Available at: http://www.csulb.edu

[62] Robinson, W.W. 1948. *Long Beach: A Calendar of Events in the Making of a City*. Reprinted by: Title Insurance and Trust Company, Los Angeles, CA. Available at: City of Long Beach Office of Neighborhood and Historic Preservation, p. 14.

[63] Berner, Loretta. 1995. "Al Brown Remembers the Pike." In *Shades of the Past. Journal of the Historical Society of Long Beach*, pp. 18-19. Edited by Loretta Berner. Long Beach, CA.

[64] Robinson, W.W. 1948. *Long Beach: A Calendar of Events in the Making of a City*. Reprinted by: Title Insurance and Trust Company, Los Angeles, CA. Available at: City of Long Beach Office of Neighborhood and Historic Preservation, p. 14.

[65] Johnson Heumann Research Associates. 1988. *Expanded Downtown Long Beach Historic Survey, Final Report*. City of Long Beach, Office of Neighborhood and Historic Preservation, p. 14.

[66] U.S. Census Bureau. 1920. Census records for the City of Long Beach. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

[67] Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls, p. 31.

Administration (which later became the Works Projects Administration, WPA) was used to build and improve parks and transportation facilities, as well as civic and recreational buildings throughout the city.

In 1936, oil was struck again—this time at the Wilmington Oil Field near the Long Beach Harbor. In the late 1930s, the defense industry continued to establish a strong presence in the area with the opening of Reeves Field (1937) on Terminal Island, the first permanent naval base in Long Beach. Soon thereafter, air transportation emerged which further boosted the importance of the local defense industry.

The first transcontinental flight in history had concluded in Long Beach in 1911, when Cal Rogers landed his plane on the beach. Aviation pioneer Earl Daugherty had established his own airport in 1919 in the north part of the city, and in 1924, moved his airfield to the present site of the Long Beach Municipal Airport after persuading the city to designate the land.[68,69] The location and scale of the Long Beach Airport was a deciding factor in the selection of Long Beach by the Douglas Aircraft Company for a new production plant. Construction on the 242-acre facility began in November 1940 and concluded in August 1942 before the United States entered World War II. In September 1942, Franklin Delano Roosevelt arrived by special train at the new facility for a tour. Constructed adjacent to the Long Beach Airport, the plant was an aircraft design and production facility with engineering support, planning, tooling, and fabrication capabilities. With its construction, manufacturing was added to Long Beach's list of active economic sectors.[70]

In the immediate aftermath of the Japanese attack on Pearl Harbor, the city became involved in the war effort. The federal government constructed the Roosevelt Naval Base, Naval Shipyard, and Naval Hospital on Terminal Island. Douglas Aircraft established a hiring office on American Avenue (now Long Beach Boulevard). By the eve of World War II, the local economy had been invigorated, and the volume of wartime defense industry production in Long Beach served to fully restore the economy (unlike in many other Southern California communities, which only fully rebounded in the postwar period). The war effort had infused Long Beach with employment, economic resources, and people, and brought tourists back to the Pike.[71]

By January 1941, Long Beach's population had increased to 164,271, a population increase of 22,239 from 1931.[72] Although much of the increase could be credited to the military personel moving into the area, there was also an influx of individuals and families drawn to Long Beach's promise of a large business district next to the sea. With the increasing population, the City was faced with a demand for housing. To help provide available land for the housing shortage, the Bixby Land Company announced the opening of 4,500 acres of the Bixby rancho which originally encompassed some 27,000 acres and had been under the same ownership since 1866. The property immediately adjoined the new $4,000,000 Long Beach Municipal Airport allowing for airport land potential. The land extended eastward and south of the airport to the township of Los

[68] League of Women Voters. 1980. *Long Beach: From Rancho to Renewal*. On file, City of Long Beach Office of Neighborhood and Historic Preservation, p. 15.

[69] Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls, p. 28.

[70] Wallen, Arch C. 1976. "Douglas Long Beach—WWII." In *Long Beach As I Remember It, 1776-1976*, pp. 19-33. Edited by Donald E. Van Liew. Los Alamitos, CA: Hwong Publishing Company.

[71] Berner, Loretta. 1995. "Al Brown Remembers the Pike." In *Shades of the Past. Journal of the Historical Society of Long Beach*, p. 6. Edited by Loretta Berner. Long Beach, CA.

[72] "Los Angeles County." 2 January 1941. *Los Angeles Times*, p. D5.

Alamitos in Orange County. Its southern boundary went through the Long Beach traffic circle at the intersection of State Street and Hathaway with its northern boundary extending just short of Carson Boulevard.[73] The availability of this land opened the door for construction of single and multi-family dwellings, as well as business and commercial enterprises.

The national and local wartime boom that carried the country out of the Depression also propelled most communities into an unprecedented period of postwar growth. However, while outlying areas expanded in the postwar climate, many downtown areas suffered. In the late 1940s, the Los Altos area in the eastern portion of Long Beach transitioned from agricultural to residential uses. In the early 1950s, Bixby Knolls, a suburban shopping center, was developed, followed by the Lakewood Center. The subdivision of Ranchos Los Alamitos was completed by John Bixby's grandchildren, and the Alamitos Bay Marina was begun in 1954. In the postwar period, Long Beach was forced to address a growing problem in its downtown area—subsidence at the harbor. The problem, which had been identified before World War II, had been exacerbated by the development of the Wilmington Oil Field in 1936. The city had been sinking at a slow rate, with 15 inches lost at the east end of Terminal Island in the 1940s. At its height, subsidence affected an area of approximately 20 square miles, spread from the harbor, across the shoreline, and through downtown on a northeast path that circled Signal Hill. The 29-foot sinkage at the core of this area was the worst experienced; this improved toward the periphery, with a 3-foot sinkage at the Villa Riviera.[74] Damage to harbor buildings, streets, railroad tracks, and underground systems was extensive. A $90 million dollar tidelands restoration program, funded by the State Tidelands Fund, began in 1953 and concluded successfully in 1958.[75] Earlier claims of inappropriate use of Tidelands Funds (which had resulted in lawsuits and much unfavorable publicity) are blamed by some to have caused the delayed economic recovery of downtown and the shoreline.[76]

Further hampering economic growth downtown was the postwar decrease in tourism. As part of the move to secure its western coast and major naval headquarters at the start of World War II, the federal government had constructed a third, 8.9-mile breakwater, creating 30 square miles of protected anchorage. This decision effectively eliminated the surf and sand in Long Beach and paved the way for further high-rise development of the shoreline, where once no buildings had been permitted on the oceanfront side of Ocean Park Avenue. The importance of the beach, which was seen as a playground for residents and visitors, as a tourist draw could not be underestimated. By the late 1950s and early 1960s, the addition of major tourist attractions, such as Disneyland and Knott's Berry Farm in neighboring communities, began to draw visitors away from Long Beach and caused its own residents to seek diversion in other Southern California cities. Although the city had gained some renewed interest as a destination spot after the arrival of the Queen Mary in the Long Beach Harbor in the late 1960s, and the harbor area was flourishing, redevelopment efforts downtown and on the shoreline were lackluster. Soon, the West Coast Theater stopped featuring first-run movies, many stores closed or relocated to suburban shopping centers, doctors moved

[73] "Opening of Bixby Land Linked to City's Growth." 16 March 1941. *Los Angeles Times*, p. 18.

[74] League of Women Voters. 1980. *Long Beach: From Rancho to Renewal*. On file, City of Long Beach Office of Neighborhood and Historic Preservation, p. 20.

[75] Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls, p. 40.

[76] Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls, p. 24.

their practices closer to the new Memorial Hospital, and residents' use of downtown declined dramatically.[77]

In a trend felt by many U.S. cities in the postwar period, Long Beach's downtown suffered an economic downturn with the growth of the suburbs; many downtown buildings deteriorated from benign neglect, and many others were demolished to make way for urban renewal projects. Downtown property owners were concerned about the future of their investments, as redevelopment was not yet a priority.

5.3.1.2 Development of Long Beach Courthouse System and Project Site

The City of Long Beach established its first informal judicial system in 1888, when court was held in a marketplace, set up with folding chairs. The city's first permanent municipal court building was constructed in 1925. By 1929, the municipal court building also served as a branch for the Los Angeles County Superior Court, the first local court branch to serve any Superior Court within California.[78].[79] The population boom following World War II prompted Long Beach to construct a more efficient courthouse building, and by 1953, the Long Beach City Council had voted unanimously to accept an offer by the County Board of Supervisors to construct a $2 million courthouse. The courthouse, to be designed by architects Kenneth S. Wing and Francis Heusel, would serve the Municipal and Superior Courts.[80] In 1954, it was decided the location for the new building would be the northeast corner of Ocean Boulevard and Magnolia Avenue. Opposition to the location came from many community members who felt it was best to construct the courthouse away from downtown Long Beach because the acquisition costs would be cheaper and the courthouse would be centrally located within the city. The City believed placing the courthouse downtown would eliminate worrying about transportation issues due to the high volume of traffic it would bring.[81]

The six-story structure was initially estimated to be 72,000 square feet in size and to cost $2,133,250. After modifications to the original plans in 1956, the courthouse expanded to 99,626 square feet, with a price tag of approximately four million dollars.[82] The new plans included the courthouse as part of a civic center plan for the City of Long Beach, complete with a Public Safety building (being constructed at the same time) and a future city hall and library.[83] The architects also included many of the latest modern conveniences for the staff and visitors such as air conditioning, full-service cafeteria, and elevators and escalators.[84]

The new Long Beach Courthouse was scheduled to open in December of 1960 after two and half years of construction time, with a final cost of $6 million. The new building housed the Superior and Municipal Courts, County Clerk, Municipal court clerk, and district attorneys office. There was great excitement surrounding the modern design of the building, which featured large windows

---

[77] League of Women Voters. 1980. *Long Beach: From Rancho to Renewal*. On file, City of Long Beach Office of Neighborhood and Historic Preservation, p. 21.

[78] "Courts to Sit in Long Beach." 28 Feb 1929. *Los Angeles Times*, p. A9.

[79] Simon, Renee B. "Courts Come of Age." *Press Telegram Southland*, p. 7-9

[80] "Long Beach Approves Plan for Courthouse." 26 Aug 1953. *Los Angeles Times*, p. 4.

[81] "site for New Long Beach Courthouse Stirs Battle" 4 September 1953. *Los Angeles Times*, p. A22.

[82] "L.B. Courthouse Costs Doubled; Plan OKd" *Long Beach Independent* 18 Jul 1956.

[83] "County, Civic Units Rising" 25 January 1959. *Los Angeles Times*, F18.

[84] Maddock, Don. "Courts and Offices in New Home Dec. 5" *Press Telegram* 22 Oct 1960.

inlaid with wire designed to cut the glare of the sun. More than 1,000 people attended the opening ceremonies of the new Long Beach courthouse; Chief Justice Earl Warren headlined as guest speaker. Other speakers included Frank G. Bonelli, chairman of the Board of Supervisors; Mayor Edwin W. Eade of Long Beach; Presiding Judge Joe Raycraft of South District Superior Court and Presiding Judge Lyman B. Sutter of Long Beach Municipal Court District.[85]

By 1964, an addition to the courthouse was already under consideration. The original plans had been designed so that a potential seventh floor could be added to the southern wing later. However, officials determined the costs for such an addition were too high and instead, agreed to extend the north and south wings at the building's east elevation. Each wing was extended by a width of three symmetrical bays that were nearly identical in construction to the original design. The building's original architects, Wing and Heusel, completed the design for the addition. Heusel had since joined the firm, Heusel, Homolka & Associates.[86] The 60,000 square foot east wing was completed in 1971 at final cost of $2.7 million dollars.

5.3.1.3 Corporate International Architecture

The Long Beach Courthouse was designed in the Corporate International Style which evolved from the innovative designs of prominent German architect Ludwig Mies Van de Rohe in the 1920s. According to David Gebhard and Robert Winter in *A Guide to Architecture in Los Angeles and Southern California,* Mies Van de Rohe's designs could be described as, "The concept of clothing a building in a moduled, thin metal paneled and glass skin independent of the structural skeleton."[87] Many of his designs featured large glass curtain walls separated by thin metal elements set in rectilinear grids creating an overall uniform appearance. Mies Van der Rohe became well-known in the United States in the 1940s and 1950s due to his innovative modern commercial and residential projects. One of his most significant projects was the Seagram Building in New York which has much gained recognition as "the first weighty skyscraper to be completely enveloped in its glass window wall."[88]

The first example in the United States of the style which came to be known as the Corporate International Style is believed to be the 1952 Lever House in New York, designed by the architecture firm of Skidmore, Owings and Merrill.[89] The Corporate International Style promoted the ideas of the machine age in its prefabricated elements and borrowed many of its characteristics from the designs of Mies Van der Rohe, which included its weightless uniform appearance of glass windows inset in recliner grids, and overall fragile appearance usually enhanced by above ground stilts. By the late 1950s, numerous variations on the style were visible and its popularity continued well into the 1970s. The style became popular in Southern California and one of the most well known examples is the Xerox Building completed in 1968 in El Segundo by architects C. Ellwood Associates.

---

[85] "Chief Justice Warren to Talk at Long Beach." 2 December 1960. *Los Angeles Times*, p. B9.

[86] "Board to Study County Building Expansion Plans." 19 December 1965. *Los Angeles Times*, p. G14.

[87] Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Santa Barbara and Salt Lake City: Peregrine Smith, Inc. Publishers, p. 705.

[88] Jencks, Charles. 1973. *Modern Movements in Architecture*. Harmondsworth, Middlesex, England: Penguin Books Publishers, p. 100.

[89] Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Santa Barbara and Salt Lake City: Peregrine Smith, Inc. Publishers, p. 705.

Character–defining features of the Corporate International Style include the following:

- vertical box, often with a suggestion of being set above the ground on stilts,
- cladding of machine-produced elements: windows and vertical surfaces all on the same plane and all as weightless as possible,
- buildings appear fragile,
- horizontal layering of floors and the repetitious cell-like character of interior space can be read in interior fenestrations.[90]

5.3.1.4 Architects

The courthouse building which also served as the first branch for the Los Angeles County Superior Courts was designed by Kenneth S. Wing, in conjunction with Francis J. Heusel. The two architects were initally approached by the City of Long Beach in 1954 to design a modern building to serve as the first permanent courthouse site in the City's history. While both architects were locally recognized, Wing was the most prolific, becoming well known for his modern designs that shaped the city for over sixty years.

Kenneth S. Wing (1903-1987), a native of Colorado Springs, Colorado, moved with his family to Long Beach in 1918. He graduated from Poly High School and later from the University of Southern California (USC) School of Architecture. While still a student at USC, he designed the West Long Beach Day Nursery. In his early years, Wing designed several single-family residences for the Virginia Country Club, Bixby Knolls, Alamitos Heights, Rolling Hills and Palos Verdes Estates. He closed his firm to head the Los Angeles County's War Housing Department during World War II. Wing was known for his close attention to detail and he believed that he needed to know the needs of his client before beginning a project. He first designed the interior then created the exterior to reflect the elements of the interior. Some of Wing's most significant Long Beach projects include the Long Beach Arena; the Southern California Edison Building; United California Bank; the Physical Education facility at California State University, Long Beach; David Starr Jordan High School; the First Baptist Church of Long Beach; Jordan High School; Luther Burbank School, the renovation of the historic Bixby Ranch in Los Cerritos, and many homes in the Virginia Country Club and Bixby Knolls area.

Francis J. Heusel (1906-1968) was born in Detroit Michigan. He received his Masters degree in architecture from the Ecole des Beaux Arts in Paris in 1931. He began practicing architecture in 1938 and was a member of the American Institute of Architects. He formed a partnership with Frank Homolka in 1960, just before the Long Beach courthouse was completed. The firm Heusel, Homolka & Associates assisted in designing the addition made to the Long Beach courthouse in 1971 and designed several other buildings in Long Beach including Elks Lodge 888, Water Department headquarters, St. Luke's Church and the Olympics Plaza Beach Center. Heusel's earlier works included the Benjamin F. Tucker School (1954), Florence Bixby Elementary School (1952), and a residence at 4147 Country Club Drive.

[90] Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Santa Barbara and Salt Lake City: Peregrine Smith, Inc. Publishers, pp. 705–706.

5.3.2 Historical Resource Characterization

The record search conducted at SCCIC indicated that four properties were identified in a Historic Resources Survey within one half mile of the proposed project site (Table 5.3.2-1, *Historic Resources within one half Mile of the Proposed Project Site*).

TABLE 5.3.2-1
HISTORIC RESOURCES WITHIN ONE HALF MILE OF THE PROPOSED PROJECT SITE

Resource No.	Year	Reference
19-150350	1996	Felgemaker, Gerhardt H. Historic Resources Survey. Prepared for Long Beach Planning Department. Long Beach, California
19-150352	1996	Felgemaker, Gerhardt H. Historic Resources Survey. Prepared for Long Beach Planning Department. Long Beach, California
19-150354	1996	Felgemaker, Gerhardt H. Historic Resources Survey. Prepared for Long Beach Planning Department. Long Beach, California
19-150356	1996	Felgemaker, Gerhardt H. Historic Resources Survey. Prepared for Long Beach Planning Department. Long Beach, California

In addition, the results of the records search indicate that no cultural resources within the project site have been listed in the California Historical Resources Inventory (HRI),[91] the National Register of Historic Places (NRHP),[92] the listing of California Historic Landmarks (CHL),[93] or the California Points of Historical Interest (CPHI).[94]

The intensive level historic resources survey resulted in the determination that the there are two buildings located within the proposed project site, the Magnolia Avenue Parking Garage, (101 Magnolia Avenue) and the Julian Ship Building (505 West Broadway). The parking garage is a four story utilitarian concrete structure built in 1975. It is less than 45 years old, does not appear to be eligible for the CRHR or for designation as a City of Long Beach Landmark or contributor to a historic district, and therefore, does not qualify as a historical resource as defined by CEQA. The Julian Ship Building was assessed for historic significance in 2006.[95], Constructed as a drive-in market in 1931, it is an L-shaped, one-story building, anchored by an octagonal tower at the intersection of its two wings, and displays the character-defining features of the Spanish Colonial Revival style. The Julian Ship Building appears to meet criteria 1 and 3 for inclusion in the CRHR and multiple criteria for designation as a City of Long Beach landmark. However, this building has been approved for demolition in conjunction with the West Gateway Redevelopment Project and therefore is not considered in this analysis.[96]

---

[91] California Office of Historic Preservation. 2007. *California Historical Resources Inventory, 2004*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[92] California Office of Historic Preservation. 2007. *National Register of Historic Places*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[93] California Office of Historic Preservation. 2007. *California Historic Landmarks*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[94] California Office of Historic Preservation. 2007. *California Points of Historical Interest*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

[95] Moruzzi, Peter. January 2006. *Drive-In Market/Julian Ship Supplies Building, 505 West Broadway, Long Beach, California, City Landmark Assessment Report*. Prepared for the City of Long Beach. On file at Sapphos Environmental, Inc., Pasadena, CA.

[96] West Gateway Redevelopment Environmental Impact Report. July 2005.

5.3.2.1 Long Beach Courthouse Building (415 West Ocean Boulevard)

An additonal building, the existing courthouse (415 West Ocean Boulevard), was also identified as a historical resource pursuant to CEQA. The existing courthouse is not located on the proposed project site and no physical changes to it are contemplated as part of the proposed project. It is understood that this building will be transferred to the City of Long Beach and will continue to be operated as an office building.

The Long Beach Courthouse appears eligible for inclusion in the CRHR at the local level of significance as an individual resource under Criterion 3 within the context of the architectural evolution of Long Beach, as one of a limited number of fine examples of the Corporate International Style of architecture remaining in the City. The building embodies the distinctive characteristics of the Corporate International Style, and is a representative example of the style designed by a prominent local architect, Kenneth S. Wing, whose distinguished career spanned some sixty years in Long Beach. Despite having undergone a 60,000 square foot alteration in 1971, the building's exterior appearance still reflects its period of construction and retains a high degree of integrity of location, feeling, association, setting, design, materials and workmanship. The building has retained most of its character-defining features: curtain wall construction and glass windows inset in recliner grids, recessed first floor and use of squared columns, terrazzo floors, and windows and vertical surfaces on the same plane. The period of significance is 1960 (the date of construction) to 1971 (the date of the addition).

In addition, the Long Beach Courthouse appears eligible for designation as a City of Long Beach Landmark as an individual resource, under Criteria D, E and F. The building is fine example of 1960s Modern architecture, which adequately portrays the environment of the 1960s era; the building embodies the distinguishing characteristics of the Corporate International Style; and the building is a representative example of the style designed by a prominent local architect, Kenneth S. Wing, whose distinguished career spanned some sixty years in Long Beach. Therefore, as a resource eligible for listing in the CRHR and eligible as a City of Long Beach Landmark, the Long Beach County Building is a historical resource for purposes of CEQA.

5.3.3 Impacts Analysis

*5.3.3.1 Significance Threshold*s

Under CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of a historical resource is defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The significance of a historical resource would be significantly impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR, a local register of historic resources pursuant to Section 5020.1(k) of the Public Resources Code, or historic resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code. In general, a project that follows the *Secretary of the Interior's Standards for the*

Treatment of Historic Properties and associated guidelines shall be considered as mitigated to below the level of significance.[97]

5.3.3.2 Impacts to Historical Resources

The proposed New Long Beach Courthouse project is not expected to result in impacts to cultural resources related to a substantial adverse change in the significance of a historical resource. The intensive level survey revealed that there are two buildings located within the proposed project site: the Magnolia Avenue parking garage (101 Magnolia Avenue) and the Julian Ship Building (505 West Broadway). The parking garage is less than 45 years old, does not appear eligible for inclusion in the CRHR, or for designation as a City of Long Beach Landmark and is not considered to be a historical resource as defined by CEQA. It has no known exceptional significance, associations with historical events or persons, or outstanding architectural qualities. The Julian Ship Building was assessed for historic significance in 2006.[98], Constructed in 1931, in the Spanish Colonial Revival style, the Julian Ship Building appears to meet criteria 1 and 3 for inclusion in the CRHR and multiple criteria for designation as a City of Long Beach landmark. However, this building has been approved for demolition in conjunction with the West Gateway Redevelopment Project and therefore is not considered in this analysis.[99] The existing courthouse (415 West Ocean Boulevard) is not located on the proposed project site and no physical changes to it are contemplated as part of the proposed project. It is understood that this building will be transferred to the City of Long Beach Redevelopment Agency and will continue to be operated as an office building. Therefore, there are no expected impacts to cultural resources related to a substantial adverse change in the significance of a historical resource.

Although it is understood that the existing courthouse building will be transferred to the City of Long Beach Redevelopment Agency and will continue to be operated as an office building, it is important to note that any future project that may involve alteration or demolition of the existing courthouse would be subject to analysis under CEQA of potential impacts to a historical resource.

5.4 HUMAN REMAINS

5.4.1 Human Remains Context

The interment of human remains among California Native Americans can be classified into three methods: inhumation (burial), cremation, and a combination of both inhumation and cremation. The preferred method varied depending on the region and cultural group, and some groups practiced both methods simultaneously depending of the situation in which the individual died. With interment came the practice of grave goods, a practice favored by most of the tribes in California. Grave goods usually consisted of beads of various materials, knifes, projectile points, and exotic trade items among other objects.

---

[97] Weeks, Kay D., and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstruction Historic Buildings*. Washington, DC: U.S. Department of the Interior, National Park Service.

[98] Moruzzi, Peter, January 2006. *Drive-In Market/Julian Ship Supplies Building, 505 West Broadway, Long Beach, California, City Landmark Assessment Report*. Prepared for the City of Long Beach. On file at Sapphos Environmental, Inc., Pasadena, CA.

[99] West Gateway Redevelopment Environmental Impact Report. July 2005.

Interment of human remains among pioneers and homesteaders also varied between inhumation and cremation. The internment method chosen was a result of the circumstances and location at the time of death, as well as the religion or cultural beliefs. In the late-nineteenth and early twentieth centuries, cemeteries were few and often located at some distance. Burial on the homestead grounds was often a preferred alternative.

5.4.2 Human Remains Resource Characterization

Reviews of historic maps,[100] along with the results of the records search with the NAHC,[101] indicate that there are no known Native American or historic period cemeteries, nor known informal Native American burials, within the vicinity of the proposed project site

5.4.3 Human Remains Impacts Analysis

5.4.3.1 Significance Threshold

While a significance threshold for impacts to human remains is not explicitly stated in CEQA, Appendix G of the CEQA Guidelines indicates that any disturbance of human remains could potentially be considered an impact to cultural resources, particularly with respect to Native American graves and burials.

5.4.3.2 Impacts

The proposed project would not be expected to directly or indirectly disturb human remains, including those interred outside of formal cemeteries. The results of the archaeological record search, review of historic maps,[102,] and the NAHC Sacred Lands File search, [103] and the intensive level historical resources survey indicate that no historic period or Native American burial grounds are located within or in proximity to the proposed project site. Although the discovery of human remains is not anticipated during ground-disturbing activities for the proposed project, a statutory process for addressing the unanticipated discovery of human remains delineated in Public Resources Code 5097 would be followed in the unlikely event of such a discovery. Therefore, the proposed project is not expected to result in significant impacts to cultural resources related the disturbance of human remains, including those interred outside of formal cemeteries,

5.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of mitigation measures Cultural-1 and Cultural-2, would reduce impacts to cultural resources related to an adverse change in the significance of a paleontological or archaeological resource to below the level of significance.

---

[100] Environmental Data Resources, Inc. 2007. Historical Topographic Map Report for Kroc Community Center, Long Beach, CA 90806. Inquiry Number 2015389.1. Milford, CT.

[101] Singleton, Dave, Program Analyst, California Native American Heritage Commission, Sacramento, CA. 8 November 2007. Letter response to Christina Poon, Sapphos Environmental, Inc., Pasadena, CA.

[102] Environmental Data Resources, Inc. 2007. Historical Topographic Map Report for Kroc Community Center, Long Beach, CA 90806. Inquiry Number 2015389.1. Milford, CT.

[103] Singleton, Dave, Native American Heritage Commission, Sacramento, California. 6 September 2007. Letter to Amy Commendador-Dudgeon, Sapphos Environmental, Inc., Pasadena, CA.

SECTION 6
REFERENCES

Arnold, J.E., M.R. Walsh, and S.E. Hollimon. 2004. The Archaeology of California. *Journal of Archaeological Research*, *12*(1): 1–73.

Arnold, Jeanne E. 1993. "Labor and the Rise of Complex Hunter-Gatherers." *Journal of Anthropological Archaeology*, *12*:75–119.

Arnold, Jeanne E., and Anthony Graesch. 2004. "The Later Evolution of the Island Chumash." In *Foundations of Chumash Complexity*, ed. Jeanne Arnold Cotsen. Los Angeles, CA: Institute of Archaeology, University of California, Los Angeles.

Arnold, Jeanne, E. 1992. "Complex Hunter-Gatherer-Fishers of Pre-historic California: Chiefs, Specialists, and Maritime Adaptations of the Channel Islands." In *American Antiquity*, 57: 60-84. Washington, DC: Society for American Archaeology.

Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians, Vol. 8*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution.

Bean, L.J., and S.B. Vane. 1978. "Cults and Their Transformations." In *Handbook of North American Indians, Vol. 8: California*, ed. R.F. Heizer. Washington, DC: Smithsonian Institution.

Berner, Loretta. 1990. "A Step Back in Time." In *Shades of the Past. Journal of the Historical Society of Long Beach*, ed. Lorette Berner. Long Beach, CA.

Berner, Loretta. 1995. "Al Brown Remembers the Pike." In *Shades of the Past. Journal of the Historical Society of Long Beach*, pp. 18-19. Edited by Loretta Berner. Long Beach, CA.

"Board to Study County Building Expansion Plans." 19 December 1965. *Los Angeles Times*.

California Code of Regulations, Title 14, Chapter 3. CEQA Guidelines. Section 15064.5(a).

California Code of Regulations, Title 14, Chapter 3. CEQA Guidelines. Section 15064.5(b).

California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15000–15387, Appendix G.

California Office of Historic Preservation. 2007. *California Historical Resources Inventory, 2004*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2007. *California Historic Landmarks*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2007. *California Historical Resources Inventory, 2004*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2007. *California Historic Landmarks*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2007. *California Points of Historical Interest*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2007. *National Register of Historic Places*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2008. *California Historical Resources Inventory, 2004*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2008. *California Historic Landmarks*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2008. *California Points of Historical Interest*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Office of Historic Preservation. 2008. *National Register of Historic Places*. Fullerton, CA: California State University, Department of Anthropology, South Central Coastal Information Center.

California Public Resources Code, Division Thirteen, Statutes 21083.2, 21084.1.

California Public Resources Code, Section 5024.1(a).

California Public Resources Code, Section 5024.1(c).

California Public Resources Code. Section 21083.2(g).

California State Historical Building Safety Board, Division of the State Architect. 2 June 2006. "California's State Historical Building Code and State Historical Building Safety Board." Sacramento, CA. Available at: http://www.dsa.dgs.ca.gov/StateHistoricalBuildingSafetyBoard/default.htm

"Chief Justice Warren to Talk at Long Beach." 2 December 1960. *Los Angeles Times*.

City of Long Beach, Cultural Heritage Commission Ordinance, Title 2, Chapter 2.63.050.

Code of Federal Regulations, 36 CFR 60.2.

Code of Federal Regulations, 36 CFR 60.4.

"County, Civic Units Rising" 25 January 1959. *Los Angeles Times*.

"Courts to Sit in Long Beach." 28 Feb 1929. *Los Angeles Times*.

Environmental Data Resources, Inc. 2007. Historical Topographic Map Report for Kroc Community Center, Long Beach, CA 90806. Inquiry Number 2015389.1. Milford, CT.

Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Santa Barbara and Salt Lake City: Peregrine Smith, Inc. Publishers.

Grenda, D. R., and J. H. Atschul. 2002. "A Moveable Feast: Islation and Mobility Among Southern California Hunter Gatherers." In Islands and Mainlanders: Prehistoric Context for the Southern California Bight, eds. J.H. Atschul and D. R. Grenda. Tucson, AZ: SRI Press.

Harshbarger, Tom. Spring 1999. "History in a Seashell." *California State University Long Beach, University Magazine Online*, *3*(1). Available at: http://www.csulb.edu

Jencks, Charles. 1973. *Modern Movements in Architecture*. Harmondsworth, Middlesex, England: Penguin Books Publishers.

Jennings, C.W. 1992. Geologic Map of the California, Olaf P. Jenkins Edition, Long Beach Sheet, Scale 1:250,000 Division of Mines and Geology.

John Tommy Rosas, Tribal Administrator, Tribal Litigator, Tongva Ancestral Territorial Tribal Nation. 3 October 2008. E-mail to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

Johnson Heumann Research Associates. 1988. *Expanded Downtown Long Beach Historic Survey, Final Report*. City of Long Beach, Office of Neighborhood and Historic Preservation.

King, Chester D. 1990. *Evolution of the Chumash Society: A Comparative Study of Artifacts Used for Social System Maintenance in the Santa Barbara Channel Region before A.D. 1804*. New York: Garland Publishing, Inc.

King, Chester D. 1990. *Evolution of the Chumash Society: A Comparative Study of Artifacts Used for Social System Maintenance in the Santa Barbara Channel Region before A.D. 1804*. New York: Garland.

King, Chester D., Charles Smith, and Tom King. 1974. *Archaeological Report Related to the Interpretation of Archaeological Resources Present at Vasquez Rocks County Park*. Prepared for County of Los Angeles Department of Parks and Recreation.

Kroeber, A. L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, DC: Smithsonian Institution.

"L.B. Courthouse Costs Doubled; Plan OKd" *Long Beach Independent* 18 Jul 1956.

League of Women Voters. 1980. *Long Beach: From Rancho to Renewal*. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

"Long Beach Approves Plan for Courthouse." 26 Aug 1953. *Los Angeles Times*.

"Los Angeles County." 2 January 1941. *Los Angeles Times*.

Maddock, Don. "Courts and Offices in New Home Dec. 5" *Press Telegram* 22 Oct 1960.

McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press.

McCawley, William. 1996. *The First Angelinos*. Banning, CA: Malki Museum Press.

McLeod, Samuel A. 23 September 2008. "Vertebrate Paleontology Section, Natural History Museum of Los Angeles County, Los Angeles, California." Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

McWilliams, Carey. 1946. *Southern California: An Island on the Land*. Layton, UT: Gibbs Smith.

McWilliams, Carey. 1946. *Southern California: An Island on the Land*, pp. 113-122. Layton, UT: Gibbs Smith.

Morales, Anthony, Chair Person, Gabrielino/Tongva San Gabriel Band of Mission Indians, 03 November 2008, phone conversation with Natasha Tabares, Sapphos Environmental, Inc.

Morales, Anthony, Chair Person, Gabrielino/Tongva San Gabriel Band of Mission Indians. 3 November 2008. Phone conversation with Natasha Tabares, Sapphos Environmental, Inc.

Moruzzi, Peter. January 2006. *Drive-In Market/Julian Ship Supplies Building, 505 West Broadway, Long Beach, California, City Landmark Assessment Report*. Prepared for the City of Long Beach. On file at Sapphos Environmental, Inc., Pasadena, CA.

Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls.

Nelson, Lee H., FAIA. September 1988. *Preservation Brief No. 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Washington, DC: U.S. Department of the Interior, National Park Service, Technical Preservation Services. Available at: www.cr.nps.gov/hps/tps/briefs/brief17.htm

Office of Historic Preservation. Accessed 17 July 2006. "California Historical Landmarks Registration Program." Available at: http://ohp.parks.ca.gov

Office of Historic Preservation. Accessed 17 July 2006. "California Points of Historical Interest, Registrations Programs." Available at: http://ohp.parks.ca.gov

Office of Historic Preservation. March 1995. *Instructions for Recording Historical Resources*. Sacramento, CA. Available at: http://ohp.parks.ca.gov

Office of Historic Preservation. n.d. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for purposes of determining eligibility for the California

"Opening of Bixby Land Linked to City's Growth." 16 March 1941. *Los Angeles Times*. Register)." Available at: http://www.ohp.parks.ca.gov

Reid, Hiram A. 1895. *History of Pasadena*. Pasadena, CA: Pasadena History Company.

Robinson, W.W. 1948. *Long Beach: A Calendar of Events in the Making of a City*. Reprinted by: Title Insurance and Trust Company, Los Angeles, CA. Available at: City of Long Beach Office of Neighborhood and Historic Preservation.

Robinson, W.W. 1959. *Los Angeles from the Days of the Pueblo*. San Francisco, CA: California Historical Society.

Rosas John Tommy, Tribal Administrator, Tribal Litigator, Tongva Ancestral Territorial Tribal Nation, 03 October 2008, Email to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA

Sanborn Map Company, "Long Beach, California." September 1902, Sheet 4; 1914, Sheets 19 and 20; 1914-February 1949, Sheets 19 and 20. Available at www.lapl.org.

Simon, Renee B. "Courts Come of Age." *Press Telegram Southland*.

Singleton, Dave, Native American Heritage Commission, Sacramento, California. 6 September 2007. Letter to Amy Commendador-Dudgeon, Sapphos Environmental, Inc., Pasadena, CA.

Singleton, Dave, Program Analyst, California Native American Heritage Commission, Sacramento, CA. 25 September 2008. Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

Singleton, Dave, Program Analyst, California Native American Heritage Commission, Sacramento, CA. 8 November 2007. Letter response to Christina Poon, Sapphos Environmental, Inc., Pasadena, CA.

Singleton, Dave, Program analyst, Native American Heritage Commission, Sacramento, CA. 25 November 2008. Letter response to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

"Site for New Long Beach Courthouse Stirs Battle" 4 September 1953. *Los Angeles Times*.

Southern California Association of Governments. 2001. *SCAG Growth Management Chapter (GMC) Policy No. 3.21*. Los Angeles, CA.

U.S. Census Bureau. 1920. Census records for the City of Long Beach. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

U.S. Department of the Interior, National Park Service. Accessed 18 August 2006. *National Register Bulletin 24. Guidelines for Local Surveys: A Basis for Preservation Planning.* Washington, DC. Available at: http://www.cr.nps.gov/nr/publications/bulletins/nrb24/chapter1.htm

U.S. Geological Survey. [1964] Photorevised 1981. 7.5-Minute Series, Long Beach, California, Topographic Quadrangle. Reston, VA.

United States Code, 16 USC 470. The National Historic Preservation Act as Amended.

Walker, Edwin F. 1951. A Cemetery at the Sheldon Reservoir Site in Pasadena. In: *Five Prehistoric Archaeological Sites in Los Angeles County, California*. Los Angeles, CA: Southwest Museum.

Wallen, Arch C. 1976. "Douglas Long Beach—WWII." In *Long Beach As I Remember It, 1776-1976*, pp. 19-33. Edited by Donald E. Van Liew. Los Alamitos, CA: Hwong Publishing Company.

Ward, Harry E. 1976. No title. In *Long Beach As I Remember It, 1776-1976*, ed. Donald E. Van Liew. Los Alamitos, CA: Hwong Publishing Company.

Weeks, Kay D., and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstruction Historic Buildings*. Washington, DC: U.S. Department of the Interior, National Park Service.

Weinman, Lois J., and Gary E. Stickel. 1978. *Los Angeles-Long Beach Harbor Areas Cultural Resource Survey*. Prepared for: U.S. Army Corps of Engineers, Los Angeles.

West Gateway Redevelopment Environmental Impact Report. July 2005.

Zack, Michele. 2004. Altadena: Between Wilderness and City. Altadena, CA: Altadena Historical Society.

APPENDIX A
GLOSSARY OF TERMS

APPENDIX A
GLOSSARY OF TERMS

The glossary provides definitions of cultural resource terms used in various environmental documentation produced in support of the South Campus Historic District Evaluation. These definitions were culled from recognized literature in the field of cultural resources. A list of reviewed literature is provided in the reference section at the end of the glossary.

There are a number of technical terms that are used in the characterization of baseline conditions and assessment of the potential for the proposed project to result in effects to cultural resources:

Archaeological resource: The National Register of Historic Places (NRHP) defines an "archaeological site" (or property) as "the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains. Archaeological remains usually take the form of artifacts (e.g., fragments of tools, vestiges of utilitarian or nonutilitarian objects), features (e.g., remnants of walls, cooking hearths, or midden deposits), and ecological evidence (e.g., pollen remaining from plants that were in the area when the activities occurred)." "Prehistoric archaeological sites" represent the material remains of Native American societies and their activities. "Ethnohistoric archaeological sites" are defined as Native American settlements occupied during or after the arrival of European settlers in California. "Historic archaeological sites" reflect the activities of nonnative populations during the historic period. Under California Environmental Quality Act (CEQA), archaeological sites may be treated as historic resources, unique archaeological resources, isolates, or nonunique archaeological resources. For organization of data, as well as clarity of presentation to the intended audience of this report, data and the analysis of the data have been organized chronologically, with prehistoric context and prehistoric period resources described in relation to archaeological resources, and historic context and historic period resources described in relation to historic resources. CEQA defines archaeological sites as "unique archaeological resources," "historical resources," or those that do not warrant consideration in the evaluation of significant effects to cultural resources. This creates the potential for overlap in the definition and analysis of unique archaeological and significant historic resources. For organization of data and for clarity to lead, responsible, and trustee agency representatives, as well as the public, data and the analysis of the data have been organized chronologically, with prehistoric context and resources described in relation to archaeological resources and historic context and resources described in relation to historic resources.

Before present (BP): Defined as before 1950 when the first radiocarbon dating was established. BP is used by archaeologists in conjunction with the commonly used terms AD and BC. AD is an abbreviation from the Latin words Anno Domini or "In the Year of Our Lord Jesus Christ." BC stands for Before Christ, and it is use to denote years before the birth of Jesus Christ.

Building code: Law setting forth minimum standards for the construction and use of buildings to protect public health and safety.

Character-defining feature: *Character* refers to all those visual aspects and physical features that make up the appearance of every historic building. Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, and the various aspects of its site and environment.

Contributor: A site, building, or structure in a historic district that generally has historic, architectural, cultural, or archaeological significance.

Cornice: Any molded horizontal projection that crowns or finishes the top of a wall where it meets the edge of the roof; sometimes ornamented. The exterior trim of a structure where the wall and roof meet. The third or uppermost division of an entablature, resting on the frieze. An ornamental molding that forms the top member of a door or window frame, usually of wood or plaster. An ornamental molding that usually extends around the walls of a room just below the ceiling.

Corporate International: The Corporate International Style evolved from the innovative designs of prominent German architect Ludwig Mies Van de Rohe in the 1920s. According to David Gebhard and Robert Winter in *A Guide to Architecture in Los Angeles and Southern California,* Mies Van de Rohe's designs could be described as, "The concept of clothing a building in a moduled, thin metal paneled and glass skin independent of the structural skeleton."[1] Many of his designs featured large glass curtain walls separated by thin metal elements set in rectilinear grids creating an overall uniform appearance. Mies Van der Rohe became well-known in the United States in the 1940s and 1950s due to his innovative modern commercial and residential projects. One of his most significant projects was the Seagram Building in New York, which has much gained recognition as "the first weighty skyscraper to be completely enveloped in its glass window wall."[2]

Elevation: A drawing showing the vertical elements of a building, either exterior or interior, as a direct projection onto a vertical plane. The vertical distance above or below some established reference level.

Eligible property: Property that meets the criteria for inclusion in the NRHP but is not formally listed.

Facade: The exterior face of a building that is considered to be the architectural front, sometimes distinguished from the other faces by more elaborate architectural and/or ornamental details.

Fenestration: The design and arrangement of windows in a building.

Freestanding: A term descriptive of a structural element that is fixed at its lower end but not constrained throughout its vertical height.

Guidelines: A reference to *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (Guidelines). The Guidelines have been prepared to assist in applying the Secretary of the Interior's Standards to all project work; consequently, they are not meant to give case-specific advice or address exceptions or rare instances. Therefore, it is recommended that the advice of qualified historic preservation professionals be obtained early in the planning stage of the project. Such professionals may include architects, architectural historians, historians, historical engineers, archaeologists, and others who have experience in working with historic buildings. The Guidelines pertain to both exterior and interior work on historic buildings of all sizes, materials, and types.

---

[1] Gebhard, David, and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Santa Barbara and Salt Lake City: Peregrine Smith, Inc. Publishers, p. 705.

[2] Jencks, Charles. 1973. *Modern Movements in Architecture*. Harmondsworth, Middlesex, England: Penguin Books Publishers, p. 100.

Historic district: An area that generally includes within its boundaries a significant concentration of properties linked by architectural style, historical development, or a past event.

Historic Period: Defined as the period that begins with the arrival of the first nonnative population, and thus varies by area. The Historic Period in California began with the arrival of the Spanish navigator Juan Rodriguez Cabrillo and his party, who anchored in San Diego Bay on September 28, 1542. However, European contact with native populations occurred in the proposed project area around 1769, when Gaspar de Portolá made the first attempt to colonize Gabrielino territory.

Historical resource: Defined by CEQA as any object, building, structure, site (including archaeological sites), area, place, record, or manuscript that is listed in, or is eligible for listing in, the California Register of Historical Resources (CRHR); officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution; or identified as significant in a historic resource survey conducted in accordance with the requirements of the CRHR statute [Public Resources Code Section 5024.1(g)].

Integrity: The authenticity of physical characteristics from which properties obtain their significance.

National Register of Historic Places (NRHP): The nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. Properties listed in the National Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

Native American sacred site: an area that has been, and often continues to be, of religious significance to Native American peoples, such as an area where religious ceremonies are practiced or an area that is central to their origins as a people.

Noncontributor: A feature consisting of a site, building, or structure located within a historic district that is not recognized as contributing to the historic, architectural, cultural, or archaeological significance of the district.

Period of significance: The span of time during which significant events and activities occurred. Events and associations with historic properties are finite; most properties have a clearly definable period of significance.

Prehistoric Period: defined as the era prior to European contact with native populations, which occurred in the proposed project area around 1769, when Gaspar de Portolá made the first attempt to colonize Gabrielino territory.

Preservation: The act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses on the ongoing maintenance and repair of historic materials and features rather than on extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.

Standards: Refers to *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings* (Standards). The Standards makes recommendations for maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations; as such, the Standards cannot, in and of itself, be used to make essential decisions about which features of a historic property should be saved and which might be changed. But once an appropriate treatment is selected, the Standards provides philosophical consistency to the work. There are Standards for four distinct, but interrelated, approaches to the treatment of historic properties: preservation, rehabilitation, restoration, and reconstruction.

Steel-frame construction: Construction in which the structural supporting elements consist of some combination of steel beams, steel girders, and/or steel columns that are rigidly joined at their intersections.

Unique archaeological resource: An archaeological artifact, object, or site that has a high probability of meeting any of the following criteria [Public Resources Code (PRC) Section 21083.2(g)]:

- The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
- The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

Unique geologic feature: An important and irreplaceable geological formation. Such features may have scientific and/or cultural values.

Unique paleontological resource: A fossil that meets one or more of the following criteria: It provides information on the evolutionary relationships and developmental trends among organisms, living or extinct; It provides data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein; It provides data regarding the development of biological communities or interaction between plant and animal communities; it demonstrates unusual or spectacular circumstances in the history of life; the fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

REFERENCES

Harris, Cyril M. 1998. *American Architecture: An Illustrated Encyclopedia*. New York: W.W. Norton & Company.

National Trust for Historic Preservation. *Glossary of Preservation-Related Terms*. Adapted from Julia H. Miller's *A Layperson's Guide to Historic Preservation Law*. Available at: http://www.nationaltrust.org/legal/glossary.html

Native American Heritage Commission. 28 September 2007. "Understanding Cultural Resources." Available at: http://www.nahc.ca.gov/understandingcr.html#tcs

Nelson, Lee H. "Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character." *Preservation Briefs, No. 17*. Washington, DC: U.S. Department of the Interior, National Park Service.

O'Donnell, Eleanor. 1998. "Researching a Historic Property." *National Register Bulletin, No. 39*. Washington, DC: U.S. Department of the Interior, National Park Service.

Renfrew, Colin, and Paul Bahn. [1991] 2003. *Archaeology Theories, Methods, and Practice*. 3rd ed. New York: Thames and Hudson.

U.S. Department of the Interior, National Park Service. 2000. *National Register Bulletin: Guidelines for Evaluating and Registering Archeological Properties*. Available at: http://www.cr.nps.gov/nr/publications/bulletins/arch/

Weeks, Kay D., and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*. Washington, DC: U.S. Department of the Interior, National Park Service.

APPENDIX B
CALIFORNIA HISTORIC RESOURCES INVENTORY
DPR 523 FORMS

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Long Beach County Building

P1. Other Identifier: Long Beach Courthouse

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 415 West Ocean Boulevard City Long Beach Zip 90802

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This building is an eleven-story, steel-framed courthouse, constructed in the Corporate International style. The building has a flat roof, with a rectangular floor plan and features two offset wings, which visually divide the building into two segments. The taller, north wing is 11 stories in height, while the smaller, southern wing stands 6 stories tall. The south-facing façade is symmetrical in appearance, and is divided into 16 bays on the smaller, southern wing of the building. The larger, northern wing features an additional bay, which extends past the southern wing on the eastern portion of the south elevation. The north, south and a portion of the west elevation has are constructed of curtain walls made of glass glazing and blue porcelain-enamel panels set in aluminum frames. Vertical steel columns separate each window bay and extend toward the ground floor, creating the illusion that the steel posts are supporting the building. Solid walls of pre-cast concrete inlaid with quartz aggregate are located on the west and east elevations. The primary, public entrance is on the south elevation via a recessed first floor that creates a covered walkway at the building's entrance. The entrance and walkway features terrazzo flooring, and a pair of staircases encased by glass are located to the southeast of the building. The original name of the building, "Long Beach County Building," is prominently featured at the center portion of the first floor façade. The building features a private entrance for public officials on the north elevation. The building faces south towards Ocean Boulevard and is surrounded by raised concrete planters and ground level landscaping on the west, east, and south elevations.

***P3b. Resource Attributes:** (List attributes and codes) HP14. Government building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) View facing north-east at south-facing façade. August 13, 2008

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both

1960, "Warren Dedicates New Long Beach Courthouse" *LA Times* 21 Dec 1960

***P7. Owner and Address:**
Administrative Office of the Courts
455 Golden Gate Avenue
San Francisco, CA 94102-3688

***P8. Recorded by:** Name, affiliation, and address) Laura G. Carias
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** Sept. 22, 2008

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Technical Report for the New Long Beach Courthouse. October 2008. Sapphos Environmental, Inc. Pasadena, CA.

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure & Object Record
☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐ Other (List)

BUILDING, STRUCTURE AND OBJECT RECORD

*NRHP Status Code

B1. Historic Name: Long Beach County Building
B2. Common Name: Long Beach Courthouse
B3. Original Use: Courthouse B4. Present Use: Courthouse
*B5. **Architectural Style** Corporate International
*B6. **Construction History:** (Construction date, alterations, and date of alterations)
The construction for the courthouse began in 1958 and was completed in 1960. A 60,000-square-foot east wing was added and completed in 1971. The addition was completed by the same architects as the original building.
*B7. **Moved?** ☒No ☐Yes ☐Unknown **Date:** _____ **Original Location:** _____
*B8. **Related Features:**

B9a. Architect: Kenneth S. Wing and Francis J. Heusel b. Builder: Robert E. McKee General Contractors, Inc.
*B10. **Significance: Theme** Institutional Development and Architecture **Area** Long Beach
Period of Significance: 1960–1971 **Property Type:** Institutional Building **Applicable Criteria:** CR: 3
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The Long Beach Courthouse appears eligible for inclusion in the California Register of Historical Resources at the local level of significance as an individual resource under Criterion 3 within the context of the architectural evolution of Long Beach, as a rare survivor and fine example of the Corporate International Style of architecture. The building embodies the distinctive characteristics of the Corporate International Style, and is a representative example of the style designed by a prominent local architect, Kenneth S. Wing, whose distinguished career spanned some 60 years in Long Beach. Despite having undergone a 60,000-square-foot alteration in 1971, the building's exterior appearance still reflects its period of construction and retains a high degree of integrity of location, feeling, association, setting, design, materials, and workmanship. The building has retained most of its character-defining features: including its curtain wall construction and glass windows inset in recliner grids, recessed first floor and use of squared columns, terrazzo floors and windows, and vertical surfaces on the same plane. The period of significance is 1960, the date of construction to 1971, the date of the addition.

In addition, the Long Beach Courthouse appears eligible for designation as a City of Long Beach (City) Landmark as an individual resource, under Criteria D, E, and F. The building is fine example of 1960s Modern architecture, which adequately portrays the environment of the 1960s era; the building embodies the distinguishing characteristics of the Corporate International Style; and the building is a representative example of the style designed by a prominent local architect, Kenneth S. Wing, whose distinguished career spanned some 60 years in Long Beach. Therefore, a resource eligible for listing in the California Register of Historical Resources and eligible as a City of Long Beach Landmark, the Long Beach County Building is a historical resource for purposes of CEQA.

(continued page 3)

B11. Additional Resource Attributes: (List attributes and codes) _____
*B12. **References:** See 7

(Sketch Map with north arrow required.)

B13. Remarks:

*B14. **Evaluator:** Laura G. Carias
430 North Halstead Street
Pasadena, CA 91107

*Date of Evaluation: September 22, 2008

(This space reserved for official comments.)

*Resource Name or # (Assigned by recorder) 415 West Ocean Boulevard, Long Beach, CA 90802

Recorded By: Laura G. Carias Date: Sept. 22, 2008 ☒ Continuation ☐ Update

***B10. Significance (continued from page 2):**

The City established its first informal judicial system in 1888, when court was held a marketplace, set up with fold-up chairs. The City's first permanent municipal court building was constructed in 1925. By 1929, the municipal court building also served as a branch for the Los Angeles County (County) Superior Court, the first local court branch to serve any Superior Court within California.[1,2] The population boom following World War II prompted Long Beach to construct a more efficient courthouse building, and by 1953, the Long Beach City Council had voted unanimously to accept an offer by the County Board of Supervisors to construct a $2-million courthouse. The courthouse, to be designed by architects Kenneth S. Wing and Francis Heusel, would serve the Municipal and Superior Courts.[3] In 1954, it was decided the location for the new building would be the northeast corner of Ocean Boulevard and Magnolia Avenue. Opposition to the location came from many community members who felt it was best to construct the courthouse away from downtown Long Beach because the acquisition costs would be cheaper and the courthouse would be centrally located within the City. The City believed placing the courthouse downtown would eliminate concerns about transportation issues due to the high volume of traffic it would generate.[4]

The six-story structure was initially estimated to be 72,000 square feet in size and would cost an estimated $2,133,250. After modifications to the original plans in 1956, the courthouse expanded to 99,626 square feet, with a price tag of approximately $4 million.[5] The new plans included the courthouse as part of a civic center plan for the City, complete with a Public Safety building (being constructed at the same time) and a future city hall and library.[6] The architects also included many of the latest modern conveniences for the staff and visitors such as air conditioning, full-service cafeteria, and elevators and escalators.[7]

The new Long Beach Courthouse was scheduled to open in December 1960 after 2.5 years of construction time, with a final cost of $6 million. The new building housed the Superior and Municipal Courts, County Clerk, Municipal court clerk, and district attorneys office. There was great excitement surrounding the modern design of the building, which featured large windows inlaid with wire designed to cut the glare of the sun. Over 1,000 people attended the opening ceremonies of the new Long Beach Courthouse, which featured Chief Justice Earl Warren as a guest speaker. Other speakers included Frank G. Bonelli, chairman of the Board of Supervisors; Mayor Edwin W. Eade of Long Beach; Presiding Judge Joe Raycraft of the South District Superior Court; and Presiding Judge Lyman B. Sutter of the Long Beach Municipal Court District.[8]

By 1964, an addition to the courthouse was already under consideration. The original plans were designed so that a potential seventh floor could be added to the southern wing later. However, officials determined the costs for such an addition were too high and instead, agreed to extend the north and south wings at the building's east elevation. Each wing was extended by a width of three symmetrical bays that were nearly identical in construction to the original design. The building's original architects, Wing and Heusel, completed the design for the addition. Heusel had since joined the firm, Heusel, Homolka & Associates.[9] The 60,000 square foot east wing was completed in 1971 at final cost of $2.7 million.

(continued page 4)

[1] "Courts to Sit in Long Beach." 28 Feb 1929. *Los Angeles Times*. Los Angeles, CA., p. A9.

[2] Simon, Renee B. "Courts Come of Age." *Press-Telegram*. Long Beach, CA, p. 7–9.

[3] "Long Beach Approves Plan for Courthouse." 26 Aug 1953. *Los Angeles Times*. Los Angeles, CA, p 4.

[4] "Site for New Long Beach Courthouse Stirs Battle." 4 Sep 1953. *Los Angeles Times*. Los Angeles, CA, p. A22.

[5] "L.B. Courthouse Costs Doubled; Plan OKd." 18 Jul 1956. *Long Beach Independent*. Long Beach, CA.

[6] "County, Civic Units Rising." 25 Jan 1959. *Los Angeles Times*. Los Angeles, CA, p. F18.

[7] Maddock, Don. "Courts and Offices in New Home Dec. 5." 22 Oct 1960. *Press-Telegram*. Long Beach, CA.

[8] "Chief Justice Warren to Talk at Long Beach." 2 Dec 1960. *Los Angeles Times*. Los Angeles, CA, p. B9.

[9] "Board to Study County Building Expansion Plans." 19 Dec 1965. *Los Angeles Times*. Los Angeles, CA, p. G14.

*Resource Name or # (Assigned by recorder) 415 West Ocean Boulevard, Long Beach, CA 90802
Recorded By: Laura G. Carias Date: Sept. 22, 2008 ☒ Continuation ☐ Update

***B10. Significance (continued from page3):**

The Long Beach Courthouse was designed in the Corporate International Style that evolved from the innovative designs of prominent German architect Ludwig Mies Van de Rohe in the 1920s. According to David Gebhard and Robert Winter in *A Guide to Architecture in Los Angeles and Southern California,* Mies Van der Rohe's designs could be described as "The concept of clothing a building in a moduled, thin metal paneled and glass skin independent of the structural skeleton."[10] Many of his designs featured large, glass curtain walls separated by thin metal elements set in rectilinear grids creating an overall uniform appearance. Mies Van der Rohe became well-known in the United States in the 1940s and 1950s due to his innovative modern commercial and residential projects. One of his most significant projects was the Seagram Building in New York which has much gained recognition as "the first weighty skyscraper to be completely enveloped in its glass window wall."[11]

The first example in the United States of the style that came to be known as the Corporate International Style is believed to be the 1952 Lever house in New York designed by the architecture firm of Skidmore, Owings and Merrill.[12] The Corporate International Style promoted the ideas of the machine age in its prefabricated elements and borrowed many of its characteristics from the designs of Mies Van der Rohe, which included its weightless uniform appearance of glass windows inset in recliner grids, and overall fragile appearance usually enhanced by above ground stilts. By the late 1950s, numerous variations on the style were visible and its popularity continued well into the 1970s. The style became popular in Southern California, and one of the most well known examples is the Xerox Building completed in 1968 in El Segundo by architects C. Ellwood Associates.

The architects responsible for the modern design of the Long Beach Courthouse were Kenneth S. Wing (1903–1987) and Francis J. Heusel (1906–1968). The two architects were initially approached by the City in 1954 to design a modern building to serve as the first permanent courthouse site in the City's history. Wing, the more recognized architect of the two, enjoyed a long and distinguished career spanning some 60 years in Long Beach and became known for his modern designs.

Wing, a native of Colorado Springs, Colorado, moved with his family to Long Beach in 1918. He graduated from Poly High School and later from the University of Southern California (USC) School of Architecture. While a student at USC, he designed the West Long Beach Day Nursery. In his early years, Wing designed several single-family residences for the Virginia Country Club, Bixby Knolls, Alamitos Heights, Rolling Hills, and Palos Verdes Estates. He closed his firm to head the County's War Housing Department during World War II. Wing was known for his close attention to detail and he believed that he needed to know the needs of his client before beginning a project. He first designed the interior then created the exterior to reflect the elements of the interior. Some of Wing's most significant Long Beach projects include the Long Beach Arena; the Southern California Edison Building; United California Bank; the Physical Education facility at California State University, Long Beach; David Starr Jordan High School; the First Baptist Church of Long Beach; Luther Burbank School, the renovation of the historic Bixby Ranch in Los Cerritos, and many homes in the Virginia Country Club and Bixby Knolls area.

Heusel was born in Detroit Michigan in 1906. He received his Masters degree in architecture from the Ecole des Beaux-Arts in Paris in 1931. He began practicing architecture in 1938 and was a member of the American Institute of Architects. He formed a partnership with Frank Homolka in 1960, just before the Long Beach Courthouse was completed. The firm Heusel, Homolka & Associates assisted in designing the addition made to the Long Beach Courthouse in 1971 and designed several other buildings in Long Beach, including Elks Lodge 888, Long Beach Water Department headquarters, St. Luke's Church, and the Olympics Plaza Beach Center. Heusel's earlier works included the Benjamin F. Tucker School (1954), Florence Bixby Elementary School (1952), and a residence at 4147 Country Club Drive.

[10] Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Peregrine Smith, Inc. Publishers. Santa Barbara and Salt Lake City. p. 705.

[11] Jencks, Charles. 1973. *Modern Movements in Architecture*. Penguin Books Publishers. Harmondsworth, Middlesex, England. p. 100.

[12] Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Peregrine Smith, Inc. Publishers. Santa Barbara and Salt Lake City. p. 705.

***B12. References:**

Berner, Loretta. 1990. "A Step Back in Time." In *Shades of the Past*. *Journal of the Historical Society of Long Beach*. Long Beach, CA.

Berner, Loretta. 1995. "Al Brown Remembers the Pike." In *Shades of the Past*. *Journal of the Historical Society of Long Beach*. Long Beach, CA.

"Board to Study County Building Expansion Plans." 19 Dec 1965. *Los Angeles Times*. Los Angeles, CA.

"Chief Justice Warren to Talk at Long Beach." 2 Dec 1960. *Los Angeles Times*. Los Angeles, CA.

"County, Civic Units Rising." 25 Jan 1959. *Los Angeles Times*. Los Angeles, CA.

"Courts to Sit in Long Beach." 28 Feb 1929. *Los Angeles Times*. Los Angeles, CA..

Gebhard, David and Robert Winter. 1977. *A Guide to Architecture in Los Angeles & Southern California*. Peregrine Smith, Inc. Publishers. Santa Barbara and Salt Lake City.

Harshbarger, Tom. Spring 1999. "History in a Seashell." *California State University Long Beach, University Magazine Online*, *3*(1). Available at: http://www.csulb.edu

Jencks, Charles. 1973. *Modern Movements in Architecture*. Penguin Books Publishers. Harmondsworth, Middlesex, England.

Johnson Heumann Research Associates. 1988. *Expanded Downtown Long Beach Historic Survey, Final Report*. City of Long Beach, Office of Neighborhood and Historic Preservation.

"L.B. Courthouse Costs Doubled; Plan OKd." 18 Jul 1956. *Long Beach Independent*. Long Beach, CA.

League of Women Voters. 1980. *Long Beach: From Rancho to Renewal*. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

"Long Beach Approves Plan for Courthouse." 26 Aug 1953. *Los Angeles Times*. Los Angeles, CA.

Maddock, Don. "Courts and Offices in New Home Dec. 5." 22 Oct 1960. *Press-Telegram*. Long Beach, CA.

McWilliams, Carey. 1946. *Southern California: An Island on the Land*. Layton, UT: Gibbs Smith.

Mullio, Cara, and Jennifer Volland. 2004. *Long Beach Architecture: The Unexpected Metropolis*. Santa Monica, CA: Hennessey and Ingalls.

Robinson, W.W. 1948. *Long Beach: A Calendar of Events in the Making of a City*. Reprinted by: Title Insurance and Trust Company, Los Angeles, CA. Available at: City of Long Beach Office of Neighborhood and Historic Preservation.

Simon, Renee B. "Courts Come of Age." *Press-Telegram*. Long Beach, CA.

"Site for New Long Beach Courthouse Stirs Battle." 4 Sep 1953. *Los Angeles Times*. Los Angeles, CA.

Weinman, Lois J., and Gary E. Stickel. 1978. *Los Angeles-Long Beach Harbor Areas Cultural Resource Survey*. Prepared for: U.S. Army Corps of Engineers, Los Angeles.

U.S. Census Bureau. 1910. Census records for the City of Long Beach. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

U.S. Census Bureau. 1920. Census records for the City of Long Beach. On file, City of Long Beach Office of Neighborhood and Historic Preservation.

[This page is intentionally blank]

APPENDIX E

NOISE TECHNICAL STUDY

[This page is intentionally blank]

NEW LONG BEACH COURTHOUSE
NOISE TECHNICAL IMPACT REPORT

Prepared for:
Administrative Office of the Courts
455 Golden Gate Avenue
San Francisco, California 94102

Prepared by:

Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, California 91107

December 11, 2008

SECTION 1.0
INTRODUCTION

1.1 PURPOSE AND SCOPE

The Noise Technical Impact Report was undertaken by Sapphos Environmental, Inc. for the Administrative Office of the Courts (AOC) and the State of California (State) in support of the proposed New Long Beach Courthouse (proposed project). The purpose of this study is to evaluate potential noise impacts associated with the proposed project, to propose mitigation measures for any significant noise impacts caused by implementation of the proposed project, and to document the findings of significance and non-significance. The Noise Technical Impact Report focuses on all phases (i.e. construction, operation, and maintenance) of the proposed project as well as the proposed project's potential cumulative impacts and impacts on global climate change.

1.2 PROJECT LOCATION

The proposed project site is a roughly 5.9-acre parcel located in the City of Long Beach (City), California (Figure 1.2-1, *Regional Vicinity Map*).

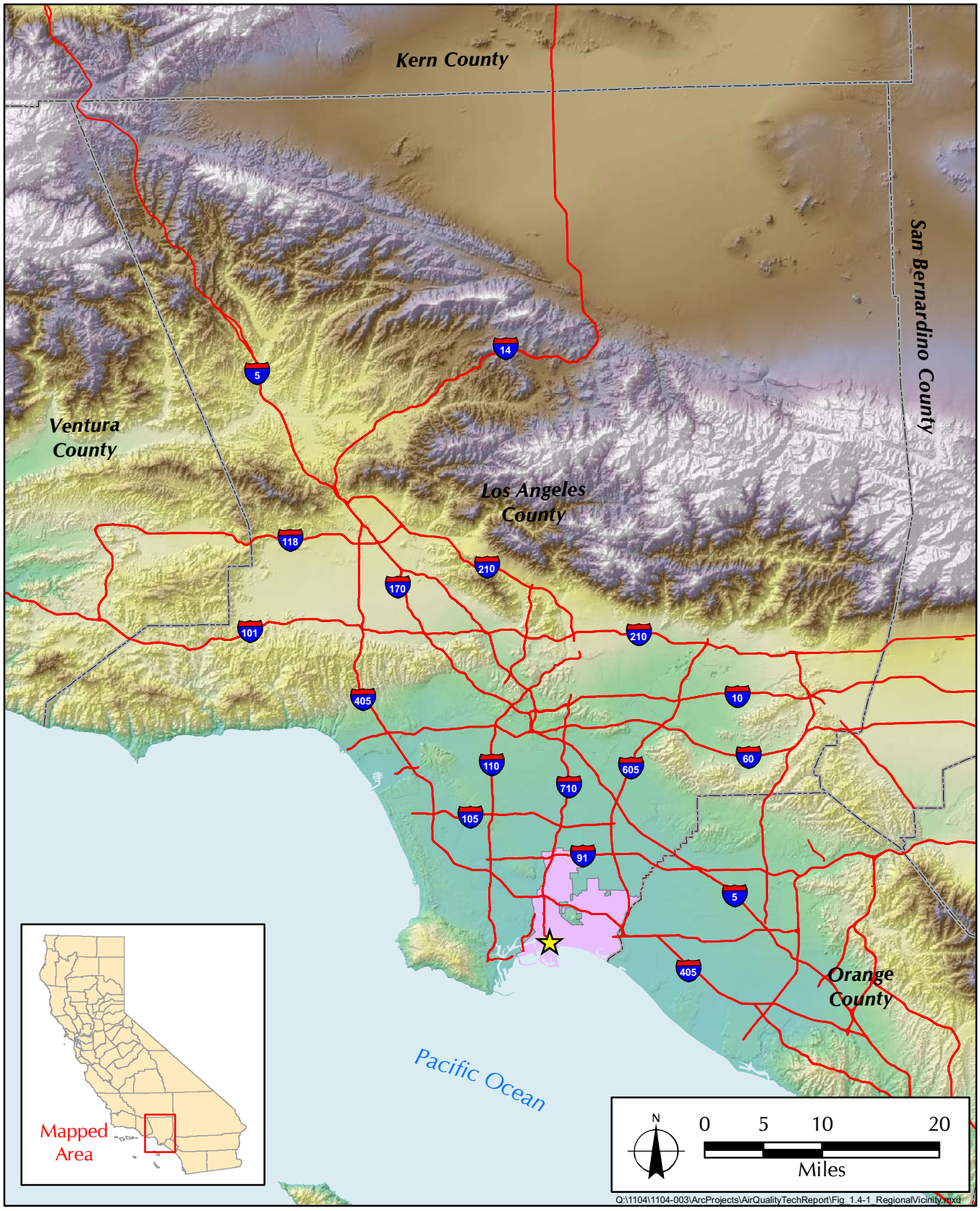
The proposed project site consists of two neighboring land areas referenced as the proposed New Long Beach Courthouse Area and Parking Garage, which are located as follows:

- **Proposed New Long Beach Courthouse Area**. The proposed project site lies on a two-block parcel bounded by 3rd Street to the north, Magnolia Avenue to the east, West Broadway to the south, and Maine Avenue to the west. This area is currently predominantly vacant, with the exception of parking spaces provided by a private firm immediately north of West Broadway between Maine Avenue and Daisy Avenue. The Agency owns the immediate proposed new courthouse site.

- **Parking Garage.** The County of Los Angeles (County) owns the Magnolia Avenue parking garage that is located south of the proposed project area. This parking garage is expected to be acquired by the State in late 2008 under the provisions of Senate Bill 1732. The garage is bounded by a small surface parking lot to the north, Magnolia Avenue to the east, commercial development to the south, and Daisy Avenue to the west.

The proposed project site is located within the U.S. Geological Survey 7.5-minute series, Long Beach, California, topographic quadrangle.[1] Interstate 405 (San Diego Freeway) is roughly 3.6 miles north of the proposed project site and Interstate 710 (Long Beach Freeway) is located approximately 0.18 mile southwest and 0.36 mile west of the proposed project site. The proposed project site is located roughly 0.5 mile north of the Pacific Ocean (Figure 1.2-2, *Local Vicinity Map*).

[1] U.S. Geological Survey. [1964] photorevised 1981. 7.5-minute Series, Long Beach, California, Topographic Quadrangle. Reston, VA.



Proposed Project Location

City of Long Beach

FIGURE 1.2-1

Regional Vicinity Map

FIGURE 1.2-2

Local Vicinity Map

1.3 PROJECT DESCRIPTION

The proposed project would consist of a building approximately 10 stories, or approximately 200 feet, tall with approximately 545,000 building gross square feet (BGSF). The proposed new courthouse would be intended to serve the State Superior Court, the County, and limited commercial office space and other retail uses.

The proposed project would be designed in accordance with the specifications of the California Trial Court Facilities Standards guidelines.[2] The proposed project would also be mandated to obtain Leadership in Energy and Environmental Design Silver status and would be required to use 15 percent less energy than entitled by Title 24, California's Building Energy Efficiency Standards. The proposed project site would contain limited commercial office and retail space within the overall site. The roughly 545,000-BGSF new courthouse facility would be designated as follows: approximately 370,000 BGSF and 31 courtrooms would be designated for the State Superior Court; approximately 80,000 BGSF would be designated for the County; a space would be designated for commercial office and retail use by private agencies; and the remaining space would be allocated for courthouse support uses.

The State Superior Court would generally maintain current patterns of use for 27 courtrooms and use the additional four courtrooms in the proposed new courthouse for criminal judicial proceedings. The State Superior Court would relocate its staff and operations from an existing courthouse (located at 415 West Ocean Boulevard, Long Beach, California 90802), to the proposed new courthouse. County staff in the existing courthouse who interact with the State Superior Court would also relocate from the existing courthouse to the proposed new courthouse. The State Superior Court would increase staffing from the current approximately 265 staff to approximately 305 staff members, and the County would increase staff size by 15 percent, from the current number of approximately 260 to approximately 299 staff members. The State Superior Court would increase juror population by approximately 100 persons per day and visitor population by 15 percent per day.[3]

There would be several relevant site improvements pertaining to the proposed project. The City of Long Beach intends to upgrade 3rd Street, which would add street-corner enhancements, a bicycle lane (as part of a City-wide bike improvement plan, which would convert existing parking spaces on 3rd Street to a bicycle lane), eliminate some parking spaces, and possibly reduce the number of through lanes. The proposed project would require a street closure of Daisy Avenue between West Broadway and 3rd Street. In addition, the proposed project would remove the existing Magnolia Avenue crosswalk that extends from the County parking facility to the existing courthouse. The State may remove utility mains from the proposed project site's Daisy Avenue area and relocate the mains to 3rd Street and Magnolia Avenue and possibly to part of West Broadway.

The proposed new courthouse building may have one or two basement levels that would contain 35 secure parking spaces, a sally port (a small, two-door, controlled space, typically an entrance where one must close the first door before the second is opened), a holding area for in-custody detainees, and the Sheriff Department facilities.

[2] Administrative of the Courts. Adopted 21 April 2006. *California Trial Court Facilities Standards*. San Francisco, CA.

[3] The total of 31 courtrooms equals a 15-percent increase from the existing 27 courtrooms.

1.4 CONSTRUCTION SCENARIO

The development of the proposed project would require approximately 30 months to complete, from early 2010 to late 2012. Best management practices (BMPs) would be implemented throughout the construction phase. The proposed project would occur continuously and would include the construction of the proposed courthouse buildings and the development of the site improvements.

A list of the type and quantity of equipment that would potentially be used in construction of the proposed project is presented in Table 1.4-1, *Anticipated Construction Equipment*. The information contained in Table 1.4-1 has been identified by estimates based on comparable projects and was used in the assessment of potential construction impacts to air quality, ambient noise levels, and traffic and circulation.

TABLE 1.4-1
ANTICIPATED CONSTRUCTION EQUIPMENT

Approximate Quantities	Type of Equipment/Vehicle	Approximate Duration of On-site Construction Activity(weeks)	Total Number of Trips to/from Site during Construction
1	Graders/dozers for earthwork	8	4
1	Concrete trucks	4	16
1	Truck-mounted crane or hoist	68	4
2	Dump trucks	4	48
2	Water trucks	68	22
3	Delivery trucks	68	136

The proposed project would export approximately 60,000 cubic yards of soil materials. There would be no off-site staging areas. Construction activities include excavation, grading, framing, paving, and coating.

Excavation at the site would export roughly 30,000 CY off-site. Excavation would go no deeper than roughly 8 to 12 feet (approximately 10 feet for the building footings) at the proposed project area, which is a roughly 60, 000-square-foot area. Excavation would go as deep as approximately 15 feet at a roughly 70,000-square-foot area, which would be utilized for commercial and retail uses. All grading will be completed on site and the maximum amount of materials will be reused and kept on site. Roughly 150,000 square feet would be coated during the construction phase.

Site preparation and construction of the proposed project would be in accordance with all federal and state building codes and would respect the relevant and applicable building codes for the County and the City. All potentially hazardous materials must be removed/remediated prior to State acquisition and prior to the environmental analysis. Hazards resulting from current or prior uses at the proposed project site and adjacent properties, or any leaking underground storage tanks (LUSTs) and underground storage tanks (USTs), have been evaluated in Phase I and Phase II reports and will include complete remediation where necessary.

Construction would be scheduled in compliance with the City's regulations and would commence no earlier than 7:00 a.m. and cease no later than 7:00 p.m. on weekdays. Work could be

conducted on Saturdays and would commence no earlier than 9:00 a.m. and cease no later than 6:00 p.m.

Noise levels at the proposed project area exceeding a 45-decibel level (dBA) between the hours of 10:00 p.m. and 7:00 a.m. and a level of 50 dBA between the hours of 7:00 a.m. and 10:00 p.m. would be prohibited.[4] While it is understood that construction noise is a temporary by-product of new development and urban redevelopment, the contractor would conduct construction activities in such a manner that the maximum noise levels at the affected buildings would not exceed established noise levels.[5]

The construction contractor would be required to incorporate BMPs consistent with the guidelines provided in the *California Storm Water Best Management Practice Handbooks: Construction*.[6] Should the construction period continue into the rainy season, supplemental erosion measures would need to be implemented, including, but not limited to, the following:

- mulching
- geotextiles and mats
- earth dikes
- temporary drains and gulleys
- silt fence
- straw bale barriers
- sandbag barrier
- brush or rock filter
- sediment trap

Wherever possible, grading activities would be undertaken outside the normal rainy season, thus minimizing the potential for increased surface runoff and the associated potential for soil erosion. A recommended construction period would begin in late April or early May and completed in late January of the following year, assuming the majority of the construction would be completed in this recommended nine-month period. BMPs to control surface runoff and soil erosion would be required for construction taking place during rainy periods.

Construction equipment would be turned off when not in use. The construction contractor would ensure that all construction and grading equipment is properly maintained. All vehicles and compressors would utilize exhaust mufflers and engine enclosure covers (as designed by the manufacturer) at all times. It is anticipated that construction workers would access the site primarily off West Broadway or Ocean Boulevard. When possible, workers would carpool to the site and would report to a designated on-site staging area.

[4] City of Long Beach. *Long Beach, CA Municipal Code*. "Exterior Noise Limits – Correction for Character of Sound." Section 8.80.160. Available at: http://www.longbeach.gov/cityclerk/lbmc/title-08/frame.htm

[5] City of Long Beach, Department of Planning and Building. 25 March 1975. *City of Long Beach General Plan, Noise Element*. Long Beach, CA.

[6] California Stormwater Quality Association. 1993. *California Storm Water Best Management Practice Handbooks: Construction*. Menlo Park, CA.

SECTION 2.0
NOISE ANALYSIS

The noise analysis provided in this section evaluates the potential noise impacts associated with the construction, operation, and maintenance activities of the proposed New Long Beach Courthouse (proposed project). Relevant regulatory framework is used to determine the consistency of the proposed project with state and local laws governing the regulations of noise and the level of significance of noise impacts of the proposed project. Mitigation measures are subsequently provided to noise impacts identified to be potentially significant. The information used in this analysis is based on a review of relevant literature and technical reports (see Section 3.0, References, for a list of reference materials consulted).

2.1 NOISE AND VIBRATION TERMINOLOGY

- *Sound*. It is a vibratory disturbance created by vibrating objects, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- *Noise*. Noise is any sound that annoys or disturbs humans or that causes or tends to cause an adverse psychological or physiological effect on humans. Any unwanted sound.

- *Decibel (dB)*. dB is a unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude; the reference pressure is 20 micropascals.

- *A-weighting*. This is the method commonly used to quantify environmental noise that involves evaluation of all frequencies of sound, with an adjustment to reflect the constraints of human hearing. Because the human ear is less sensitive to low and high frequencies than to midrange frequencies, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity in a process called A-weighting (dBA).

- *Equivalent sound level (L_{eq})*: L_{eq} is a term typically used to express time averages. It is a steady-state energy level that is equivalent to the energy content of a varying sound level over a stated period of time, which means that the L_{eq} represents the noise level experienced over a stated period of time averaged as a single noise level.

- *Community noise equivalent level (CNEL)*. CNEL represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for people's lower tolerance of noise during the evening and nighttime hours. Because community receptors are more sensitive to unwanted noise intrusion during the evening and night, an artificial decibel increment is added to quiet-time noise levels. Sound levels are increased by 5 dBA during the evening, from 7p.m. to 10 p.m. and by 10 dBA during the nighttime, from 10 p.m. to 7 a.m. during this quite-time period.

- *Day-night equivalent level (L_{dn})*. L_{dn} is similar to CNEL, but it does not include a weighting factor for evening noise levels.

- *Noise level (L_N)*. Another measure used to characterize noise exposure, L_N is the variation in sound levels over time, measured by the percentage exceedance level. L10 is the A-weighted sound level that is exceeded for 10 percent of the measurement period, and L90 is the level that is exceeded for 90 percent of the measurement period. L50 is the median sound level. Additional statistical measures include L_{min} and L_{max}, the minimum and maximum sound levels, respectively, measured during a stated measurement period.

- *Ambient*. Ambient is the total noise in the environment, excluding noise from the source of interest.

- *Frequency*. Frequency is the number of cycles per unit of time, expressed in hertz (Hz).

- *Vibration*. Vibration is the mechanical motion of earth or ground, building, or other type of structure, induced by the operation of any mechanical device or equipment located upon or affixed thereto. For purposes of this report, the magnitude of the vibration shall be stated as the acceleration in "g" units (1 g is equal to 32.2 feet/second^2, or 9.3 1 meters/second^2).

2.2 NOISE AND VIBRATION CHARACTERISTICS AND METHODS OF MEASUREMENT

2.2.1 Noise

Noise is defined as unwanted sound. The human response to environmental noise is subjective and varies considerably from individual to individual. Sensitive receptors, such as residential areas, convalescent homes, schools, auditoriums, and other similar land uses, may be affected to a greater degree by increased noise levels than industrial, manufacturing, or commercial facilities. The effects of noise can range from interference with sleep, concentration, and communication, to the causation of physiological and psychological stress, and at the highest intensity levels, hearing loss.[7]

The method commonly used to quantify environmental noise involves evaluation of all frequencies of sound, with an adjustment to reflect the constraints of human hearing. Since the human ear is less sensitive to low and high frequencies than to midrange frequencies, noise measurements are weighted more heavily within those frequencies of maximum human sensitivity in a process called "A-weighting." A measured noise level is called the A-weighted sound level measured in A-weighted decibels, written as dBA. In practice, environmental noise is measured using a sound level meter that includes an electronic filter corresponding to the A-weighted frequency spectrum (Table 2.2.1-1, *Common Noise Levels and Loudness*).

[7] U.S. Environmental Protection Agency, Office of Noise Abatement and Control. August 1978. *Noise: A Health Problem*. August 1978. Washington, DC.

TABLE 2.2-1
COMMON NOISE LEVELS AND LOUDNESS

Noise Source	A-weighted Sound Level (dBA)	Subjective Loudness
Near jet engine	130	Threshold of pain
	120	
Rock-n-roll band		Deafening
	110	
Jet flyover at 1,000 feet	100	
Loud auto horn at 10 feet Power Mower	90	
Motorcycle at 25 feet Food blender	80	Very loud
Garbage disposal	70	
Living room music Human voice at 3 feet	60	Loud
	50	
Residential air conditioner at 50 feet	40	Moderate
Bird calls	30	
Quiet living room	20	
Average whisper	10	Faint
Rustling leaves	0	Very faint Threshold of human audibility

SOURCE: Cowan, James P., *Handbook of Environmental Acoustics*. 1993. Wiley, John and Sons Incorporated.

There are several statistical tools used to evaluate and compare noise level measurements. To account for the fluctuation in noise levels over time, noise impacts are commonly evaluated using

time-averaged noise levels. L_{eq} are used to represent the noise level experienced over a stated period of time averaged as a single noise level. Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, an artificial decibel increment is added to quiet-time noise levels to create a 24-hour noise descriptor, or a 24-hour L_{eq}, which is the CNEL.[8] The day-night level (L_{dn}) standard also adds an artificial decibel increment to the sound level during nighttime hours, but does not adjust the sound level during the evening hours.

Another measure used to characterize noise exposure is the variation in sound levels over time, measured by percentage exceedance level. L10 is the A-weighted sound level that is exceeded 10 percent of the measurement period, and L90 is the level exceeded 90 percent of the measurement period. L50 is the median sound level. Additional statistical measures include L_{min} and L_{max}, the minimum and maximum sound levels, respectively, measured during a stated measurement period.

These descriptions of noise are based on the sound level at the point of measurement. When determining potential impacts to the environment, the noise level at the receptor is considered. Noise is attenuated as it propagates from the source to the receiver. Attenuation is the reduction in the level of sound resulting from the absorption by the topography of an area (i.e., paved or vegetated surface), atmosphere, distance, barriers, and other factors. Attenuation is also logarithmic rather than linear, so that for stationary sources like the proposed project, noise levels decrease approximately 6 dBA for every doubling of distance. For linear sources, such as streets, noise levels decrease by 3 to 5 dBA for every doubling of distance.

To estimate a receiver's subjective reaction to a new noise is to compare the new noise with the existing noise environment, the "ambient" noise level, to which the receiver has become adapted. An increase of 1 dBA over the ambient noise level cannot be perceived unless it occurs in carefully controlled laboratory experiments; a 3-dBA increase is considered as a just-perceivable difference; an increase of at least 5 dBA is a noticeable change, thereby causing community response and often being considered as a significant impact; and a 10-dBA increase is subjectively heard as approximately a doubling in loudness, thereby almost always causing an adverse community response.

The assessment of the noise impact depends on the environment, the nature and level of noise-generating activities, the pathway through which the noise travels, the sensitivity of the receptor, the period of exposure, and the exceedance of the noise level over the ambient level.

2.2.2 Vibration

Vibration is an oscillatory motion in terms of the displacement, velocity, or acceleration. It means the minimum ground- or structure-borne motion that causes a normal person to be aware of the vibration by means such as, but not limited to, sensation by touch or visual observation of moving objects. The effects of ground-borne vibration include fellable movements of the building floors, rattling of windows, and shaking of items on shelves or hangings on the walls. In extreme cases, vibration can cause damage to buildings. The noise radiated from the motion of the room surfaces is called ground-borne noise. Typical levels of ground-borne vibration are listed in Table 2.2.2-2, *Typical Levels of Ground-borne Vibration*. The vibration motion normally does not provoke the same adverse human reactions as the noise unless there is an effect associated with the shaking of the building. In addition, the vibration noise can only occur inside buildings. Similar to the

[8] City of Los Angeles. 2006 *L.A. CEQA Thresholds Guide*. "I. Noise." Available at: http://www.lacity.org/ead/eadweb-aqd/Thresholds/I-Noise.pdf

propagation of noise, vibration propagated from the source to the receptor depends on the receiving building (i.e., the weight of the building), soil conditions, layering of the soils, the depth of groundwater table, etc.

TABLE 2.2-2
TYPICAL LEVELS OF GROUND-BORNE VIBRATION

Response	Velocity Level [a]	Typical Sources (At 50 feet)
Minor cosmetic damage of fragile buildings	100	Blasting from construction projects
Difficulty with tasks such as reading a video display terminal (VDT) screen	90	Bulldozers and other heavy tracked construction equipment
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, frequent events	70	High speed rail, typical
Approximate threshold for human perception	60	Bus or truck, typical
	50	Typical background vibration

NOTE:
a. Root mean square (RMS) Vibration Velocity Level in VdB relative to 10^{-6} inches/second
SOURCE: J.T. Nelson, H.J. Saurenman. December 1983. "State-of-the-Art Review: Prediction and Control of Ground-Borne Noise and Vibration from Rail Transit Trains," U.S. Department of Transportation, Urban Mass Transportation Administration, Report Number UMTA-MA-06-0049-83-4, DOT-TSC-UMTA-83-3,

2.3 REGULATORY FRAMEWORK

2.3.1 State

In the State of California, State Senate Bill 860, which became effective January 1, 1976, directed the California Office of Noise Control within the State Department of Health Services to prepare the *Guidelines for the Preparation and Content of Noise Elements of the General Plan*.[6] One purpose of these guidelines was to provide sufficient information concerning the noise environment in the community so that noise could be considered in the land-use planning process. As part of this publication, Land Use Compatibility Standards were developed in four categories: Normally Acceptable, Conditionally Acceptable, Normally Unacceptable, and Clearly Unacceptable. These categories were based on earlier work done by the U.S. Department of Housing and Urban Development. The interpretation of these four categories is as follows:

[6] California Department of Health Services, Office of Noise Control. February 1976. *Guidelines for the Preparation and Content of Noise Elements of the General Plan*. Contact: P.O. Box 942732 Sacramento, CA 94234–7320.

Normally Acceptable: Specified land use is satisfactory without special insulation.

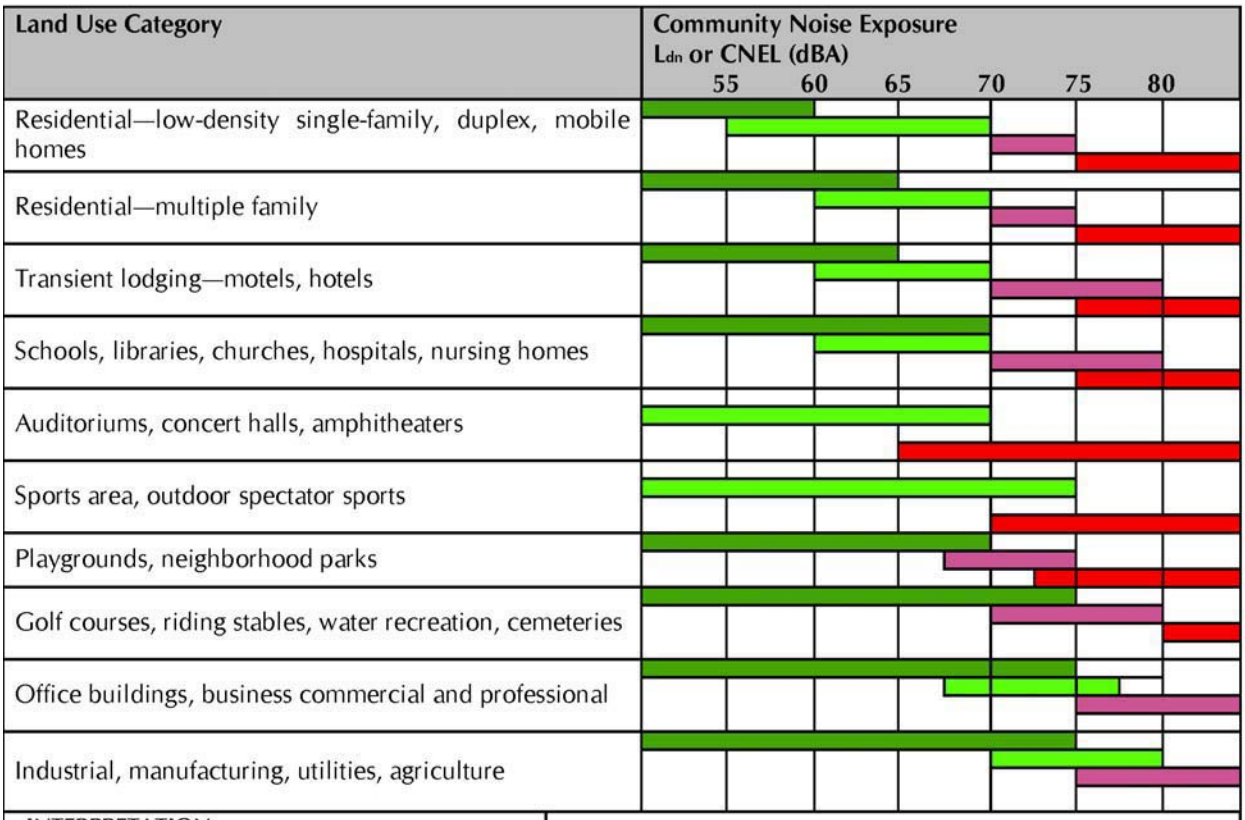
Conditionally Acceptable: New development requires detailed analysis of noise insulation requirements.

Normally Unacceptable: New development is discouraged and requires a detailed analysis of insulation features.

Clearly Unacceptable: New development should not be undertaken.

The State has developed a land-use compatibility matrix for community noise environments that further defines four categories of acceptance and assigns CNEL values to them. In addition, the State Building Code (Part 2, Title 24, California Code of Regulations) establishes uniform minimum noise insulation performance standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and residential units other than detached single-family residences from the effects of excessive noise, including, but not limited to, hearing loss or impairment and interference with speech and sleep. Residential structures to be located where the CNEL or L_{dn} is 60 dBA or greater are required to provide sound insulation to limit the interior CNEL to a maximum of 45 dBA. An acoustic, or noise, analysis report prepared by an experienced acoustic engineer is required for the issuance of a building permit for these structures. Conversely, land use changes that result in increased noise levels at residences of 60 dBA or greater must be considered in the evaluation of impacts to ambient noise levels. Table 2.3-1, *Land Use Compatibility for Community Noise Environments*, graphically depicts the acceptability of noise levels for a variety of uses.

TABLE 2.3-1
LAND USE COMPATABILITY FOR COMMUNITY NOISE ENVIRONMENTS



INTERPRETATION:

Normally acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Normally unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Conditionally acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction with closed windows and fresh air supply systems or air conditioning will normally suffice.

Clearly unacceptable
New construction of development should not be undertaken.

NOTES:
L_{dn} = Day-Night Level
CNEL = Community Noise Equivalent Level
dBA = decibels in A-weighted sound levels

SOURCE:
California Department of Health Services, Office of Noise Control. February 1976. *Guidelines for the Preparation and Content of Noise Elements of the General Plan*. Sacramento, CA.

2.3.2 Local

2.3.2.1 City of Long Beach

The City of Long Beach (City) General Plan contains a Noise element[9] that offers guidelines for noise levels and construction within the City. Regarding construction, the Noise element of the City General Plan suggests that that average maximum noise levels outside the nearest building at the window of the occupied room closest to the construction site boundary, should not exceed 70 dBA in areas away from main roads and sources of industrial noise or 75 dBA in areas near main roads and heavy industries.

The Noise element also includes recommended criteria for maximum acceptable noise levels represented in Table 2.3.2-1, *Recommended Criteria for Maximum Acceptable Noise Levels*.

TABLE 2.3.2-1
RECOMMENDED CRITERIA FOR MAXIMUM ACCEPTABLE NOISE LEVELS[a]

Major Land Use Type	Outdoor			Indoor
	Maximum Single Hourly Peak (dBA)	L_{10}[b] (dBA)	L_{50}[c] (dBA)	L_{dn}[d] (dBA)
Residential[e] 7 a.m. -10 p.m.	70	70	55	45
Residential[e] 10 p.m. - 7 a.m.	60	60	45	35
Commercial (anytime)	75	75	65	[f]
Industrial (anytime)	85	85	70	[f]

Notes:
[a] Based on existing ambient-level ranges in the City and recommended U.S. Environmental Protection Agency ratios and standards for interference and annoyance.
[b] Noise levels exceeded 10 percent of the time.
[c] Noise levels exceeded 50 percent of the time.
[d] Day-night average sound level; the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to nighttime levels.
[e] Includes all residential categories and all noise sensitive land uses such as hospitals, schools, etc.
[f] Since different types of commercial and industrial activities appear to be associated with different noise levels, identification of a maximum indoor level for activity interference is unfeasible.
Source: City of Long Beach, Department of Planning and Building. 25 March 1975. *City of Long Beach General Plan, Noise Element*. Long Beach, CA.

City of Long Beach Municipal Code

Operational Noise

The City Noise Ordinance[10] recognizes that noise is a major source of environmental pollution that represents a threat to the serenity and peace and quiet of any neighborhoods, and quality of life in the City.[11] Excess noise often has an adverse physiological and psychological effect on human beings, thus contributing to an economic and social loss to the community. The Noise Ordinance

[9] City of Long Beach, Department of Planning and Building. 25 March 1975. *City of Long Beach General Plan, Noise Element*. Long Beach, CA.

[10] City of Long Beach. 1977. *Long Beach, CA Municipal Code*. "Noise." Title 8 Health and Safety, Chapter 8.80. Available at: http://municipalcodes.lexisnexis.com/codes/longbeach/

[11] City of Long Beach. *The Long Beach Municipal Code, Noise*. "Disturbing Noises Prohibited." Section 8.80.130. Available at: http://municipalcodes.lexisnexis.com/codes/longbeach/

prohibits any loud, unnecessary, or unusual noise and vibration generated from or by any sources in such a manner that sounds disturb the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.[12]

The City Noise Ordinance establishes exterior noise levels for designated land use districts within the City (Table 2.3.2-2, *Exterior Noise Limits*). The proposed project site is located in District One.

TABLE 2.3.2-2
EXTERIOR NOISE LIMITS

Receiving Land Use District	Time Period	Noise Level (dBA)
District One: predominantly residential with other land use types also present	Night (10:00 p.m.–7:00 a.m.)	45
	Day (7:00 a.m.–10 p.m.)	50
District Two: predominantly commercial with other land use types also present	Night (10:00 p.m.–7:00 a.m.)	55
	Day (7:00 a.m.–10 p.m.)	60
District Three: predominantly industrial with other land use types also present	Any time	65
District Four: predominantly industrial with other land use types also present	Any time	70
District Five: airport, freeways, and waterways regulated by other agencies	Regulated by other agencies and laws	**Varies**

NOTES: Districts Three and Four are intended primarily for use at their boundaries rather than for noise control within those districts
SOURCE: City of Los Angeles, 1977. *Exterior Noise Limits – Sound Levels by Receiving Land Use*. Municipal Code, Title 8 Health and Safety, Chapter 8.80 Noise, Section 8.80.150.

The City Noise Ordinance includes the following standards governing exterior noise levels:[13]

- No person shall operate or cause to be operated any source of sound at any location within the incorporated limits of the city or allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured from any other property, either incorporated or unincorporated, to exceed:

  1. The noise standard for that land use district as specified in Table A in Section 8.80.160 for a cumulative period of more than thirty minutes in any hour; or

  2. The noise standard plus five decibels for a cumulative period of more than fifteen minutes in any hour; or

  3. The noise standard plus ten decibels for a cumulative period of more than five minutes in any hour; or

[12] City of Long Beach. *Long Beach, CA Municipal Code*. 'Disturbing Noises Prohibited." Section 8.80.130. Available at: http://municipalcodes.lexisnexis.com/codes/longbeach/

[13] City of Long Beach. 1977. *Long Beach, CA Municipal Code*. "Noise." Title 8 Health and Safety, Chapter 8.80. Available at: http://municipalcodes.lexisnexis.com/codes/longbeach/

4. The noise standard plus fifteen decibels for a cumulative period of more than one minute in any hour; or

5. The noise standard plus twenty decibels or the maximum measured ambient, for any period of time.

- If the measured ambient level exceeds that permissible within any of the first four noise-limit categories, the allowable noise exposure standard shall be increased in five decibels increments in each category as appropriate to encompass or reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

The City Noise Ordinance also restricts the hours and days of operation for noise-generating construction activities. The restrictions are as follows:

- Weekdays and federal holidays. No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of 7 p.m. and 7 a.m. the following day on weekdays, except for emergency work authorized by the building official. For purposes of this section, a federal holiday shall be considered a weekday.

- Saturdays. No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity which produce loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the hours of 7 p.m. on Friday and 9 a.m. on Saturday and after 6 p.m. on Saturday, except for emergency work authorized by the building official.

- Sundays. No person shall operate or permit the operation of any tools or equipment used for construction, alteration, repair, remodeling, drilling, demolition or any other related building activity at any time on Sunday, except for emergency work authorized by the building official or except for work authorized by permit issued by the noise control officer.

- Sunday work permits. Any person who wants to do construction work on a Sunday must apply for a work permit from the noise control officer. The noise control officer may issue a Sunday work permit if there is good cause shown; and in issuing such a permit, consideration will be given to the nature of the work and its proximity to residential areas. The permit may allow work on Sundays, only between 9 a.m. and 6 p.m., and it shall designate the specific dates when it is allowed.

The State has recognized that noise from construction is temporary and would not result in a permanent increase in ambient noise levels and noise generated by construction during permitted hours is exempted from the standards set in the City Noise Ordinance.[14,15]

The City Noise Ordinance includes standards governing the operation of devices that generate vibration.[16] It prohibits operating or permitting the operation of any device that creates vibration that is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at 150 feet (46 meters) from the source if on a public space or public right-of-way. The City Noise Ordinance defines "vibration perception threshold" to mean the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such directed means as, but not limited to, sensation by touch or visual observation of moving objects. It considers the perception threshold to be 0.001 g in the frequency range 0--30 Hz and 0.003 g in the frequency range between 30 and 100 Hz.

2.4 EXISTING CONDITIONS

2.4.1 Noise

Ambient noise levels were monitored along the property boundaries of the proposed project's two land areas during peak-hour traffic. The measurements were made on Tuesday, September 30 and Tuesday, October 14, 2008, between the hours of 4:00 p.m. and 6:00 p.m. Environmental noise levels were measured with a Larson Davis Spark 706 noise dosimeter that had been calibrated with a Larson Davis Model CAL150 prior to use. The L_{eq} at the locations along the proposed project boundary was measured in 30-minute intervals (Figure 2.4.1-1, *Observed Ambient Noise Levels in Vicinity of Proposed Project*).

The existing noise environment in the vicinity of the proposed project site is typical of urban areas and is dominated by vehicular traffic on 3rd Street, Broadway, and surrounding streets and highways. The results of the monitoring are summarized in Table 2.4.1-1, *Ambient Noise Levels*.

TABLE 2.4.1-1
AMBIENT NOISE LEVELS

Location	Peak Hour L_{eq}	CNEL
3rd Street and Daisy Avenue	66.6 dBA	67.6 dBA
Magnolia Avenue	63.0 dBA	62.9 dBA
Broadway and Daisy Avenue	68.1 dBA	69.1 dBA
Maine Avenue	61.9 dBA	62.9 dBA
North Side of Parking Garage	61.3 dBA	62.3 dBA
East side of Parking Garage on Magnolia Ave	66.5 dBA	67.5 dBA
West side of Parking Garage	64.8 dBA	65.8 dBA

[14] City of Long Beach Department of Planning and Building. April 2005. *City of Long Beach West Gateway Redevelopment Project EIR*.

[15] City of Long Beach. Recertified April 2006. *Long Beach Sports Park 2004 Recirculated EIR*. Prepared by: LSA Associates, Inc. Long Beach, CA.

[16] City of Long Beach. 1977. *Long Beach, CA Municipal Code*. "Noise." Title 8 Health and Safety, Chapter 8.80. Available at: http://municipalcodes.lexisnexis.com/codes/longbeach/

FIGURE 2.4.1-1

Observed Ambient Noise Levels in Vicinity of Proposed Project

As indicated in Table 2.4.1-1, ambient noise levels at the proposed project site range from CNEL 61.9 to CNEL 68.1 due to traffic on the roadways that border and surround the proposed project site.

2.4.2 Vibration

Field observations conducted by Sapphos Environmental, Inc. on September 30 and October 14, 2008, determined that vibration levels from surrounding and nearby roadways are not perceptible at the proposed project site.

2.5 METHODOLOGY

The noise analysis considers the level of construction and operational noise and vibration generated by the proposed project. Construction noise levels are based on the construction scenario (i.e. construction equipment and duration) and typical construction noise levels. The construction noise level that would result in a significant impact at each sensitive receptor will be calculated and compared with the anticipated noise generated by construction of the proposed project. The operational noise level will be calculated using the information provided in the traffic study for the proposed project and the typical noise levels of stationary sources.

2.6 IMPACT ANALYSIS

2.6.1 Noise Sensitive Receptors

Certain land uses are more sensitive to noise than others. The City General Plan Noise element deems residential land uses as the most sensitive to noise and includes schools, hospitals, and libraries within the residential category. Sensitive receptors to noise are summarized in Table 2.6.1-1, *Noise-sensitive Receptors,* and the locations are shown in Figure 2.6.1-1, *Sensitive Receptor Locations*.

TABLE 2.6.1-1
NOISE-SENSITIVE RECEPTORS

Sensitive Receptors	Distance and Direction from Proposed Project Site
Residential area north of the proposed project site	75 feet north
Cesar Chavez Elementary School	65 feet west
Childtime Learning Center	50 feet west
One West Ocean Condominiums	580 feet southeast
The Breakers Hotel	720 feet southeast

Typically, major noise concerns include project demolition and construction noises and project operation noises such as noises generated from building operation, building activities, and additional traffic. The proposed project's demolition and construction noise levels would depend on the mix of construction equipment scheduled for use during each construction phase. The City Noise Ordinance limits construction to between the hours of 7:00 a.m. and 7:00 p.m. on weekdays/holidays. On Saturdays, work would commence at 9:00 a.m. and cease no later than 6:00 p.m. Construction would not be conducted outside of these hours, or at any time on Sundays or holidays.

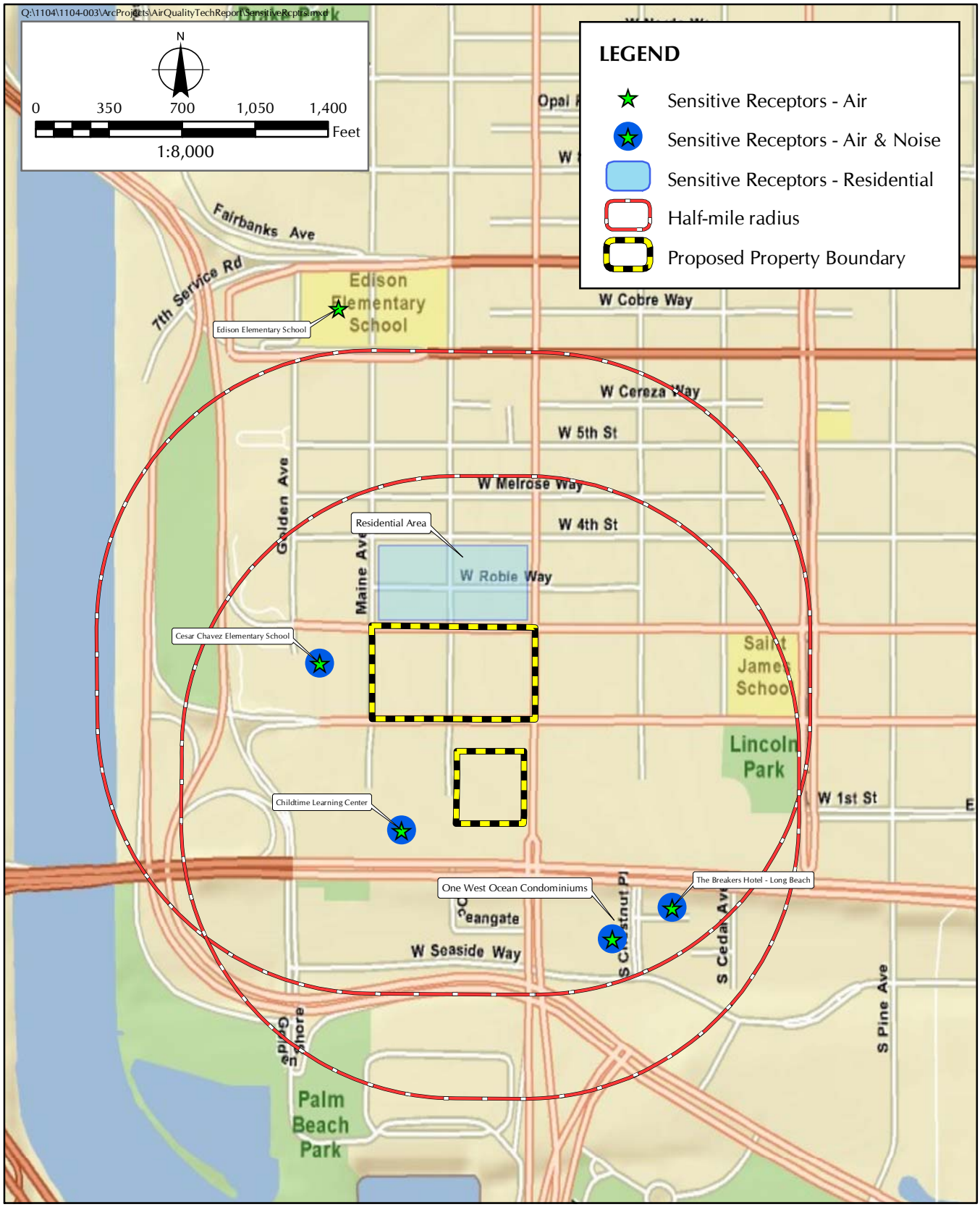


FIGURE 2.6.1-1

Sensitive Receptor Locations

2.6.2 Construction Noise

Construction of the proposed project would result in temporary increases in ambient noise levels in the proposed project area on an intermittent basis. The increase in noise would occur during the anticipated 30-month construction schedule. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise-attenuation barriers.

Construction activities typically require the use of numerous noise generating-equipment, such as jackhammers, pneumatic impact equipment, saws, and tractors. Typical noise levels from various types of equipment that may be used during construction are listed in Table 2.6.2-1, *Maximum Noise Levels of Common Construction Machines*. The table shows noise levels at distances of 50 and 100 feet from the construction noise source. Whereas Table 2.6.2-1 shows the noise level of individual equipment, the noise levels shown in Table 2.6.2-2, *Outdoor Construction Noise Levels* take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. These noise levels are based on surveys conducted by the federal Environmental Protection Agency (EPA) in the early 1970s. Since 1970, regulations have been enforced to reduce noise generated by certain types of construction equipment to meet worker noise-exposure standards. However, many older pieces of equipment are still in use. Thus, the construction phase noise levels indicated in Table 2.6.2-1 and Table 2.6.2-2 represent worst-case conditions. As the table shows, the highest noise levels are expected to occur during the grading/excavation and finishing phases of construction. A typical piece of equipment is assumed to be active for 40 percent of the 8-hour workday (consistent with the EPA's studies of construction noise).

TABLE 2.6.2-1
MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION MACHINES

Noise Source	Noise Level (dBA) /a/	
	50 feet	100 feet
Jackhammer	81–98	75–92
Pneumatic impact equipment	83–88	77–83
Trucks	82–95	76–89
Street Paver	85–88	79–82
Backhoe	73–95	67–89
Cranes (moveable)	75–88	69–82
Front loader	73–86	67–80
Concrete mixer	75–88	69–82

/a/ assumes a 6-dBA drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of ten and 30 feet from the noise source.
SOURCE: City of Los Angeles.2006. *L.A. CEQA Thresholds Guide*. Los Angeles, CA.

TABLE 2.6.2-2
OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level at 50 Feet (dBA)
Ground clearing	82
Grading/excavation	86
Foundations	77
Structural	83
Finishing	86

SOURCE: City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide*. Los Angeles, CA.

The anticipated construction noise levels at the nearest sensitive receptors to the proposed project and the parking garage were calculated based on their distance from the respective proposed project land areas [Table 2.6.2-3, *Construction Noise Level at the Nearest Sensitive Receptor (Proposed Project Area)*; and Table 2.6.2-4, *Construction Noise Level at the Nearest Sensitive Receptor (Parking Garage)*].

TABLE 2.6.2-3
CONSTRUCTION NOISE LEVEL AT THE NEAREST SENSITIVE RECEPTOR
(PROPOSED PROJECT AREA)

	Construction Phase	Noise Level at Nearest Sensitive Receptor (Cesar Chavez Elementary School) (dBA)
1	Ground clearing	79.7
2	Grading/excavation	83.7
3	Foundations	74.7
4	Structural	80.7
5	Finishing	83.7

The CNEL in the vicinity of Cesar Chavez Elementary School, the nearest sensitive receptor to the proposed project, is 62.9 dBA. During the finishing phase it is expected that the noise level from construction would be 84.7 dBA at this sensitive receptor, which would result in a 21.8-dBA increase in the ambient noise level and would exceed the 5-dBA significance threshold at this receptor. However, the proposed project includes components to attenuate noise generated during construction of the proposed project. These noise attenuation components include:

- Construction equipment would be equipped with the best available noise attenuation device, such as mufflers or noise attenuation shields.

- Noise barriers, such as plywood barriers or noise attenuation blankets, would be placed around the entire construction site.

- A "noise disturbance coordinator" would be designated, who would respond to any complaints about construction noise generated by the proposed project. The disturbance coordinator would determine the cause of the noise complaint (e.g., operating outside of permitted hours, bad muffler, etc.) and would implement reasonable measures to address the complaint.

While these noise-attenuation components would be expected to reduce the noise generated by the proposed project, it is anticipated that the proposed project would still exceed the 5-dBA

significance threshold at the nearest sensitive receptor. However, the State has recognized that noise from construction is temporary and would not be expected to result in a permanent increase in ambient noise levels and noise generated by construction during permitted hours is exempted from the standards set in the City Noise Ordinance.[17,18] Therefore, noise generated from construction of the proposed project would result in impacts that would be below the level of significance.

TABLE 2.6.2-4
CONSTRUCTION NOISE LEVEL AT THE NEAREST SENSITIVE RECEPTOR (PARKING GARAGE)

Construction Phase		Noise Level at Nearest Sensitive Receptor (Childtime Learning Center)
1	Foundations	77
2	Structural	83
3	Finishing	86

The CNEL in the vicinity of Childtime Learning Center is 67.6 dBA. During the grading/excavation and finishing phases it is expected that the noise level from construction would be 86 dBA at this sensitive receptor. This would result in an 18.4-dBA increase in the ambient noise level and would exceed the 5-dBA significance threshold at this receptor. While the aforementioned noise-attenuation components would be expected to reduce the noise generated by the proposed project, it is anticipated that the repairs to the Parking Garage would still exceed the 5-dBA significance threshold at the nearest sensitive receptor. However, the State has recognized that noise from construction is temporary and would not result in a permanent increase in ambient noise levels and noise generated by construction during permitted hours is exempted from the standards set in the City Noise Ordinance.[19,20] Therefore, noise generated from repairs to the Parking Garage would be expected to result in impacts that would be below the level of significance.

2.6.3 Operational Noise

Noise generated from operational noise falls into three categories:

1. Noise generated by the building operations (i.e. mechanical systems) of the proposed project

2. Noise generated by the increased capacity of the Parking Garage

3. Noise generated by increased traffic resulting from the proposed project

[17] City of Long Beach Department of Planning and Building. April 2005. *City of Long Beach West Gateway Redevelopment Project EIR*. Long Beach, CA.

[18] City of Long Beach. Recertified in April 2006. *Long Beach Sports Park 2004 Recirculated EIR*. Prepared by LSA Associates, Inc. Long Beach, CA.

[19] City of Long Beach Department of Planning and Building. April 2005. *City of Long Beach West Gateway Redevelopment Project EIR*. Long Beach, CA.

[20] City of Long Beach. Recertified April 2006. *Long Beach Sports Park 2004 Recirculated EIR*. Prepared by LSA Associates, Inc. for the City of Long Beach. Long Beach, CA.

Noise generated by the mechanical systems of buildings is typically between 50 and 60 dBA at 50 feet. Assuming a worst-case scenario where the mechanical system of the proposed project would result in a 60-dBA level at 50 feet, the noise level from the mechanical system at Cesar Chavez Elementary School, the nearest sensitive receptor, would be 57.7 dBA, which is less than the ambient noise level of 62.9 dBA. This would result in an increase of less than 2 dBA to the ambient level and would not exceed the 5-dBA significance threshold at this receptor. Therefore, the noise generated by building operations of the proposed project would be expected to be below the level of significance.

The increase in noise resulting from restoring the Parking Garage to its original 960-space capacity would not be considered an impact of the proposed project as it was the capacity originally designed for the Parking Garage.

A Traffic Impact Analysis was prepared to analyze potential impacts of the proposed project.[21] Thirteen intersections were selected for detailed peak-hour level-of-service (LOS) analysis under Existing (year 2008) Traffic Conditions, year 2012 Background Traffic Conditions, and tear 2012 Future Background plus Project Traffic Conditions. The implementation of the proposed project would be expected to result in 1,920 total new vehicle trips to the project site daily, with 156 inbound vehicles during the a.m. peak hour and 167 outbound during the p.m. peak hour.[22] A doubling of traffic volumes on a roadway would be expected to result in a 3-dBA increase in noise generated by traffic, the human threshold for perceiving a change in the ambient noise level. Table 2.6.3-1, *Existing Traffic Volumes and Future Traffic Volumes Plus Proposed Project*, summarizes the existing traffic volumes and the year 2012 traffic volumes with the proposed project at the key study intersections. As indicated in Table 2.6.3-1, the proposed project would not be anticipated to result in a doubling of traffic volumes in any of the streets in the vicinity of the proposed project. Therefore, the noise generated from increased traffic resulting from the proposed project would be below the threshold of perception and would be below the level of significance.

[21] Linscott, Law & Greenspan, Engineers. December 2008. *New Long Beach Courthouse Traffic Impact Analysis*. Costa Mesa, CA.

[22] Linscott, Law & Greenspan, Engineers. December 2008. *New Long Beach Courthouse Traffic Impact Analysis*. Costa Mesa, CA.

TABLE 2.6.3-1
EXISTING TRAFFIC VOLUMES AND FUTURE TRAFFIC VOLUMES PLUS PROPOSED PROJECT

	INTERSECTIONS	EXISTING CONDITIONS		YEAR 2012 CONDITIONS PLUS PROJECT	
		A.M. PEAK HOUR	P.M. PEAK HOUR	A.M. PEAK HOUR	P.M. PEAK HOUR
1	Maine Ave. / 3rd Street	1213	749	1544	968
2	Daisy Ave. / 3rd Street	1301	700	1533	959
3	Magnolia Ave. / 3rd Street	2019	1224	2483	1683
4	Chestnut Ave. / 3rd Street	1525	750	1695	876
5	Pacific Ave. / 3rd Street	2108	1108	2510	1459
6	Maine Ave. / Broadway Ave.	1674	1281	2073	1624
7	Daisy Ave. / Broadway Ave.	1517	1277	1746	1635
8	Magnolia Ave. / Broadway Ave.	2298	1977	2795	2650
9	Chestnut Ave. / Broadway Ave.	1224	1498	1366	1734
10	Pacific Ave. / Broadway Ave.	1944	2395	2241	2805
11	Golden Ave. / Ocean Blvd.	3391	4161	3962	4663
12	Magnolia Ave. / Ocean Blvd.	3276	3553	3815	4130
13	Pacific Ave. / Broadway Ave.	3246	3879	3691	4372

SOURCE: Linscott, Law and Greenspan, Engineers. December 2008. *New Long Beach Courthouse Traffic Impact Analysis*. Costa Mesa, CA.

2.6.4 Ground-borne Vibration

As shown in Table 2.6.4-1, *Vibration Velocities for Construction Equipment*, use of heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inch per second peak particle velocity (PPV) at a distance of 25 feet. It is not anticipated that repairs to the existing parking garage would require heavy equipment. Vibration levels at the nearest sensitive receptor were adjusted according to its distance from the proposed project site. The nearest sensitive receptor, Cesar Chavez Elementary School, would be approximately 65 feet from occasional heavy equipment activity and could experience vibration levels of 0.021 inch per second PPV. Vibration levels at these receptors would be perceptible but would not exceed the potential building damage threshold of 0.5 inch per second PPV.

The proposed project may require drilled or driven piles. Impact pile driving would be expected to generate a vibration level of up to 0.15 inch per second PPV at Cesar Chavez Elementary School. Vibration levels at this receptor would be perceptible but would not be expected to exceed the potential building damage threshold of 0.5 inch per second PPV.

TABLE 2.6.4-1
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 Feet (Inches/Second) /a/
Pile driving (impact)	0.644
Pile driving (sonic)	0.170
Caisson drilling	0.089
Large bulldozer	0.089
Loaded trucks	0.076

NOTE: /a/ Fragile buildings can be exposed to ground-borne vibration levels of 0.5 inch per second PPV without experiencing structural damage.
SOURCE: Federal Transit Administration. May 2006. *Transit Noise and Vibration Impact Assessment*. Washington DC.

2.6.5 Airports and Airport Land Use Plans

The proposed project would not be expected to result in significant impacts from airports or the carrying out of airport land use plans. The airport nearest to the proposed project is the Long Beach Municipal Airport, located approximately 3.7 miles to the northeast. The proposed project would not be located within 2 miles of a public airport. Therefore, the proposed project would not be expected to result in significant impacts from the exposure of people residing or working in the project area to excessive noise levels caused by a public airport.

2.6.6 Private Airstrips

The implementation of the proposed project would not result in significant impacts from private airstrips. There are no private airstrips near the proposed project area; therefore, the proposed project would not be expected to result in significant impacts from the exposure of people residing or working in the proposed project area to excessive noise levels caused by private airstrips.

2.6.7 Cumulative Impacts

The Traffic Impact Analysis found 18 related projects within a 2-mile radius of the proposed project site and located in the City (Table 2.6.7-1, *Related Projects*).[23]

[23] Linscott, Law and Greenspan, Engineers. November 2008. *New Long Beach Courthouse Traffic Impact Analysis*. Costa Mesa, CA.

TABLE 2.6.7-1
RELATED PROJECTS

No.	Location/Address	Description
1	432-440 West Ocean Boulevard	107 apartments
2	110 West Ocean Boulevard	82 hotel rooms
3	1598 Long Beach Boulevard	64 apartments and 15,000 SF commercial
4	301 Pine Avenue	375 apartments and 26,000 SF commercial
5	150 West Ocean Boulevard	216 condominiums
6	777 East Ocean Boulevard	358 high-rise condominiums and 13,561 SF commercial
7	1628–1724 Ocean Boulevard	51 condominiums and 47 hotel rooms
8	2010 Ocean Boulevard	56 condominiums
9	600 Queensway Drive	178 hotel rooms
10	25 Sout Chestnut Street	246 high-rise condominiums
11	433 Pine Avenue	18 apartments and 15,000 SF of commercial
12	285 Bay Street	138 hotel rooms
13	421 West Broadway Avenue	291 apartments and 15,580 SF commercial
14	350 Long Beach Boulevard	82 single family detached housing and 7,000 SF commercial
15	201 The Promenade	165 hotel rooms
16	155 Long Beach Boulevard	191 hotel rooms
17	1235 Long Beach Boulevard	79,543 SF of retail floor / restaurant floor area, 152 senior apartments, and 210 Condominiums.
18	11 Golden Shore	1,110 high-rise condominiums, 400 hotel rooms, and 373,541 SF general offices

NOTE: SF = square feet

The related projects consist of residential, commercial, and office projects. The related projects would be required to observe the City Noise Ordinance regarding restricted hours for construction. Operation of the related projects would not be expected to result in increases to ambient noise levels.

The related projects would be expected to generate additional traffic in the vicinity of the proposed project. A doubling of traffic volumes on a roadway would be expected to result in a 3-dBA increase in noise generated by traffic. A 3-dBA increase in noise is the human threshold for perceiving a change in the ambient noise level. Increased traffic generated by related projects was included in the year 2012 predicted traffic volumes summarized in Table 2.6.3-1. Table 2.6.3-1 indicates that the proposed project, when taken into consideration with the related projects, would not be anticipated to result in a doubling of traffic volumes in any of the streets in the vicinity of the proposed project. Thus, the noise generated from increased traffic resulting from the proposed project would be expected to be below the threshold of perception. Therefore, the incremental effect of the proposed project in combination with the related projects would not be expected to elevate the ambient noise levels above the level of significance.

The predominant vibration source near the proposed project site is heavy trucks traveling on the local roadways. Neither the proposed project nor related projects would be expected to substantially increase heavy-duty vehicle traffic near the proposed project site. The proposed project would not be expected to add to a cumulative vibration impact.

SECTION 3.0
SUMMARY OF FINDINGS

The proposed project would not be anticipated to result in significant impacts related to noise or ground-borne vibration. The summary of the findings of this Noise Technical Impact Report are as follow:

- Construction noise levels at the proposed New Long Beach Courthouse (proposed project) site would be expected to result in impacts that would be below the level of significance. It is anticipated that construction of the proposed project would exceed the 5-dBA significance threshold at the nearest sensitive receptor. However, the State of California has recognized that noise from construction is temporary and would not result in a permanent increase in ambient noise levels and noise generated by construction during permitted hours is exempted from the standards set in the City of Long Beach (City) Noise Ordinance.[24,25] Therefore, noise generated from construction of the proposed project would be expected to result in impacts that would be below the level of significance.

- Operational noise levels would be expected to result in impacts that would be below the level of significance. Noise generated by operation of the proposed project and noise generated by the increase in traffic resulting from the proposed project would be expected to be below the threshold of human perception. Therefore, noise generated from operation of the proposed project would be expected to result in impacts that would be below the level of significance.

- Neither construction nor operation of the proposed project would be expected to result in significant sources of ground-borne vibration.

- The proposed project would not be expected to result in a cumulative noise or vibration impact when considered with related projects.

- The proposed project would not be expected to result in significant impacts from airports or the carrying out of airport land use plans.

- The implementation of the proposed project would not be expected to result in significant impacts from private airstrips.

[24] City of Long Beach Department of Planning and Building. April 2005. *City of Long Beach West Gateway Redevelopment Project EIR*. Long Beach, CA.

[25] City of Long Beach. Recertified April 2006. *Long Beach Sports Park 2004 Recirculated EIR*. Prepared by LSA Associates, Inc. Long Beach, CA.

[This page is intentionally blank]

APPENDIX F

TRAFFIC IMPACT ANALYSIS

[This page is intentionally blank]

LINSCOTT LAW & GREENSPAN engineers

TRAFFIC IMPACT ANALYSIS

NEW LONG BEACH COURTHOUSE

Long Beach, California
December 8, 2008

Prepared for:

SAPPHOS ENVIRONMENTAL, INC.
430 North Halstead Street
Pasadena, California 91107

LLG Ref. 2-08-3026

Prepared by:
Martin Li
Transportation Engineer I

Under the Supervision of:
Richard E. Barretto, P.E.
Principal

Linscott, Law & Greenspan, Engineers
1580 Corporate Drive
Suite 122
Costa Mesa, CA 92626
714.641.1587 T
714.641.0139 F
www.llgengineers.com

LINSCOTT
LAW &
GREENSPAN
engineers

Engineers & Planners
Traffic
Transportation
Parking

Linscott, Law & Greenspan, Engineers
1580 Corporate Drive
Suite 122
Costa Mesa, CA 92626
714.641.1587 T
714.641.0139 F
www.llgengineers.com

Pasadena
Costa Mesa
San Diego
Las Vegas

December 8, 2008

Ms. Eimon Raoof, Environmental Compliance Coordinator
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, California 91107

LLG Reference: 2.08.3026.1

Subject: **Traffic Impact Analysis for the New Long Beach Courthouse**
Long Beach, California

Dear Ms. Raoof:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Traffic Impact Analysis for the New Long Beach Courthouse Project. The proposed Project site lies on a two-block parcel bounded by 3rd Street to the north, Magnolia Avenue on the east, West Broadway to the south, and Maine Avenue on the west in downtown Long Beach. The proposed Project, which will replace the existing Long Beach Courthouse located at 415 W. Ocean Boulevard, involves the construction of an approximately 10-story, 545,000 square-foot (SF) building consisting of 370,000 SF of floor area for 31 courtrooms for the Superior Court, approximately 80,000 SF for the County, and approximately 95,000 SF for commercial office and retail uses. The project is expected to be completed by late 2012.

This traffic impact analysis presents an inventory of existing characteristics and traffic volumes at 13 key study intersections within the vicinity of the Project, forecasts vehicular traffic generated by the proposed Project, and evaluates potential project-related traffic impacts on the surrounding street system.

We appreciate the opportunity to prepare this study. A summary of findings, conclusions and recommendations can be found on pages 31 and 32 of this report. Should you have any questions or comments regarding the findings this report, please contact our office at (714) 641-1587.

Very truly yours,
Linscott, Law & Greenspan, Engineers

Richard E. Barretto, P.E.
Principal

cc: file

TABLE OF CONTENTS

APPENDICES

APPENDIX

A. Existing Traffic Count Data

B. ICU/HCM Level of Service Calculation Worksheets

LIST OF FIGURES

LIST OF TABLES

TRAFFIC IMPACT ANALYSIS

NEW LONG BEACH COURTHOUSE

Long Beach, California
December 8, 2008

1.0 INTRODUCTION

This Traffic Impact Analysis report addresses the potential traffic impacts and circulation needs associated with the development of the New Long Beach Courthouse project (hereinafter referred to as Project) by the Administrative Office of the Courts (AOC). The proposed Project site lies on a two-block parcel bounded by 3rd Street to the north, Magnolia Avenue on the east, West Broadway to the south, and Maine Avenue on the west in downtown Long Beach. This area is currently predominantly vacant, with the exception of parking spaces provided by a private firm immediately north of West Broadway between Maine Avenue and Daisy Avenue.

This report documents the findings and recommendations of a traffic impact analysis, as well as a parking analysis, conducted by Linscott, Law & Greenspan, Engineers (LLG) to determine the potential impacts associated with the proposed Project.

1.1 Scope of Work

The traffic analysis evaluates the existing operating conditions at thirteen (13) intersections within the project vicinity, estimates the trip generation potential of the proposed Project, and forecasts future operating conditions without and with the Project. Where necessary, intersection improvements/mitigation measures are identified.

The traffic report satisfies the traffic impact requirements of the City of Long Beach and is consistent with the requirements and procedures outlined in the *2004 Congestion Management Program (CMP) for Los Angeles County.*

The Project site has been visited and an inventory of adjacent area roadways and intersections was performed. Existing peak hour traffic information has been collected at thirteen (13) study locations on a "typical" weekday for use in the preparation of intersection level of service calculations. Information concerning cumulative projects (planned and/or approved) in the vicinity of the project has been researched at the City of Long Beach. Based on our research, there are eighteen (18) related project in the City of Long Beach that will contribute to the traffic analysis. These eighteen (18) related projects were considered in the cumulative traffic analysis for this Project.

This traffic report analyzes existing and future weekday AM peak hour and PM peak hour traffic conditions for a near-term (Year 2012) traffic setting upon opening of the Proposed Project. Peak hour traffic forecasts for the Year 2012 horizon year have been projected by increasing existing traffic volumes by an annual growth rate of 1.0% per year and adding traffic volumes generated by eighteen (18) related projects.

1.2 Study Area

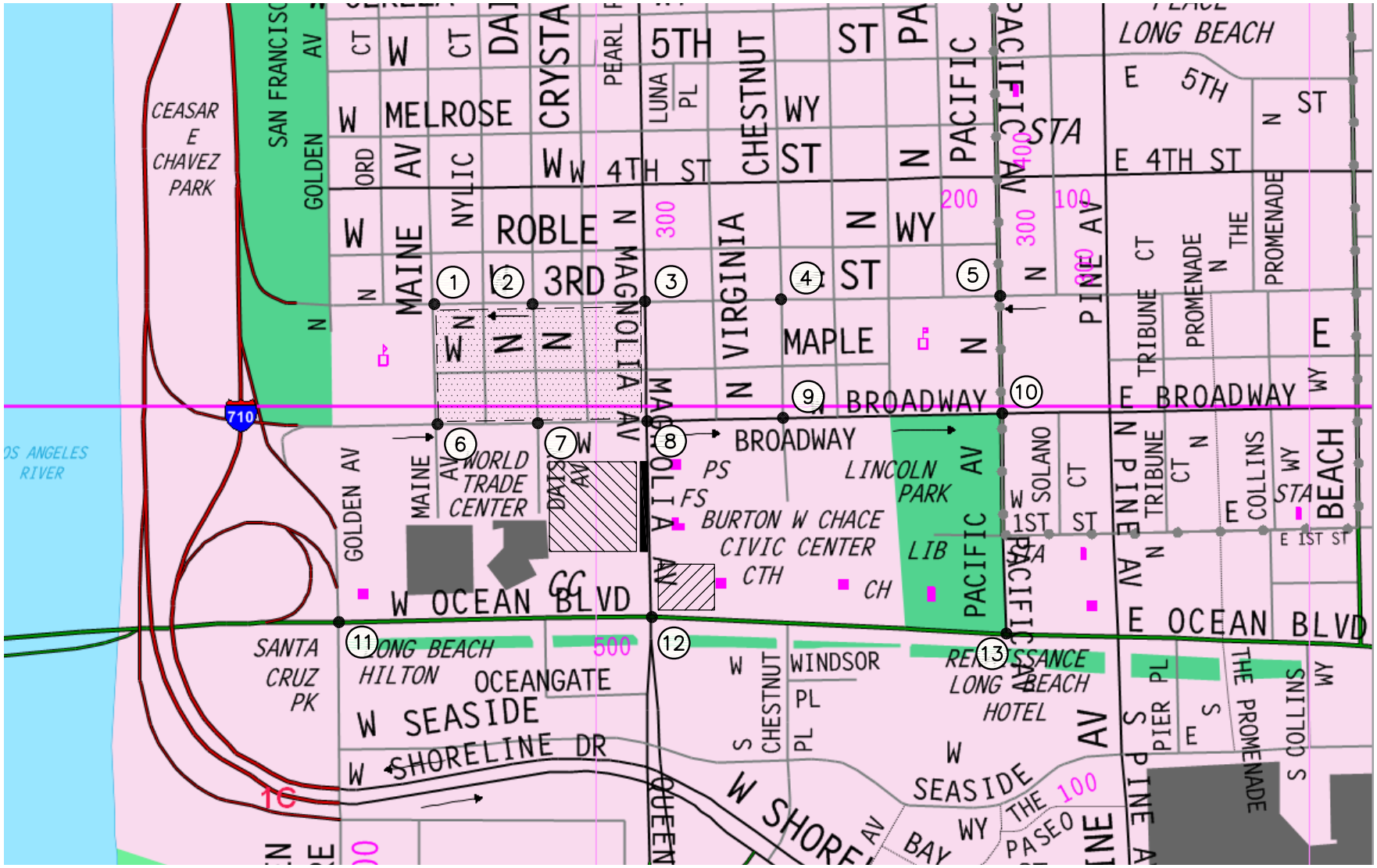
The thirteen (13) key area intersections selected for evaluation in this report provide both regional and local access to the study area. They consist of the following:

1. Maine Avenue at 3rd Street
2. Daisy Avenue at 3rd Street
3. Magnolia Avenue at 3rd Street
4. Chestnut Avenue at 3rd Street
5. Pacific Avenue at 3rd Street
6. Maine Avenue at Broadway
7. Daisy Avenue at Broadway
8. Magnolia Avenue at Broadway
9. Chestnut Avenue at Broadway
10. Pacific Avenue at Broadway Avenue
11. Golden Shore/Golden Avenue at Ocean Boulevard
12. Magnolia Avenue at Ocean Boulevard
13. Pacific Avenue at Ocean Boulevard

Figure 1-1 presents a Vicinity Map, which illustrates the general location of the proposed Project and the existing Long Beach Courthouse, and depicts the study locations and surrounding street system.

Level of Service (LOS) calculations for the AM and PM peak hours at these thirteen (13) study intersections were performed to evaluate the future potential traffic impacts associated with anticipated area growth, related projects, and the proposed Project. Included in this traffic and parking analysis are:

- Existing traffic counts,
- Estimated project traffic generation/distribution/assignment,
- Estimated cumulative project traffic generation/distribution/assignment,
- AM and PM peak hour capacity analyses for existing conditions (Year 2008),
- AM and PM peak hour capacity analyses for future (Year 2012) conditions without and with Project traffic, and
- Area Traffic Improvements,



n:\3000\2083026\dwg\3026f1-1.dwg LDP 09:27:44 11-21-2008 leung

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: THOMAS BROS.

KEY

(#) = POTENTIAL STUDY INTERSECTION

= PROJECT SITE

= MAGNOLIA PARKING STRUCTURE

= EXISTING COURTHOUSE

FIGURE 1-1

VICINITY MAP

NEW LONG BEACH COURTHOUSE, LONG BEACH

2.0 PROJECT DESCRIPTION

The Project site is a roughly 5.9-acre parcel of land bounded by 3rd Street to the north, Magnolia Avenue on the east, West Broadway to the south, and Maine Avenue on the west in downtown Long Beach, California. The proposed Project site is partly located on land owned by the State of California (State), the County of Los Angeles (County), and the Redevelopment Agency of the City of Long Beach (Agency). The County owns the Magnolia Avenue parking garage, which is located south of the proposed Project site. This parking garage, which is now used by the existing Long Beach Courthouse, is expected to be acquired by the State in late 2008 under the provisions of SB1732. The garage is bound by a small surface parking lot to the north, Magnolia Avenue to the east, commercial development to the south and Daisy Avenue to the west.

The proposed New Long Beach Courthouse project involves the construction of an approximate 10-story building with a basement with approximately 545,000 square-feet of floor area. The proposed facility is intended to serve the State Superior Court, the County of Los Angeles, commercial office space, and other retail uses. The roughly 545,000 SF courthouse facility would consists of approximately 370,000 SF of floor area with 31 courtrooms for the Superior Court, approximately 80,000 SF for the County and 95,000 SF of commercial office and retail space for private agencies.

The proposed Project would be designed to accommodate all of the operational functions of the existing superior courthouse, which is located at 415 West Ocean Boulevard. The Superior Court would generally maintain current patterns of use for 27 courtrooms and use the new courthouse's additional four courtrooms for criminal judicial proceedings. The Superior Court would relocate its staff and operations from the existing courthouse to the proposed new courthouse. County staff in the existing courthouse that interacts with the Superior Court would also move from the existing courthouse to the new courthouse. Staffing for the Superior Court would increase from 265 staff to 305 staff members, and the County would increase staffing by 15 percent from 260 staff to 299 staff members. The Superior Court would increase juror population by approximately 60 persons per day and visitor population by approximately 15 percent per day.

There would be several relevant site improvements pertaining to the proposed Project. The City of Long Beach intends to upgrade 3rd Street. The upgrade would add street corner enhancements, a bicycle lane (as part of a city-wide bike improvement plan, which would convert existing parking spaces on 3rd Street to a bike lane), eliminate some parking spaces, and possibly reduce the number of through lanes. The proposed Project would require a street closure of Daisy Avenue between Broadway and 3rd Street. Additionally, the proposed Project would remove the existing Magnolia Avenue crosswalk that extends from the County parking facility to the existing courthouse. For the purposes of this analysis, it is assumed that access to the Project site would be provided via the Daisy Avenue/3rd Street intersection and Daisy Avenue/Broadway intersection. Parking for the New Long Beach Courthouse would continue to be provided at the Magnolia Avenue parking structure. Parking for the proposed commercial office and retail space will be provided via a 200 space on-site parking garage. The proposed Project is expected to be completed by late 2012.

3.0 EXISTING CONDITIONS

Regional access to the Project site is provided by the Long Beach (I-710) Freeway, which is a north-south regional highway located west of the Project site. The Long Beach (I-710) Freeway begins at Queensway Bay in Long Beach and extends north to Valley Boulevard in Alhambra. The 1-710 Freeway generally provides four travel lanes in each direction and is under the jurisdiction of California Department of Transportation (CALTRANS). Freeway access to the Project site is provided via on and off-ramps with 3rd Street and Broadway.

Other key roadways in the local area network include Maine Avenue, Daisy Avenue, Magnolia Avenue, Chestnut Avenue, Pacific Avenue, 3rd Street, Broadway Avenue, and Ocean Boulevard. The following discussion provides a brief synopsis of these key area streets. The descriptions are based on an inventory of existing roadway conditions.

3.1 Street Network

3rd Street is an east-west major arterial between the I-710 Freeway and Alamitos Avenue in the City of Long Beach Circulation Element. This roadway, which borders the Project site on the north, is a one-way street with three lanes in the westbound direction. Parking is generally permitted on both sides of this roadway within the vicinity of the Project. The posted speed limit on 3rd Street is 30 miles per hour.

Broadway Avenue is an east-west major arterial between the I-710 Freeway and Alamitos Avenue in the City of Long Beach Circulation Element. This roadway, which borders the Project site on the south, is a one-way street with three lanes in the eastbound direction. Parking is generally permitted on both sides of this roadway within the vicinity of the project. The posted speed limit on Broadway Avenue is 30 miles per hour.

Ocean Boulevard is primarily a six-lane divided roadway that extends in the east-west direction. West of Golden Shore, Ocean Boulevard is a four-lane roadway. Parking is generally permitted on both sides of this roadway within the vicinity of the project. East of Golden Shore, the posted speed limit on Ocean Boulevard is 30 miles per hour. West of Golden Shore, the posted speed limit on Ocean Boulevard is 45 miles per hour.

Maine Avenue is a two-lane undivided roadway that borders the Project site on the west. Parking is permitted on both sides of this roadway within the vicinity of the Project. The intersections of Maine Avenue at 3rd Street and Maine Avenue at Broadway Avenue are both controlled by traffic signals.

Daisy Avenue is a two-lane undivided roadway that extends in the north-south direction, running through the Project site. Parking is permitted on both sides of this roadway within the vicinity of the Project. The intersection of Daisy Avenue at 3rd Street is stop-controlled and Daisy Avenue at Broadway Avenue is controlled by a traffic signal.

Magnolia Avenue is a two-lane divided roadway that extends in the north-south direction and borders the Project site on the east. Parking is permitted on both sides of this roadway within the vicinity of the Project. The posted speed limit on Magnolia Avenue is 25 miles per hour. The intersections of Magnolia Avenue at 3rd Street, Magnolia Avenue at Broadway Avenue, and Magnolia Avenue at Ocean Boulevard are all controlled by traffic signals.

Pacific Avenue is a four-lane divided roadway that is located east of the Project site. Parking is generally not permitted on either side of this roadway within the vicinity of the Project. The posted speed limit on Pacific Avenue is 30 miles per hour. The intersections of Pacific Avenue at 3rd Street, Pacific Avenue at Broadway Avenue, and Pacific Avenue at Ocean Boulevard are controlled by traffic signals.

Chestnut Avenue is a two-lane undivided roadway north of 3rd Street and two-lane divided south of 3rd Street. Parking is permitted on both sides of this roadway within the vicinity of the project. The intersections of Chestnut Avenue at 3rd Street and Chestnut Avenue at Broadway Avenue are both controlled by traffic signals.

Figure 3-1 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. The number of travel lanes and intersection controls for the key area intersections are identified.

3.2 Existing Public Transit

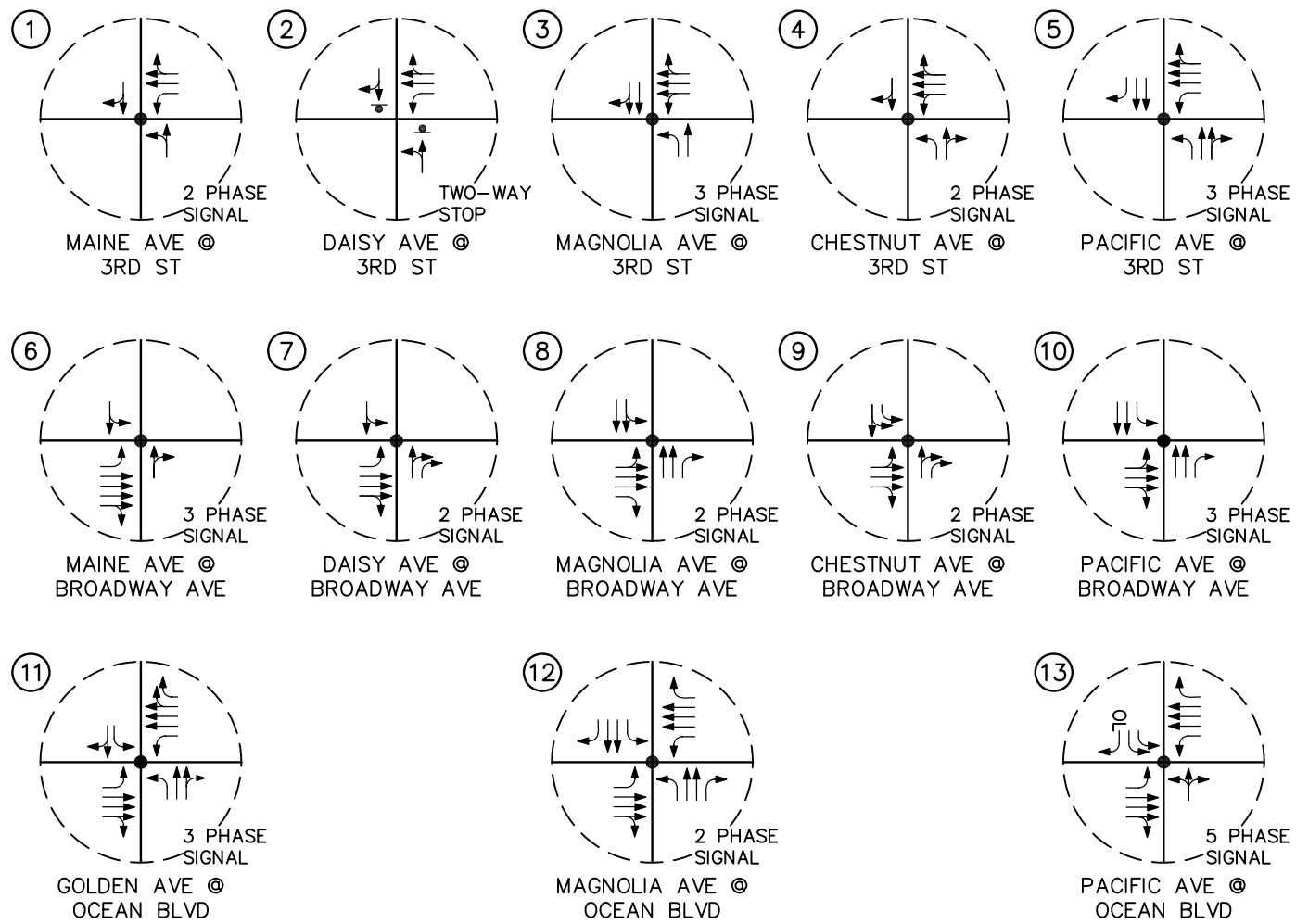
The Los Angeles County Metropolitan Transportation Authority (LACMTA), Long Beach Transit (LBT), and the Orange County Transportation Authority (OCTA) provide public transit services in the vicinity of the proposed Project. A brief description of the transit services is as follows:

Metro Blue Line:

- The Metro Blue Line runs from 7th Street in downtown L.A., through the communities of Vernon, Huntington Park, South Gate, Watts, Compton, Carson, ending in downtown Long Beach.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM peak hour, in the northbound/southbound directions, the Metro Blue Line provides headways of 6 trains in the northbound direction and 5 trains in the southbound direction. During the weekday PM peak hour, in the northbound/southbound directions, the Metro Blue Line provides headways of 5 trains in the northbound direction and 6 trains in the southbound direction.

Metro Local Line 232:

- The Metro Local Line 232 runs from the downtown Long Beach Transit Station to LAX City Bus Center.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM and PM peak hour, in the northbound direction, the Metro Line 232 provides headways of 3 buses. During the weekday AM and PM peak hour, in the



n:\3000\2083026\dwg\3026f3-1.dwg LDP 16:32:14 11-20-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION
= APPROACH LANE ASSIGNMENT, ● = TRAFFIC SIGNAL, ☞ = STOP SIGN
P = PARKING, NP = NO PARKING, U = UNDIVIDED, D = DIVIDED
2 = NUMBER OF TRAVEL LANES, (XX) = POSTED SPEED LIMIT (MPH)
OL = RIGHT-TURN OVERLAP
= MAGNOLIA PARKING STRUCTURE, = EXISTING COURTHOUSE
= PROJECT SITE

FIGURE 3-1

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

NEW LONG BEACH COURTHOUSE, LONG BEACH

southbound direction, the Metro Line 232 provides headways of 3 buses during the AM peak hour and 4 buses in the PM peak hour.

Metro Express Line 577X:

- The Metro Local Line 232 runs from the downtown Long Beach Transit Station to El Monte Transit Center.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Friday.
- During the weekday AM and PM peak hour, in the northbound/southbound directions, the Metro Blue Line provides headways of 1 bus in each direction.

OCTA Route 60:

- The OCTA Route 60 runs from Larwin Square in Tustin to 1st Street and Elm Avenue in downtown Long Beach.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM peak hour, in the eastbound/westbound directions, the OCTA Route 60 provides headways of 4 buses in the northbound direction and 3 buses in the southbound direction. During the weekday PM peak hour, in the eastbound/westbound directions, the Metro Blue Line provides headways of 3 buses in the northbound direction and 4 buses in the southbound direction.

Route 1:

- The route extends from the Long Beach Transit Mall Station to Wardlow Station.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM and PM peak hour, in the northbound/southbound directions, Route 1 provides headways of 3 buses in each direction.

Route 7:

- The route extends from the Long Beach Transit Mall Station to Orange Avenue and Rosecrans in City of Norwalk.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM and PM peak hour, in the northbound/southbound directions, Route 7 provides headways of 3 buses in each direction.

Routes 21, 22, and 23:

- Routes 21 provides services from the Long Beach Transit Mall Station to Garfield Avenue at Alondra Boulevard. Route 22 provides services from downtown Long Beach Transit Mall Station to Downey Avenue at Alondra Boulevard. Route 23 provides services from Long Beach Transit Mall Station to Cherry Avenue at Carson Street.
- The route traverses the study area on Pacific Avenue. Route 21 and 22 operates throughout the day, Monday through Sunday. On weekdays, route 23 northbound only provides bus service between the hours 8:05 PM to 12:55 AM and southbound only provides bus service between the hours 9:00 PM to 12:21 PM.
- During the weekday AM and PM peak hour, in the northbound/southbound directions, Routes 21 and 22 provide headways of 2 buses in each direction.

Routes 46:

- Route 46 provides services from the downtown Long Beach Transit Mall Station to Pacific Coast Highway at Anaheim Street.
- Route 46 traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM and PM peak hour, in the eastbound/westbound directions, Routes 46 provide headways of 4 buses in each direction.

Routes 51 and 52:

- The route extends from the downtown Long Beach Transit Mall Station to Artesia Transit Station.
- The route traverses the study area on Pacific Avenue. Route 51 operates throughout the day, Monday through Sunday. On weekdays, Route 52 northbound only provides bus service between the hours 10:05 PM to 12:11 AM, and southbound only provides bus service between the hours 10:47 PM to 12:25AM.
- During the weekday AM and PM peak hour, in the northbound/southbound directions, Route 51 provides headways of 4 buses in each direction.

Routes 61, 62, 63 and 66:

- Routes 61, 62, 63, and 66 provide service between the downtown Long Beach Transit Mall Station and Artesia Transit Station.
- Within the study area, Routes 61, 62, 63 and 66 traverse the study area on Pacific Avenue. Routes 61 and 62 operate throughout the day, Monday through Sunday. On weekdays, Route 63 northbound only provides bus service between the hours 10:05 PM to 1:10 AM, and southbound only provides bus service from 10:48 PM to 12:25AM. On weekdays, Route 66 northbound only provides bus service till 5:17 PM, southbound only provides service till 5:10 PM, and does not service on weekends.
- During the AM and PM peak hour, in the northbound and southbound directions, Routes 61 and 62 provides headways of 2 buses in each direction. During the AM and PM peak hour Route 66 provide headways of 4 buses and 2 buses respectively in each direction.

Route 81:

- The route extends from the Long Beach Transit Mall Station to Studebaker Road at Atherton Street.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Friday.
- During the weekday AM and PM peak hour, in the eastbound/westbound directions, Route 81 provides headways of 2 buses in each direction.

Routes 91, 92, 93 and 94:

- Routes 91 and 93 provide service between the downtown Long Beach Transit Mall Station and Bellflower Boulevard at Harvard Street. Route 92 provides service from the Long Beach Transit Mall Station to Woodruff Avenue at Alondra Boulevard. Route 94 provides service from the Long Beach Boulevard Transit Station to Bellflower Boulevard at Stearns Street.
- Within the study area, Routes 91, 92, 93 and 94 traverse the study area on Pacific Avenue. Route 91 operates throughout the day, Monday through Sunday and Routes 92 and 93 operates throughout the day, Monday through Friday. On weekdays, Route 94 eastbound

only provides bus service between the hours 5:25 PM to 9:05 PM, and westbound only provides bus service from 6:24 PM to 9:00 PM.

- During the AM and PM peak hour, in the eastbound/westbound directions, Routes 91, 92, 93 provides headways of 1 bus in each direction.

Route 96:

- The route extends from the Long Beach Transit Mall Station to Los Altos Market Center.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Friday, eastbound only from 6:33 AM to 9:09 PM and westbound from 1:00 PM to 5:14 PM.
- During the weekday AM peak hour, in the eastbound direction, Route 96 provides headways of 6 buses. During the weekday PM peak hour, in the westbound direction, Route 96 provides headways of 5 buses.

Routes 111 and 112:

- The route extends from the Long Beach Transit Mall Station to Downey Avenue at South Street.
- The route traverses the study area on Pacific Avenue and operates throughout the day, Monday through Sunday.
- During the weekday AM and PM peak hour, in the northbound/southbound directions, Routes 111 and 112 provides headways of 2 buses in each direction.

Routes 172, 173 and 174:

- Routes 172, 173 and 174 provide service between the downtown Long Beach Transit Mall Station and Norwalk Metro Green Line Metro Station.
- Within the study area, Routes 172, 173 and 174 traverse the study area on Pacific Avenue. Routes 172 and 173 operate throughout the day, Monday through Sunday. On weekdays, Route 174 northbound only provides bus service between the hours 10:05 PM and 12:50 AM, and southbound only provides bus service from 5:42 AM to 6:05 AM and from 12:05 AM to 12:25 AM.
- During the AM, PM and Saturday peak hour, in the northbound and southbound directions, Routes 172 and 173 provides headways of 2 buses in each direction.

Routes 181 and 182:

- The route extends from the Colorado Lagoon and Wardlow Transit Station.
- The route traverses the study area on Magnolia Avenue, Broadway, 3rd Street and Pacific Avenue and operates throughout the day, Monday through Sunday,
- During the weekday AM and PM peak hour, in the eastbound and westbound directions, routes 181 and 182 provide headways of 2 buses in each direction.

Routes 191, 192 and 193:

- Route 191 provides service between Long Beach Transit Mall and Bloomfield Street at Del Amo Boulevard. Route 192 provides service between Long Beach Transit Mall and Los Cerritos Center. Route 193 provides service from the downtown Long Beach Transit Mall Station to Del Amo Station.
- Within the study area, Routes 191, 192 and 193 traverse the study area on Magnolia Avenue, Broadway, 3rd Street and Pacific Avenue. Routes 191 and 192 operate throughout the day, Monday through Sunday. On weekdays, Route 193 northbound only provides bus service

between the hours 10:05 PM and 1:06 AM, and southbound only provides bus service from 11:50 PM to 12:25 AM.

- During the AM and PM peak hour in the northbound/southbound directions, Routes 191 and 192 provides headways of 2 buses in each direction.

Passports Routes A, B, C and D:

- Route A provides free ride service between Alamitos Bay Landing and Catalina Landing. Route B runs from Pine Avenue at 1st Street through downtown Long Beach's East Village, West Gateway and hotspots. Route C provides service between Pine Avenue, downtown Long Beach and Queen Mary. Route D provides service between Los Altos Market Center and Catalina Landing.
- Within the study area, Routes A and D traverse the study area on Ocean Boulevard and operate throughout the day, Monday through Sunday. Route B and C traverse the study area on 3rd Street. On weekdays, Route B's Daily East Village Tour only operates from 10:00 AM to 6:55 PM and Route B's Daily West Gateway Tour only operates from 9:40 AM to 7:15 PM. Route C operates throughout the day, Monday through Sunday.
- During the AM and PM peak hour in the eastbound/westbound directions, Routes A and D provides headways of 2 buses in each direction. During the PM peak hour the Route B's Daily East Village Tour provides headways of 1 bus and the Route B's Daily West Gateway Tour provides headways of 2 buses. During AM peak hour in the southbound/northbound directions, Route C provides headways of 4 buses in each direction. During PM peak hour in the southbound/northbound directions, Route C provides headways of 6 buses in each direction.

3.3 Existing Area Traffic Volumes

Manual vehicular turning movement counts were conducted at thirteen (13) study locations during the weekday morning and evening peak commuter periods to determine the existing AM peak hour and PM peak hour traffic volumes. Traffic counts at the study intersections were conducted in June and October 2008 by Southland Car Counters and Pacific Data Traffic Services.

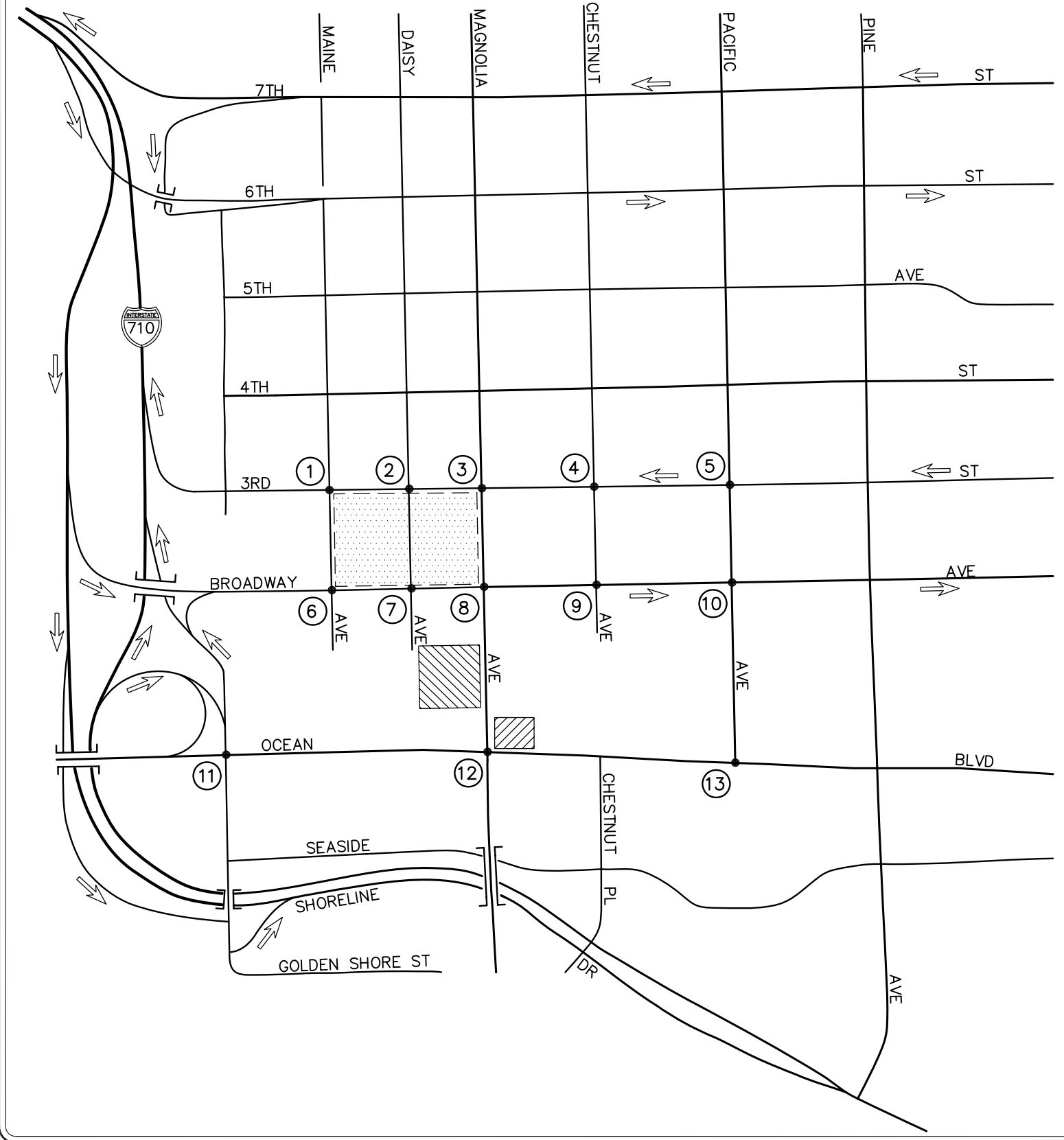
Figures 3-2 and ***3-3*** depict the existing AM and PM peak hour traffic volumes at the key study intersections, respectively. ***Appendix A*** contains the detailed manual turning movement count sheets for the 13 key study intersections evaluated in this report.

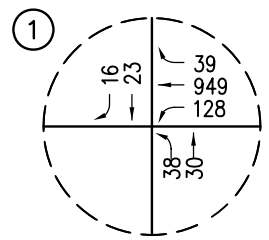
3.4 Existing Intersection Conditions

Existing AM and PM peak hour operating conditions for the thirteen (13) key study intersections were evaluated using the *Intersection Capacity Utilization* (ICU) methodology for signalized intersections and the methodology outlined in Chapter 17 of the *Highway Capacity Manual 2000* (HCM2000) for unsignalized intersections.

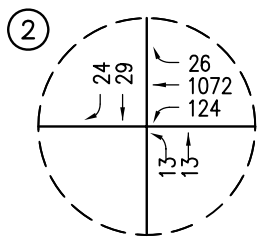
3.4.1 *Intersection Capacity Utilization (ICU) Method of Analysis*

In conformance with the City of Long Beach and LA County CMP requirements, existing AM and PM peak hour operating conditions for the 12 key signalized study intersections were evaluated using the *Intersection Capacity Utilization* (ICU) method. The ICU technique is intended for

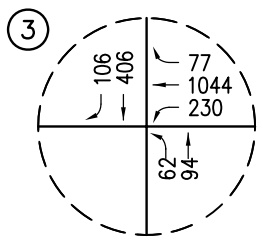




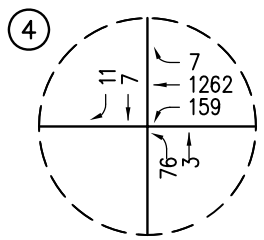
MAINE AVE @ 3RD ST



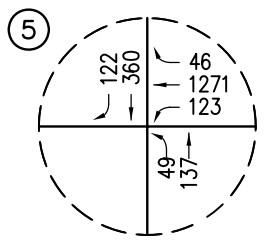
DAISY AVE @ 3RD ST



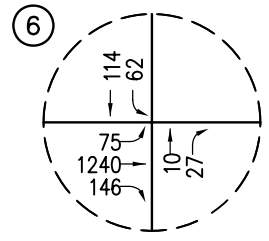
MAGNOLIA AVE @ 3RD ST



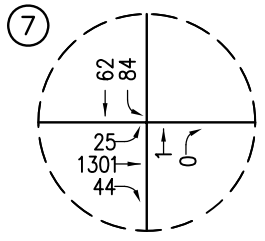
CHESTNUT AVE @ 3RD ST



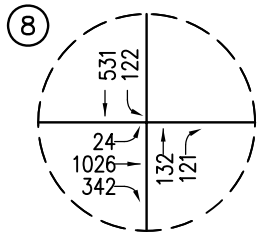
PACIFIC AVE @ 3RD ST



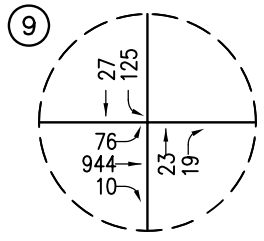
MAINE AVE @ BROADWAY AVE



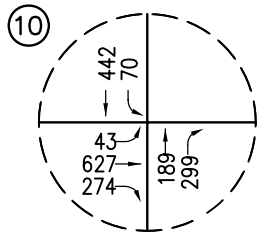
DAISY AVE @ BROADWAY AVE



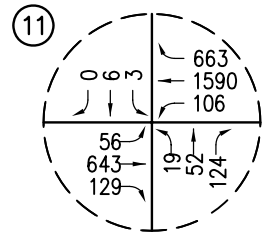
MAGNOLIA AVE @ BROADWAY AVE



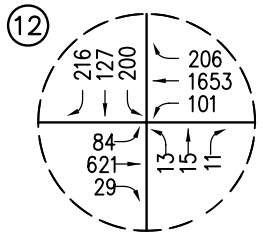
CHESTNUT AVE @ BROADWAY AVE



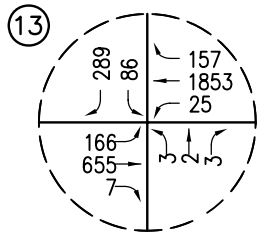
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f3-2.dwg LDP 10:01:16 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

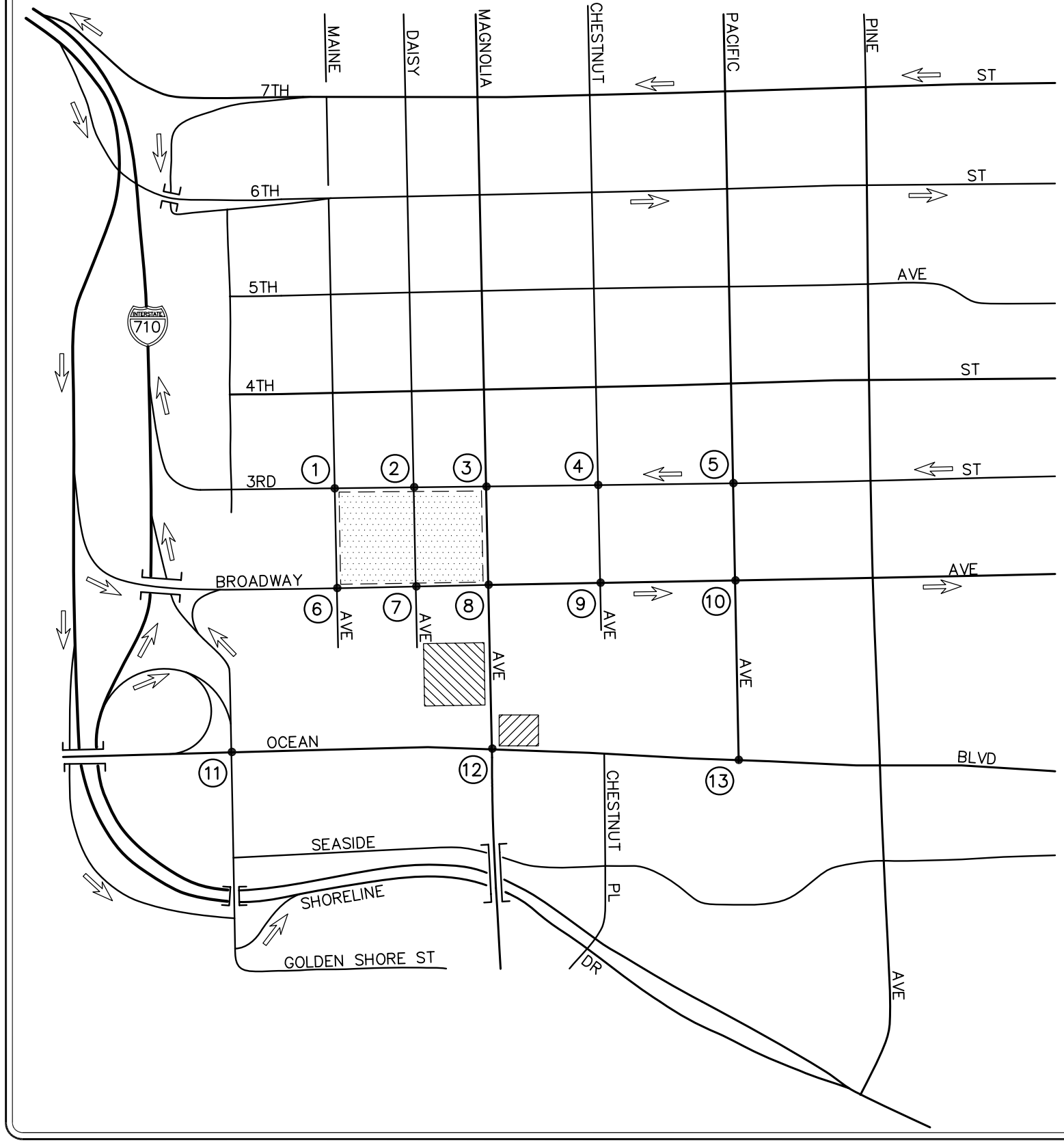
= EXISTING COURTHOUSE

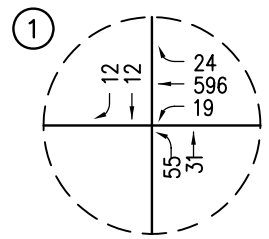
= PROJECT SITE

FIGURE 3-2

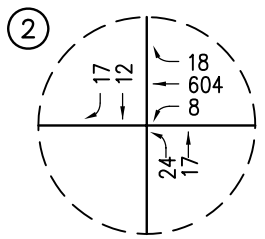
EXISTING AM PEAK HOUR TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

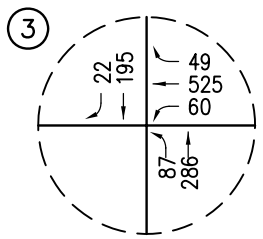




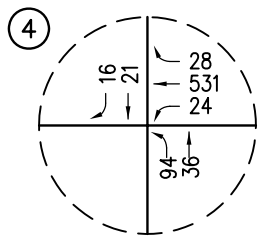
MAINE AVE @
3RD ST



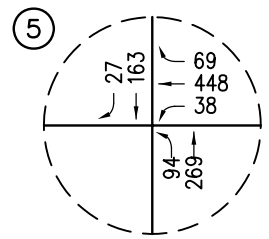
DAISY AVE @
3RD ST



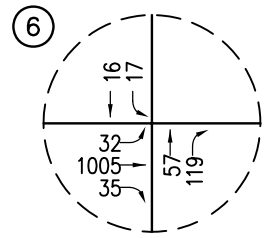
MAGNOLIA AVE @
3RD ST



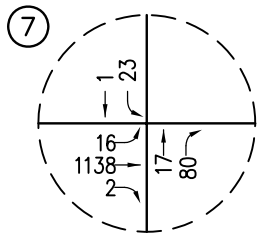
CHESTNUT AVE @
3RD ST



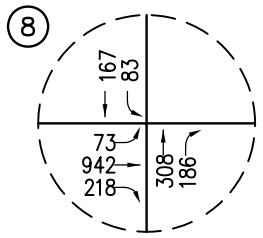
PACIFIC AVE @
3RD ST



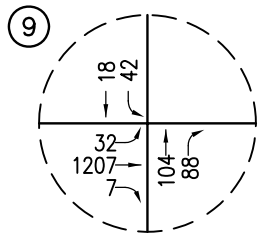
MAINE AVE @
BROADWAY AVE



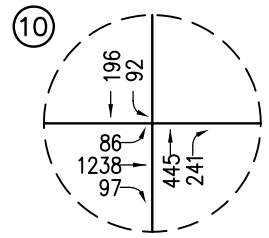
DAISY AVE @
BROADWAY AVE



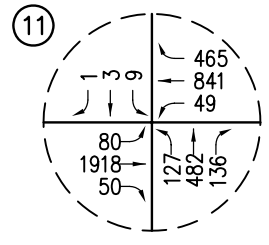
MAGNOLIA AVE @
BROADWAY AVE



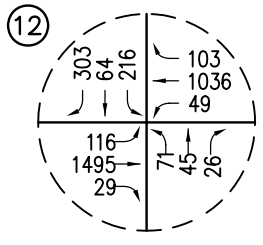
CHESTNUT AVE @
BROADWAY AVE



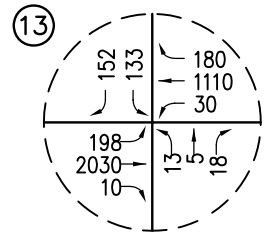
PACIFIC AVE @
BROADWAY AVE



GOLDEN AVE @
OCEAN BLVD



MAGNOLIA AVE @
OCEAN BLVD



PACIFIC AVE @
BROADWAY AVE

n:\3000\2083026\dwg\3026f3-3.dwg LDP 10:02:02 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION
= MAGNOLIA PARKING STRUCTURE
= EXISTING COURTHOUSE
= PROJECT SITE

FIGURE 3-3

EXISTING PM PEAK HOUR TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in ***Table 3-1***. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. In the City of Long Beach, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours, or the current LOS if the existing LOS is worse than LOS D (i.e. LOS E of F).

Per LA County CMP requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left turn capacity of 2,880 vph. Clearance intervals are based on the number of phases in the intersection and whether the left turning movements are all fully protected or whether some of them are permitted with other left-turn movements being protected. ***Table 3-2*** shows the clearance intervals used in the analysis of the key study intersections within the City of Long Beach.

3.4.2 *Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)*

The 2000 HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of one key unsignalized intersection, Daisy Avenue at 3rd Street. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in ***Table 3-3***.

3.5 Existing Level of Service Results

Table 3-4 summarizes the existing peak hour service level calculations for the 13 key study intersections based on existing traffic volumes and current street geometrics. Review of Table *3-4* indicates that based on the ICU or HCM method of analysis and the City's LOS criteria, all of the 13 key study intersections currently operate at acceptable LOS D or better during the AM and PM peak hours.

Appendix B presents the peak hour ICU/HCM calculation worksheets for the key signalized and unsignalized study intersections.

TABLE 3-1

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

TABLE 3-2

CITY OF LONG BEACH CLEARANCE INTERVALS[1]

Number of Signal Phases	Left-turn Phasing Type	Clearance Interval (percent)
2	Permitted	10%
3	Protected and Permitted	12%
3	Fully Protected	15%
4	Protected and Permitted	14%
4	Fully Protected	18%

[1] Source: *City of Long Beach Guidelines for Signalized Intersection Analysis, 2004.*

TABLE 3-3

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 30.0	Little or no delay
B	> 30.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

TABLE 3-4

EXISTING PEAK HOUR LEVELS OF SERVICE[2]

	Key Intersection	Time Period	Control Type	ICU/Delay (sec/veh)	LOS
1.	Maine Avenue at 3rd Street	AM	2∅ Traffic	0.457	A
		PM	Signal	0.343	A
2.	Daisy Avenue at 3rd Street	AM	Two-Way	28.5 s/v	D
		PM	Stop	12.4 s/v	B
3.	Magnolia Avenue at 3rd Street	AM	3∅ Traffic	0.630	B
		PM	Signal	0.461	A
4.	Chestnut Avenue at 3rd Street	AM	2∅ Traffic	0.456	A
		PM	Signal	0.303	A
5.	Pacific Avenue at 3rd Street	AM	3∅ Traffic	0.568	A
		PM	Signal	0.367	A
6.	Maine Avenue at Broadway Avenue	AM	3∅ Traffic	0.500	A
		PM	Signal	0.443	A
7.	Daisy Avenue at Broadway Avenue	AM	2∅ Traffic	0.405	A
		PM	Signal	0.325	A
8.	Magnolia Avenue at Broadway Avenue	AM	2∅ Traffic	0.523	A
		PM	Signal	0.480	A
9.	Chestnut Avenue at Broadway Avenue	AM	2∅ Traffic	0.376	A
		PM	Signal	0.443	A
10.	Pacific Avenue at Broadway Avenue	AM	3∅ Traffic	0.485	A
		PM	Signal	0.654	B
11.	Golden Shore Street/Golden Avenue at Ocean Boulevard	AM	3∅ Traffic	0.616	B
		PM	Signal	0.759	C
12.	Magnolia Avenue at Ocean Boulevard	AM	2∅ Traffic	0.640	B
		PM	Signal	0.682	B
13.	Pacific Avenue at Ocean Boulevard	AM	3∅ Traffic	0.689	B
		PM	Signal	0.632	B

Notes:
s/v = seconds per vehicle (delay).

[2] *Appendix B* contains ICU/HCM sheets for key study intersections.

4.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure can typically be found in the Seventh Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2003] or *San Diego Traffic Generators,* published by the San Diego Association of Governments (SANDAG).

However, given the uniqueness of the proposed Project, the trip generation potential of the "courthouse" component of the Project was forecast based on site specific data provided by the AOC for the existing Long Beach Courthouse. The published trip rates for office buildings were considered but were deemed inappropriate since only a portion of the courthouse is comprised of true "office" uses (e.g. clerical). Courthouses generally have a lower density in terms of employees per square-foot as compared to typical offices. Further yet, the courtroom itself comprises large amounts of square-footage that is only partially utilized (rarely are all courtrooms utilized concurrently). Additionally, courthouses tend to have a relatively large amount of transit usage and a large amount of visitors. For the "commercial" component of the Project, ITE Land Use Code 710: General Office Building and ITE Land Use 820: Shopping Center average trips rates were utilized.

The amount of daily trip generated by the "courthouse" component of the proposed Project was estimated based on specific values for modal split percentage, daily vehicle trip-ends per person and vehicle occupancy rates supplied by surveys provided by the AOC of the existing courthouse. Using this information, LLG calculated the daily trip generation of the "courthouse" component of the proposed Project, while the peak hour percentages for office buildings were utilized since they appeared reasonable and since no other courthouse data was available.

The following is a description of visitor and juror modal splits taken from the existing Long Beach Courthouse and assumptions utilized to derive the trip generation potential of employees:

Modal Splits / User	**Jurors**	**Visitor**	**Employee**
▪ Drive Alone	85%	42%	70%
▪ Transit	1%	13%	10%
▪ Carpool	1%	37%	20%
▪ Bike/Walk	3%	3%	--
▪ Drop-off	9%	5%	--
▪ Total	100%	100%	100%

5.1.1 *Courthouse Trip Generation*

Based on review of the Project description and juror/visitor statistics of the existing courthouse provided by the AOC, the new Long Beach Courthouse project would result in four (4) new courtrooms, 60 additional jurors per day (15 per courtroom), 140 additional visitors per day (35 per courtroom) and an additional staff of 79 employees (35 for the Superior Court and 39 for the County).

Table 5-1 shows the trip generation calculations for the "courthouse" component of the proposed Project. Review of this table shows that the "courthouse" component of the proposed Project is calculated to generate an additional 457 daily trips, with 59 trips (53 inbound, 6 outbound) produced in the AM peak hour and 62 trips (12 inbound, 50 outbound) produced in the PM peak hour on a "typical" weekday.

5.1.2 *Commercial Trip Generation*

Table 5-2 summarizes the trip generation rates used in forecasting the vehicular trips generated by the "commercial" component of the proposed Project and presents its associated trip generation potential for a "typical" weekday. As shown, the trip generation potential for the "commercial" component of the proposed Project was forecast using ITE Land Use Code 710: General Office Building and ITE Land Use 820: Shopping Center. Review of *Table 5-2* indicates that the proposed commercial/retail uses is forecast to generate 1,463 daily "net" trips, with 123 "net" trips (103 inbound, 20 outbound) produced in the AM peak hour and 165 "net" trips (48 inbound, 117 outbound) produced in the PM peak hour on a "typical" weekday.

Please note that the aforementioned trip generation includes adjustments for the internal trip capture within the project site. The internal trip capture is based on the ITE Internal Capture Summary calculation worksheets contained in the *Trip Generation Handbook*, 2nd Edition, published by ITE, June 2004. The internal trip capture accounts for the trip interaction between the office and retail uses.

5.1.3 *Total Project Trip Generation Potential*

Review of bottom portion of *Table 5-2* indicates that the proposed Project is forecast to generate 1,920 daily "net" trips, with 182 "net" trips (156 inbound, 26 outbound) produced in the AM peak hour and 227 "net" trips (60 inbound, 167 outbound) produced in the PM peak hour on a "typical" weekday. The potential traffic impact of these trips is evaluated in this traffic report.

TABLE 5-1

COURTHOUSE TRAFFIC GENERATION CALCULATIONS

Entity	Modal Split %	Daily Vehicle Trip End / Person	Vehicle Occupancy Rate	Total Daily Vehicle Trip End	AM Peak Hour					PM Peak Hour				
					% of Daily	In : Out Split	In	Out	Total	% of Daily	In : Out Split	In	Out	Total
Jurors (60)														
Drive Alone	85%	2.0		102	13%	9:1	12	1	13	14%	2:8	3	11	14
Transit	2%	0.0			13%	9:1	0	0	0	14%	2:8	0	0	0
Carpool	1%	2.0	2	1	13%	9:1	0	0	0	14%	2:8	0	0	0
Bike/Walk	3%	0.0			13%	9:1	0	0	0	14%	2:8	0	0	0
Drop-Off	9%	2.0	2	5	13%	9:1	1	0	1	14%	2:8	0	1	1
Subtotal	***100%***			***108***			***13***	***1***	***14***			***3***	***12***	***15***
Visitors (140)														
Drive Alone	42%	2.0		116	13%	9:1	14	1	15	14%	2:8	3	13	16
Transit	13%	0.0			13%	9:1	0	0	0	14%	2:8	0	0	0
Carpool	37%	2.0	2	52	13%	9:1	6	1	7	14%	2:8	1	6	7
Bike/Walk	3%	0.0			13%	9:1	0	0	0	14%	2:8	0	0	0
Drop-Off	5%	2.0	2	7	13%	9:1	1	0	1	14%	2:8	0	1	1
Subtotal	***100%***			***175***			***21***	***2***	***23***			***4***	***20***	***24***
Employees (79)														
Drive Alone	70%	2.5		138	13%	9:1	16	2	18	14%	2:8	4	15	19
Transit	10%	0.0			13%	9:1	0	0	0	14%	2:8	0	0	0
Carpool	20%	2.0	2	16	13%	9:1	2	0	2	14%	2:8	0	2	2
subtotal	***100%***			***154***			***18***	***2***	***20***			***4***	***17***	***21***
Misc./Deliveries	**10**			***20***	*10%*	*5:5*	***1***	***1***	***2***	*10%*	*5:5*	***1***	***1***	***2***
Total Courthouse Trip Generation Potential				**457**			**53**	**6**	**59**			**12**	**50**	**62**

TABLE 5-2

PROJECT TRAFFIC GENERATION RATES AND FORECAST

ITE Land Use / Project Description	Daily 2-way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors: [3]							
▪ 710: General Office Building (TE/1000 SF)	11.01	1.36	0.19	1.55	0.25	1.24	1.49
▪ 820: Shopping Center (TE/1000 SF)	42.94	0.63	0.40	1.03	1.80	1.95	3.75
Generation Forecast:							
"Commercial" Component							
▪ 710: General Office (75,000 SF)	826	102	14	116	19	93	112
▪ 820: Specialty Retail (20,000 SF)	859	13	8	21	36	39	75
Subtotal	1,685	115	22	137	55	132	187
Less internal Capture[4]	-60	0	0	0	-2	-2	-4
Mode Shift Reduction (Daily/AM/PM: 10%/10%/10%)[5]	-162	-12	-2	-14	-5	-13	-18
Net Trips – Commercial Component	*1,463*	*103*	*20*	*123*	*48*	*117*	*165*
"Courthouse" Component							
▪ New LB Courthouse (4 courtrooms, 60 jurors, 140 visitors, 79 staff/ employees) [6]	*457*	*53*	*6*	*59*	*12*	*50*	*62*
Total Project Net Trip Generation Potential	***1,920***	***156***	***26***	***182***	***60***	***167***	***227***

3 Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2003)].

4 Source: Internal Capture rates were estimated based on the methodology outlines in *Chapter 7 – Multi-Use Development* of *Trip Generation Handbook*, published by ITE, June 2004.

5 Due to location of proposed Project and availability of bus and rail services in the area, transit usage by the project can be expected. The 10% mode shift reduction is assumed to represent the project's potential transit ridership as well as pedestrian (walking) trips.

6 Source: See *Table 5-1*.

5.2 Project Traffic Distribution and Assignment

Traffic distribution determines the directional orientation of traffic. It is based upon the location, intensity of use, accessibility of existing and planned residential areas, employment centers, and other commercial activities. Traffic assignment is the determination of specific trip routes, given the previously developed traffic distribution. Primary factors in route selection are the generalized travel direction, minimum time and minimum distance paths.

The general directional traffic distribution pattern for the "commercial" and "courthouse" components of the proposed Project is tabulated in ***Table 5-3*** and ***Table 5-4*** and graphically presented in ***Figures 5-1*** and ***5-2.*** Project traffic volumes both entering and exiting the site have been distributed and assigned to the adjacent street system based on the following considerations:

1. The site's proximity to major traffic carriers (i.e. I-710 Freeway, Magnolia Avenue, Pacific Avenue, Ocean Boulevard, etc.),
2. Expected localized traffic flow patterns based on adjacent street channelization and presence of traffic signals,
3. Existing intersection traffic volumes at the two project driveways, and
4. Ingress/egress availability at the Project site and the location of existing and proposed parking areas.

The anticipated AM and PM peak hour Project volumes associated with the proposed commercial uses are presented in ***Figures 5-3*** and ***5-4,*** respectively. The traffic volume assignments presented in *Figures 5-3* and *5-4* reflect the traffic distribution characteristics shown in *Figure 5-1* and the "commercial" component's traffic generation forecast presented in *Table 5-2.*

The anticipated AM and PM peak hour Project volumes associated with the "courthouse" component of the proposed Project are presented in ***Figures 5-5*** and ***5-6,*** respectively. The traffic volume assignments presented in *Figures 5-5* and *5-6* reflect the traffic distribution characteristics shown in *Figure 5-2* and the proposed courthouse's traffic generation forecast presented in *Tables 5-1* and *5-2.*

TABLE 5-3

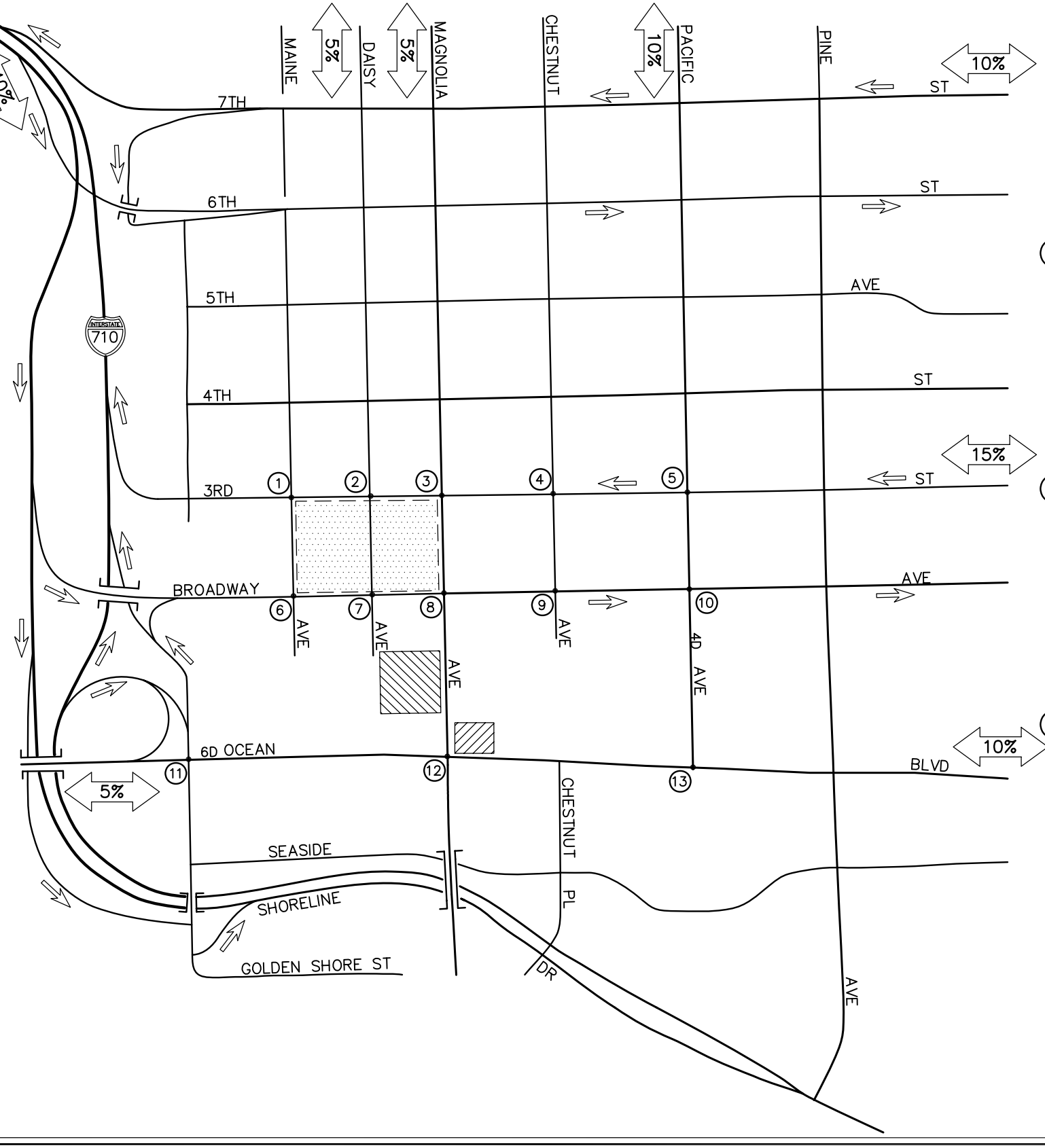
PROJECT DIRECTIONAL DISTRIBUTION PATTERN (COMMERCIAL)

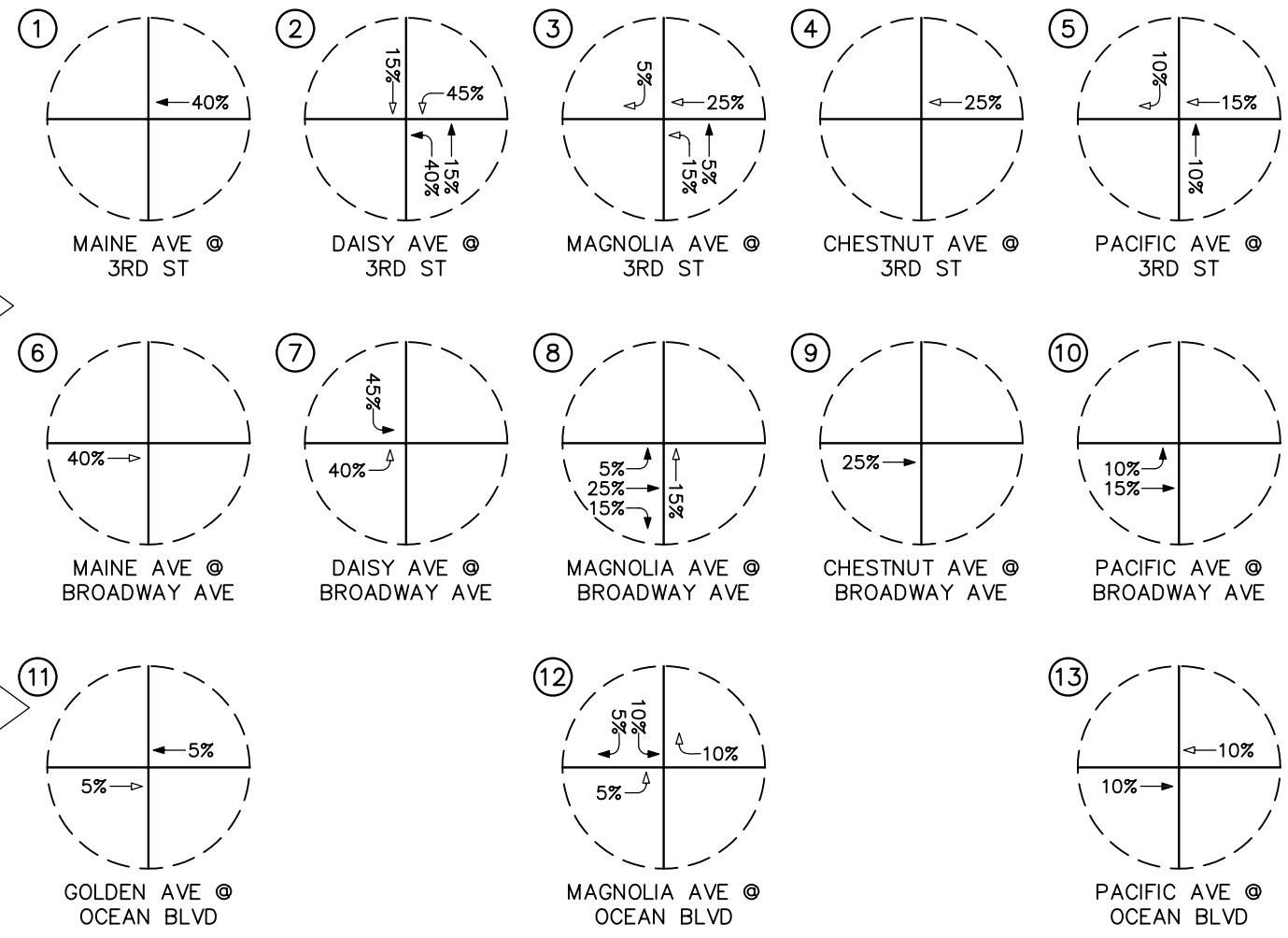
Distribution Percentage	Orientation
40%	To/from the north on I-710 Freeway
5%	To/from the north on Daisy Avenue
5%	To/from the north on Magnolia Avenue
10%	To/from the north on Pacific Avenue
10%	To/from the east on 7th Street
15%	To/from the east on 3rd Street
5%	To/from the west on Ocean Boulevard
10%	To/from the east on Ocean Boulevard
100%	**Total**

TABLE 5-4

PROJECT DIRECTIONAL DISTRIBUTION PATTERN (COURTHOUSE)

Distribution Percentage	Orientation
40%	To/from the north on I-710 Freeway
15%	To/from the north on Magnolia Avenue
10%	To/from the east on 7th Street
20%	To/from the east on 3rd Street
5%	To/from the west on Ocean Boulevard
10%	To/from the east on Ocean Boulevard
100%	**Total**





11-24-2008 milovich

n:\3000\2083026\dwg\3026f5-1.dwg LDP 09:57:21

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

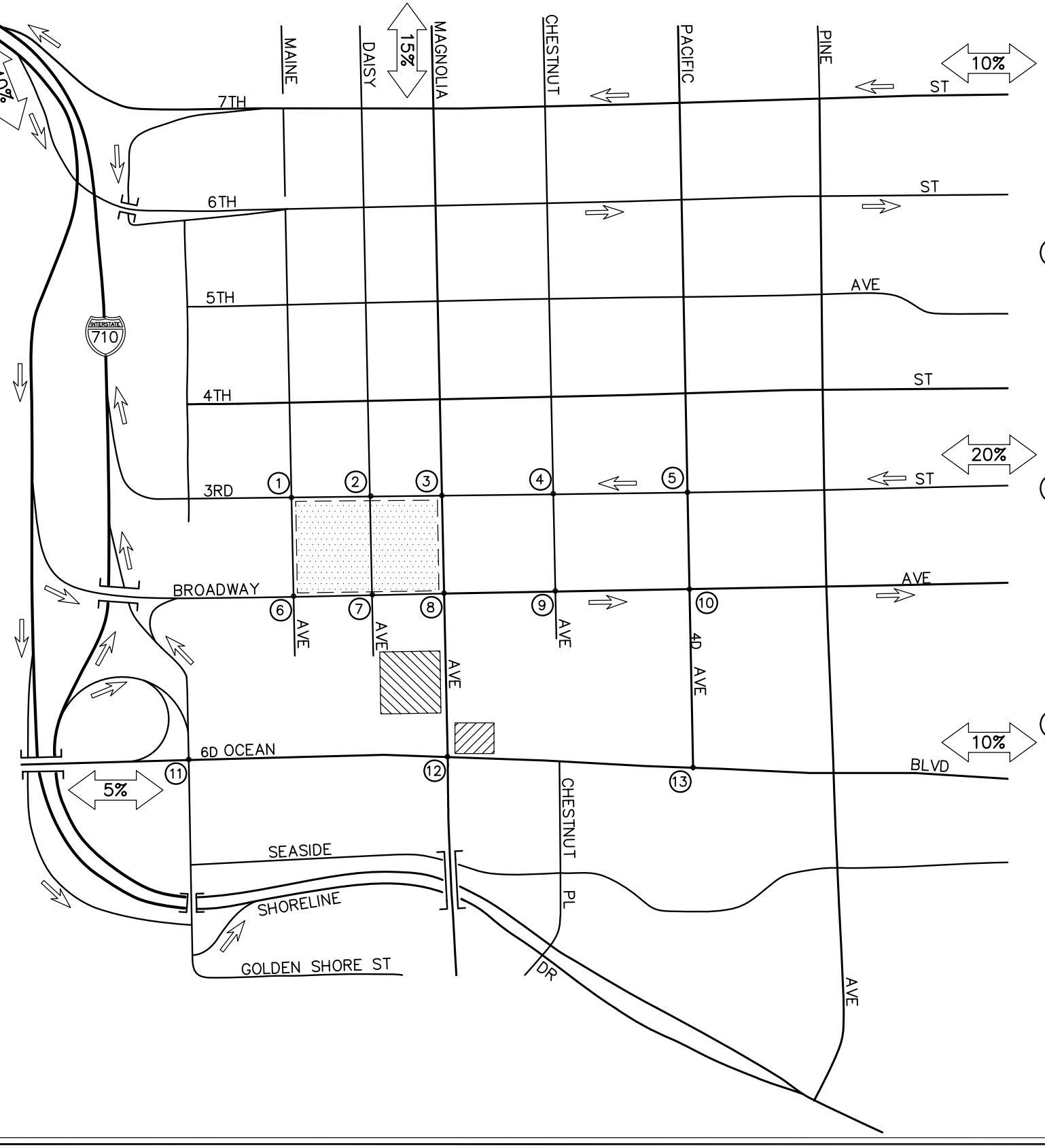
KEY

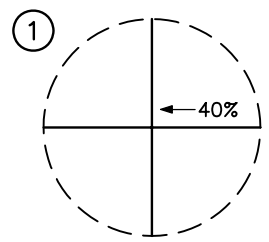
- ⇦ = INBOUND PERCENTAGE
- ⇦ = OUTBOUND PERCENTAGE
- (#) = POTENTIAL STUDY INTERSECTION
- = MAGNOLIA PARKING STRUCTURE
- = EXISTING COURTHOUSE
- = PROJECT SITE

FIGURE 5-1

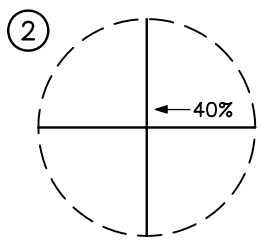
PROJECT TRAFFIC DISTRIBUTION PATTERN (COMMERCIAL)

NEW LONG BEACH COURTHOUSE, LONG BEACH

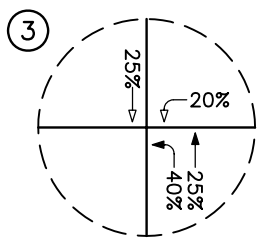




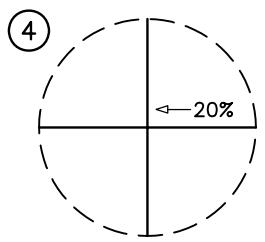
MAINE AVE @ 3RD ST



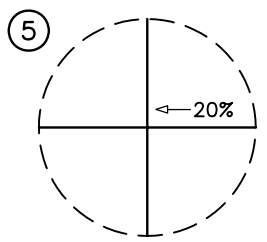
DAISY AVE @ 3RD ST



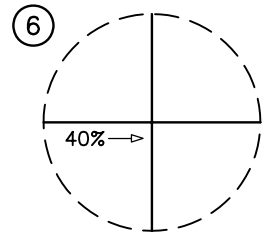
MAGNOLIA AVE @ 3RD ST



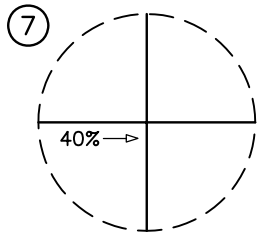
CHESTNUT AVE @ 3RD ST



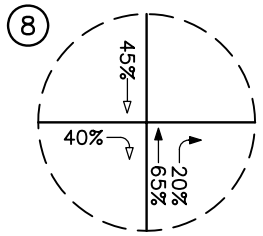
PACIFIC AVE @ 3RD ST



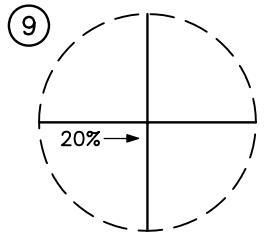
MAINE AVE @ BROADWAY AVE



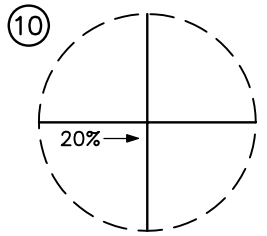
DAISY AVE @ BROADWAY AVE



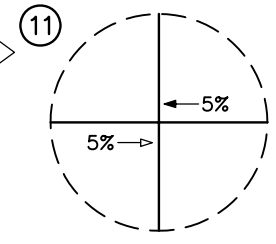
MAGNOLIA AVE @ BROADWAY AVE



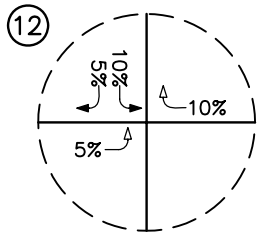
CHESTNUT AVE @ BROADWAY AVE



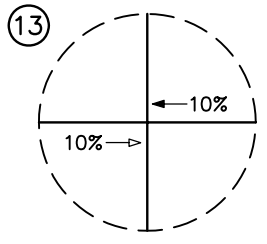
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ OCEAN BLVD

n:\3000\2083026\dwg\3026f5-2.dwg LDP 09:58:19 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

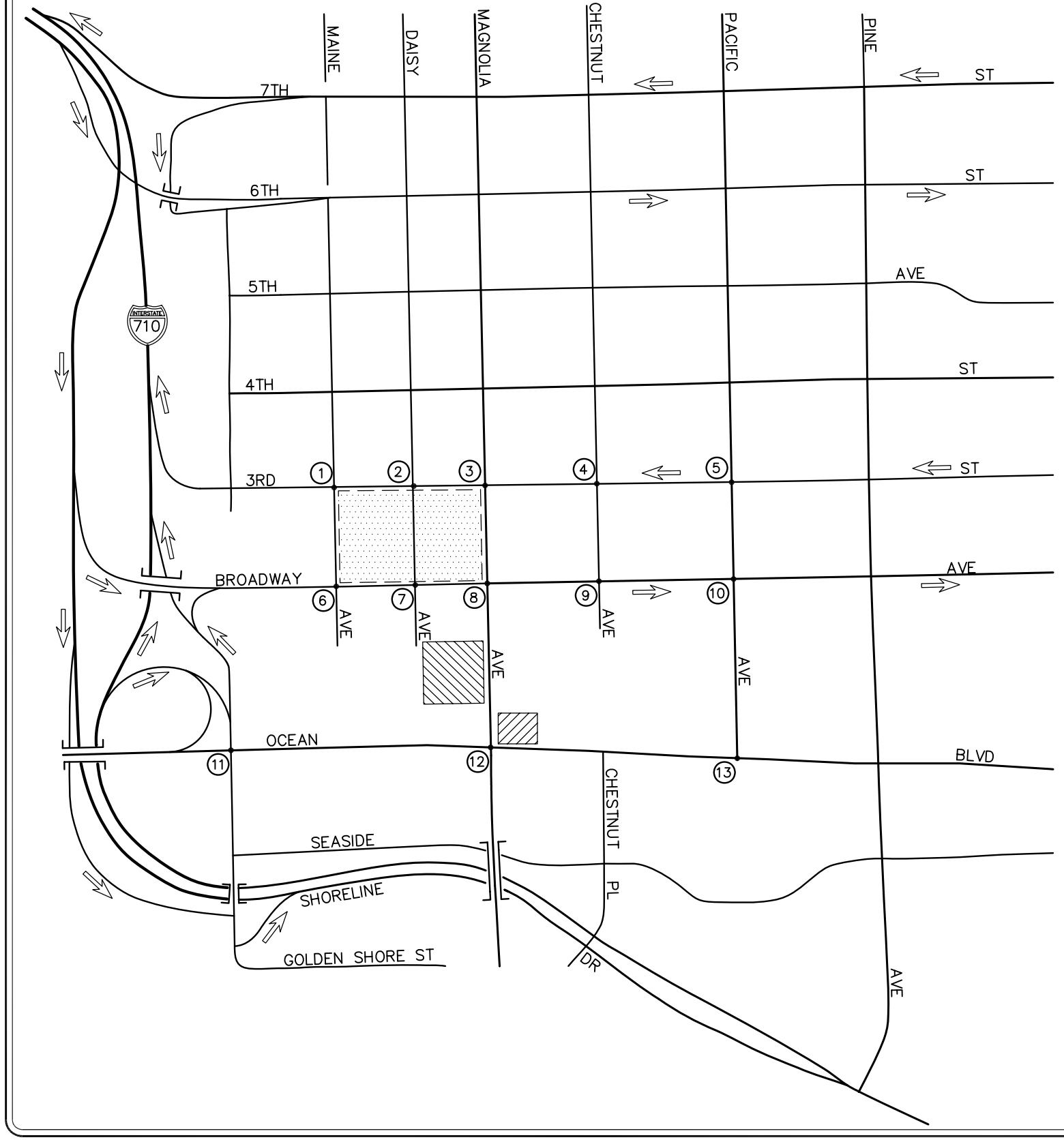
KEY

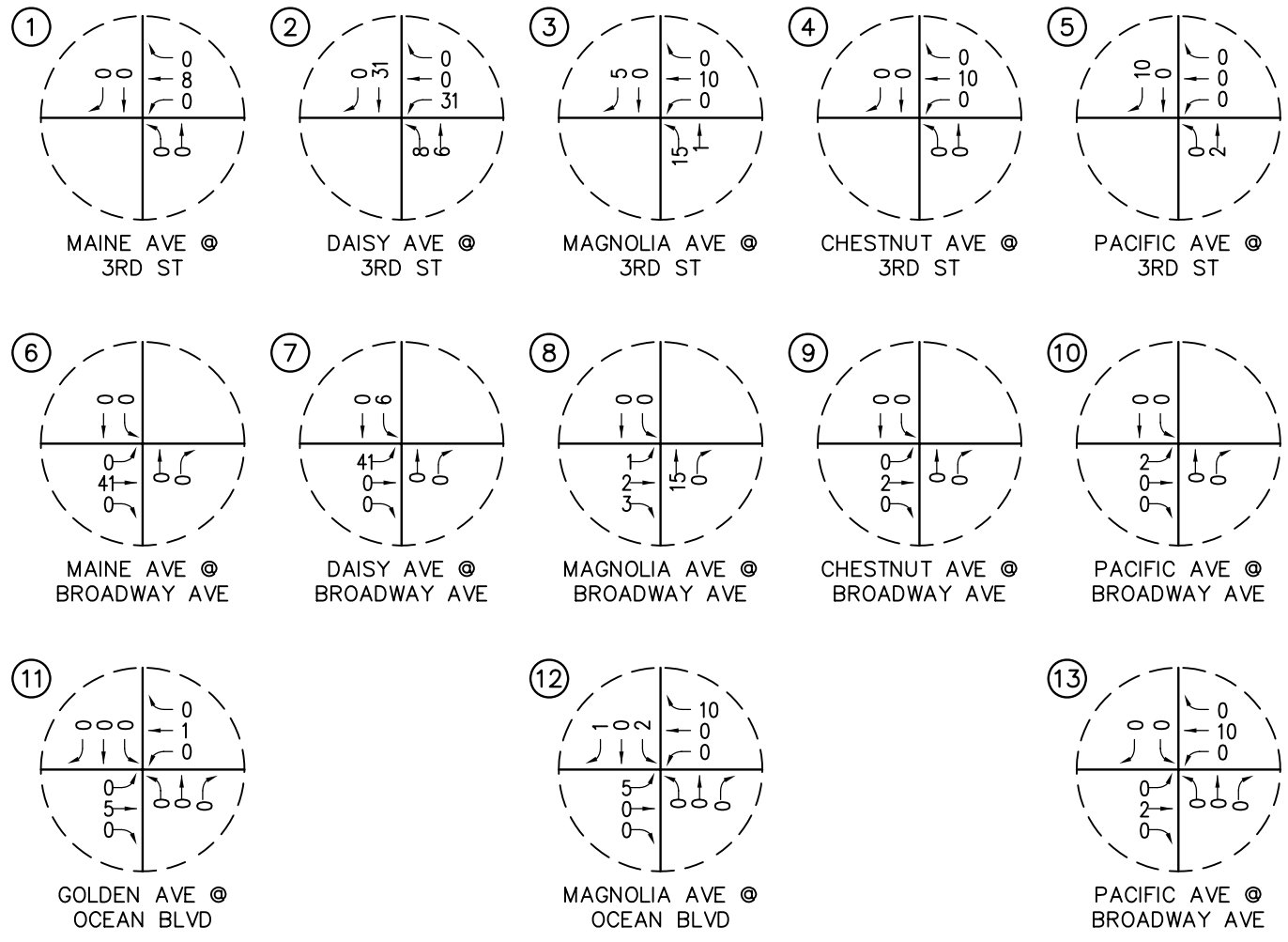
- = INBOUND PERCENTAGE
- = OUTBOUND PERCENTAGE
- (#) = POTENTIAL STUDY INTERSECTION
- = MAGNOLIA PARKING STRUCTURE
- = EXISTING COURTHOUSE
- = PROJECT SITE

FIGURE 5-2

PROJECT TRAFFIC DISTRIBUTION PATTERN (COURTHOUSE)

NEW LONG BEACH COURTHOUSE, LONG BEACH





n:\3000\2083026\dwg\3026f5-3.dwg LDP 10:02:34 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

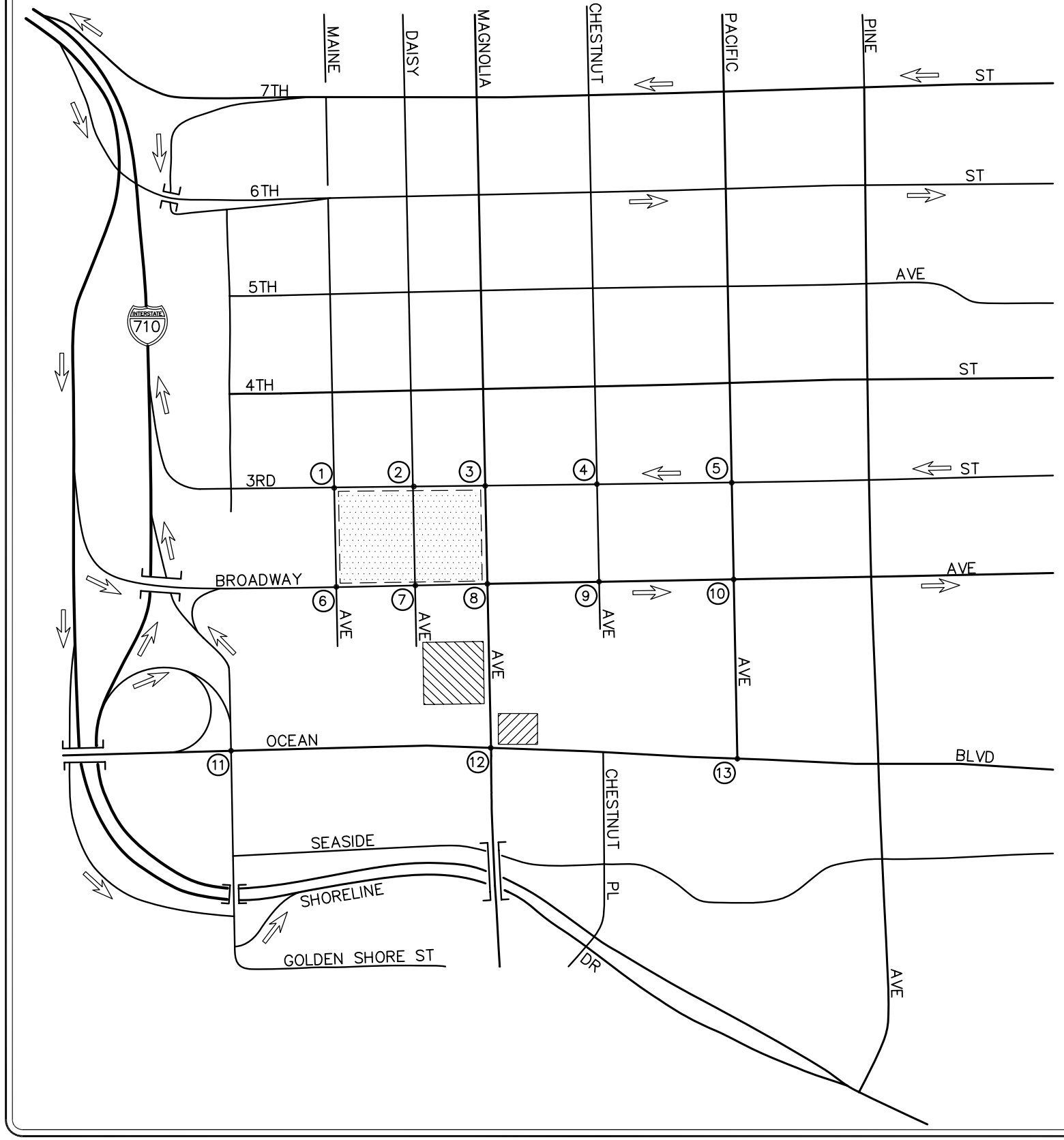
= EXISTING COURTHOUSE

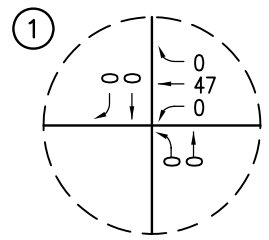
= PROJECT SITE

FIGURE 5-3

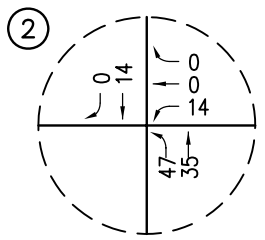
AM PEAK HOUR PROJECT TRAFFIC VOLUMES (COMMERCIAL)

NEW LONG BEACH COURTHOUSE, LONG BEACH

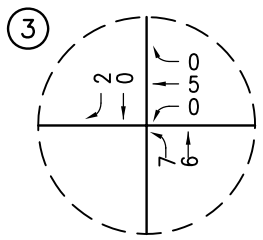




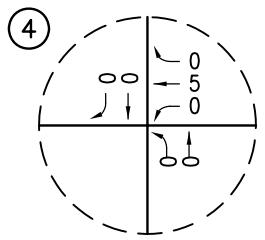
MAINE AVE @
3RD ST



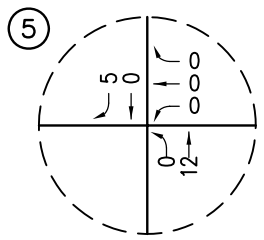
DAISY AVE @
3RD ST



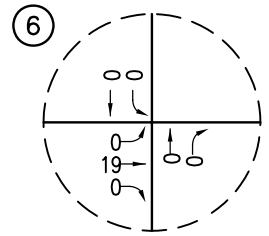
MAGNOLIA AVE @
3RD ST



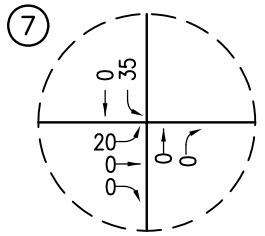
CHESTNUT AVE @
3RD ST



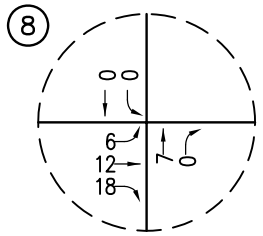
PACIFIC AVE @
3RD ST



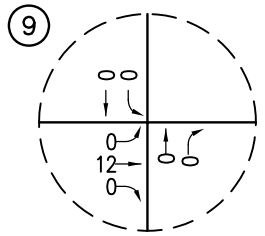
MAINE AVE @
BROADWAY AVE



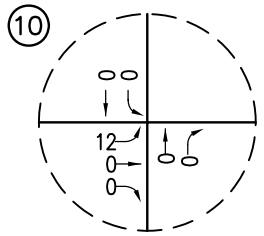
DAISY AVE @
BROADWAY AVE



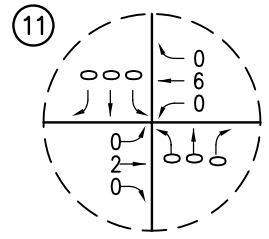
MAGNOLIA AVE @
BROADWAY AVE



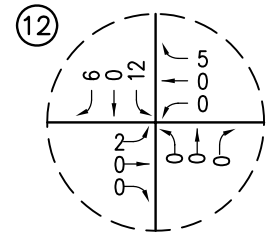
CHESTNUT AVE @
BROADWAY AVE



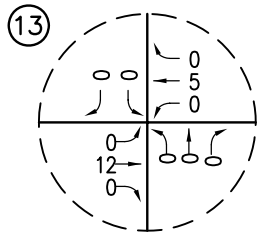
PACIFIC AVE @
BROADWAY AVE



GOLDEN AVE @
OCEAN BLVD



MAGNOLIA AVE @
OCEAN BLVD



PACIFIC AVE @
BROADWAY AVE

n:\3000\2083026\dwg\3026f5-4.dwg LDP 10:03:26 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

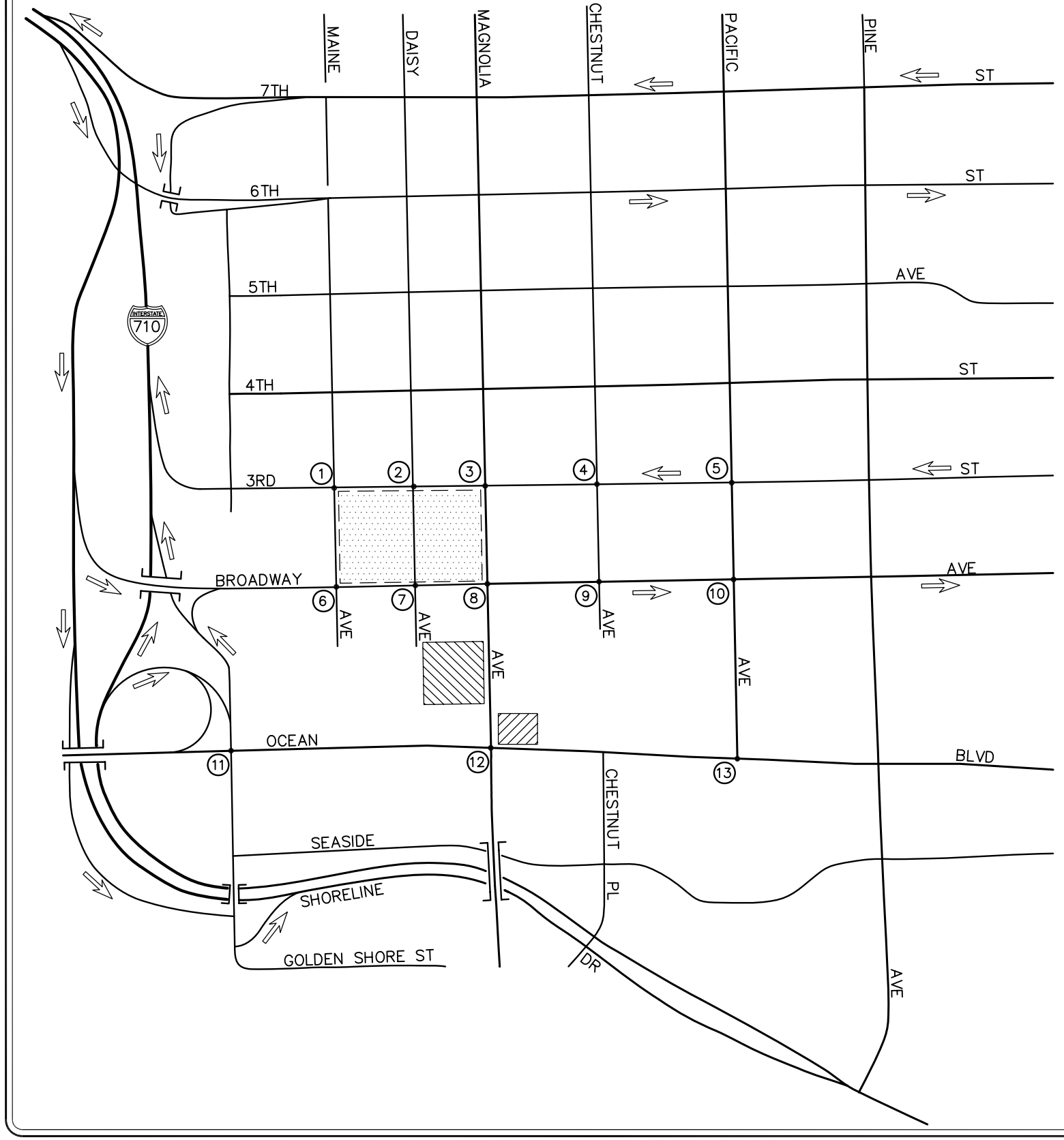
= EXISTING COURTHOUSE

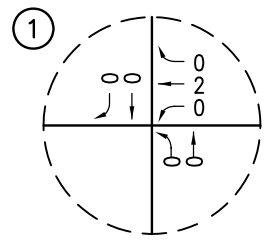
= PROJECT SITE

FIGURE 5-4

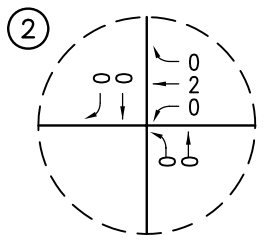
PM PEAK HOUR PROJECT TRAFFIC VOLUMES (COMMERCIAL)

NEW LONG BEACH COURTHOUSE, LONG BEACH

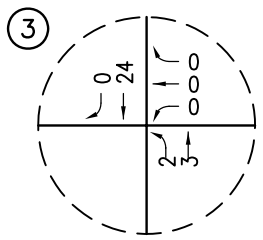




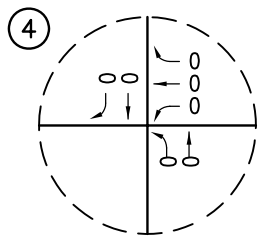
MAINE AVE @ 3RD ST



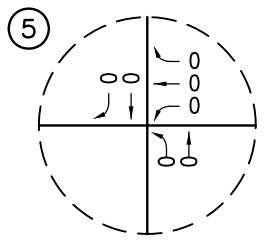
DAISY AVE @ 3RD ST



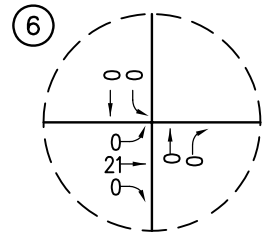
MAGNOLIA AVE @ 3RD ST



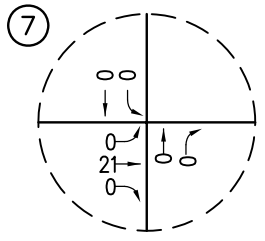
CHESTNUT AVE @ 3RD ST



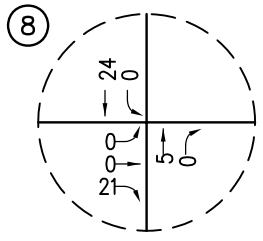
PACIFIC AVE @ 3RD ST



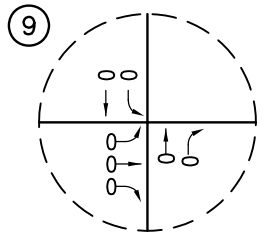
MAINE AVE @ BROADWAY AVE



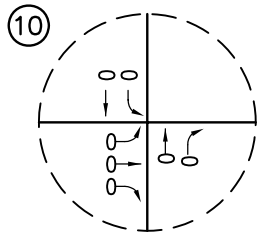
DAISY AVE @ BROADWAY AVE



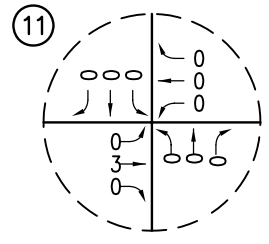
MAGNOLIA AVE @ BROADWAY AVE



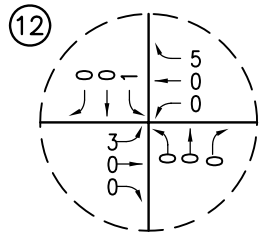
CHESTNUT AVE @ BROADWAY AVE



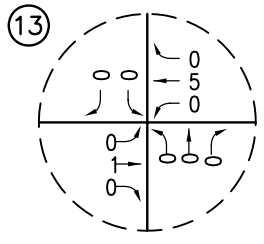
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f5-5.dwg LDP 10:04:04 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

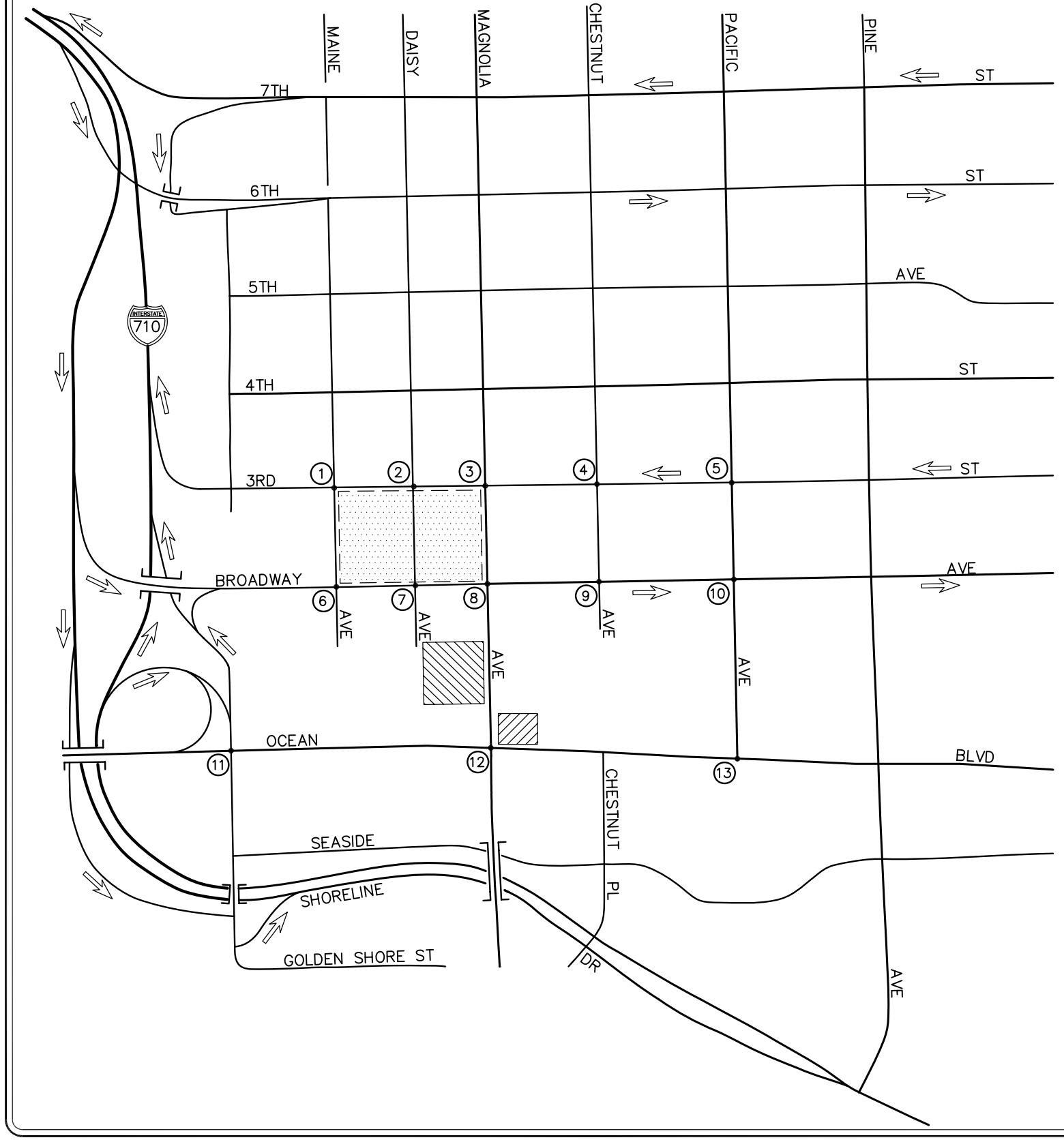
= EXISTING COURTHOUSE

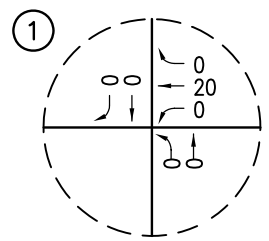
= PROJECT SITE

FIGURE 5-5

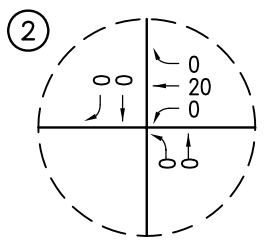
AM PEAK HOUR PROJECT TRAFFIC VOLUMES (COURTHOUSE)

NEW LONG BEACH COURTHOUSE, LONG BEACH

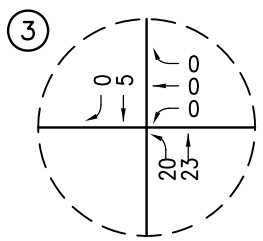




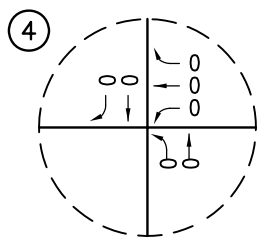
MAINE AVE @ 3RD ST



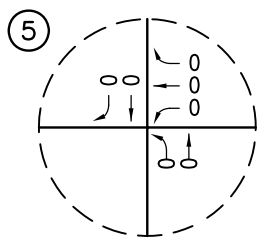
DAISY AVE @ 3RD ST



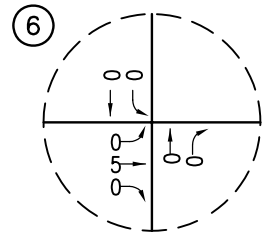
MAGNOLIA AVE @ 3RD ST



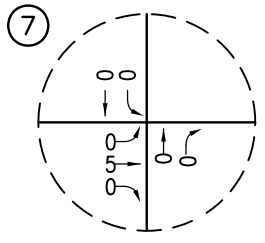
CHESTNUT AVE @ 3RD ST



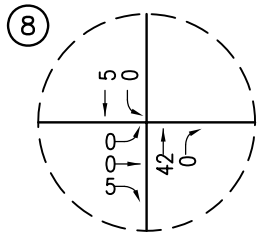
PACIFIC AVE @ 3RD ST



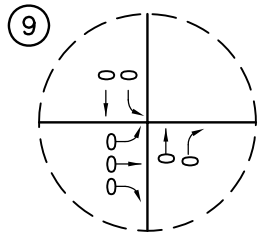
MAINE AVE @ BROADWAY AVE



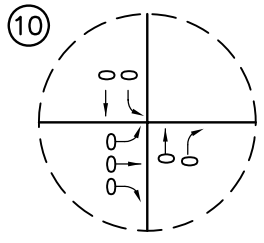
DAISY AVE @ BROADWAY AVE



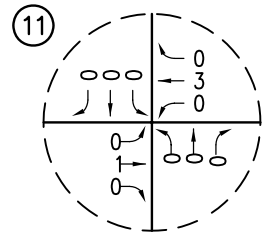
MAGNOLIA AVE @ BROADWAY AVE



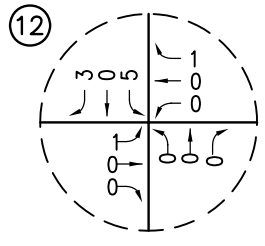
CHESTNUT AVE @ BROADWAY AVE



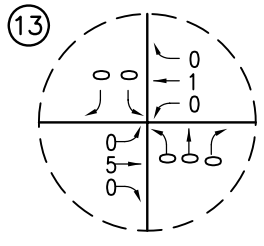
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f5-6.dwg LDP 10:07:18 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

= EXISTING COURTHOUSE

= PROJECT SITE

FIGURE 5-6

PM PEAK HOUR PROJECT TRAFFIC VOLUMES (COURTHOUSE)

NEW LONG BEACH COURTHOUSE, LONG BEACH

6.0 FUTURE TRAFFIC CONDITIONS

6.1 Ambient Traffic Growth

Horizon year, background traffic growth estimates have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future related projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at one percent (1%) per year. Applied to existing Year 2008 traffic volumes results in a four percent (4%) increase growth in existing volumes to horizon year 2012.

6.2 Related Projects Traffic Characteristics

In order to make a realistic estimate of future on-street conditions prior to implementation of the proposed Project, the status of other known development projects (related projects) in the area has been researched. With this information, the potential impact of the proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. Based on our research, there are eighteen (18) related projects within a two-mile radius of the project that are located in the City of Long Beach. These projects have either been built, but not yet fully occupied, or are being processed for approval and have been included as part of the cumulative background setting.

Table 6-1 provides the location and a brief description for each of the eighteen related projects. ***Figure 6-1*** graphically illustrates the location of the related projects. These related projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections.

The AM and PM peak hour traffic volumes associated with the eighteen (18) related projects are presented in ***Figures 6-2*** and ***6-3***, respectively.

Table 6-2 presents the development totals and resultant trip generation for the related projects. As shown in *Table 6-2*, the related projects are expected to generate a combined total of 34,609 daily trips on a "typical" weekday, with 2,405 trips (892 inbound and 1,513 outbound) forecast during the AM peak hour, and 2,835 trips (1,636 inbound and 1,199 outbound) during the PM peak hour.

6.3 Year 2012 Traffic Volumes

Figures 6-4 and ***6-5*** present future AM and PM peak hour background traffic volumes at the key study intersections for Year 2012. Please note that the background traffic volumes represent the accumulation of existing traffic, ambient growth traffic, and related projects traffic.

Figures 6-6 and ***6-7*** illustrate Year 2012 forecast AM and PM peak hour traffic volumes with the inclusion of the trips generated by the proposed Project.

TABLE 6-1

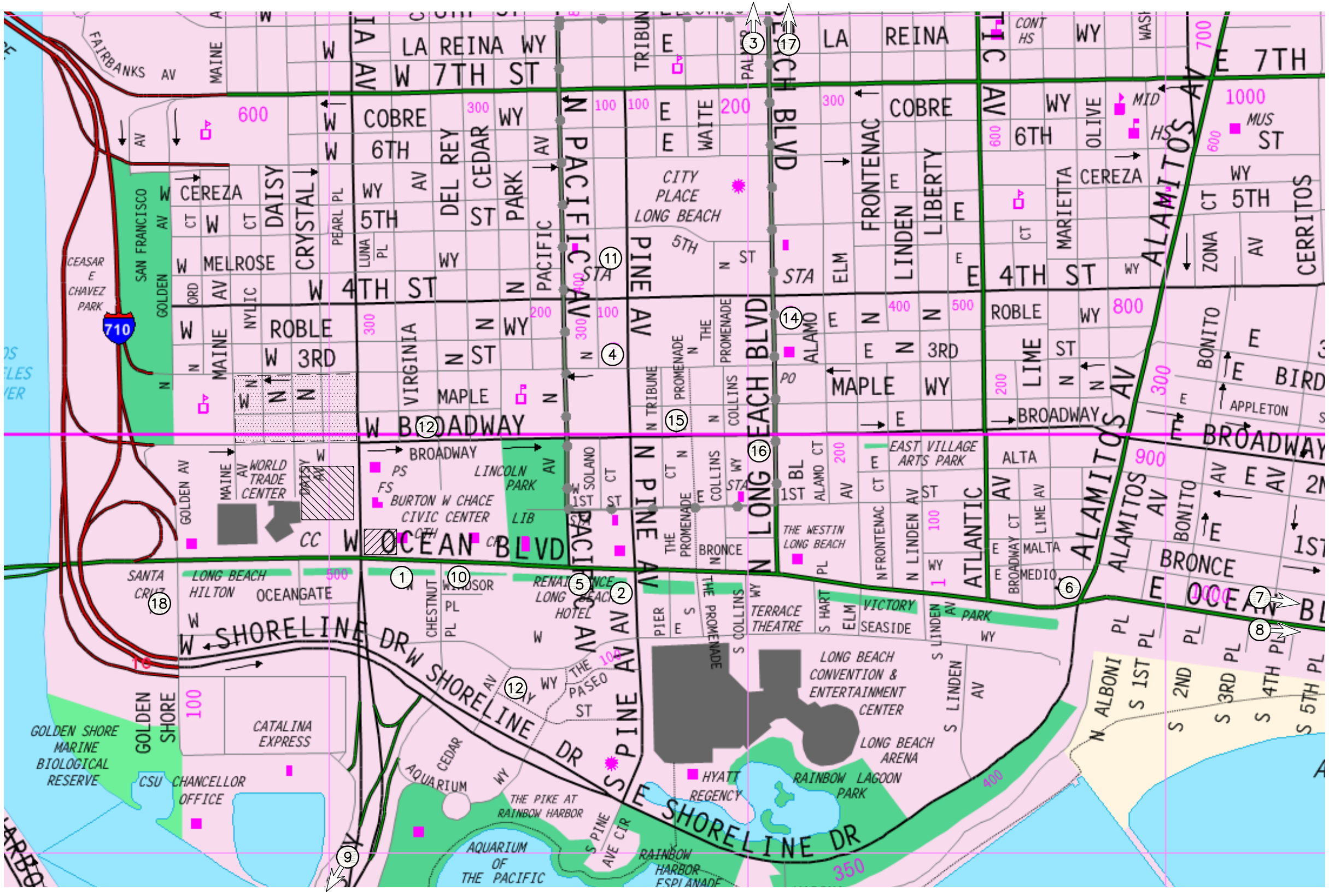
LOCATION AND DESCRIPTION OF RELATED PROJECTS[7]

No.	Location/Address	Description
1.	432-440 W. Ocean Boulevard	107 DU apartments
2.	110 W. Ocean Boulevard	82 hotel rooms
3.	1598 Long Beach Boulevard	64 DU apartments and 15,000 SF commercial
4.	301 Pine Avenue	375 DU apartments and 26,000 SF commercial
5.	150 W. Ocean Boulevard	216 DU condominiums
6.	777 E. Ocean Boulevard	358 DU high-rise condominiums and 13,561 SF commercial
7.	1628-1724 Ocean Boulevard	51 DU condominiums and 47 hotel rooms
8.	2010 Ocean Boulevard	56 DU condominiums
9.	600 Queensway Drive	178 hotel rooms
10.	25 S. Chestnut Street	246 DU high-rise condominiums
11.	433 Pine Avenue	18 DU apartments and 15,000 SF of commercial
12.	285 Bay Street	138 hotel rooms
13.	421 W. Broadway Avenue	291 DU apartments and 15,580 SF commercial
14.	350 Long Beach Boulevard	82 DU single family detached housing and 7,000 SF commercial
15.	201 The Promenade	165 hotel rooms
16.	155 Long Beach Boulevard	191 hotel rooms
17.	1235 Long Beach Boulevard	79,543 SF of Retail floor/Restaurant floor area, 152 DU Senior Apartments, and 210 Condominiums.
18.	11 Golden Shore	1,110 DU high-rise condominiums, 400 hotel rooms, and 373,541 SF general offices

[7] Source: City of Long Beach Quarterly Major Projects List – September 2008

KEY

1. 432–440 W. OCEAN BOULEVARD
2. 110 W. OCEAN BOULEVARD
3. 1598 LONG BEACH BOULEVARD
4. 301 PINE AVENUE
5. 150 W. OCEAN BOULEVARD
6. 777 E. OCEAN BOULEVARD
7. 1628–1724 OCEAN BOULEVARD
8. 2010 OCEAN BOULEVARD
9. 600 QUEENSWAY DRIVE
10. 25 S. CHESTNUT STREET
11. 433 PINE AVENUE
12. 285 BAY STREET
13. 421 W. BROADWAY AVENUE
14. 350 LONG BEACH BOULEVARD
15. 201 THE PROMENADE
16. 155 LONG BEACH BOULEVARD
17. 1235 LONG BEACH BOULEVARD
18. 11 GOLDEN SHORE



n:\3000\2083026\dwg\3026f6-1.dwg LDP 10:09:37 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = LOCATION OF RELATED PROJECT
= MAGNOLIA PARKING STRUCTURE
= EXISTING COURTHOUSE
= PROJECT SITE

FIGURE 6–1

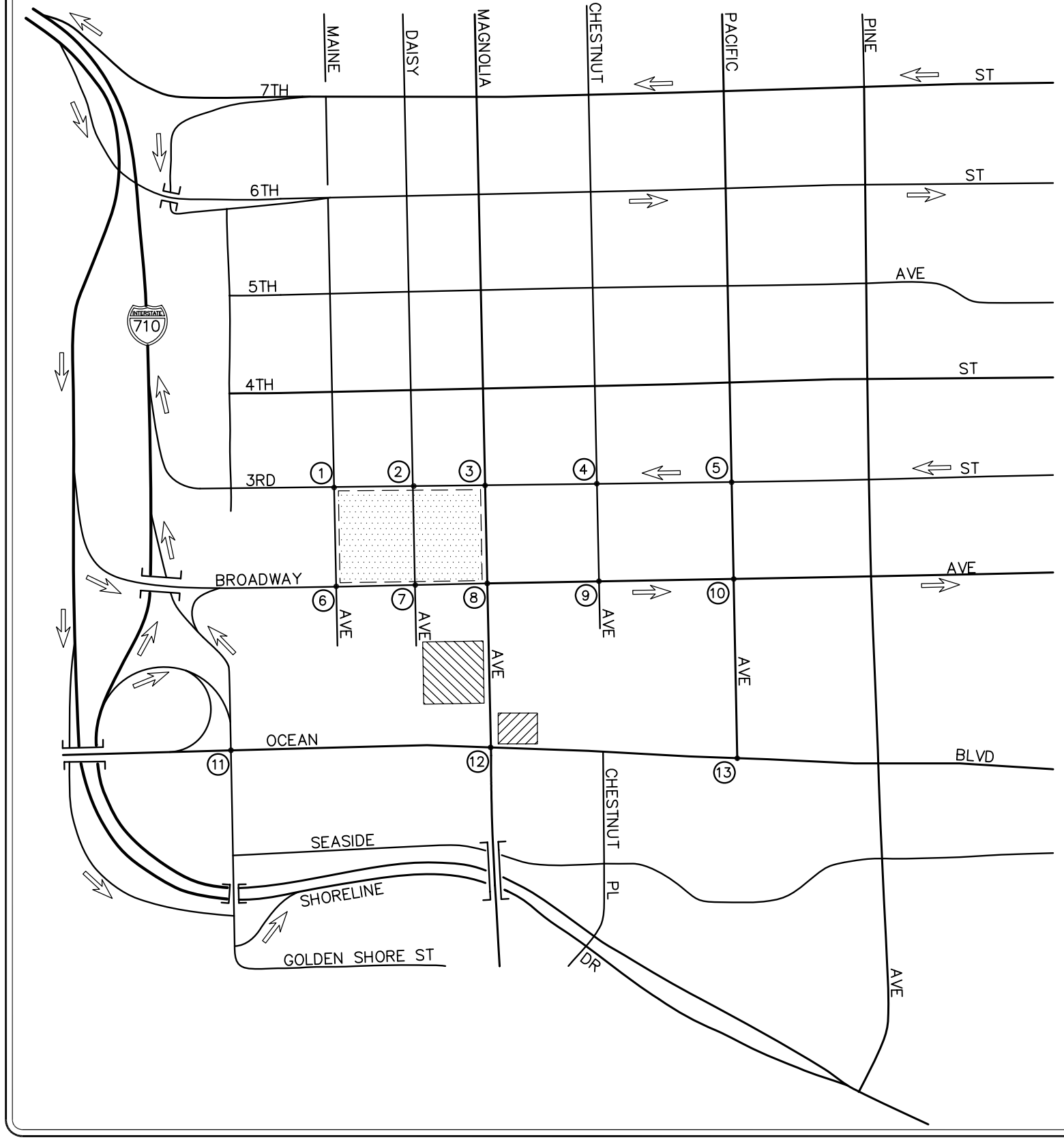
LOCATION OF RELATED PROJECTS
NEW LONG BEACH COURTHOUSE, LONG BEACH

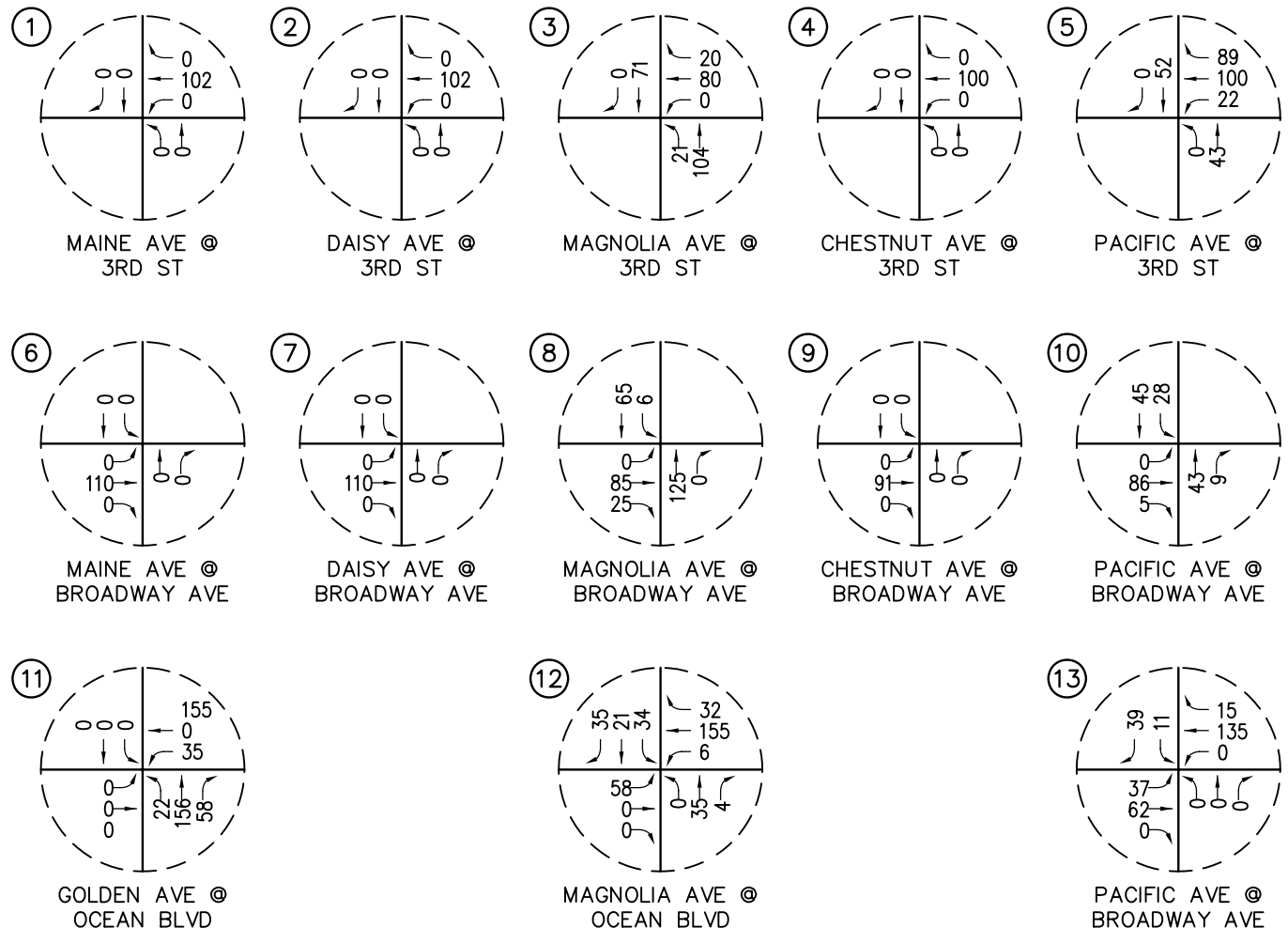
TABLE 6-2

RELATED PROJECTS TRAFFIC GENERATION FORECAST[8]

No. / Related Projects Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
1. Apartments (107 DU)	719	11	44	55	43	24	67
2. Hotel (82 rooms)	670	28	18	46	25	23	48
3. Apartments (64 DU) & Commercial (15,000 SF)	1,010	14	31	45	44	33	77
4. Apartments (375 DU) & Commercial (26,000 SF)	3,524	52	163	215	181	117	298
5. Condominiums (216 DU)	1,266	15	80	95	76	37	113
6. High-Rise Condominiums (358 DU) & Commercial (13,561 SF)	2,020	29	104	133	102	67	169
7. Condominiums (51 DU) & Hotel (47 rooms)	683	20	29	49	33	22	55
8. Condominiums (56 DU)	328	4	21	25	20	10	30
9. Hotel (178 rooms)	1,454	61	39	100	55	50	105
10. High-Rise Condominiums (246 DU)	1,028	15	69	84	59	34	93
11. Apartments (18 DU) & Commercial (15,000 SF)	701	10	12	22	25	23	48
12. Hotel (138 rooms)	1,127	47	30	77	43	39	82
13. Apartments (291 DU) & Commercial (15,580 SF)	2,558	38	124	162	134	84	218
14. Single Family Detached (82 DU) & Commercial (7,000 SF)	1,056	20	49	69	61	39	100
15. Hotel (165 rooms)	1,348	56	36	92	51	46	97
16. Hotel (191 rooms)	1,560	65	42	107	59	53	112
17. Retail floor/Restaurant floor area (79,543 SF), Senior Apartments (152 DU), and Condominiums (210 DU)	4,876	138	175	313	218	154	372
18. Condominiums (1,110 DU, Hotel (400 rooms), and Office Building (373,541 SF)	8,681	269	447	716	407	344	751
Total Related Projects Trip Generation Potential	**34,609**	**892**	**1,513**	**2,405**	**1,636**	**1,199**	**2,835**

[8] Source: *Trip Generation*, 7th Edition, Institute of Transportation Engineers (ITE) [Washington, D.C. (2003)].





n:\3000\2083026\dwg\3026f6-2.dwg LDP 10:10:49 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

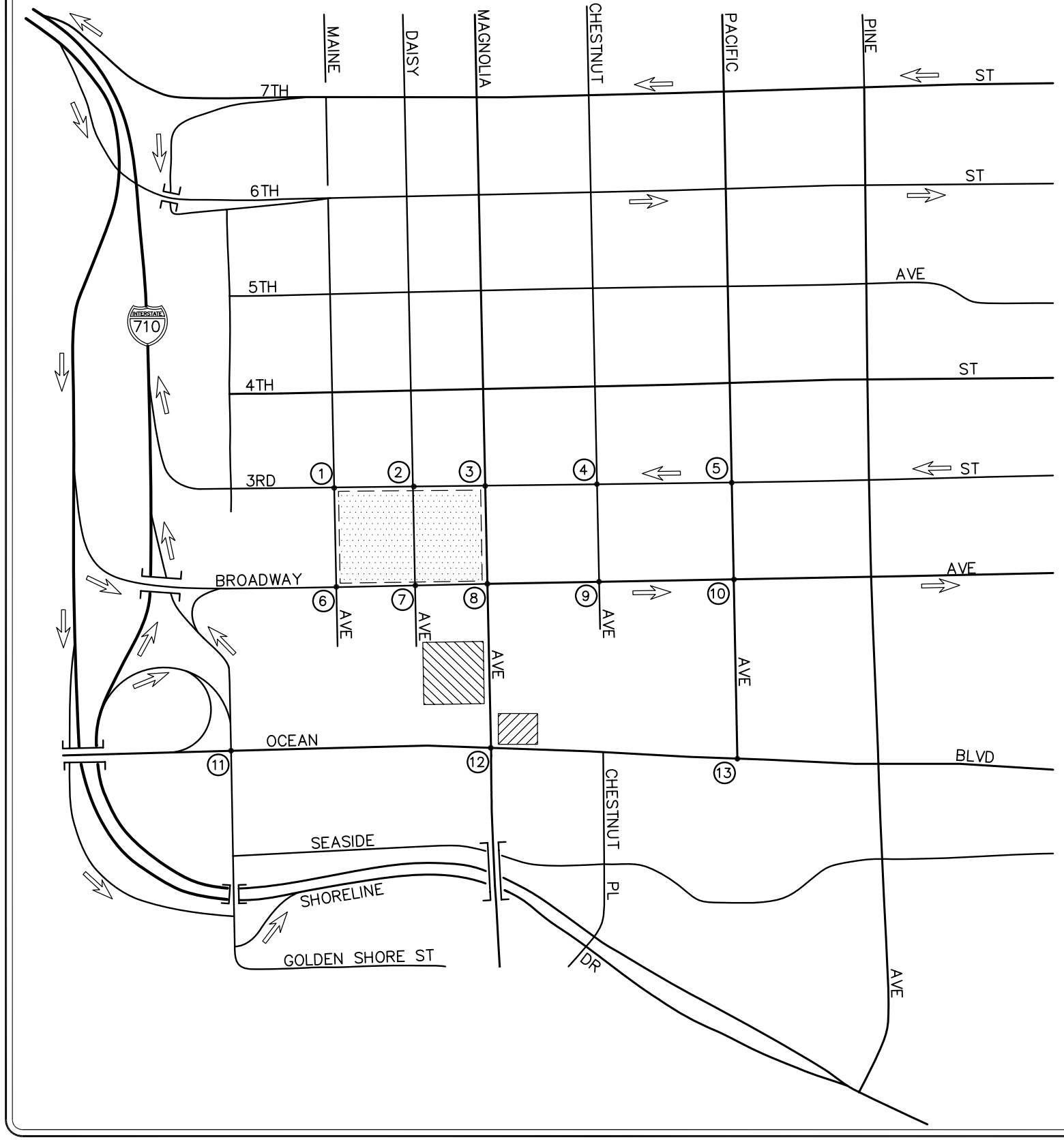
= EXISTING COURTHOUSE

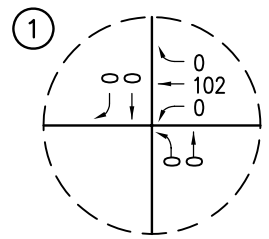
= PROJECT SITE

FIGURE 6-2

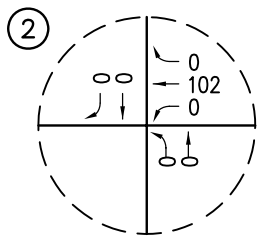
AM PEAK HOUR RELATED PROJECTS TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

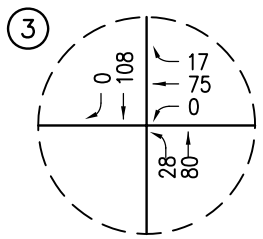




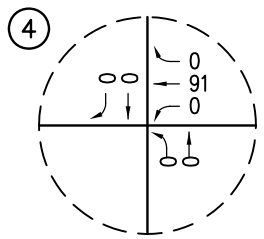
MAINE AVE @ 3RD ST



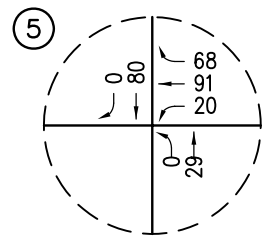
DAISY AVE @ 3RD ST



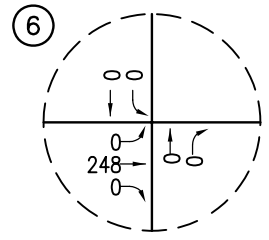
MAGNOLIA AVE @ 3RD ST



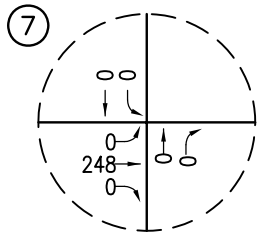
CHESTNUT AVE @ 3RD ST



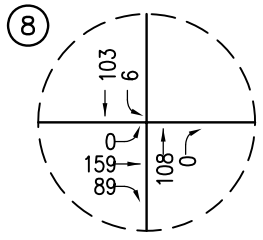
PACIFIC AVE @ 3RD ST



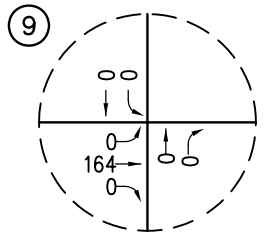
MAINE AVE @ BROADWAY AVE



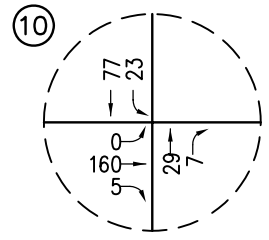
DAISY AVE @ BROADWAY AVE



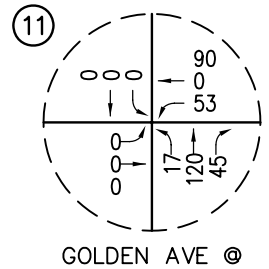
MAGNOLIA AVE @ BROADWAY AVE



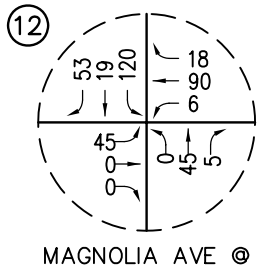
CHESTNUT AVE @ BROADWAY AVE



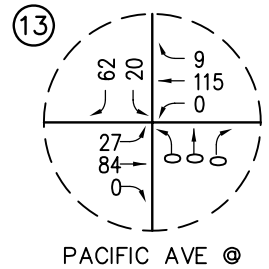
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f6-3.dwg LDP 10:11:28 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

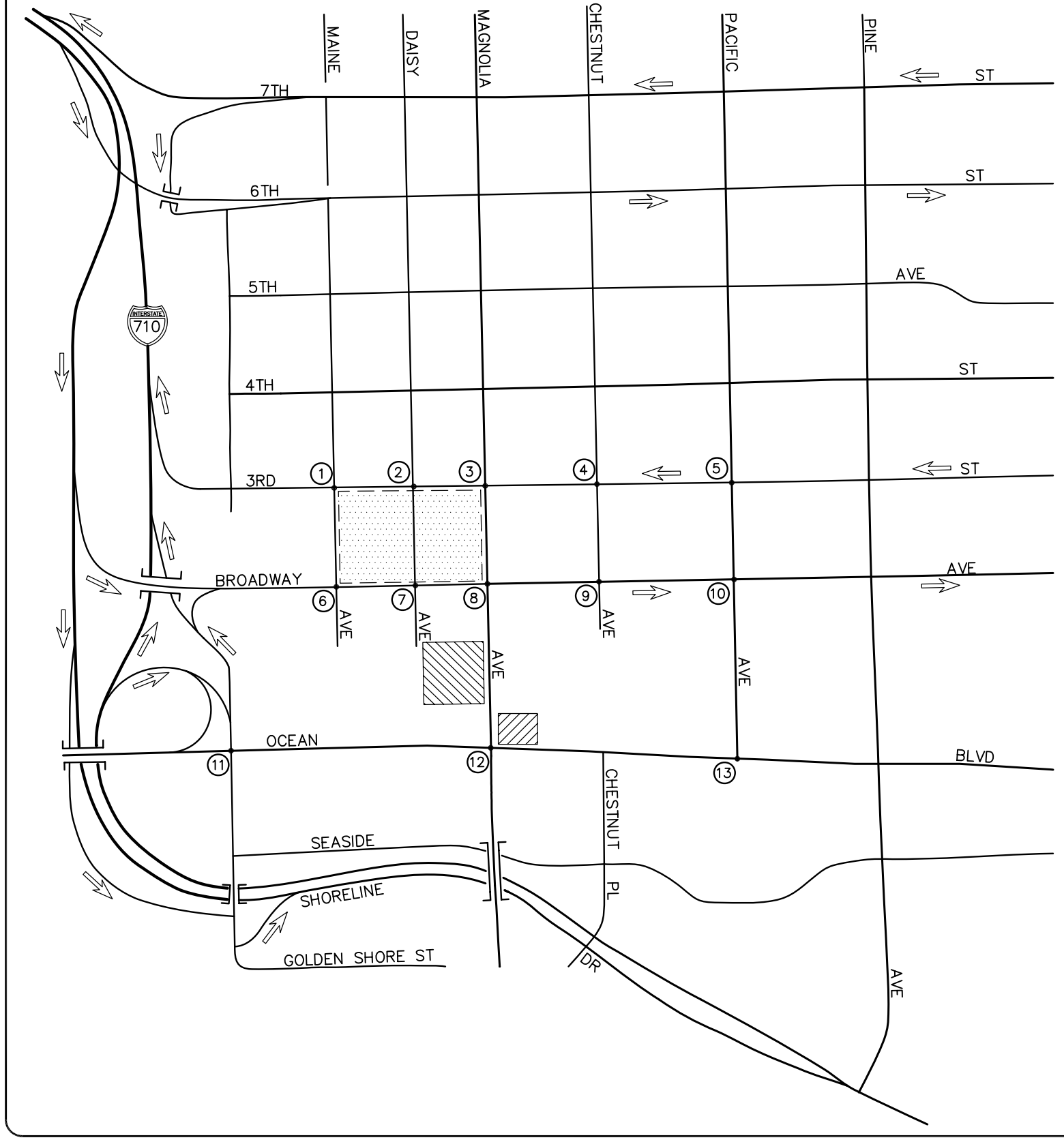
= EXISTING COURTHOUSE

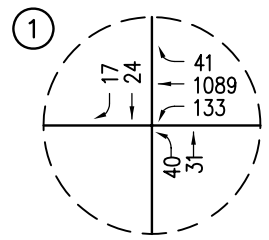
= PROJECT SITE

FIGURE 6-3

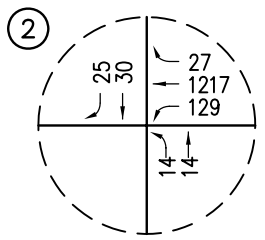
PM PEAK HOUR RELATED PROJECTS TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

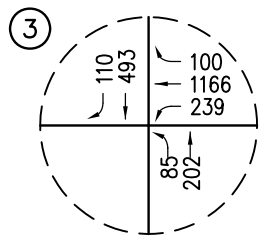




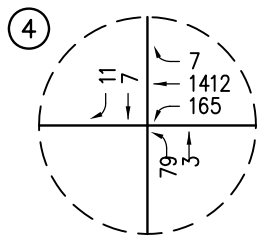
MAINE AVE @
3RD ST



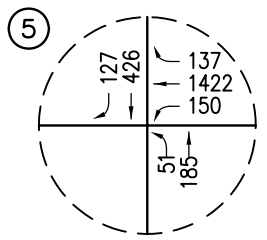
DAISY AVE @
3RD ST



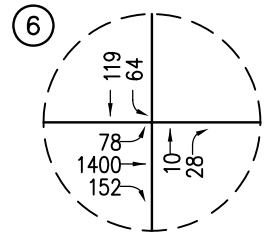
MAGNOLIA AVE @
3RD ST



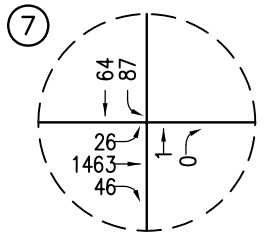
CHESTNUT AVE @
3RD ST



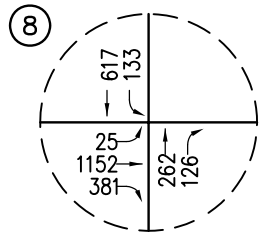
PACIFIC AVE @
3RD ST



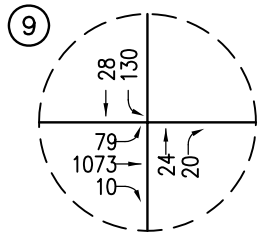
MAINE AVE @
BROADWAY AVE



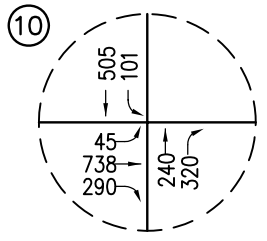
DAISY AVE @
BROADWAY AVE



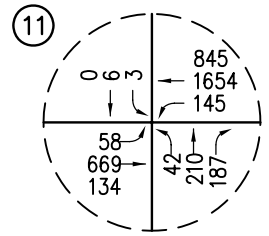
MAGNOLIA AVE @
BROADWAY AVE



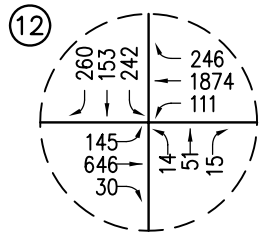
CHESTNUT AVE @
BROADWAY AVE



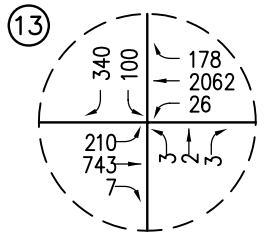
PACIFIC AVE @
BROADWAY AVE



GOLDEN AVE @
OCEAN BLVD



MAGNOLIA AVE @
OCEAN BLVD



PACIFIC AVE @
BROADWAY AVE

n:\3000\2083026\dwg\3026f6-4.dwg LDP 10:12:06 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

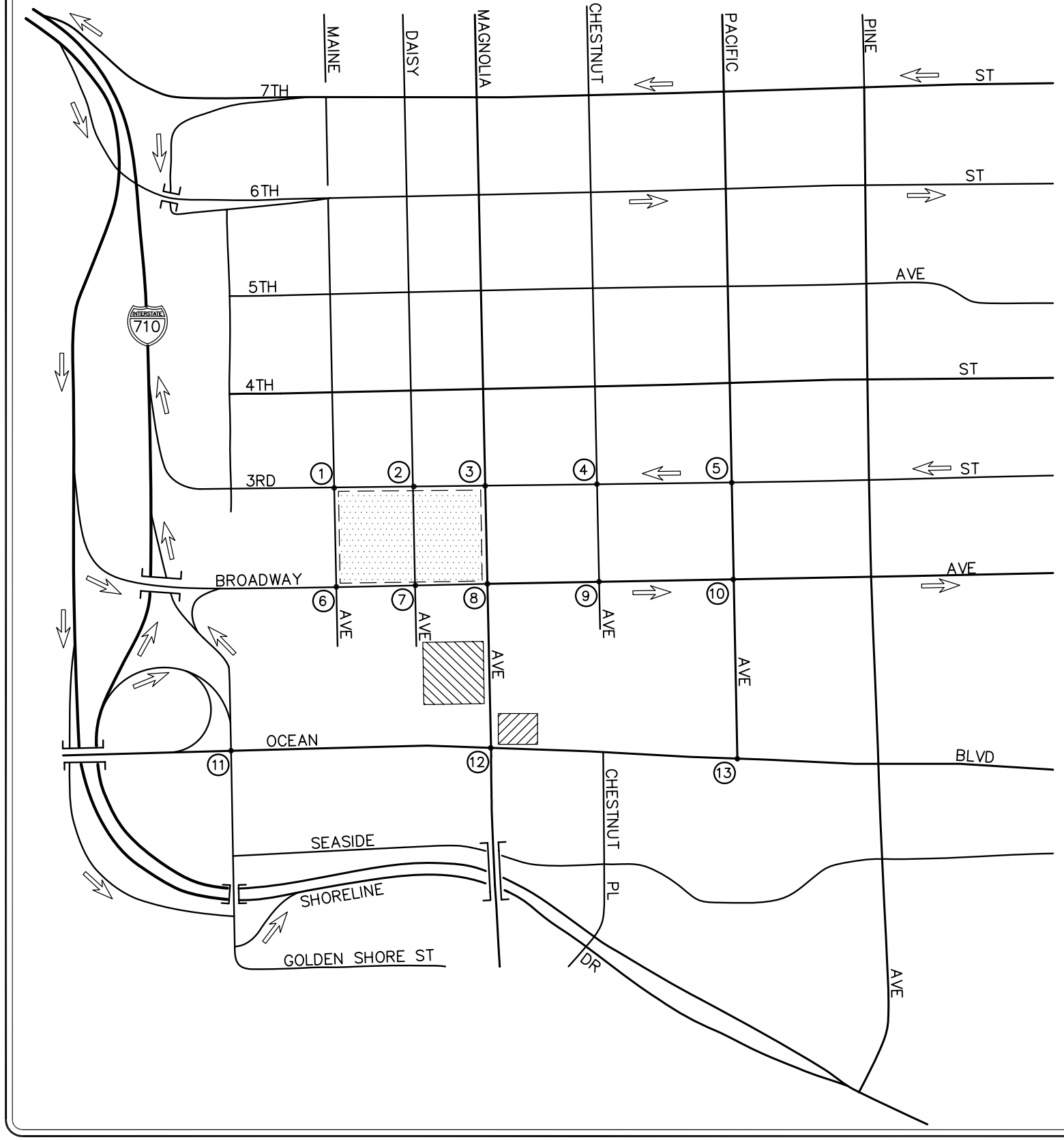
= EXISTING COURTHOUSE

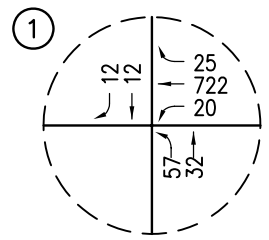
= PROJECT SITE

FIGURE 6-4

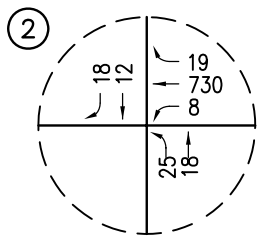
YEAR 2012 AM PEAK HOUR BACKGROUND TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

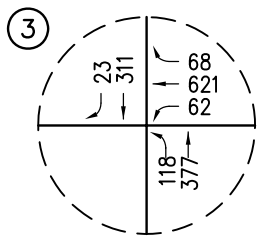




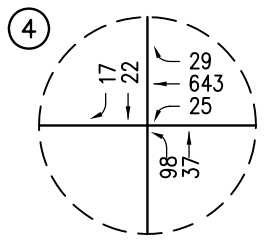
MAINE AVE @ 3RD ST



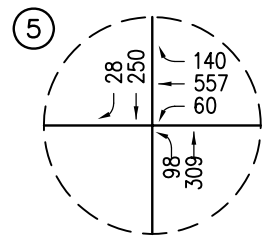
DAISY AVE @ 3RD ST



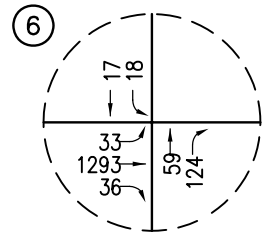
MAGNOLIA AVE @ 3RD ST



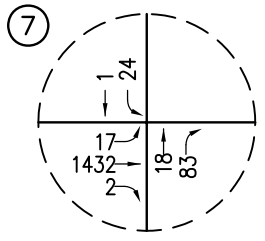
CHESTNUT AVE @ 3RD ST



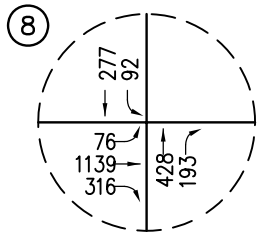
PACIFIC AVE @ 3RD ST



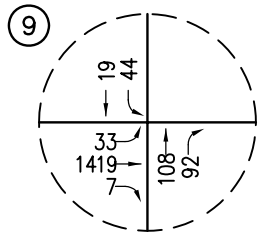
MAINE AVE @ BROADWAY AVE



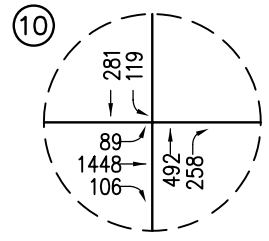
DAISY AVE @ BROADWAY AVE



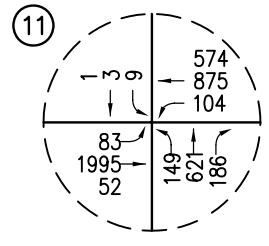
MAGNOLIA AVE @ BROADWAY AVE



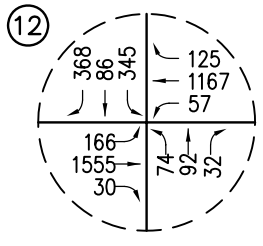
CHESTNUT AVE @ BROADWAY AVE



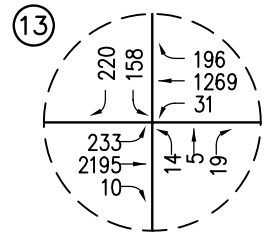
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f6-5.dwg LDP 10:12:44 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

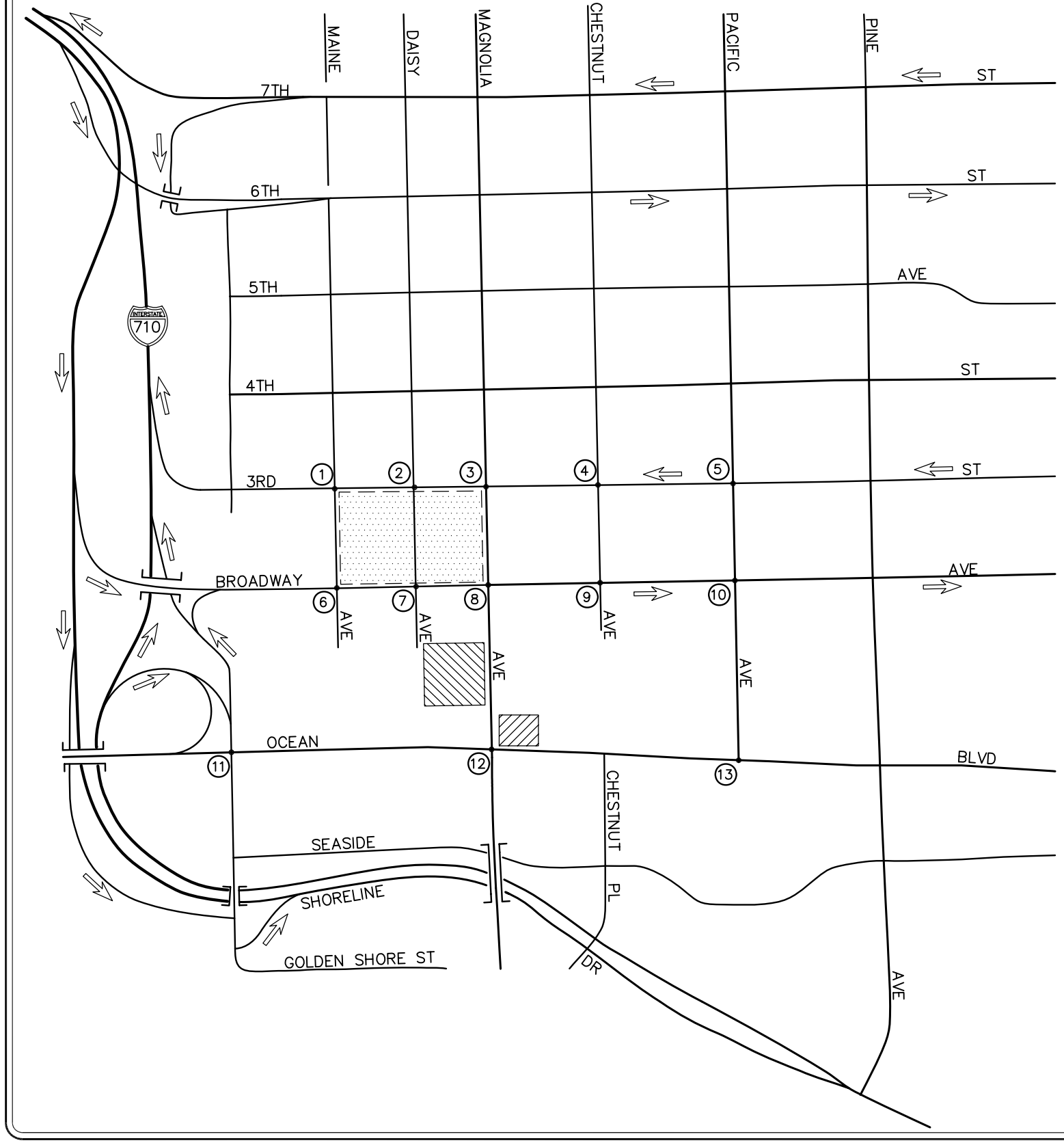
= EXISTING COURTHOUSE

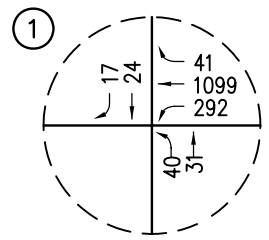
= PROJECT SITE

FIGURE 6-5

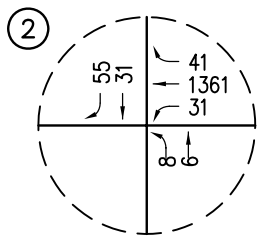
YEAR 2012 PM PEAK HOUR BACKGROUND TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

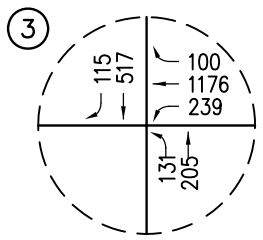




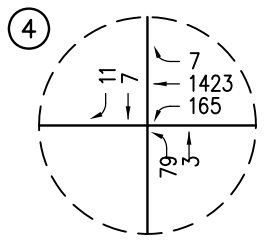
MAINE AVE @ 3RD ST



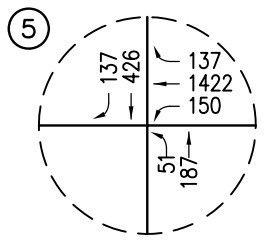
DAISY AVE @ 3RD ST



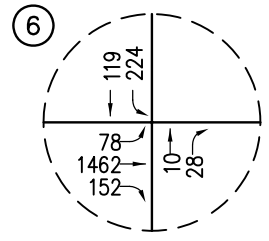
MAGNOLIA AVE @ 3RD ST



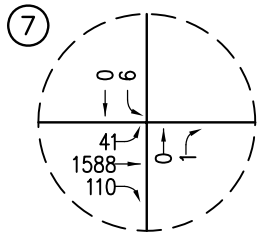
CHESTNUT AVE @ 3RD ST



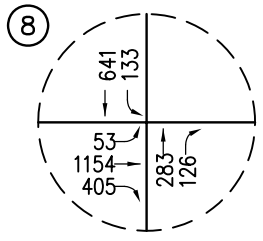
PACIFIC AVE @ 3RD ST



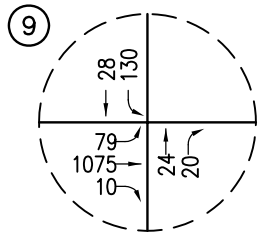
MAINE AVE @ BROADWAY AVE



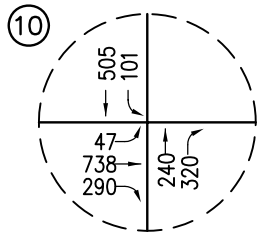
DAISY AVE @ BROADWAY AVE



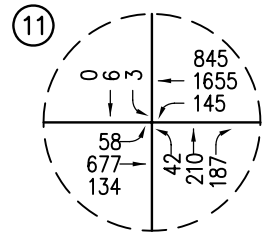
MAGNOLIA AVE @ BROADWAY AVE



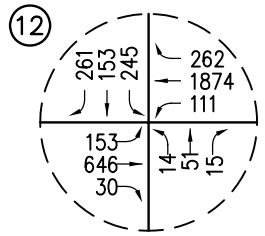
CHESTNUT AVE @ BROADWAY AVE



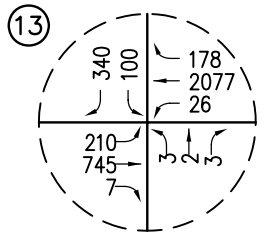
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f6-6.dwg LDP 10:13:30 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

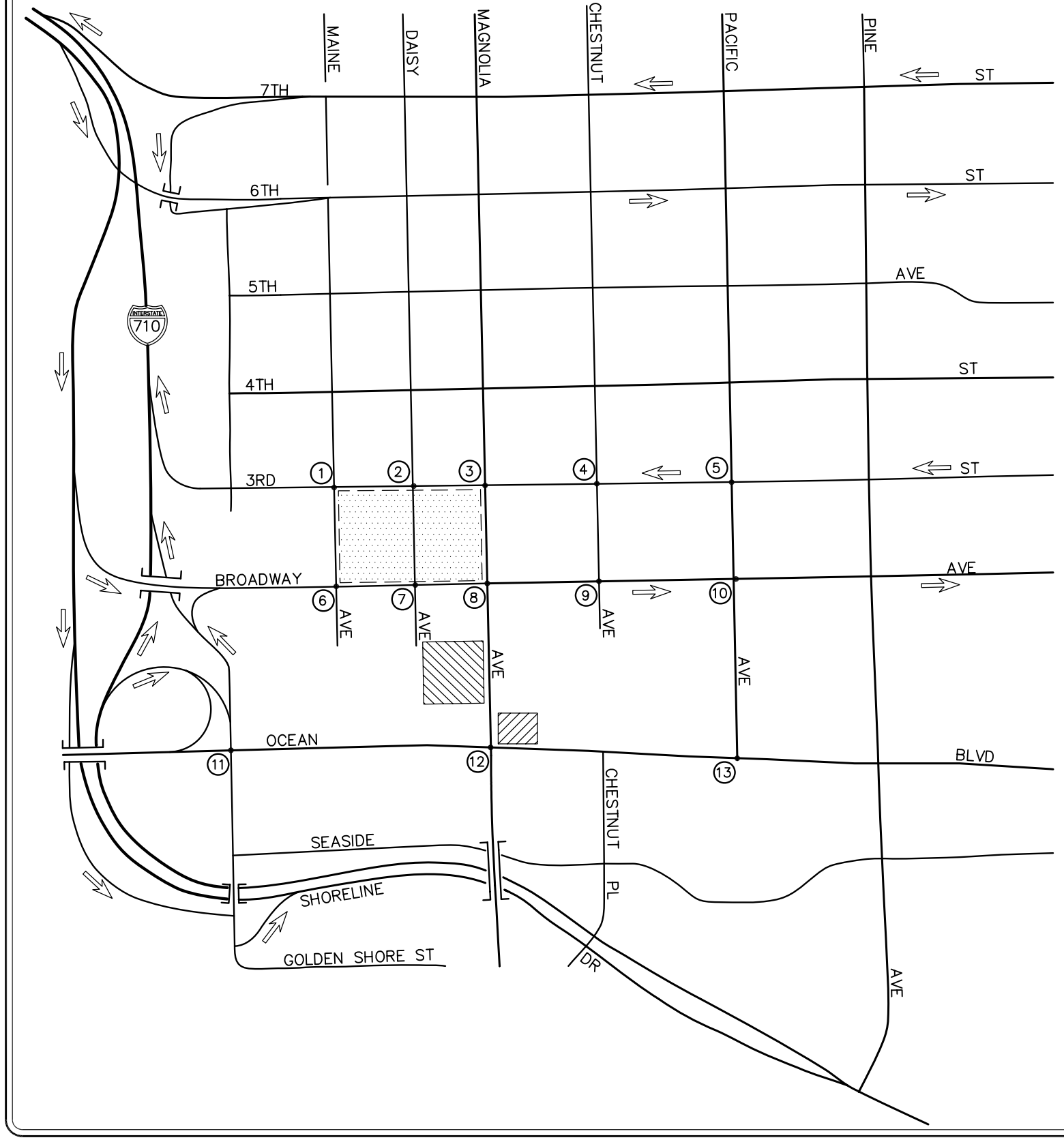
= EXISTING COURTHOUSE

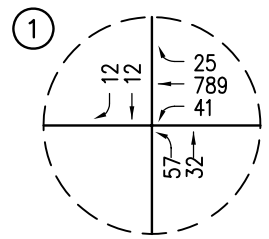
= PROJECT SITE

FIGURE 6-6

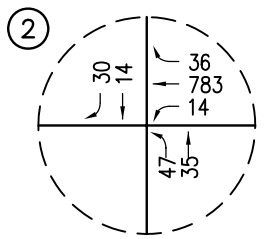
YEAR 2012 AM PEAK HOUR BACKGROUND PLUS PROJECT TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

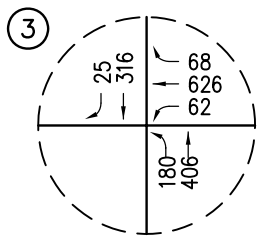




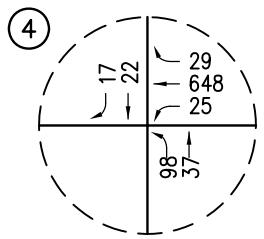
MAINE AVE @ 3RD ST



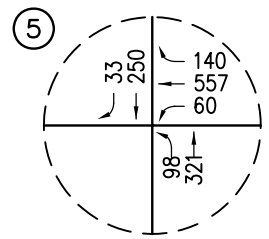
DAISY AVE @ 3RD ST



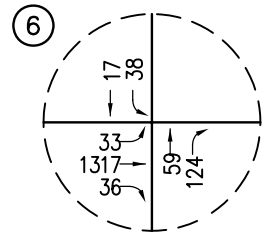
MAGNOLIA AVE @ 3RD ST



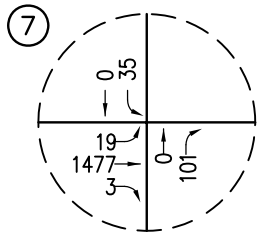
CHESTNUT AVE @ 3RD ST



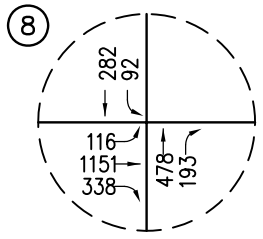
PACIFIC AVE @ 3RD ST



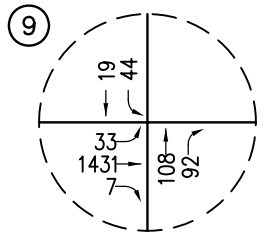
MAINE AVE @ BROADWAY AVE



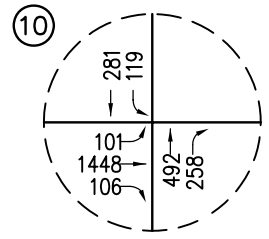
DAISY AVE @ BROADWAY AVE



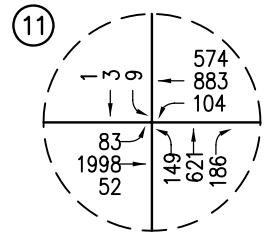
MAGNOLIA AVE @ BROADWAY AVE



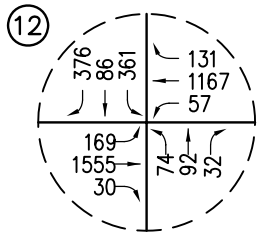
CHESTNUT AVE @ BROADWAY AVE



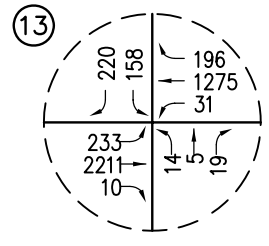
PACIFIC AVE @ BROADWAY AVE



GOLDEN AVE @ OCEAN BLVD



MAGNOLIA AVE @ OCEAN BLVD



PACIFIC AVE @ BROADWAY AVE

n:\3000\2083026\dwg\3026f6-7.dwg LDP 10:14:06 11-24-2008 milovich

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = POTENTIAL STUDY INTERSECTION

= MAGNOLIA PARKING STRUCTURE

= EXISTING COURTHOUSE

= PROJECT SITE

FIGURE 6-7

YEAR 2012 PM PEAK HOUR BACKGROUND PLUS PROJECT TRAFFIC VOLUMES

NEW LONG BEACH COURTHOUSE, LONG BEACH

7.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

7.1 Impact Criteria and Thresholds

The relative impact of the added Project traffic volumes generated by the proposed Project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the thirteen (13) key study intersections, without, then with, the proposed Project. The previously discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the project at each key intersection was then evaluated using the City's LOS standards and traffic impact criteria defined below.

7.1.1 *LOS Standards and Impact Criteria*

Within the City of Long Beach, impacts to local and regional transportation systems are considered significant if:

- An unacceptable peak hour Level of Service (LOS) (i.e. LOS E or F) at any of the key intersections is projected. The City of Long Beach considers LOS D (ICU = 0.801 - 0.900) to be the minimum acceptable LOS for all intersections. For the City of Long Beach, the current LOS, if worse than LOS D (i.e. LOS E or F), should also be maintained; and

- The project increases traffic demand at the study intersection by 2% of capacity (ICU increase ≥ 0.020), causing or worsening LOS E or F (ICU > 0.901). At unsignalized intersections, a "significant" adverse traffic impact is defined as a project that: adds 2% of more traffic delay (seconds per vehicle) at an intersection operating LOS E or F.

7.2 Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed using the ICU and HCM methodologies:

A. Existing Traffic Conditions;
B. Year 2012 Future Background Traffic Conditions (existing plus ambient growth to Year 2012 at 1% per year plus related projects traffic);
C. Year 2012 Future Background Traffic Conditions plus the Project; and
D. Scenario (C) with Mitigation, if necessary.

8.0 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

8.1 Year 2012 Traffic Conditions

Table 8-1 summarizes the peak hour Level of Service results at the key study intersections for the 2012 horizon year. The first column (1) of ICU/LOS and HCM/LOS values in *Table 8-1* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-4*). The second column (2) lists future Year 2012 background traffic conditions (existing plus ambient growth traffic plus related projects traffic) based on existing intersection geometry, but without any traffic generated by the proposed Project. The third column (3) presents future forecast traffic conditions with the addition of traffic generated by the proposed Project. The fourth column (4) shows the increase in ICU or HCM value due to the added peak hour project trips and indicates whether the traffic associated with the project will have a significant impact based on the LOS standards and the significance impact criteria defined in this report. The fifth column (5) presents the intersection operating conditions based on the total anticipated near-term (Year 2012) traffic volumes and planned and/or recommended intersection improvements.

Please note that the ICU/LOS values or HCM/LOS values presented in *Table 8-1* take into consideration the re-routed traffic associated with closure of Daisy Avenue, between 3rd Street and Broadway, to through traffic as proposed by the Project. Refer to the footnotes in *Table 8-1* for the key study intersections affected by the closures.

8.1.1 *Year 2012 Background Traffic Conditions*

An analysis of Year 2012 background traffic conditions indicates that one intersection is forecast to operate an adverse LOS in the Year 2012. The intersection, reported below, is forecast to operate at LOS E or LOS F during the peak hour indicated:

	AM Peak Hour		PM Peak Hour	
Key Intersection	ICU/HCM	LOS	ICU/HCM	LOS
2. Daisy Avenue at 3rd Street	36.1 s/v	E	--	--

The remaining 12 key study intersections are expected to continue to operate at acceptable service levels (LOS D or better) during the weekday AM and PM peak commute hours in the Year 2012.

8.1.2 *Year 2012 Background Plus Project Conditions*

Review of Columns 3 and 4 of *Table 8-1* indicate that traffic associated with the proposed Project will not have a significant (cumulative) traffic impact at any of the 13 study intersections when compared to the LOS standards and the significant traffic impact criteria defined in this report.

Please note even with the implementation of the "3rd Street Protected Bike Lane Plan", which will result in a reduction in the number of westbound through lanes on 3rd Street from three lanes to two lanes, the intersection of Magnolia Avenue/3rd Street, Chestnut Avenue/3rd Street and Pacific Avenue/3rd Street will continue to operate at LOS D or better (See Column 5 of *Table 8-1*).

TABLE 8-1

YEAR 2012 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersections	Time Period	(1) Existing Traffic Conditions		(2) Year 2012 Background Traffic Conditions		(3) Year 2012 Plus Project Traffic Conditions		(4) Project Significant Impact[9]		(5) Year 2012 With Improvements	
		ICU / Delay (s/v)	LOS	ICU / Delay (s/v)	LOS	ICU / Delay (s/v)	LOS	Change in ICU / Delay	Yes/No	ICU / Delay (s/v)	LOS
1. Maine Avenue at 3rd Street	AM	0.457	A	0.503	A	0.506	A[10]	0.003	No	--	--
	PM	0.343	A	0.385	A	0.406	A	0.021	No	--	--
2. Daisy Avenue at 3rd Street[11]	AM	28.5 s/v	D	**36.1 s/v**	**E**	25.8 s/v	D[10]	0.0[12] s/v	No	--	--
	PM	12.4 s/v	B	13.5 s/v	B	15.7 s/v	C	2.2 s/v	No	--	--
3. Magnolia Avenue at 3rd Street	AM	0.630	B	0.706	C	0.745	C[10]	0.039	No	0.828	D[13]
	PM	0.461	A	0.542	A	0.562	A	0.020	No	0.621	B
4. Chestnut Avenue at 3rd Street	AM	0.456	A	0.491	A	0.494	A	0.003	No	0.608	B[13]
	PM	0.303	A	0.330	A	0.331	A	0.001	No	0.397	A
5. Pacific Avenue at 3rd Street	AM	0.568	A	0.640	B	0.640	B	0.000	No	0.802	D[13]
	PM	0.367	A	0.434	A	0.434	A	0.000	No	0.507	A
6. Maine Avenue at Broadway Avenue	AM	0.500	A	0.531	A	0.640	B[10]	0.109	No	--	--
	PM	0.443	A	0.494	A	0.510	A	0.016	No	--	--

Notes:

Bold ICU/LOS values indicate adverse service levels based on City LOS standards.

[9] Significant project impact is defined as a 0.020 or greater increase in ICU value of a signalized intersection or a 2% or more increase in delay at an unsignalized location where the final LOS is E or F.

[10] The LOS values for this key study intersection represents anticipated operating conditions with closure of Daisy Avenue, between 3rd Street and Broadway, to through traffic (Project access only is assumed) Traffic in the immediate area were re-routed to account for this proposed street closure.

[11] Intersection is unsignalized.

[12] Theoretical negative Project "increases" (that can result with the ICU method) reported as 0.0. Represents anticipated LOS with the vacation of Daisy Avenue, between 3rd Street and Broadway. Access through the project site limited to "project only" traffic.

[13] Represents anticipated LOS with implementation of the "3rd Street Protected Bike Lane Plan", which will result reduce the number of westbound through lanes from three lanes to two lanes.

TABLE 8-1 (CONTINUED)

YEAR 2012 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersections	Time Period	(1) Existing Traffic Conditions		(2) Year 2012 Background Traffic Conditions		(3) Year 2012 Plus Project Traffic Conditions		(4) Project Significant Impact[14]		(5) Year 2012 With Improvements	
		ICU / Delay (s/v)	LOS	ICU / Delay (s/v)	LOS	ICU / Delay (s/v)	LOS	Change in ICU/ Delay	Yes/No	ICU / Delay (s/v)	LOS
7. Daisy Avenue at Broadway Avenue	AM	0.405	A	0.435	A	0.372	A[15]	0.000[16]	No	--	--
	PM	0.325	A	0.373	A	0.388	A	0.015	No	--	--
8. Magnolia Avenue at Broadway Avenue	AM	0.523	A	0.580	A	0.595	A[15]	0.015	No	--	--
	PM	0.480	A	0.545	A	0.571	A	0.026	No	--	--
9. Chestnut Avenue at Broadway Avenue	AM	0.376	A	0.406	A	0.407	A	0.001	No	--	--
	PM	0.443	A	0.491	A	0.494	A	0.003	No	--	--
10. Pacific Avenue at Broadway Avenue	AM	0.485	A	0.531	A	0.532	A	0.001	No	--	--
	PM	0.654	B	0.727	C	0.730	C	0.003	No	--	--
11. Golden Shore St./Golden Ave. at Ocean Boulevard	AM	0.616	B	0.703	C	0.703	C	0.000	No	--	--
	PM	0.759	C	0.835	D	0.835	D	0.000	No	--	--
12. Magnolia Avenue at Ocean Boulevard	AM	0.640	B	0.752	C	0.758	C	0.006	No	--	--
	PM	0.682	B	0.742	C	0.747	C	0.005	No	--	--
13. Pacific Avenue at Ocean Boulevard	AM	0.689	B	0.764	C	0.767	C	0.003	No	--	--
	PM	0.632	B	0.672	B	0.675	B	0.003	No	--	--

[14] Significant project impact is defined as a 0.020 or greater increase in ICU value of a signalized intersection or a 2% or more increase in delay at an unsignalized location where the final LOS is E or F.

[15] The LOS values for this key study intersection represents anticipated operating conditions with closure of Daisy Avenue, between 3rd Street and Broadway, to through traffic (Project access only is assumed) Traffic in the immediate area were re-routed to account for this proposed street closure.

[16] Theoretical negative Project "increases" (that can result with the ICU method) reported as 0.0. Represents anticipated LOS with the vacation of Daisy Avenue, between 3rd Street and Broadway. Access through the project site limited to "project only" traffic.

9.0 AREA-WIDE IMPROVEMENTS

For those intersections where projected traffic volumes are expected to result in unacceptable operating conditions, this report recommends (identifies) improvement measures that change the intersection geometry to increase capacity. These capacity improvements involve roadway widening, re-striping to reconfigure (add lanes) to specific approaches of a key intersection and/or peak hour turn restrictions. The identified improvements are expected to:

- mitigate the impact of existing traffic, project traffic and future non-project (ambient traffic growth and cumulative project) traffic, and
- improve Levels of Service to an acceptable range and/or to pre-project conditions.

9.1 Year 2012 Planned Improvements

Based on research at the City of Long Beach, the following planned improvements, which are associated with the "3rd Street Protected Bike Lane Plan" have been identified and are included in Year 2012 conditions.

- ***3rd Street Protected Bike Lane Plan:*** Re-stripe 3rd Street, between Pine Avenue and Magnolia Avenue to provide two westbound through lanes, on-street parking on the north side of 3rd Street, an on-street bike lane and separate westbound left-turn lanes at Pine Avenue, Pacific Avenue, Cedar Avenue, Chestnut Avenue and Magnolia Avenue (Source: City of Long Beach Department of Public Works).

9.2 Project-Specific Improvements

The results of the intersection capacity analyses summarized in *Table 8-1* indicates that the proposed Project is not expected to have a significant impact at any of the key study intersections. As there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections.

10.0 SUMMARY OF FINDINGS AND CONCLUSIONS

- ***Project Description*** – The Project site is a roughly 5.9-acre parcel of land bounded by 3rd Street to the north, Magnolia Avenue on the east, West Broadway to the south, and Maine Avenue on the west in downtown Long Beach, California. The proposed New Long Beach Courthouse project involves the construction of an approximate 10-story building with a basement with approximately 545,000 square-feet of floor area. The proposed facility is intended to serve the State Superior Court, the County of Los Angeles, commercial office space, and other retail uses. The roughly 545,000 SF courthouse facility would consists of approximately 370,000 SF of floor area with 31 courtrooms for the Superior Court, approximately 80,000 SF for the County and 95,000 SF of commercial office and retail space for private agencies.

  The proposed Project would be designed to accommodate all of the operational functions of the existing superior courthouse, which is located at 415 West Ocean Boulevard. The Superior Court would generally maintain current patterns of use for 27 courtrooms and use the new courthouse's additional four courtrooms for criminal judicial proceedings. The Superior Court would relocate its staff and operations from the existing courthouse to the proposed new courthouse. County staff in the existing courthouse that interacts with the Superior Court would also move from the existing courthouse to the new courthouse. Staffing for the Superior Court would increase from 265 staff to 305 staff members, and the County would increase staffing by 15 percent from 260 staff to 299 staff members. The Superior Court would increase juror population by approximately 60 persons per day and visitor population by approximately 15 percent per day.

- ***Study Scope*** – The following thirteen intersections were selected for detailed peak hour level of service analyses under Existing (Year 2008) Traffic Conditions, Year 2012 Background Traffic Conditions and Year 2012 Future Background plus Project Traffic Conditions:

  1. Maine Avenue at 3rd Street (Signal)
  2. Daisy Avenue at 3rd Street (Two-Way Stop Control)
  3. Magnolia Avenue at 3rd Street (Signal)
  4. Chestnut Avenue at 3rd Street (Signal)
  5. Pacific Avenue at 3rd Street (Signal)
  6. Maine Avenue at Broadway (Signal)
  7. Daisy Avenue at Broadway (Signal)
  8. Magnolia Avenue at Broadway (Signal)
  9. Chestnut Avenue at Broadway (Signal)
  10. Pacific Avenue at Broadway Avenue (Signal)
  11. Golden Shore Street/Golden Avenue at Ocean Boulevard (Signal)
  12. Magnolia Avenue at Ocean Boulevard (Signal)
  13. Pacific Avenue at Ocean Boulevard (Signal)

The analysis is focused on assessing potential traffic impacts during the morning and evening commute peak hours (between 7:00-9:00 AM, and 4:00-6:00 PM) on a typical weekday.

- ***Level of Service (LOS) Standards and Significant Impact Criteria*** - Impacts to local and regional transportation systems are considered significant if:
  - An unacceptable peak hour Level of Service (LOS) (i.e. LOS E or F) at any of the key intersections is projected. The City of Long Beach considers LOS D (ICU = 0.801 - 0.900) to be the minimum acceptable LOS for all intersections. For the City of Long Beach, the current LOS, if worse than LOS D (i.e. LOS E or F), should also be maintained; and
  - The project increases traffic demand at the study intersection by 2% of capacity (ICU increase ≥ 0.020), causing or worsening LOS E or F (ICU > 0.901). At unsignalized intersections, a "significant" adverse traffic impact is defined as a project that adds 2% or more to traffic delay (seconds per vehicle) at an intersection operating LOS E or F.

- ***Existing Traffic Conditions*** – All of the 13 key study intersections currently operate at acceptable LOS D or better during the AM and PM peak hours.

- ***Project Trip Generation*** – On a typical weekday, the proposed Project is forecast to generate 1,920 daily trips, with 182 trips (156 inbound, 26 outbound) produced in the AM peak hour and 227 trips (60 inbound, 167 outbound) produced in the PM peak hour.

- ***Related Projects Trip Generation*** – Eighteen (18) related projects were considered as part of the cumulative traffic analysis. On a typical weekday, the four related projects are expected to generate a combined total of 34,609 daily trips on a "typical" weekday, with 2,405 trips (892 inbound and 1,513 outbound) forecast during the AM peak hour, and 2,835 trips (1,636 inbound and 1,199 outbound) during the PM peak hour.

- ***Year 2012 Future Traffic Conditions Plus Project*** – The results of traffic analysis indicates the proposed Project will not significantly impact any of the thirteen (13) key study intersections, when compared to the City of Long Beach LOS standards and significant impact criteria specified in this report. All key study intersections are forecast to operate at LOS D or better during the AM peak hour and PM peak hour with the addition of the proposed Project. As there are no project significant impacts, no project-specific traffic mitigation measures are required or recommended for the study intersections.